



303 Veterans Airpark Lane Midland, TX 79705

## **Deferment Request**

November 16, 2021

Re: WP Byrd Tank Battery  
Case # nRM2035052334

On 11/29/2020 a release occurred due a failure on a 1 inch circulating line resulting in the loss of fluid. The release (GPS: 32.59134, -103.30750) is located south of Monument, New Mexico in unit letters B&G section 12 township 20S range 36E. A groundwater survey was conducted utilizing USGS wells of record. The nearest well of record suggest the groundwater depth below the release to be 33 feet below ground surface. The release is in an area of known groundwater impact see AP-30 for details. A remediation plan was submitted and approved by OCD.

On 10/7/2021 SP 2 was further delineated to a depth of 15 feet. All samples collected were submitted to a commercial laboratory for analysis of TPH and BTEX. Laboratory results indicated that remediation standards for release less than 50 feet to groundwater were achieved at a depth of 11 feet. The area around SP 2 was excavated to a depth of 11 feet. The area around SP 1 was hand excavated to a depth of 2 feet. Final 5 -point bottom and wall composite samples were collected not to exceed 200 square feet. All samples collected were submitted to a commercial laboratory for analysis of chloride, TPH, and BTEX. Laboratory analysis were above table one standards for TPH at B9, B10, W10, W11. An attempt was made utilizing a hand auger to further delineate at B9 and B10 but refusal was encounter at 10 feet. Since in the original delineation data was to 10 feet no samples were submitted to laboratory for analysis. Due to SP 1 being near battery infrastructure and no mechanical equipment can safely be employed to achieve delineation at a depth greater than 10 feet Apache Corporation would like to ask for a variance to the rule since full delineation cannot be conducted without a major facility deconstruction. W10 was further excavated laterally and submitted to a commercial laboratory for analysis of TPH and BTEX. W11 was not further excavated due to presence of facility infrastructure.

Apache Corporation has remediated the release to the best extent possible and respectfully request that the remaining contamination be deferred until system abandonment.

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

Submitted by;

*Bruce Baker*

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

Incident ID	
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

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

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

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

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

Printed Name: Larry Baker Title: Environmental Tech. SR.  
Signature: Larry Baker Date: 11/16/2021  
email: larry.baker@apachecorp.com Telephone: 432-631-6982

**OCD Only**

Received by: Chad Hensley Date: 12/17/2021

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

Signature: Chad Hensley Date: 12/17/2021



Maddox Rd

SP1

H1

H4

SP2

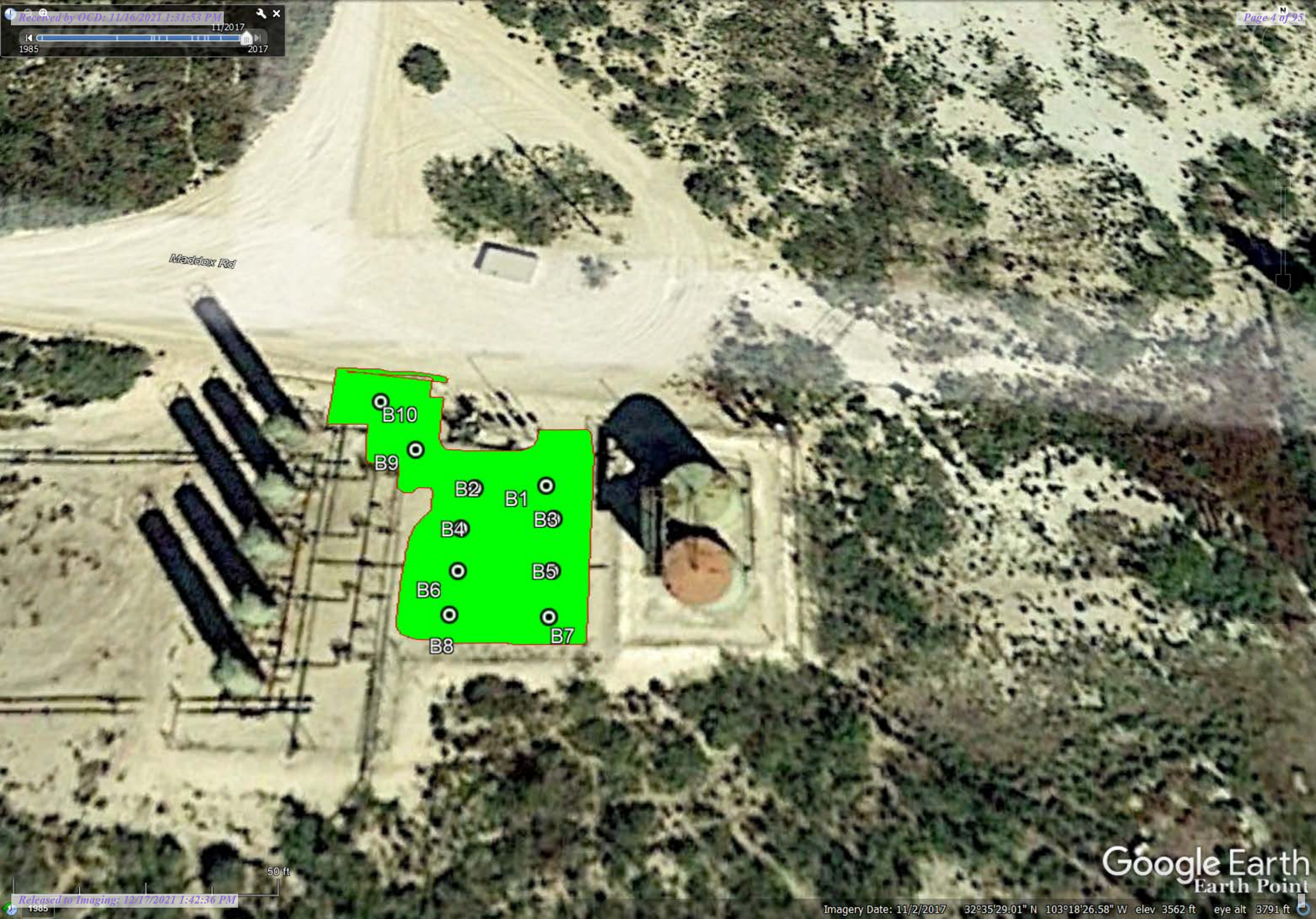
H2

H3

Google Earth

53 ft











## Delineation Samples

Sample Date	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
2/4/2021	SP1	S	<16.0	<0.200	3.62	4.37	25.000	33	3110	32700	5690	32.591397 -103.307590
2/4/2021		1'	16	<0.453	4.9	3.19	15.40	24.00	2230	11400	2440	
2/4/2021		2'	48	<0.050	<0.050	<0.050	<0.150	<0.300	10.2	226	41.9	
2/4/2021		3'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	151	28.8	
2/4/2021		4'	112	<0.050	0.242	0.246	1.310	1.80	163	1390	288	
2/4/2021		5'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	187	47.9	
2/22/2021		7'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	138	22.4	
2/22/2021		9'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	247	45.3	
2/24/2021		10'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	341	89.5	
	SP2	S	32	0.219	5.93	5.06	25.800	37	2750	23600	4980	32.591332 -103.307474
2/4/2021		1'	16	1.07	8.85	4.11	17.10	31.20	4160	12300	3090	
2/4/2021		2'	32	1.88	14.3	6.28	27.300	49.8	5130	13500	2860	
2/4/2021		3'	<16.0	0.711	6.67	2.21	15.100	24.7	2730	7590	1610	
2/4/2021		4'	<16.0	<0.500	5.24	2.45	18.600	26.3	5770	15500	3140	
2/4/2021		5'	32	<0.050	0.893	0.987	5.210	7.09	531	2330	503	
2/22/2021		7'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	52.9	<10.0	
2/22/2021		9'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	189	23.8	
2/24/2021		10'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	731	208	
10/7/2021		11'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2021		12'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2021		13'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
10/7/2021		14'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	14.5	<10.0	
10/7/2021		15'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	
2/4/2021	H1	S	<16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	512	315	
2/22/2011		S		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.591389 -103.307522
2/4/2021	H2	S	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.591331 -103.307419
2/4/2021	H3	S	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.591271 -103.307499
2/4/2021	H4	S	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.591349 -103.307586



## Final Samples

Sample Date	Sample ID	Depth	Chloride	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO	GPS Coordinates
10/11/2021	B1	11'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913758 -103.3074682
10/11/2021	B2	11'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	10.8	<10.0	32.5913814 -103.3075168
10/13/2021	B3	11'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	53.2	<10.0	32.5913538 -103.3074588
10/13/2021	B4	11'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	64.8	<10.0	32.5913464 -103.3075279
10/14/2021	B5	11'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	57	<10.0	32.5913071 -103.3074608
10/15/2021	B6	11'	64	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	57.2	15.2	32.5913114 -103.3075202
10/15/2021	B7	11'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	40.8	<10.0	32.5912899 -103.3074551
10/15/2021	B8	11'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5912882 -103.3075158
10/26/2021	B9	2'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	547	275	32.5914052 -103.3075564
10/26/2021	B10	2'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	172	210	32.5914266 -103.3075919
10/11/2021	W1	0-11'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913910 -103.3074555
10/11/2021	W2	0-11'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913877 -103.3075182
10/13/2021	W3	0-11'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913634 -103.3074253
10/14/2021	W4	0-11'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913447 -103.3075463
10/15/2021	W5	0-11'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5913046 -103.3074260
10/15/2021	W6	0-11'	48	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5912925 -103.3075467
10/15/2021	W7	0-11'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5912730 -103.3075121
10/15/2021	W8	0-11'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5912701 -103.3074511
10/26/2021	W9	0-2'	32	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	25.5	34.1	32.5913958 -103.3075832



10/26/2021	W10	0-2'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	206	144	
10/29/2021	W10	0-2'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	32.5914490 -103.3075752
10/26/2021	W11	0-2'	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	429	445	32.5914111 -103.3075416





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

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February 08, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD #2

Enclosed are the results of analyses for samples received by the laboratory on 02/04/21 16:35.

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:	02/04/2021	Sampling Date:	02/04/2021
Reported:	02/08/2021	Sampling Type:	Soil
Project Name:	WP BYRD #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

**Sample ID: SP 1 @ SURFACE (H210291-01)**

BTX 8021B		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	02/08/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>3.62</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>4.37</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>25.0</b>	0.600	02/08/2021	ND	6.93	116	6.00	3.78	
<b>Total BTX</b>	<b>33.0</b>	1.20	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 311 % 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	<16.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>3110</b>	100	02/05/2021	ND	215	108	200	7.12	
<b>DRO &gt;C10-C28*</b>	<b>32700</b>	100	02/05/2021	ND	214	107	200	3.53	
<b>EXT DRO &gt;C28-C36</b>	<b>5690</b>	100	02/05/2021	ND					

Surrogate: 1-Chlorooctane 754 % 44.3-144

Surrogate: 1-Chlorooctadecane 1320 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 1' (H210291-02)**

BTX 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.453</b>	0.200	02/08/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>4.90</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>3.19</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>15.4</b>	0.600	02/08/2021	ND	6.93	116	6.00	3.78	
<b>Total BTX</b>	<b>24.0</b>	1.20	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 198 % 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
<b>Chloride</b>	<b>16.0</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS					S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>2230</b>	100	02/05/2021	ND	215	108	200	7.12	
<b>DRO &gt;C10-C28*</b>	<b>11400</b>	100	02/05/2021	ND	214	107	200	3.53	
<b>EXT DRO &gt;C28-C36</b>	<b>2440</b>	100	02/05/2021	ND					

Surrogate: 1-Chlorooctane 356 % 44.3-144

Surrogate: 1-Chlorooctadecane 472 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 2' (H210291-03)**

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	02/05/2021	ND	2.07	104	2.00	1.15	
Toluene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.27	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.96	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	6.93	116	6.00	3.78	
Total BTX	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	48.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	10.2	10.0	02/05/2021	ND	215	108	200	7.12	
DRO >C10-C28*	226	10.0	02/05/2021	ND	214	107	200	3.53	
EXT DRO >C28-C36	41.9	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 80.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.5 % 42.2-156

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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 3' (H210291-04)**

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	02/05/2021	ND	2.07	104	2.00	1.15	
Toluene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.27	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.96	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	6.93	116	6.00	3.78	
Total BTX	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 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	176	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	7.12	
DRO >C10-C28*	151	10.0	02/05/2021	ND	214	107	200	3.53	
EXT DRO >C28-C36	28.8	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 78.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 90.5 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 4' (H210291-05)**

BTX 8021B		mg/kg	Analyzed By: ms					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2021	ND	2.07	104	2.00	1.15	
Toluene*	<b>0.242</b>	0.050	02/08/2021	ND	2.18	109	2.00	2.27	GC-NC1
Ethylbenzene*	<b>0.246</b>	0.050	02/08/2021	ND	2.18	109	2.00	2.96	GC-NC1
Total Xylenes*	<b>1.31</b>	0.150	02/08/2021	ND	6.93	116	6.00	3.78	
Total BTX	<b>1.80</b>	0.300	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 178 % 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	<b>112</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg	Analyzed By: MS					S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>163</b>	10.0	02/05/2021	ND	215	108	200	7.12	
DRO >C10-C28*	<b>1390</b>	10.0	02/05/2021	ND	214	107	200	3.53	
EXT DRO >C28-C36	<b>288</b>	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 164 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 5' (H210291-06)**

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	02/05/2021	ND	2.07	104	2.00	1.15	
Toluene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.27	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.18	109	2.00	2.96	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	6.93	116	6.00	3.78	
Total BTEx	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 113 % 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	64.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	215	108	200	7.12	
DRO >C10-C28*	187	10.0	02/05/2021	ND	214	107	200	3.53	
EXT DRO >C28-C36	47.9	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 81.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 94.8 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ SURFACE (H210291-07)**

BTEx 8021B		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.219</b>	0.100	02/06/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>5.93</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>5.06</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>25.8</b>	0.300	02/06/2021	ND	6.93	116	6.00	3.78	
<b>Total BTEX</b>	<b>37.0</b>	0.600	02/06/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 189 % 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>32.0</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>2750</b>	100	02/05/2021	ND	216	108	200	6.41	QM-07
<b>DRO &gt;C10-C28*</b>	<b>23600</b>	100	02/05/2021	ND	231	116	200	3.31	QM-07
<b>EXT DRO &gt;C28-C36</b>	<b>4980</b>	100	02/05/2021	ND					

Surrogate: 1-Chlorooctane 349 % 44.3-144

Surrogate: 1-Chlorooctadecane 383 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 1' (H210291-08)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.07</b>	0.100	02/06/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>8.85</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>4.11</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>17.1</b>	0.300	02/06/2021	ND	6.93	116	6.00	3.78	
<b>Total BTEX</b>	<b>31.2</b>	0.600	02/06/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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>16.0</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>4160</b>	100	02/05/2021	ND	216	108	200	6.41		
<b>DRO &gt;C10-C28*</b>	<b>12300</b>	100	02/05/2021	ND	231	116	200	3.31		
<b>EXT DRO &gt;C28-C36</b>	<b>3090</b>	100	02/05/2021	ND						

Surrogate: 1-Chlorooctane 272 % 44.3-144

Surrogate: 1-Chlorooctadecane 242 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 2' (H210291-09)**

BTEx 8021B		mg/kg		Analyzed By: ms				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.88</b>	0.200	02/08/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>14.3</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>6.28</b>	0.200	02/08/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>27.3</b>	0.600	02/08/2021	ND	6.93	116	6.00	3.78	
<b>Total BTEX</b>	<b>49.8</b>	1.20	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 207 % 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>32.0</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10*</b>	<b>5130</b>	50.0	02/05/2021	ND	216	108	200	6.41	
<b>DRO &gt;C10-C28*</b>	<b>13500</b>	50.0	02/05/2021	ND	231	116	200	3.31	
<b>EXT DRO &gt;C28-C36</b>	<b>2860</b>	50.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 287 % 44.3-144

Surrogate: 1-Chlorooctadecane 239 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 3' (H210291-10)**

BTEx 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.711</b>	0.100	02/06/2021	ND	2.07	104	2.00	1.15	GC-NC1
<b>Toluene*</b>	<b>6.67</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.27	GC-NC1
<b>Ethylbenzene*</b>	<b>2.21</b>	0.100	02/06/2021	ND	2.18	109	2.00	2.96	GC-NC1
<b>Total Xylenes*</b>	<b>15.1</b>	0.300	02/06/2021	ND	6.93	116	6.00	3.78	
<b>Total BTEX</b>	<b>24.7</b>	0.600	02/06/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	<16.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10*</b>	<b>2730</b>	50.0	02/05/2021	ND	216	108	200	6.41		
<b>DRO &gt;C10-C28*</b>	<b>7590</b>	50.0	02/05/2021	ND	231	116	200	3.31		
<b>EXT DRO &gt;C28-C36</b>	<b>1610</b>	50.0	02/05/2021	ND						

Surrogate: 1-Chlorooctane 187 % 44.3-144

Surrogate: 1-Chlorooctadecane 161 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 4' (H210291-11)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	02/08/2021	ND	2.13	107	2.00	0.822	GC-NC1
Toluene*	5.24	0.500	02/08/2021	ND	2.09	104	2.00	1.10	GC-NC1
Ethylbenzene*	2.45	0.500	02/08/2021	ND	2.03	102	2.00	1.55	GC-NC1
Total Xylenes*	18.6	1.50	02/08/2021	ND	5.95	99.2	6.00	1.52	
Total BTX	26.3	3.00	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 136 % 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	<16.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS				S-06	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	5770	50.0	02/05/2021	ND	216	108	200	6.41	
DRO >C10-C28*	15500	50.0	02/05/2021	ND	231	116	200	3.31	
EXT DRO >C28-C36	3140	50.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 311 % 44.3-144

Surrogate: 1-Chlorooctadecane 254 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 5' (H210291-12)**

BTX 8021B		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/08/2021	ND	2.13	107	2.00	0.822	
Toluene*	0.893	0.050	02/08/2021	ND	2.09	104	2.00	1.10	GC-NC1
Ethylbenzene*	0.987	0.050	02/08/2021	ND	2.03	102	2.00	1.55	GC-NC1
Total Xylenes*	5.21	0.150	02/08/2021	ND	5.95	99.2	6.00	1.52	
Total BTEX	7.09	0.300	02/08/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 315 % 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	<b>32.0</b>	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M			mg/kg					Analyzed By: MS	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<b>531</b>	10.0	02/05/2021	ND	216	108	200	6.41	
DRO >C10-C28*	<b>2330</b>	10.0	02/05/2021	ND	231	116	200	3.31	
EXT DRO >C28-C36	<b>503</b>	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 122 % 44.3-144

Surrogate: 1-Chlorooctadecane 127 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: H 1 (H210291-13)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/05/2021	ND	2.13	107	2.00	0.822	
Toluene*	<0.050	0.050	02/05/2021	ND	2.09	104	2.00	1.10	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.03	102	2.00	1.55	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	5.95	99.2	6.00	1.52	
Total BTEX	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	<16.0	16.0	02/05/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	216	108	200	6.41	
<b>DRO &gt;C10-C28*</b>	<b>512</b>	10.0	02/05/2021	ND	231	116	200	3.31	
<b>EXT DRO &gt;C28-C36</b>	<b>315</b>	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.3-144

Surrogate: 1-Chlorooctadecane 117 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: H 2 (H210291-14)**

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	02/05/2021	ND	2.13	107	2.00	0.822	
Toluene*	<0.050	0.050	02/05/2021	ND	2.09	104	2.00	1.10	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.03	102	2.00	1.55	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	5.95	99.2	6.00	1.52	
Total BTEx	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	48.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	216	108	200	6.41	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	231	116	200	3.31	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 82.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.3 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: H 3 (H210291-15)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/05/2021	ND	2.13	107	2.00	0.822	
Toluene*	<0.050	0.050	02/05/2021	ND	2.09	104	2.00	1.10	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.03	102	2.00	1.55	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	5.95	99.2	6.00	1.52	
Total BTEX	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 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	16.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	216	108	200	6.41	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	231	116	200	3.31	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 74.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 76.3 % 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: 02/04/2021  
 Reported: 02/08/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/04/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: H 4 (H210291-16)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/05/2021	ND	2.13	107	2.00	0.822	
Toluene*	<0.050	0.050	02/05/2021	ND	2.09	104	2.00	1.10	
Ethylbenzene*	<0.050	0.050	02/05/2021	ND	2.03	102	2.00	1.55	
Total Xylenes*	<0.150	0.150	02/05/2021	ND	5.95	99.2	6.00	1.52	
Total BTEX	<0.300	0.300	02/05/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	16.0	16.0	02/05/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/05/2021	ND	216	108	200	6.41	
DRO >C10-C28*	<10.0	10.0	02/05/2021	ND	231	116	200	3.31	
EXT DRO >C28-C36	<10.0	10.0	02/05/2021	ND					

Surrogate: 1-Chlorooctane 82.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 84.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager




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

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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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
GC-NC1	8260 confirmation analysis was performed; initial GC results were not supported by GC/MS analysis and are biased high with interfering compounds.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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 Celey D. Keene, Lab Director/Quality Manager





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. #:		BILL TO												ANALYSIS REQUEST																			
Project Manager: <u>Gene Baker</u>		Company:																																	
Address:		Attn:																																	
City:		Address:																																	
Phone #:		City:																																	
Project #:		State:																																	
Project Name: <u>WP BPO #2</u>		Zip:																																	
Project Location: <u>WP BPO #2</u>		Phone #:																																	
Sample Name: <u>Jeff Brown</u>		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	
H210291		SP1 @ Surface		4																						8/7/21		1440							
1		SP1 @ 1'		6																						8/7/21		1442							
2		SP1 @ 2'		6																						8/7/21		1444							
3		SP1 @ 3'		6																						8/7/21		1446							
4		SP1 @ 4'		6																						8/7/21		1448							
5		SP1 @ 5'		6																						8/7/21		1450							
6		SP1 @ Surface		6																						8/7/21		1452							
7		SP1 @ 1'		6																						8/7/21		1454							
8		SP1 @ 2'		6																						8/7/21		1456							
9		SP1 @ 3'		6																						8/7/21		1458							
10		SP1 @ 3'		6																						8/7/21		1458							

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Relinquished By: Jeff Brown Date: 8/7/21 Received By: Debi Henderson Date: 8/7/21

Relinquished By: Jeff Brown Date: 8/7/21 Received By: Debi Henderson Date: 8/7/21

Delivered By: (Circle One) 2.7e / #113 Sample Condition: ☒ Cool ☐ Intact ☐ Yes ☐ No ☐ Yes ☐ No CHECKED BY: Debi Henderson

Sampler - UPS - Bus - Other: 2.7e / #113 Phone Result: ☐ Yes ☐ No Add'l Phone #: Standard

Fax Result: ☐ Yes ☐ No Add'l Fax #: Standard

REMARKS: Standard



# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

Company Name: <u>Apache Corporation</u>		P.O. #:		BILL TO										ANALYSIS REQUEST									
Project Manager: <u>Bruce Betton</u>		Company:																					
Address:		Attn:																					
City:		Address:																					
Phone #:		City:																					
Project #:		State:																					
Project Name: <u>WP BYRD #2</u>		Zip:																					
Project Location: <u>WP BYRD #2</u>		Phone #:																					
Sample Name: <u>Left From</u>		Fax #:																					
FOR LAB USE ONLY																							
Lab I.D.		Sample I.D.																					
H24DE91																							
11		SP2 @ 4'																					
12		SP2 @ 5'																					
13		H2																					
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15		H3																					
16		H4																					
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PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

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February 23, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD #2

Enclosed are the results of analyses for samples received by the laboratory on 02/22/21 11:53.

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:	02/22/2021	Sampling Date:	02/22/2021
Reported:	02/23/2021	Sampling Type:	Soil
Project Name:	WP BYRD #2	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 1 @ 7' (H210406-01)**

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	02/22/2021	ND	2.06	103	2.00	2.82	QR-03
Toluene*	<0.050	0.050	02/22/2021	ND	2.06	103	2.00	2.36	
Ethylbenzene*	<0.050	0.050	02/22/2021	ND	1.99	99.5	2.00	2.95	
Total Xylenes*	<0.150	0.150	02/22/2021	ND	5.78	96.3	6.00	2.49	
Total BTEX	<0.300	0.300	02/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

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	02/22/2021	ND	218	109	200	4.26	
DRO >C10-C28*	138	10.0	02/22/2021	ND	216	108	200	7.52	
EXT DRO >C28-C36	22.4	10.0	02/22/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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: 02/22/2021  
 Reported: 02/23/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 1 @ 9' (H210406-02)**

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	02/22/2021	ND	2.06	103	2.00	2.82		
Toluene*	<0.050	0.050	02/22/2021	ND	2.06	103	2.00	2.36		
Ethylbenzene*	<0.050	0.050	02/22/2021	ND	1.99	99.5	2.00	2.95		
Total Xylenes*	<0.150	0.150	02/22/2021	ND	5.78	96.3	6.00	2.49		
Total BTEX	<0.300	0.300	02/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.3-129

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	02/22/2021	ND	218	109	200	4.26	
DRO >C10-C28*	247	10.0	02/22/2021	ND	216	108	200	7.52	
EXT DRO >C28-C36	45.3	10.0	02/22/2021	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-144

Surrogate: 1-Chlorooctadecane 126 % 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: 02/22/2021  
 Reported: 02/23/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 7' (H210406-03)**

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	02/22/2021	ND	2.06	103	2.00	2.82		
Toluene*	<0.050	0.050	02/22/2021	ND	2.06	103	2.00	2.36		
Ethylbenzene*	<0.050	0.050	02/22/2021	ND	1.99	99.5	2.00	2.95		
Total Xylenes*	<0.150	0.150	02/22/2021	ND	5.78	96.3	6.00	2.49		
Total BTEX	<0.300	0.300	02/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 106 % 73.3-129

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	02/22/2021	ND	218	109	200	4.26	
<b>DRO &gt;C10-C28*</b>	<b>52.9</b>	10.0	02/22/2021	ND	216	108	200	7.52	
EXT DRO >C28-C36	<10.0	10.0	02/22/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 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: 02/22/2021  
 Reported: 02/23/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 9' (H210406-04)**

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	02/22/2021	ND	2.06	103	2.00	2.82	
Toluene*	<0.050	0.050	02/22/2021	ND	2.06	103	2.00	2.36	
Ethylbenzene*	<0.050	0.050	02/22/2021	ND	1.99	99.5	2.00	2.95	
Total Xylenes*	<0.150	0.150	02/22/2021	ND	5.78	96.3	6.00	2.49	
Total BTX	<0.300	0.300	02/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

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	02/22/2021	ND	218	109	200	4.26	
DRO >C10-C28*	189	10.0	02/22/2021	ND	216	108	200	7.52	
EXT DRO >C28-C36	23.8	10.0	02/22/2021	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 112 % 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: 02/22/2021  
 Reported: 02/23/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: H 1 (H210406-05)**

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	02/22/2021	ND	2.06	103	2.00	2.82	
Toluene*	<0.050	0.050	02/22/2021	ND	2.06	103	2.00	2.36	
Ethylbenzene*	<0.050	0.050	02/22/2021	ND	1.99	99.5	2.00	2.95	
Total Xylenes*	<0.150	0.150	02/22/2021	ND	5.78	96.3	6.00	2.49	
Total BTEX	<0.300	0.300	02/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/22/2021	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	02/22/2021	ND	218	109	200	4.26	
DRO >C10-C28*	<10.0	10.0	02/22/2021	ND	216	108	200	7.52	
EXT DRO >C28-C36	<10.0	10.0	02/22/2021	ND					

Surrogate: 1-Chlorooctane 107 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 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.
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





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

Page 8 of 8



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

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February 25, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD #2

Enclosed are the results of analyses for samples received by the laboratory on 02/24/21 14:32.

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: 02/24/2021  
 Reported: 02/25/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/24/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 1 @ 10' (H210453-01)**

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	02/24/2021	ND	2.17	108	2.00	5.57	
Toluene*	<0.050	0.050	02/24/2021	ND	2.14	107	2.00	5.94	
Ethylbenzene*	<0.050	0.050	02/24/2021	ND	2.08	104	2.00	6.13	
Total Xylenes*	<0.150	0.150	02/24/2021	ND	6.06	101	6.00	5.53	
Total BTEX	<0.300	0.300	02/24/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 73.3-129

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	02/24/2021	ND	209	104	200	3.29	
<b>DRO &gt;C10-C28*</b>	<b>341</b>	10.0	02/24/2021	ND	215	107	200	2.37	
<b>EXT DRO &gt;C28-C36</b>	<b>89.5</b>	10.0	02/24/2021	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 119 % 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: 02/24/2021  
 Reported: 02/25/2021  
 Project Name: WP BYRD #2  
 Project Number: NONE GIVEN  
 Project Location: NONE GIVEN

Sampling Date: 02/24/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 @ 10' (H210453-02)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/24/2021	ND	2.17	108	2.00	5.57		
Toluene*	<0.050	0.050	02/24/2021	ND	2.14	107	2.00	5.94		
Ethylbenzene*	<0.050	0.050	02/24/2021	ND	2.08	104	2.00	6.13		
Total Xylenes*	<0.150	0.150	02/24/2021	ND	6.06	101	6.00	5.53		
Total BTX	<0.300	0.300	02/24/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 108 % 73.3-129

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	02/24/2021	ND	209	104	200	3.29	
DRO >C10-C28*	731	10.0	02/24/2021	ND	215	107	200	2.37	
EXT DRO >C28-C36	208	10.0	02/24/2021	ND					

Surrogate: 1-Chlorooctane 105 % 44.3-144

Surrogate: 1-Chlorooctadecane 116 % 42.2-156

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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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

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Cardinal Laboratories

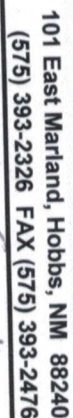
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

---

Celey D. Keene, Lab Director/Quality Manager



**BILL TO**

## ANALYSIS REQUEST

Page 5 of 5





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

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October 08, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/07/21 16:02.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/07/2021	Sampling Date:	10/07/2021
Reported:	10/08/2021	Sampling Type:	Soil
Project Name:	WP BYRD	Sampling Condition:	** (See Notes)
Project Number:	W.P. BYRD LEASE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: SP 2 @ 11' (H212810-01)**

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	10/08/2021	ND	2.17	109	2.00	5.65		
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85		
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06		
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73		
Total BTEX	<0.300	0.300	10/08/2021	ND						

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

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 88.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 84.7 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/07/2021  
 Reported: 10/08/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/07/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 12' (H212810-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/08/2021	ND	2.17	109	2.00	5.65	
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85	
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06	
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73	
Total BTEX	<0.300	0.300	10/08/2021	ND					

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

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-133

Surrogate: 1-Chlorooctadecane 98.8 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/07/2021  
 Reported: 10/08/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/07/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 13' (H212810-03)**

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	10/08/2021	ND	2.17	109	2.00	5.65	
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85	
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06	
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73	
Total BTEX	<0.300	0.300	10/08/2021	ND					

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

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 94.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.0 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/07/2021  
 Reported: 10/08/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/07/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 14' (H212810-04)**

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	10/08/2021	ND	2.17	109	2.00	5.65	
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85	
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06	
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73	
Total BTEx	<0.300	0.300	10/08/2021	ND					

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

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2021	ND	215	107	200	7.96	
<b>DRO &gt;C10-C28*</b>	<b>14.5</b>	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 96.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 92.3 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/07/2021  
 Reported: 10/08/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/07/2021  
 Sampling Type: Soil  
 Sampling Condition: \*\* (See Notes)  
 Sample Received By: Tamara Oldaker

**Sample ID: SP 2 @ 15' (H212810-05)**

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	10/08/2021	ND	2.17	109	2.00	5.65	
Toluene*	<0.050	0.050	10/08/2021	ND	2.12	106	2.00	5.85	
Ethylbenzene*	<0.050	0.050	10/08/2021	ND	2.07	104	2.00	5.06	
Total Xylenes*	<0.150	0.150	10/08/2021	ND	6.26	104	6.00	4.73	
Total BTX	<0.300	0.300	10/08/2021	ND					

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

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/08/2021	ND	215	107	200	7.96	
DRO >C10-C28*	<10.0	10.0	10/08/2021	ND	213	107	200	0.584	
EXT DRO >C28-C36	<10.0	10.0	10/08/2021	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-133

Surrogate: 1-Chlorooctadecane 96.4 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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

---

### Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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Cardinal Laboratories

\*=Accredited Analyte

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

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: Apex

Project Manager: Bruce Baker

Address: \_\_\_\_\_

City: Hobbs State: NM Zip: 88240

Phone #: \_\_\_\_\_ Fax #: \_\_\_\_\_

Project #: \_\_\_\_\_ Project Owner: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Location: W.P. Bird Verse

Sampler Name: Joe Quisenberry

FOR LAB USE ONLY

BILL TO

ANALYSIS REQUEST

P.O. #:

Company:

Attn:

Address:

City:

State: Zip:

Phone #:

Fax #:

Lab I.D. Sample I.D.

H21810

1 Sp2 @ 11'  
2 Sp2 @ 12'  
3 Sp2 @ 13'  
4 Sp2 @ 14'  
5 Sp2 @ 15'

(G)RAB OR (C)OMP.

# CONTAINERS

GROUNDWATER

WASTEWATER

SOIL

OIL

SLUDGE

OTHER:

ACID/BASE:

ICE COOL

OTHER:

DATE

TIME

10-7 3:01

10-7 3:05

10-7 3:07

10-7 3:10

10-7 3:16

XXXXXX EXT TPI

XXXXXX BTEX

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Relinquished By:

Date:

10-7

Time:

16:02

Received By:

Jawana Alabey

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Relinquished By:

Date:

10-7

Time:

16:02

Received By:

Jawana Alabey

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Received By:

Joe Quisenberry

Date:

10-7

Time:

16:02

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

Observed Temp. °C

9.0

Corrected Temp. °C

8.5

Sample Condition

Cool Intact

Yes Yes

No No

CHECKED BY:

(Initials)

YO

Turnaround Time:

Standard

Rush

Thermometer ID #113

Correction Factor None

-0.5°C

Bacteria (only)

Cool Intact

Yes Yes

No No

Sample Condition

Observed Temp. °C

Corrected Temp. °C

9.0

8.5

YO

† 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

---

October 12, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/11/21 16:40.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/11/2021	Sampling Date:	10/11/2021
Reported:	10/12/2021	Sampling Type:	Soil
Project Name:	WP BYRD	Sampling Condition:	Cool & Intact
Project Number:	W.P. BYRD LEASE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: W 1 BGS 1'-11' (H212842-01)**

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2021	ND	2.01	101	2.00	1.84	
Toluene*	<0.050	0.050	10/11/2021	ND	1.95	97.5	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/11/2021	ND	1.91	95.7	2.00	2.04	
Total Xylenes*	<0.150	0.150	10/11/2021	ND	5.82	96.9	6.00	1.85	
Total BTEX	<0.300	0.300	10/11/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/12/2021	ND	432	108	400	3.64	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2021	ND	194	96.9	200	2.81	
DRO >C10-C28*	<10.0	10.0	10/12/2021	ND	227	114	200	0.922	
EXT DRO >C28-C36	<10.0	10.0	10/12/2021	ND					

Surrogate: 1-Chlorooctane 110 % 44.3-133

Surrogate: 1-Chlorooctadecane 104 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/11/2021  
 Reported: 10/12/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/11/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 1 @ 11' (H212842-02)**

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2021	ND	2.01	101	2.00	1.84	
Toluene*	<0.050	0.050	10/11/2021	ND	1.95	97.5	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/11/2021	ND	1.91	95.7	2.00	2.04	
Total Xylenes*	<0.150	0.150	10/11/2021	ND	5.82	96.9	6.00	1.85	
Total BTX	<0.300	0.300	10/11/2021	ND					

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

Chloride, SM4500CI-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	10/12/2021	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2021	ND	194	96.9	200	2.81	
DRO >C10-C28*	<10.0	10.0	10/12/2021	ND	227	114	200	0.922	
EXT DRO >C28-C36	<10.0	10.0	10/12/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-133

Surrogate: 1-Chlorooctadecane 101 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/11/2021  
 Reported: 10/12/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/11/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 2 BGS 1'-11' (H212842-03)**

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/11/2021	ND	2.01	101	2.00	1.84	
Toluene*	<0.050	0.050	10/11/2021	ND	1.95	97.5	2.00	1.80	
Ethylbenzene*	<0.050	0.050	10/11/2021	ND	1.91	95.7	2.00	2.04	
Total Xylenes*	<0.150	0.150	10/11/2021	ND	5.82	96.9	6.00	1.85	
Total BTEX	<0.300	0.300	10/11/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/12/2021	ND	432	108	400	3.64		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2021	ND	194	96.9	200	2.81	
DRO >C10-C28*	<10.0	10.0	10/12/2021	ND	227	114	200	0.922	
EXT DRO >C28-C36	<10.0	10.0	10/12/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-133

Surrogate: 1-Chlorooctadecane 102 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/11/2021  
 Reported: 10/12/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/11/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 2 @ 11' (H212842-04)**

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/11/2021	ND	2.01	101	2.00	1.84		
Toluene*	<0.050	0.050	10/11/2021	ND	1.95	97.5	2.00	1.80		
Ethylbenzene*	<0.050	0.050	10/11/2021	ND	1.91	95.7	2.00	2.04		
Total Xylenes*	<0.150	0.150	10/11/2021	ND	5.82	96.9	6.00	1.85		
Total BTEx	<0.300	0.300	10/11/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 69.9-140

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	10/12/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/12/2021	ND	194	96.9	200	2.81	
DRO >C10-C28*	10.8	10.0	10/12/2021	ND	227	114	200	0.922	
EXT DRO >C28-C36	<10.0	10.0	10/12/2021	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-133

Surrogate: 1-Chlorooctadecane 99.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



---

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

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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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>Apache</u>		P.O. #:		BILL TO		ANALYSIS REQUEST																											
Project Manager: <u>Bruce Baker</u>		Company:																															
Address:		City: <u>Hobbs</u>		State: <u>NM</u>		Zip: <u>88240</u>		Attn:		Address:		City:		State:		Zip:																	
Phone #:		Fax #:		Project #:		Project Owner:		City:		State:		Zip:		Phone #:		Fax #:																	
Project Location: <u>W.P. Byrd lease</u>		Project Name: <u>de la Cruz</u>		FOR LAB USE ONLY																													
Lab I.D. <u>#212842</u>		Sample I.D.		(G)RAB OR (C)OMP		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		CE / COOL		OTHER:		DATE		TIME		EXT TPH		BTEX	
1 W1 BGS 1-11'		C 1		1		1		1		1		1		1		1		1		1		1		1		10-11		9:46		X		X	
2 B1 0-11'		C 1		1		1		1		1		1		1		1		1		1		1		1		10-11		11:02		X		X	
3 W2 BGS 1-11'		C 1		1		1		1		1		1		1		1		1		1		1		1		10-11		2:43		X		X	
4 B2 0-11'		C 1		1		1		1		1		1		1		1		1		1		1		1		10-11		2:43		X		X	

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Relinquished By: [Signature] Date: 10-11-21 Received By: [Signature] Date: 10-11-21

Delivered By: (Circle One) UPS Observed Temp. °C 44 Corrected Temp. °C 41 Sample Condition Cool Intact CHECKED BY: [Signature] (Initials) TS

Turnaround Time: Standard Rush 0.52 Bacteria (only) Sample Condition Cool Intact Observed Temp. °C 44 Corrected Temp. °C 41

REMARKS: Envi) de/Bruce.

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

All Results are emailed. Please provide Email address:



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

---

October 14, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/13/21 16:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received:	10/13/2021	Sampling Date:	10/13/2021
Reported:	10/14/2021	Sampling Type:	Soil
Project Name:	WP BYRD	Sampling Condition:	Cool & Intact
Project Number:	W.P. BYRD LEASE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: W 3 BGS 1'-11' (H212879-01)**

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	10/14/2021	ND	2.03	102	2.00	5.82	
Toluene*	<0.050	0.050	10/14/2021	ND	2.05	102	2.00	4.29	
Ethylbenzene*	<0.050	0.050	10/14/2021	ND	2.08	104	2.00	4.56	
Total Xylenes*	<0.150	0.150	10/14/2021	ND	6.23	104	6.00	5.18	
Total BTEX	<0.300	0.300	10/14/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	10/14/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2021	ND	207	104	200	5.94	
DRO >C10-C28*	<10.0	10.0	10/14/2021	ND	215	108	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	10/14/2021	ND					

Surrogate: 1-Chlorooctane 139 % 44.3-133

Surrogate: 1-Chlorooctadecane 148 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/13/2021  
 Reported: 10/14/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/13/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 3 @ 11' (H212879-02)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2021	ND	2.03	102	2.00	5.82	
Toluene*	<0.050	0.050	10/14/2021	ND	2.05	102	2.00	4.29	
Ethylbenzene*	<0.050	0.050	10/14/2021	ND	2.08	104	2.00	4.56	
Total Xylenes*	<0.150	0.150	10/14/2021	ND	6.23	104	6.00	5.18	
Total BTX	<0.300	0.300	10/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/14/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2021	ND	207	104	200	5.94	
<b>DRO &gt;C10-C28*</b>	<b>53.2</b>	10.0	10/14/2021	ND	215	108	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	10/14/2021	ND					

Surrogate: 1-Chlorooctane 130 % 44.3-133

Surrogate: 1-Chlorooctadecane 136 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/13/2021  
 Reported: 10/14/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/13/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 4 @ 11' (H212879-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2021	ND	2.03	102	2.00	5.82	
Toluene*	<0.050	0.050	10/14/2021	ND	2.05	102	2.00	4.29	
Ethylbenzene*	<0.050	0.050	10/14/2021	ND	2.08	104	2.00	4.56	
Total Xylenes*	<0.150	0.150	10/14/2021	ND	6.23	104	6.00	5.18	
Total BTX	<0.300	0.300	10/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/14/2021	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/14/2021	ND	207	104	200	5.94	
<b>DRO &gt;C10-C28*</b>	<b>64.8</b>	10.0	10/14/2021	ND	215	108	200	3.89	
EXT DRO >C28-C36	<10.0	10.0	10/14/2021	ND					

Surrogate: 1-Chlorooctane 133 % 44.3-133

Surrogate: 1-Chlorooctadecane 141 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

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\*=Accredited Analyte

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

---

Celey D. Keene, Lab Director/Quality Manager





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

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

October 15, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/14/21 16:15.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/14/2021  
 Reported: 10/15/2021  
 Project Name: WP BYRD  
 Project Number: WP BYRD BATTERY  
 Project Location: NONE GIVEN

Sampling Date: 10/14/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Brandi Oldaker

**Sample ID: W 4 @ 11' (H212898-01)**

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	10/14/2021	ND	2.11	105	2.00	3.39	
Toluene*	<0.050	0.050	10/14/2021	ND	2.10	105	2.00	6.43	
Ethylbenzene*	<0.050	0.050	10/14/2021	ND	2.11	106	2.00	7.96	
Total Xylenes*	<0.150	0.150	10/14/2021	ND	6.40	107	6.00	6.51	
Total BTEX	<0.300	0.300	10/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 105 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/15/2021	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	10/14/2021	ND	218	109	200	0.0890	
DRO >C10-C28*	<10.0	10.0	10/14/2021	ND	216	108	200	0.0814	
EXT DRO >C28-C36	<10.0	10.0	10/14/2021	ND					

Surrogate: 1-Chlorooctane 87.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 86.3 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/14/2021  
 Reported: 10/15/2021  
 Project Name: WP BYRD  
 Project Number: WP BYRD BATTERY  
 Project Location: NONE GIVEN

Sampling Date: 10/14/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Brandi Oldaker

**Sample ID: B 5 @ 11' (H212898-02)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/14/2021	ND	2.11	105	2.00	3.39	
Toluene*	<0.050	0.050	10/14/2021	ND	2.10	105	2.00	6.43	
Ethylbenzene*	<0.050	0.050	10/14/2021	ND	2.11	106	2.00	7.96	
Total Xylenes*	<0.150	0.150	10/14/2021	ND	6.40	107	6.00	6.51	
Total BTX	<0.300	0.300	10/14/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 107 % 69.9-140

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	10/15/2021	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	10/14/2021	ND	218	109	200	0.0890	
DRO >C10-C28*	57.0	10.0	10/14/2021	ND	216	108	200	0.0814	
EXT DRO >C28-C36	<10.0	10.0	10/14/2021	ND					

Surrogate: 1-Chlorooctane 81.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.7 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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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.
BS-3	Blank spike recovery outside of lab established statistical limits, but still within method limits. Data is not adversely affected.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

Celey D. Keene, Lab Director/Quality Manager



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

October 18, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/15/21 16:58.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 5 BGS 1'-11' (H212913-01)**

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	10/18/2021	ND	2.05	102	2.00	5.30	
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38	
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52	
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58	
Total BTEX	<0.300	0.300	10/18/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	<10.0	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 78.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.2 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 6 @ 11' (H212913-02)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/18/2021	ND	2.05	102	2.00	5.30		
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38		
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52		
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58		
Total BTEx	<0.300	0.300	10/18/2021	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	10/18/2021	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	57.2	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	15.2	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 79.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 77.4 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 6 BGS 1'-11' (H212913-03)**

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	10/18/2021	ND	2.05	102	2.00	5.30		
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38		
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52		
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58		
Total BTEx	<0.300	0.300	10/18/2021	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	<10.0	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 87.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.7 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 7 @ 11' (H212913-04)**

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	10/18/2021	ND	2.05	102	2.00	5.30	
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38	
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52	
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58	
Total BTX	<0.300	0.300	10/18/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	40.8	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 85.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 82.7 % 38.9-142

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: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 7 BGS 1'-11' (H212913-05)**

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	10/18/2021	ND	2.05	102	2.00	5.30	
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38	
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52	
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58	
Total BTX	<0.300	0.300	10/18/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	<10.0	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 79.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 75.0 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 8 BGS 1'-11' (H212913-06)**

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	10/18/2021	ND	2.05	102	2.00	5.30	
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38	
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52	
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58	
Total BTEx	<0.300	0.300	10/18/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	<10.0	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 80.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 76.5 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/15/2021  
 Reported: 10/18/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 8 @ 11' (H212913-07)**

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	10/18/2021	ND	2.05	102	2.00	5.30	
Toluene*	<0.050	0.050	10/18/2021	ND	1.99	99.3	2.00	5.38	
Ethylbenzene*	<0.050	0.050	10/18/2021	ND	1.94	97.0	2.00	5.52	
Total Xylenes*	<0.150	0.150	10/18/2021	ND	5.82	97.0	6.00	5.58	
Total BTX	<0.300	0.300	10/18/2021	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/18/2021	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/18/2021	ND	226	113	200	4.47	
DRO >C10-C28*	<10.0	10.0	10/18/2021	ND	221	111	200	4.29	
EXT DRO >C28-C36	<10.0	10.0	10/18/2021	ND					

Surrogate: 1-Chlorooctane 84.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



---

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### Notes and Definitions

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

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October 27, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/26/21 13:05.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/26/2021  
 Reported: 10/27/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/26/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 9 @ 2' (H213009-01)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2021	ND	1.98	99.1	2.00	9.01	
Toluene*	<0.050	0.050	10/26/2021	ND	1.89	94.7	2.00	8.26	
Ethylbenzene*	<0.050	0.050	10/26/2021	ND	1.90	94.9	2.00	8.39	
Total Xylenes*	<0.150	0.150	10/26/2021	ND	5.81	96.9	6.00	7.11	
Total BTX	<0.300	0.300	10/26/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	10/26/2021	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2021	ND	226	113	200	2.01	
DRO >C10-C28*	547	10.0	10/27/2021	ND	223	112	200	3.10	
EXT DRO >C28-C36	275	10.0	10/27/2021	ND					

Surrogate: 1-Chlorooctane 77.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.3 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 10/26/2021  
 Reported: 10/27/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/26/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 10 @ 2' (H213009-02)**

BTEX 8021B			mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/26/2021	ND	1.98	99.1	2.00	9.01		
Toluene*	<0.050	0.050	10/26/2021	ND	1.89	94.7	2.00	8.26		
Ethylbenzene*	<0.050	0.050	10/26/2021	ND	1.90	94.9	2.00	8.39		
Total Xylenes*	<0.150	0.150	10/26/2021	ND	5.81	96.9	6.00	7.11		
Total BTEX	<0.300	0.300	10/26/2021	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	10/26/2021	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2021	ND	226	113	200	2.01	
DRO >C10-C28*	172	10.0	10/27/2021	ND	223	112	200	3.10	
EXT DRO >C28-C36	210	10.0	10/27/2021	ND					

Surrogate: 1-Chlorooctane 85.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 89.3 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/26/2021  
 Reported: 10/27/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/26/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 9 BGS 1-2' (H213009-03)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/26/2021	ND	1.98	99.1	2.00	9.01	
Toluene*	<0.050	0.050	10/26/2021	ND	1.89	94.7	2.00	8.26	
Ethylbenzene*	<0.050	0.050	10/26/2021	ND	1.90	94.9	2.00	8.39	
Total Xylenes*	<0.150	0.150	10/26/2021	ND	5.81	96.9	6.00	7.11	
Total BTX	<0.300	0.300	10/26/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	10/26/2021	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2021	ND	226	113	200	2.01	
DRO >C10-C28*	25.5	10.0	10/27/2021	ND	223	112	200	3.10	
EXT DRO >C28-C36	34.1	10.0	10/27/2021	ND					

Surrogate: 1-Chlorooctane 75.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 78.0 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/26/2021  
 Reported: 10/27/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/26/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 10 BGS 1-2' (H213009-04)**

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	10/26/2021	ND	1.98	99.1	2.00	9.01		
Toluene*	<0.050	0.050	10/26/2021	ND	1.89	94.7	2.00	8.26		
Ethylbenzene*	<0.050	0.050	10/26/2021	ND	1.90	94.9	2.00	8.39		
Total Xylenes*	<0.150	0.150	10/26/2021	ND	5.81	96.9	6.00	7.11		
Total BTX	<0.300	0.300	10/26/2021	ND						

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	10/26/2021	ND	432	108	400	7.69		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2021	ND	226	113	200	2.01	
DRO >C10-C28*	206	10.0	10/27/2021	ND	223	112	200	3.10	
EXT DRO >C28-C36	144	10.0	10/27/2021	ND					

Surrogate: 1-Chlorooctane 76.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 84.4 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 10/26/2021  
 Reported: 10/27/2021  
 Project Name: WP BYRD  
 Project Number: W.P. BYRD LEASE  
 Project Location: NONE GIVEN

Sampling Date: 10/26/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 11 BGS 1-2' (H213009-05)**

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	10/26/2021	ND	1.98	99.1	2.00	9.01	
Toluene*	<0.050	0.050	10/26/2021	ND	1.89	94.7	2.00	8.26	
Ethylbenzene*	<0.050	0.050	10/26/2021	ND	1.90	94.9	2.00	8.39	
Total Xylenes*	<0.150	0.150	10/26/2021	ND	5.81	96.9	6.00	7.11	
Total BTX	<0.300	0.300	10/26/2021	ND					

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

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	10/26/2021	ND	432	108	400	7.69	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/27/2021	ND	226	113	200	2.01	
DRO >C10-C28*	429	10.0	10/27/2021	ND	223	112	200	3.10	
EXT DRO >C28-C36	445	10.0	10/27/2021	ND					

Surrogate: 1-Chlorooctane 76.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 87.6 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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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.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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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Cardinal Laboratories

\*=Accredited Analyte

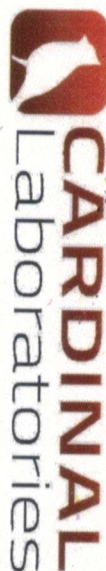
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

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Celey D. Keene, Lab Director/Quality Manager





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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Apache		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
<b>Project Manager:</b> Bruce Baker		<b>P.O. #:</b>			
<b>Address:</b>		<b>Company:</b>			
<b>City:</b> Hobbs	<b>State:</b> NM	<b>Attn:</b>			
<b>Phone #:</b>	<b>Fax #:</b>	<b>Address:</b>			
<b>Project #:</b>	<b>Project Owner:</b>	<b>City:</b>			
<b>Project Name:</b>		<b>State:</b>	<b>Zip:</b>		
<b>Project Location:</b> W.P. Byrd lease		<b>Phone #:</b>			
<b>Sample Name:</b> See Certificate etc.		<b>Fax #:</b>			

FOR LAB USE ONLY		PRESERV.		SAMPLING															
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX	DATE	TIME													
				GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	ACID/BASE: (ICE) COOL OTHER :														
H213009	1 B9 @ 2'	(C)	1	X	10-26-7:15		C/	Ext. TPH	BTEX										
	2 B10 @ 2'	(C)	1	X	10-26-7:17		X	X	X										
	3 W9 BOS 1-a'	(C)	1	X	10-26-7:19		X	X	X										
	4 W10 BOS 1-a'	(C)	1	X	10-26-7:21		X	X	X										
	5 W11 BOS 1-a'	(C)	1	X	10-26-7:23		X	X	X										

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<b>Relinquished By:</b>	<b>Date:</b> 10-26-21	<b>Received By:</b>	<b>Verbal Result:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
<b>Relinquished By:</b>	<b>Date:</b> 10-26-21	<b>Received By:</b>	<b>All Results are emailed. Please provide Email address:</b>

<b>Delivered By:</b> (Circle One) <b>Sampler - UPS - Bus - Other:</b>	<b>Observed Temp. °C</b> 4.6 <b>Corrected Temp. °C</b> 4.1	<b>Sample Condition</b> Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	<b>CHECKED BY:</b> (Initials)	<b>Turnaround Time:</b>	<b>Standard</b> <input type="checkbox"/> <b>Rush</b> <input checked="" type="checkbox"/>	<b>Bacteria (only)</b> <input type="checkbox"/> Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	<b>Sample Condition</b> <b>Observed Temp. °C</b>	<b>Corrected Temp. °C</b>
<b>REMARKS:</b> Thermometer ID #113 Correction Factor <del>K=</del> -0.5°C								



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

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November 01, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: WP BYRD

Enclosed are the results of analyses for samples received by the laboratory on 10/29/21 14:00.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Mike Snyder".

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received:	10/29/2021	Sampling Date:	10/29/2021
Reported:	11/01/2021	Sampling Type:	Soil
Project Name:	WP BYRD	Sampling Condition:	Cool & Intact
Project Number:	W.P. BYRD LEASE	Sample Received By:	Tamara Oldaker
Project Location:	NONE GIVEN		

**Sample ID: W 10 BGS 1-2' (H213057-01)**

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	10/29/2021	ND	2.14	107	2.00	2.68	
Toluene*	<0.050	0.050	10/29/2021	ND	2.03	102	2.00	2.80	
Ethylbenzene*	<0.050	0.050	10/29/2021	ND	2.05	102	2.00	3.25	
Total Xylenes*	<0.150	0.150	10/29/2021	ND	6.21	104	6.00	3.95	
Total BTEX	<0.300	0.300	10/29/2021	ND					

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

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	10/29/2021	ND	223	111	200	2.77	
DRO >C10-C28*	<10.0	10.0	10/29/2021	ND	218	109	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/29/2021	ND					

Surrogate: 1-Chlorooctane 82.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 85.2 % 38.9-142

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Mike Snyder For 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 "Mike Snyder", is written over a horizontal line.

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager





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# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

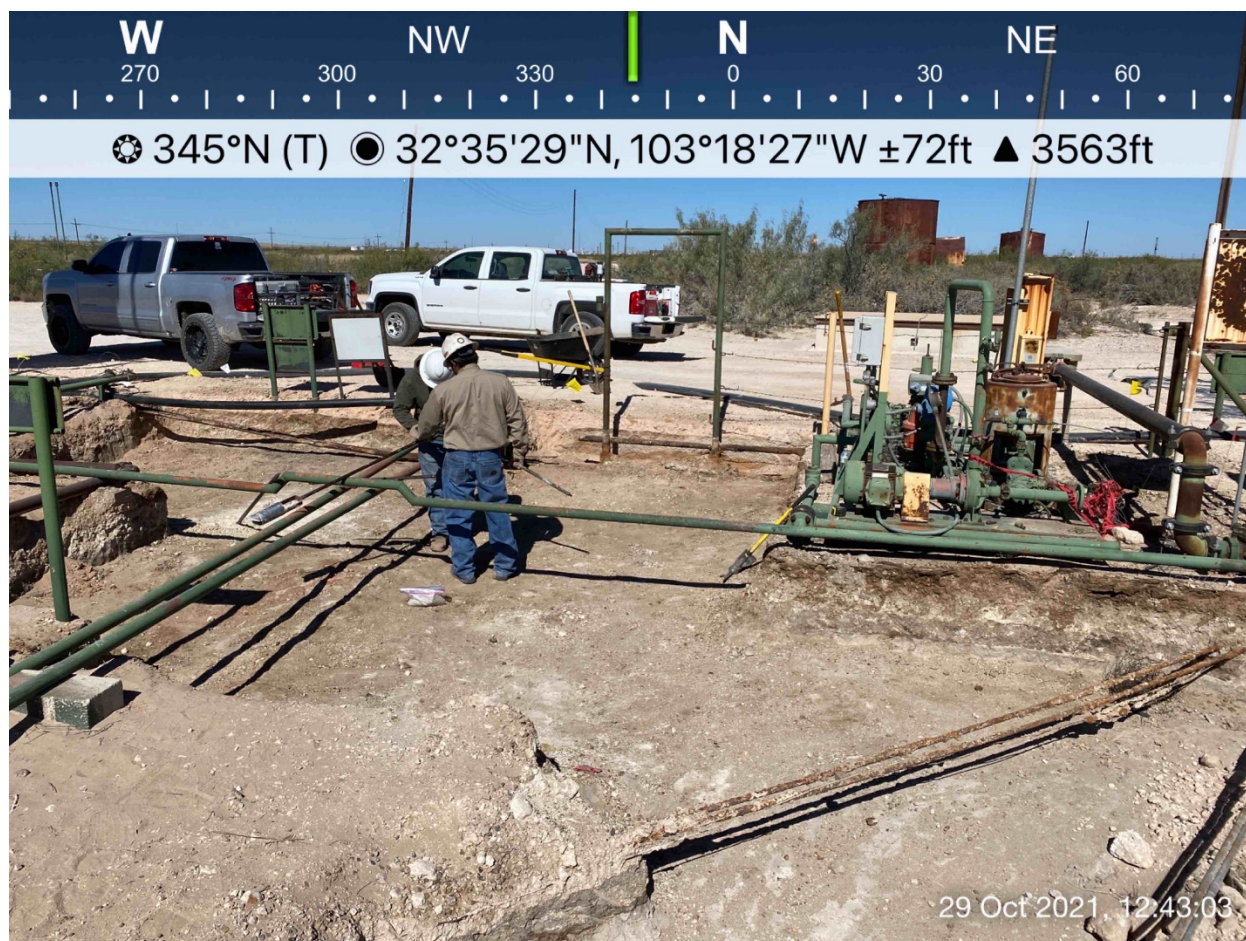
<b>Company Name:</b> <u>Apache</u> <b>Project Manager:</b> <u>Rene Baker</u> <b>Address:</b> <b>City:</b> <u>Hobbs</u> <b>State:</b> <u>NM</u> <b>Zip:</b> <u>88240</u> <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> <u>W.P. Byrd Lease</u> <b>Sampler Name:</b> <u>Joe Quandel</u> <b>FOR LAB USE ONLY</b>		<b>BILL TO</b> <b>P.O. #:</b> <b>Company:</b> <b>Attn:</b> <b>Address:</b> <b>City:</b> <b>State:</b> <b>Zip:</b> <b>Phone #:</b> <b>Fax #:</b>		<b>ANALYSIS REQUEST</b>											
<b>Lab I.D.</b> <u>H213057</u> <b>Sample I.D.</b> <u>W18 Bas 1-2'</u>		<b>MATRIX</b> (G)RAB OR (C)OMP. <input checked="" type="checkbox"/> # CONTAINERS <u>1</u> GROUNDWATER WASTEWATER SOIL <input checked="" type="checkbox"/> OIL SLUDGE OTHER: ACID/BASE: (C) COOL <input checked="" type="checkbox"/> OTHER:		<b>PRESERV.</b> DATE <u>10-29</u> TIME <u>11:30</u>		EX + TPL BTEX									
<b>Relinquished By:</b> <u>[Signature]</u> <b>Date:</b> <u>10-29-20</u> <b>Time:</b> <u>14:00</u> <b>Received By:</b> <u>[Signature]</u> <b>Date:</b> <u>10-29-20</u> <b>Time:</b>		<b>Delivered By:</b> (Circle One) Sampler - UPS - Bus - Other: <u>4.3</u> Observed Temp. °C <u>4.8</u> Corrected Temp. °C <u>4.3</u> Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked BY: <u>[Signature]</u> Turnaround Time: <u>Standard</u> Rush <input checked="" type="checkbox"/> Thermometer ID #113 Correction Factor None <u>-0.5°C</u> Bacteria (only) Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C		<b>REMARKS:</b> Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: All Results are emailed. Please provide Email address:											

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



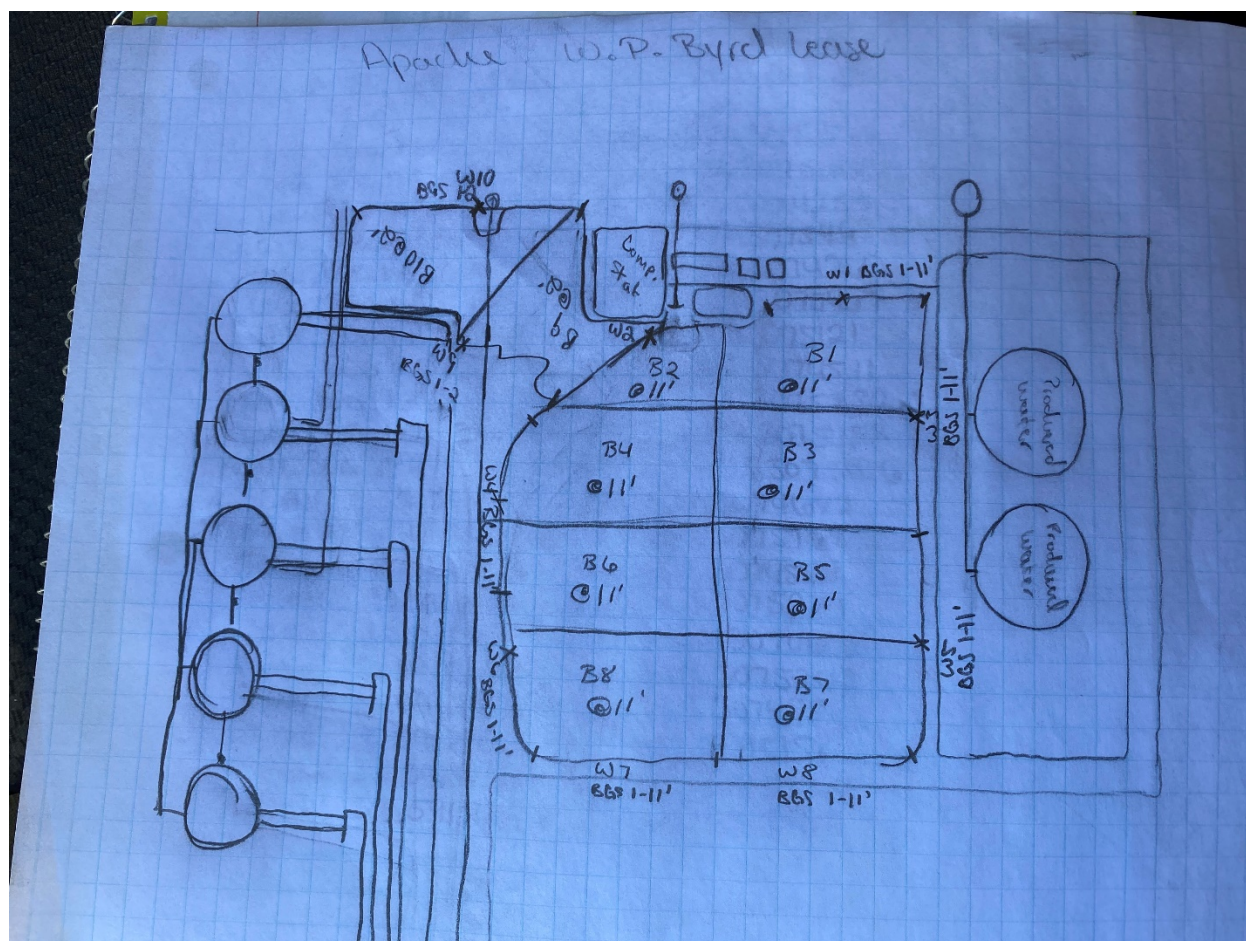












Apache

W P Byrd Lease Final Samples

W1 BGS 1-11'	32.5913910	-103.3074555
W2 BGS 1-11'	32.5913877	-103.3075182
W3 BGS 1-11'	32.5913634	-103.3074253
W4 BGS 1-11'	32.5913447	-103.3075463
W5 BGS 1-11'	32.5913046	-103.3074260
W6 BGS 1-11'	32.5912925	-103.3075467
W7 BGS 1-11'	32.5912730	-103.3075121
W8 BGS 1-11'	32.5912701	-103.3074511
W9 BGS 1-2'	32.5913958	-103.3075832
W10 BGS 1-2'	32.5914490	-103.3075752
W11 BGS 1-2'	32.5914111	-103.3075416
B1 @ 11'	32.5913758	-103.3074682
B2 @ 11'	32.5913814	-103.3075168
B3 @ 11'	32.5913538	-103.3074588
B4 @ 11'	32.5913464	-103.3075279
B5 @ 11'	32.5913071	-103.3074608
B6 @ 11'	32.5913114	-103.3075202
B7 @ 11'	32.5912899	-103.3074551
B8 @ 11'	32.5912882	-103.3075158
B9 @ 2'	32.5914052	-103.3075564
B10 @ 2'	32.5914266	-103.3075919



**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 62105

**CONDITIONS**

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 62105
	Action Type: [C-141] Release Corrective Action (C-141)

**CONDITIONS**

Created By	Condition	Condition Date
chensley	Apache's deferral requests to complete final remediation during any future major construction/alteration or final plugging and abandonment, whichever occurs first is approved. The deferred C-141 will be accepted for record and marked accordingly. The release will remain open in OCD database files and reflect an open environmental issue.	12/17/2021