



303 Veterans Airpark Lane Midland, TX 79705

## **Closure Report**

November 29, 2021

Re: NMGSAU # 012

Case: nAPP2111343684

On 4/18/2021 a release occurred due to a steel flow line failed. The release (GPS: 32.665486, -103.282816) is located west of Monument, New Mexico in unit letter A section 18 township 19S range 37E. A groundwater survey was conducted utilizing NMOSE wells of record. The nearest well of record suggest the groundwater depth below the release to be 54 feet below ground surface. A remediation plan was submitted and approved by OCD.

The release area was excavated to depths of 2 to 4 feet below ground surface. On 11/15/2021 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 results were above reclamation standards in the top four feet at several 2-foot bottom composite samples. Those area were advanced to a depth of 3 feet and 5-point bottom and wall composite samples were collected not to exceed 200 square feet and submitted to a commercial laboratory for analysis of TPH and BTEX. Laboratory results were above reclamation standards for TPH in the top four feet at B13. B13 was advanced to a depth of 4 feet. 5-point bottom and wall composite samples were collected and submitted to a commercial laboratory for analysis of TPH and BTEX. All excavated materials were hauled to an OCD approved disposal facility. The excavation was backfilled with clean imported topsoil to ground surface and contoured to the surrounding area. The disturbed area will be reseeded in accordance with the private surface landowner.

Apache Corporation as completed remediation to below table one standards and reclamation standards and respectful request closure of event nAPP211343684.

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	

## Closure

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

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

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

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

Printed Name: Larry Baker Title: Environmental Tech SR.  
Signature: *Larry Baker* Date: 11/29/2021  
email: larry.baker@apachecorp.com Telephone: 432-215-2284

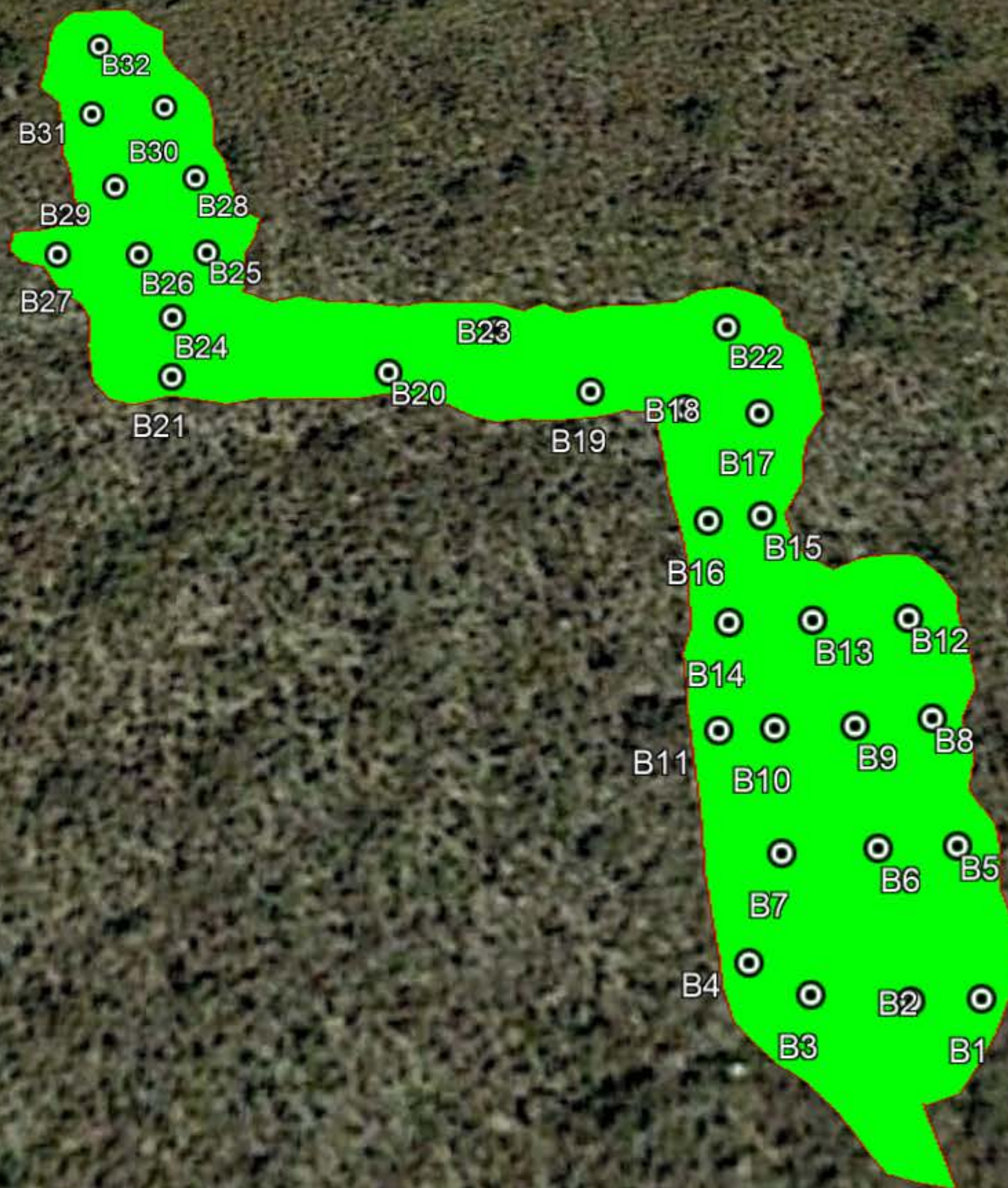
**OCD Only**

Received by: Chad Hensley Date: 12/27/2021

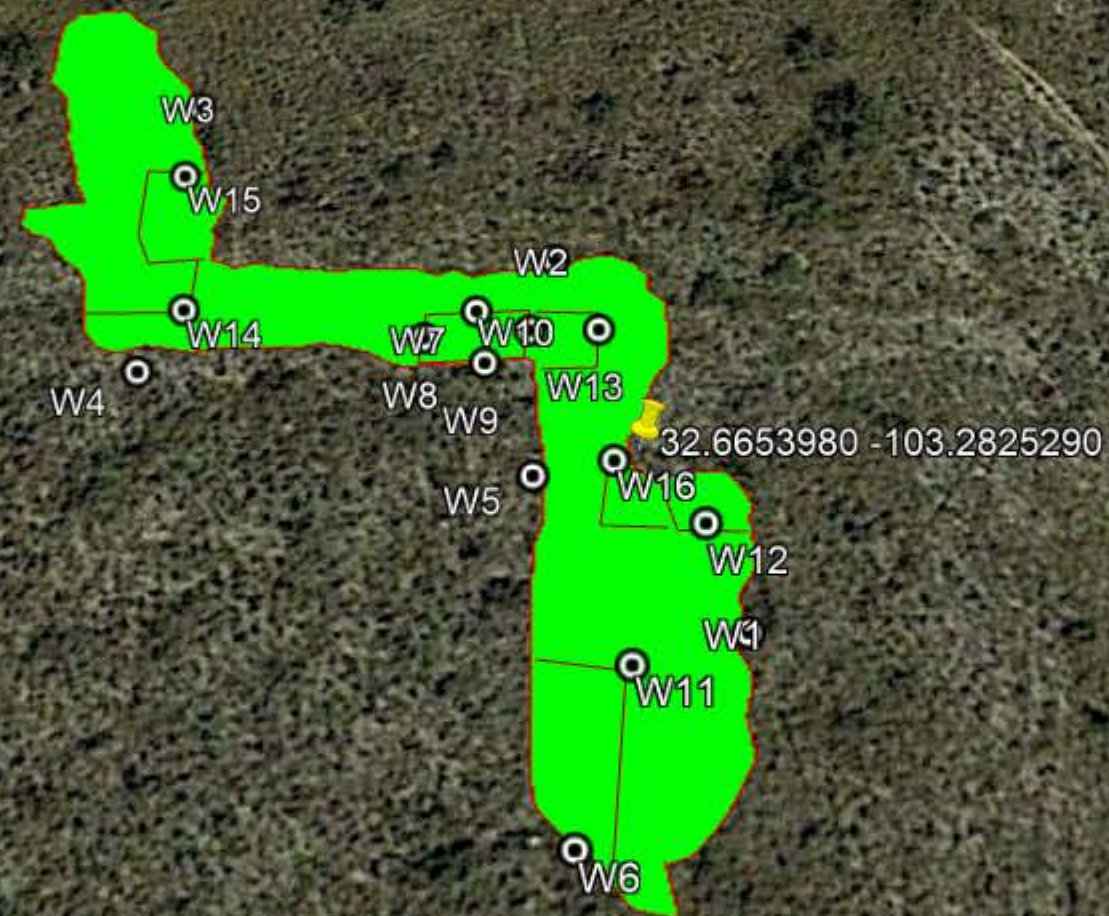
Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance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

Closure Approved by: *Chad Hensley* Date: 12/27/2021  
Printed Name: Chad Hensley Title: Environmental Specialist Advanced











## Final Bottom Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
11/15/2021	B1	2'	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	335	81.2
11/20/2021	B1	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	43.4	<10.0
11/15/2021	B2	2'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	135	27
11/20/2021	B2	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	31.6	<10.0
11/15/2021	B3	2'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	13.3	<10.0
11/15/2021	B4	2'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B5	2'	288	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	380	78.7
11/20/2021	B5	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	45.1	<10.0
11/15/2021	B6	2'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	99.8	14.9
11/20/2021	B6	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	43.6	<10.0
11/15/2021	B7	2'	400	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	29.8	<10.0
11/15/2021	B8	2.5'	384	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	413	128
11/20/2021	B8	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	38.7	<10.0
11/15/2021	B9	2'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	291	79.4
11/20/2021	B9	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	64.4	<10.0
11/15/2021	B10	2'	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	162	27.1
11/20/2021	B10	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	69.0	<10.0
11/15/2021	B11	2'	336	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	518	176
11/20/2021	B11	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	59.3	<10.0
11/15/2021	B12	2.5'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	16.2	<10.0
11/15/2021	B13	2'	224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	505	229
11/20/2021	B13	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	105	15.4
11/23/2021	B13	4'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B14	2'	272	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	358	120
11/20/2021	B14	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	65.7	<10.0
11/15/2021	B15	2.5'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	582	286
11/20/2021	B15	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	56.7	<10.0
11/15/2021	B16	2.5'	256	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	191	30.7
11/20/2021	B16			<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	57.2	<10.0
11/15/2021	B17	2.5'	256	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	274	42.1
11/20/2021	B17	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	45.4	<10.0



11/15/2021	B18	2.5'	96.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	33.7	<10.0
11/15/2021	B19	4'	80.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B20	2'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	148	16.5
11/22/2021	B20	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	25.6	<10.0
11/15/2021	B21	2'	304	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	205	95.3
11/22/2021	B21	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	26.1	<10.0
11/15/2021	B22	2'	208	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	108	33.8
11/22/2021	B22	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	40.7	<10.0
11/15/2021	B23	2'	192	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	168	79.7
11/22/2021	B23	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	24.4	<10.0
11/15/2021	B24	2'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B25	2'	176	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	190	48.3
11/22/2021	B25	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	34.9	<10.0
11/15/2021	B26	2'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B27	2'	240	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B28	2'	224	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	140	35.1
11/22/2021	B28	3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	75.1	<10.0
11/15/2021	B29	2.5'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.3	10.4
11/15/2021	B30	2.5'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	45.7	<10.0
11/15/2021	B31	2.5'	112	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	B32	2.5'	16.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0

## Final Wall Samples

Sample Date	Sample ID	Depth	Chloride Lab	Benzene	Toulene	Ethybenzene	Total Xylenes	Total BTEX	GRO	DRO	EXT DRO
11/15/2021	W1	1-2'	16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W2	1-2'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W3	1-2'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W4	1-2'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W5	1-2'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W6	1-2'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0
11/15/2021	W7	1-4'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	61.5	25.4
11/15/2021	W8	1-4'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	58.2	25.8
11/15/2021	W9	1-4'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	38.3	<10.0
11/15/2021	W10	1-4'	<16	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	58.0	24.7



11/20/2021	W11	2-3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	57.1	<10.0
11/20/2021	W12	2-3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	54.9	<10.0
11/20/2021	W13	2-3'		<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	71.6	12.2
11/22/2021	W14	3-4'	144	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	23.0	<10.0
11/22/2021	W15	3-4'	128	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	23.0	<10.0







## Apache NUGSAU 12 Howline

## Wall

#'s	Feet	Gps	
1	1-2'	32.6652932	-103.2824442
2	1-2'	32.6654928	-103.2825844
3	1-2'	32.6656218	-103.2828083
4	1-2'	32.6654448	-103.2828278
5	1-2'	32.6653824	-103.2825844
6	1-2'	32.6651891	-103.2825525
7	1-4'	32.6654294	-103.2826246
8	1-4'	32.6654493	-103.2826018
9	1-4'	32.6654649	-103.2826306
10	1-4'	32.6654505	-103.2826437
11	2-3'	32.6652777	-103.2825106
12	2-3'	32.6653539	-103.2824885
13	2-3'	32.6654674	-103.2825264
14	2-3'	32.6654790	-103.2828080
15	2-3'	32.6655693	-103.2828147
16	3-4'	32.6653980	-103.2825290

## Bottoms

#'s	Feet	Gps	
1	3	32.6651739	-103.2824677
2	3	32.6651837	-103.2824687
3	3	32.6652139	-103.2825492
4	2	32.6652450	-103.2825545
5	3	32.6652374	-103.2824774
6	3	32.6652168	-103.2824875
7	3	32.6651967	-103.2825495
8	3	32.6651555	-103.2825036
9	3	32.6652619	-103.2825539
10	3	32.6652594	-103.2825528



Bottoms		
HS	Act	GPS
11	3	32.6652732 -103.2825644
12	3'	32.6653026 -103.2824697
13	4	32.6653446 -103.2825183
14	3'	32.6653421 -103.2825569
15	3'	32.6654116 -103.2825508
16	3'	32.6654152 -103.2825820
17	3'	32.6653917 -103.2825451
18	2'	32.6654505 -103.2825109
19	4'	32.6654521 -103.2825870
20	3'	32.6654750 -103.2826082
21	3'	32.6654711 -103.2828157
22	3'	32.6654979 -103.2825699
23	3'	32.6654891 -103.2826454
24	2'	32.6654919 -103.2828046
25	3'	32.6655594 -103.2827942
26	2'	32.6655385 -103.2828298
27	2'	32.6655532 -103.2828330
28	3'	32.6655955 -103.2827872
29	2'	32.6655981 -103.2828281
30	2'	32.6656119 -103.2828174
31	2'	32.6656353 -103.2828392
32	2	32.6656802 -103.2828576





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

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November 17, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/15/21 16:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 1 BGS 1-2 (H213255-01)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/16/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/16/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/16/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/16/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/16/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	11/17/2021	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 58.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 54.5 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 2 BGS 1-2 (H213255-02)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.3 % 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	11/17/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 63.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 59.4 % 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: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 3 BGS 1-2 (H213255-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	11/17/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 81.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 78.0 % 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: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 4 BGS 1-2 (H213255-04)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	11/17/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 78.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.8 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 5 BGS 1-2 (H213255-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.9 % 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	11/17/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 88.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.5 % 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: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 6 BGS 1-2 (H213255-06)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	11/17/2021	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	<10.0	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 81.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 77.1 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 7 BGS 1-4 (H213255-07)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.2 % 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	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/16/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	61.5	10.0	11/16/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	25.4	10.0	11/16/2021	ND					

Surrogate: 1-Chlorooctane 81.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 80.9 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 8 BGS 1-4 (H213255-08)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTEx	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.5 % 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	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	58.2	10.0	11/17/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	24.8	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 71.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 9 BGS 1-4 (H213255-09)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	38.3	10.0	11/17/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 75.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.8 % 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: 11/15/2021  
 Reported: 11/17/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 10 BGS 1-4 (H213255-10)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTEx	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.1 % 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	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	168	83.8	200	13.5	
DRO >C10-C28*	58.0	10.0	11/17/2021	ND	163	81.6	200	15.9	
EXT DRO >C28-C36	24.7	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 75.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.3 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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### Notes and Definitions

QR-04	The RPD for the BS/BSD was outside of historical limits.
BS2	Blank spike recovery below laboratory acceptance criteria. Results for analyte potentially biased low.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

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

---

Celey D. Keene, Lab Director/Quality Manager





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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Apollo <b>Project Manager:</b> Bruce Silver		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>	
<b>Address:</b> City: Hobbs State: NM Zip: 88240		<b>P.O. #:</b> Company:			
<b>Phone #:</b> Fax #:		<b>Attn:</b> Address:			
<b>Project #:</b> Project Owner:		<b>City:</b> State: Zip:			
<b>Project Location:</b>		<b>Phone #:</b> Fax #:			
<b>Sampler Name:</b> Sue Cheneale		<b>FOR LAB USE ONLY</b>			
<b>Lab I.D.:</b> H213355		<b>Sample I.D.:</b>			
(G)RAB OR (C)OMP. # CONTAINERS		MATRIX		PRESERV.	
GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER:		ACID/BASE: CF/ COOL OTHER:		SAMPLING	
DATE: 11-15 TIME: 8:50		DATE: 11-15 TIME: 8:50		DATE: 11-15 TIME: 8:50	
1 W1 BGS 1-2 C 1		2 W2 BGS 1-2 X X		3 W3 BGS 1-2 X X	
4 W4 BGS 1-2 X X		5 W5 BGS 1-2 X X		6 W6 BGS 1-2 X X	
7 W7 BGS 1-4 X X		8 W8 BGS 1-4 X X		9 W9 BGS 1-4 X X	
10 W10 BGS 1-4 X X		11 W11 BGS 1-4 X X		12 W12 BGS 1-4 X X	

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**Relinquished By:** [Signature] **Date:** 11-15 **Received By:** [Signature] **Date:** 11-15

**Relinquished By:** [Signature] **Date:** 11-15 **Received By:** [Signature] **Date:** 11-15

**Delivered By:** (Circle One) Observed Temp. °C 8.5 Sample Condition Cool Intact ☒ Yes ☐ No ☐ Yes ☐ No CHECKED BY: (Initials) Y.S.

**Sampler - UPS - Bus - Other:** Corrected Temp. °C 0.0

**Turnaround Time:** Standard ☒ Rush ☐ Bacteria (only) Sample Condition Cool Intact ☐ Yes ☐ No ☐ Yes ☐ No Corrected Temp. °C

**Remarks:**

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

**All Results are emailed. Please provide Email address:**

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



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

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November 18, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/15/21 16:45.

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

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is fluid and cursive, with the first name "Celey" being more 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:	11/15/2021	Sampling Date:	11/15/2021
Reported:	11/18/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 1 @ 2' (H213256-01)**

BTX 8021B			mg/kg		Analyzed By: JH				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 96.9 % 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	272	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: MS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	335	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	81.2	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 88.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 95.4 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 2 @ 2' (H213256-02)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTEx	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	304	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	135	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	26.6	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 81.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.8 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 3 @ 2' (H213256-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.8 % 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	176	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	13.3	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 86.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 85.7 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 4 @ 2' (H213256-04)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.0 % 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	240	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 83.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 81.0 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 5 @ 2' 6" (H213256-05)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.9 % 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	288	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	380	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	78.7	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 85.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 94.3 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 6 @ 2' (H213256-06)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.8 % 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	208	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	99.8	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	14.9	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 74.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 76.2 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 7 @ 2' (H213256-07)**

BTEx 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTEx	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.3 % 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	400	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	29.8	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 76.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 75.6 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 8 @ 2' 6" (H213256-08)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96	
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 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	384	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	413	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	128	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 99.1 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 9 @ 2' (H213256-09)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	240	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	291	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	79.4	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 76.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 83.0 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 10 @ 2' (H213256-10)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/17/2021	ND	2.02	101	2.00	4.96		
Toluene*	<0.050	0.050	11/17/2021	ND	1.98	98.8	2.00	4.00		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.94	97.1	2.00	5.10		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.93	98.8	6.00	5.72		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.4 % 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	272	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	162	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	27.1	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 70.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.9 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 11 @ 2' (H213256-11)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTEx	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	336	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	518	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	176	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 77.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 94.7 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 12 @ 2' 6" (H213256-12)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 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	240	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	16.2	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 75.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.0 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 13 @ 2' (H213256-13)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	224	16.0	11/17/2021	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	505	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	229	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 86.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 94.6 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 14 @ 2' (H213256-14)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTEx	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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	272	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	358	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	120	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 75.0 % 44.3-133

Surrogate: 1-Chlorooctadecane 82.8 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 15 @ 2' 6" (H213256-15)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 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	208	16.0	11/17/2021	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	11/17/2021	ND	197	98.6	200	4.40	
DRO >C10-C28*	582	10.0	11/17/2021	ND	205	102	200	2.36	
EXT DRO >C28-C36	286	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 77.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 85.2 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 16 @ 2' 6" (H213256-16)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.0 % 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	256	16.0	11/17/2021	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	11/18/2021	ND	211	105	200	0.294	
DRO >C10-C28*	191	10.0	11/18/2021	ND	196	97.8	200	1.66	
EXT DRO >C28-C36	30.7	10.0	11/18/2021	ND					

Surrogate: 1-Chlorooctane 62.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 66.9 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 17 @ 2' 6" (H213256-17)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	256	16.0	11/17/2021	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	11/18/2021	ND	211	105	200	0.294	
DRO >C10-C28*	274	10.0	11/18/2021	ND	196	97.8	200	1.66	
EXT DRO >C28-C36	42.1	10.0	11/18/2021	ND					

Surrogate: 1-Chlorooctane 73.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 79.0 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 18 @ 2' 6" (H213256-18)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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	96.0	16.0	11/17/2021	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	11/17/2021	ND	211	105	200	0.294	
DRO >C10-C28*	33.7	10.0	11/17/2021	ND	196	97.8	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 73.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.2 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 19 @ 4' (H213256-19)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 92.9 % 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	80.0	16.0	11/17/2021	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	11/17/2021	ND	211	105	200	0.294	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	196	97.8	200	1.66	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 71.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 71.0 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 20 @ 2' (H213256-20)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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	304	16.0	11/17/2021	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	11/17/2021	ND	211	105	200	0.294	
DRO >C10-C28*	148	10.0	11/17/2021	ND	196	97.8	200	1.66	
EXT DRO >C28-C36	16.5	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 21 (H213256-21)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTEx	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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	304	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	205	10.0	11/17/2021	ND	240	120	200	10.2	QM-07, QR-03
EXT DRO >C28-C36	95.3	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-133

Surrogate: 1-Chlorooctadecane 117 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 22 (H213256-22)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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	208	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	108	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	33.8	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 126 % 44.3-133

Surrogate: 1-Chlorooctadecane 122 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 23 (H213256-23)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.6 % 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	192	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	168	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	79.7	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-133

Surrogate: 1-Chlorooctadecane 118 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 24 @ 2' (H213256-24)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	16.0	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 119 % 44.3-133

Surrogate: 1-Chlorooctadecane 111 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager





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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 25 @ 2' (H213256-25)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	176	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	190	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	48.3	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 110 % 44.3-133

Surrogate: 1-Chlorooctadecane 111 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 26 @ 2' (H213256-26)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.7 % 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	16.0	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 106 % 44.3-133

Surrogate: 1-Chlorooctadecane 103 % 38.9-142

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 27 @ 2' (H213256-27)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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	240	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 115 % 44.3-133

Surrogate: 1-Chlorooctadecane 109 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 28 @ 2' (H213256-28)**

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	11/17/2021	ND	2.11	106	2.00	1.59	
Toluene*	<0.050	0.050	11/17/2021	ND	2.00	100	2.00	1.51	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.99	99.4	2.00	1.63	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	6.08	101	6.00	1.68	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 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	224	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	140	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	35.1	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 114 % 44.3-133

Surrogate: 1-Chlorooctadecane 113 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 29 @ 2' 6" (H213256-29)**

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	11/17/2021	ND	1.97	98.3	2.00	3.24		
Toluene*	<0.050	0.050	11/17/2021	ND	1.89	94.5	2.00	2.66		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.86	92.9	2.00	2.42		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.62	93.7	6.00	2.33		
Total BTX	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	12.3	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	10.4	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 109 % 44.3-133

Surrogate: 1-Chlorooctadecane 102 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 30 @ 2' 6" (H213256-30)**

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	11/17/2021	ND	1.97	98.3	2.00	3.24	
Toluene*	<0.050	0.050	11/17/2021	ND	1.89	94.5	2.00	2.66	
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.86	92.9	2.00	2.42	
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.62	93.7	6.00	2.33	
Total BTX	<0.300	0.300	11/17/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.3 % 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	112	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	45.7	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 117 % 44.3-133

Surrogate: 1-Chlorooctadecane 116 % 38.9-142

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Celey D. Keene, Lab Director/Quality Manager



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

**Analytical Results For:**

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

Received: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 31 @ 2' 6" (H213256-31)**

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	11/16/2021	ND	2.11	106	2.00	5.74	
Toluene*	<0.050	0.050	11/16/2021	ND	2.02	101	2.00	6.21	
Ethylbenzene*	<0.050	0.050	11/16/2021	ND	2.00	100	2.00	6.33	
Total Xylenes*	<0.150	0.150	11/16/2021	ND	6.12	102	6.00	6.44	
Total BTEx	<0.300	0.300	11/16/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.1 % 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	112	16.0	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 88.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 86.7 % 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: 11/15/2021  
 Reported: 11/18/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/15/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 32 @ 2' 6" (H213256-32)**

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	11/17/2021	ND	1.97	98.3	2.00	3.24		
Toluene*	<0.050	0.050	11/17/2021	ND	1.89	94.5	2.00	2.66		
Ethylbenzene*	<0.050	0.050	11/17/2021	ND	1.86	92.9	2.00	2.42		
Total Xylenes*	<0.150	0.150	11/17/2021	ND	5.62	93.7	6.00	2.33		
Total BTEx	<0.300	0.300	11/17/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	11/17/2021	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	11/17/2021	ND	252	126	200	9.92	
DRO >C10-C28*	<10.0	10.0	11/17/2021	ND	240	120	200	10.2	
EXT DRO >C28-C36	<10.0	10.0	11/17/2021	ND					

Surrogate: 1-Chlorooctane 109 % 44.3-133

Surrogate: 1-Chlorooctadecane 106 % 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

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

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

---

Celey D. Keene, Lab Director/Quality Manager



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

# CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Bruce Baker</u>		Company:			
Address:		Attn:			
City: <u>Hobbs</u>		Address:			
State: <u>NM</u> Zip: <u>88240</u>		City:			
Phone #:		State:			
Fax #:		Zip:			
Project #:		Phone #:			
Project Location: <u>ULGSA 12' Flow line</u>		Fax #:			
Sample Name: <u>See Description</u>		PRESERV:			
FOR LAB USE ONLY		SAMPLING			
Lab I.D. <u>H213356</u>		Sample I.D.			
PLEASE NOTE: Liability and Damages, Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.		(G)RAB OR (C)OMP.			
		# CONTAINERS			
		GROUNDWATER			
		WASTEWATER			
		SOIL			
		OIL			
		SLUDGE			
		OTHER:			
		ACID/BASE:			
		CP / COOL			
		OTHER:			
1 B1 @ 2'		DATE		TIME	
2 B2 @ 2'		11-15		9:52	
3 B3 @ 2'				9:54	
4 B4 @ 2'				9:58	
5 B5 @ 2' 6"				10:00	
6 B6 @ 2'				10:02	
7 B7 @ 2'				10:04	
8 B8 @ 2' 6"				10:06	
9 B9 @ 2'				10:08	
10 B10 @ 2'				10:10	
Relinquished By: <u>Jack Russell</u>		Received By: <u>Yolanda Clark</u>			
Date: <u>11-15</u>		Time: <u>10:45</u>			
Relinquished By: <u>Jack Russell</u>		Received By: <u>Yolanda Clark</u>			
Date: <u>11-15</u>		Time: <u>10:45</u>			
Delivered By: (Circle One)		Observed Temp. °C		CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:		Corrected Temp. °C		A.P.	
Sample Condition		Cool		Intact	
Yes		Yes		Yes	
No		No		No	
Turnaround Time:		Standard		Add'l Phone #:	
Thermometer ID #113		Rush			
Correction Factor -0.5°C		Bacteria (only)		Sample Condition	
		Cool		Intact	
		Yes		Yes	
		No		No	
		Corrected Temp. °C			
REMARKS:		All Results are emailed. Please provide Email address:			

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



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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> Apac Inc							<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>Attn:</b>																											
<b>State:</b> N.M.							<b>Address:</b>																											
<b>Phone #:</b>							<b>City:</b>																											
<b>Fax #:</b>							<b>State:</b>																											
<b>Project #: Project Owner:</b>							<b>Zip:</b>																											
<b>Project Location:</b> ULC Site 12 from line							<b>Phone #:</b>																											
<b>Sample Name:</b> See Quaschnick							<b>Fax #:</b>																											
<b>FOR LAB USE ONLY</b>																																		
<b>#213356</b> <b>Lab I.D.</b>							<b>Sample I.D.</b>							<input checked="" type="checkbox"/> (G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: <input checked="" type="checkbox"/> COOL OTHER :							DATE TIME							C1 EXT TPH BTEX						
11 B11 @ 2'							✓							11-15 10:12 X																				
12 B12 @ 2' 6"							✓							10:14 X																				
13 B13 @ 2'							✓							3:40 X																				
14 B14 @ 2'							✓							3:42 X																				
15 B15 @ 2' 6"							✓							3:44 X																				
16 B16 @ 2' 6"							✓							3:46 X																				
17 B17 @ 2' 6"							✓							3:48 X																				
18 B18 @ 2' 6"							✓							3:50 X																				
19 B19 @ 4'							✓							10:28 X																				
20 B20 @ 2'							✓							11-15 10:32 X																				

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<b>Relinquished By:</b>				<b>Date:</b> 11-15				<b>Received By:</b>				<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:			
<b>Relinquished By:</b>				<b>Time:</b> 11:45				<b>Received By:</b>				<b>All Results are emailed. Please provide Email address:</b>			
<b>Relinquished By:</b>				<b>Date:</b>				<b>Remarks:</b>							
<b>Delivered By:</b> (Circle One)				<b>Observed Temp. °C:</b> 0.5				<b>SAMPLE CONDITION</b>				<b>CHECKED BY:</b>			
<b>Sampler - UPS - Bus - Other:</b>				<b>Corrected Temp. °C:</b> 0.0				Cool Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				(Initials) <b>A.S.</b>			
<b>Turnaround Time:</b>				<b>Standard</b> <input checked="" type="checkbox"/> <b>Rush</b> <input type="checkbox"/>				<b>Bacteria (only)</b>				<b>Sample Condition</b>			
								Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>				Observed Temp. °C			
								Correction Factor -0.5°C				Corrected Temp. °C			

FORM-000-K-S-2-T070721





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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]





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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

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November 23, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/22/21 8:10.

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:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 1 @ 3' (H213343-01)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6	
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7	
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4	
Total BTEX	<0.300	0.300	11/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.8 % 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	11/22/2021	ND	199	99.3	200	0.359	
<b>DRO &gt;C10-C28*</b>	<b>43.4</b>	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 90.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 92.6 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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



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**Analytical Results For:**

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

Received: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 2 @ 3' (H213343-02)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6	
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7	
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4	
Total BTX	<0.300	0.300	11/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.9 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	31.6	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 87.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.7 % 38.9-142

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



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**Analytical Results For:**

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

Received:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 5 @ 3' (H213343-03)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTEX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.4 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	45.1	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 85.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.0 % 38.9-142

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





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**Analytical Results For:**

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

Received:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 6 @ 3' (H213343-04)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6	
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7	
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4	
Total BTX	<0.300	0.300	11/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	11/22/2021	ND	199	99.3	200	0.359	
<b>DRO &gt;C10-C28*</b>	<b>43.6</b>	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 86.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 87.1 % 38.9-142

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



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**Analytical Results For:**

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

Received: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 8 @ 3' (H213343-05)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6	
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7	
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4	
Total BTX	<0.300	0.300	11/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	11/22/2021	ND	199	99.3	200	0.359	
<b>DRO &gt;C10-C28*</b>	<b>38.7</b>	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 88.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.9 % 38.9-142

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\*=Accredited Analyte

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 9 @ 3' (H213343-06)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6	
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7	
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9	
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4	
Total BTEx	<0.300	0.300	11/22/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.2 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	64.4	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 88.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.1 % 38.9-142

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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:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 10 @ 3' (H213343-07)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.1 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	69.0	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 90.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 92.9 % 38.9-142

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 11 @ 3' (H213343-08)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTEX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.6 % 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	11/22/2021	ND	199	99.3	200	0.359	
<b>DRO &gt;C10-C28*</b>	<b>59.3</b>	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 87.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.3 % 38.9-142

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 17 @ 3' (H213343-09)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	45.4	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 82.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 84.0 % 38.9-142

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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:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 16 @ 3' (H213343-10)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	57.2	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 85.5 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.4 % 38.9-142

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 15 @ 3' (H213343-11)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.7 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	56.7	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 87.7 % 44.3-133

Surrogate: 1-Chlorooctadecane 90.5 % 38.9-142

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 13 @ 3' (H213343-12)**

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	105	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	15.4	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 82.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 84.8 % 38.9-142

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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:	11/22/2021	Sampling Date:	11/20/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 14 @ 3' (H213343-13)**

BTX 8021B			mg/kg							
			Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.0 % 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	11/22/2021	ND	199	99.3	200	0.359		
<b>DRO &gt;C10-C28*</b>	<b>65.7</b>	10.0	11/22/2021	ND	224	112	200	1.25		
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND						

Surrogate: 1-Chlorooctane 86.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 88.9 % 38.9-142

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





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

### Notes and Definitions

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

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

Mike Snyder For 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: <b>Apache</b>		P.O. #:		BILL TO				ANALYSIS REQUEST			
Project Manager: <b>Rouze Balcer</b>		Company:									
Address:		City: <b>Hobbs</b>		State: <b>NM</b>		Zip: <b>88240</b>		Attn:			
Phone #:		Fax #:		Address:		City:		State:		Zip:	
Project #:		Project Owner:		Phone #:		Fax #:					
Project Name:		Project Location: <b>WUSTRA 12 flow line</b>									
Sampler Name: <b>Don Casanova Jr</b>		Matrix:		PRESERV:		SAMPLING					
FOR LAB USE ONLY		DATE		TIME							
Lab I.D. <b>H213343</b>		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER	
1 R1 @ 3'		1		1		1		SOIL		OIL	
2 R2 @ 3'		1		1		1		SLUDGE		OTHER:	
3 R3 @ 3'		1		1		1		ACID/BASE:		ICE COOL	
4 R4 @ 3'		1		1		1		OTHER:			
5 R5 @ 3'		1		1		1		DATE		TIME	
6 R6 @ 3'		1		1		1		11-20		9:18	
7 R7 @ 3'		1		1		1		11-20		9:20	
8 R8 @ 3'		1		1		1		11-20		9:22	
9 R9 @ 3'		1		1		1		11-20		9:24	
10 R10 @ 3'		1		1		1		11-20		9:26	
11 R11 @ 3'		1		1		1		11-20		9:28	
12 R12 @ 3'		1		1		1		11-20		9:30	
13 R13 @ 3'		1		1		1		11-20		9:32	
14 R14 @ 3'		1		1		1		11-20		9:34	
15 R15 @ 3'		1		1		1		11-20		9:36	
16 R16 @ 3'		1		1		1		11-20		9:38	
17 R17 @ 3'		1		1		1		11-20		9:40	
18 R18 @ 3'		1		1		1		11-20		9:42	
19 R19 @ 3'		1		1		1		11-20		9:44	
20 R20 @ 3'		1		1		1		11-20		9:46	
21 R21 @ 3'		1		1		1		11-20		9:48	
22 R22 @ 3'		1		1		1		11-20		9:50	
23 R23 @ 3'		1		1		1		11-20		9:52	
24 R24 @ 3'		1		1		1		11-20		9:54	
25 R25 @ 3'		1		1		1		11-20		9:56	
26 R26 @ 3'		1		1		1		11-20		9:58	
27 R27 @ 3'		1		1		1		11-20		10:00	
28 R28 @ 3'		1		1		1		11-20		10:02	
29 R29 @ 3'		1		1		1		11-20		10:04	
30 R30 @ 3'		1		1		1		11-20		10:06	
31 R31 @ 3'		1		1		1		11-20		10:08	
32 R32 @ 3'		1		1		1		11-20		10:10	
33 R33 @ 3'		1		1		1		11-20		10:12	
34 R34 @ 3'		1		1		1		11-20		10:14	
35 R35 @ 3'		1		1		1		11-20		10:16	
36 R36 @ 3'		1		1		1		11-20		10:18	
37 R37 @ 3'		1		1		1		11-20		10:20	
38 R38 @ 3'		1		1		1		11-20		10:22	
39 R39 @ 3'		1		1		1		11-20		10:24	
40 R40 @ 3'		1		1		1		11-20		10:26	
41 R41 @ 3'		1		1		1		11-20		10:28	
42 R42 @ 3'		1		1		1		11-20		10:30	
43 R43 @ 3'		1		1		1		11-20		10:32	
44 R44 @ 3'		1		1		1		11-20		10:34	
45 R45 @ 3'		1		1		1		11-20		10:36	
46 R46 @ 3'		1		1		1		11-20		10:38	
47 R47 @ 3'		1		1		1		11-20		10:40	
48 R48 @ 3'		1		1		1		11-20		10:42	
49 R49 @ 3'		1		1		1		11-20		10:44	
50 R50 @ 3'		1		1		1		11-20		10:46	
51 R51 @ 3'		1		1		1		11-20		10:48	
52 R52 @ 3'		1		1		1		11-20		10:50	
53 R53 @ 3'		1		1		1		11-20		10:52	
54 R54 @ 3'		1		1		1		11-20		10:54	
55 R55 @ 3'		1		1		1		11-20		10:56	
56 R56 @ 3'		1		1		1		11-20		10:58	
57 R57 @ 3'		1		1		1		11-20		11:00	
58 R58 @ 3'		1		1		1		11-20		11:02	
59 R59 @ 3'		1		1		1		11-20		11:04	
60 R60 @ 3'		1		1		1		11-20		11:06	
61 R61 @ 3'		1		1		1		11-20		11:08	
62 R62 @ 3'		1		1		1		11-20		11:10	
63 R63 @ 3'		1		1		1		11-20		11:12	
64 R64 @ 3'		1		1		1		11-20		11:14	
65 R65 @ 3'		1		1		1		11-20		11:16	
66 R66 @ 3'		1		1		1		11-20		11:18	
67 R67 @ 3'		1		1		1		11-20		11:20	
68 R68 @ 3'		1		1		1		11-20		11:22	
69 R69 @ 3'		1		1		1		11-20		11:24	
70 R70 @ 3'		1		1		1		11-20		11:26	
71 R71 @ 3'		1		1		1		11-20		11:28	
72 R72 @ 3'		1		1		1		11-20		11:30	
73 R73 @ 3'		1		1		1		11-20		11:32	
74 R74 @ 3'		1		1		1		11-20		11:34	
75 R75 @ 3'		1		1		1		11-20		11:36	
76 R76 @ 3'		1		1		1		11-20		11:38	
77 R77 @ 3'		1		1		1		11-20		11:40	
78 R78 @ 3'		1		1		1		11-20		11:42	
79 R79 @ 3'		1		1		1		11-20		11:44	
80 R80 @ 3'		1		1		1		11-20		11:46	
81 R81 @ 3'		1		1		1		11-20		11:48	
82 R82 @ 3'		1		1		1		11-20		11:50	
83 R83 @ 3'		1		1		1		11-20		11:52	
84 R84 @ 3'		1		1		1		11-20		11:54	
85 R85 @ 3'		1		1		1		11-20		11:56	
86 R86 @ 3'		1		1		1		11-20		11:58	
87 R87 @ 3'		1		1		1		11-20		12:00	
88 R88 @ 3'		1		1		1		11-20		12:02	
89 R89 @ 3'		1		1		1		11-20		12:04	
90 R90 @ 3'		1		1		1		11-20		12:06	
91 R91 @ 3'		1		1		1		11-20		12:08	
92 R92 @ 3'		1		1		1		11-20		12:10	
93 R93 @ 3'		1		1		1		11-20		12:12	
94 R94 @ 3'		1		1		1		11-20		12:14	
95 R95 @ 3'		1		1		1		11-20		12:16	
96 R96 @ 3'		1		1		1		11-20		12:18	
97 R97 @ 3'		1		1		1		11-20		12:20	
98 R98 @ 3'		1		1		1		11-20		12:22	
99 R99 @ 3'		1		1		1		11-20		12:24	
100 R100 @ 3'		1		1		1		11-20		12:26	
101 R101 @ 3'		1		1		1		11-20		12:28	
102 R102 @ 3'		1		1		1		11-20		12:30	
103 R103 @ 3'		1		1		1		11-20		12:32	
104 R104 @ 3'		1		1		1		11-20		12:34	
105 R105 @ 3'		1		1		1		11-20		12:36	
106 R106 @ 3'		1		1		1		11-20		12:38	
107 R107 @ 3'		1		1		1		11-20		12:40	
108 R108 @ 3'		1		1		1		11-20		12:42	
109 R109 @ 3'		1		1		1		11-20		12:44	
110 R110 @ 3'		1		1		1		11-20		12:46	
111 R111 @ 3'		1		1		1		11-20		12:48	
112 R112 @ 3'		1		1		1		11-20		12:50	
113 R113 @ 3'		1		1		1		11-20		12:52	
114 R114 @ 3'		1		1		1		11-20		12:54	
115 R115 @ 3'		1		1		1		11-20		12:56	
116 R116 @ 3'		1		1		1		11-20		12:58	
117 R117 @ 3'		1		1		1		11-20		13:00	
118 R118 @ 3'		1		1		1		11-20		13:02	
119 R119 @ 3'		1		1		1		11-20		13:04	
120 R120 @ 3'		1		1		1		11-20		13:06	
121 R121 @ 3'		1		1		1		11-20		13:08	
122 R122 @ 3'		1		1		1		11-20		13:10	
123 R123 @ 3'		1		1		1		11-20		13:12	
124 R124 @ 3'		1		1		1		11-20		13:14	
125 R125 @ 3'		1		1		1		11-20		13:16	
126 R126 @ 3'		1		1		1		11-20		13:18	
127 R127 @ 3'		1		1		1		11-20		13:20	
128 R128 @ 3'		1		1		1		11-20		13:22	
129 R129 @ 3'		1		1		1		11-20		13:24	
130 R130 @ 3'		1		1		1		11-20		13:26	
131 R131 @ 3'		1		1		1		11-20		13:28	
132 R132 @ 3'		1		1		1		11-20		13:30	
133 R133 @ 3'		1		1		1		11-20		13:32	
134 R134 @ 3'		1		1		1		11-20		13:34	
135 R135 @ 3'		1		1		1		11-20		13:36	
136 R136 @ 3'		1		1		1		11-20		13:38	
137 R137 @ 3'		1		1		1		11-20		13:40	
138 R138 @ 3'		1		1		1		11-20		13:42	
139 R139 @ 3'		1		1		1		11-20		13:44	
140 R140 @ 3'		1									



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>Project Manager:</b> Bruce Belcher <b>Address:</b> <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Location:</b> URSAL 12 flow line <b>Sampler Name:</b> Joe Keene, Jr. <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> Sample I.D. <b>H213373</b> <b>11 BIS @ 3'</b> <b>12 BIS @ 3'</b> <b>13 BIS @ 3'</b>				<b>(G)RAB OR (C)OM</b> <b># CONTAINERS</b> <b>GROUNDWATER</b> <b>WASTEWATER</b> <b>SOIL</b> <b>OIL</b> <b>SLUDGE</b> <b>OTHER :</b> <b>ACID/BASE:</b> <b>CB / COOL</b> <b>OTHER :</b>				<b>MATRIX</b> <b>PRESERV.</b> <b>SAMPLING</b> <b>DATE</b> <b>TIME</b> <b>11-20 12:34</b> <b>11-20 1:30</b> <b>11-20 1:38</b>				<b>EXT TPH</b> <b>BTEX</b>			
<b>PLEASE NOTE:</b> Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.				<b>Relinquished By:</b> <b>Date:</b> 11-28-21 <b>Received By:</b> <b>Date:</b> 11-28-21 <b>Relinquished By:</b> <b>Date:</b> <b>Received By:</b>				<b>Verbal Result:</b> <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Add'l Phone #:</b> <b>All Results are emailed. Please provide Email address:</b> <b>REMARKS:</b>							
<b>Delivered By: (Circle One)</b> <b>Observed Temp. °C</b> 0.9 <b>Sample Condition</b> <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Cool <input type="checkbox"/> Yes <input type="checkbox"/> No <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 <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <b>Sample Condition</b> <input type="checkbox"/> Observed Temp. °C <b>Corrected Temp. °C</b> 0.4 <b>Thermometer ID #113</b> <b>Correction Factor -0.5°C</b>				<b>Sampler - UPS - Bus - Other:</b> <b>Corrected Temp. °C</b> 0.4 <b>Yes</b> <input type="checkbox"/> <b>No</b> <input type="checkbox"/> <b>NO</b> <b>NO</b>				<b>† Cardinal cannot accept verbal changes. Please email changes to cely.keene@cardinallabsnm.com</b>							





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

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November 23, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/22/21 8:10.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 11 BGS 2-3' (H213344-01)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTEX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.5 % 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	11/22/2021	ND	199	99.3	200	0.359	
<b>DRO &gt;C10-C28*</b>	<b>57.1</b>	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 90.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 92.9 % 38.9-142

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\*=Accredited Analyte

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





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**Analytical Results For:**

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

Received: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 12 BGS 2-3' (H213344-02)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTEX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 94.7 % 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	11/22/2021	ND	199	99.3	200	0.359	
DRO >C10-C28*	54.9	10.0	11/22/2021	ND	224	112	200	1.25	
EXT DRO >C28-C36	<10.0	10.0	11/22/2021	ND					

Surrogate: 1-Chlorooctane 83.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 85.5 % 38.9-142

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\*=Accredited Analyte

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



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**Analytical Results For:**

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

Received: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/20/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 13 BGS 2-3' (H213344-03)**

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	11/22/2021	ND	1.92	96.2	2.00	11.6		
Toluene*	<0.050	0.050	11/22/2021	ND	1.83	91.5	2.00	11.7		
Ethylbenzene*	<0.050	0.050	11/22/2021	ND	1.79	89.6	2.00	11.9		
Total Xylenes*	<0.150	0.150	11/22/2021	ND	5.50	91.6	6.00	10.4		
Total BTEX	<0.300	0.300	11/22/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.2 % 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	11/22/2021	ND	199	99.3	200	0.359		
DRO >C10-C28*	71.6	10.0	11/22/2021	ND	224	112	200	1.25		
EXT DRO >C28-C36	12.2	10.0	11/22/2021	ND						

Surrogate: 1-Chlorooctane 78.2 % 44.3-133

Surrogate: 1-Chlorooctadecane 81.6 % 38.9-142

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



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

### Notes and Definitions

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

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.

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

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]



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

---

November 23, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/22/21 16:50.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

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:	11/22/2021	Sampling Date:	11/22/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 20 @ 3' (H213368-01)**

BTEX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68	
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23	
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58	
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62	
Total BTEX	<0.300	0.300	11/23/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 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	11/23/2021	ND	200	99.9	200	0.378	
<b>DRO &gt;C10-C28*</b>	<b>25.6</b>	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 74.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.0 % 38.9-142

Cardinal Laboratories

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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:	11/22/2021	Sampling Date:	11/22/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 21 @ 3' (H213368-02)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTEX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.2 % 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	11/23/2021	ND	200	99.9	200	0.378	
DRO >C10-C28*	26.1	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 73.6 % 44.3-133

Surrogate: 1-Chlorooctadecane 72.4 % 38.9-142

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\*=Accredited Analyte

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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:	11/22/2021	Sampling Date:	11/22/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGSAU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 22 @ 3' (H213368-03)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.6 % 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	11/23/2021	ND	200	99.9	200	0.378	
<b>DRO &gt;C10-C28*</b>	<b>40.7</b>	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 74.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.8 % 38.9-142

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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:	11/22/2021	Sampling Date:	11/22/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: B 23 @ 3' (H213368-04)**

BTX 8021B			mg/kg							
			Analyzed By: JH							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 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	11/23/2021	ND	200	99.9	200	0.378		
<b>DRO &gt;C10-C28*</b>	<b>24.4</b>	10.0	11/23/2021	ND	224	112	200	1.67		
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND						

Surrogate: 1-Chlorooctane 61.9 % 44.3-133

Surrogate: 1-Chlorooctadecane 61.0 % 38.9-142

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 25 @ 3' (H213368-05)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 96.5 % 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	11/23/2021	ND	200	99.9	200	0.378	
<b>DRO &gt;C10-C28*</b>	<b>34.9</b>	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 76.4 % 44.3-133

Surrogate: 1-Chlorooctadecane 74.8 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: B 28 @ 3' (H213368-06)**

BTX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.4 % 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	11/23/2021	ND	200	99.9	200	0.378	
<b>DRO &gt;C10-C28*</b>	<b>75.1</b>	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 66.1 % 44.3-133

Surrogate: 1-Chlorooctadecane 66.2 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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



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

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### Notes and Definitions

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

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\*=Accredited Analyte

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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



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>Project Manager:</b> Bruce Baker <b>Address:</b> <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> WellSite 12 flow line <b>Sampler Name:</b> Joe Overell Jr. <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> H213368		<b>Sample I.D.</b>		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV. SAMPLING		DATE TIME		Ext ID BTEx									
1 B20 @ 3'		1		1		1		11-22 3:40		X									
2 B21 @ 3'		1		1		1		11-22 3:42		X									
3 B22 @ 3'		1		1		1		11-22 3:44		X									
4 B23 @ 3'		1		1		1		11-22 3:46		X									
5 B25 @ 3'		1		1		1		11-22 3:48		X									
6 B26 @ 3'		1		1		1		11-22 3:50		X									

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

**Relinquished By:** [Signature] **Date:** 11-22 **Received By:** [Signature] **Date:** 11-22

**Relinquished By:** [Signature] **Date:** 11-22 **Received By:** [Signature] **Date:** 11-22

**Delivered By:** (Circle One) **Observed Temp. °C** 5.4 **Sample Condition** Cool Intact **Checked By:** (Initials) J.P. **Turnaround Time:** Standard **Bacteria (only)** ☒ **Sample Condition** ☒ **Observed Temp. °C** 4.9 **Corrected Temp. °C** 4.9 **Thermometer ID #113** **Correction Factor -0.5°C** **Corrected Temp. °C**

**REMARKS:**

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

**All Results are emailed. Please provide Email address:**

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



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

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November 23, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/22/21 16:50.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

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:	11/22/2021	Sampling Date:	11/22/2021
Reported:	11/23/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	NOT GIVEN		

**Sample ID: W 14 BGS 3-4' (H213369-01)**

BTEX 8021B		mg/kg		Analyzed By: JH						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68		
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62		
Total BTEX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 98.4 % 69.9-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	11/23/2021	ND	400	100	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	11/23/2021	ND	200	99.9	200	0.378	
DRO >C10-C28*	23.0	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 73.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 73.4 % 38.9-142

Cardinal Laboratories

\*=Accredited Analyte

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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: 11/22/2021  
 Reported: 11/23/2021  
 Project Name: NMGS AU 12 FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

Sampling Date: 11/22/2021  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Tamara Oldaker

**Sample ID: W 15 BGS 3-4' (H213369-02)**

BTX 8021B		mg/kg		Analyzed By: JH					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/23/2021	ND	1.77	88.7	2.00	7.68	
Toluene*	<0.050	0.050	11/23/2021	ND	1.97	98.3	2.00	6.23	
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	2.04	102	2.00	5.58	
Total Xylenes*	<0.150	0.150	11/23/2021	ND	6.23	104	6.00	5.62	
Total BTX	<0.300	0.300	11/23/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 97.0 % 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	128	16.0	11/23/2021	ND	400	100	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	11/23/2021	ND	200	99.9	200	0.378	
DRO >C10-C28*	23.0	10.0	11/23/2021	ND	224	112	200	1.67	
EXT DRO >C28-C36	<10.0	10.0	11/23/2021	ND					

Surrogate: 1-Chlorooctane 73.3 % 44.3-133

Surrogate: 1-Chlorooctadecane 71.7 % 38.9-142

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\*=Accredited Analyte

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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



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>Project Manager:</b> Kruer Buler <b>Address:</b> <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88240 <b>Phone #:</b> <b>Fax #:</b> <b>Project #:</b> <b>Project Owner:</b> <b>Project Name:</b> <b>Project Location:</b> Vallesan 12 Flow line <b>Sampler Name:</b> Joe Chassee Buler <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> H213369 <b>Sample I.D.</b> 1 W14 BGS 3-4' 2 W15 BGS 3-4'		(G)RAB OR (C)OMP. # CONTAINERS GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER : ACID/BASE: ICE / COOL OTHER :		MATRIX PRESERV. SAMPLING		DATE TIME		C1 Ext TPH BT6X									
<b>Relinquished By:</b> Date: 11-22 Time: 1650 <b>Received By:</b> Date: 11-22 Time: 1100 Received By: J.P.		Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #: All Results are emailed. Please provide Email address:		REMARKS:													
<b>Delivered By: (Circle One)</b> Sampler - UPS - Bus - Other: FORM 000 R 3.2 10/07/21		Observed Temp. °C: 5.4 Corrected Temp. °C: 4.9 Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Checked By: J.P.		Turnaround Time: Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/> Thermometer ID #113 Correction Factor -0.5°C Bacteria (only) Sample Condition: Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Corrected Temp. °C:		t Cardinal cannot accept verbal changes. Please email changes to caley.keene@cardinalabnm.com											



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

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November 24, 2021

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: NMGSAU 12 FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 11/23/21 13:13.

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 "Mike Snyder". The signature is fluid and cursive, with the first name "Mike" and last name "Snyder" clearly distinguishable.

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:	11/23/2021	Sampling Date:	11/23/2021
Reported:	11/24/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: B 13 @ 4' (H213374-01)**

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	11/23/2021	ND	2.03	102	2.00	5.49	
Toluene*	<0.050	0.050	11/23/2021	ND	1.93	96.4	2.00	6.29	
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	1.90	95.0	2.00	6.09	
Total Xylenes*	<0.150	0.150	11/23/2021	ND	5.80	96.6	6.00	5.23	
Total BTX	<0.300	0.300	11/23/2021	ND					

Surrogate: 4-Bromofluorobenzene (PID) 94.8 % 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	11/24/2021	ND	194	97.0	200	25.7	
DRO >C10-C28*	<10.0	10.0	11/24/2021	ND	218	109	200	18.4	
EXT DRO >C28-C36	<10.0	10.0	11/24/2021	ND					

Surrogate: 1-Chlorooctane 92.8 % 44.3-133

Surrogate: 1-Chlorooctadecane 91.9 % 38.9-142

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\*=Accredited Analyte

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





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**Analytical Results For:**

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

Received:	11/23/2021	Sampling Date:	11/23/2021
Reported:	11/24/2021	Sampling Type:	Soil
Project Name:	NMGS AU 12 FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: W 16 BGS 3-4' (H213374-02)**

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	11/23/2021	ND	2.03	102	2.00	5.49		
Toluene*	<0.050	0.050	11/23/2021	ND	1.93	96.4	2.00	6.29		
Ethylbenzene*	<0.050	0.050	11/23/2021	ND	1.90	95.0	2.00	6.09		
Total Xylenes*	<0.150	0.150	11/23/2021	ND	5.80	96.6	6.00	5.23		
Total BTEX	<0.300	0.300	11/23/2021	ND						

Surrogate: 4-Bromofluorobenzene (PID) 95.5 % 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	11/24/2021	ND	194	97.0	200	25.7		
DRO >C10-C28*	<10.0	10.0	11/24/2021	ND	218	109	200	18.4		
EXT DRO >C28-C36	<10.0	10.0	11/24/2021	ND						

Surrogate: 1-Chlorooctane 117 % 44.3-133

Surrogate: 1-Chlorooctadecane 114 % 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".

Mike Snyder For 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: <b>Apache</b> Project Manager: <b>Bruce Baker</b>		<b>BILL TO</b> P.O. #:	
Address:		Company:	
City: <b>Hobbs</b>	State: <b>NM</b> Zip: <b>88040</b>	Attn:	
Phone #:	Fax #:	Address:	
Project #:	Project Owner:	City:	
Project Name:	State:	Zip:	
Project Location: <b>NM 6544 #12 Flow line</b>	Phone #:	Fax #:	
Sample Name: <b>Joe Churchill</b>	FOR LAB USE ONLY		
Lab I.D. <b>H2193514</b>	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS
1/2 <b>8130 4'</b> <b>FW/16 BAS 3-4'</b>	C 1 C 1	GROUNDWATER WASTEWATER SOIL OIL SLUDGE OTHER :	DATE <b>11/23</b> <b>12/24</b> <b>11/23</b> <b>12/48</b>
MATRIX		PRESERV.	SAMPLING
ACID/BASE: ICE / COOL OTHER :		EXT TPH RT EX	

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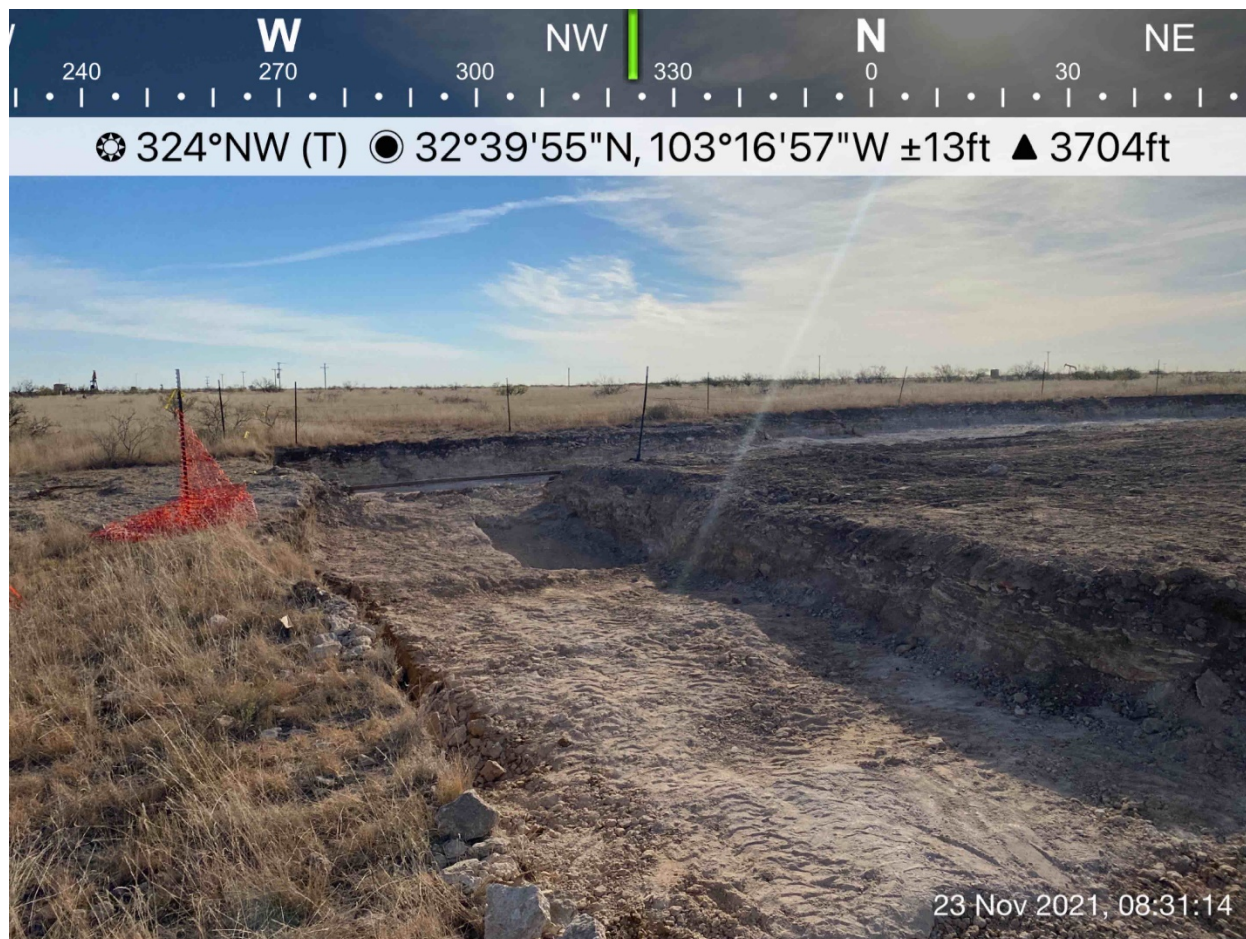
Relinquished By: <b>Joe Churchill</b> Date: <b>11-23</b> Time: <b>13:13</b>	Received By: <b>Joei Henderson</b> Date:	Verbal Result: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Add'l Phone #:
Relinquished By:	Received By:	All Results are emailed. Please provide Email address:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:	Observed Temp. °C <b>3.4</b> Corrected Temp. °C <b>2.9</b>	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Checked BY: (Initials) <b>JB</b>
REMARKS: <b>E-mailed results to Bruce Baker</b>		
Turnaround Time:	Standard <input type="checkbox"/> Rush <input checked="" type="checkbox"/>	Bacteria (only) Sample Condition Cool <input type="checkbox"/> Intact <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Observed Temp. °C Corrected Temp. °C













**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 64132

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 64132
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
chensley	None	12/27/2021