

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

NAB1435357240

OPERATOR

Initial Report Final Report

Name of Company Apache Corporation <u>873</u>	Contact Bruce Baker
Address 2350 W Marland Blvd Hobbs NM 88240	Telephone No. (432) 631-6982
Facility Name Crow Federal 35H	Facility Type well
Surface Owner BLM	Mineral Owner
API No. 30-015-42140	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	3	17S	31E	930'	FSL	557'	FWL	Eddy

Latitude 32.858878 Longitude 103.864409

NATURE OF RELEASE

Type of Release Oil	Volume of Release 200 barrels of oil	Volume Recovered 180 barrels of oil
Source of Release Frac Tank	Date and Hour of Occurrence 12/14/2014	Date and Hour of Discovery 12/14/2014 at 10:06 a.m.
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher NMOCD and Jeffery Robertson BLM via email	
By Whom? Bruce Baker	Date and Hour 12-14-2014 at 9:27 a.m.	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

NM OIL CONSERVATION

If a Watercourse was Impacted, Describe Fully.*
ARTESIA DISTRICT
DEC 19 2014

Describe Cause of Problem and Remedial Action Taken.*
A frac tank overflowed being utilized in conjunction with tester. Well was taken out of test and vacuum trucks were dispatched to pick up standing fluid.

Describe Area Affected and Cleanup Action Taken.*
The release area was on lease pad and approximately 1500 square feet of pasture south of the lease pad. The area was mapped and surface samples were collected.

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

Signature: <u>Bruce Baker</u>	OIL CONSERVATION DIVISION	
Printed Name: Bruce Baker	Approved by Environmental Specialist: <u>[Signature]</u>	
Title: Environmental Technician	Approval Date: <u>12/19/14</u>	Expiration Date: <u>N/A</u>
E-mail Address: <u>larry.baker@apachecorp.com</u>	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 12/19/2014	Phone: (432) 631-6982	

Remediation per O.C.D. Rules & Guidelines

SUBMIT REMEDIATION PROPOSAL NO

LATER THAN: 1/19/15

2RP-2677

* Attach Additional Sheets If Necessary

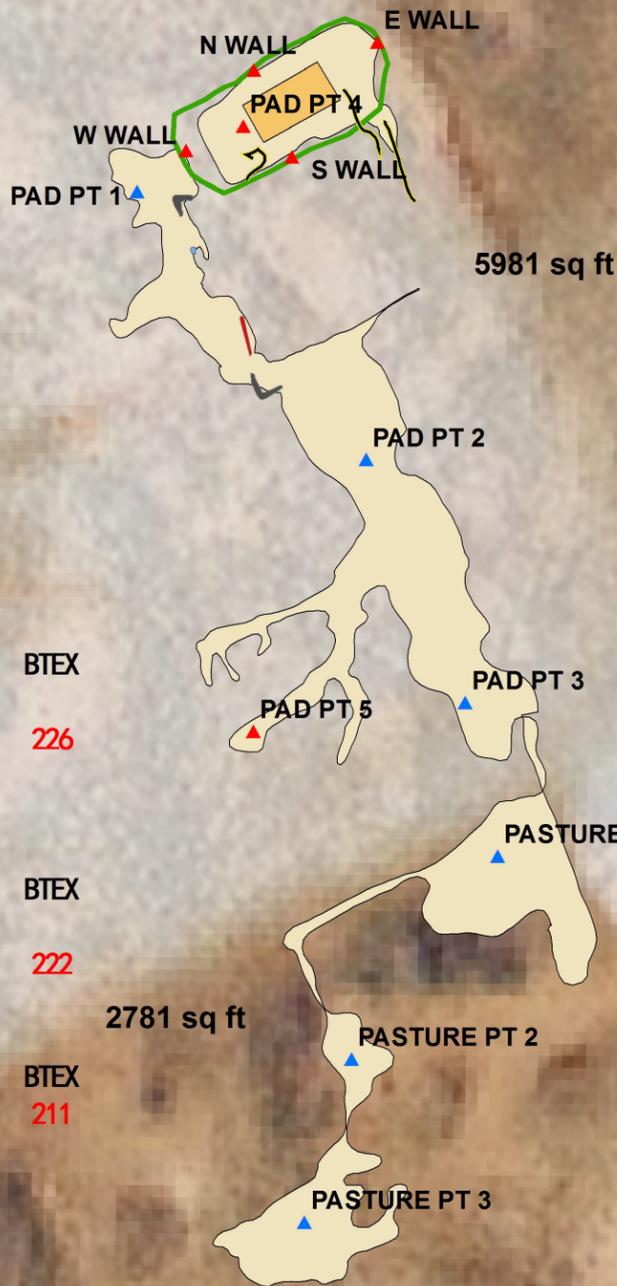
Sampling Data

Excavation 1									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
N wall	<16	16.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
E wall	64	39.5	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
S wall	112	57.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
W wall	96	71.5	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Pt. 4 bottom	48	23	<10	<10	<0.05	0.051	<0.05	<0.15	<0.3

Point 1 Pasture									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	400	2854	3940	35200	3.99	67.2	98.4	98.4	268
1'	80	2324	4100	7630	33.3	200	119	17	469

Point 2 Pasture									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	208	3124	6530	29600	35	229	192	169	625
1'	<16	48.2	<10	<10	0.07	0.175	0.06	<0.15	0.3

Point 3 Pasture	
CI-	PID
Surface	360 3369



Point 1 Pad	
CI-	PID
Surface	4320 1110

Point 2 Pad									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
Surface	4487	1807							
3"	208	1998	2590	12000	<1	36.4	93.8	95.9	226

Point 3 Pad									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
Surface	5646	1615							
3"	176	1974	2450	11500	<1	35.1	92.6	94	222

Point 5 Pad									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
3"	176	749	2410	11300	<1	33.8	88	89.2	211

Legend

- ▲ FINAL SAMPLE POINT
- ▲ SAMPLE POINT
- SURFACE PIPELINE
- ▭ EXCAVATION @ 1 FT
- ▭ AIR COMPRESSOR
- ▭ CONTROL PANEL
- ▭ FRAC TANK
- ▭ GUARD RAIL
- ▭ STAIN

GPS Wellhead: 32.859200, -103.864007
 Landowner: BLM
 DGW: None

Image courtesy of ImagePatch.com © 2015 Microsoft Corporation

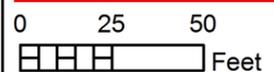


APACHE CROW FEDERAL 35H

NMOCD Case #: 2RP-2677

Legals: UL/M sec. 3
 T-17-S R-31-E
 EDDY COUNTY, NM

Underground facilities are spatially projected and need to be field verified.



GPS date: 2/5/15 KH
 Drawing date: 4/27/15
 Drafted by: L. Weinheimer





February 05, 2015

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CROW FED #35

Enclosed are the results of analyses for samples received by the laboratory on 02/04/15 11:45.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

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

Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/03/2015
Reported:	02/05/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: PAD PT. 4 @ 1' (H500314-01)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/04/2015	ND	1.72	85.8	2.00	11.5		
Toluene*	0.051	0.050	02/04/2015	ND	1.62	81.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	02/04/2015	ND	1.57	78.7	2.00	12.1		
Total Xylenes*	<0.150	0.150	02/04/2015	ND	4.69	78.1	6.00	12.5		
Total BTEX	<0.300	0.300	02/04/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 97.7 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/05/2015	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	02/04/2015	ND	206	103	200	8.01		
DRO >C10-C28	<10.0	10.0	02/04/2015	ND	222	111	200	14.3		

Surrogate: 1-Chlorooctane 87.4 % 47.2-157
Surrogate: 1-Chlorooctadecane 88.2 % 52.1-176

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

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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Celey D. Keene, Lab Director/Quality Manager



February 09, 2015

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CROW FED #35

Enclosed are the results of analyses for samples received by the laboratory on 02/04/15 13:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. 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.

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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

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: EX. 1 NORTH WALL (H500317-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	<0.050	0.050	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	<0.150	0.150	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	<0.300	0.300	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/05/2015	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	02/04/2015	ND	206	103	200	8.01	
DRO >C10-C28	<10.0	10.0	02/04/2015	ND	222	111	200	14.3	

Surrogate: 1-Chlorooctane 107 % 47.2-157
Surrogate: 1-Chlorooctadecane 119 % 52.1-176

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: EX. 1 EAST WALL (H500317-02)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	<0.050	0.050	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	<0.150	0.150	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	<0.300	0.300	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	02/05/2015	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	02/04/2015	ND	206	103	200	8.01	
DRO >C10-C28	<10.0	10.0	02/04/2015	ND	222	111	200	14.3	

Surrogate: 1-Chlorooctane 100 % 47.2-157

Surrogate: 1-Chlorooctadecane 88.5 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: EX. 1 SOUTH WALL (H500317-03)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	<0.050	0.050	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	<0.050	0.050	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	<0.150	0.150	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	<0.300	0.300	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	02/05/2015	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	02/04/2015	ND	206	103	200	8.01	
DRO >C10-C28	<10.0	10.0	02/04/2015	ND	222	111	200	14.3	

Surrogate: 1-Chlorooctane 101 % 47.2-157
Surrogate: 1-Chlorooctadecane 115 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: EX. 1 WEST WALL (H500317-04)

BTEX 8021B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/04/2015	ND	1.72	85.8	2.00	11.5		
Toluene*	<0.050	0.050	02/04/2015	ND	1.62	81.2	2.00	12.8		
Ethylbenzene*	<0.050	0.050	02/04/2015	ND	1.57	78.7	2.00	12.1		
Total Xylenes*	<0.150	0.150	02/04/2015	ND	4.69	78.1	6.00	12.5		
Total BTEX	<0.300	0.300	02/04/2015	ND						

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	96.0	16.0	02/05/2015	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	02/04/2015	ND	206	103	200	8.01		
DRO >C10-C28	<10.0	10.0	02/04/2015	ND	222	111	200	14.3		

Surrogate: 1-Chlorooctane 111 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.3 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/03/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: PAD PT. 2 (H500317-05)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	36.4	1.00	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	93.8	1.00	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	95.9	3.00	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	226	6.00	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/05/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2590	50.0	02/05/2015	ND	182	91.2	200	12.8		
DRO >C10-C28	12000	50.0	02/05/2015	ND	179	89.7	200	0.285		

Surrogate: 1-Chlorooctane 307 % 47.2-157

Surrogate: 1-Chlorooctadecane 210 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/03/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: PAD PT. 3 (H500317-06)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	35.1	1.00	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	92.6	1.00	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	94.0	3.00	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	222	6.00	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 125 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/05/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2450	50.0	02/05/2015	ND	182	91.2	200	12.8		
DRO >C10-C28	11500	50.0	02/05/2015	ND	179	89.7	200	0.285		

Surrogate: 1-Chlorooctane 173 % 47.2-157

Surrogate: 1-Chlorooctadecane 201 % 52.1-176

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/04/2015	Sampling Date:	02/04/2015
Reported:	02/09/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: PAD PT. 5 (H500317-07)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	02/04/2015	ND	1.72	85.8	2.00	11.5	
Toluene*	33.8	1.00	02/04/2015	ND	1.62	81.2	2.00	12.8	
Ethylbenzene*	88.0	1.00	02/04/2015	ND	1.57	78.7	2.00	12.1	
Total Xylenes*	89.2	3.00	02/04/2015	ND	4.69	78.1	6.00	12.5	
Total BTEX	211	6.00	02/04/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 123 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	02/05/2015	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	2410	50.0	02/05/2015	ND	182	91.2	200	12.8		
DRO >C10-C28	11300	50.0	02/05/2015	ND	179	89.7	200	0.285		

Surrogate: 1-Chlorooctane 178 % 47.2-157

Surrogate: 1-Chlorooctadecane 195 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
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



Celey D. Keene, Lab Director/Quality Manager

February 11, 2015

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: CROW FED #35

Enclosed are the results of analyses for samples received by the laboratory on 02/05/15 14:40.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/05/2015	Sampling Date:	02/05/2015
Reported:	02/11/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERTICAL 1 @ SURFACE (H500335-01)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	3.99	1.00	02/07/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	67.2	1.00	02/07/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	98.4	1.00	02/07/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	98.4	3.00	02/07/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	268	6.00	02/07/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	02/06/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	3940	100	02/06/2015	ND	195	97.3	200	2.01		
DRO >C10-C28	35200	100	02/06/2015	ND	193	96.3	200	9.21		

Surrogate: 1-Chlorooctane 224 % 47.2-157

Surrogate: 1-Chlorooctadecane 692 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/05/2015	Sampling Date:	02/05/2015
Reported:	02/11/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERTICAL 1 @ 1' (H500335-02)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	33.3	2.00	02/10/2015	ND	1.73	86.7	2.00	10.8	
Toluene*	200	2.00	02/10/2015	ND	1.66	83.2	2.00	11.2	
Ethylbenzene*	119	2.00	02/10/2015	ND	1.59	79.6	2.00	11.4	
Total Xylenes*	117	6.00	02/10/2015	ND	4.74	79.0	6.00	12.6	
Total BTEX	469	12.0	02/10/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 109 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/06/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	4100	50.0	02/06/2015	ND	195	97.3	200	2.01	
DRO >C10-C28	7630	50.0	02/06/2015	ND	193	96.3	200	9.21	

Surrogate: 1-Chlorooctane 154 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/05/2015	Sampling Date:	02/05/2015
Reported:	02/11/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERTICAL 2 @ SURFACE (H500335-03)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	35.0	5.00	02/09/2015	ND	1.72	85.8	2.00	7.05	
Toluene*	229	5.00	02/09/2015	ND	1.67	83.4	2.00	7.12	
Ethylbenzene*	192	5.00	02/09/2015	ND	1.58	79.2	2.00	8.12	
Total Xylenes*	169	15.0	02/09/2015	ND	4.70	78.3	6.00	9.45	
Total BTEX	625	30.0	02/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	02/06/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	6530	100	02/06/2015	ND	195	97.3	200	2.01		
DRO >C10-C28	29600	100	02/06/2015	ND	193	96.3	200	9.21		

Surrogate: 1-Chlorooctane 241 % 47.2-157

Surrogate: 1-Chlorooctadecane 572 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

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

Received:	02/05/2015	Sampling Date:	02/05/2015
Reported:	02/11/2015	Sampling Type:	Soil
Project Name:	CROW FED #35	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: VERTICAL 2 @ 1' (H500335-04)

BTEX 8021B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.067	0.050	02/09/2015	ND	1.72	85.8	2.00	7.05	
Toluene*	0.175	0.050	02/09/2015	ND	1.67	83.4	2.00	7.12	
Ethylbenzene*	0.059	0.050	02/09/2015	ND	1.58	79.2	2.00	8.12	
Total Xylenes*	<0.150	0.150	02/09/2015	ND	4.70	78.3	6.00	9.45	
Total BTEX	0.301	0.300	02/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 61-154

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	02/06/2015	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	02/06/2015	ND	195	97.3	200	2.01	
DRO >C10-C28	<10.0	10.0	02/06/2015	ND	193	96.3	200	9.21	

Surrogate: 1-Chlorooctane 104 % 47.2-157
Surrogate: 1-Chlorooctadecane 79.8 % 52.1-176

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- 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



Celey D. Keene, Lab Director/Quality Manager

Apache Crow Federal 35H

Unit Letter M, Section 3, T17S, R31E



Initial release area, facing east

12/15/14



Initial release area, facing northeast

12/15/14



Initial release area, facing east

12/15/14



Initial release area, facing south

12/15/14



Initial release area, facing northeast 12/15/14



Scraping release, facing northeast 2/3/15



Exporting soil, facing southeast 2/3/15



Scraping release, facing southwest 2/3/15