

Excavation Data

1.5 ft Excavation									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
Nort	912	0.5	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Sout	64	0.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Nort	<16	0.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
East	224	0.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Sout	144	0.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Wes	<16	0.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

6 in Scrape									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
Point 1	752	0.5	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Point 2	384	0.1	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Point 3	752	0.4	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Point 4	<16	0.8	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
Point 5	576	1	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Hand Auger Point 1									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	5370	2.2							
1'	768	0.2	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Hand Auger Point 2									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	2832	0.1							
1'	720	0.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Hand Auger Point 3									
	CI-	PID	GRO	DRO	B	T	E	X	BTEX
SS	8549	0.7							
1'	144	0.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

	CI-	PID	GRO	DRO	B	T	E	X	BTEX
6" Scrape	240	0.2	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

ELECTRIC POLE

AUGER POINT

BOTTOM SAMPLING POINT

WALL SAMPLES

WELLHEAD

BURIED PIPELINE

BURIED ELECTRIC LINE

×

—

×

FENCE

PAD/ROAD EDGE

SURFACE PIPELINE

1.5 FT EXCAVATION

6 IN SCRAPE

PUMPJACK

STAIN - 28,604 SQ FT

CI- FIELD DATA
CI- LAB DATA

Landowner: BLM
DGW: None

Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, and the GIS User Community



APACHE
EMPIRE ABO UNIT
C-49 SWD
UL L SECTION 29
T-17-S R-29-E
EDDY COUNTY, NM

050100

Feet

GPS date: 12/03/14 CF, 12/10/14 AR
Drawing date: 12/19/14
Drafted by: L. Weinheimer

N

W

S

E



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

December 10, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EMPIRE ABO C-49 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/04/14 16:56.

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:	12/04/2014	Sampling Date:	12/03/2014
Reported:	12/10/2014	Sampling Type:	Soil
Project Name:	EMPIRE ABO C-49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: POINT 1 BOTTOM @ 6" (H403711-01)

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	12/09/2014	ND	1.87	93.7	2.00	3.16	
Toluene*	<0.050	0.050	12/09/2014	ND	1.72	86.2	2.00	3.97	
Ethylbenzene*	<0.050	0.050	12/09/2014	ND	1.63	81.5	2.00	1.82	
Total Xylenes*	<0.150	0.150	12/09/2014	ND	4.90	81.6	6.00	2.34	
Total BTEX	<0.300	0.300	12/09/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 93.6 % 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	752	16.0	12/05/2014	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/06/2014	ND	195	97.6	200	0.501	
DRO >C10-C28	<10.0	10.0	12/06/2014	ND	202	101	200	1.55	

Surrogate: 1-Chlorooctane 126 % 47.2-157

Surrogate: 1-Chlorooctadecane 145 % 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:	12/04/2014	Sampling Date:	12/04/2014
Reported:	12/10/2014	Sampling Type:	Soil
Project Name:	EMPIRE ABO C-49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: POINT 2 BOTTOM @ 6" (H403711-02)

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	12/09/2014	ND	1.87	93.7	2.00	3.16		
Toluene*	<0.050	0.050	12/09/2014	ND	1.72	86.2	2.00	3.97		
Ethylbenzene*	<0.050	0.050	12/09/2014	ND	1.63	81.5	2.00	1.82		
Total Xylenes*	<0.150	0.150	12/09/2014	ND	4.90	81.6	6.00	2.34		
Total BTX	<0.300	0.300	12/09/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.9 % 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	384	16.0	12/05/2014	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/06/2014	ND	195	97.6	200	0.501	
DRO >C10-C28	<10.0	10.0	12/06/2014	ND	202	101	200	1.55	

Surrogate: 1-Chlorooctane 126 % 47.2-157

Surrogate: 1-Chlorooctadecane 141 % 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:	12/04/2014	Sampling Date:	12/04/2014
Reported:	12/10/2014	Sampling Type:	Soil
Project Name:	EMPIRE ABO C-49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: POINT 3 BOTTOM @ 6" (H403711-03)

BTX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2014	ND	1.87	93.7	2.00	3.16		
Toluene*	<0.050	0.050	12/09/2014	ND	1.72	86.2	2.00	3.97		
Ethylbenzene*	<0.050	0.050	12/09/2014	ND	1.63	81.5	2.00	1.82		
Total Xylenes*	<0.150	0.150	12/09/2014	ND	4.90	81.6	6.00	2.34		
Total BTX	<0.300	0.300	12/09/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 93.2 % 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	752	16.0	12/05/2014	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/06/2014	ND	195	97.6	200	0.501	
DRO >C10-C28	<10.0	10.0	12/06/2014	ND	202	101	200	1.55	

Surrogate: 1-Chlorooctane 121 % 47.2-157

Surrogate: 1-Chlorooctadecane 140 % 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:	12/04/2014	Sampling Date:	12/03/2014
Reported:	12/10/2014	Sampling Type:	Soil
Project Name:	EMPIRE ABO C-49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: POINT 4 BOTTOM @ 6" (H403711-04)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2014	ND	1.81	90.5	2.00	7.27		
Toluene*	<0.050	0.050	12/09/2014	ND	1.79	89.5	2.00	7.66		
Ethylbenzene*	<0.050	0.050	12/09/2014	ND	1.71	85.7	2.00	7.88		
Total Xylenes*	<0.150	0.150	12/09/2014	ND	5.27	87.8	6.00	7.94		
Total BTEX	<0.300	0.300	12/09/2014	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	12/05/2014	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/06/2014	ND	195	97.6	200	0.501	
DRO >C10-C28	<10.0	10.0	12/06/2014	ND	202	101	200	1.55	

Surrogate: 1-Chlorooctane 122 % 47.2-157

Surrogate: 1-Chlorooctadecane 140 % 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:	12/04/2014	Sampling Date:	12/03/2014
Reported:	12/10/2014	Sampling Type:	Soil
Project Name:	EMPIRE ABO C-49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Kathy Perez
Project Location:	NOT GIVEN		

Sample ID: POINT 5 BOTTOM @ 6" (H403711-05)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	12/09/2014	ND	1.81	90.5	2.00	7.27		
Toluene*	<0.050	0.050	12/09/2014	ND	1.79	89.5	2.00	7.66		
Ethylbenzene*	<0.050	0.050	12/09/2014	ND	1.71	85.7	2.00	7.88		
Total Xylenes*	<0.150	0.150	12/09/2014	ND	5.27	87.8	6.00	7.94		
Total BTX	<0.300	0.300	12/09/2014	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	576	16.0	12/05/2014	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	12/06/2014	ND	195	97.6	200	0.501	
DRO >C10-C28	<10.0	10.0	12/06/2014	ND	202	101	200	1.55	

Surrogate: 1-Chlorooctane 121 % 47.2-157

Surrogate: 1-Chlorooctadecane 138 % 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.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
- Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



ARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: <u>Bruce Baker, Laura Flores, Jacob Kamplain</u>		Company:					
Address: <u>419 W Cain</u>		State: <u>NM</u> Zip: <u>88240</u>		Attn:			
City: <u>Hobbs</u>		Fax #:		Address:			
Project #:		Project Owner:		City:			
Project Name: <u>Apache</u>		State:		Zip:			
Project Location: <u>Empire #80 C-49 SWD</u>		Phone #:		Fax #:			
Sampler Name: <u>Chris Flores</u>		FOR LAB USE ONLY					

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:									ICE / COOL
<u>EH03711</u>	<u>Point 1 Bottom 6"</u>	<u>G</u>	<u>1</u>	<u>X</u>								<u>12-3-2014</u>	<u>1:10 PM</u>	<u>X</u>	<u>X</u>	<u>X</u>			
	<u>Point 2 Bottom 6"</u>	<u>G</u>	<u>1</u>	<u>X</u>								<u>12-4-2014</u>	<u>1:30 PM</u>	<u>X</u>	<u>X</u>	<u>X</u>			
	<u>Point 3 Bottom 6"</u>	<u>G</u>	<u>1</u>	<u>X</u>								<u>12-4-2014</u>	<u>3:00 PM</u>	<u>X</u>	<u>X</u>	<u>X</u>			
	<u>Point 4 Bottom 6"</u>	<u>G</u>	<u>1</u>	<u>X</u>								<u>12-3-2014</u>	<u>8:00 PM</u>	<u>X</u>	<u>X</u>	<u>X</u>			
	<u>Point 5 Bottom 6"</u>	<u>G</u>	<u>1</u>	<u>X</u>								<u>12-3-2014</u>	<u>3:15 PM</u>	<u>X</u>	<u>X</u>	<u>X</u>			

Relinquished By: <u>[Signature]</u>	Date: <u>12-4-2014</u>	Received By: <u>[Signature]</u>	Date: <u>12-4-2014</u>
Time: <u>4:50</u>	Time: <u>4:50</u>	Time: <u>4:50</u>	Time: <u>4:50</u>
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <u>UPS</u>	Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/>	CHECKED BY: (Initials) <u>KB</u>	

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 subcontractors, 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 theories or otherwise.

REMARKS:
email results:
hconder@rice-ecs.com; knorman@rice-ecs.com;
jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com;
lweinheimer@rice-ecs.com; cursanic@rice-ecs.com
environmental tech: cflores@rice-ecs.com
Email to Bruce at Apache

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

#54



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

December 17, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU C 49 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 8:00.

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:	12/12/2014	Sampling Date:	12/09/2014
Reported:	12/17/2014	Sampling Type:	Soil
Project Name:	EAU C 49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: NORTH BOTTOM 1.5' (H403792-01)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEX	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 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	912	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 91.2 % 47.2-157

Surrogate: 1-Chlorooctadecane 86.8 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SOUTH BOTTOM 1.5' (H403792-02)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEX	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 89.1 % 47.2-157

Surrogate: 1-Chlorooctadecane 84.7 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: NORTH WALL (H403792-03)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 89.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 84.5 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: EAST WALL (H403792-04)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	224	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 84.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 80.5 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SOUTH WALL (H403792-05)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	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	144	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 86.3 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.0 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: WEST WALL (H403792-06)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 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	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 84.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 81.7 % 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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: 6" SCRAPE (H403792-07)

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.8 % 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	240	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 89.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 84.8 % 52.1-176

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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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Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Apache</u>		P.O. #:	
Project Manager: <u>Bruce Barker</u>		Company:	
Address:		Attn:	
City:		Address:	
State:		City:	
Zip:		State:	
Phone #:		Zip:	
Fax #:		Phone #:	
Project #:		Fax #:	
Project Name: <u>H4037 EMU 49 SWD *</u>		Project Owner:	
Project Location: <u>Barnwell Federal Trail Battery</u>		State:	
Sample Name: <u>434 Redscap</u>		Zip:	
FOR LAB USE ONLY		Matrix	
Lab I.D.		PRESERV	
Sample I.D.		SAMPLING	
1403792		DATE	
1		TIME	
2 North Bottom 1.5'		✓	
3 South Bottom 1.5'		✓	
4 North Wall		✓	
5 East Wall		✓	
6 South Wall		✓	
7 West Wall		✓	
8 = scrap		✓	
(G)RAB OR (C)OMP.		Chlorides	
# CONTAINERS		TPH 8015 M	
GROUNDWATER		BTEX	
WASTEWATER		Texas TPH	
SOIL		Complete Cations/Anions	
OIL		TDS	
SLUDGE			
OTHER:			
ACID/BASE:			
ICE / COOL			
OTHER:			
Relinquished By: <u>AK</u>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Date: <u>12-17-14</u>		Add'l Phone #:	
Time: <u>8:00</u>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Received By: <u>John Jensen</u>		Add'l Fax #:	
Delivered By: (Circle One)		REMARKS: <u>affix name change as per Jacob. 12/17/14</u>	
Sampler - UPS - Bus - Other: <u>10c</u>		email results:	
Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>		hconder@rice-ecs.com; knorman@rice-ecs.com;	
Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		jkamp@rice-ecs.com; regans@rice-ecs.com; flores@rice-ecs.com;	
No <input type="checkbox"/> No <input type="checkbox"/>		lweihelmer@rice-ecs.com; kiones@riceswd.com;	
Sample Condition		cursanic@rice-ecs.com	
CHECKED BY: <u>AK</u>		aredecop@rice-ecs.com	
environmental tech:			



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

December 17, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU C 49 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 8:00.

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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: HAND AUGER PT 1 @ 1' (H403795-01)

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	12/16/2014	ND	1.81	90.3	2.00	10.1	
Toluene*	<0.050	0.050	12/16/2014	ND	1.76	87.8	2.00	10.6	
Ethylbenzene*	<0.050	0.050	12/16/2014	ND	1.67	83.4	2.00	11.8	
Total Xylenes*	<0.150	0.150	12/16/2014	ND	5.02	83.6	6.00	12.5	
Total BTEX	<0.300	0.300	12/16/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 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	768	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 89.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 87.2 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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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

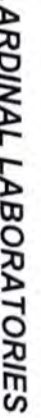
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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

BILL TO

ANALYSIS REQUEST

Page 4 of 4

December 17, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU C 49 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 8:00.

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: 12/12/2014
Reported: 12/17/2014
Project Name: EAU C 49 SWD
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 12/09/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: HAND AUGER PT 2 @ 1' (H403793-01)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEX	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 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	720	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 88.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 86.6 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

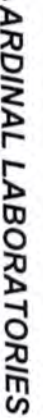
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Celey D. Keene, Lab Director/Quality Manager



101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

[illegible]

Page 4 of 4

* Cardinal cannot accept verbal changes. Please fax written changes to 505-393-~~5476~~

#54

Bruce Baker

December 17, 2014

BRUCE BAKER

APACHE CORP - HOBBS

2350 W. MARLAND BLVD.

HOBBS, NM 88240

RE: EAU C 49 SWD

Enclosed are the results of analyses for samples received by the laboratory on 12/12/14 8:00.

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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,



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:	12/12/2014	Sampling Date:	12/09/2014
Reported:	12/17/2014	Sampling Type:	Soil
Project Name:	EAU C 49 SWD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: HAND AUGER PT 3 @ 1' (H403794-01)

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	12/15/2014	ND	1.90	95.1	2.00	3.04	
Toluene*	<0.050	0.050	12/15/2014	ND	1.88	93.8	2.00	0.356	
Ethylbenzene*	<0.050	0.050	12/15/2014	ND	1.79	89.5	2.00	0.736	
Total Xylenes*	<0.150	0.150	12/15/2014	ND	5.39	89.9	6.00	0.413	
Total BTEx	<0.300	0.300	12/15/2014	ND					

Surrogate: 4-Bromofluorobenzene (PID) 98.9 % 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	144	16.0	12/12/2014	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	12/15/2014	ND	185	92.6	200	2.97	
DRO >C10-C28	<10.0	10.0	12/15/2014	ND	197	98.4	200	1.88	

Surrogate: 1-Chlorooctane 87.0 % 47.2-157

Surrogate: 1-Chlorooctadecane 83.1 % 52.1-176

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Celey D. Keene, Lab Director/Quality Manager



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(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: <u>Arush</u>		P.O. #:		BILL TO		ANALYSIS REQUEST																																					
Project Manager: <u>Brace Baker</u>		Company:																																									
Address:		Attn:																																									
City:		State:		Zip:																																							
Phone #:		Fax #:																																									
Project #:		City:		State:		Zip:																																					
Project Name: <u>ERA 049 SWD #</u>		State:		Zip:																																							
Project Location: <u>Baraschell Federal Tank Battery</u>		Phone #:																																									
Sampler Name: <u>Arush</u>		Fax #:																																									
FOR LAB USE ONLY		MATRIX		PRESERV		SAMPLING																																					
Lab I.D.		Sample I.D.		(G)RAB OR (C)OMP.		# CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER :		ACID/BASE:		ICE / COOL		OTHER :		DATE		TIME		Chlorides		TPH 8015 M		BTEX		Texas TPH		Complete Cations/Anions		TDS			
<u>H403794</u>		<u>Hand Auger 173 @ 1'</u>		<u>Q1</u>		<u>1</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>12-14-14</u>		<u>3:49</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>		<u>✓</u>					
Relinquished By: <u>Arush</u>		Date: <u>12-11-14</u>		Received By: <u>Arush</u>		Date: <u>12-11-14</u>		Time: <u>5:00</u>		Received By: <u>Arush</u>		Date: <u>12-11-14</u>		Time: <u>5:00</u>		Sample Condition		Cool		Intact		Checked By: <u>Arush</u>		Phone Result: <u>Yes</u>		Fax Result: <u>Yes</u>		Add'l Phone #:		Add'l Fax #:		email results:		hconder@rice-ecs.com; knorman@rice-ecs.com;		jkampain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com;		lweinheimer@rice-ecs.com; kjones@riceswd.com;		cursanic@rice-ecs.com		aredecop@rice-ecs.com	
Delivered By: (Circle One)		Sampler - UPS - Bus - Other:		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12		12			

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