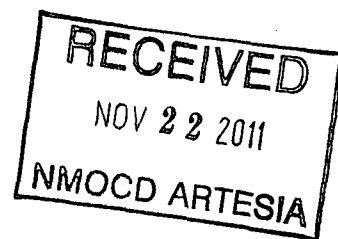




EXPLORING WHAT'S POSSIBLE



APACHE CORPORATION

P.O.Box 1849
Eunice, NM 88231
Phone 575.394.3159

Empire Abo Unit M-14

Closure Report

2RP-860

API 30-015-22834

Release Date: April 29, 2011

Unit Letter C, Section 11, Township 18S, Range 27E

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

September 23, 2011

Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 2

811 S. First Street

Artesia, NM 88210

RE: TERMINATION REQUEST

Apache – Empire Abo Unit M-14 AD

UL/C Section 11 T18S R27E

Mr. Bratcher:

Apache Corporation has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the site referenced above.

Background and Initial Response

The site is an accidental discharge of fluids from a ruptured buried emulsion line and impacted areas located east of Artesia approximately 5 miles southwest of the intersection of US Hwy 82 and NM 360 in unit letter 'C', section 11, and unit letter 'N', section 2, T18S, R27E in Eddy County, New Mexico (Figure 1) including an area of historical impact (BP L-14). Standing fluid was recovered with vacuum trucks, and an initial form C-141 was submitted for the leak event on May 2, 2011 (Appendix A).

Primary Leak

On May 2, 2011, RECS personnel initiated work on the primary leak area in unit letter 'C', section 11, T18S, R27E. The area was measured and surface samples were taken to a commercial laboratory for analysis of chloride, BTEX, and TPH including Gasoline Range Organics (GRO) and Diesel Range Organics (DRO) (Appendix D). Laboratory chloride results ranged from a high of 24,800 ppm (mg/kg) at the sample point labeled 260 ft North/25 ft East (in relation to the discharge point) to a low of 4,040 ppm at the sample point 55 ft North/22 ft East. GRO readings ranged from a high of 5,080 ppm at the sample point labeled 5 ft North to a low of 460 ppm at the sample point labeled 487 ft North Center of Pad. DRO readings ranged from 34,700 ppm at the discharge point to 11,100 ppm at the sample point labeled 260 ft North/25 ft East. Benzene readings were non-detect at all samples points except at the sample point labeled 55 ft North/22 ft East which contained 9.93 ppm, and at the sample point labeled 5 ft North showing 6.09 ppm. Toluene, ethyl-benzene, and total xylenes were present at all sample points.

From May 4, 2011 through May 13, 2011, the primary leak area was scraped. On May 10, 2011, the caliche road scrape and the west, north, and east excavations were completed. On May 11, 2011, the south excavation was completed, and on May 12, 2011, the southeast excavation was completed. Representative samples from each excavation were taken to a commercial laboratory for analysis of chloride, TPH (GRO/DRO), and BTEX (Figure 2 and Appendix D). Chloride ranged from 16 ppm to 656 ppm, GRO was non-detect, DRO was present in 4 samples – 3 of which were less than 35 ppm and 1 sample at 92.4 ppm, and BTEX was non-detect throughout.

Historical Impact Area

Remediation of the historical impact area (BP L-14) in unit letter 'N', section 2, T18S, R27E was included in the primary leak cleanup activities. On May 12, 2011, RECS personnel initiated work on the area of historical impact in connection with the primary leak. Soil samples were collected from the site and field tested for chlorides. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID).

On May 25, 2011, a temporary monitor well was installed 50 ft. in the assumed up gradient direction from the historical impact area (570 ft. northwest of the primary leak area) to determine depth to ground water (Figure 3 and Appendix B). The well was drilled to 100 ft. below ground surface (bgs) and was left open to allow potential groundwater to accumulate. On June 28, 2011, ARC Environmental personnel used a Solinst Water Level Meter to verify any accumulation of groundwater. No water was detected within the borehole at the total depth of 95.32 ft. bgs. On July 7, 2011, RECS personnel plugged the borehole to ground surface with bentonite.

On May 26, 2011, three soil bores (SB) were installed in the historical impact area (Figure 3 and Appendix B). Representative samples from each soil bore were taken to a commercial laboratory for analysis (Appendix E). Laboratory chloride readings ranged from 1,480 ppm (parts per million or mg/kg) at the surface of SB3 to 80 ppm at 10 ft. bgs in SB1. Gasoline Range Organics (GRO) were non-detect in all three soil bores except at the surface of SB3 where GRO was 64.4 ppm. Diesel Range Organics (DRO) ranged from 2,510 ppm at the surface of SB3 to a low of non-detect at both 10 ft. and 40 ft. bgs in SB1, and also at 25 ft. bgs in SB2 and at 10 ft. bgs in SB3.

Based on soil bore data and preliminary observation and sampling, the historical impact area was separated into three sections (Figure 4): the North Excavation, the South Excavation, and the West Excavation. The North Excavation was 22 ft. deep with an area of 6,823 sq ft. The South Excavation was 8 ft. deep with an area of 2,324 sq ft. The West Excavation was 4 ft. deep with an area of 2,679 sq ft.

On June 10 and 11, 2011, final samples were taken from each historical impact excavation and sent to a commercial laboratory for analyses of chloride and TPH (GRO/DRO) (Figure 4 and Appendix E).

A total of 10,152 cubic yards of impacted soil was removed from both the primary leak area and the historical impact area and transported to a NMOCD approved facility for disposal. On June

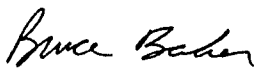
24, 2011, all excavations were backfilled with 9,694 cubic yards of clean imported soil and contoured to the surrounding landscape. See Appendix C for photographs of field activities.

Conclusion

Due to the nonexistence of groundwater at site, chloride in the entire area remaining relatively low and TPH and BTEX remaining well below guidelines, Apache submits the final Form C-141 (Appendix F) and respectfully requests Termination status for this site and the closure of the regulatory file.

Apache Corporation appreciates the opportunity to work with you on this project. Please call Natalie Gladden (575) 390-4186 if you have any questions or comments.

Sincerely,



Bruce Baker
Head Foreman
RECS
(575) 631-5157

Attachments:

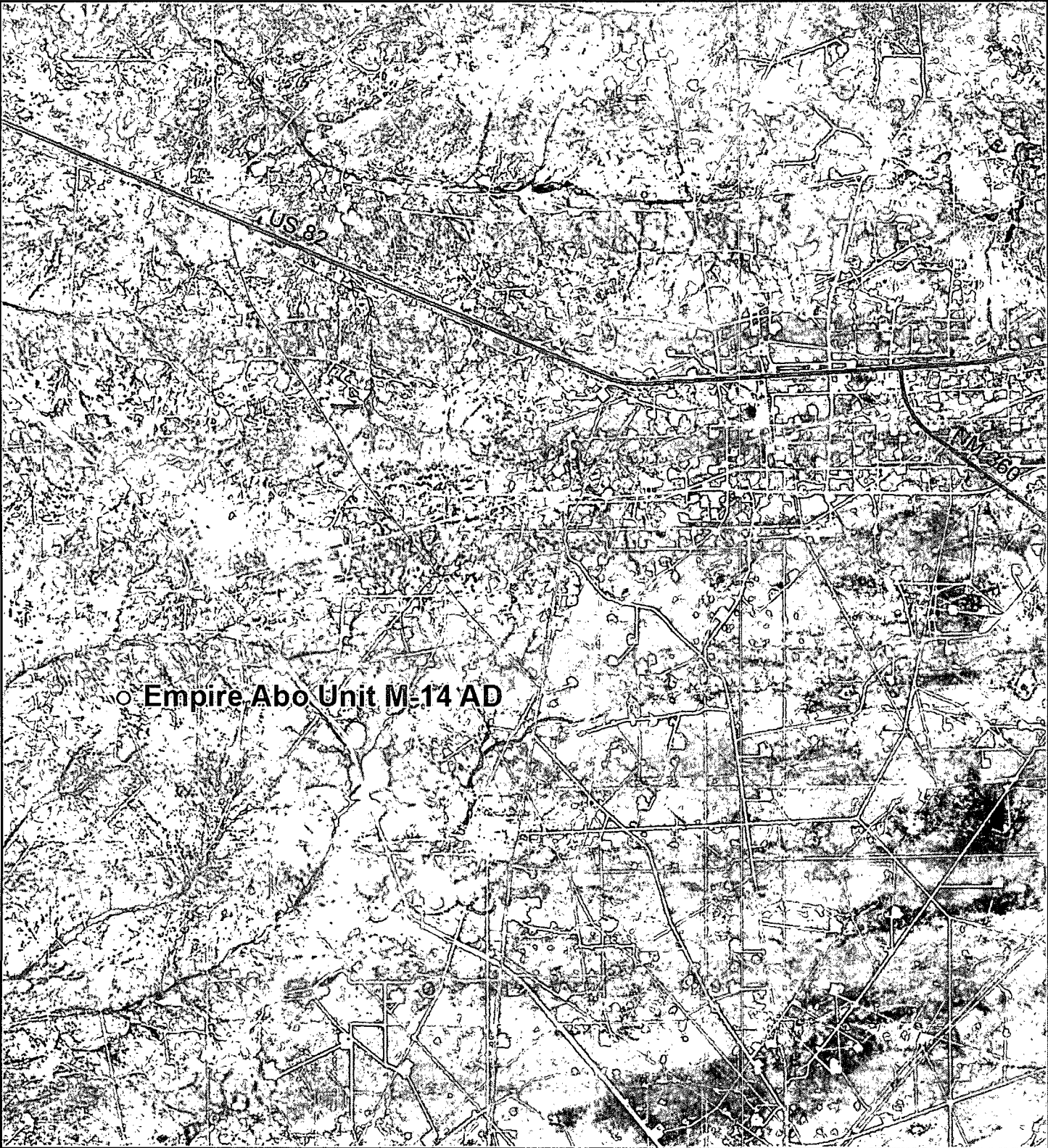
- Figure 1: Site Map
- Figure 2: Primary Leak Excavation Summary
- Figure 3: Soil Bore Installation Plat
- Figure 4: Excavation Summary Plat
- Appendix A: Initial Form C-141
- Appendix B: Temporary Monitoring Well and Soil Bore Logs, Letter of Groundwater Verification, and Plugging Report
- Appendix C: Site Photographs
- Appendix D: Primary Leak Laboratory Results
- Appendix E: Historical Impact Area and Soil Bore Laboratory Results
- Appendix F: Final Form C-141

Figures

RICE Environmental Consulting and Safety (RECS)

P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

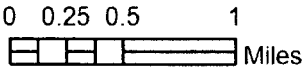
Site Map



**APACHE
EMPIRE ABO UNIT
M-14 AD**

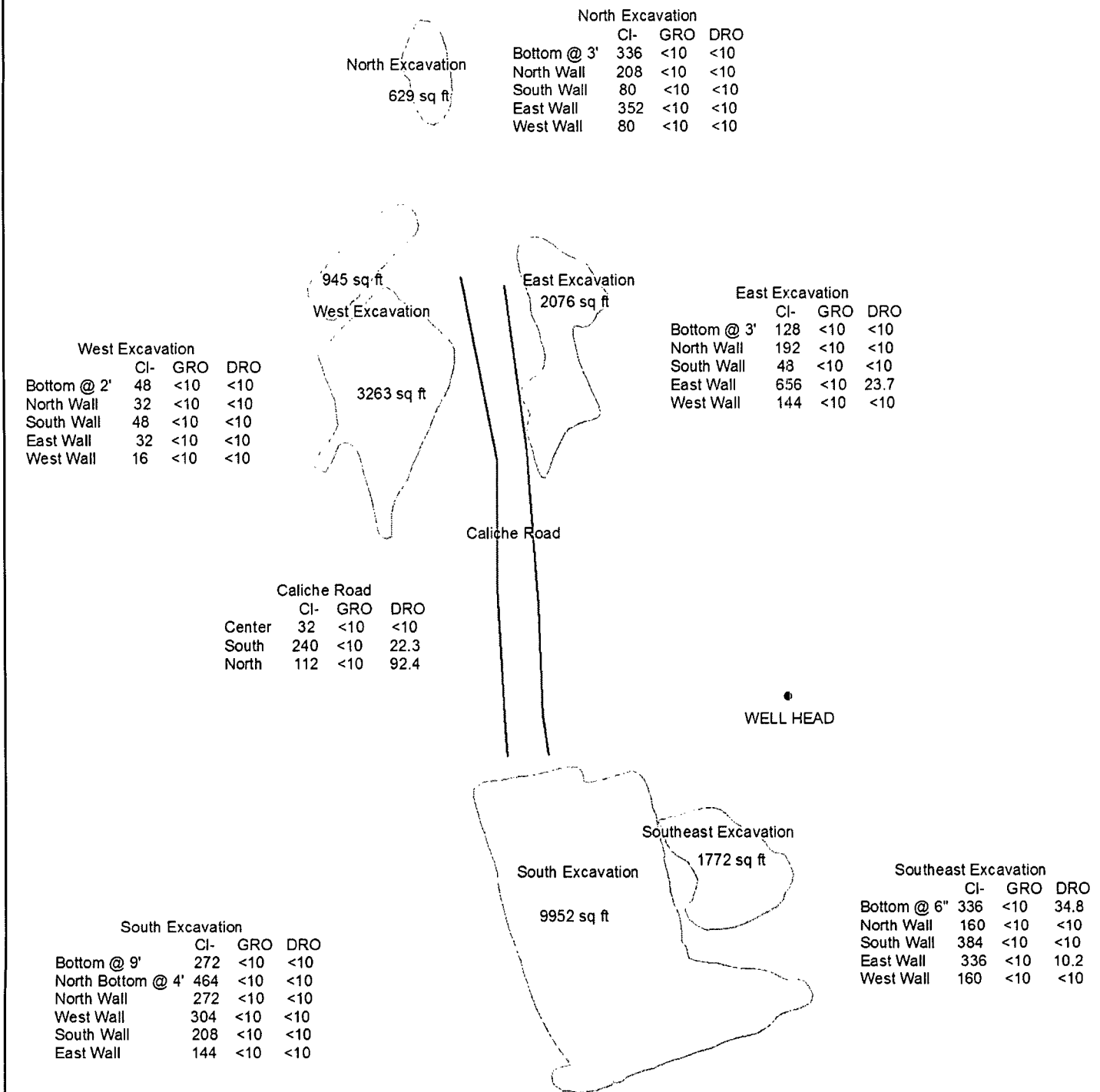
**LEGALS: UL/C sec. 11
T18S R27E**

Figure 1



Drawing date: 7/18/11
Drafted by: L. Weinheimer

Primary Leak



APACHE EMPIRE ABO UNIT M-14 AD

LEGALS: UL/C sec. 11
T18S R27E

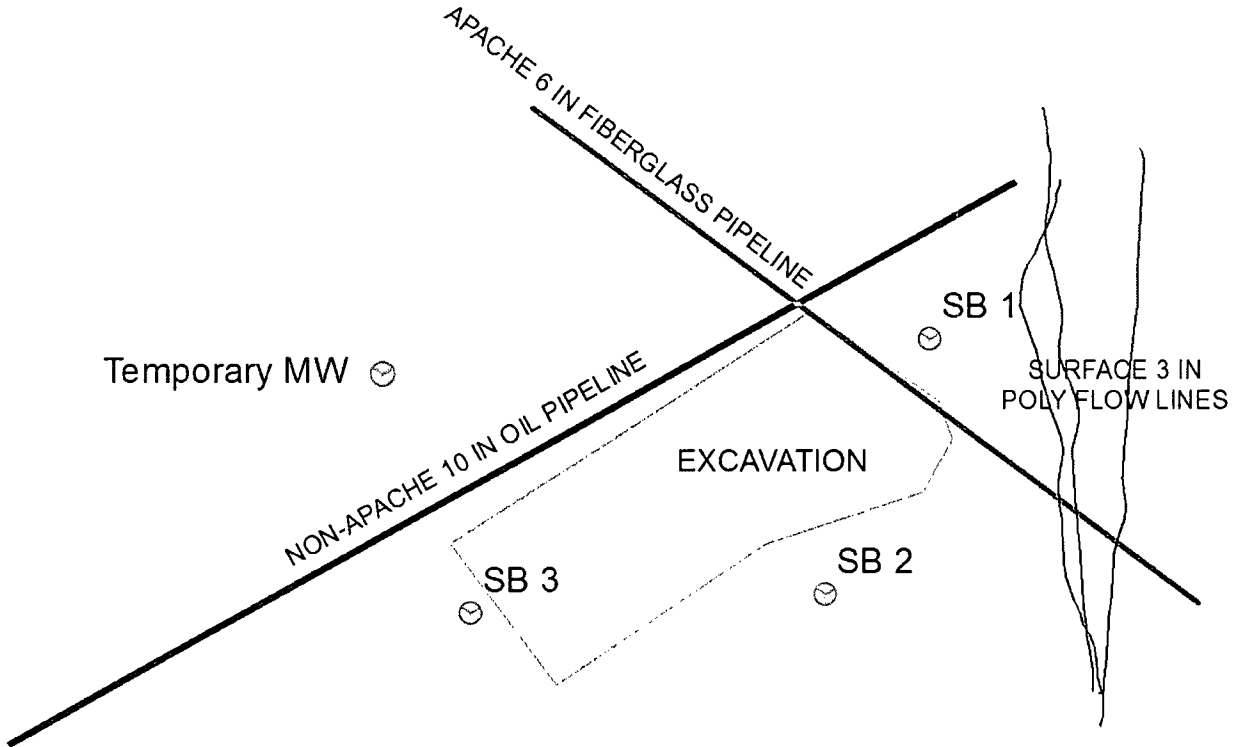
Figure 2



0 15 30 60
Feet

Drawing date: 6/21/11
GPS date: 5/27/11 TG&DH
Drafted by: L. Weinheimer

Soil Bore Summary



SB 1					
Depth	CI-	PID	LAB CI-	GRO	DRO
SS	1003	0.3	672	<10	448
5'	320	0.6			
10'	174	0.2	80	<10	<10
15'	145	0.3			
20'	149	0.3			
25'	139	0.2			
30'	149	0.3			
35'	152	0.3			
40'	138	6.6	224	<10	<10

SB 2					
Depth	CI-	PID	LAB CI-	GRO	DRO
SS	360	31.4	400	<10	140
5'	149	391			
10'	147	320			
15'	237	68.7	256	<10	14
20'	174	66.5			
25'	181	2.3	112	<10	<10

SB 3					
Depth	CI-	PID	LAB CI-	GRO	DRO
SS	1137	105	1480	64.4	2510
5'	180	7.3			
10'	182	2.7	112	<10	<10

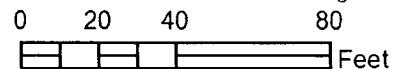
DGW = none



EMPIRE ABO UNIT M-14 AD Historical Impact Area

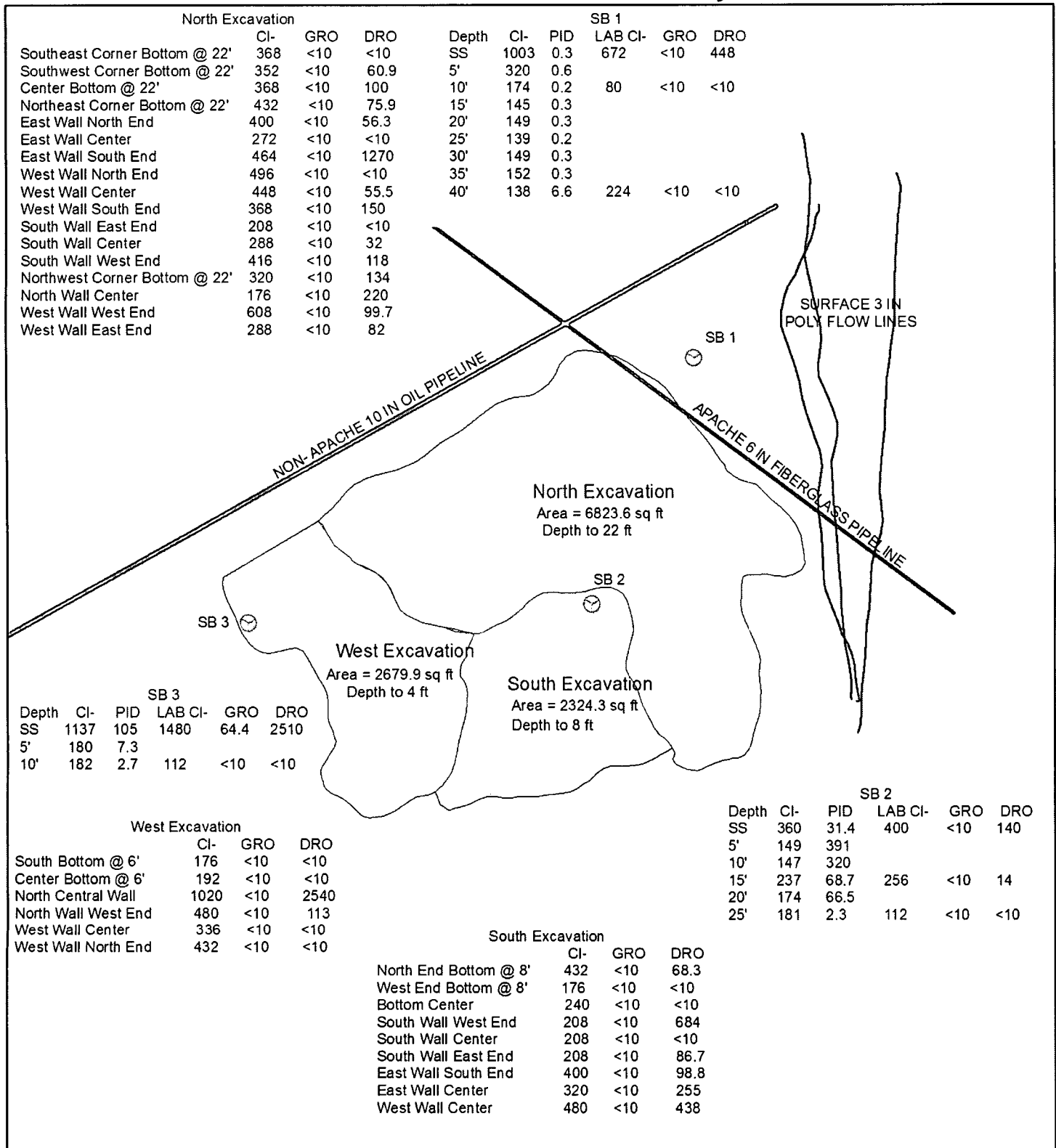
Legals: UL/N sec. 2
T18S R27E
Eddy County

Figure 3



Drawing date: 5/31/11
GPS date: 5/27/11 TG&DH
Drafted by: T. Grieco and L. Weinheimer

Excavation Summary



**EMPIRE ABO UNIT
M-14 AD
Historical Impact Area**

**Legals: UL/N sec. 2
T18S R27E**

Figure 4



0 15 30 60
Feet

Drawing date: 6/21/11
GPS date: 6/13/11 DH
Drafted by: L. Weinheimer

Appendix A

Initial Form C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Appendix B

Temporary Monitoring Well and Soil Bore Logs, Letter
of Groundwater Verification, and Plugging Report

RICE Environmental Consulting and Safety (RECS)

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

Logger:	Jordan Woodfin					
Driller:	Harrison & Cooper, Inc.					
Drilling Method:	Air rotary		Company: Apache Corporation Project Name: Empire Abo Unit M-14-2 AD Project Consultant: RECS			
Start Date:	5/26/2011		Well ID: SB-1			
End Date:	5/26/2011			Location: UL/N sec. 2 T18S R27E		
Comments:		All samples were taken from cuttings.		Lat: 32°46'13.102"N Long: 104°15'6.934"W		
		DRAFTED BY: L. Weinheimer TD = 40 ft GW = none		County: Eddy State: NM		
Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown very fine sand, some well consolidated		
SS	1003	CI-672	0.3			
		GRO <10		Red very fine silty clay		
		DRO 448				
5 ft	320		0.6			
				Light brown very fine silty sand with caliche		
10 ft	174	CI-80	0.2			
		GRO <10				
		DRO <10				
15 ft	145		0.3			
				Tan very fine silty sand with caliche		
20 ft	149		0.3			
25 ft	139		0.2			
30 ft	149		0.3			
35 ft	152		0.3			
				Tan to red very fine silty sand with caliche		
40 ft	138	CI-224	6.6			
		GRO <10				
		DRO <10				

Logger:	Jordan Woodfin		
Driller:	Harrison & Cooper, Inc.		
Drilling Method:	Air rotary		
Start Date:	5/26/2011		
End Date:	5/26/2011		Company: Apache Corporation Project Name: Empire Abo Unit M-14-2 AD Well ID: SB-2 Project Consultant: RECS Location: UL/N sec. 2 T18S R27E
Comments:		All samples were taken from cuttings. DRAFTED BY: L. Weinheimer TD = 25 ft GW = none	
		Lat: 32°46'12.454"N County: Eddy Long: 104°15'7.247"W State: NM	

Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
SS	360	CI-400	31.4	Red clay (already excavated and backfilled so we could drill there)		
		GRO <10				
		DRO 140				
5 ft	149		391.0			
10 ft	147		320.0	Red clay with some sand		bentonite seal
15 ft	237	CI-256	68.7			
		GRO <10				
		DRO 14				
20 ft	174		66.5	Light red very fine sand with some clay		
25 ft	181	CI-112	2.3			
		GRO <10				
		DRO <10				

Logger:	Jordan Woodfin					
Driller:	Harrison & Cooper, Inc.					
Drilling Method:	Air rotary		Company: Apache Corporation	Project Name:	Well ID:	
Start Date:	5/26/2011		Empire Abo Unit M-14-2 AD	SB-3		
End Date:	5/26/2011		Project Consultant: RECS	Location: UL/N sec. 2 T18S R27E		
Comments:		All samples were taken from cuttings.				
DRAFTED BY: L. Weinheimer		Lat: 32°46'12.418"N		County: Eddy		
TD = 10 ft		GW = none		State: NM		
Depth (feet)	chloride field tests	LAB	PID	Description	Lithology	Well Construction
				Brown very fine silty sand		
SS	1,137	CI-1480	105			
		GRO 64.4		Red clay with a cemented sand mix		
		DRO 2510				
5 ft	180		7.3	Red clay with a cemented sand mix		
10 ft	182	CI-112	2.7			
		GRO <10				
		DRO <10				

Logger:	Jordan Woodfin			
Driller:	Harrison & Cooper, Inc.			Company: Apache Corporation Project Name: Empire Abo Unit M-14-2 AD Well ID: Temp MW-1 Project Consultant: RECS Location: UL/N sec. 2 T18S R27E
Drilling Method:	Air rotary			
Start Date:	5/25/2011	Comments: No samples were taken while this bore was being installed. <u>Temp. MW PLUGGED 7-7-2011</u> DRAFTED BY: L. Weinheimer TD = 100 ft GW = none	Lat: 32°46'13.023"N County: Eddy Long: 104°15'8.581"W State: NM	
End Date:	5/25/2011			

Depth (feet)	chloride field tests	LAB	PID	Description		Lithology		Well Construction			
40 ft											
45 ft											
50 ft											
55 ft											
60 ft											
65 ft											
70 ft											
75 ft											
80 ft											
85 ft											

annular
space left
open

TEMP MW-1
PLUGGED
7/7/2011

[illegible]

Rice Environmental Consulting & Safety

P.O. Box 5630 Hobbs, NM 88241

Phone 575.393.4411 Fax 575.393.0293

July 11th, 2011

Natalie Gladden

Apache Corp.

P.O. Box 1849

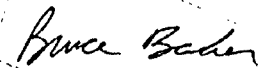
Eunice, New Mexico 88231

Re: Apache Empire Abo Unit M-14-2 AD

Ms. Gladden,

On May 25th, 2011, RECS personnel drilled an observational well at the Apache Empire Abo Unit M-14-2 AD. On June 28th, I supervised ARC Environmental personnel checking for water accumulation within the borehole using a Solinst Water Level Meter. The meter indicated no water had accumulated within the borehole at the total depth of 95.32 ft.

Sincerely,



Bruce Baker

Head Foreman

Rice Environmental Consulting & Safety



P.O. Box 5630
Hobbs, NM 88241
Phone: 575-393-4411

Monitor Well Plugging Report

Client	Apache Corp.
Contractor	RECS
Date Completed	7/7/2011
Site	Empire Abo Unit M-14
County	Eddy
Legal Description	UL/N sec. 2 T18S R27E
Well ID	Temp. MW-1
Casing Diameter	N/A
Well Depth	100'
Casing Material	N/A
Plugging Material	Bentonite

Appendix C

Site Photographs

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

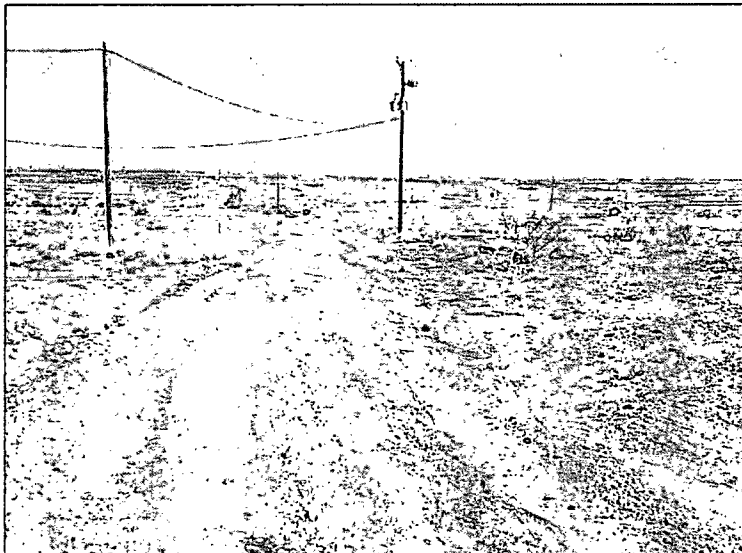
Empire Abo Unit M-14

Unit C, Section 11, T18S, R27E



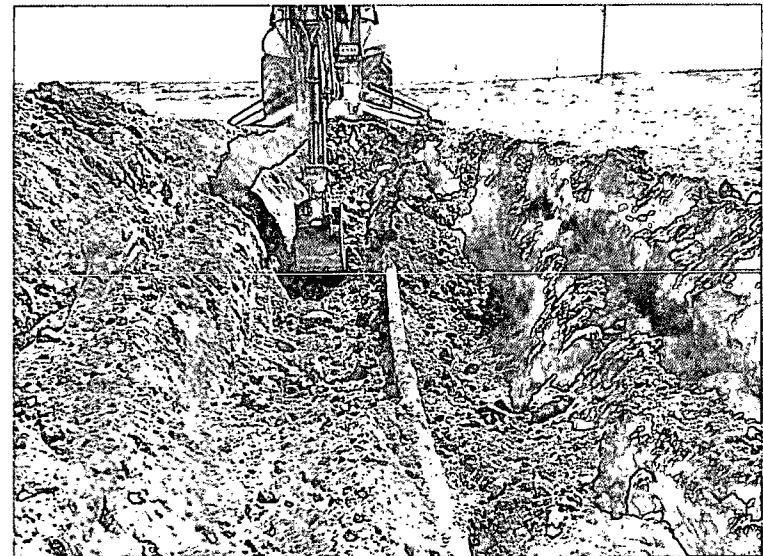
Prior to excavation, facing north

5/2/2011



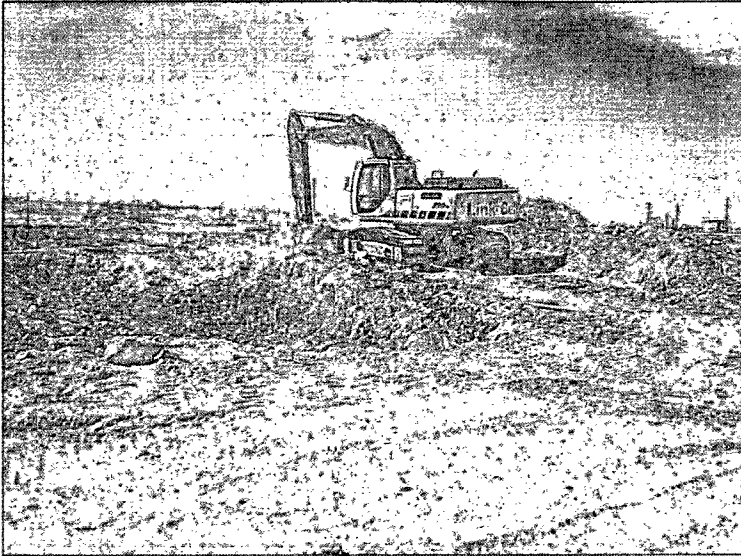
Prior to excavation, facing north

5/2/2011



Excavating emulsion line, facing west

5/3/2011



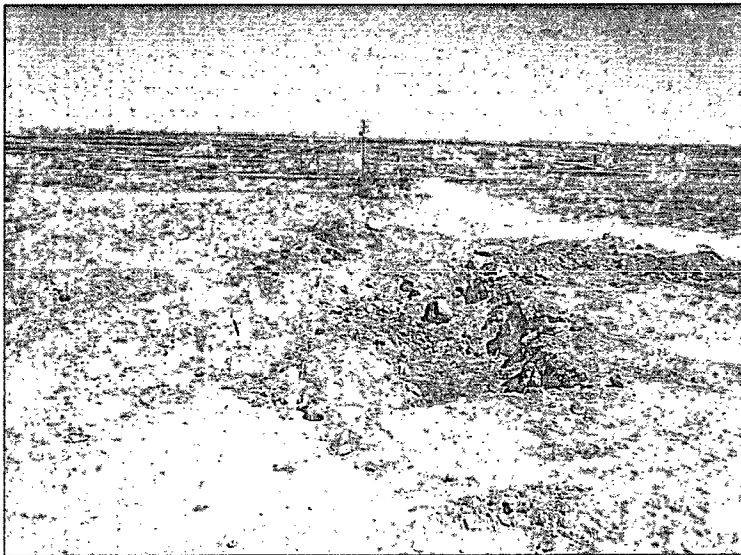
Excavating, facing west

5/9/2011



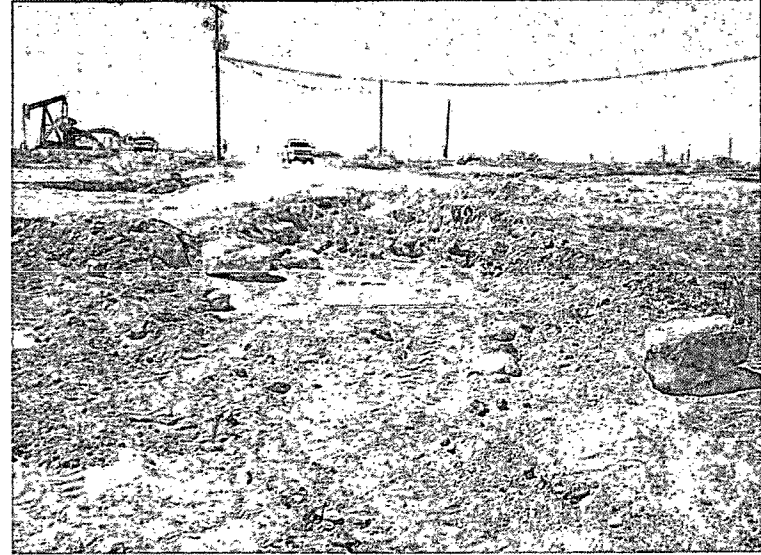
Final excavation, facing east

5/12/2011



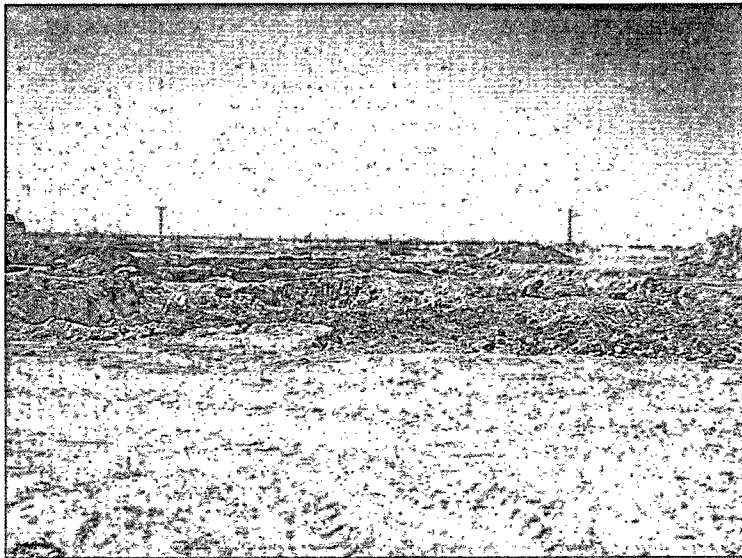
Final excavation west, facing north

5/12/2011



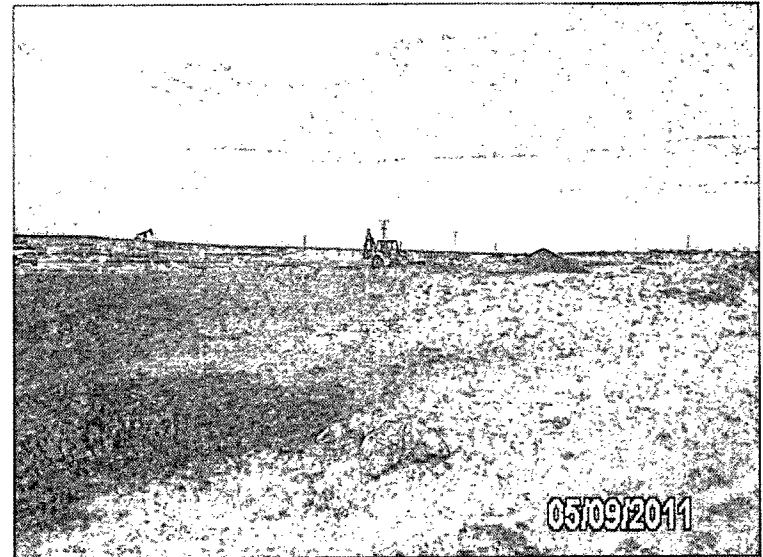
Final excavation south, facing west

5/12/2011



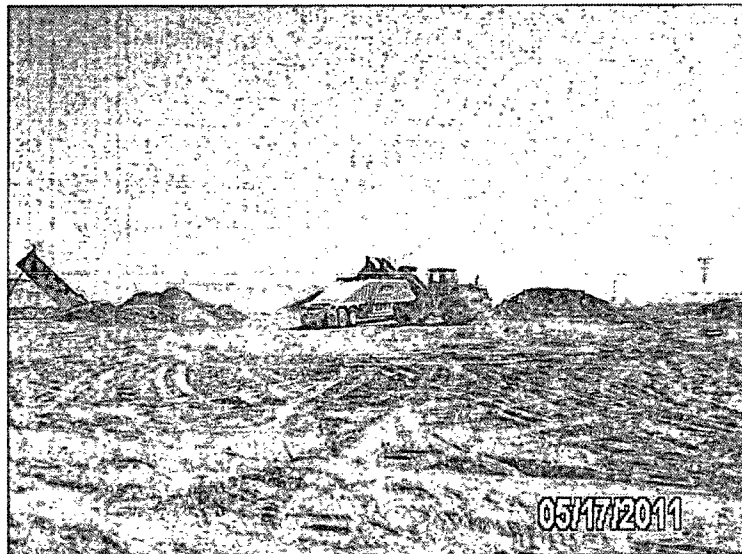
Final excavation, facing east

5/12/2011



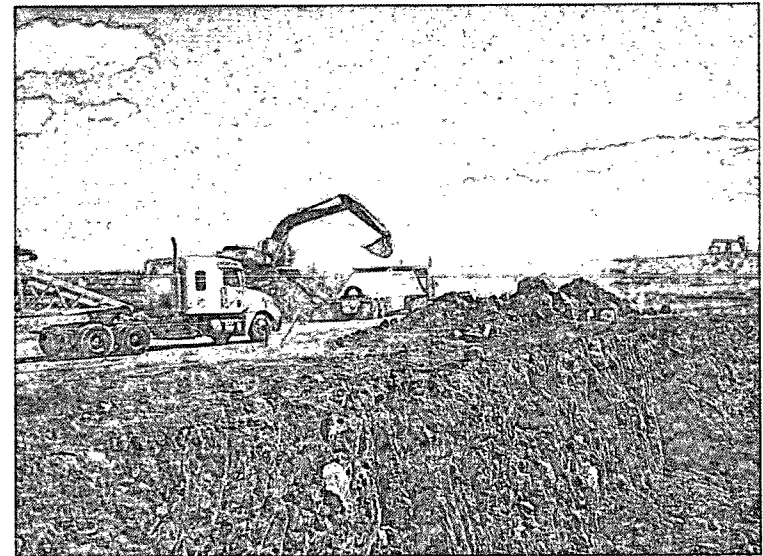
Historical impact area, facing northeast

5/9/2011



Removing spoil pile, facing east

5/17/2011



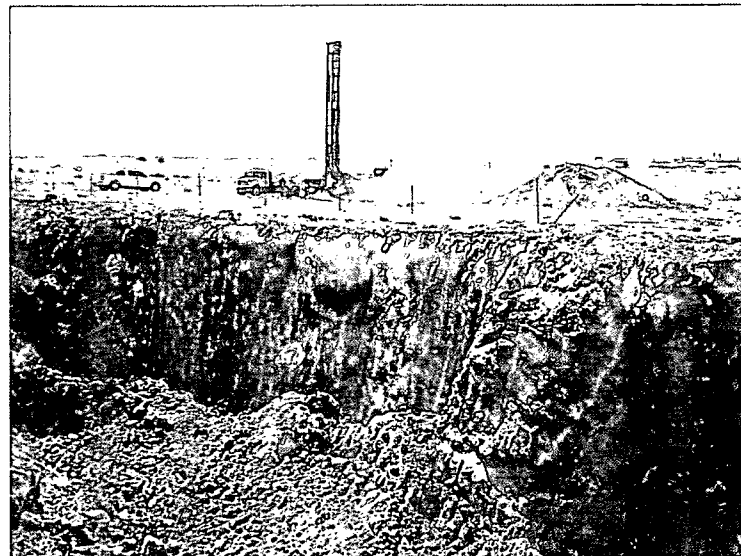
Excavating, facing east

5/19/2011



Sampling, facing west

5/19/2011



Drilling temporary monitor well, facing east 5/25/2011



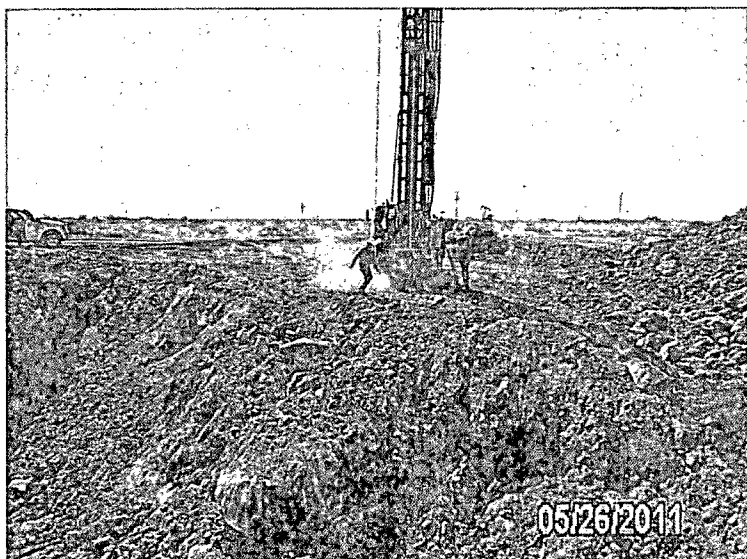
Drilling SB1, facing east

5/26/2011



Plugging SB1, facing north

5/26/2011



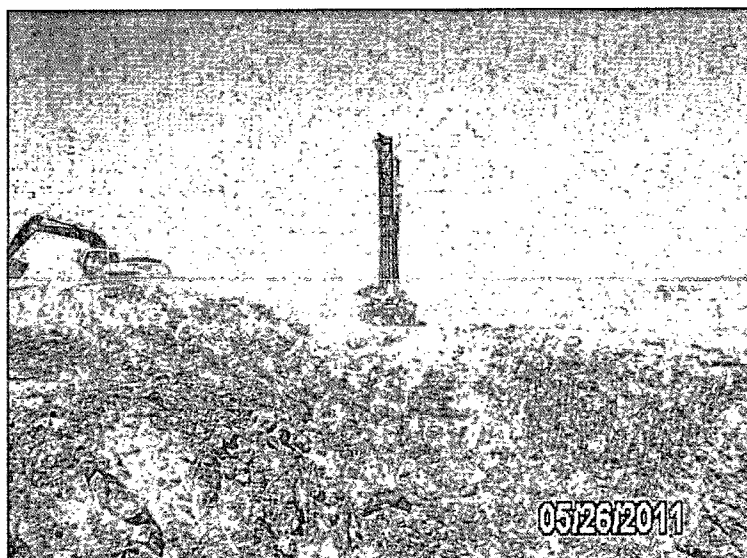
Drilling SB2, facing southeast

5/25/2011



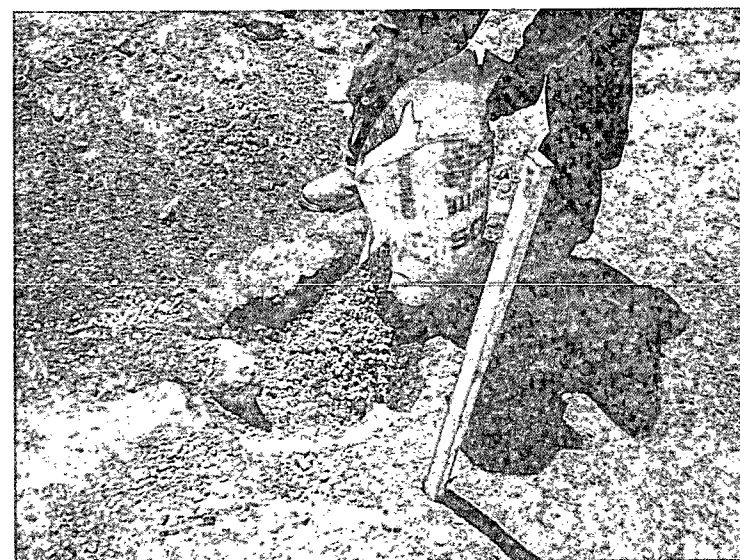
Plugging SB2, facing south

5/26/2011



Drilling SB3, facing west

5/26/2011



Plugging SB3, facing west

5/26/2011

Appendix D

Primary Leak Laboratory Results

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/03/2011
 Reported: 05/10/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 240' NORTH (H100898-01)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/05/2011	ND	1.93	96.5	2.00	1.75		
Toluene*	0.055	0.050	05/05/2011	ND	1.91	95.5	2.00	1.89		
Ethylbenzene*	0.062	0.050	05/05/2011	ND	1.96	97.8	2.00	1.83		
Total Xylenes*	0.381	0.150	05/05/2011	ND	5.76	96.1	6.00	1.86		

Surrogate: 4-Bromofluorobenzene (PIE) 93.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	14400	16.0	05/05/2011	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	343	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	14500	50.0	05/05/2011	ND	212	106	200	4.80	

Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 115 % 70-130

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

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:	05/03/2011	Sampling Date:	05/02/2011
Reported:	05/10/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: 5' NORTH (H100898-02)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	6.09	5.00	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	43.4	5.00	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	41.3	5.00	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	144	15.0	05/06/2011	ND	5.76	96.1	6.00	1.86	

Surrogate: 4-Bromofluorobenzene (PIL) 74.7 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	7300	16.0	05/05/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	5080	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	31100	100	05/10/2011	ND	212	106	200	4.80	

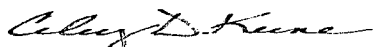
Surrogate: 1-Chlorooctane 112 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/03/2011
 Reported: 05/10/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 700' NORTH 36' WEST (H100898-03)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<1.00	1.00	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	3.18	1.00	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	5.84	1.00	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	31.6	3.00	05/06/2011	ND	5.76	96.1	6.00	1.86	

Surrogate: 4-Bromofluorobenzene (PIL) 96.1 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	10900	16.0	05/05/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1640	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	31600	100	05/10/2011	ND	212	106	200	4.80	

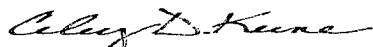
Surrogate: 1-Chlorooctane 119 % 70-130

Surrogate: 1-Chlorooctadecane 122 % 70-130

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/03/2011
 Reported: 05/10/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 260' NORTH 25' EAST (H100898-04)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	2.49	0.050	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	6.18	0.050	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	25.3	0.150	05/06/2011	ND	5.76	96.1	6.00	1.86	

Surrogate: 4-Bromofluorobenzene (PIL) 78.2 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24800	16.0	05/05/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	2520	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	24100	50.0	05/05/2011	ND	212	106	200	4.80	


Surrogate: 1-Chlorooctane 86.0 % 70-130

Surrogate: 1-Chlorooctadecane 116 % 70-130

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Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/03/2011
 Reported: 05/10/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 55' NORTH 22' EAST (H100898-05)

BTEx 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<1.00	1.00	05/06/2011	ND	1.93	96.5	2.00	1.75		
Toluene*	15.6	1.00	05/06/2011	ND	1.91	95.5	2.00	1.89		
Ethylbenzene*	20.9	1.00	05/06/2011	ND	1.96	97.8	2.00	1.83		
Total Xylenes*	72.8	3.00	05/06/2011	ND	5.76	96.1	6.00	1.86		

Surrogate: 4-Bromofluorobenzene (PIL) 72.3 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4600	16.0	05/05/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	3500	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	29400	100	05/10/2011	ND	212	106	200	4.80	


Surrogate: 1-Chlorooctane 113 % 70-130

Surrogate: 1-Chlorooctadecane 106 % 70-130

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Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/03/2011
 Reported: 05/10/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 487' NORTH (H100898-06)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/06/2011	ND	1.93	96.5	2.00	1.75	
Toluene*	1.14	0.050	05/06/2011	ND	1.91	95.5	2.00	1.89	
Ethylbenzene*	3.83	0.050	05/06/2011	ND	1.96	97.8	2.00	1.83	
Total Xylenes*	18.0	0.150	05/06/2011	ND	5.76	96.1	6.00	1.86	

Surrogate: 4-Bromofluorobenzene (PIL) 71.1 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	14000	16.0	05/05/2011	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1240	50.0	05/05/2011	ND	207	104	200	6.80	
DRO >C10-C28	26000	50.0	05/05/2011	ND	212	106	200	4.80	

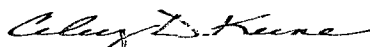
Surrogate: 1-Chlorooctane 98.5 % 70-130

Surrogate: 1-Chlorooctadecane 114 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



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101 East Mallard, Hobbs, NM 88249 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: Apache Corp.				BILL TO				ANALYSIS REQUEST											
Project Manager: Natalie Gladden				P.O. #:															
Address: Apache Corp.				Company:															
City:		State: NM		Zip:		Alt:													
Phone #:		Fax #:		Address:		City:													
Project #:		Project Owner:		State:		Zip:													
Project Name: <i>EMPIRE ALO 4-14</i>				City:															
Project Location:				Phone #:															
Sampler Name: <i>DAK HARRIS</i>				Fax #:															

Lab I.D.	Sample I.D.	G/FAB OR IC/COMP.	# CONTAINERS	MATRIX						PRESERV			SAMPLING		Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACIDBASE	ICE/COOL	OTHER	DATE	TIME						
H100898-1	240' North	G	1			✓					✓		5/2/11	9:15	✓	✓	✓			
2	5' North	G	1			✓					✓		5/2/11	9:30	✓	✓	✓			
3	200' North 30' West	G	1			✓					✓		5/2/11	9:40	✓	✓	✓			
4	200' North 95' East	G	1			✓					✓		5/2/11	9:45	✓	✓	✓			
5	55' North 97' East	G	1			✓					✓		5/2/11	9:50	✓	✓	✓			
6	457' North	G	1			✓					✓		5/2/11	10:00	✓	✓	✓			

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Relinquished By: <i>Dak Harris</i>	Date: <i>5/3/11</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>[Signature]</i>	Date: <i>5/3/11</i>	Received By: <i>Jodi Benson</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)			REMARKS:	
Sampler - UPS - Bus - Other:			email results	
			zconder@rice-ecs.com; Lweinheimer@rice-ecs.com	
			Hconder@riceswd.com; Bbaker@rice-ecs.com	
			Natalie.Gladden@usa.apachecorp.com	

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

#26

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/09/2011	Sampling Date:	05/02/2011
Reported:	05/13/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO # M - 14 A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: 55' NORTH 22' EAST (H100934-01)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	9.93	5.00	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	14.4	5.00	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	15.8	5.00	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	59.0	15.0	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 92.5 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4040	16.0	05/10/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	611	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	27700	100	05/12/2011	ND	198	98.9	200	0.901	

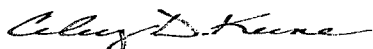
Surrogate: 1-Chlorooctane 96.4 % 70-130

Surrogate: 1-Chlorooctadecane 83.7 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/09/2011
 Reported: 05/13/2011
 Project Name: EMPIRE ABO # M - 14 A. D.
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 260' NORTH 25' EAST (H100934-02)

BTX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	0.441	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.811	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	5.53	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	24000	16.0	05/10/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	501	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	11100	100	05/12/2011	ND	198	98.9	200	0.901	

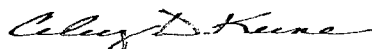
Surrogate: 1-Chlorooctane 130 % 70-130

Surrogate: 1-Chlorooctadecane 127 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/09/2011
 Reported: 05/13/2011
 Project Name: EMPIRE ABO # M - 14 A. D.
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SOURCE OF LEAK (H100934-03)

BTX 8021B		mg/kg		Analyzed By: CMS				S-LOW	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.100	0.100	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	1.18	0.100	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	2.77	0.100	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	12.2	0.300	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 61.7 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	6240	16.0	05/10/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1620	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	34700	100	05/12/2011	ND	198	98.9	200	0.901	

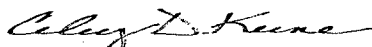
Surrogate: 1-Chlorooctane 104 % 70-130

Surrogate: 1-Chlorooctadecane 71.8 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/09/2011
 Reported: 05/13/2011
 Project Name: EMPIRE ABO # M - 14 A. D.
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/02/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: 700' NORTH 36' WEST (H100934-04)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	0.263	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.895	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	4.29	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PII) 95.2 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	5000	16.0	05/10/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	620	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	29600	100	05/12/2011	ND	198	98.9	200	0.901	

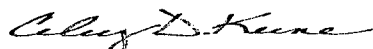
Surrogate: 1-Chlorooctane 73.6 % 70-130

Surrogate: 1-Chlorooctadecane 81.3 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/09/2011	Sampling Date:	05/02/2011
Reported:	05/13/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO # M - 14 A. D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: 487' NORTH CENTER OF PAD (H100934-05)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/11/2011	ND	1.97	98.7	2.00	2.34	
Toluene*	0.292	0.050	05/11/2011	ND	1.99	99.6	2.00	2.26	
Ethylbenzene*	0.966	0.050	05/11/2011	ND	2.00	100	2.00	1.50	
Total Xylenes*	4.43	0.150	05/11/2011	ND	5.98	99.6	6.00	1.71	

Surrogate: 4-Bromofluorobenzene (PIL) 86.6 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	12600	16.0	05/10/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	460	100	05/12/2011	ND	173	86.3	200	0.975	
DRO >C10-C28	19200	100	05/12/2011	ND	198	98.9	200	0.901	

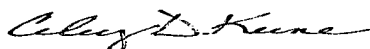
Surrogate: 1-Chlorooctane 121 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



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101 East Mainland, 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: Apache Corp.				BILL TO				ANALYSIS REQUEST			
Project Manager: Natalie Gladden				P.O. #:							
Address: Apache Corp.				Company:							
City:		State: NM Zip:		Address:							
Phone #:		Fax #:		City:							
Project #:		Project Owner:		State:				Zip:			
Project Name: EMPIRE Abo # M-14 A.D.				Phone #:							
Project Location:				Fax #:							
Sample Name: DAK											

Lab I.D.	Sample I.D.	CONTAINER OR OTHER	# CONTAINERS	MATRIX					PRESERV		SAMPLING		Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS	
				GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER	PAC/USE	ICE / COOL	OTHER	DATE							TIME
H100934																			
-1	55°N 22°E	G-1	1										5-8-11	8:30	✓	✓	✓		
2	260°N 35°E	G-1	1										5-8-11	3:50	✓	✓	✓		
3	Source of LEAK	G-1	1										5-8-11	4:10	✓	✓	✓		
4	700°N 36°W	G-1	1										5-8-11	4:25	✓	✓	✓		
5	487°N Center of PAD	G-1	1										5-8-11	4:50	✓	✓	✓		

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Analyzed By: <i>Dak Harris</i> Date: 5-9-11 Time: 3:00 Delivered By: <i>Kyle W.</i> Date: 5-9-11 Time: 3:15 Delivered By: (Circle One) Sampler - UFS - Bus - Other:	Received By: <i>Kyle W.</i> Date: 5-9-11 Time: 3:15 Received By: <i>Jodi Benson</i> Date: 5-9-11 Time: 3:15 Delivered By: (Circle One) Sampler - UFS - Bus - Other:	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #: _____ Add'l Fax #: _____ REMARKS: email results jconder@rice-ecs.com; lweinheimer@rice-ecs.com jconder@riceswd.com; blaker@rice-ecs.com Natalie.Gladden@usa.apachecorp.com
--	--	---

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-6736

#26

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: CALICHE ROAD CENTER (H100985-01)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 88.7 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 102 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

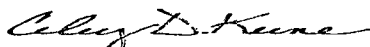
Surrogate: 1-Chlorooctane 113 % 70-130

Surrogate: 1-Chlorooctadecane 109 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: CALICHE ROAD SOUTH (H100985-02)

BTX 8260B			mg/kg		Analyzed By: CMS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 90.8 % 80-120

Surrogate: Toluene-d8 108 % 80-120

Surrogate: 4-Bromofluorobenzene 102 % 80-120

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	22.3	10.0	05/15/2011	ND	164	82.2	200	3.75	

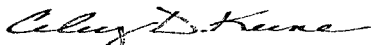
Surrogate: 1-Chlorooctane 99.7 % 70-130

Surrogate: 1-Chlorooctadecane 96.4 % 70-130

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Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: CALICHE ROAD NORTH (H100985-03)

BTEX 8260B			mg/kg		Analyzed By: CMS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 89.3 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 107 % 80-120

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	92.4	10.0	05/15/2011	ND	164	82.2	200	3.75	

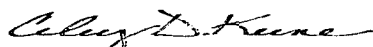
Surrogate: 1-Chlorooctane 98.8 % 70-130

Surrogate: 1-Chlorooctadecane 92.4 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: E EXC BTM @ 3' (H100985-04)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.2 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 105 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

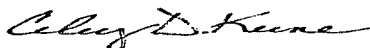
Surrogate: 1-Chlorooctane 112 % 70-130

Surrogate: 1-Chlorooctadecane 110 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: E EXC N WALL (H100985-05)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.7 % 80-120

Surrogate: Toluene-d8 108 % 80-120

Surrogate: 4-Bromofluorobenzene 106 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

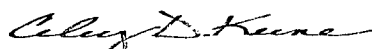
Surrogate: 1-Chlorooctane 100 % 70-130

Surrogate: 1-Chlorooctadecane 95.3 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: E EXC S WALL (H100985-06)

BTX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 92.9 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	


Surrogate: 1-Chlorooctane 110 % 70-130

Surrogate: 1-Chlorooctadecane 108 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/10/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: E EXC E WALL (H100985-07)

BTEX 8260B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10		

Surrogate: Dibromofluoromethane 92.6 % 80-120

Surrogate: Toluene-d8 105 % 80-120

Surrogate: 4-Bromofluorobenzene 105 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	656	16.0	05/13/2011	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48		
DRO >C10-C28	23.7	10.0	05/15/2011	ND	164	82.2	200	3.75		

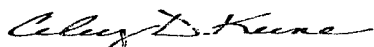
Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 94.0 % 70-130

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: E EXC W WALL (H100985-08)

BTX 8260B			mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10		

Surrogate: Dibromofluoromethane 93.4 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 105 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	05/13/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

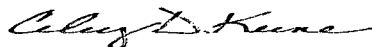
Surrogate: 1-Chlorooctane 109 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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Celest D. Keene, Lab Director/Quality Manager



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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: Apache				BILL TO				ANALYSIS REQUEST											
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>											
Address:				Company:															
City: State: NM Zip:				Attn:															
Phone #: Fax #:				Address:															
Project #: Project Owner:				City:															
Project Name: <i>Apache Empire AIO #11-14</i>				State: Zip:															
Project Location:				Phone #:															
Sampler Name: <i>Zach DAK</i>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	GRAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME					
H100985	center																		
1	Caliche Road <i>approx 1/2 mi S</i>	G	1			✓					✓		5-10-11	1:10 pm	✓	✓			
2	Caliche Road South	G	1			✓					✓		5-10-11	1:00 pm	✓	✓			
3	Caliche Road North	G	1			✓					✓		5-10-11	1:05 pm	✓	✓			
4	East Excavation Btm @ 3'	G	1			✓					✓		5-10-11	1:15 pm	✓	✓			
5	East Excavation North Wall	G	1			✓					✓		5-10-11	1:21 pm	✓	✓			
6	East Excavation South Wall	G	1			✓					✓		5-10-11	1:32 pm	✓	✓			
7	East Excavation East Wall	G	1			✓					✓		5-10-11	1:49 pm	✓	✓			
8	East Excavation West Wall	G	1			✓					✓		5-10-11	2:00 pm	✓	✓			

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Relinquished By: <i>[Signature]</i>	Date: <i>5-13-11</i> Time: <i>9:15 AM</i>	Received By: <i>Bruce Baker</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>Bruce Baker</i>	Date: <i>5-13-11</i> Time: <i>10:24 AM</i>	Received By: <i>Joelle Nelson</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: <i>-60</i>			REMARKS: email results <i>Rush !!!</i> Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	
Sample Condition Cool, Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			CHECKED BY: <i>[Signature]</i> (Initials)	

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

#26

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N EXC BTM CENT @3' (H100986-01)

BTX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 93.0 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

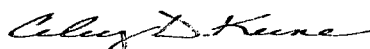
Surrogate: 1-Chlorooctane 102 % 70-130

Surrogate: 1-Chlorooctadecane 105 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N EXC N WALL (H100986-02)

BTEX 8260B		mg/kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 93.8 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 105 % 80-120

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

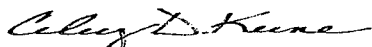
Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 109 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/10/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: N EXC S WALL (H100986-03)

BTX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.7 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

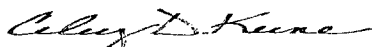
Surrogate: 1-Chlorooctane 101 % 70-130

Surrogate: 1-Chlorooctadecane 101 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N EXC E WALL (H100986-04)

BTEX 8260B			mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10		

Surrogate: Dibromofluoromethane 92.9 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

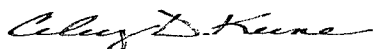
Surrogate: 1-Chlorooctane 97.8 % 70-130

Surrogate: 1-Chlorooctadecane 105 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: N EXC W WALL (H100986-05)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.4 % 80-120

Surrogate: Toluene-d8 108 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

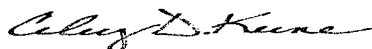
Surrogate: 1-Chlorooctane 103 % 70-130

Surrogate: 1-Chlorooctadecane 103 % 70-130

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* = Accredited Analyte

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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: Apache				BILL TO				ANALYSIS REQUEST													
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>													
Address:				Company:																	
City: State: NM Zip:				Attn:																	
Phone #: Fax #:				Address:																	
Project #: Project Owner:				City:																	
Project Name: <i>Apache Empire A10 # 19-14</i>				State: Zip:																	
Project Location:				Phone #:																	
Sampler Name: <i>Zach DAK</i>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING										
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME							
H1009806	1 North Excavation Bitm												5-10-11	2:26pm	✓	✓	✓				
	2 Center @ 3'	6	1			✓					✓		5-10-11	2:30pm	✓	✓	✓				
	3 North Excavation North Wall	6	1			✓					✓		5-10-11	2:46pm	✓	✓	✓				
	4 North Excavation South Wall	6	1			✓					✓		5-10-11	3:16pm	✓	✓	✓				
	5 North Excavation East Wall	6	1			✓					✓		5-10-11	3:26pm	✓	✓	✓				
	6 North Excavation West Wall	6	1			✓					✓		5-10-11	3:26pm	✓	✓	✓				

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Relinquished By: <i>Bob Harris</i>	Date: <i>5-13-11</i> Time: <i>7:32 AM</i>	Received By: <i>Bruce Baker</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>Bruce Baker</i>	Date: <i>5-13-11</i> Time: <i>10:26 AM</i>	Received By: <i>Jodi Henson</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - <u>Other</u>		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	REMARKS: email results <i>Rush!!!</i> Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	
		CHECKED BY: (Initials) <i>GH</i>		

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

#26

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/11/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S EXC N WALL (H100988-01)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.0 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 102 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	


Surrogate: 1-Chlorooctane 121 % 70-130

Surrogate: 1-Chlorooctadecane 118 % 70-130

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/11/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S EXC W WALL (H100988-02)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 93.4 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 105 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	

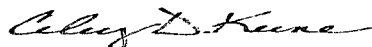
Surrogate: 1-Chlorooctane 93.4 % 70-130

Surrogate: 1-Chlorooctadecane 78.1 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/12/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SE EXC BTM @ 6" (H100988-03)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 95.2 % 80-120

Surrogate: Toluene-d8 107 % 80-120

Surrogate: 4-Bromofluorobenzene 106 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	34.8	10.0	05/16/2011	ND	172	85.9	200	2.45	

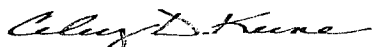
Surrogate: 1-Chlorooctane 110 % 70-130

Surrogate: 1-Chlorooctadecane 106 % 70-130

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Celestine D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/12/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SE EXC W WALL (H100988-05)

BTEX 8260B		mg/kg	Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 94.6 % 80-120

Surrogate: Toluene-d8 105 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	

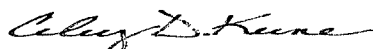
Surrogate: 1-Chlorooctane 110 % 70-130

Surrogate: 1-Chlorooctadecane 108 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/12/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SE EXC S WALL (H100988-06)

BTX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 92.7 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 104 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	384	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/16/2011	ND	172	85.9	200	2.45	

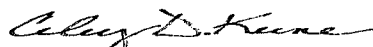
Surrogate: 1-Chlorooctane 124 % 70-130

Surrogate: 1-Chlorooctadecane 122 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/12/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: SE EXC E WALL (H100988-07)

BTEX 8260B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	1.66	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	3.21	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.08	104	2.00	2.78	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.36	106	6.00	3.10	

Surrogate: Dibromofluoromethane 91.7 % 80-120

Surrogate: Toluene-d8 106 % 80-120

Surrogate: 4-Bromofluorobenzene 106 % 80-120

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	336	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GR0 C6-C10	<10.0	10.0	05/16/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	10.2	10.0	05/16/2011	ND	172	85.9	200	2.45	

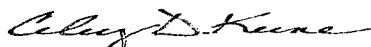
Surrogate: 1-Chlorooctane 106 % 70-130

Surrogate: 1-Chlorooctadecane 101 % 70-130

Cardinal Laboratories

*=Accredited Analyte

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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: Apache				BILL TO				ANALYSIS REQUEST											
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; flex-direction: column; align-items: center;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>											
Address:				Company:															
City: State: NM Zip:				Attn:															
Phone #: Fax #:				Address:															
Project #: Project Owner:				City:															
Project Name: <i>Empire Apache Empire Abo HH-14</i>				State: Zip:															
Project Location:				Phone #:															
Sampler Name: <i>Zach</i>				Fax #:															
FOR LAB USE ONLY																			
Lab I.D.	Sample I.D.	GRAB OR (COMP. #)	CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	PRESERV.	SAMPLING								
<i>H100988</i>																			
<i>1</i>	<i>South Excavation North Wall</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-11-11</i>	<i>11:45am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>2</i>	<i>South Excavation West Wall</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-11-11</i>	<i>11:50am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>3</i>	<i>South East Excavation</i>																		
	<i>Bottom @ 6"</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-12-11</i>	<i>10:00am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>4</i>	<i>South East Excavation</i>																		
	<i>North Wall</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-12-11</i>	<i>10:15am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>5</i>	<i>Southeast Excavation Wall</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-12-11</i>	<i>10:20am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>6</i>	<i>Southeast Excavation South</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-12-11</i>	<i>10:30am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				
<i>7</i>	<i>Southeast Excavation East Wall</i>	<i>6</i>	<i>1</i>			<i>✓</i>				<i>✓</i>	<i>5-12-11</i>	<i>10:37am</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>				

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Relinquished By: <i>Don Harv</i>	Date: <i>5-13-11</i> Time: <i>10:20am</i>	Received By: <i>Bruce Bacher</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Relinquished By: <i>Bruce Bacher</i>	Date: <i>5-13-11</i> Time: <i>10:29am</i>	Received By: <i>Jodi Henderson</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One)		Sample Condition: Cool: <input checked="" type="checkbox"/> Intact: <input checked="" type="checkbox"/>	REMARKS: email results <i>Rush !!!</i>
Sampler - UPS - Bus - Other: <i>Other</i>		Checked By: <i>CH</i>	Natalie.Gladden@usa.apachecorp.com;
			Zconder@rice-ecs.com; Bbaker@rice-ecs.com;
			hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: W EXC BTM @2' (H100987-01)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PIE) 91.7 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

Surrogate: 1-Chlorooctane 99.1 % 70-130

Surrogate: 1-Chlorooctadecane 99.8 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: W EXC N WALL (H100987-02)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PIL) 91.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/14/2011	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

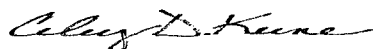
Surrogate: 1-Chlorooctane 117 % 70-130

Surrogate: 1-Chlorooctadecane 119 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: W EXC S WALL (H100987-03)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PIL) 91.9 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	05/14/2011	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

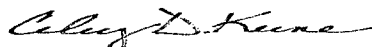
Surrogate: 1-Chlorooctane 95.0 % 70-130

Surrogate: 1-Chlorooctadecane 94.8 % 70-130

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: W EXC E WALL (H100987-04)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/13/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/13/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/13/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/13/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PIL) 91.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	05/14/2011	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

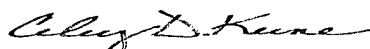
Surrogate: 1-Chlorooctane 115 % 70-130

Surrogate: 1-Chlorooctadecane 111 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: W EXC W WALL (H100987-05)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	

Surrogate: 4-Bromofluorobenzene (PII) 91.8 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	05/14/2011	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

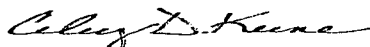
Surrogate: 1-Chlorooctane 105 % 70-130

Surrogate: 1-Chlorooctadecane 103 % 70-130

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Celest D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/13/2011
 Reported: 05/16/2011
 Project Name: EMPIRE ABO UNIT M-14
 Project Number: NONE GIVEN
 Project Location: NOT GIVEN

 Sampling Date: 05/11/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: S EXC S BTM@ 9' (H100987-06)

BTEX 8021B			mg/kg		Analyzed By: CMS				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	

Surrogate: 4-Bromofluorobenzene (PIE) 93.3 % 70-130

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	272	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	186	92.9	200	5.48	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	164	82.2	200	3.75	

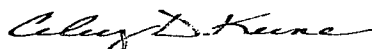
Surrogate: 1-Chlorooctane 108 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 05/13/2011
Reported: 05/16/2011
Project Name: EMPIRE ABO UNIT M-14
Project Number: NONE GIVEN
Project Location: NOT GIVEN

Sampling Date: 05/11/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: S EXC N BTM @ 4' (H100987-07)

BTEX 8021B		mg/kg		Analyzed By: CMS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8	
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9	
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7	
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0	

Surrogate: 4-Bromofluorobenzene (PIL) 91.0 % 70-130

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	05/14/2011	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: AB						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21		
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45		


Surrogate: 1-Chlorooctane 90.6 % 70-130

Surrogate: 1-Chlorooctadecane 66.2 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/11/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: S EXC S WALL (H100987-08)

BTEX 8021B		mg/kg		Analyzed By: CMS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PII) 93.1 % 70-130

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	05/14/2011	ND	432	108	400	0.00		

TPH 8015M		mg/kg		Analyzed By: AB				S-04	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21	
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45	

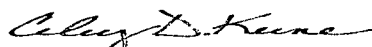
Surrogate: 1-Chlorooctane 85.3 % 70-130

Surrogate: 1-Chlorooctadecane 66.7 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received:	05/13/2011	Sampling Date:	05/11/2011
Reported:	05/16/2011	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT M-14	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

Sample ID: S EXC E WALL (H100987-09)

BTEX 8021B			mg/kg							Analyzed By: CMS
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	05/14/2011	ND	2.15	107	2.00	11.8		
Toluene*	<0.050	0.050	05/14/2011	ND	2.10	105	2.00	11.9		
Ethylbenzene*	<0.050	0.050	05/14/2011	ND	2.14	107	2.00	12.7		
Total Xylenes*	<0.150	0.150	05/14/2011	ND	6.30	105	6.00	13.0		

Surrogate: 4-Bromofluorobenzene (PIL) 97.7 % 70-130

Chloride, SM4500Cl-B			mg/kg							Analyzed By: HM
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	144	16.0	05/14/2011	ND	432	108	400	0.00		

TPH 8015M			mg/kg							Analyzed By: AB
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/15/2011	ND	199	99.4	200	2.21		
DRO >C10-C28	<10.0	10.0	05/15/2011	ND	172	85.9	200	2.45		

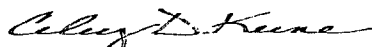
Surrogate: 1-Chlorooctane 115 % 70-130

Surrogate: 1-Chlorooctadecane 111 % 70-130

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Celest D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Relinquished By: <i>Bob Harris</i>		Date: <i>5-13-11</i> Time: <i>10:23 AM</i>	Received By: <i>Bruce Baker</i>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By: <i>Bruce Baker</i>		Date: <i>5-13-11</i> Time: <i>10:27 AM</i>	Received By: <i>Jodi Henson</i>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - <u>Other:</u>			Sample Condition Cool: <input checked="" type="checkbox"/> Intact: <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>JBH</i>	REMARKS: <i>Rush !!!</i> email results Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	

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

Appendix E

Historical Impact Area and Soil Bore Laboratory Results

RICE Environmental Consulting and Safety (RECS)

P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: S. EXC N END BTM @ 8' (H101217-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	68.3	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane	99.6 %	70-130							
Surrogate: 1-Chlorooctadecane	110 %	70-130							

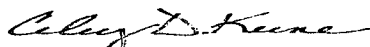
Sample ID: S. EXC W END BTM @ 8' (H101217-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane									
	90.7 %	70-130							
Surrogate: 1-Chlorooctadecane									
	98.4 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: S. EXC BTM CENTER (H101217-03)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	06/13/2011	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane		85.9 %	70-130						
Surrogate: 1-Chlorooctadecane		88.7 %	70-130						

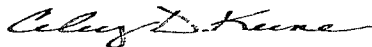
Sample ID: S. EXC S WALL W END (H101217-04)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	684	10.0	06/14/2011	ND	148	73.9	200	3.69	
Surrogate: 1-Chlorooctane		86.9 %	70-130						
Surrogate: 1-Chlorooctadecane		94.7 %	70-130						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 06/11/2011
Reported: 06/17/2011
Project Name: EMPIRE ABO UNIT M-14-2
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 06/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Hope S. Moreno

Sample ID: S. EXC S WALL CENTER (H101217-05)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	<10.0	10.0	06/14/2011	ND	148	73.9	200	3.69	
<i>Surrogate: 1-Chlorooctane</i>			86.6 %	70-130					
<i>Surrogate: 1-Chlorooctadecane</i>			110 %	70-130					


Sample ID: S. EXC S WALL E END (H101217-06)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	208	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	86.7	10.0	06/15/2011	ND	148	73.9	200	3.69	
<i>Surrogate: 1-Chlorooctane</i>			91.8 %	70-130					
<i>Surrogate: 1-Chlorooctadecane</i>			102 %	70-130					

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Celestine D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: S. EXC E WALL S END (H101217-07)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	98.8	10.0	06/14/2011	ND	148	73.9	200	3.69	

Surrogate: 1-Chlorooctane 80.6 % 70-130

Surrogate: 1-Chlorooctadecane 81.3 % 70-130

Sample ID: S. EXC E WALL CENTER (H101217-08)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2011	ND	142	70.9	200	1.47	
DRO >C10-C28	255	10.0	06/14/2011	ND	148	73.9	200	3.69	

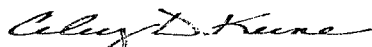
Surrogate: 1-Chlorooctane 69.3 % 70-130

Surrogate: 1-Chlorooctadecane 71.2 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: S. EXC W WALL CENTER (H101217-09)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	438	10.0	06/15/2011	ND	186	93.1	200	1.38	

Surrogate: 1-Chlorooctane 91.0 % 70-130

Surrogate: 1-Chlorooctadecane 93.3 % 70-130

Sample ID: W EXC S BTM @ 6' (H101217-10)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	

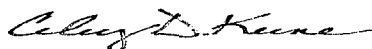
Surrogate: 1-Chlorooctane 93.6 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: W EXC CENTER BTM @ 6' (H101217-11)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane									
	84.7 %	70-130							
Surrogate: 1-Chlorooctadecane									
	96.7 %	70-130							

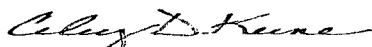
Sample ID: W EXC N CENT WALL (H101217-12)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1020	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	2540	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane									
	86.7 %	70-130							
Surrogate: 1-Chlorooctadecane									
	81.1 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: W EXC N WALL W END (H101217-13)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	480	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	113	10.0	06/15/2011	ND	186	93.1	200	1.38	

Surrogate: 1-Chlorooctane 86.0 % 70-130

Surrogate: 1-Chlorooctadecane 86.4 % 70-130

Sample ID: W EXC W WALL CENT (H101217-14)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	336	16.0	06/13/2011	ND	432	108	400	3.64		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38		

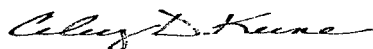
Surrogate: 1-Chlorooctane 87.4 % 70-130

Surrogate: 1-Chlorooctadecane 85.1 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 06/11/2011
Reported: 06/17/2011
Project Name: EMPIRE ABO UNIT M-14-2
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 06/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Hope S. Moreno

Sample ID: W EXC W WALL N END (H101217-15)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	432	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane	89.2 %	70-130							
Surrogate: 1-Chlorooctadecane	102 %	70-130							

Sample ID: N EXC SE CORN BTM @ 22' (H101217-16)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane		75.4 %	70-130						
Surrogate: 1-Chlorooctadecane		83.7 %	70-130						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/07/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC SW CRN BTM @ 22' (H101217-17)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	352	16.0	06/13/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	60.9	10.0	06/15/2011	ND	186	93.1	200	1.38	

Surrogate: 1-Chlorooctane 81.1 % 70-130

Surrogate: 1-Chlorooctadecane 86.2 % 70-130

Sample ID: N EXC CENTER BTM @ 22' (H101217-18)

Chloride, SM4500Cl-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	368	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: AB				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	100	10.0	06/15/2011	ND	186	93.1	200	1.38	

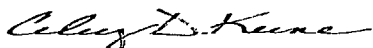
Surrogate: 1-Chlorooctane 81.5 % 70-130

Surrogate: 1-Chlorooctadecane 95.0 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/07/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC NE CRN BTM @ 22' (H101217-19)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	432	16.0	06/14/2011	ND	432	108	400	3.64		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18		
DRO >C10-C28	75.9	10.0	06/15/2011	ND	186	93.1	200	1.38		

Surrogate: 1-Chlorooctane 93.5 % 70-130

Surrogate: 1-Chlorooctadecane 107 % 70-130

Sample ID: N EXC E WALL N END (H101217-20)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	56.3	10.0	06/15/2011	ND	186	93.1	200	1.38	

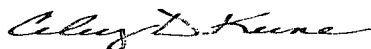
Surrogate: 1-Chlorooctane 76.5 % 70-130

Surrogate: 1-Chlorooctadecane 69.9 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC E WALL CENT (H101217-21)

Chloride, SM4500Cl-B			mg/kg Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	272	16.0	06/14/2011	ND	432	108	400	3.64		
TPH 8015M			mg/kg Analyzed By: AB							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38		
Surrogate: 1-Chlorooctane		86.2 %	70-130							
Surrogate: 1-Chlorooctadecane		68.6 %	70-130							

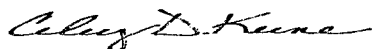
Sample ID: N EXC E WALL S END (H101217-22)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	464	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	1270	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane		70.4 %	70-130						
Surrogate: 1-Chlorooctadecane		87.4 %	70-130						

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Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC W WALL N END (H101217-23)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	496	16.0	06/14/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane		88.6 %	70-130						
Surrogate: 1-Chlorooctadecane		87.4 %	70-130						

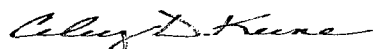
Sample ID: N EXC W WALL CENT (H101217-24)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18	
DRO >C10-C28	55.5	10.0	06/15/2011	ND	186	93.1	200	1.38	
Surrogate: 1-Chlorooctane		88.8 %	70-130						
Surrogate: 1-Chlorooctadecane		88.1 %	70-130						

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Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC W WALL S END (H101217-25)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	368	16.0	06/14/2011	ND	464	116	400	3.51		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	199	99.7	200	3.18		
DRO >C10-C28	150	10.0	06/15/2011	ND	186	93.1	200	1.38		

Surrogate: 1-Chlorooctane 93.4 % 70-130

Surrogate: 1-Chlorooctadecane 96.8 % 70-130

Sample ID: N EXC S WALL E END (H101217-26)

Chloride, SM4500Cl-B			mg/kg Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	06/14/2011	ND	464	116	400	3.51		
TPH 8015M			mg/kg Analyzed By: ab							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	<10.0	10.0	06/15/2011	ND	152	75.8	200	3.11		

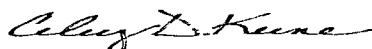
Surrogate: 1-Chlorooctane 50.0 % 70-130

Surrogate: 1-Chlorooctadecane 69.0 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N EXC S WALL CENT (H101217-27)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	32.0	10.0	06/15/2011	ND	152	75.8	200	3.11	

Surrogate: 1-Chlorooctane 79.1 % 70-130

Surrogate: 1-Chlorooctadecane 81.3 % 70-130

Sample ID: N EXC S WALL W END (H101217-28)

Chloride, SM4500CI-B			mg/kg		Analyzed By: HM				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	416	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	118	10.0	06/15/2011	ND	152	75.8	200	3.11	

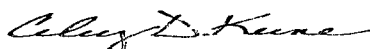
Surrogate: 1-Chlorooctane 76.0 % 70-130

Surrogate: 1-Chlorooctadecane 75.8 % 70-130

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 06/11/2011
 Reported: 06/17/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 06/10/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Hope S. Moreno

Sample ID: N. EXC NW CRNR BTM @ 22' (H101217-29)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	320	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	134	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	74.0 %	70-130							
Surrogate: 1-Chlorooctadecane	75.0 %	70-130							

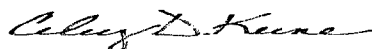
Sample ID: N EXC N WALL CENT (H101217-30)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	220	10.0	06/15/2011	ND	152	75.8	200	3.11	
Surrogate: 1-Chlorooctane	70.2 %	70-130							
Surrogate: 1-Chlorooctadecane	74.5 %	70-130							

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

APACHE - EUNICE
NATALIE GLADDEN
P. O. BOX 1849
EUNICE NM, 88231
Fax To: 394-2425

Received: 06/11/2011
Reported: 06/17/2011
Project Name: EMPIRE ABO UNIT M-14-2
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 06/10/2011
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Hope S. Moreno

Sample ID: N EXC N WALL W END (H101217-31)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	608	16.0	06/14/2011	ND	464	116	400	3.51		
TPH 8015M		mg/kg		Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51		
DRO >C10-C28	99.7	10.0	06/15/2011	ND	152	75.8	200	3.11		

Surrogate: 1-Chlorooctane 86.7 % 70-130

Surrogate: 1-Chlorooctadecane 69.0 % 70-130

Sample ID: N EXC N WALL E END (H101217-32)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	06/14/2011	ND	464	116	400	3.51	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/15/2011	ND	154	76.9	200	3.51	
DRO >C10-C28	82.0	10.0	06/15/2011	ND	152	75.8	200	3.11	

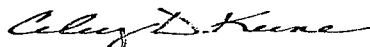
Surrogate: 1-Chlorooctane 72.3 % 70-130

Surrogate: 1-Chlorooctadecane 74.8 % 70-130

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

[illegible]

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Relinquished By:		Date:	Received By:	Phone Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Phone #:
Dale Harris		26/11/11	Hye S. Moran	Fax Result:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Add'l Fax #:
Time:		11:25		REMARKS:			
Relinquished By:		Date:	Received By:	Email NATALIE G-Kallen			
Time:				Hack Conder			
Delivered By: (Circle One)		Sample Condition		Bruce Baker			
Sampler - UFS - Bus - Other:		Cool - Intact		LARA Weinheimer			
		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials)			
				Hye			



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariand, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

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Relinquished By: <i>Pat Hrus</i>		Date: <i>06/11/11</i>	Received By: <i>Sp. S. Moreno</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:		Time: <i>11:25</i>		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One)		Date:	Received By:	REMARKS: <i>Email Natalie Gladstein HACK Corder Bruce Baker LARA Weinheimer</i>	
Sampler - UPS - Bus - Other:		Time:			
		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No	CHECKED BY: (Initials) <i>Hzm</i>		



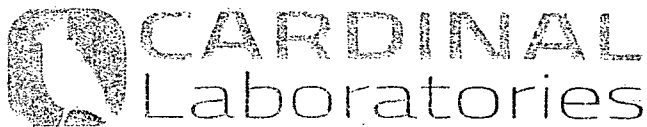
CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariand, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name: <u>Apache</u>		BILL TO		ANALYSIS REQUEST																						
Project Manager: <u>Natalie Gladden</u>		P.O. #:		<div style="display: flex; align-items: center; justify-content: center;"><div style="writing-mode: vertical-rl; transform: rotate(180deg);">CI-TPH 8015W</div></div>																						
Address:		Company:																								
City: State: Zip:		Attn:																								
Phone #: Fax #:		Address:																								
Project #: Project Owner:		City:																								
Project Name:		State: Zip:																								
Project Location: <u>Empire Abo Unit M-14-2 AD</u>		Phone #:																								
Sampler Name: <u>Dak Harris</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												
<u>H101217-16</u>	<u>North Excavation SE Corner</u>																									
<u>17-18</u>	<u>Btm @ 22'</u>	<u>G</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>6-7-11</u>	<u>2:00</u>	<u>✓</u>	<u>✓</u>										
<u>17-18-19</u>	<u>North Excavation SW Corner</u>																									
<u>19-20</u>	<u>Btm Btm @ 22'</u>	<u>G</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>6-7-11</u>	<u>2:15</u>	<u>✓</u>	<u>✓</u>										
<u>18-20-21</u>	<u>North Excavation Center</u>																									
<u>22</u>	<u>Btm @ 22'</u>	<u>G</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>6-7-11</u>	<u>2:21</u>	<u>✓</u>	<u>✓</u>										
<u>19-23</u>	<u>North Excavation NE</u>																									
<u>24</u>	<u>Corner Btm @ 22'</u>	<u>G</u>	<u>1</u>			<u>✓</u>				<u>✓</u>			<u>6-7-11</u>	<u>5:08</u>	<u>✓</u>	<u>✓</u>										

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Relinquished By: <u>Dak Harris</u>	Date: <u>6/11/11</u>	Received By: <u>Lara Weinheimer</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Time: <u>11:25</u>	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other:			REMARKS: <u>Natalie Gladden</u> <u>Hack Cowden</u> <u>Bruce Baker</u> <u>LARA Weinheimer</u>	
Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) <u>LH</u>		



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

[illegible]

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Relinquished By: <i>Pat Hunt</i>		Date: <i>5/1/11</i>	Received By: <i>Steve S. Moreno</i>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Time: <i>10:35</i>				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS: <i>Email Natalie Gladden Hack Corder Bruce Baker Lara Weinheimer</i>
Time:				
Delivered By: (Circle One) Sampler - UPS - Bus - Other:			Sample Condition Cool Intact: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> No	CHECKED BY: (Initials) <i>ESM</i>



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariand, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name: <u>Apache</u>				BILL TO				ANALYSIS REQUEST													
Project Manager: <u>Natalie Gladden</u>				P.O. #:																	
Address:				Company:																	
City:		State:		Zip:		Attn:															
Phone #:		Fax #:		Address:																	
Project #:		Project Owner:		City:																	
Project Name:				State:																Zip:	
Project Location: <u>Empire Aho Unit M-14-2 AD</u>				Phone #:																	
Sampler Name: <u>Dak Harris</u>				Fax #:																	
FOR LAB USE ONLY																					
Lab I.D.	Sample I.D.	GIRAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME							
23	North Excavation West																				
1101217 -20	Wall North End	G	1			✓				✓			6-10-11	1:43pm	✓	✓					
-24	North Excavation West																				
32	Wall Center	G	1			✓				✓			6-10-11	1:54pm	✓	✓					
-25	North Excavation West Wall																				
35	S End	G	1			✓				✓			6-10-11	1:57pm	✓	✓					
-26	North Excavation South Wall																				
37	East End	G	1			✓				✓			6-10-11	2:03pm	✓	✓					
-27	North Excavation South Wall Center	G	1			✓				✓			6-10-11	2:07pm	✓	✓					
-28	North Excavation South Wall West End	G	1			✓				✓			6-10-11	2:10pm	✓	✓					
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Relinquished By: <u>Dak Harris</u>		Date: <u>06/11/11</u>		Received By: <u>Steve S. Morris</u>				Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Phone #:									
Relinquished By:		Date:		Received By:				Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No				Add'l Fax #:									
		Time: <u>11:25</u>						REMARKS:													
		Time:						Email <u>Natalie Gladden</u>													
								<u>Hack Conder</u>													
								<u>Bruce Baker</u>													
								<u>LARA Weinheimer</u>													
Delivered By: (Circle One)				Sample Condition				CHECKED BY:													
Sampler - UPS - Bus - Other:				Cool Intact				(Initials)													
				<input type="checkbox"/> Yes <input type="checkbox"/> No				<u>HSW</u>													



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Mariand, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name: <u>Apache</u>		BILL TO		ANALYSIS REQUEST																							
Project Manager: <u>Natalie Gladden</u>		P.O. #:		<div style="display: flex; align-items: center; justify-content: center;"><div style="writing-mode: vertical-rl; transform: rotate(180deg);">CI - TPH GC/MS-M</div></div>																							
Address:		Company:																									
City: State: Zip:		Attn:																									
Phone #: Fax #:		Address:																									
Project #: Project Owner:		City:																									
Project Name:		State: Zip:																									
Project Location: <u>Empire Abo Unit M-14-2 A.D.</u>		Phone #:																									
Sampler Name: <u>Dak Harris</u>		Fax #:																									
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP:	# CONTAINERS	MATRIX					PRESERV.		SAMPLING															
					GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME												
	-29																										
	1101217-40	North Excavation NW Corner	G	1			✓					✓		6-10-11	1:30pm	✓	✓										
	-41	Bottom @ 2.2'																									
	-30-42	North Excavation North	G	1			✓					✓		6-10-11	1:35pm	✓	✓										
	-43	Wall Center																									
	-31-44	North Excavation North	G	1			✓					✓		6-10-11	1:42pm	✓	✓										
	-45	Wall West End																									
	-32-46	North Excavation North	G	1			✓					✓		6-10-11	1:45pm	✓	✓										
	-47	Wall East End																									

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Relinquished By: <u>Dak Harris</u>	Date: <u>06/11/11</u> Time: <u>11:25</u>	Received By: <u>Hope S. Moser</u>	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Phone #:
Relinquished By:	Date:	Received By:	Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No Add'l Fax #:
Delivered By: (Circle One) Sampler - UFS - Bus - Other:			REMARKS: Email <u>Natalie Gladden</u> <u>Hack Cowder</u> <u>Bruce Baker</u> <u>Lara Weinheimer</u>
Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: (Initials) <u>HSH</u>	

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/27/2011
 Reported: 06/02/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/26/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: SB 1 SURFACE SAMPLE (H101103-01)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	672	16.0	05/31/2011	ND	448	112	400	3.51		
TPH 8015M		mg/kg	Analyzed By: AB							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	05/31/2011	ND	203	101	200	1.89		
DRO >C10-C28	448	10.0	05/31/2011	ND	163	81.7	200	0.0275		
Surrogate: 1-Chlorooctane										
	135 %	70-130								
Surrogate: 1-Chlorooctadecane										
	126 %	70-130								

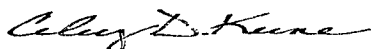
Sample ID: SB 1 @ 10' (H101103-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M		mg/kg		Analyzed By: AB					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/01/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane	114 %	70-130							
Surrogate: 1-Chlorooctadecane	116 %	70-130							

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/27/2011
 Reported: 06/02/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/26/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: SB 1 @ 40' (H101103-03)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	224	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	<10.0	10.0	06/01/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane		120 %	70-130						
Surrogate: 1-Chlorooctadecane		135 %	70-130						

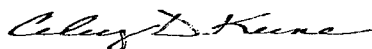
Sample ID: SB 2 SURFACE SAMPLE (H101103-04)

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	400	16.0	05/31/2011	ND	448	112	400	3.51	
TPH 8015M		mg/kg	Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/01/2011	ND	175	87.7	200	0.360	
DRO >C10-C28	140	10.0	06/01/2011	ND	165	82.5	200	1.74	
Surrogate: 1-Chlorooctane		128 %	70-130						
Surrogate: 1-Chlorooctadecane		122 %	70-130						

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 APACHE - EUNICE
 NATALIE GLADDEN
 P. O. BOX 1849
 EUNICE NM, 88231
 Fax To: 394-2425

 Received: 05/27/2011
 Reported: 06/02/2011
 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/26/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: SB 2 @ 15' (H101103-05)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	256	16.0	05/31/2011	ND	448	112	400	3.51		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360		
DRO >C10-C28	14.0	10.0	06/02/2011	ND	165	82.5	200	1.74		

Surrogate: 1-Chlorooctane 126 % 70-130

Surrogate: 1-Chlorooctadecane 127 % 70-130

Sample ID: SB 2 @ 25' (H101103-06)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/31/2011	ND	448	112	400	3.51		
TPH 8015M		mg/kg		Analyzed By: AB						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360		
DRO >C10-C28	<10.0	10.0	06/02/2011	ND	165	82.5	200	1.74		

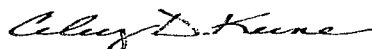
Surrogate: 1-Chlorooctane 158 % 70-130

Surrogate: 1-Chlorooctadecane 160 % 70-130

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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 APACHE - EUNICE
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 Received: 05/27/2011
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 Project Name: EMPIRE ABO UNIT M-14-2
 Project Number: NONE GIVEN
 Project Location: NONE GIVEN

 Sampling Date: 05/26/2011
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Celey D. Keene

Sample ID: SB 3 SURFACE SAMPLE (H101103-07)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1480	16.0	05/31/2011	ND	448	112	400	3.51		
TPH 8015M		mg/kg		Analyzed By: AB						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	64.4	10.0	06/02/2011	ND	175	87.7	200	0.360		
DRO >C10-C28	2510	10.0	06/02/2011	ND	165	82.5	200	1.74		

Surrogate: 1-Chlorooctane 142 % 70-130

Surrogate: 1-Chlorooctadecane 130 % 70-130

Sample ID: SB 3 @ 10' (H101103-08)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	112	16.0	05/31/2011	ND	448	112	400	3.51		
TPH 8015M		mg/kg		Analyzed By: AB						S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/02/2011	ND	175	87.7	200	0.360		
DRO >C10-C28	<10.0	10.0	06/02/2011	ND	165	82.5	200	1.74		


Surrogate: 1-Chlorooctane 132 % 70-130

Surrogate: 1-Chlorooctadecane 141 % 70-130

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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Relinquished By: 		Date: 3/27/11		Received By: 		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:	
Jordan Woodfin		Time: 3:20				Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS: email results Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com			
		Time:							
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:				Cool Intact Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		(Initials) 			
-4.5C									

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

#26

Appendix F

Final Form C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 5630 Hobbs, NM 88241
Phone 575.393.4411 Fax 575.393.0293