

## **Bratcher, Mike, EMNRD**

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**From:** Gladden, Natalie [Natalie.Gladden@apachecorp.com]  
**Sent:** Monday, June 25, 2012 9:25 AM  
**To:** Bratcher, Mike, EMNRD  
**Subject:** Internal Report EPA G312.docx  
**Attachments:** Internal Report EPA G312.docx

Mike,

Here is the internal investigation form that we use here at Apache. It has the initial sampling data performed before the work began. I will send the C141 today. I have been off, this is my first day back. I will scan and email then I will send you the original in the mail.

Thanks,

*Natalie Gladden*

**Apache Corporation**  
**EHS Environmental Tech**  
**New Mexico District**  
**Cell: 575-390-4186**  
**Office: 575-394-1503 x 1258**  
**Fax: 575-394-2425**  
**Email: [natalie.gladden@apachecorp.com](mailto:natalie.gladden@apachecorp.com)**



**Internal Incident Report – Spill/Release**

**Location:** EPA G312 Emulsion Line

**Production Area:** Loco hills area

**District:** New Mexico

**Date:** 06/10/12

**Time:** 1040pm

**One Line Summary:** Fiberglass line leak

**Full summary:** Contractors in the area found the leak running down the road and called it into our local mechanic. The field was shut in by midnight, leak was isolated, vacuum trucks and backhoe was dispatched. 300bbbls of oil/water mixture was released with recovering a total of 225bbbls. The fiberglass line was repaired by midmorning 06/11/12.

**Root cause of incident:** Corrosion

**Corrective Actions:**

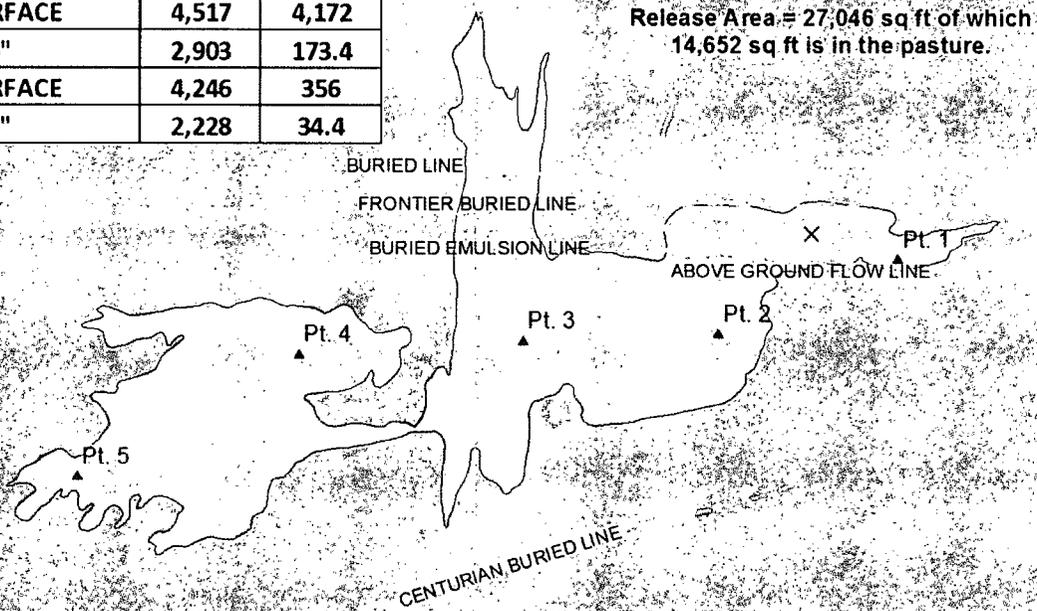
1. Line was buried inside a junction box, therefore there is to preventative measures that could have been taken to prevent this release.

2.

**Reported by:** Natalie Gladden

# Initial Sampling Field Data

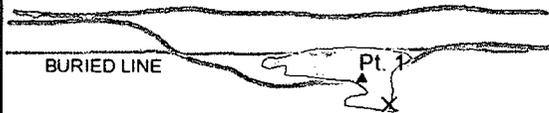
Sample Description	CI-	PID
PT.1 SURFACE	2,009	2,019
PT.1 @ 6"	3,056	2,150
PT.2 SURFACE	6,236	216
PT.2 @ 6"	2,585	43.5
PT.3 SURFACE	4,635	192
PT.4 SURFACE	4,517	4,172
PT.4 @ 6"	2,903	173.4
PT.5 SURFACE	4,246	356
PT.5 @ 6"	2,228	34.4



## Legend

- ▲ SAMPLE POINTS
- × SOURCE
- ABOVE GROUND LINE
- - - BURIED LINE
- STAIN

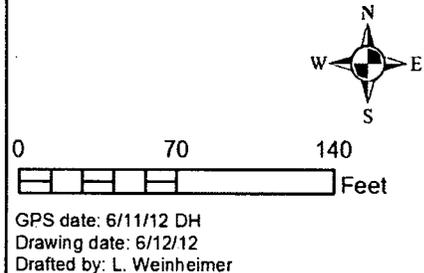
Sample Description	CI-	PID
PT.1 SURFACE	440	2,549



Release Area = 624 sq ft of  
 LEGALS: UL/J SEC. 34 which 140 sq ft is in the pasture.  
 T-17-S R-28-E  
 EDDY COUNTY, NM  
 Located 4,138 ft east of stain.



**APACHE EMPIRE**  
**ABO UNIT G-312**  
**EMULSION LINE AD**  
 LEGALS: UL/I, J SEC. 33  
 T-17-S R-28-E  
 EDDY COUNTY, NM



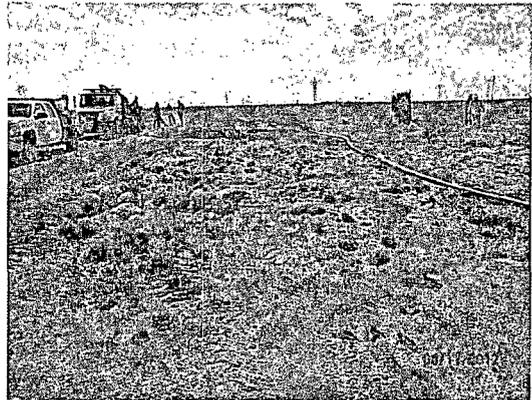
# Apache Empire Abo Unit G-312 Emulsion Line

Unit Letter I,J, Section 33, T17S, R28E



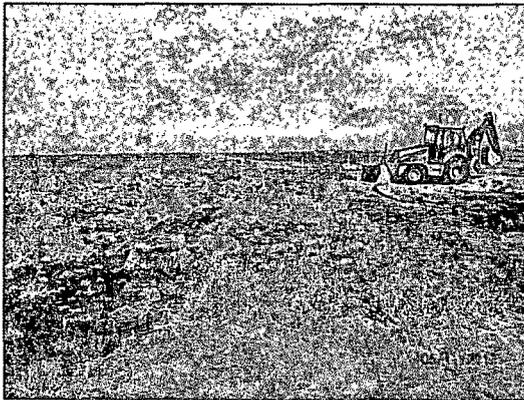
Initial release area, facing west

6/11/12



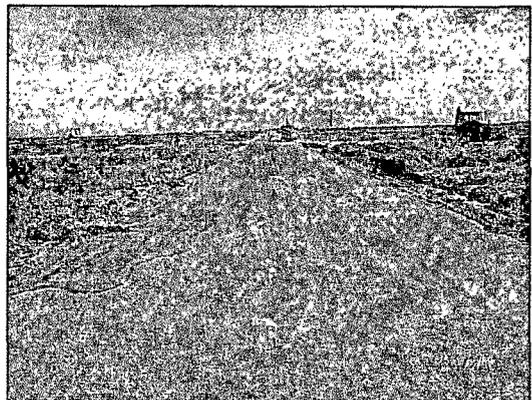
Initial release area, facing east

6/11/12



Initial release area, facing east

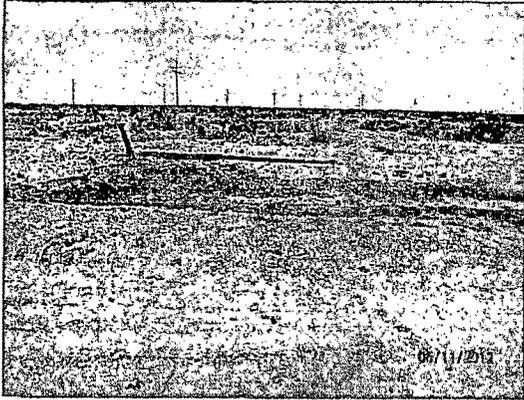
6/11/12



Initial release area, facing north

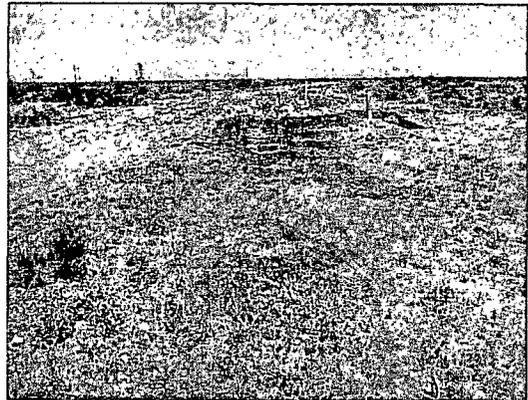
6/11/12

Unit Letter J, Section 34, T17S, R28E



Initial release area, facing south

6/11/12



Initial release area, facing east

6/11/12

## Bratcher, Mike, EMNRD

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**From:** Bruce Baker [bbaker@rice-ecs.com]  
**Sent:** Thursday, June 21, 2012 10:17 AM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** 'Blackmon, Leland'; hconder@rice-ecs.com  
**Subject:** RE: Apache Empire ABO Unit G-312 Accidental Discharge  
**Attachments:** 1 Initial sampling Lab.pdf; 2 Vertical sampling Lab.pdf

Mr. Bratcher here is the analytical data for this site.

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**From:** Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]  
**Sent:** Thursday, June 21, 2012 9:49 AM  
**To:** Bruce Baker  
**Cc:** 'Blackmon, Leland'; hconder@rice-ecs.com; Gladden, Natalie  
**Subject:** RE: Apache Empire ABO Unit G-312 Accidental Discharge

Bruce,

I don't have the C-141 for this incident yet. It was reported as a 300 bbl oil release w/225 bbls recovered. The initial field data submitted showed chloride and VOC data. I will need analytical data for hydrocarbons (GRO/DRO) to assess the release.

***Mike Bratcher***

NMOCD District 2  
811 S. First Street  
Artesia, NM 88210  
575-748-1283 Ext. 108  
575-626-0857  
[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)

---

**From:** Bruce Baker [mailto:bbaker@rice-ecs.com]  
**Sent:** Wednesday, June 20, 2012 2:51 PM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** 'Blackmon, Leland'; hconder@rice-ecs.com  
**Subject:** FW: Apache Empire ABO Unit G-312 Accidental Discharge

Mr. Bratcher, the discharge was from a 6" fiberglass line (Trunk line) from G-312 Booster station to the D-40 Battery. Thanks and have a good day.

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**From:** Bruce Baker [mailto:bbaker@rice-ecs.com]  
**Sent:** Thursday, June 14, 2012 2:26 PM  
**To:** 'mike.bratcher@state.nm.us'  
**Cc:** 'Gladden, Natalie'; 'hconder@rice-ecs.com'  
**Subject:** Apache Empire ABO Unit G-312 Accidental Discharge

Mr. Bratcher,

Here is the data for the Apache Empire ABO Unit G-312. At this time we are currently removing contaminated soil. I would like to call or meet next week about a path forward. RECS appreciates the opportunity to work with you on this project. Please call me if you have any questions or wish to discuss the site.

Bruce Baker  
Head Foreman  
Phone: (575) 393-4411  
Cell: (575) 631-5157

June 14, 2012

NATALIE GLADDEN  
APACHE - EUNICE  
P. O. BOX 1849  
EUNICE, NM 88231

RE: EMPIRE ABO UNIT EMULSION LINE A.D.

Enclosed are the results of analyses for samples received by the laboratory on 06/12/12 7:58.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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:	06/12/2012	Sampling Date:	06/11/2012
Reported:	06/14/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT EMULSION LINE A.D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 SURFACE (H201309-01)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>2800</b>	16.0	06/13/2012	ND	416	104	400	0.00		
TPH 8015M		mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>3920</b>	50.0	06/13/2012	ND	181	90.7	200	0.771		
<b>DRO &gt;C10-C28</b>	<b>17800</b>	50.0	06/13/2012	ND	181	90.5	200	1.21		

Surrogate: 1-Chlorooctane 231 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 269 % 63.6-154

**Sample ID: PT. 2 SURFACE (H201309-02)**

Chloride, SM4500Cl-B		mg/kg	Analyzed By: HM							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>4960</b>	16.0	06/13/2012	ND	416	104	400	3.92		
TPH 8015M		mg/kg	Analyzed By: MS							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>1380</b>	50.0	06/13/2012	ND	181	90.7	200	0.771		
<b>DRO &gt;C10-C28</b>	<b>8690</b>	50.0	06/13/2012	ND	181	90.5	200	1.21		

Surrogate: 1-Chlorooctane 246 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 252 % 63.6-154

Cardinal Laboratories

\* = 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:	06/12/2012	Sampling Date:	06/11/2012
Reported:	06/14/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT EMULSION LINE A.D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 3 SURFACE (H201309-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>4640</b>	16.0	06/13/2012	ND	416	104	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>193</b>	10.0	06/13/2012	ND	181	90.7	200	0.771		
<b>DRO &gt;C10-C28</b>	<b>1300</b>	10.0	06/13/2012	ND	181	90.5	200	1.21		

Surrogate: 1-Chlorooctane 116 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 129 % 63.6-154

**Sample ID: PT. 4 SURFACE (H201309-04)**

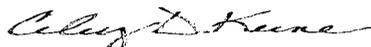
Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>4640</b>	16.0	06/13/2012	ND	416	104	400	3.92		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>4630</b>	50.0	06/13/2012	ND	181	90.7	200	0.771		
<b>DRO &gt;C10-C28</b>	<b>16500</b>	50.0	06/13/2012	ND	181	90.5	200	1.21		

Surrogate: 1-Chlorooctane 227 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 254 % 63.6-154

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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:	06/12/2012	Sampling Date:	06/11/2012
Reported:	06/14/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT EMULSION LINE A.D.	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 5 SURFACE (H201309-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>4160</b>	16.0	06/13/2012	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>1160</b>	50.0	06/13/2012	ND	181	90.7	200	0.771	
<b>DRO &gt;C10-C28</b>	<b>11500</b>	50.0	06/13/2012	ND	181	90.5	200	1.21	

Surrogate: 1-Chlorooctane 289 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 227 % 63.6-154

*Is this a  
 2nd PT. 1  
 surface?  
 see page 2*

**Sample ID: PT. 1 SURFACE (H201309-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>944</b>	16.0	06/13/2012	ND	416	104	400	3.92	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>2450</b>	100	06/13/2012	ND	181	90.7	200	0.771	
<b>DRO &gt;C10-C28</b>	<b>61700</b>	100	06/13/2012	ND	181	90.5	200	1.21	

Surrogate: 1-Chlorooctane 222 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 704 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

- S-06            The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- ND             Analyte NOT DETECTED at or above the reporting limit
- RPD            Relative Percent Difference
- \*\*              Samples not received at proper temperature of 6°C or below.
- \*\*\*             Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



June 18, 2012

NATALIE GLADDEN  
APACHE - EUNICE  
P. O. BOX 1849  
EUNICE, NM 88231

RE: EMPIRE ABO UNIT G-B12 EMULSION LINE A.D.

Enclosed are the results of analyses for samples received by the laboratory on 06/13/12 10:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



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:	06/13/2012	Sampling Date:	06/12/2012
Reported:	06/18/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT G-B12 EMULSION LIN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT 1 VERTICAL #1 @ 1' (H201330-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>48.0</b>	16.0	06/15/2012	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
<b>DRO &gt;C10-C28</b>	<b>56.0</b>	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 101 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 122 % 63.6-154

**Sample ID: PT 1 VERTICAL #1 @ 1'6" (H201330-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>32.0</b>	16.0	06/15/2012	ND	416	104	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
<b>DRO &gt;C10-C28</b>	<b>208</b>	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 96.1 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 115 % 63.6-154

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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:	06/13/2012	Sampling Date:	06/12/2012
Reported:	06/18/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT G-B12 EMULSION LIN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT 2 VERTICAL #2 @ 3' (H201330-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	06/15/2012	ND	416	104	400	3.72		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
<b>DRO &gt;C10-C28</b>	<b>94.8</b>	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 93.2 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 125 % 63.6-154

**Sample ID: PT 2 VERTICAL #2 @ 3'6" (H201330-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>80.0</b>	16.0	06/15/2012	ND	416	104	400	3.72		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
DRO >C10-C28	<10.0	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 109 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 123 % 63.6-154

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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:	06/13/2012	Sampling Date:	06/12/2012
Reported:	06/18/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT G-B12 EMULSION LIN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT 3 VERTICAL #3 @ 2' (H201330-05)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>240</b>	16.0	06/18/2012	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
DRO >C10-C28	<10.0	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 101 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 116 % 63.6-154

**Sample ID: PT 3 VERTICAL #3 @ 2'6" (H201330-06)**

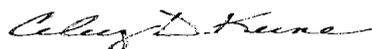
Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>352</b>	16.0	06/18/2012	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
<b>DRO &gt;C10-C28</b>	<b>12.4</b>	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 96.7 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 109 % 63.6-154

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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:	06/13/2012	Sampling Date:	06/12/2012
Reported:	06/18/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT G-B12 EMULSION LIN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT 4 VERTICAL #4 @ 2'6" (H201330-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>80.0</b>	16.0	06/18/2012	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72	
DRO >C10-C28	<10.0	10.0	06/14/2012	ND	176	87.9	200	8.73	

<i>Surrogate: 1-Chlorooctane</i>	96.3 %	65.2-140
<i>Surrogate: 1-Chlorooctadecane</i>	112 %	63.6-154

**Sample ID: PT 4 VERTICAL #4 @ 3' (H201330-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32.0</b>	16.0	06/18/2012	ND	432	108	400	3.77	
TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72	
DRO >C10-C28	<10.0	10.0	06/14/2012	ND	176	87.9	200	8.73	

<i>Surrogate: 1-Chlorooctane</i>	112 %	65.2-140
<i>Surrogate: 1-Chlorooctadecane</i>	129 %	63.6-154

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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:	06/13/2012	Sampling Date:	06/12/2012
Reported:	06/18/2012	Sampling Type:	Soil
Project Name:	EMPIRE ABO UNIT G-B12 EMULSTON LIN	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT 5 VERTICAL #5 @ 2'6" (H201330-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>96.0</b>	16.0	06/18/2012	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	177	88.7	200	6.72		
<b>DRO &gt;C10-C28</b>	<b>25.8</b>	10.0	06/14/2012	ND	176	87.9	200	8.73		

Surrogate: 1-Chlorooctane 108 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 128 % 63.6-154

**Sample ID: PT 5 VERTICAL #5 @ 3' (H201330-10)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>144</b>	16.0	06/18/2012	ND	432	108	400	3.77		
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/14/2012	ND	193	96.4	200	1.52		
<b>DRO &gt;C10-C28</b>	<b>105</b>	10.0	06/14/2012	ND	200	99.8	200	2.47		

Surrogate: 1-Chlorooctane 99.6 % 65.2-140  
 Surrogate: 1-Chlorooctadecane 123 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

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

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