

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

HOBBS OCD

FEB 06 2014

RECEIVED

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Apache Corp.	Contact	Bruce Baker
Address	P.O. Box 1849, Eunice, NM, 88231	Telephone No.	(432) 631-6982
Facility Name	NEDU Satellite #2	Facility Type	Production Well
Surface Owner	Leasee-McNeil	Mineral Owner	State of NM
		API No.	30-025-06461

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	10	21S	37E	1980	FNL	990	FWL	Lea

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release	Oil	Volume of Release	45 bbl	Volume Recovered	40 bbl
Source of Release	Flow line	Date and Hour of Occurrence	2/15/12	Date and Hour of Discovery	2/15/12
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required				
By Whom?	Natalie Gladden	If YES, To Whom?	Geoffrey Leking		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
		Date and Hour	2/15/12 4:49 pm		
		If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

DTW = 58'

Describe Cause of Problem and Remedial Action Taken.\*

Flow line busted due to corrosion. Line was repaired and fluid was recovered.

Describe Area Affected and Cleanup Action Taken.\*

The leak affected a 2,850 sq. ft. area of pasture land. Impacted soils were removed to a NMOCD approved disposal facility. Representative soil samples were collected from the excavations and sent to a commercial laboratory for chloride and TPH confirmation. The excavations were backfilled with clean caliche and topsoil, and were contoured to the surrounding area.

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

Signature: <u>Bruce Baker</u>		OIL CONSERVATION DIVISION	
Printed Name: Bruce Baker		Approved by District Supervisor: <u>Geoffrey Leking</u> Environmental Specialist	
Title: Environmental Tech	Approval Date: 02/06/14	Expiration Date: -	
E-mail Address: larry.baker@apachecorp.com	Conditions of Approval: -	Attached <input type="checkbox"/>	
Date: 8-30-13 Phone: (432) 631-6982			IRP. 06-14-3096

\* Attach Additional Sheets If Necessary

NSAD1417751080

*[Handwritten signature]*



EXPLORING WHAT'S POSSIBLE

HOBBS OCD

FEB 06 2014

RECEIVED

# APACHE CORPORATION

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

## NEDU Satellite #2

---

## Closure Report

API 30-025-06461

Release Date: February 15, 2012

Unit Letter E, Section 10, Township 21S, Range 37E

## Rice Environmental Consulting & Safety

P.O. Box 2948 Hobbs, NM 88241

Phone 575.393.2967

**June 27<sup>th</sup>, 2013**

Geoffrey Leking

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 1

1625 N. French Dr.

Hobbs, NM 88240-9273

**RE: TERMINATION REQUEST**

**Apache – NEDU Satellite #2 AD**

**UL/E sec. 10 T21S R37E**

**API No. 30-025-06461**

Mr. Leking:

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

### **Background and Previous Work**

The site is an accidental discharge of hydrocarbon fluids associated with the NEDU Satellite #2. A flow line ruptured and released fluids into an area of pasture land. The line was repaired, and standing fluids were recovered. An initial form C-141 was submitted by Apache Corporation on February 17, 2012 (Appendix A). The site is located north of Eunice in unit letter 'E' of section 10, T21S, R37E in Lea County, New Mexico. According to the NM Office of the State Engineer and the U.S. Geological Survey (USGS), depth to groundwater in the area approximates 50 ft bgs.

On February 16, 2012, RECS personnel initiated work on the NEDU Satellite #2 (Figure 1). Surface soil samples were collected and field tested for chloride. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID). The samples were submitted to a commercial laboratory for chloride and TPH (GRO/DRO) analyses (Appendix C). Chloride ranged from 1,060 ppm (parts per million or mg/kg) to 1,740 ppm. TPH ranged from 39,700 ppm to 55,400 ppm.

Impacted soils were removed in three (3) major excavations due to variable constituent depths and the number and array of flow lines at the leak site. The excavations did not extend beneath the juncture of flow lines at the south end of the leak area or between the 7' and 15' deep excavations for reasons of excavation safety in proximity to a flow line and the potential for utility damage. However, saturated surface soils within these flow line junctures were removed by shovel crew.

On March 9, 2012, RECS personnel collected and field tested soil samples from the floor and walls of each excavation (Figure 2). All floor composite samples and wall grab samples from walls not supporting a flow line utility were submitted to a laboratory for analyses (Appendix C). In the 4 ft. deep and 15 ft. deep excavations, chloride did not exceed 128 ppm and TPH did not exceed 40.2 ppm. In the 7 ft. deep excavation, chloride was not more than 304 ppm and TPH was not more than 20.8 ppm.

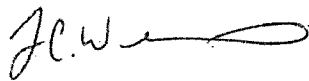
Impacted soils were removed to a NMOCD approved disposal facility. The excavations were backfilled with imported caliche to 4 ft. below ground surface. The remaining 4 ft. was backfilled with imported topsoil and contoured to the surrounding area. See Appendix B for photographs of field activities.

### **Conclusion**

Due to Apache's efforts in the removal of the majority of impacted soils while maintaining safe work practices, Apache submits the final C-141 (Appendix D) and respectfully requests the closure of the regulatory file for this site.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 631-6432 if you have any questions or comments.

Sincerely,



Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

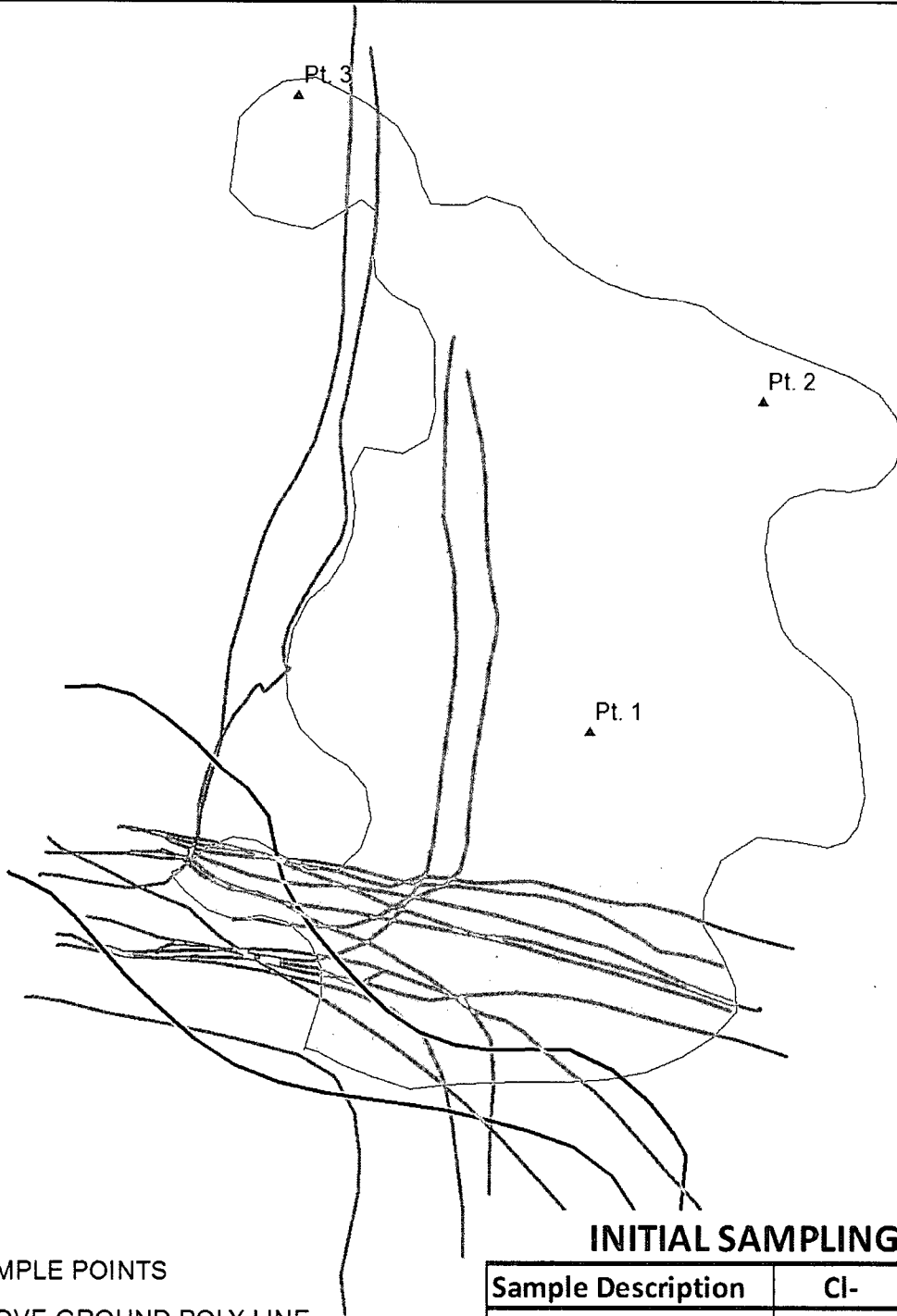
### **Attachments:**

- Figure 1: Site Plat including Initial Sampling Lab Data
- Figure 2: Site Plat including Final Excavation Lab Data
- Appendix A: Initial Form C-141
- Appendix B: Site Photographs
- Appendix C: Laboratory Results
- Appendix D: Final Form C-141

# Figures

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948, Hobbs, NM 88241  
Phone 575.393.2967

# Site Plat



## Legend

- ▲ SAMPLE POINTS
- ABOVE GROUND POLY LINE
- ABOVE GROUND STEEL LINE
- STAIN (2,850 sq ft)

## INITIAL SAMPLING LAB DATA

Sample Description	Cl-	GRO	DRO
PT.1 surface	1,630	16,500	23,200
PT.2 surface	1,060	15,200	40,200
PT.3 surface	1,740	6,980	33,300



## APACHE NEDU SAT #2 AD

LEGALS: UL/E sec. 10  
T-21-S R-37-E  
LEA COUNTY, NM

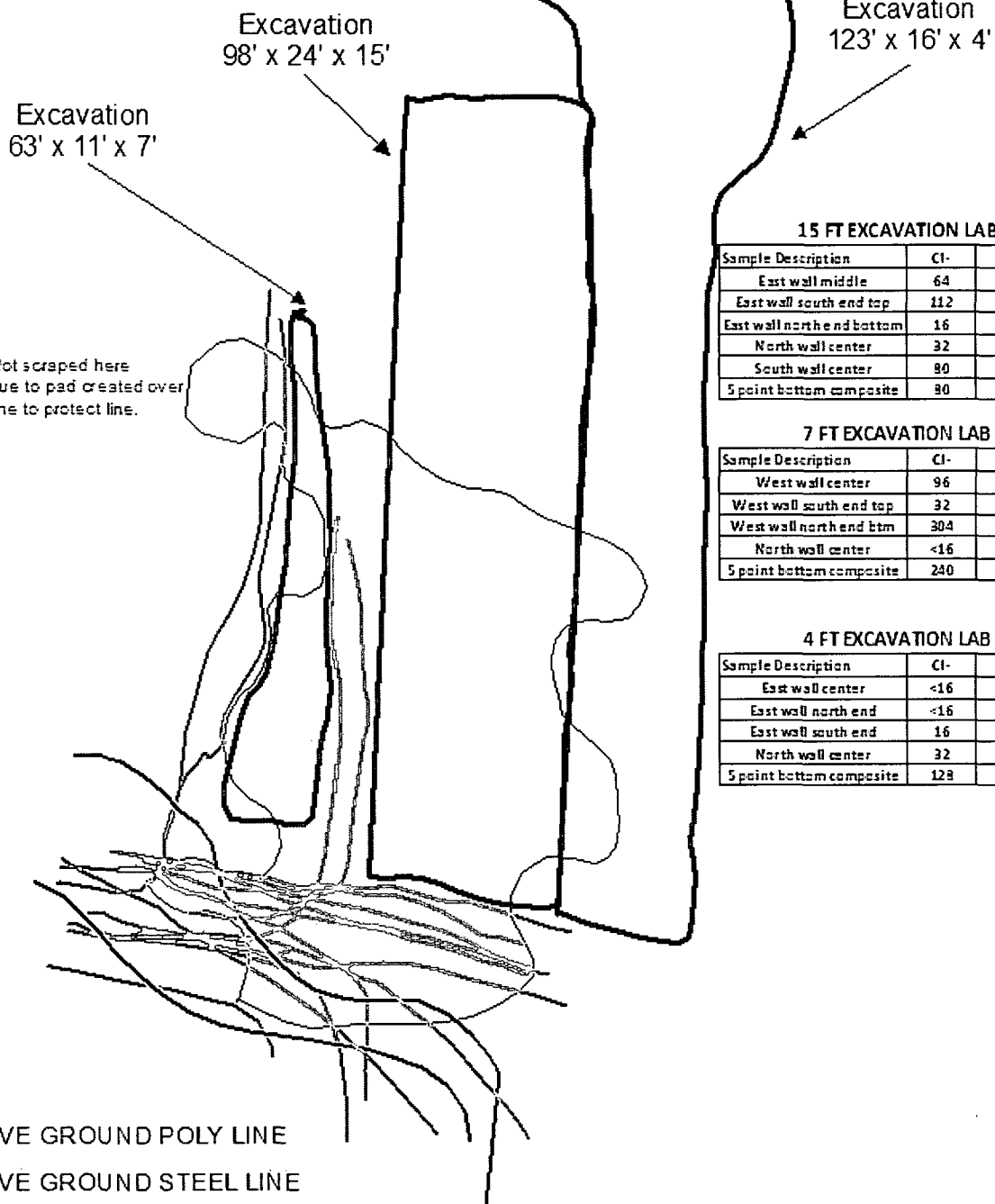
Figure 1



0 5 10 20  
Feet

GPS date: 3/9/12 DH  
Drawing date: 3/9/12  
Drafted by: L. Weinheimer

# Site Plat



## 15 FT EXCAVATION LAB DATA

Sample Description	CI-	GRO	DRO
East wall middle	64	<10	<10
East wall south end top	112	<10	<10
East wall north end bottom	16	<10	<10
North wall center	32	<10	<10
South wall center	80	<10	36
5 point bottom composite	80	<10	<10

## 7 FT EXCAVATION LAB DATA

Sample Description	CI-	GRO	DRO
West wall center	96	<10	21
West wall south end top	32	<10	<10
West wall north end btm	304	<10	<10
North wall center	<16	<10	<10
5 point bottom composite	240	<10	13

## 4 FT EXCAVATION LAB DATA

Sample Description	CI-	GRO	DRO
East wall center	<16	<10	<10
East wall north end	<16	<10	<10
East wall south end	16	<10	<10
North wall center	32	<10	40
5 point bottom composite	128	<10	25

## Legend

- ABOVE GROUND POLY LINE
- ABOVE GROUND STEEL LINE
- SCRAPE
- STAIN (2,850 sq ft)



## APACHE NEDU SAT #2 AD

LEGALS: UL/E sec. 10  
T-21-S R-37-E  
LEA COUNTY, NM

## Figure 2



0 5 10 20  
Feet

GPS date: 3/9/12 DH  
Drawing date: 3/9/12  
Drafted by: L. Weinheimer

# Appendix A

Initial C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967



District I  
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised October 10, 2003

Submit 2 Copies to appropriate  
District Office in accordance  
with Rule 116 on back  
side of form

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Apache Corporation	Contact Natalie Gladden	
Address PO Box 1849 Eunice, NM 88231	Telephone No. 575-390-4186	
Facility Name NEDU Sat #2 (nearest well #402)	Facility Type Production Well	
Surface Owner Leasee-McNeil	Mineral Owner State of NM	Lease No. 30-025-06461

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	10	21S	37E	1980'	FNL	990'	FWL	Lea

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

#### NATURE OF RELEASE

Type of Release Oil	Volume of Release 45	Volume Recovered 40
Source of Release Flowline	Date and Hour of Occurrence 2/15/12	Date and Hour of Discovery 2/15/12
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Geoffrey Leking	
By Whom? Natalie Gladden	Date and Hour 2/15/02 449pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*


Flowline busted due to corrosion. Line was repaired and fluid was recovered.

Describe Area Affected and Cleanup Action Taken.\*

Site will be remediated to NMOCD Standards.

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

#### OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:	
Printed Name: Natalie Gladden		
Title: EHS Environmental Tech	Approval Date:	Expiration Date:
E-mail Address: natalie.gladden@apachecorp.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/17/12 Phone: 575-390-4186		

\* Attach Additional Sheets If Necessary

# Appendix B

## Laboratory Analyses

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

February 21, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: NEDU SATELLITE #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 02/16/12 16:10.

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: 02/16/2012  
 Reported: 02/21/2012  
 Project Name: NEDU SATELLITE #2 AD  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 02/16/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SS @ PT 1 (H200427-01)**

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>1630</b>	16.0	02/20/2012	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>16500</b>	200	02/17/2012	ND	179	89.4	200	5.95	
<b>DRO &gt;C10-C28</b>	<b>23200</b>	200	02/17/2012	ND	176	88.2	200	7.64	

Surrogate: 1-Chlorooctane 257 % 55.5-154

Surrogate: 1-Chlorooctadecane 126 % 57.6-158

**Sample ID: SS @ PT 2 (H200427-02)**

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>1060</b>	16.0	02/20/2012	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>15200</b>	200	02/17/2012	ND	179	89.4	200	5.95	
<b>DRO &gt;C10-C28</b>	<b>40200</b>	200	02/17/2012	ND	176	88.2	200	7.64	


Surrogate: 1-Chlorooctane 345 % 55.5-154

Surrogate: 1-Chlorooctadecane 176 % 57.6-158

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: 394-2425Received: 02/16/2012  
Reported: 02/21/2012  
Project Name: NEDU SATELLITE #2 AD  
Project Number: NONE GIVEN  
Project Location: NOT GIVENSampling Date: 02/16/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson**Sample ID: SS @ PT 3 (H200427-03)**

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP							
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1740	16.0	02/20/2012	ND	416	104	400	3.92		
TPH 8015M	mg/kg		Analyzed By: MS							S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	6980	200	02/17/2012	ND	179	89.4	200	5.95		
DRO >C10-C28	33300	200	02/17/2012	ND	176	88.2	200	7.64		

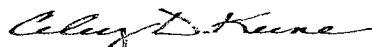
Surrogate: 1-Chlorooctane 289 % 55.5-154

Surrogate: 1-Chlorooctadecane 112 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

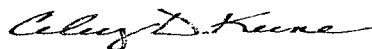
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

---

Cardinal Laboratories

\*=Accredited Analyte

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



---

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 Corp.				<b>BILL TO</b>												<b>ANALYSIS REQUEST</b>																							
Project Manager: Natalie Gladden				P.O. #:				<div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div>																															
Address:				Company:																																			
City:		State:		Zip:		Attn:																																	
Phone #:		Fax #:		Address:																																			
Project #:		Project Owner:		City:																																			
Project Name:				State:																Zip:																			
Project Location: NEDA Satellite #2 A1				Phone #:																																			
Sampler Name: J Kampain				Fax #:																																			
FOR LAB USE ONLY																																							
Lab I.D.		Sample I.D.		GRAB OR (COMP. #) CONTAINERS		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE / COOL		OTHER:		DATE		TIME													
H200427		1 SS @ PT 1		9 1						✓								✓		✓				2-16-12		11:40		✓											
		2 SS @ PT 2		9 1						✓								✓		✓				2-16-12		11:45		✓											
		3 SS @ PT 3		9 1						✓								✓		✓				2-16-12		11:50		✓											

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

Relinquished By:		Date: 2-16-12		Received By:		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:	
		Time: 4:10				Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Fax #:	
Relinquished By:		Date:		Received By:		REMARKS:  email results natalie.gladden@apachecorp.com Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com			
		Time:							
Delivered By: (Circle One)									
Sampler - UPS - Bus - Other:		2.5%		Sample Condition					
				Cool Intact					
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
				CHECKED BY:					

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

#26

March 14, 2012

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: NEDU SATELLITE #2 AD

Enclosed are the results of analyses for samples received by the laboratory on 03/09/12 16:30.

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).

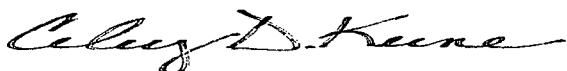
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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: 03/09/2012  
Reported: 03/14/2012  
Project Name: NEDU SATELLITE #2 AD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 03/09/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: EXC @ 4 - E WALL CENTER (H200621-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane		96.6 %	55.5-154						
Surrogate: 1-Chlorooctadecane		109 %	57.6-158						

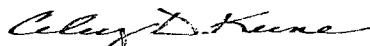
**Sample ID: EXC @ 4 - E WALL N END (H200621-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane	90.4 %	55.5-154							
Surrogate: 1-Chlorooctadecane	96.2 %	57.6-158							

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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: 03/09/2012  
Reported: 03/14/2012  
Project Name: NEDU SATELLITE #2 AD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 03/09/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: EXC @ 4 - E WALL S END (H200621-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane	97.0 %	55.5-154							
Surrogate: 1-Chlorooctadecane	107 %	57.6-158							

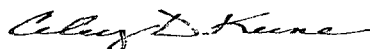
**Sample ID: EXC @ 4 - N WALL CENTER (H200621-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	40.2	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane									
	108 %	55.5-154							
Surrogate: 1-Chlorooctadecane									
	118 %	57.6-158							

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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:	03/09/2012	Sampling Date:	03/09/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	NEDU SATELLITE #2 AD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: EXC @ 4 - 5 PT BTM COMP @ 4' (H200621-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	128	16.0	03/13/2012	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	
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7		
DRO >C10-C28	24.9	10.0	03/13/2012	ND	164	81.8	200	11.0		

Surrogate: 1-Chlorooctane 106 % 55.5-154

Surrogate: 1-Chlorooctadecane 104 % 57.6-158

**Sample ID: EXC @ 15 - E WALL MIDDLE (H200621-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	

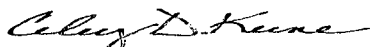
Surrogate: 1-Chlorooctane 80.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 83.2 % 57.6-158

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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:	03/09/2012	Sampling Date:	03/09/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	NEDU SATELLITE #2 AD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: EXC @ 15 - E WALL S END TOP (H200621-07)**

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>112</b>	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane		94.8 %	55.5-154						
Surrogate: 1-Chlorooctadecane		99.4 %	57.6-158						

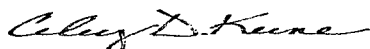
**Sample ID: EXC @ 15 - E WALL N END BOTTOM (H200621-08)**

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>16.0</b>	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane		96.8 %	55.5-154						
Surrogate: 1-Chlorooctadecane		108 %	57.6-158						

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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: 03/09/2012  
 Reported: 03/14/2012  
 Project Name: NEDU SATELLITE #2 AD  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 03/09/2012  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: EXC @ 15 - N WALL CENTER (H200621-09)**

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>32.0</b>	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	181	90.3	200	11.7	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	164	81.8	200	11.0	
Surrogate: 1-Chlorooctane		104 %	55.5-154						
Surrogate: 1-Chlorooctadecane		110 %	57.6-158						


**Sample ID: EXC @ 15 - S WALL CENTER (H200621-10)**

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>80.0</b>	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
<b>DRO &gt;C10-C28</b>	<b>35.6</b>	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane		86.5 %	55.5-154						
Surrogate: 1-Chlorooctadecane		98.3 %	57.6-158						

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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:	03/09/2012	Sampling Date:	03/09/2012
Reported:	03/14/2012	Sampling Type:	Soil
Project Name:	NEDU SATELLITE #2 AD	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: EXC @ 15 - 5 PT BTM COMP @ 15' (H200621-11)**

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	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane		95.3 %	55.5-154						
Surrogate: 1-Chlorooctadecane		99.3 %	57.6-158						

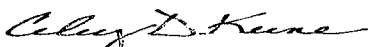
**Sample ID: EXC @ 7 - W WALL CENTER (H200621-12)**

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>96.0</b>	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
<b>DRO &gt;C10-C28</b>	<b>20.8</b>	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane		98.3 %	55.5-154						
Surrogate: 1-Chlorooctadecane		99.9 %	57.6-158						

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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: 03/09/2012  
Reported: 03/14/2012  
Project Name: NEDU SATELLITE #2 AD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 03/09/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: EXC @ 7 - W WALL S END TOP (H200621-13)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane		98.6 %	55.5-154						
Surrogate: 1-Chlorooctadecane		103 %	57.6-158						

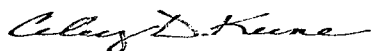
**Sample ID: EXC @ 7 - W WALL N END BTM (H200621-14)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane	99.8 %	55.5-154							
Surrogate: 1-Chlorooctadecane	103 %	57.6-158							

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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: 03/09/2012  
Reported: 03/14/2012  
Project Name: NEDU SATELLITE #2 AD  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 03/09/2012  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: EXC @ 7 - N WALL CENTER (H200621-15)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/13/2012	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
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5	
DRO >C10-C28	<10.0	10.0	03/13/2012	ND	197	98.5	200	12.2	
Surrogate: 1-Chlorooctane		95.3 %	55.5-154						
Surrogate: 1-Chlorooctadecane		97.9 %	57.6-158						

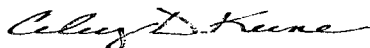
**Sample ID: EXC @ 7 - 5 PT BTM COMP @ 7' (H200621-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	03/13/2012	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	
GRO C6-C10	<10.0	10.0	03/13/2012	ND	213	106	200	16.5		
DRO >C10-C28	18.1	10.0	03/13/2012	ND	197	98.5	200	12.2		
Surrogate: 1-Chlorooctane		90.9 %	55.5-154							
Surrogate: 1-Chlorooctadecane		86.7 %	57.6-158							

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Celey D. Keene, Lab Director/Quality Manager



**Notes and Definitions**

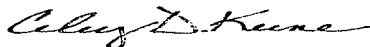
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

---

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>											
Project Manager: Natalie Gladden				P.O. #:				Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS						
Address:				Company:															
City: State: NM Zip:				Attn:															
Phone #: Fax #:				Address:															
Project #: Project Owner:				City:															
Project Name: <b>NEOU SATALITE #2 A.O.</b>				State: Zip:															
Project Location:				Phone #:															
Sampler Name: DAKSTON HARRIS				Fax #:															
FOR LAB USE ONLY				MATRIX		PRESERV		SAMPLING											
Lab I.D.	Sample I.D.	GRAB OR (COMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME					
#200621	Excavation #4'	G	1			✓				✓			3/9/12	12:00	✓	✓			
1	E. Wall Center	G	1			✓				✓			3/9/12	12:05	✓	✓			
2	E. Wall nl. end	G	1			✓				✓			3/9/12	12:10	✓	✓			
3	E. Wall S. end	G	1			✓				✓			3/9/12	12:15	✓	✓			
4	N. Wall Center	G	1			✓				✓			3/9/12	12:20	✓	✓			
5	5pt. bttm Compe 4'	C	1			✓				✓			3/9/12	12:20					

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Relinquished By: <i>Charles Hines</i>		Date: <i>3/9/17</i> Time: <i>6:30</i>		Received By: <i>Bob Henson</i>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Add'l Phone #: _____ Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No    Add'l Fax #: _____ REMARKS:	
Relinquished By:		Date:  Time:		Received By:		email results Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/>		CHECKED BY: (Initials) <i>GH</i>			

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

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: Apache				<b>BILL TO</b>				<b>ANALYSIS REQUEST</b>																		
Project Manager: Natalie Gladden				P.O. #:				<div style="display: flex; justify-content: space-around;"> <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>NEDU Satellite #2</i>				State: Zip:																						
Project Location:				Phone #:																						
Sampler Name: DAKSTON HARRIS				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												
<i>H2000621</i>	<i>Excavation 2 15'</i>																									
<i>6</i>	<i>E. Wall Middle</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:30</i>	<i>✓</i>	<i>✓</i>										
<i>7</i>	<i>E. Wall S. End Top</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:35</i>	<i>✓</i>	<i>✓</i>										
<i>8</i>	<i>E. Wall N. End BTHM</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:40</i>	<i>✓</i>	<i>✓</i>										
<i>9</i>	<i>N. Wall Center</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:45</i>	<i>✓</i>	<i>✓</i>										
<i>10</i>	<i>S. Wall Center</i>	<i>G</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:50</i>	<i>✓</i>	<i>✓</i>										
<i>11</i>	<i>Spt. 6THM COMPE 15'</i>	<i>C</i>	<i>1</i>			<i>✓</i>				<i>✓</i>			<i>3/9/12</i>	<i>12:55</i>	<i>✓</i>	<i>✓</i>										

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Relinquished By: <i>Dakston Harris</i>	Date: <i>3/9/12</i>	Received By: <i>Natalie Gladden</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time: <i>4:30</i>		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:	
	Time:		email results:	
Delivered By: (Circle One)		Sample Condition	CHECKED BY: (Initials)	
Sampler - UPS - Bus - Other:	<i>50c</i>	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>NG</i>	

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3093

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST



## 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

Company Name: Apache				<b>BILL TO</b>												<b>ANALYSIS REQUEST</b>																							
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>NEDU Satellite #2</i>				State: Zip:																																			
Project Location:				Phone #:																																			
Sampler Name: DAKSTON HARRIS				Fax #:																																			
FOR LAB USE ONLY																																							
Lab I.D.		Sample I.D.		# CONTAINERS		MATRIX				PRESERV.		SAMPLING																											
				(G)RAB OR (C)OMP.		GROUNDWATER		WASTEWATER		SOIL		OIL		SLUDGE		OTHER:		ACID/BASE:		ICE/COOL		OTHER:		DATE		TIME													
11200621		Excavation #7		5																				3/9/12		1:00													
12		W. Wall Center		6																				3/9/12		1:05													
13		W. Wall S. End Top		6																				3/9/12		1:10													
14		W. Wall N. End bttm		6																				3/9/12		1:15													
15		N. Wall Center		6																				3/9/12		1:20													
16		5 ft. bttm Comp #7		C																																			

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Relinquished By: <i>Labito Harris</i>		Date: 3/9/12		Received By: <i>Godi Benson</i>		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Add'l Phone #:	
Time: 9:30		Time: 9:30		Time: 9:30		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:		Time:		Time:					
Delivered By: (Circle One)				Sample Condition		CHECKED BY:			
Sampler - UPS - Bus - Other:				Cool Intact		(Initials)			
				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No			

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

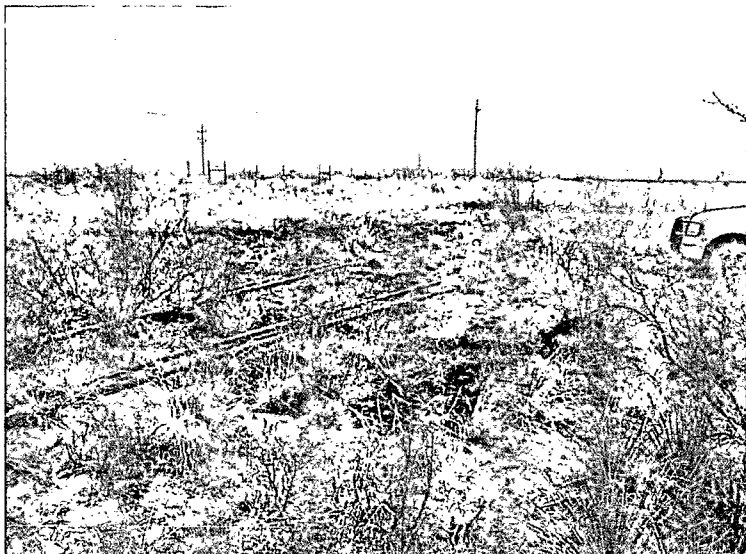
# Appendix C

## Photo Documentation

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

## NEDU Satellite # 2

Unit Letter E, Section 10, T21S R37E



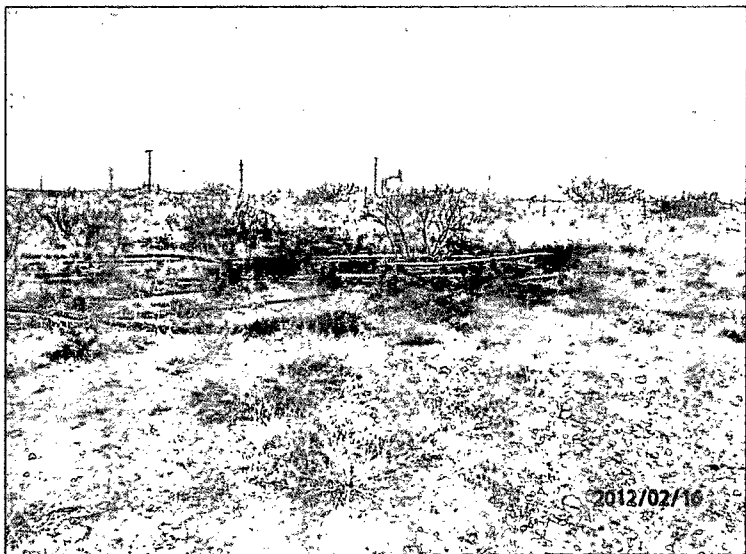
Initial release, facing southeast

2/16/2012



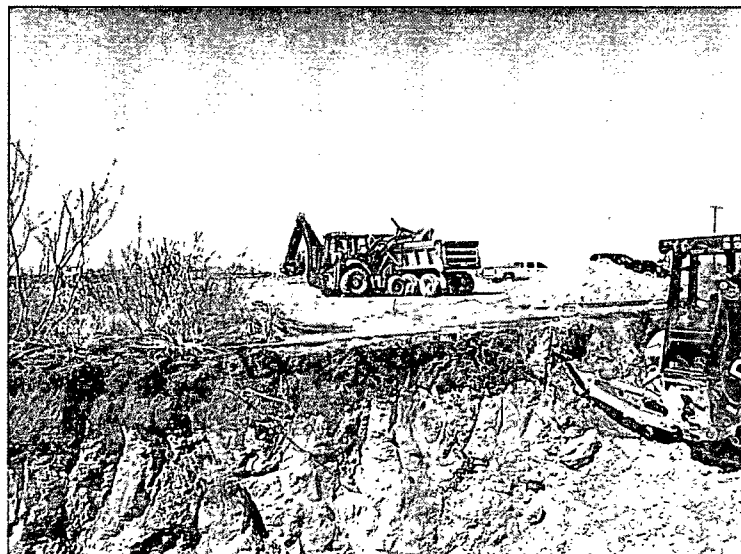
Initial release, facing southwest

2/16/2012



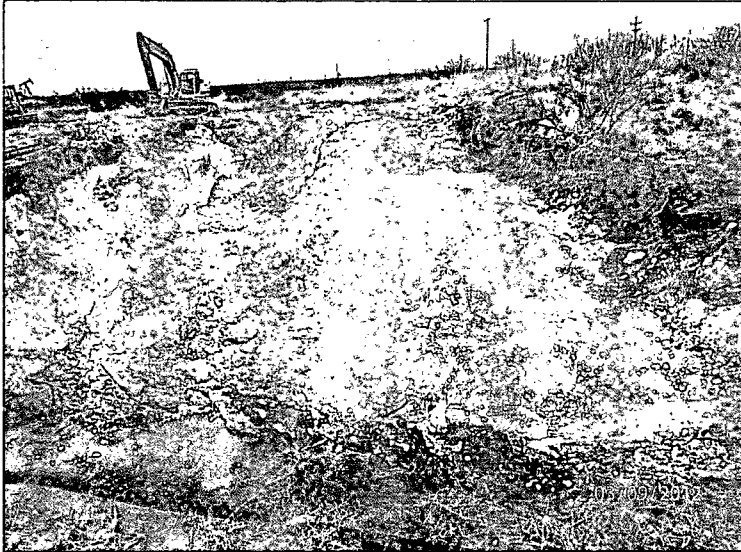
Initial release, facing northeast

2/16/2012



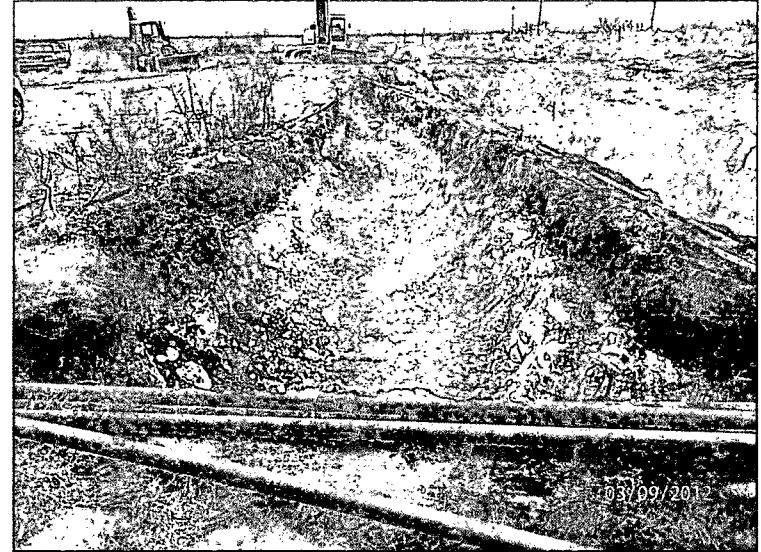
Excavating and exporting, facing west

3/2/2012



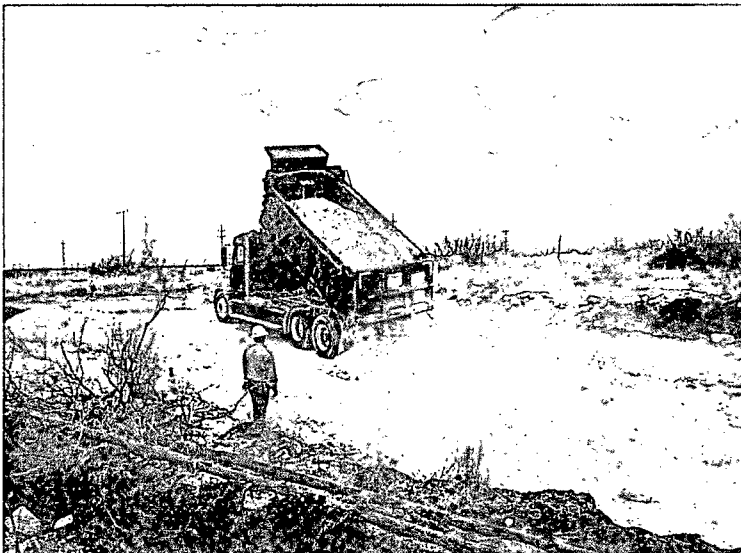
Final excavation, facing north

3/9/2012



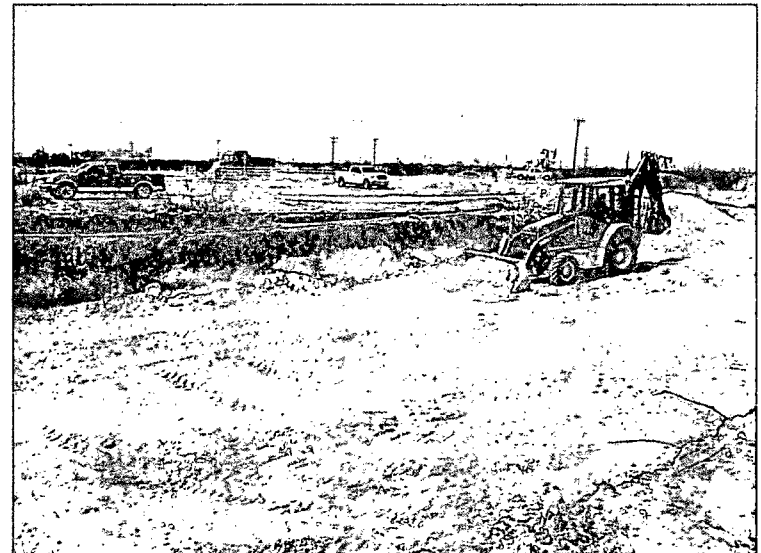
Final excavation, facing north

3/9/2012



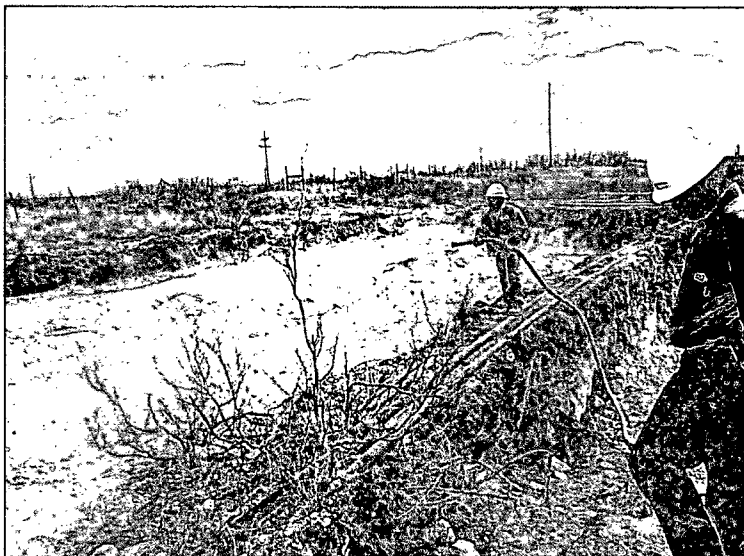
Importing caliche, facing northeast

3/12/2012



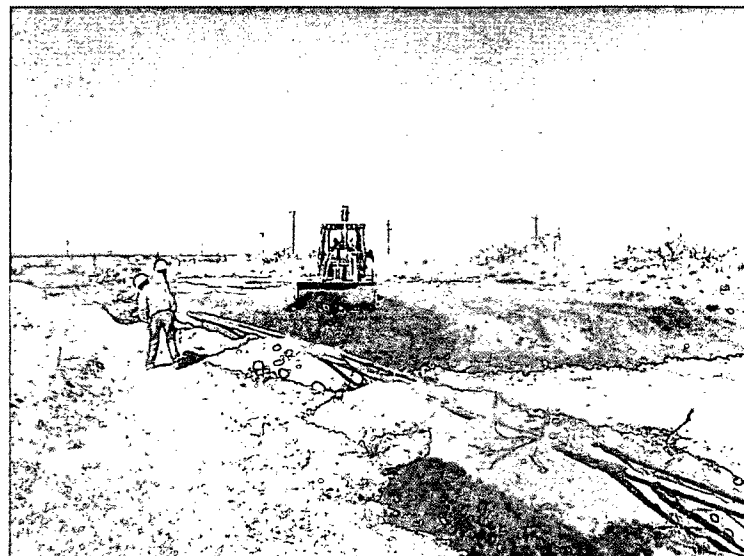
Backfilling, facing west

3/12/2012



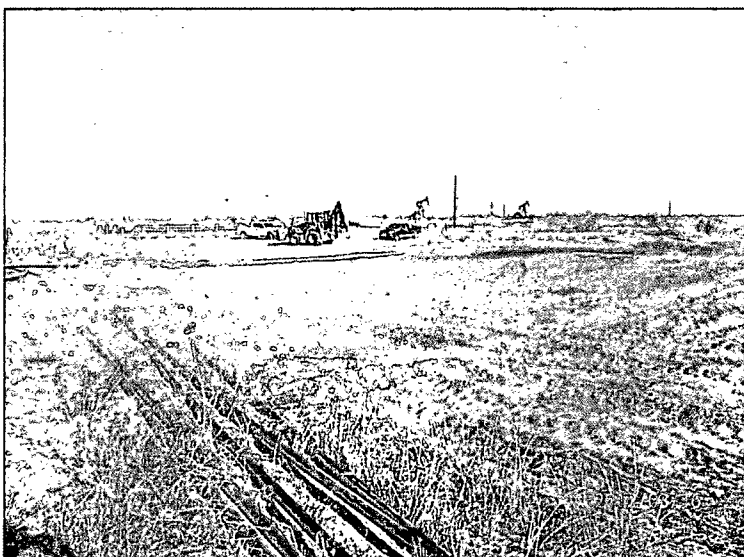
Watering caliche, facing southeast

3/12/2012



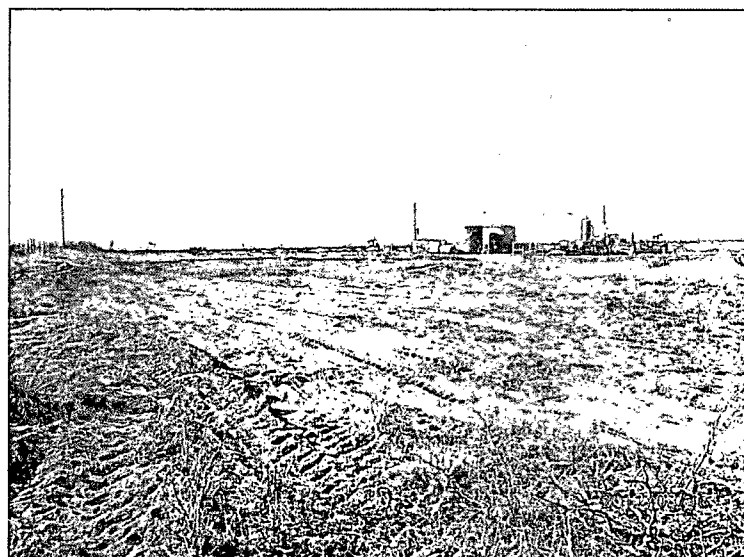
Backfilling with topsoil, facing north

3/13/2012



Site complete, facing northwest

3/16/2012



Site complete, facing south

3/16/2012



# Appendix D

Final C-141

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967