<u>District I</u> 625 N. French Dr., Hobbs, NM 88240 301 W. Grand Avenue, Artesia, NM 88210

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003

Oil Conservation Division

Submit 2 Copies to appropriate

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						OPERA'	ГOR		☐ Initia	al Report	$\boxtimes$	Final Report
Name of Co	ompany	Apache (	Corp.			Contact	Natalie Glad	lden				
Address	P.O. B	ox 1849, Eı	inice, NN	1, 88231	7	Telephone N	No. (575) 39	90-418	6			
acility Na	me NEDU	Pilot Projec	ct Battery	#1 (NEDU #16	55)	Facility Typ	e Productio	n Faci	lity			
Surface Ow	ner Mo	Casland		Mineral (	Owner	State of NM	1		Lease N	lo. 30-025-	39915	
				LOCA	ATION	N OF REI	LEASE					
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By Whom?	Natalie					Date and F						
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		mental Tech				Approval Dat		ļ	Expiration		<del></del>	
-mail Addre		lie.gladden@	apachecor	p.com		Conditions of				Attached		

Phone: (575) 390-4186

ttach Additional Sheets If Necessary

JUN \$ 7 2014 NSAD (416 45 6 132



# **APACHE CORPORATION**

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

# NEDU Pilot Project Battery #1 Closure Report

API 30-025-39915

Release Date: September 12, 2011

Unit Letter D, Section 2, Township 21S, Range 37E

### Rice Environmental Consulting & Safety

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

### May 16, 2012

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 Pilot Project Battery #1 AD

UL/D sec. 2 T21S R37E

API No. 30-025-39915

### 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 produced water associated with the NEDU Pilot Project Battery #1. The injection line disconnected from a T joint within a junction box and released fluids into the Apache pipeline right-of-way and an area of pasture land located southeast of the junction. The line connection was repaired and NMOCD was immediately notified. An initial form C-141 was submitted by Apache Corporation on September 18, 2011 (Appendix A). The site is located north of Eunice, in unit letter 'D' of section 2, T21S, R37E in Lea County, New Mexico.

On September 9, 2011, RECS personnel initiated work on the NEDU Pilot Project Battery #1 (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 analyses (Appendix C). Chloride ranged from 880 ppm (parts per million or mg/kg) to 2,120 ppm. TPH ranged from 49.8 ppm to 701 ppm.

The pasture area to the southeast was excavated to 9' below ground surface (bgs). On September 20, 2011, RECS personnel collected and field tested final samples from the excavation (Figure 2). The junction area and right-of-way to the south were excavated to 6' bgs. On September 21-22, 2011, RECS personnel similarly collected and field tested final samples from the excavation (Figure 3). Representative grab samples from the floor and walls of both excavations were submitted to a laboratory for chloride analysis. The floor samples did not exceed 176 ppm. The west wall of the excavations remained narrowly inside the affected area in order to maintain a

safe working distance from the Apache pipeline running to the south. Consequently, the west wall samples exceeded 48.0 ppm at four (4) sample points. In these 4 west wall samples, chloride ranged from 608 ppm to 3,920 ppm (Appendix C).

Impacted soils were removed from the excavation and transported to a NMOCD approved disposal facility. The excavation was backfilled with clean soil (<16.0 ppm chloride, Appendix C) and contoured to the surrounding area. See Appendix B for photographs of field activities.

### Conclusion

According to the New Mexico Office of the State Engineer and the United States Geological Survey (USGS), depth to groundwater in the area approximated 56 ft bgs (Appendix D). Due to Apache's removal of all impacted soils possible while safely working in proximity to a pipeline, Apache submits the final C-141 (Appendix E) and respectfully requests the closure of the regulatory file for this site.

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

Bruce Baden

RECS

(575) 631-5157

### Attachments:

Figure 1: Site Plat with Initial Sampling Lab Data

Figure 2: Site Plat with Southeast Excavation Lab Data
Figure 3: Site Plat with ROW Excavation Lab Data

Appendix A: Initial Form C-141
Appendix B: Site Photographs
Appendix C: Laboratory Results
Appendix D: Groundwater Study
Appendix E: Final Form C-141



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

# Site Plat

SOURCE

Pt. 1



Sample Description	CI-	GRO	DRO
Point #1 Surface	880	<10.0	76
Point #2 Surface	1520	13	688
Point #3 Surface	2120	62.5	284
Point #4 Surface	1420	<10.0	49.8

# Pt. 2 Pt. 3 Pt. 4

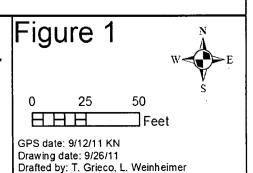
### Legend

- ▲ SAMPLE POINT
- X SOURCE
- ----- APACHE PIPELINE
- ----- PLAINS PIPELINE
- IMPACT AREA (8,527 sq ft)
  - CI- INITIAL SAMPLING LAB DATA



### APACHE NEDU PILOT PROJECT BATTERY 1 AD

UL/H SECTION 3 T-21-S R-37-E



### SOUTHEAST EXCAVATION LAB DATA

300THEAST EXCAVATION	LABUATA
Sample Description	Cl-
NE Bottom	16
NW Bottom	<16
SE Bottom	16
SW Bottom	16
Middle Bottom	176
N Wall E. End @ 3'	<16
N Wall E. End @ 6'	<16
N Wall E. End @ 9'	48
N Wall Middle @ 3'	<16
N Wall Middle @ 6'	<16
N Wall Middle @ 9'	· <16
N Wall West End @ 3'	<16
N Wall West End @ 6'	<16
N Wall West End @ 9'	<16
S Wall E End @ 3'	<16
S Wall E End @ 6'	<16
S Wall E End @ 9'	16
S Wall Middle @ 3'	<16
S Wall Middle @ 6'	<16
S Wall Middle @ 9'	<16
S Wall W End @ 3'	<16
S Wall W End @ 6'	<16
S Wall W End @ 9'	<16

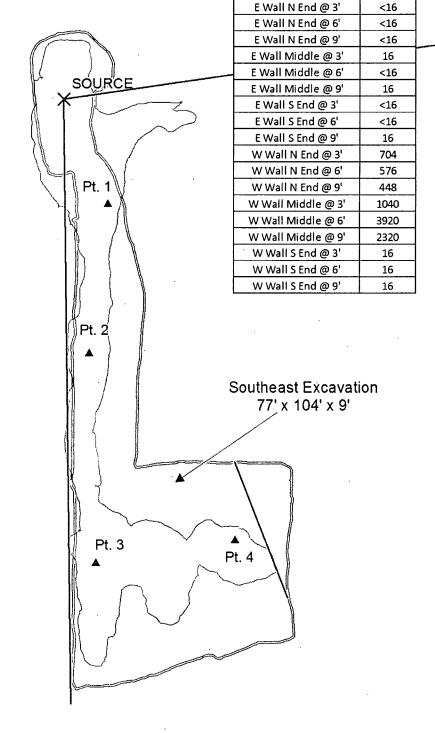
### Legend

- SAMPLE POINT
- SOURCE
- APACHE PIPELINE
- PLAINS PIPELINE



IMPACT AREA (8,527 sq ft)

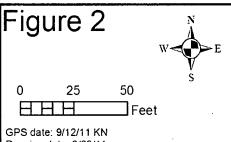
CI-INITIAL SAMPLING LAB DATA





### **APACHE** NEDU PILOT PROJECT **BATTERY 1 AD**

UL/H SECTION 3 T-21-S R-37-E



SOUTHEAST EXCAVATION LAB DATA

CI-

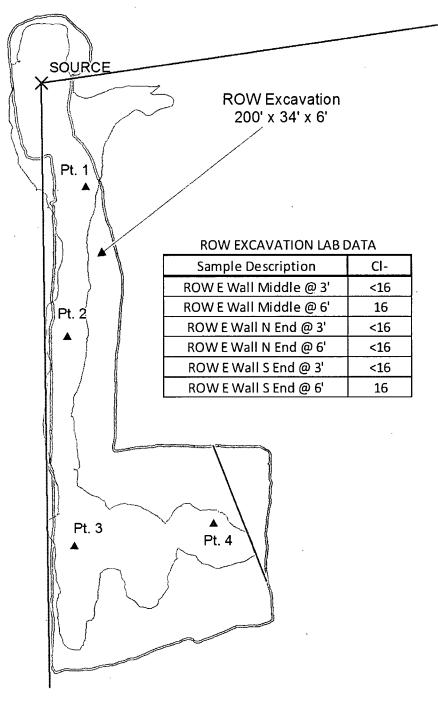
Sample Description

Drawing date: 9/26/11

Drafted by: T. Grieco, L. Weinheimer

### **ROW EXCAVATION LAB DATA**

Sample Description	CI-
ROW N Wall Middle 3'	<16
ROW N Wall Middle 6'	<16
ROW N Bottom	<16
ROW S Bottom	16
ROW Middle Bottom	16
ROW W Wall S End 3'	992
ROW W Wall S End 6'	896
ROW W Wall Middle 3'	608
ROW W Wall Middle 6'	1170
ROW W Wall N End 3'	<16
ROW W Wall N End 6'	64



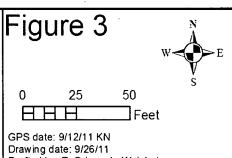
### Legend

- ▲ SAMPLE POINT
- X SOURCE
- ----- APACHE PIPELINE
- ----- PLAINS PIPELINE
- EXCAVATION
- IMPACT AREA (8,527 sq ft)
  - CI- INITIAL SAMPLING LAB DATA



### APACHE NEDU PILOT PROJECT BATTERY 1 AD

UL/H SECTION 3 T-21-S R-37-E



Drafted by: T. Grieco, L. Weinheimer

# Appendix A Initial Form C-141

P.O. Box 5630 Hobbs, NM 88241 Phone 575.393.4411 Fax 575.393.0293 District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy Minerals and Natural Resources

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

•			Rele	ease Notific	eation	and Co	orrective A	ction				
						<b>OPERA</b>	ror		Initia	ıl Report		Final Repor
Name of Co							talie Gladden	91.				
Address PC				ATEDIT #165)			No. 575-390-41			•		<del></del>
Facility Nar	ne NEDU	Pilot Projec	et Bty #10	NEDU #165)	1 1	acility Typ	e Production F	acility				
Surface Ow	ner McCa	ısland		Mineral C	wner l	NM		A	PI No.	. 30-025-3	39915	
			<u>,                                      </u>			OF RE		·				
Unit Letter	Section	Township	Range	Feet from the	North/S	South Line	Feet from the	East/West	Line	County		
D	2	21S	37E	1800'	FNL		125'	FWL		Lea		
			La	titude		Longitud	le					
					TIRE	OF REL		<del></del>				
Type of Rele	ase Produo	ed Water		11111	<u> </u>		Release 387	Vo	hume IR	Lecovered (0	<del></del>	
Source of Re			tion box			Date and F 9/12/11	Iour of Occurrenc	11	te and I	Hour of Dis	scovery	
Was Immedi	ate Notice (		Yes [	No Not R	equired	If YES, To Geoffrey I						
By Whom?	Natalie Gla	ıdden				Date and H	Hour 9/12/11 343	pana				
Was a Water	course Read		Yes <table-cell></table-cell>	No	-	If YES, Vo	olume Impacting t	he Watercou	ırse.			
If a Watercon	roe vyec Im											
II a Watercoo	nsc was ini	pacicu, Desci	noc r uny.									
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						•						
Describe Cau	se of Probl	em and Reme	dial Actio	n Taken.*				. ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Injection line	busted loos	se from the te	e inside th	e junction box. L	ine was i	repaired.						
ļ												
				<u>.</u>				<u></u>				
Describe Are NMOCD Gu									•			
NWOCD Gu	іденіїєх ми	i de ionowed	to closure	-								
					٠							
I hereby certi	fy that the i	nformation of	iven above	is true and comp	lete to th	e hest of my	knowledge and u	nderstand th	at nure	uant to NM	OCD m	ulan and
regulations a	ll operators	are required t	o report a	nd/or file certain r	elease no	otifications a	nd perform correc	tive actions	for rele	eases which	may en	ndanger
public health	or the envi	ronment. The	acceptan	ce of a C-141 repo	ort by the	NMOCD m	arked as "Final R	eport" does	not reli	eve the ope	rator of	liability
or the environ	perations b nment In a	ave faffed to a	adequately DCD accer	investigate and r	report de	contaminati ses not reliev	on that pose a three the operator of	eat to ground responsibilit	d water	, Surface wa	ater, hui	man health
ifederal, state								Сороновони		ompharice v	with any	outer
		/	$\gamma$				OIL CON:	SERVAT	ION	DIVISIO	DN	
Signature:	hd	July (	hul	nddin	-							•
						Approved by	Environmental S	pecialist:				
Printed Name	: Natalie C	Bladden						<u> </u>				<del></del>
Title: EHSE	nvironmen	tal Tech				Approval Da	tæ	Expi	ration I	Date:		· · · · · ·
E-mail Addre	ess: natalie.g	gladden@apac	checorp.co	<u>m</u>	(	Conditions of	f Approval:			Attached		
Date: 9/18	2/11	Phone: 575	5_390_418	6								
		ets If Necess		<u> </u>						<u> </u>		

Appendix B
Site Photographs

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

# NEDU Pilot Project Battery #1 Unit Letter D, Section 2, T21S R37E



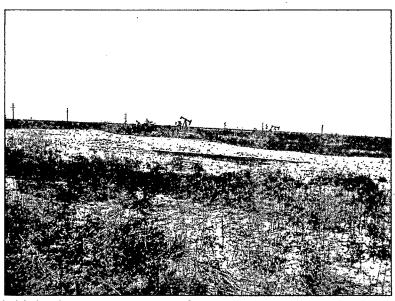
Initial release, facing south

9/12/2011



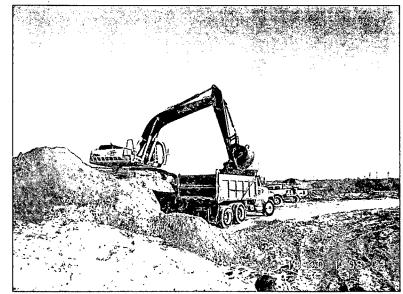
Initial release, facing north

9/12/2011



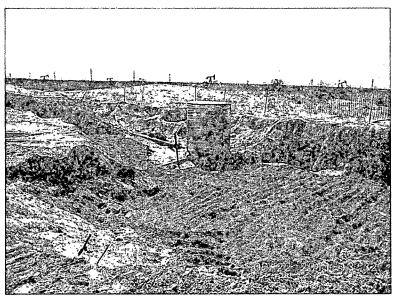
Initial release, south end, facing west

9/12/2011



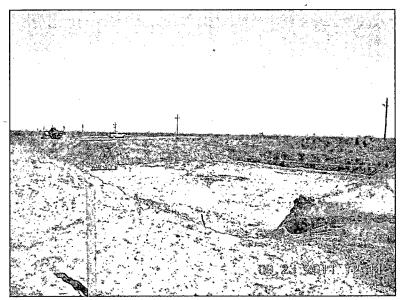
Exporting soil, facing north

9/19/2011



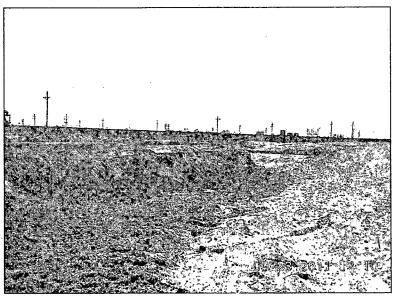
Final excavation at source, facing west

9/22/2011



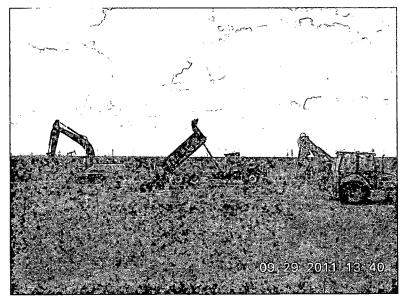
Final excavation, facing north

9/23/2011



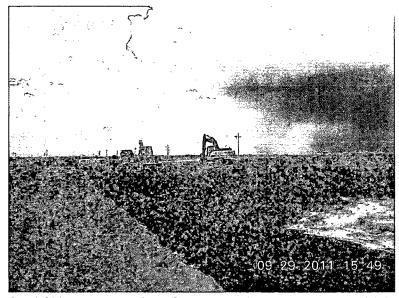
Final excavation, facing south

9/23/2011



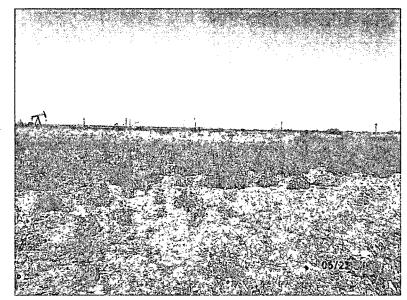
Importing backfill, facing west

9/29/2011



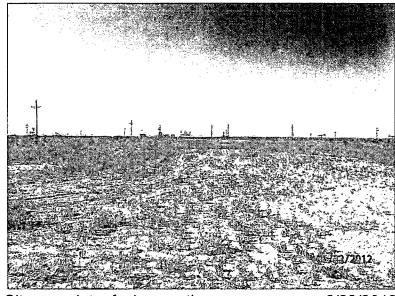
Backfilling excavation, facing north

9/29/2011



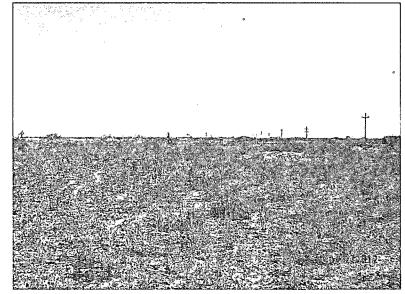
Site complete, facing east

6/22/2012



Site complete, facing south

6/22/2012



Site complete, facing north

6/22/2012



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



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

Received:

09/12/2011

Sampling Date:

09/12/2011

Reported:

09/19/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

104%

57.6-158

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: POINT #1 SURFACE (H101936-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	09/13/2011	ND	432	108 .	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/17/2011	ND	182	90.8	200	0.533	
DRO >C10-C28	76.0	10.0	09/17/2011	ND	183	91.7	200	1.13	
Surrogate: 1-Chlorooctane	122	% 55.5-15	4						
Surrogate: 1-Chlorooctadecane	116	% 57.6-15	8						

### Sample ID: POINT #2 SURFACE (H101936-02)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1520	16.0	09/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	13.0	10.0	09/17/2011	ND	182	90.8	200	0.533	
DRO >C10-C28	688	10.0	09/17/2011	ND	183	91.7	200	1.13	
Surrogate: 1-Chlorooctane	116	% 55.5-15	. 4		-				

### 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 warved 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 subclidaries, 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.

Celeg & Keene

Surrogate: 1-Chlorooctadecane



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

Received:

09/12/2011

Sampling Date:

09/12/2011

Reported:

Sampling Type:

Soil

Project Name:

09/19/2011

Sampling Condition:

Cool & Intact

Project Number:

NEDU PILOT PROJECT BATTERY #1 NONE GIVEN

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

### Sample ID: POINT #3 SURFACE (H101936-03)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2120	16.0	09/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	62.5	10.0	09/17/2011	ND	182	90.8	200	0.533	
DRO >C10-C28	284	10.0	09/17/2011	ND	183	91.7	200	1.13	
Surrogate: 1-Chlorooctane	125	% 55.5-15	4						

Surrogate: 1-Chlorooctadecane

118%

114%

57.6-158

57.6-158

### Sample ID: POINT #4 SURFACE (H101936-04)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed <sup>*</sup>	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1420	16.0	09/13/2011	ND	432	108	400	3.64	
TPH 8015M	mg	/kg	Analyze	d By: ab		•	····		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/17/2011	ND	182	90.8	200	0.533	
DRO >C10-C28	49.8	10.0	09/17/2011	ND	183	91.7	200	1.13	
Surrogate: I-Chlorooctane	116	% 55.5-15	54					-	

### Cardinal Laboratories

Surrogate: 1-Chlorooctadecane

\*=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 & Keine



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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	Apacito									188		3/L	LL TO		3				ANA	LYSIS	3 RE	QUE	51			
Project Manage	r: Natalie Gladden								P.0	J. #.																
Address:									Со	mp	any:	:					ĺ		က္ည							
City:		State: NM	Zij	o:					Atı	tn:									등							
Phone #:		Fax #:							Ad	dre	ss:					ľ	İ		Ë	ĺ						
Project #:		Project Owner	r:						Cit	y:					].,	Σ	ļ	I	#S							
Project Name:									Sta	ate:			Zip:		<u>e</u>	5	\ \	0	Ë							
Project Locatio	n: NEDU Pilot Pro	Sect Bart	er.	اک ہ	4 1				Ph	one	#:				] <u>:</u>	801	<u>〔</u> 〕	S	]; <u>;</u>	TDS						
Sampler Name:								_	Fa	x #:					Chlorides	1 #	BTEX	Texas TPH	ပ	F	!				İ	
FOR LAB USE ONLY			T.	T		M	IATR	ΙX	,	PR	ESE	RV.	SAMPL	ING	10	TPH		(G)	te l		'					
Lab I.D.	Sample I.	D.	(G)RAB OR (C)OMP.	\Z	GROUNDWATER	WASTEWATER	SOIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME					Complete Cations/Anions							
9	Point #1 Surfa	i P	Co		I	او	1				1		9-12-11	12:50	W	isal										
2	Point # 2 Surfa Point # 3 Surfa	ice	(h	1		1.	1				le		9-12-11	1,00	1	U										
3	Point #3 Surfa	160	5	1		ı	1				1/		9-12-11	1:10	1,000	V										
- 4	Point #4 Surfa	<u> </u>	G,	!		i					10	_	9-12-11	1,20	1/	V	<u> </u>				<u> </u>				<u></u>	
<del>, -, </del>			-									_			ļ	ļ	ļ					ļ			<b></b>	
			_				$\perp$	<del>- </del>							<b> </b>		ļ		ļ			ļ!				
			1_	_			_	-	<u> </u>						<b> </b>		<del> </del> -									ļ
			-												<del> </del>		ļ					ļJ	<u> </u>	ļl	<b> </b>	
		<del></del>	-	┢				+	-		-	-	***************************************	ļ	┨──	<b>-</b>		<u> </u>		ļ	-		ļ		<b></b>	
PLEASE NOTE: Liability	and Damages, Cerdinal's liability and clies	nt's exclusive remedy for	any cla	im aris	ng wh	ether be	sed in	contract	or to	t, shal	be lin	rited t	o the amount p	ald by the client fo	or the	<u></u>	J	ł	<u> </u>	<u> </u>		<u></u>	<u> </u>	لـــــا	<u></u>	<u> </u>
analyses. All claims includ	ling those for negligence and any other co Cordinal be liable for incidental or conseq	suse whatsoever shall be	deems	d waiv	ed uni	ess mad	le in w	iting and	d rece	ived by	y Card	inal w	ithin 30 days of	er completion of	the applica	able										
Relinquished B	ing out of or related to the performance of	Date:		il, rega ecel			her suc	h claim i	is bas	ed upo	n any	of the	above stated r	Phone Re		□ Ye	s Z	No	l'bbA	Phone	#:				<u> </u>	
hyle //	1	Time: 15	16	10	C	L	à.	ile	21	Ü	10	-1/	dan	Fax Resu REMARK	lt: S:	□ Y€	s Ø		Add'l							
Relinquished B	y:	Date:	R	cei	ved	Ву:							75 42-4	email												
		Time:	1											Nata												
Delivered By	: (Circle One)				T	Samp	le C	ondit	lon	F	CHE	CK	ED BY:	Zcond	der@	)rice	-ecs	.com	ı; Bb	ake	r@ri	ce-e	cs.co	om;		

Sampler - UPS - Bus - Other:

Cool Intact
Yes 1-Yes
No No

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



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

Received:

09/22/2011

Sampling Date:

09/20/2011

Reported:

09/26/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

SE EXCAVATION

Project Location:

NOT GIVEN

Sample Received By:

Jodi Henson

### Sample ID: NE BOTTOM (H102023-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	0.00	
Sample ID: NW BOTTOM	(H102023-02)	)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	0.00	
Sample ID: SE BOTTOM (	(H102023-03)								
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	0.00	
Sample ID: SW BOTTOM	(H102023-04)	)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	0.00	

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Received:

09/22/2011

Sampling Date:

09/20/2011

Reported:

09/26/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

SE EXCAVATION

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: MIDDLE BOTTOM (H102023-05)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	09/23/2011	ND	432	108	400	0.00	
Sample ID: N WALL E. El	ND @ 3' (H1020	023-06)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: N WALL E EN	ID @ 6' (H1020	23-07)							
Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: N WALL E EN	ID @ 9' (H1020	23-08)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: N WALL MID	DLE @ 3' (H10	2023-09)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP	_		<u>—-</u>		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	

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Received:

09/22/2011

Sampling Date:

09/20/2011

Reported:

Sampling Type:

Soil

Project Name:

Chloride, SM4500CI-B

09/26/2011

Cool & Intact

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Project Number:

SE EXCAVATION

mg/kg

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: N WALL MIDDLE @6' (H102023-10)

		, 3	7						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	. 432	108	400	3.64	•
Sample ID: N WALL MIDDLI	E @ 9' (H10	2023-11)							
hloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP		···			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: N WALL W END	@ 3' (H102	023-12)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	· Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: N WALL W END	@ 6' (H103	N72-12\							
Chloride, SM4500Cl-B	mg	-	Analyze	d By: AP					
			•	•					· ·
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
hloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
	ത 9' (H102	023-1 <i>4</i> )					,		
Sample II): N WALL W FNI)	@ 3 (11102	-	A	d By: AP					
•	ma	/kg	Anaivze						
Sample ID: N WALL W END Chloride, SM4500CI-B Analyte	<b>mg</b> Result	/kg  Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

Analyzed By: AP

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Received: Reported: 09/22/2011

09/26/2011

NEDU PILOT PROJECT BATTERY #1

Project Number:

Project Name:

SE EXCAVATION

Project Location:

NOT GIVEN

Sampling Date:

Sampling Type:

09/20/2011

Soil

Cool & Intact

Sampling Condition: Sample Received By:

Jodi Henson

### Sample ID: S WALL E END @ 3' (H102023-15)

Chloride, SM4500CI-B	mg	mg/kg		d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: S WALL E END	@ 6' (H1020	23-16)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP	•				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
thloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: S WALL E END	@ 9' (H1020	23-17)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP			•		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: S WALL MIDD	LE @ 3' (H10:	2023-18)					•		
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: S WALL MIDD	LE @ 6' (H102	2023-19)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
				Method Blank	BS	% Recovery	True Value QC	RPD	Qualifie
Analyte	Result	Reporting Limit	Analyzed	Method Blank	DO	70 Neccovery	True value QC	Krb	Quante

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Celey D. Keene, Lab Director/Quality Manager

Page 5 of 16



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Received:

09/22/2011

Reporting Limit

16.0

Sampling Date:

09/20/2011

Reported:

09/26/2011

Sampling Type:

432

Soil

True Value QC

400

RPD

3.64

Qualifier

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

SE EXCAVATION

Analyzed

09/23/2011

Sample Received By:

% Recovery

108

Jodi Henson

Project Location:

Analyte

Chloride

NOT GIVEN

Result

<16.0

Sample ID: S WALL MIDDLE @ 9' (H102023-20)

Chloride, SM4500CI-B	mg	mg/kg		Analyzed By: AP					
. Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND .	432	108	400	3.64	
Sample ID: S WALL W EN	ID @ 3' (H1020 ma	•	Δnalvze	ed Bv: AP					

Method Blank

ND

### Sample ID: S WALL W END @ 6' (H102023-22)

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	09/23/2011	ND	432	108	400	3.64	

### Sample ID: S WALL W END @ 9' (H102023-23)

Chloride, SM4500CI-B	mg	mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	

### Sample ID: E WALL N END @ 3' (H102023-24)

Chloride, SM4500Cl-B	ride, SM4500Cl-B mg/kg		Analyze	d By: AP		•			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	

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Fax To:

394-2425

Received:

09/22/2011

09/26/2011

Reported: Project Name:

NEDU PILOT PROJECT BATTERY #1

Project Number:

SE EXCAVATION

Project Location:

NOT GIVEN

Sampling Date:

Sampling Type:

09/20/2011

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

Soil

### Sample ID: E WALL N END @ 6' (H102023-25)

hloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte ·	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3:64	
Sample ID: E WALL N END	@ 9' (H1020	23-26)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: E WALL MIDDL	E @ 3' (H102 mg	•	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: E WALL MIDDL	E @ 6' (H102	2023-28)							
<u> </u>	E @ 6' (H102 mg	•	Analyze	d By: AP					
<u>-</u>	- •	•	<b>Analyze</b> Analyzed	d By: AP  Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride, SM4500CI-B  Analyte	mg	/kg	· · ·		BS 432	% Recovery	True Value QC 400	RPD 3.64	Qualifier
Chloride, SM4500CI-B  Analyte  Chloride	Result	Reporting Limit	Analyzed	Method Blank		·	•		Qualifier
Chloride, SM4500CI-B  Analyte  Chloride  Sample ID: E WALL MIDDLI	Result	Reporting Limit 16.0 2023-29)	Analyzed 09/23/2011	Method Blank		·	•		Qualifier
Sample ID: E WALL MIDDLE Chloride, SM4500CI-B  Analyte Chloride  Sample ID: E WALL MIDDLE Chloride, SM4500CI-B  Analyte	mg  Result  <16.0  E @ 9' (H102	Reporting Limit 16.0 2023-29)	Analyzed 09/23/2011	Method Blank ND		·	•		Qualifier Qualifier

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Fax To:

394-2425

Received: Reported:

Chloride

09/22/2011

09/26/2011

NEDU PILOT PROJECT BATTERY #1 SE EXCAVATION

Project Number: Project Location:

Project Name:

NOT GIVEN

<16.0

16.0

Sampling Date:

BS

432

Sampling Type:

Sample Received By:

09/20/2011 Soil

True Value QC

400

Sampling Condition:

% Recovery

108

Cool & Intact

RPD

3.64

Qualifier

Jodi Henson

Sample ID: E WALL S END @ 3' (H102023-30)

Chloride, SM4500CI-B	mg/kg					
Analyte	Result	Reporting Limit				

Sample	TD:	F WALL	S FND	@ 6'	(H102023-31)
Jailipic	IV.	L WALL	3 LIV	CO U	「ロエクケクケラーフエ」

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride .	<16.0	16.0	09/23/2011	ND	432	108	400	3.64	

Analyzed By: AP

Method Blank

ND

Analyzed

09/23/2011

### Sample ID: E WALL S END @ 9' (H102023-32)

Chloride, SM4500CI-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	3.64	

### Sample ID: W WALL N END @ 3' (H102023-33)

Chloride, SM4500Cl-B	mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	704	16.0	09/23/2011	ND	432	108	400	3.64	

### Sample ID: W WALL N END @ 6' (H102023-34)

Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	576	16.0	09/23/2011	ND	432	108	400	3.64	

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Received:

09/22/2011

Sampling Date:

09/20/2011

Reported:

09/26/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

SE EXCAVATION

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: W WALL N END @ 9' (H102023-35)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	448	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: W WALL MIDD	DLE @ 3' (H10	2023-36)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP				<del> </del>	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD .	Qualifier
Chloride	1040	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: W WALL MIDD Chloride, SM4500CI-B	- •	<b>2023-37)</b> /kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value OC	RPD	Qualifier
Chloride	3920	16.0	09/23/2011	ND	432	108	400	3.64	Qualifier
Cinoride	3920	10.0	03/23/2011	ND	432	100	700	5.04	
Sample ID: W WALL MIDD	DLE @ 9' (H10	2023-38)		t					
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	2320	16.0	09/23/2011	ND	432	108	400	3.64	
Sample ID: W WALL S ENI	O @ 3' (H1020	023-39)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	. ND	432	108	400	3.64	
•									

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 Client, disasses, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subcidaries, affiliables or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims 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 & Keene



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

Received:

09/22/2011

Sampling Date:

09/20/2011

Reported:

09/26/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

SE EXCAVATION

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: W WALL S END @ 6' (H102023-40)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Analyte

Result

Reporting Limit

Method Blank

432

BS

% Recovery True Value QC RPD

Qualifier

Chloride

Chloride

16.0

16.0

Analyzed 09/23/2011

ND

108

400

3.64

Sample ID: W WALL S END @ 9' (H102023-41)

Chloride, SM4500CI-B

Analyzed By: AP

Analyte Result Reporting Limit 16.0 16.0

Analyzed 09/23/2011 Method Blank ND

BS 432 % Recovery 108

True Value QC 400

RPD

Qualifier 3.64

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keine



### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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:	ripaona								1-2	A.	BI	LL TO	外的關係	g 6				ANAL	<u> YSIS</u>	RE	QUE	ST			
Project Manager	Natalie Gladden	The second secon	~~~					P	0.	#:		·													
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City:	Minimum as white the wine self of self-critical district while white in the profess of	State: NM	Zip				******	A	ttn	:	~~~~	- delegand source and an addition	T From weath his Plant and over the year					Cations/Anions							
Phone #:		Fax #:				a. i	<u></u>	A	ddi	ress					ļ			\u							
Project #:		Project Owner	:				<u></u>	c	ity:			ad particularly sound annualists.		, n	≥		エ	1/8							
Project Name:	SE Excavation	27						s	tate	e:		Zip:		ğ	15	$\times$	<u>6</u>	o		i					
Project Location	: NEDU Pilo+	Project	B	+1	1/ 2	71		P	ho	ne #:		~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~		Chlorides	8015	BTEX	Texas TPH	ati	TDS						
Sampler Name:				` ' '				F	ax:					]∺		B	Xa	Ö	F		•				,
FOR LAB USE ONLY						MAT	RIX		P	RES	RV	SAMP	ING	] 🖸	Hd		e	te							
Lab I.D. H102023	Sample I.	D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	OIL	SLUDGE OTHER	, void & or v	ACID/BASE:	OTHER:	DATE	TIME				•	Complete							
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ID I	Wwall Middle	27.	<u>5</u> .	7	+	17	-	+-	╁	_	†	9-20-11	0: 45	7		<del> </del>	<u> </u>	1						**** <del></del>	
PLEASE NOTE: Liability and	Damages, Cardinal's liability and clies g those for negligence and any other c											to the amount p			- thin	<u> </u>	ļ	<del></del>	L	·	·	L			<u></u>
service. In no event shall Ca	rdinal be liable for incidental or conseq g out of or related to the performance of	quental damages, Including	withou	ıt limitat	ion, bu	siness into	rruptio	ens, loss	of u	se, or lo	ss of p	rofits incurred b	y client, its subsidi	nries.	ano										
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Sampler - UPS			4	ري و	C	ool / Ves No	ntac	t Yes		Ç.	Uni	lials)	hcond Hanc	der@	price	-ecs	.com	ı; Lw						com	

#26

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# ARDINAL LABORATORIES

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Zconder@rice-ecs.com; Bbaker@rice-ecs.com;

hconder@rice-ecs.com; Lweinheimer@rice-ecs.com

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						BI	LL TO	14. A	<u>:</u>			/	ANAL	_YSIS	RE	QUES	ST			
Project Manage	r: Natalie Gladden				Ρ.	O. #:														
Address:					Co	mpany:							2		i					
City:	State: NM	Zij	ɔ:		At	tn:							o							
Phone #:	Fax#:				Αc	ldress:							√ni							
Project #:	Project Owne	∍ř:			Cit	ty:			۱.,	Σ		I	s//		i				, ,	
Project Name:	SE Execution	****		-	Sta	ate:	Zip:		ĕ	. 2	×	ТРН	nc							
Project Locatio	n: NEPU Pilat Project B+	71,	4	/	Ph	ione #:			Chlorides	801	BTEX		atic	TDS		1 1				
Sämpler Name:		7-			Fa	x #:			[음		BT	Xa.	Ö	=						
FOR ÈAB USE ONLY			Г	MATRIX		PRESERV	SAMPL	ING	Ö	H		Texas	te			1				
Lab I.D. H102023	Sample Í.Ď.	(G)RABOR (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL	OTHER:	ACID/BASE: ICE / COOL OTHER:	DATE	TIME		<b>—</b>			Complete Cations/Anions							
11	N Nall Middle P.91	Ğ2	1	10/1	1		9-20-11	9150	V											
12	NNall Wend @3'	Ű7	7		-		9-20-1	9:55	1											
13	Novall Wend 66	Ú7	Ţ	1		. 1	9-20-11	10,00	V,											
14	Novall Wend @9'	4					9-21-1	10:05	6/											
15	Swall Earl @3'	17.	Ľ	<b>√</b>	1		9:20-11	1070	/						İ	ļ				
16	Swall Eend OC	47	1				9-20-11	16.15	1/4										· 	
17	Swall Fond 69'	- 12			<u> </u>		9-20-4	10,20	<i>il</i>						ļ					
15	Swall Middle-@3	<u>(i)</u>	<u> </u>		-		9-20-71	16:25	<i>1</i> —											
19	Swall Middle 66	- 42-	-	<b></b>	+		9-204 7-20:4	10030	1						j					
ZO PLEASE NOTE: Liebility o	nd Damages, Cardinal's liability and client's exclusive remedy for	nny cla	im arisi	ing whether based in contrac	ct or to	rt, shall be limited	<u></u>	Id by the client for	the											
analyses. All claims includi service, in no event shall C	ing those for negligence and any other cause whatsoever shall be perdinal be liable for incidental or consequental damages, includin Ing out of or related to the performance of services hereunder by	e deems ng witho	vlew be ut iimit	ed unless made in writing er stion, business interruptions	nd rece	lved by Cardinal of use, or loss of p	within 30 days aft rofits incurred by	er completion of th client, Its subsidie	ne applica ries	ble										
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Relinguished B	y: Date:	Re	cei	ved By:		- · <del>- · · · · · · · · · · · · · · · · ·</del>		email												
ŀ	Time:	٦						Natal	ie.G	ladd	en@	usa.	.apa	chec	orp.	com	,			

CHECKED BY:

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

#26

Sample Condition Cool Intact

Tyes Tyes
No No

<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

# ARDINAL LABORATORIES

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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	<u>``</u>		<u> </u>		npany Name: Apache ect Manager: Natalie Gladden							0	4d.37					ANAL	YSIS	RE	QUES	ST.			
Project Manager	Natalie Gladden							1	۰.0	).#:																
Address:									Cor	mpar	ıy:								S				]			
City:	-	State: NM	Zip	:				_/	Attr	n:									0							
Phone #:		Fax #:						/	٩dc	dress	:								Į.							
Project #:		Project Owner	•						City	<u>/:</u>					ا ر	Σ		工	//s							
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Project Location	" MEDU Pilor	Project	$\mathcal{B}_{I}$	11/12	#/	<u></u>			hc	one #	:				Chlorides	801	BTEX	Texas TPH	Cations/Anions	TDS			İ			
Sampler Name:				7	,			F	ax	#:					욷		BT	xa		F			1			
FOR LAB USE ONLY				T		MA	TRIX	(		PRES	ERV.	SAM	PLIN	G	Ü	TPH		Ге	e e				Ì	1		
Lab I.D. <u>H 107</u> 023	Sample I.I	D.	S (G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	OTHER:			TIME		<b> </b>		•	Complete					·		
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PLEASE NOTE: Liability and analyses, All claims includin service. In no event shall Co	d Demages. Cardine's liability and clien g those for negligence and any other ca ordinal be liable for incidental or consequency ig out of or releted to the performance of	its exclusive remedy for a use whetsoever shall be o rental damages, including	leemed withou	i waived t limitati	unles un, bu	a made ir Haess int	n writir terrupt	ng and r siena, les	ecely ss of	red by C use, or I	ardinei v	to the amount within 30 days	nt peid b a after c d by clie	y the client fo completion of t int, its subsidi	he applical irles.	ble			<u> </u>	<b></b>	1	1				<u> </u>
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

### ARDINAL LABORATORIES

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

Company Name	Apacite	·······							\$3°	E	31L	L TO	ligarii.	: 1g					ANAL	YSIS	RE	QUE	ST			
Project Manage	<sup>r:</sup> Natalie Gladden							Р.	0. #	:																
Address:								Cc	qme	any:									S							
City:		State: NM	Zip	:				At	tn:		<u></u>								Ö							
Phone #:		Fax #:						Αc	ldre	ss:									ł.							
Project #:		Project Owner	r:					Ci	ty:						10	≥		工	<i>//s</i>							
Project Name:	SE Erco	Watisa						St	ate:		Z	ip:			les	5	×	Ъ	ÜC							
Project Location	" NEDU Pilos	- Project	<u>.</u>	Bri	177	71		Ph	one	#:					ric	801	$ \mathbf{E} $	s J	ati	TDS						
Sampler Name:		'ت						Fa	x #:						Chlorides		BTEX	Texas TPH	Ü	F						
FOR LAB USE ONLY						MAT	RIX		PRI	ESER	₹∨.	SAMPI	ING		C	TPH		[e]	te							
Lab I.D. H 102 <i>0</i> 23	Sample I.I	<b>D.</b>	(G)RAB OR (C)OMP	# CONTAINERS	SROUNDWATER	WASTEWATER	Oll	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIN	16					Complete Cations/Anions							
31	Ewall Send &	26	<u> </u>	#	<u> </u>	V	1	10		-		9-20-11	1/1/3		1											1
32		201	6	17	7	V	1		1			9-21-11	1/126		1											
33	·	ω3 <sup>1</sup>	62	1	1	V	ī				ć	1-W11	1125	;	1											
34		) ( i	67									9-20-1	17:30	,	$\mathcal{L}_{i}$											
35	1011 217 18 1 1 0 0110	19"	5	1		1/						9-20-11	1:35		<i>*</i>	·										ļ
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PLEASE NOTE: Liability on	d Domages, Cardinal's Bability and clien																			l			L			<u> </u>
service. In no event shall Co	ig those for negligence and any other ca ardinal be liable for incidental or consequ	rental damages, including	withou	et firmitet	on, bu	alness inte	rruption	e, lose o	fuse,	or loss o	of profi	its incurred by	client, its at	ubaldian	ies	le'								٠		
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Delivered By: Sampler - UPS			Y	0	C	ample ( ool — h Yes No	ntact				CKE	D BY:												ecs.	com.	

#26

<sup>†</sup> Cardinal carnot accept verbal changes. Please fax written changes to 505-393-2476



### **CHAIN-OF-CUSTODY AND ANALYSIS REQUEST**

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

Company Name		MACH WASHINGTON		257 <b>00 ROM</b>	Allenatu	****	ere por e	T	-	£.	311	LTO			- A-1-100-A-1		مدة فعقا الاستأمارة	a mareca	ANA	LYSI	S RE	QUE	ST			1
Project Manager	" Natalie Gladden							P.C	). #:	destar.	AC 7F.	id in other till fill and in	<u> </u>			ALAMATTINIA	<u> </u>	7	T		T		1	Constitution	······································	
Address:								Col	mpa	any																
City:	State:	Zi	p:					Att	n:					-												
Phone #:	Fax #:							Ad	dres	ss:														1		
Project #:	Project (	wner:						Cit	y:													ļ				
Project Name:	SE Excavation 1: NEDU Pilot Pro Kyle Worman							Sta	te:			Zip:					,									
Project Location	" NEDU PILAT Pro	1001-1	<u>B/</u>	14	#/	/		Pho	one	#:					ડ્ડ											
Sampler Name:	hyle Norman							Fax	(#:						9											
FOR LAB USE ONLY		· .		T-		MATE	RIX	T	PRE	SE	₹V.	SAMPL	ing		50									ļ		
Lab I.D.	Sample I.D.	(C) (G)RAB OR (C)OMP	ONTAINERS	GROUNDWATER	STEWATER	SOIL	JOGE	HER:	ACID/BASE:	ICE / COOL	OTHER:				Chlorides										-	
H102025	W wall Send eq'			GR 3	WA	S	5 3	5	AC	CE	0	DATE		IME		نمصنعت								ļ		
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† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-247

Page 16 of 16



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

Received:

09/22/2011

09/23/2011

Sampling Date:

09/21/2011

Reported:

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

### Sample ID: ROW N WALL MIDDLE 3' (H102022-01)

Chloride, SM4500CI-B	mg,	'kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/22/2011	· ND	432	108	400	0.00	
Sample ID: ROW N WALL	. MIDDLE 6' (H	102022-02)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/22/2011	ND	432	108	400	0.00	
Sample ID: ROW N BOTT	OM (H102022-	03)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	D II								
	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	Reporting Limit	Analyzed 09/22/2011	Method Blank ND	BS 432	% Recovery	True Value QC 400	0.00	Qualifier
Chloride  Sample ID: ROW SOUTH	<16.0	16.0	•			•	Ť		Qualifier
	<16.0	16.0 <b>2022-04)</b>	09/22/2011			•	Ť		Qualifier
Sample ID: ROW SOUTH	<16.0 BOTTOM (H10	16.0 <b>2022-04)</b>	09/22/2011	ND .		•	Ť		Qualifier  Qualifier

### Cardinal Laboratories

\*=Accredited Analyte

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Celeg & Keine



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

Received:

09/22/2011

00/22/2011

Sampling Date:

09/21/2011

Reported:

09/23/2011

Sampling Type:

Soil

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

Cool & Intact

Project Number:

NONE GIVEN

Sample Received By:

Jodi Henson

Project Location:

NOT GIVEN

Sample ID: ROW MIDDLE BOTTOM (H102022-05)

Chloride, SM4500Cl-B	mg/kg

	****	79	,	<b>/</b> · · · · ·					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/22/2011	ND	432	108	400	0.00	

Analyzed Ry: HM

### Sample ID: ROW W WALL S END 3' (H102022-06)

Chloride, SM4500Cl-B	mg,	/kg	Analyze	d By: НМ					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	992	16.0	09/22/2011	ND	432	108	400	0.00	

### Sample ID: ROW W WALL S END 6' (H102022-07)

Chloride, SM4500Cl-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	896	16.0	09/22/2011	ND	432	108	400	0.00	

### Sample ID: ROW W WALL MIDDLE 3' (H102022-08)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	608	16.0	09/22/2011	ND	432	108	400	0.00	

### Sample ID: ROW W WALL MIDDLE 6' (H102022-09)

Chloride, SM4500CI-B	mg/	kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1170	16.0	09/22/2011	ND	432	108	400	0.00	

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Celeg D. Keena



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

Received: Reported: 09/22/2011

09/23/2011

NONE GIVEN

Project Name: Project Number: **NEDU PILOT PROJECT BATTERY #1** 

Project Location:

NOT GIVEN

Sampling Date:

Sampling Type:

Sample Received By:

09/21/2011

Soil

Sampling Condition:

Cool & Intact

Jodi Henson

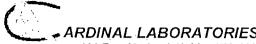
### Sample ID: ROW W WALL N END 3' (H102022-10)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/22/2011	ND	432	108	400	0.00	
Sample ID: ROW W WALI	L N END 6' (H1	.02022-11)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	09/22/2011	ND	432	108	400	0.00	

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### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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					BILL TO				ANALYSIS REQUEST												
Project Manager: Natalie Gladden				F	P.O. #:																
Address:					Company:								ည								
City:	City: State: NM Zip:					Attn:			.[				Cations/Anions								
Phone #:	Phone #: Fax #:					Address:							7		·						
Project #:	Project Owner	:				City:			S	≥		エ	1/8								
Project Name:						State: Zip:		ě	8015	×	TPH	G	(0)								
Project Location: NEDU Rilor Project Bathey El						Phone #:		<u>ĕ</u>	8	BTEX	Ś	ati	TDS								
Sampler Name:	Kyle Warman			·		_	#:			Chlorides		8	exas		<del> </del>						
Lab I.D.	Sample I.D.	Colrabor (C)OMP.	# CONTAINERS	GROUNDWATER WASTEWATER SOIL OIL	T		ACID/BASE: ACID/BASE: CE / COOL SERVED OTHER:		TIME	O	HdT		Te	Complete							
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I has N	Time: 40		0	W S	ll e	Ŋ	120.	/	REMARK												
Relinquished By: Date: Received By:					email			email	nail results												
Time:									Natal	talie.Gladden@usa.apachecorp.com;											
Delivered By: (Circle One) Sample Condit					nditio	n	CHEC	KED BY:	Zconc	der@rice-ecs.com, Bbaker@rice-ecs.com;											
Sampler - UPS - Bus - Other:  Sampler - UPS - Bus - Other:				act.			ials)	hcond	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com												

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#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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	Apacito								BILL TO									ANA	LYSIS	RE	QUE	ST			
Project Manage	<sup>r:</sup> Natalie Gladden							P.	O. #	<u>:</u>															
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City:	State: NM	Zip	): 					A1	tn:					_	İ			Ö							
Phone #:	Fax #:							A	ddre	ss:					1			7							
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Project Name:		····						St	State: Zip:					Jě	5.	$\parallel_{\times}$	TPH	l o	(0)						
Project Location: NEDU PILAT Project Battery#1							Pi	Phone #:					Chlorides	8015	BTEX	\ \ \	ati	TDS							
Sampler Name:	hole Naxman							Fa	x #:	_				] Ξ	I	$\frac{1}{2}$	Texas	O							
FOR LAB USE ONLY MATRIX							PR	ESE	RV.	SAMPL	ING	. 0	T. T.		e e	e									
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Delivered By	(Circle One)			Т-	Sami	ple C	ond	ition	1	СН	IECK	ED BY:	Zcon												
Delivered By: (Circle One)  Sample Condit Cool Intact  Light Sampler - UPS - Bus - Other:  Sample Condit Cool Intact Interpret							(thitlals) boo					der@	)rice	e-ecs	.con	ո; Lv	/einh	eim	er@	rice-	ecs.	com			

<sup>†</sup> 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:

09/22/2011

Sampling Date:

09/22/2011

Reported:

09/26/2011

Sampling Type:

Project Name:

NEDU PILOT PROJECT BATTERY #1

Sampling Condition:

\*\* (See Notes)

Project Number: Project Location: NONE GIVEN

NOT GIVEN

Sample Received By:

Jodi Henson

#### Sample ID: ROW E WALL MIDDLE @ 3' (H102029-01)

Chloride, SM4500CI-B	mg	/kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	· ND	432	108	400	0.00	
Sample ID: ROW E WALL		• •		d By: AP					
Chloride, SM4500CI-B	de, SM4500Cl-B mg/kg								
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	09/23/2011	ND	432	108	400	0.00	
Sample ID: ROW E WALL	N END @ 3' (H	102029-03)							
Chloride, SM4500CI-B	mg,	/kg	Analyze	d By: AP		-			
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/23/2011	ND .	432	108	400	0.00	
Sample ID: ROW E WALL	N END @ 6' (H	102029-04)							
Chloride, SM4500CI-B	A	d By: AP							
	mg,	/kg	Anaiyze	u by. Ar					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

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\*=Accredited Analyte

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Celey D. Keine



#### Analytical Results For:

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

Received:

09/22/2011

Sampling Date:

09/22/2011

Reported:

Soil

09/26/2011

Sampling Type:

\*\* (See Notes)

Project Name: Project Number: NEDU PILOT PROJECT BATTERY #1 NONE GIVEN

Sampling Condition:

Project Location:

Analyte

NOT GIVEN

Sample Received By:

Jodi Henson

Sample ID: ROW E WALL S. END @ 3' (H102029-05)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

% Recovery True Value QC RPD

Qualifier

Chloride

Chloride

Result <16.0 Reporting Limit 16.0

Analyzed 09/23/2011 Method Blank ND

Method Blank

ND

BS 432

BS

108

400

0.00

Sample ID: ROW E WALL S END @ 6' (H102029-06)

Chloride, SM4500CI-B

mg/kg

Analyzed By: AP

Reporting Limit Analyte Result 16.0 16.0

Analyzed 09/23/2011

432

108

% Recovery

True Value QC 400

RPD

0.00

Qualifier

Cardinal Laboratories \*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Celeg & Keene

Page 3 of 5

#### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

	Ompany Name: Apache							LL TO						ANAI	LYSIS	RE	QUES	ST			
Project Manage	r: Natalie Gladden				Ρ.	O. #:															
Address:					c	mpa	ny:	·						SI					ļ		
City:	State: NM	Zip:			At	tn:					1			Ö							
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Project #:	Project Owner				Ci	City:					5 M		エ	1/8				İ			
Project Name:							State: Zip:					×	ТРН	on	(0)						
Project Location: NEDU Pilot Project Bottony #1 Sampler Name: Vivle Norman						Phone #:				Chlorides	801	BTEX	S	Complete Cations/Anions	TDS						
Sampler Name:	Vivle Norman					x#:				<u>芒</u>		m	Texas	$\circ$					l		
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3	BOW EWALL N' end @31	<u>ن</u> (ج 2 / (ج	7	T '/				4-22-11	10:30	1						******					
4	BOW EWELL Nevel EE	67/						9-22-11	18:50	1											
5	BOW EWILL S'end @3'	9/1				<u> </u>		9-22-11	11,30	1/											
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	of Damages, Cardinal's hability and client's exclusive remedy for a																				L
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							uec'	ED BY:		talie.Gladden@usa.apachecorp.com; nder@rice-ecs.com; Bbaker@rice-ecs.com;											
	Cool Intact						(Initials) boand					onder@rice-ecs.com; Lweinheimer@rice-ecs.com									
Sampler - UPS	Sampler - UPS - Bus - Other: JJC □ Yes ☑							hconder@rice-ecs.com; Lweinheimer@rice-ecs.c													

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

Page 5 of 5

09/29/2011

Jodi Henson



#### Analytical Results For:

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

09/29/2011

Sampling Date: Reported: 10/03/2011 Sampling Type:

Soil Sampling Condition: Project Name: NEDU PILOT PROJECT BATTERY #1 \*\* (See Notes)

Project Number: NONE GIVEN Sample Received By:

Project Location: NOT GIVEN

Sample ID: BACKFILL (H102092-01)

Received:

Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP			H		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	09/30/2011	ND	448	112	400	3.51	

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 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. Keine

### ARDINAL LABORATORIES

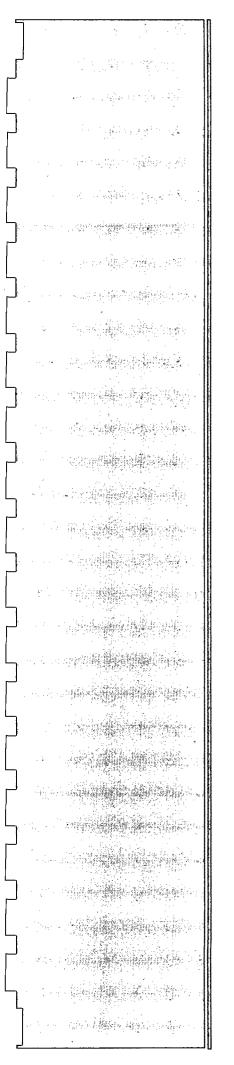
### CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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	ripacito							BILL TO										ANA	LYSIS	RE	QUE	ST			
Project Manage	r: Natalie Gladden				-			P.0	o. #	:															
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Sampler Name:	Sampler Name: Kule Norman						Fa	x #:					Chlorides		<u> </u>	Texas TPH	O								
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analyses, All claims, including service. In no event shall C	nd Damages. Cardinal's liability and clients exclusive remedy for in trose for negigence and any other cause whitsdever shall be addinal be liable for incidental or consequental damages, includ in ing out of or related to the renformance of services hiereunder by the high out of or related to the renformance of services hiereunder by the country of the control of the contro	deemed g withou	d waive d lumba	d unic:	is made Isiness	in writ	ing an otions,	d rece loss o	ived by f use,	y Caro or los	dinal v s of p	vithin 30 days altrofits incurred by	er completion of t client, its subsidia	ne applica aries	ble										
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<sup>†</sup> Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476



# Appendix D Groundwater Study

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



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

No records found.

PLSS Search:

Section(s): 33, 34, 35

Township: 20S

Range: 37E



## New Mexico Office of the State Engineer Water Column/Average Depth to Water

Maximum Depth:

75 feet

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) Depth Depth Water basin Use County 64 16 4 Sec Tws Ring Y Well WaterColumn **POD Number** 2 4 04 21S 37E 672700 CP 00552 3598022\* 15 STK CP 00553 04 21S 37E 672700 3598022\* 90 75 15 75 feet Average Depth to Water: Minimum Depth: 75 feet

**Record Count: 2** 

PLSS Search:

Section(s): 2, 3, 4, 9, 10, 11 Township: 21S

Range: 37E

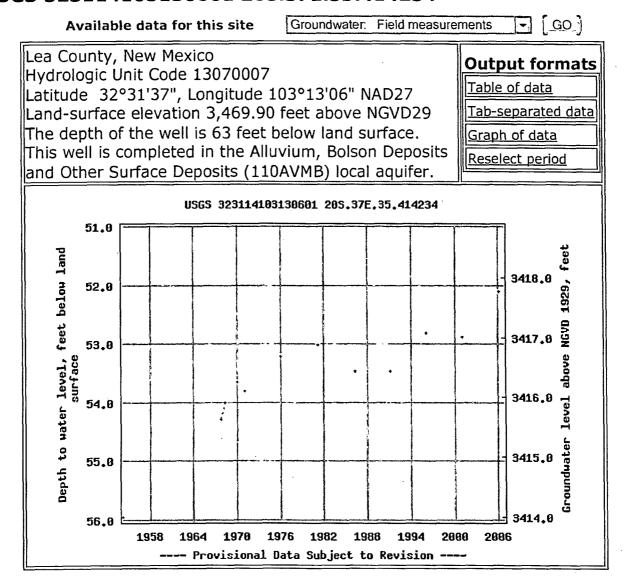
#### USGS 323016103092001 21S.37E.03.31221

GO ] Groundwater: Field measurements Available data for this site Lea County, New Mexico **Output formats** Hydrologic Unit Code 13070007 Table of data Latitude 32°30'40", Longitude 103°19'21" NAD27 Land-surface elevation 3,424.10 feet above NGVD29 Tab-separated data The depth of the well is 36 feet below land surface. Graph of data This well is completed in the Alluvium, Bolson Deposits Reselect period and Other Surface Deposits (110AVMB) local aquifer. USGS 323016103092001 215.37E.03.31221 17.0 3407.0 Depth to water level, feet below land 18.0 3406.0 19.0 3405.0 3494.0 20.0 21.0 3483.0 22.0 3402.0 23.0 3401.0 24.0 3400.0 25.0 1979 1982 1985 1988 1970 1973 1976 1991 1994 1997 - Provisional Data Subject to Revision -

#### USGS 322937103094501 21S.37E.09.241211

GO] Groundwater: Field measurements Available data for this site Lea County, New Mexico **Output formats** Hydrologic Unit Code 13070007 Table of data Latitude 32°29'49", Longitude 103°09'45" NAD27 Land-surface elevation 3,466.60 feet above NGVD29 Tab-separated data The depth of the well is 90 feet below land surface. Graph of data This well is completed in the Alluvium, Bolson Deposits Reselect period and Other Surface Deposits (110AVMB) local aquifer. USGS 322937103094501 215.37E.09.241211 55.0 3411.0 . Jepth to water level, feet below land 56.0 3410.0 57.0 3409.0 58.0 3408.0 59.0 3407.0 60.0 3406.0 61.0 3405.0 62.0 3404.0 63.0 3403.0 5 64.0 1967 1978 1973 1976 1979 1982 1985 1988 1991 1994 1997 ---- Provisional Data Subject to Revision ----

#### USGS 323114103130601 20S.37E.35.414234





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

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 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

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

Form C-141

Revised October 10, 2003

#### **Release Notification and Corrective Action**

				•		<b>OPERA</b>	ΓOR		☐ Initia	al Report	$\boxtimes$	Final	Report				
Name of Co		Apache (				Contact Natalie Gladden											
Address		ox 1849, Eu		<del></del>		Telephone No. (575) 390-4186											
Facility Nan	ne NEDU	Pilot Projec	t Battery	#1 (NEDU #16	5)   I	Facility Type Production Facility											
Surface Ow	ner Mo	Casland		Mineral C	wner	er State of NM Lease No. 30-025-39915											
				LOCA	TION	ON OF RELEASE											
Unit Letter	Section	Township	Range.	Feet from the	North/	South Line	Feet from the	East/V	Vest Line	County							
D	2	21S	37E	1800	FNL		125	FWL		Lea							
			Lat	itude		Longitude											
				NAT	URE	OF RELI											
Type of Relea		uced water			- <del>-</del>		Release 387 bbl			Recovered (							
Source of Rel	ease Inje	ection line/jun	ction box			Date and H 9/12/11	lour of Occurrence	e	Date and 9/12/11	Hour of Dise	covery						
Was Immedia	te Notice C		Yes $\Box$	No Not Re	equired	If YES, To				<u> </u>							
By Whom?	Natalie (					Date and Hour 9/12/11 343 pm											
Was a Watero						If YES, Volume Impacting the Watercourse.											
			Yes 🛚	No													
If a Watercou	rse was Im	pacted, Descr	ibe Fully.*		-												
							DTW=	56									
Describe Cau				Taken.*  e junction box. L	ine was i	renaired							-				
					inc was i	repaired.											
Describe Area					land tata	lina 9 527 ac	g. ft. Impacted soi	la urana	ramayad t	a a NIMOCD		مناه امدر	mass1				
							cavation extende						posai				
proximity of a	an Apache <sub>I</sub>	pipeline. Rep	resentative	soil samples wer	re collect	ted from the	excavations and se										
				an soil and conto			ng area. knowledge and ur		d that num	went to NIM	)(D ==	lac and	1				
regulations al	l operators	are required to	o report an	d/or file certain r	elease no	e dest of my	nd perform correct	tive acti	ons for rela	eases which	may en	danger					
public health	or the envir	onment. The	acceptanc	e of a C-141 repo	rt by the	NMOCD m	arked as "Final Re	eport" d	oes not reli	eve the oper	ator of	liabilit	y				
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Printed Name	: Natalie	Gladden				_ <del>-</del>		CIIVII(	AUTHERIUS.	Specialis	IL V	<b>4</b>					
Title: EH8	S Environ	mental Tech			A	Approval Date: WQ112 Expiration Date: -											
E-mail Addre	ss: Nata	lie.gladden@a	apachecorp	o.com	(	Conditions of Approval:											
Date:	19/1	7.	Phone:	(575) 390-4186	1RP-6-14-3						308	83					
* Attach Addit		ets If Necess		(575) 570 4100	I		· · · · · ·		<del></del>	1111-0		<i>-</i> - \					