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

Form C-141
Revised June 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	**P.O. Box 1849** **Eunice, NM 88231**	Telephone No.	**575-390-4186**
Facility Name	**NEDU #805**	Facility Type	**Produced Water Injection Well**
Surface Owner	**Deck Estate**	Mineral Owner	API No. **30-025-06736**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from North Line	Feet from West Line	Longitude-W	Latitude-N	County
F	**22**	**21S**	**37E**	**1680**	**1500**	**103.1538**	**32.4670**	**Lea**

NATURE OF RELEASE

Type of Release **Produced Water w/ minor hydrocarbon component**	Volume of Release **Greater than 1000 bbl**	Volume Recovered **420 bbl**
Source of Release **2" PVC Injection Line (loss of integrity)**	Date and Hour of Occurrence **11/12/05**	Date and Hour of Discovery **11/13/05 8:30 AM**
Was Immediate Notice Given? ☑ YES ☐ NO ☐ Not Required	If YES, To Whom? **NMOCD - Hobbs - Gary Wink**	
By Whom? **Clayton Frank**	Date and Hour **11/14/2005 AM**	
Was a Watercourse Reached? ☐ YES ☑ NO	If YES, Volume Impacting the Watercourse **NA**	

If a Watercourse was Impacted, Describe Fully*

Describe Cause of Problem and Remedial Action Taken. *
Loss of integrity of 2" PVC Produced Water Injection Line. Line was excavated and repaired.

Describe Area Affected and Cleanup Action Taken. *
The release affected area comprised ~21,000-ft^2. Three areas (east, center and west) were remediated with a risk-based methodology incorporating excavation/disposal, blending and 20-mil polyvinyl liner installation(s). The east area demonstrated the deepest chloride contamination (55-ft bgs) and resulted in the most extensive remediation of the project. Remediation was performed by Ocotillo Environmental - Hobbs.

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: Natalie Gladden	**OIL CONSERVATION DIVISION**
Printed Name: **Natalie Gladden**	Approved by District Supervisor: ENVIRONMENTAL ENGINEER
Title: **Environmental Tech - Permian Basin**	Approval Date: 7.7.09 Expiration Date: —
E-Mail Address: Natalie.Gladden@usa.apachecorp.com	Conditions of Approval: **RP# 1060** ☐ Attached
Date: **5/4/2009** Phone: **575-390-4186**	

Table of Contents

1.0 Project Summary

Release Site Name: NEDU #805
Operating Company: Apache Corporation
Company Representative: Natalie Gladden, Environmental Tech Phone: 575-390-4186
Address: PO Box 1849, Eunice, NM 88231 Email: Natalie.Gladden@usa.apachecorp.com
Remediation Company: Ocotillo Environmental, LLC - Hobbs Phone: 575-393-6371

SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico UL-F Section 22 T21S R37E
General Location: 2.0 miles NNE (8.0°) of Eunice, NM.
Latitude: N32° 28.017' Longitude: W103° 9.225' Elevation: 3,420-ft amsl
Land Ownership: Private – Deck Estate
Ground Water Elevation: 60-ft bgs (monitor well data)
Water Wells within 1000-ft: none Surface Water within 1000-ft: none

RELEASE SPECIFIC DATA:

Date and Time of Release(s): 11/12/05 – discovered at 8:30 AM - - 11/13/05
Material Released: Produced Water and minor portion of Crude Oil
Volume Released: >1000-bbl Volume Recovered: 420-bbl
Cause of Release: Loss of pipe integrity – 2" PVC PW conduit
Release Affected Area: >20,000-ft^2
Depth of Contamination: 56-ft bgs (@ east terminus of flow path)
NMOCD Site Ranking: 20 (ground water <50-ft below lowest contamination)
Remediation Action Levels: TPH: 100-ppm; Benzene: 10-ppm; BTEX: 50-ppm; Cl – 250-ppm

REMEDIATION SUMMARY:

Remediation of the release affected area(s) was a three-phase process, separating the project into east, west and central areas. All three areas were remediated with a risk-based protocol incorporating excavation/disposal, blending and polyvinyl liner installations.

The east area was the most seriously contaminated area (Cl contamination >250-ppm down to 56-ft bgs). The area was excavated to 37-ft bgs leaving soil with a maximum contamination level of 9,360-ppm Cl in-place. The excavation was backfilled with blended material to 5-ft bgs and covered with a 110' X 155' 20-mil liner and covered with caliche and topsoil.

The contaminated west area was excavated to 30-ft bgs, leaving soil contaminated to ~5000-ppm Cl in-place. After blending and backfill, the north portion of the west area was covered with a plastic liner and then a 3-ft cover of clean topsoil.

Contaminated areas of the central portion were excavated to contamination levels of <1500-ppm Cl, backfilled with blended material up to 3-ft bgs and covered with plastic liners. Final cover was with clean topsoil.

Two down-gradient monitor wells were installed (SE of the east area; SE of the west area). The remediation portion(s) of the project were completed on December 18, 2008.

2.0 Detailed Site Description

2.1 Geological Description

The United States Geological Survey (USGS) Ground-Water Report 6, "Geology and Ground-Water Conditions in Southern Lea County, New Mexico," A. Nicholson and A. Clebsch, 1961, describes the near surface geology of southern Lea County as "an intergrade of the Quaternary Alluvium (QA) sediments, i.e., fine to medium sand, with the mostly eroded Cenozoic Ogallala (CO) formation. Typically, the QA and CO formations in the area are capped by a thick interbed of caliche and generally overlain by sandy soil." The release site is located in the Eunice Plain physiographic subdivision, described by Nicholson & Clebsch as "covered almost entirely by reddish-brown dune sand. In some places the underlying surface consists of alluvial sediments – most commonly calcareous silt in buried valleys or Quaternary lake basins. It has a general southeast slope toward Monument Draw." The sand cover is generally 2 to 5-ft thick, but can be 20 – 30-ft thick in localized drift areas.

2.2 Ecological Description

The area is typical of the Upper Chihuahuan Desert Biome consisting primarily of hummocky sand hills covered with Harvard Shin Oak (*Querqus harvardi*) interspersed with Honey Mesquite (*Prosopis glandulosa*) along with typical desert grasses, flowering annuals and flowering perennials. Mammals represented, include Orrd's and Merriam's Kangaroo Rat, Deer Mouse, White Throated Wood Rat, Cottontail Rabbit, Black Tailed Jackrabbit, Mule Deer, Bobcat, Red Fox and Coyote. Reptiles, Amphibians, and Birds are numerous and typical of the area. A survey of Listed, Threatened, or Endangered species was not conducted.

2.3 Area Ground Water

The Chevron-Texaco water contour map (*Plate 4 of Attachments*) indicates that water in this area is 56' – 67' bgs. Two monitor wells drilled at the site resulted in 60-ft bgs water depths.

2.4 Area Water Wells

There are no recorded or observed water wells within 1000 horizontal feet of the site.

2.5 Area Surface Water Features

No permanent surface water bodies exist within 1000 horizontal feet of the site.

3.0 Contaminant and Size of Area

The primary Contaminant of Concern (COC) was total chlorides resulting from the produced water release on 11/12/05. Hydrocarbon contamination was minimal and limited to the top 2-ft of the area. The areal extent of the release was ~21,000-ft^2.

4.0 NMOCD Site Ranking

Contaminant delineation and site evaluation work done at this site indicate that the chemical parameters of the soil and the physical parameters of the ground water were characterized

consistent with the characterization and remediation/abatement goals and objectives set forth in the following New Mexico Oil Conservation Division (NMOCD) publications:

- *Guidelines for Remediation of Leaks, Spills and Releases (August 13, 1993)*
- *Unlined Surface Impoundment Closure Guidelines (February 1993)*

Acceptable thresholds for contaminants/constituents of concern (CoCs), i.e., TPH[8015m], Benzene, and the mass sum of Benzene, Toluene, Ethyl Benzene, and total Xylenes (BTEX[8260]), was determined based on the NMOCD Ranking Criteria as follows:

- *Depth to Ground water, i.e., distance from the lower most acceptable concentration to the ground water.*
- *Wellhead Protection Area, i.e., distance from fresh water supply wells.*
- *Distance to Surface Water Body, i.e., horizontal distance to all down gradient surface water bodies.*

Based on the proximity of the site to area water wells, surface water bodies, and depth to ground water from the lower most contamination, the NMOCD ranking score for the site is 20 points with the soil remedial goals highlighted in the Site Ranking Table.

SITE RANKING TABLE

1. Ground Water		2. Wellhead Protection	3. Distance to Surface Water
Depth to GW <50 feet: 20 points		If <1000' from water source, or; <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points
Depth to GW 50 to 99 feet: 10 points			200-1000 horizontal feet: 10 points
Depth to GW >100 feet: 0 points		If >1000' from water source, or; >200' from private domestic water source: 0 points	>1000 horizontal feet: 0 points
Ground Water Score = 20		Wellhead Protection Score= 0	Surface Water Score= 0
Site Rank (1+2+3) = 20 + 0 + 0 = 20 points			
Total Site Ranking Score and Acceptable Remedial Goal Concentrations			
Parameter	20+	10	0
Benzene	10 ppm	10 ppm	10 ppm
BTEX	50 ppm	50 ppm	50 ppm
TPH	100 ppm	1000 ppm	5000 ppm

5.0 Remediation Process

Remediation of the release affected area(s) was a three-phase process, separating the project into east, west and central areas. All three areas were remediated with a risk-based protocol incorporating excavation/disposal, blending and polyvinyl liner installations.

Based on progressive field analyses for chlorides, the east area was excavated to 30-ft bgs resulting in 10,856-yd^3 of contaminated soil disposal at Sundance Services. A delineation trench was extended from the 30-ft bgs level to ~59-ft bgs at the northwest area of the excavation. Field and laboratory analyses yielded the following chloride concentrations (ppm): @30'- (20,000); @37'-

(5,040); @41'- (9,360); @45'- (7,360); @55'- (928); @57'- (224); and @59' - (224). Consultation with NMOCD resulted in the approval of a risk-based closure leaving soil below the 37-ft bgs level in-place, blending the soil excavated from the 30 to 37-ft bgs zone, and covering the final backfilled excavation with a 20-mil polyvinyl liner. The 7-ft zone from 30 to 37-ft bgs was excavated and stockpiled on the surface for blending with previously stockpiled clean soil (from benching/sloping sidewalls and excavated soil that was <1000-ppm Cl). Final sidewall and bottom samples were obtained at the 37-ft bgs level. The surface stockpiles were blended and then pushed back into the excavation. Four progressive samples of this blended material were obtained over a 2-day period, all yielding chloride concentrations in the 400-450-ppm range. The blended backfill was then covered with clean caliche and brought up to the desired liner level of ~10-ft bgs. A 110' X 155' 20-mil polyvinyl liner (5-ft overlapping) was installed over the excavation. Clean topsoil was transported in and placed on top of the liner up to the 3-ft bgs level. The stockpiled native red sand was then used to bring the excavation up to approximated natural grade.

The contaminated west area (running parallel with two major gas lines) was excavated to 30-ft bgs at the northern extent. Analyses indicated a chloride concentration of 5000-ppm at the 30-ft level between the gas lines and ~1400-ppm at 17-ft bgs west of the gas lines. The center and southern portions of the west area were heavily contaminated with iron sulfide, however, this iron sulfide tested very low (<250-ppm) for chlorides indicating that it was the result of a natural gas leak. This iron sulfide was excavated, allowed to reduce back to iron oxide and then utilized to blend the material excavated at the north end. The north end was backfilled with blended material (<1000-ppm Cl) and covered with a 60' X 136' 20-mil polyvinyl liner and a final 3-ft layer of clean red sand. The center and south excavation was backfilled with the remainder of the excavated soil blended to <250-ppm Cl. -place.

The northern portion of the central area was delineated with five trenches aligned on either side of the injection line running east-west through the release area. The five trenches displayed chloride concentrations <1500-ppm at the 12-ft bgs level. Two 24' X 170' areas on the north and south sides of the injection line were excavated to 3-ft bgs and were lined with 12-mil polyvinyl liners. Backfill was with clean sand obtained from lateral areas.

The southern portion of the central affected area was delineated down to 38-ft bgs, yielding a Cl concentration of 128-ppm at that level. The highest concentration was ~2500-ppm at the 28-ft bgs level. This area was excavated to a dimension of 80' X 65' at which clean sidewalls were obtained. The excavation was backfilled with blended material, the sides were extended 5-ft and a 90' X 75' 12-mil polyvinyl liner was installed over the excavation. Final cover was clean topsoil.

A small pooling area on the west side of the road adjacent to the east area was excavated, blended and covered with a 60' X 25' 12-mil polyvinyl liner. The liner was covered with clean red sand.

Two down-gradient monitor wells were installed (SE of the east area; SE of the west area). The remediation portion(s) of the project were completed on December 18, 2008.

Based on the contents and data contained herein, Apache Corporation requests that NMOCD require "no further action" as regards the soil contamination resulting from the November 12, 2005 release of produced water at this location.

ATTACHMENTS

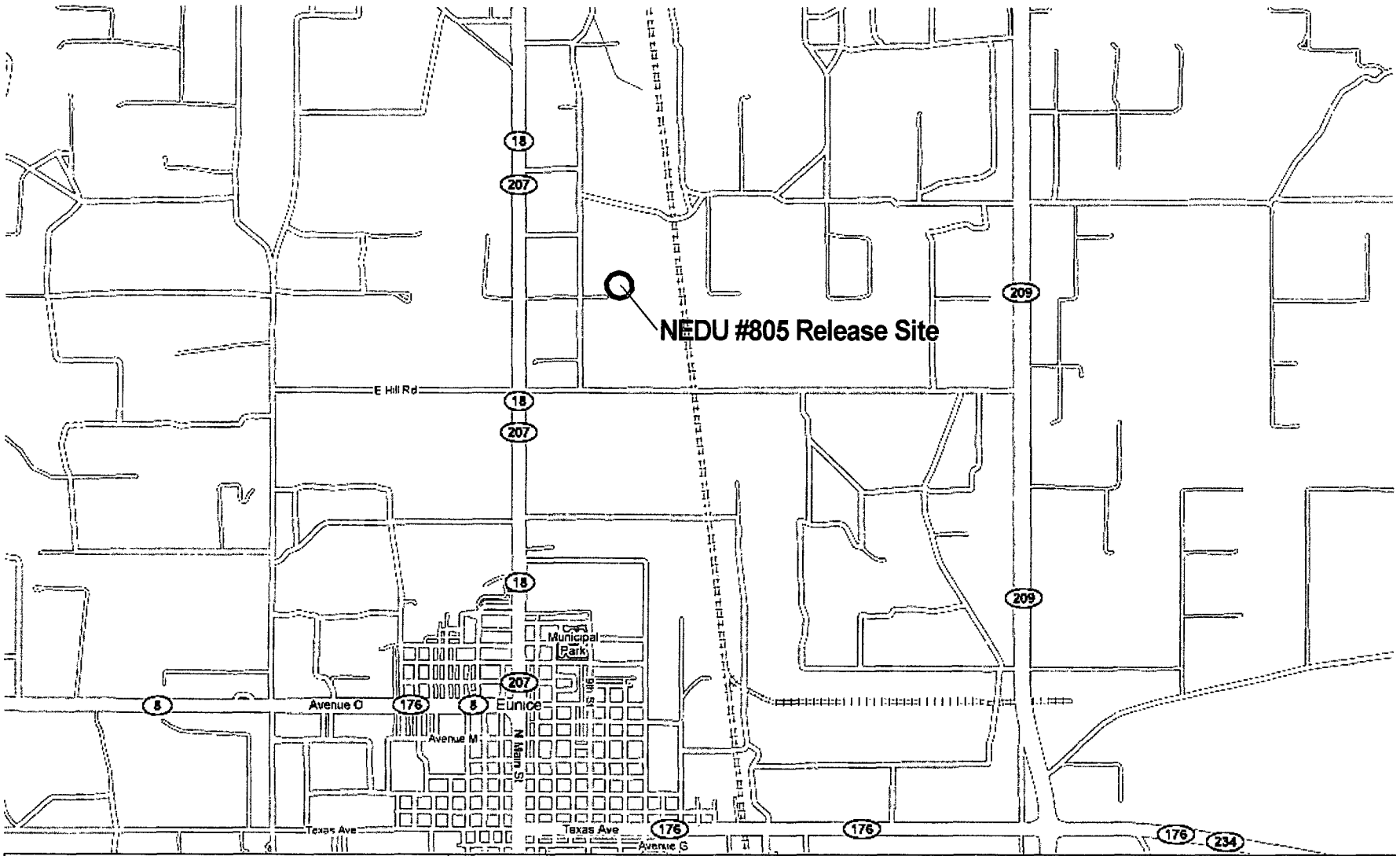


Plate 1 Release Site Location Apache Corporation NEDU #805	Lea County, New Mexico UL-F SECTION 22 T21S R37E N 32° 28.017', W 103° 9.225' Elevation: ~3420-ft amsl	Drawing by: John Good April - 2009	Rev: 1
		SCALE: 0 Mile 1	N

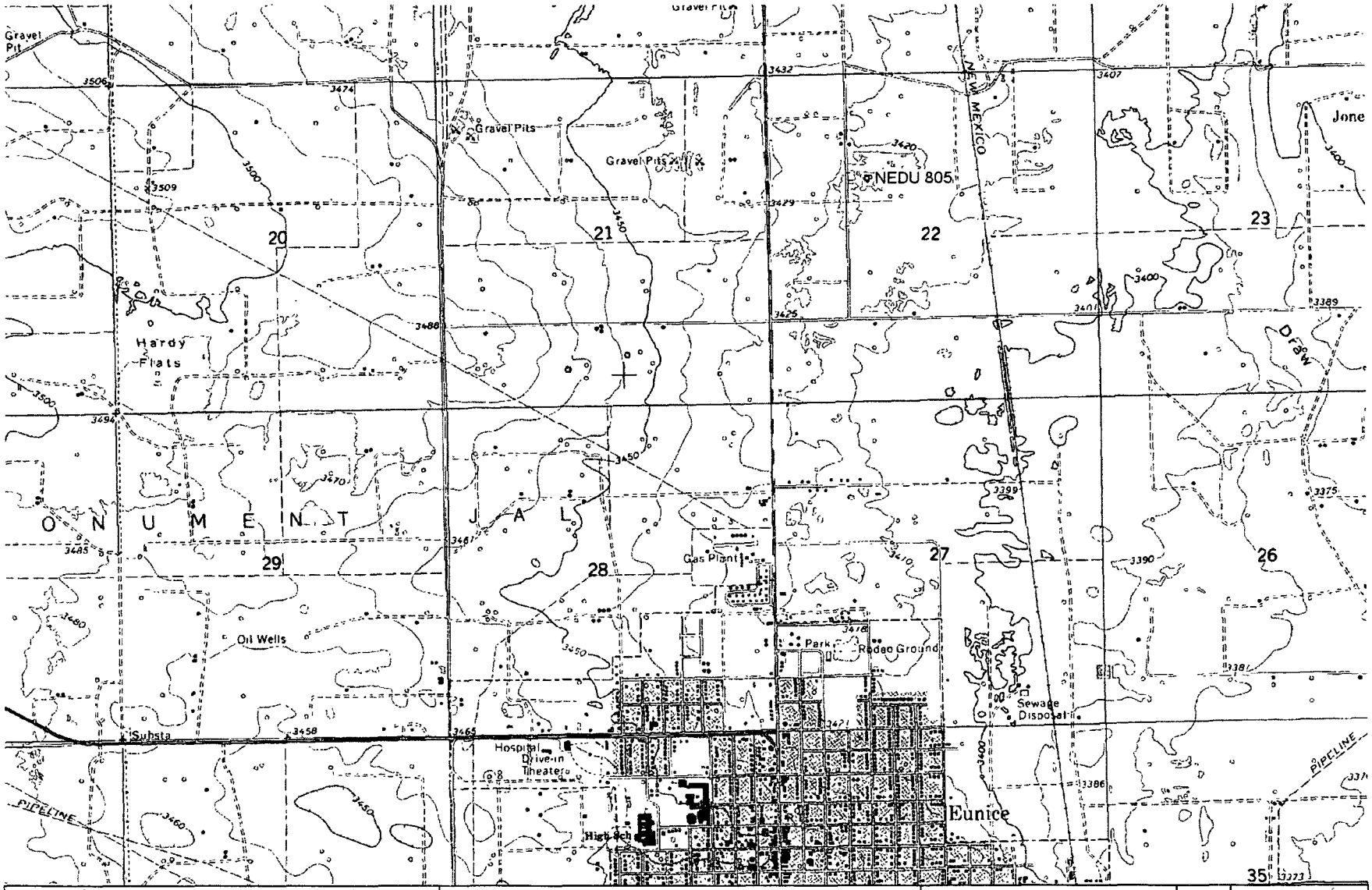


Plate 2 Release Site Topography Apache Corporation NEDU #805	Lea County, New Mexico UL-F SECTION 22 T21S R37E N 32° 28.017', W 103° 9.225' Elevation: ~3420-ft amsl	Drawing by: John Good April - 2009	Rev: 1
		SCALE: 0 Feet 4000	N

Plate 3 Release Site Aerial Photo Apache Corporation NEDU #805	Lea County, New Mexico UL-F SECTION 22 T21S R37E N 32° 28.017', W 103° 9.225' Elevation: ~3420-ft amsl	Drawing by: John Good April - 2009 Rev: 1 SCALE: 0 Feet 1200	N

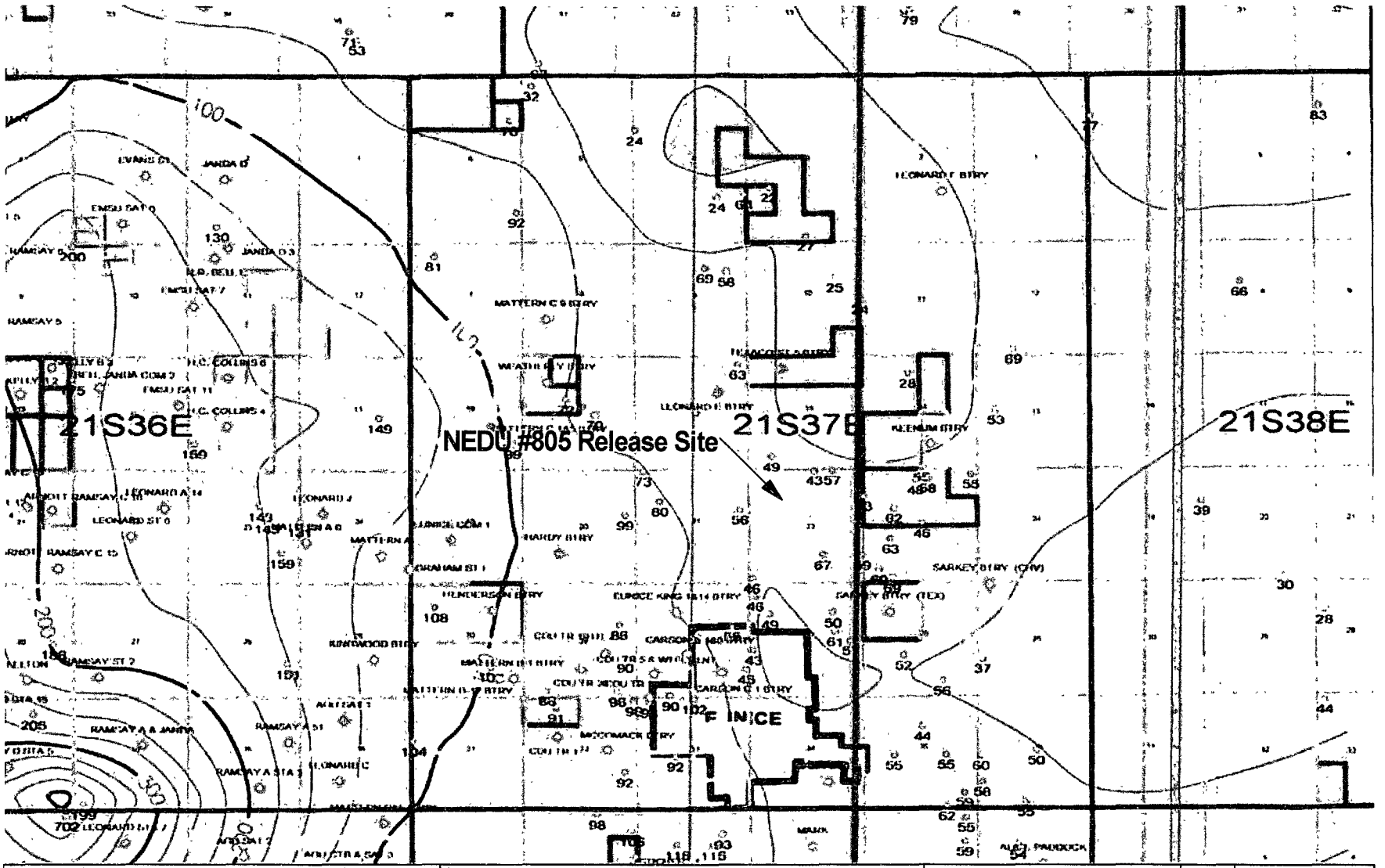
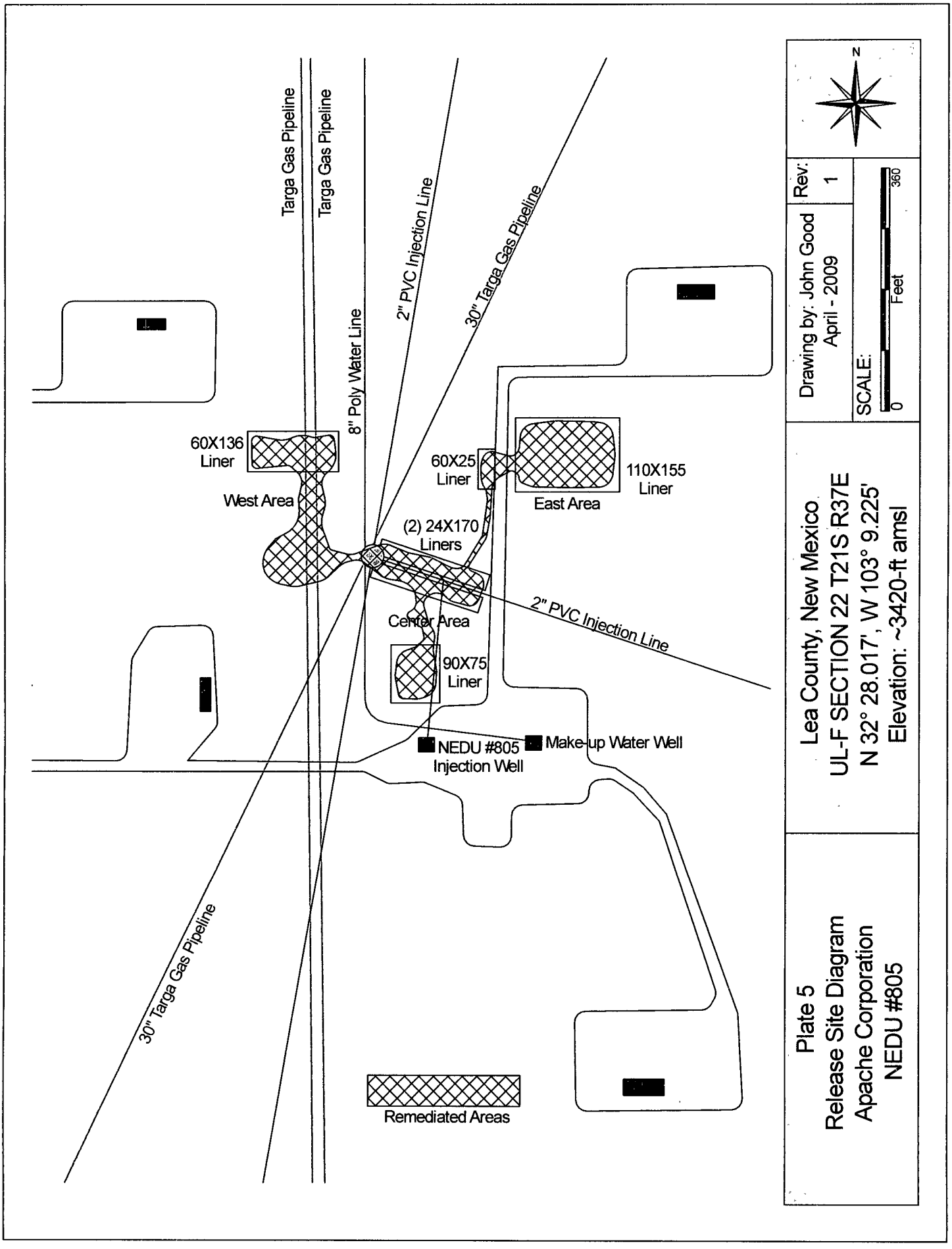


Plate 4 Release Site Water Depth Contour Apache Corporation NEDU #805	Lea County, New Mexico UL-F SECTION 22 T21S R37E N 32° 28.017', W 103° 9.225' Elevation: ~3420-ft amsl	Drawing by: John Good April - 2009	Rev: 1
		SCALE: 0 Feet 12000	N


Targa Gas Pipeline
Targa Gas Pipeline
8" Poly Water Line
2" PVC Injection Line
30" Targa Gas Pipeline
60X136
Liner
West Area
60X25
Liner
110X155
Liner
East Area
(2) 24X170
Liners
Center Area
2" PVC Injection Line
90X75
Liner
NEDU #805
Injection Well
Make-up Water Well
30" Targa Gas Pipeline
Remediated Areas
N
Drawing by: John Good
April - 2009
Rev: 1
SCALE:
0
Feet
360
Lea County, New Mexico
UL-F SECTION 22 T21S R37E
N 32° 28.017', W 103° 9.225'
Elevation: ~3420-ft amsl
Plate 5
Release Site Diagram
Apache Corporation
NEDU #805

NEDU #805: LABORATORY ANALYTICAL RESULTS SUMMARY TABLE							
Sample Number	Sample Depth	Sample Location	Chlorides mg/Kg	Sample Number	Sample Depth	Sample Location	Chlorides mg/Kg
BH-55	55-ft	East Bottom	928	BH1	30-ft	West Bottom	5000
BH-57	57-ft	East Bottom	224	BH2	17-ft	West Bottom	1380
BH-59	59-ft	East Bottom	224	WSW3	5-ft	West Sidewall	144
BH1	37-ft	East Bottom	32	NSW4	5-ft	North Sidewall	48
BH2	37-ft	East Bottom	240	ESW5	5-ft	East Sidewall	176
BH3	37-ft	East Bottom	784	BH6	30-ft	S-West Bottom	208
BH4	37-ft	East Bottom	48	BHT1	12-ft	Center Bottom	1410
BH5	37-ft	East Bottom	544	BHT2	12-ft	Center Bottom	1070
BH6	37-ft	East Bottom	4120	BHT3	12-ft	Center Bottom	928
BH7	37-ft	East Bottom	1380	BHT4	12-ft	Center Bottom	1330
BH8	37-ft	East Bottom	496	BHT5	12-ft	Center Bottom	1250
BH9	37-ft	East Bottom	480	BH-28	28-ft	S-Center Bottom	2480
SSW10	30-ft	East Sidewall	64	BH-30	30-ft	S-Center Bottom	1120
SSW11	30-ft	East Sidewall	48	BH-32	32-ft	S-Center Bottom	608
ESW12	30-ft	East Sidewall	64	BH-38	38-ft	S-Center Bottom	128
ESW13	30-ft	East Sidewall	48	NSW	5-ft	S-Center Sidewall	96
NSW14	30-ft	East Sidewall	48	WSW	5-ft	S-Center Sidewall	16
NSW15	30-ft	East Sidewall	48	SSW	5-ft	S-Center Sidewall	64
WSW16	30-ft	East Sidewall	64	ESW	5-ft	S-Center Sidewall	288
WSW17	30-ft	East Sidewall	65	Blend 1	20-ft	S-Center Blend	80
Blend1	25-ft	East Blend	432	Blend 2	15-ft	S-Center Blend	96
Blend2	20-ft	East Blend	432	Blend 3	10-ft	S-Center Blend	288
Blend3	15-ft	East Blend	448	Blend 4	5-ft	S-Center Blend	272
Blend4	10-ft	East Blend	400				

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL, LLC
ATTN: JOHN GOOD
P.O. BOX 1816
HOBBS, NM 88241

Receiving Date: 09/30/08
Reporting Date: 09/30/08
Project Owner: APACHE
Project Name: NEDU 805
Project Location: NOT GIVEN

Analysis Date: 09/30/08
Sampling Date: 09/28/08
Sample Type: SOIL
Sample Condition: INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16007-1	BH-55	928
H16007-2	BH-57	224
H16007-3	BH-59	224
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-Cl^-B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10-01-08
Date

H16007 OCO

OCOTILLO ENVIRONMENTAL, LLC

15

NEDU #805

CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2326 Fax (575) 393-2476

Page____ of____

Company Name:	Ocotillo Env	**BILL TO**	
Project Manager:	J. Good	P.O. #:	
Address:		Company:	APACHE
City:	State: Zip:	Attn:	N. Glidden
Phone #:	631-3277 Fax #:	Address:	
Project #:	Project Owner: APACHE	City:	EUNICE
Project Name:	NEDU 805	State:	NM Zip:
Project Location:		Phone #:	
Sampler Name:	J. GOOD	Fax #:	

ANALYSIS REQUEST: Chlorides

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE	ICE / COOL	OTHER	DATE	TIME	Chlorides
H16007-1	BH-55	G	1			X					X		9/28	2:30	X
-2	BH-57	G	1			X					X		9/28	2:45	X
-3	BH-59	G	1			X					X		9/28	2:50	X

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.

Terms and Conditions: Interest will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished:	John Good	Date: 9/30/08 Time: 10:30	Received By: Misty LeBret
Relinquished By:		Date: Time:	Received By:

Delivered By: (Circle One) Sampler - UPS - Bus - Other:

Temp.

Sample Condition: Cool ☐ Yes ☑ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) MCRB

Phone Result: ☐ No Add'l Phone #:
Fax Result: ☐ No Add'l Fax #:
REMARKS: Fax to Natalie-e-mail
Call J. Good 631-3277

† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL, LLC
ATTN: JOHN GOOD
P.O. BOX 1816
HOBBS, NM 88241

Receiving Date: 10/21/08
Reporting Date: 10/22/08
Project Owner: APACHE CORP.
Project Name: NEDU 805
Project Location: UL-F S22 T21S R37E

Analysis Date: 10/21/08
Sampling Date: 10/09/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16152-1	BH1-37	32
H16152-2	BH2-37	240
H16152-3	BH3-37	784
H16152-4	BH4-37	48
H16152-5	BH5-37	544
H16152-6	BH6-37	4,120
H16152-7	BH7-37	1,380
H16152-8	BH8-37	496
H16152-9	BH9-37	480
H16152-10	SSW10	64
H16152-11	SSW11	48
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

10-23-08
Date

H16152 OCO

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL, LLC
ATTN: JOHN GOOD
P.O. BOX 1816
HOBBS, NM 88241

Receiving Date: 10/21/08
Reporting Date: 10/22/08
Project Owner: APACHE CORP.
Project Name: NEDU 805
Project Location: UL-F S22 T21S R37E

Analysis Date: 10/21/08
Sampling Date: 10/09/08 & 10/10/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: ML
Analyzed By: HM

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16152-12	ESW12	64
H16152-13	ESW13	48
H16152-14	NSW14	48
H16152-15	NSW15	48
H16152-16	WSW16	64
H16152-17	WSW17	64
H16152-18	BLEND-1	432
H16152-19	BLEND-2	432
H16152-20	BLEND-3	448
H16152-21	BLEND-4	400
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aquecus extracts.

Chemist

10-22-08
Date

H16152 OCO

CARDINAL LABORATORIES

CHAIN OF CUSTODY AND ANALYSIS REQUEST

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Sheet 1 of 1

Company Name:	OCOTILLO ENVIRONMENTAL	BILL TO	
Project Manager:	JOHN GOOD	P.O. #:	
Address:	2125 N. FRENCH DR.	Company: Apache Corp	
City:	HOBBS State: NM Zip: 88241	Attn. Natalie Gladden	
Phone #:	575-631-3277 Fax #:	Address: PO Box 1849	
Project #:	Project Owner: APACHE CORP	City. Eunice	
Project Name:	NEDU 805	State: NM Zip: 88231	
Project Location:	UL-F S22 T21S R37E	Phone #: 575-390-4186	
Sampler Name:	JOHN GOOD	Fax #:	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	SLUDGE	OTHER	PRESERV: ACID/BASE	ICE/COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides
H16152-1	BH1-37	G	1			X						9-Oct	8:00	X
H -2	BH2-37	G	1			X						9-Oct		X
H -3	BH3-37	G	1			X						9-Oct		X
H -4	BH4-37	G	1			X						9-Oct		X
H -5	BH5-37	G	1			X						9-Oct		X
H -6	BH6-37	G	1			X						9-Oct		X
H -7	BH7-37	G	1			X						9-Oct		X
H -8	BH8-37	G	1			X						9-Oct		X
H -9	BH9-37	G	1			X						9-Oct		X
H -10	SSW10	G	1			X						9-Oct		X
H -11	SSW11	G	1			X						9-Oct		X
H -12	ESW12	G	1			X						9-Oct		X
H -13	ESW13	G	1			X						9-Oct		X
H -14	NSW14	G	1			X						9-Oct	▼	X
H -15	NSW15	G	1			X						9-Oct	8:30	X

PLEASE NOTE. Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising whether based on 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: John Good	Date: 10/21/08	Received By: Misty LeBert	Phone Result: ☐ Yes ☑ No Add'l Phone#: 631-3277 (J. Good)
	Time: 9:35		Fax Result: ☑ Yes ☐ No Add'l Fax #:
Relinquished by:	Date	Received By:	Remarks: FAX results to Natilie Gladden. John Good or Natalie Gladden will pickup results when completed - - please do not mail. Thanks.
	Time:		

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other	Cool: ☑ Yes ☐ No; Intact: ☑ Yes ☐ No	(Initials) MCAB

Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

CARDINAL LABORATORIES

CHAIN OF CUSTODY AND ANALYSIS REQUEST

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS NM 88240

Sheet 2 of 2

Company Name:	OCOTILLO ENVIRONMENTAL	BILL TO	
Project Manager:	JOHN GOOD	P.O. #:	
Address:	2125 N. FRENCH DR.	Company: Apache Corp	
City: HOBBS State: NM Zip: 88241		Attn: Natalie Gladden	
Phone #: 575-631-3277 Fax #:		Address: PO Box 1849	
Project #: Project Owner: APACHE CORP		City: Eunice	
Project Name: NEDU 805		State: NM Zip: 88231	
Project Location: UL-F S22 T21S R37E		Phone #: 575-390-4186	
Sampler Name: JOHN GOOD		Fax #:	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: SLUDGE	MATRIX: OTHER	PRESERV: ACID/BASE	PRESERV: ICE/COOL	PRESERV: OTHER:	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: Chlorides
H 116152-16	WSW16	G	1			X						9-Oct	8:35	X
H -17	WSW17	G	1			X						9-Oct	8:40	X
H -18	BLEND-1	G	1			X						9-Oct	9:45	X
H -19	BLEND-2	G	1			X						9-Oct	3:30	X
H -20	BLEND-3	G	1			X						10-Oct	10:00	X
H -21	BLEND-4	G	1			X						10-Oct	4:00	X

Relinquished by:	Date: 10-21-08	Received By:	Phone Result: ☐ Yes ☐ No Add'l Phone#:
	Time: 9:35		Fax Result: ☐ Yes ☐ No Add'l Fax #:
Relinquished by:	Date	Received By:	Remarks:
	Time:		

Delivered By: (Circle One) Sampler - UPS - Bus - Other

Sample Condition: Cool ☐ Yes ☐ No; Intact ☐ Yes ☐ No

CHECKED BY: (Initials) MCB

Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL, LLC
ATTN: JOHN GOOD
P.O. BOX 1816
HOBBS, NM 88241

Receiving Date: 01/05/09
Reporting Date: 01/06/09
Project Owner: APACHE CORP.
Project Name: NEDU 805W
Project Location: UL-F S22 T21S R37E

Analysis Date: 01/06/09
Sampling Date: 11/21/08 TO 12/16/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: TR

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16606-1	BH1-30	5,000
H16606-2	BH2-17	1,380
H16606-3	WSW-3	144
H16606-4	NSW-4	48
H16606-5	ESW-5	176
H16606-6	BH6-30	208
H16606-7	BHT1-12	1,410
H16606-8	BHT3-12	1,070
H16606-9	BHT2-12	928
H16606-10	BHT4-12	1,330
H16606-11	BHT5-12	1,250
H16606-12	BH-28	2,480
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

01-07-09
Date

H16606 OCO

CARDINAL LABORATORIES

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

ANALYTICAL RESULTS FOR
OCOTILLO ENVIRONMENTAL, LLC
ATTN: JOHN GOOD
P.O. BOX 1816
HOBBS, NM 88241

Receiving Date: 01/05/09
Reporting Date: 01/06/09
Project Owner: APACHE CORP.
Project Name: NEDU 805W
Project Location: UL-F S22 T21S R37E

Analysis Date: 01/06/09
Sampling Date: 12/16/08 - 12/18/08
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: TR

LAB NO.	SAMPLE ID	Cl^- (mg/kg)
H16606-13	BH-30	1,120
H16606-14	BH-32	608
H16606-15	BH-38	128
H16606-16	NSW	96
H16606-17	WSW	16
H16606-18	SSW	64
H16606-19	ESW	288
H16606-20	BLEND-1	80
H16606-21	BLEND-2	96
H16606-22	BLEND-3	288
H16606-23	BLEND-4	272
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClB

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist
H16606 OCO

01-07-09
Date

CARDINAL LABORATORIES

CHAIN OF CUSTODY AND ANALYSIS REQUEST

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

Sheet 1 of 1

Company Name:	OCOTILLO ENVIRONMENTAL	BILL TO	
Project Manager:	JOHN GOOD	P.O. #:	
Address:	2125 N. FRENCH DR.	Company:	Apache Corp
City:	HOBBS State: NM Zip: 88241	Attn.	Natalie Gladden
Phone #:	575-631-3277 Fax #:	Address:	PO Box 1849
Project #:	Project Owner: APACHE CORP	City:	Eunice
Project Name:	NEDU 805W	State:	NM Zip: 88231
Project Location:	UL-F S22 T21S R37E	Phone #:	575-390-4186
Sampler Name:	JOHN GOOD	Fax #:	

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	SLUDGE	OTHER	PRESERV: ACID/BASE	ICE/COOL	OTHER:	SAMPLING: DATE	TIME	ANALYSIS REQUEST: Chlorides
H 116106 -1	BH1-30	G	1			X						21-Nov	3:30	X
H -2	BH2-17	G	1			X						22-Nov	10:30	X
H -3	WSW-3	G	1			X						22-Nov	↓	X
H -4	NSW-4	G	1			X						22-Nov	↓	X
H -5	ESW-5	G	1			X						22-Nov	↓	X
H -6	BH6-30	G	1			X						22-Nov	11:30	X
H -7	BHT1-12	G	1			X						10-Dec	1:30	X
H -8	BHT3-12	G	1			X						11-Dec	8:30	X
H -9	BHT2-12	G	1			X						11-Dec	↓	X
H -10	BHT4-12	G	1			X						11-Dec	↓	X
H -11	BHT5-12	G	1			X						11-Dec	11:00	X
H -12	BH-28	G	1			X						16-Dec	1:00	X
H -13	BH-30	G	1			X						16-Dec	↓	X
H -14	BH-32	G	1			X						16-Dec	↓	X
H -15	BH-38	G	1			X						16-Dec	3:30	X

Relinquished by: John Good	Date: 1/5/06	Received By: FCB	Phone Result: ☐ Yes ☑ No Add'l Phone#: 631-3277 (J. Good)
	Time: 150		Fax Result: ☑ Yes ☐ No Add'l Fax #:
Relinquished by:	Date	Received By:	Remarks: FAX results to Natilie Gladden. John Good or Natalie Gladden will pickup results when completed - - please do not mail. Thanks
	Time:		

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other	Cool: ☒ Yes ☐ No; Intact: ☒ Yes ☐ No	(Initials) FB

Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476

CARDINAL LABORATORIES

CHAIN OF CUSTODY AND ANALYSIS REQUEST

PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE TX 79603
PHONE (505) 393-2326 • 101 E MARLAND • HOBBS NM 88240

Sheet 2 of 2

Company Name:	OCOTILLO ENVIRONMENTAL	BILL TO	
Project Manager:	JOHN GOOD	P.O. #:	
Address:	2125 N. FRENCH DR.	Company:	Apache Corp
City:	HOBBS State: NM Zip: 88241	Attn:	Natalie Gladden
Phone #:	575-631-3277 Fax #:	Address:	PO Box 1849
Project #:	Project Owner: APACHE CORP	City:	Eunice
Project Name:	NEDU 805W	State:	NM Zip: 88231
Project Location:	UL-F S22 T21S R37E	Phone #:	575-390-4186
Sampler Name:	JOHN GOOD	Fax #:	

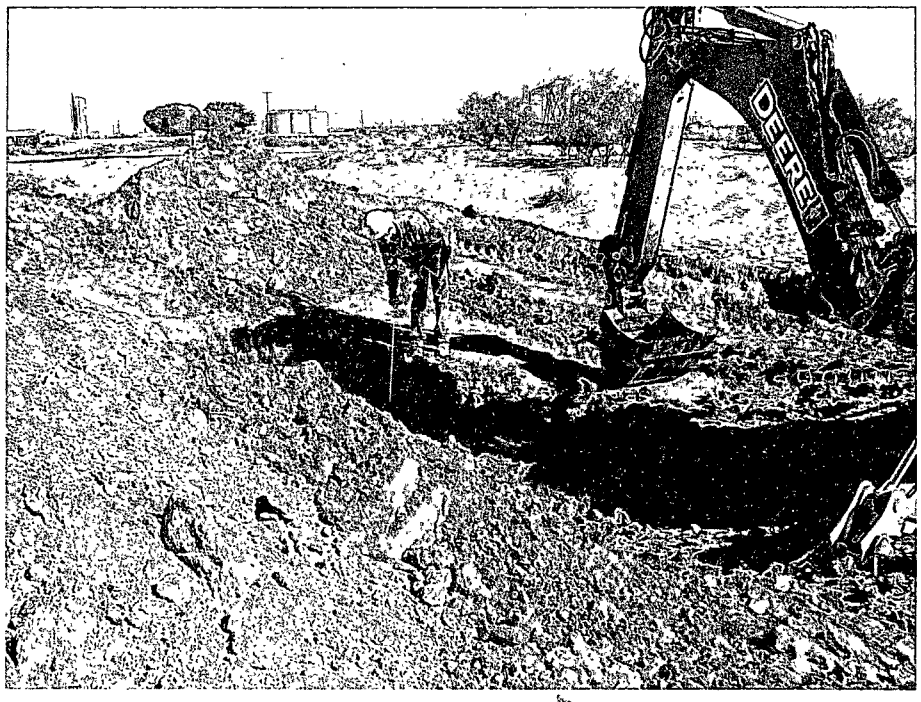
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP	# CONTAINERS	MATRIX: GROUND WATER	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: SLUDGE	MATRIX: OTHER	PRESERV: ACID/BASE	PRESERV: ICE/COOL	PRESERV: OTHER:	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: Chlorides
H166006 -16	NSW	G	1			X						18-Dec	2:00	X
H -17	WSW	G	1			X						18-Dec		X
H -18	SSW	G	1			X						18-Dec		X
H -19	ESW	G	1			X						18-Dec		X
H -20	BLEND-1	G	1			X						18-Dec		X
H -21	BLEND-2	G	1			X						18-Dec		X
H -22	BLEND-3	G	2			X						18-Dec		X
H -23	BLEND-4	G	3			X						18-Dec	3:00	X

Relinquished by:	Date: 12/3/09	Received By:	
	Time: 1:50		
Relinquished by:	Date	Received By:	
	Time:		

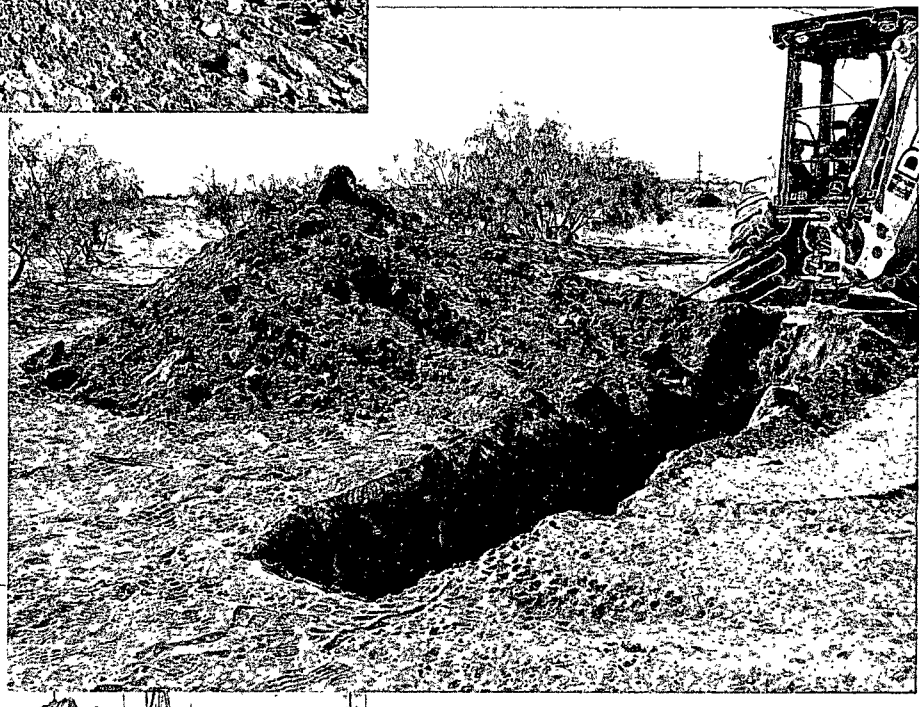
Delivered By: (Circle One) Sampler - UPS - Bus - Other	Sample Condition: Cool [X] Yes [ ] No; Intact [X] Yes [ ] No	CHECKED BY: (Initials)

Phone Result: [ ] Yes [✓] No Add'l Phone#:
Fax Result: [✓] Yes [ ] No Add'l Fax #:
Remarks: FAX results to Natilie Gladden. John Good or Natalie Gladden will pickup results when completed - - please do not mail. Thanks.

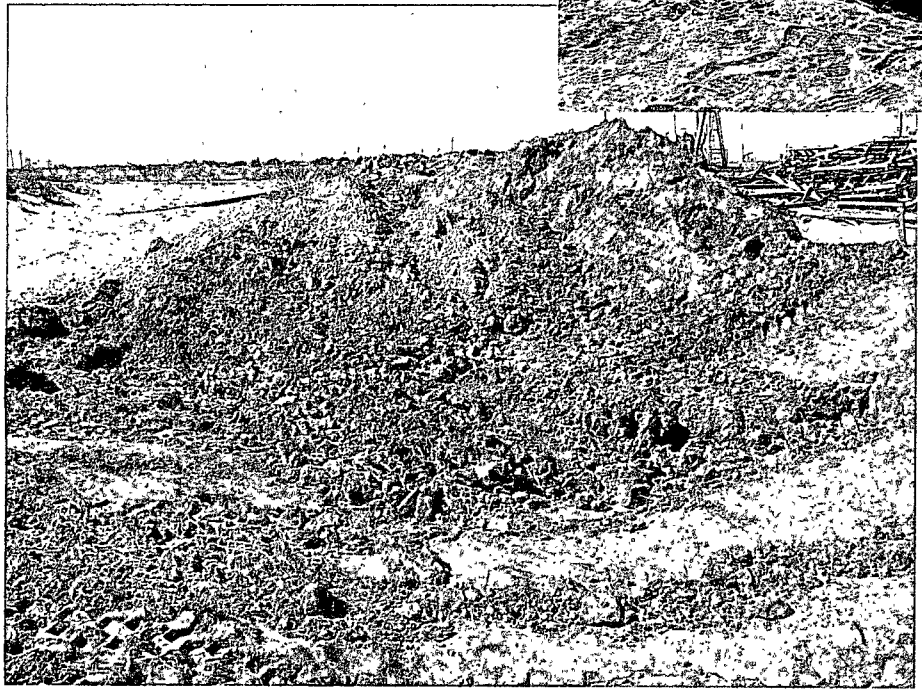
Note: Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.



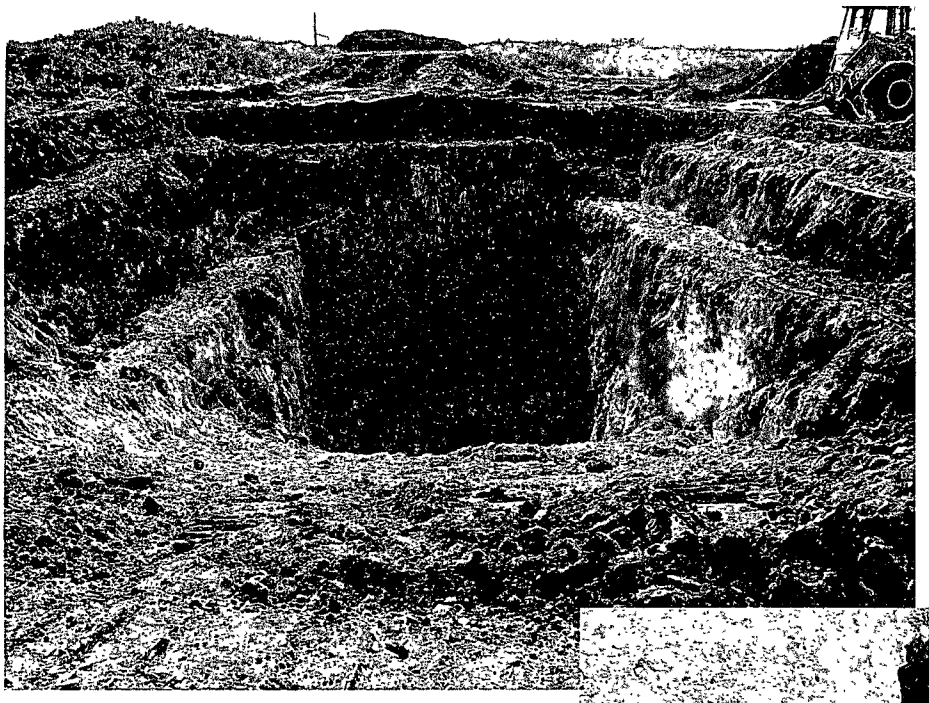
< 08/1/08 – Delineation trench at east release area



08/1/08 – Delineation trench in central release area >

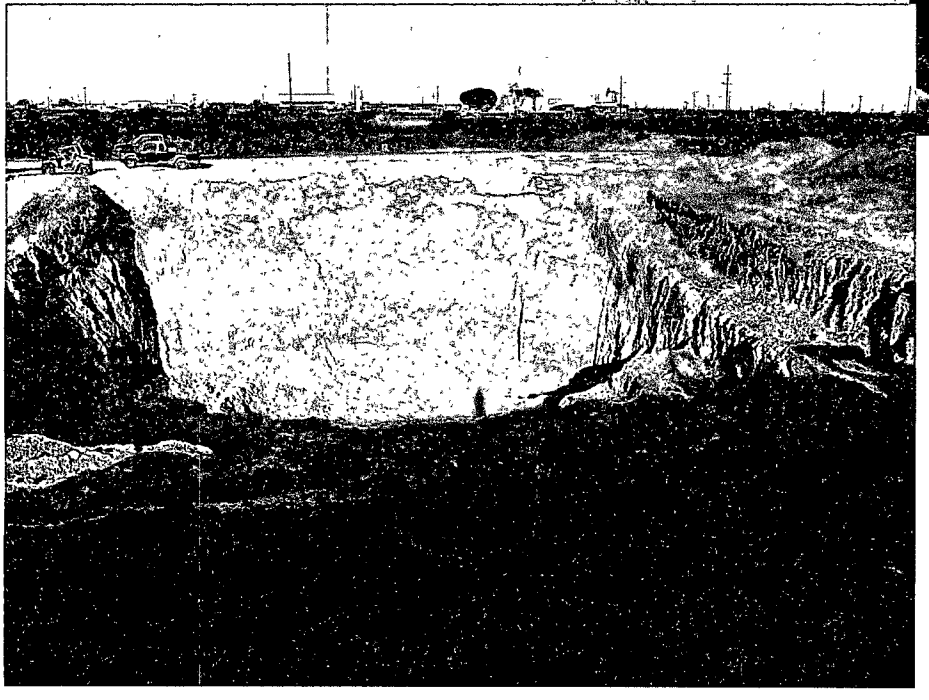


< 08/1/08 – Delineation trench in south portion of west release area. Note reduced iron sulfide.

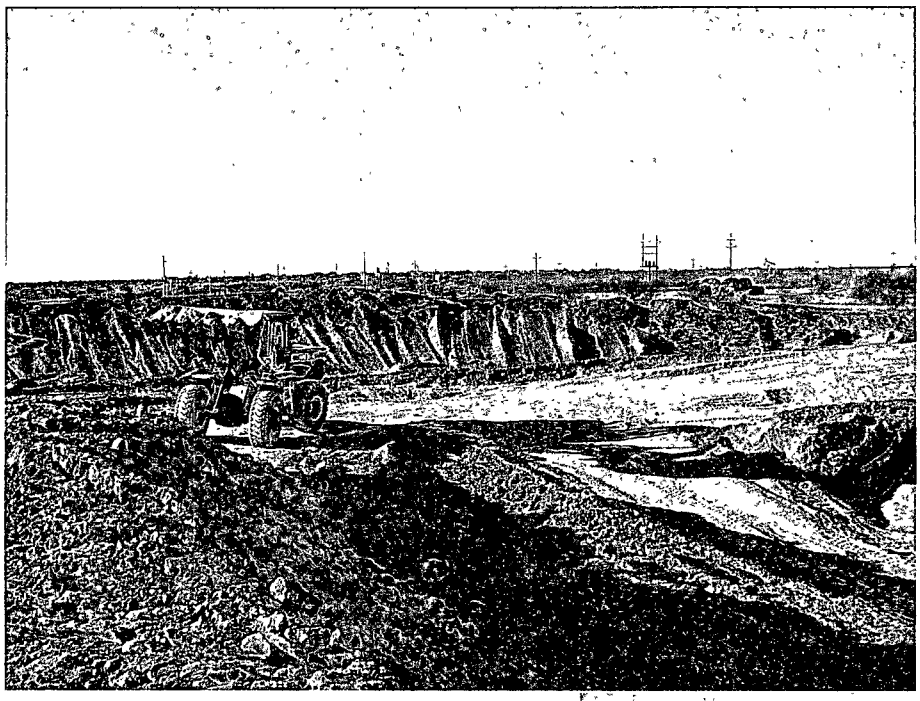


< 09/04/08 – Excavating east area.

09/29/08 – Delineation trench from 30-ft level. Eventually extended to 59-ft bgs >

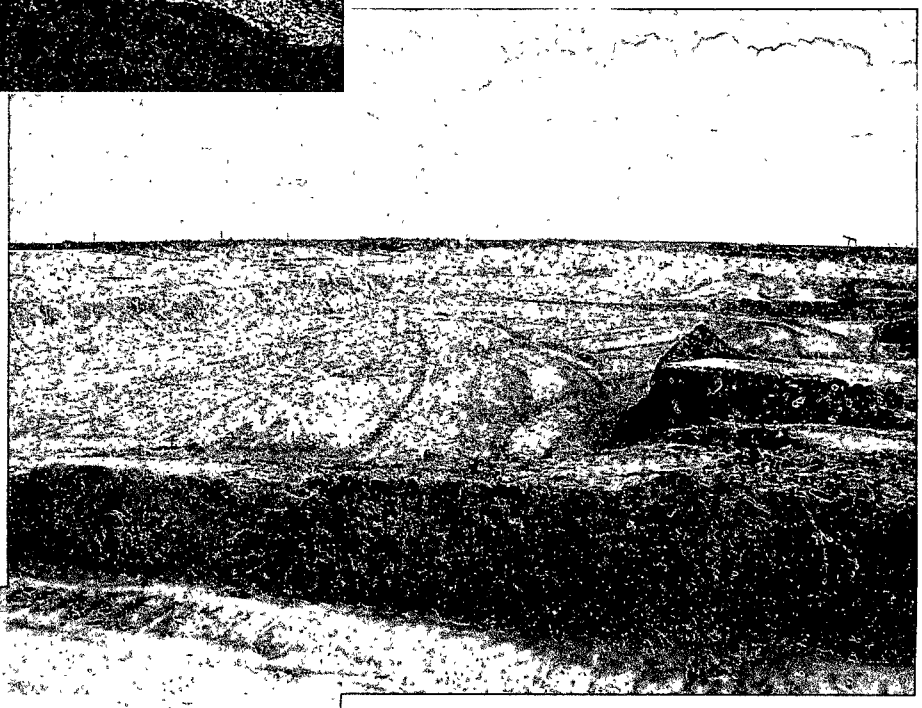


< 10/08/08 – Excavating from 30-ft to 37-ft bgs

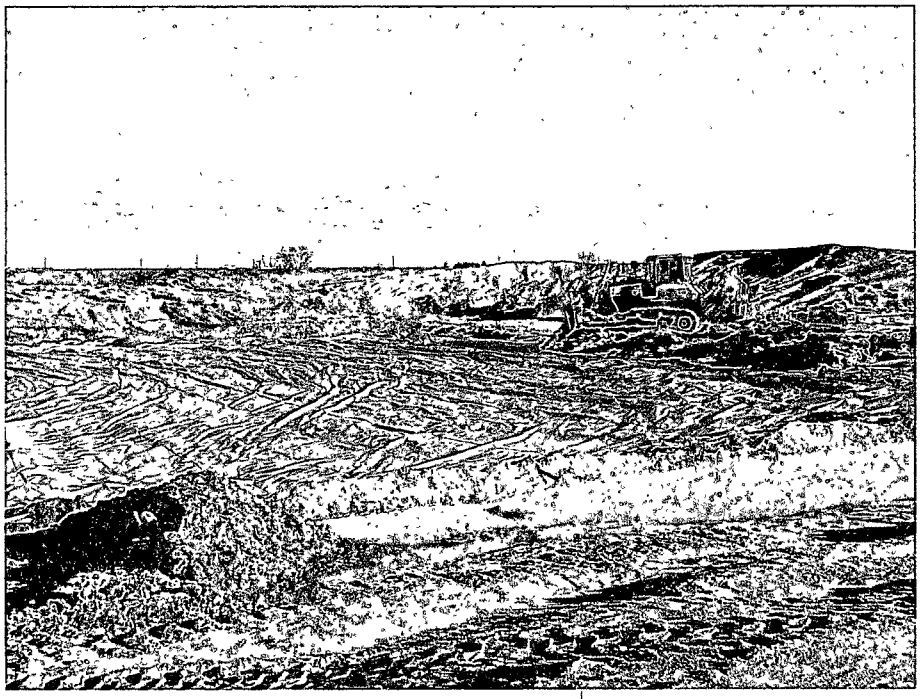


< 10/08/08 – stockpiling material for blending. Note clean topsoil stockpiled in background.

10/13/08 – East excavation backfilled up to liner level with blended and additional soil >

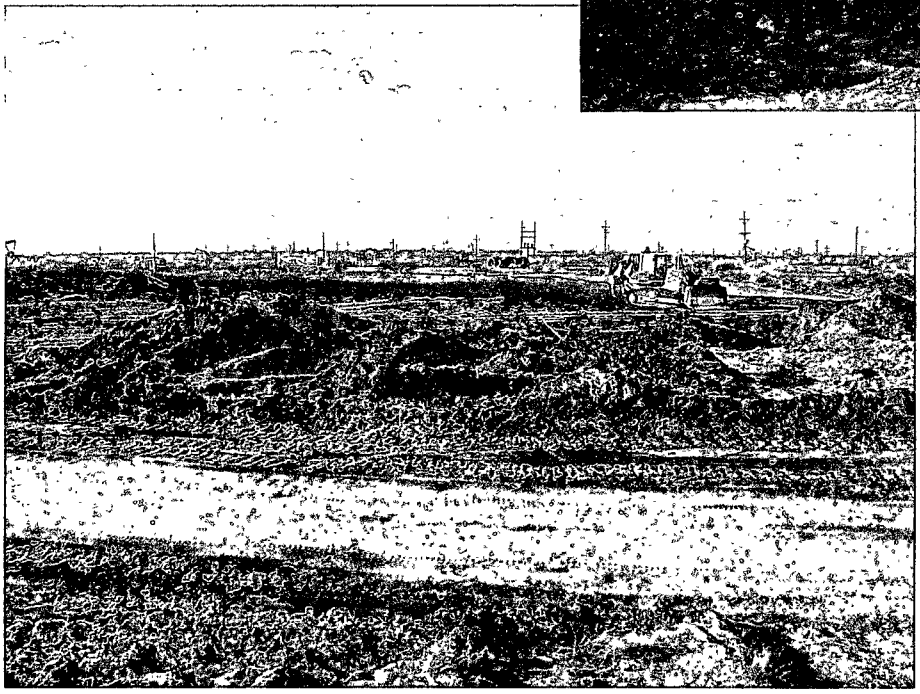


< 10/15/08 – Installing 110' X 155' liner over east excavation

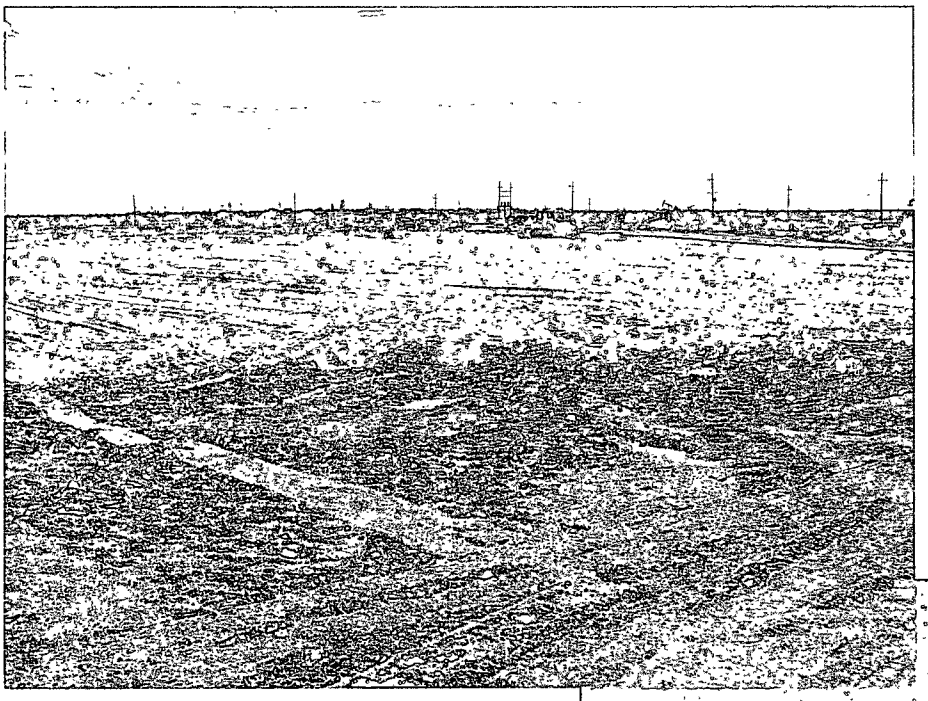


< 10/15/08 – placing red sand bedding layer over liner at east area

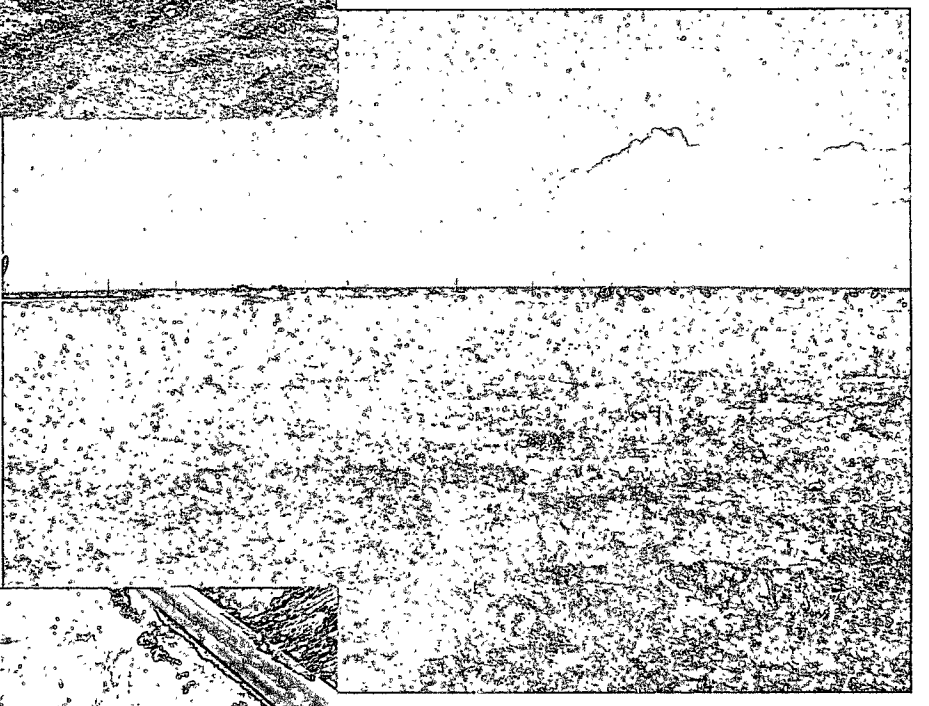
10/16/08 – placing additional clean caliche over liner at east area. >



< 10/21/08 – placing final red sand topsoil layer over excavation at east area

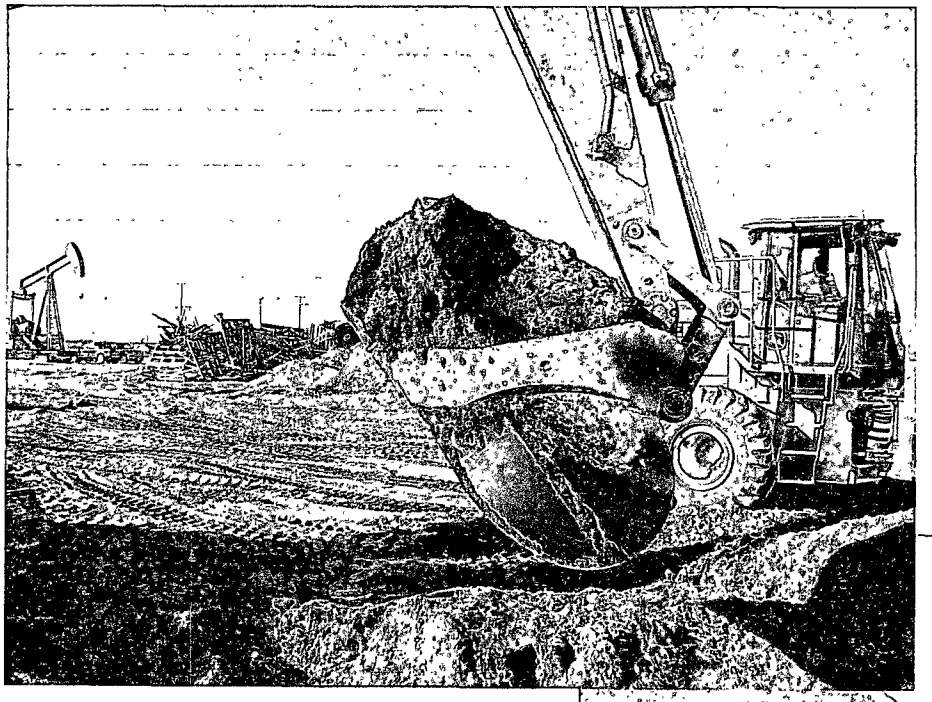


< 10/21/08 – final contouring of east area excavation.



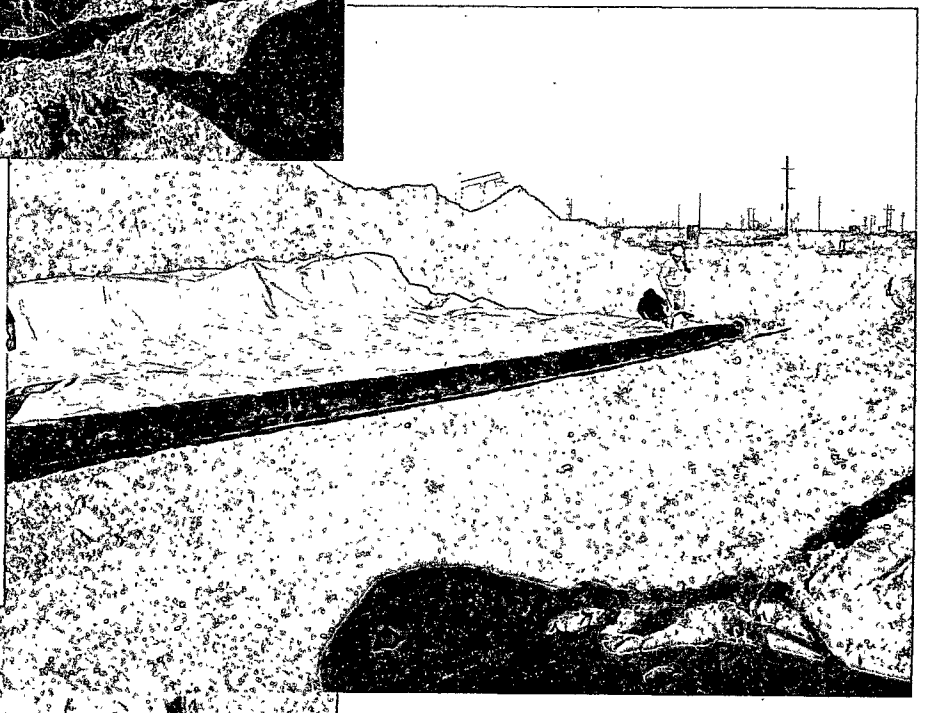
10/21/08 – east area portion of project completed >

< 11/20/08 – 30-ft excavation at north end of west affected area. Targa gas line to right and left (not exposed yet)

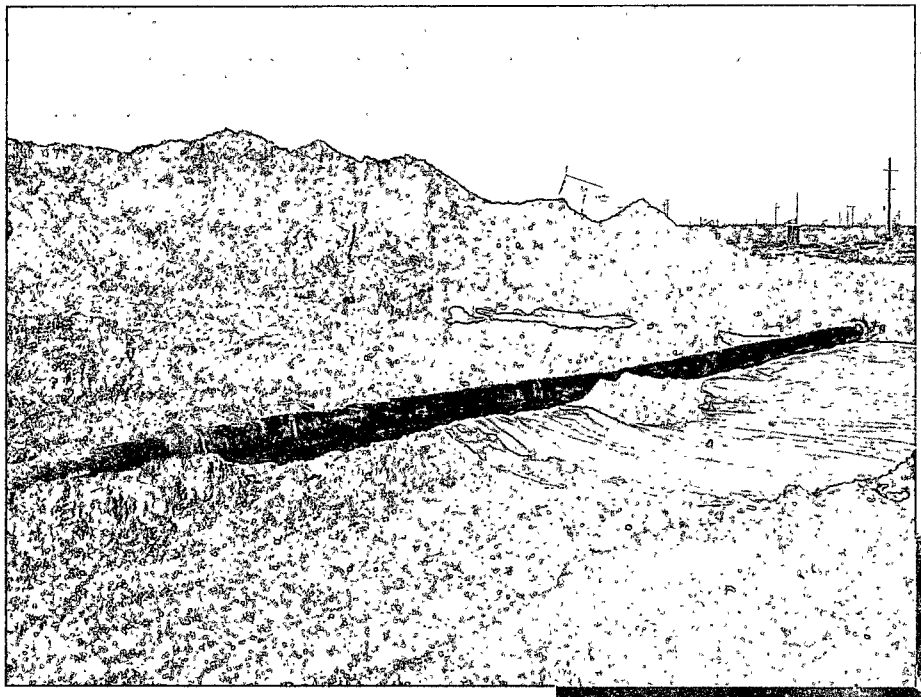


< 11/22/08 – low chloride content iron sulfide excavated from south end of west area.

12/2/08 –. Installing 60' X 136' liner at north end of west area >



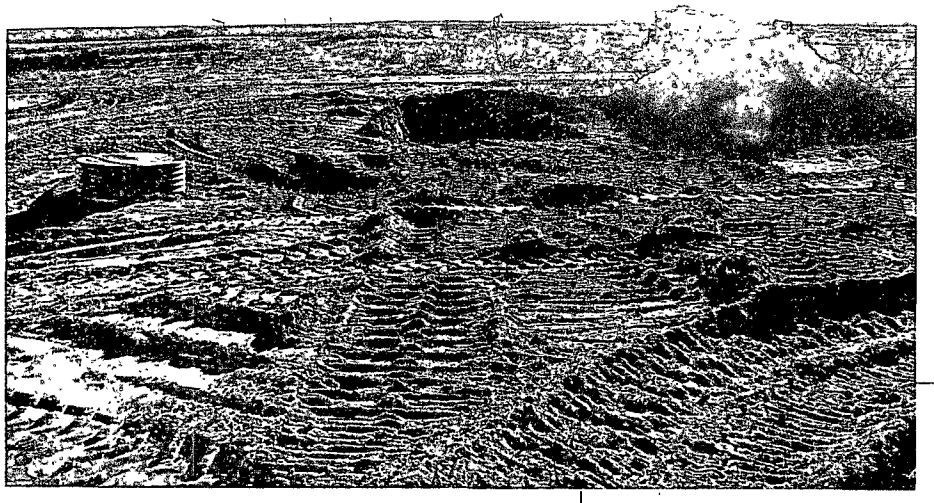
< 12/2/08 – north end liner was placed under both Targa gas lines present.



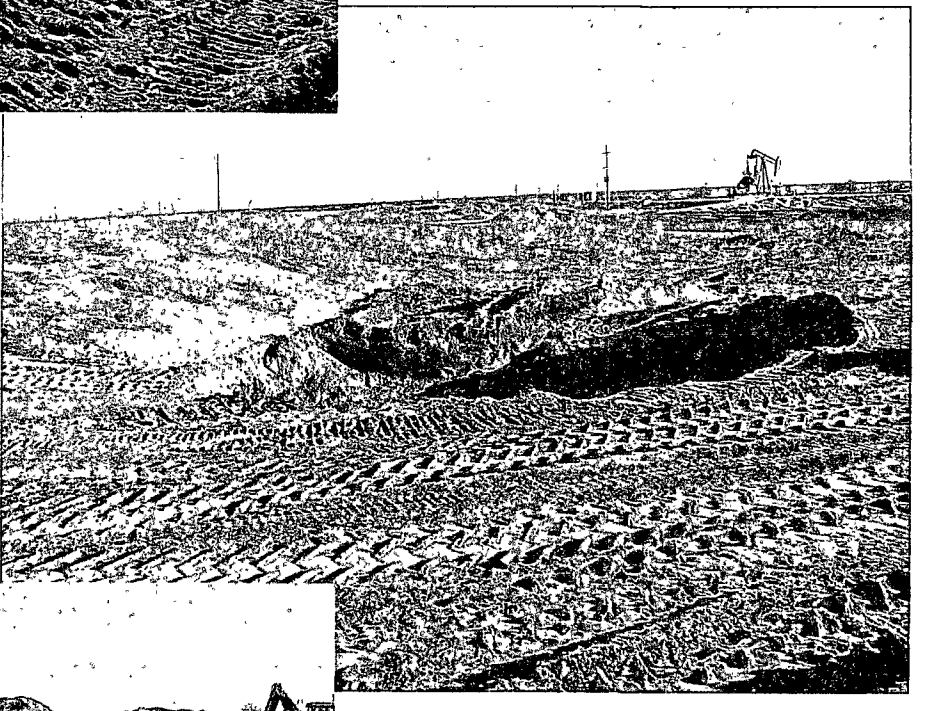
< 12/2/08 – north end liner installed and being covered with clean topsoil.

12/11/08 – Excavation at point of release. >

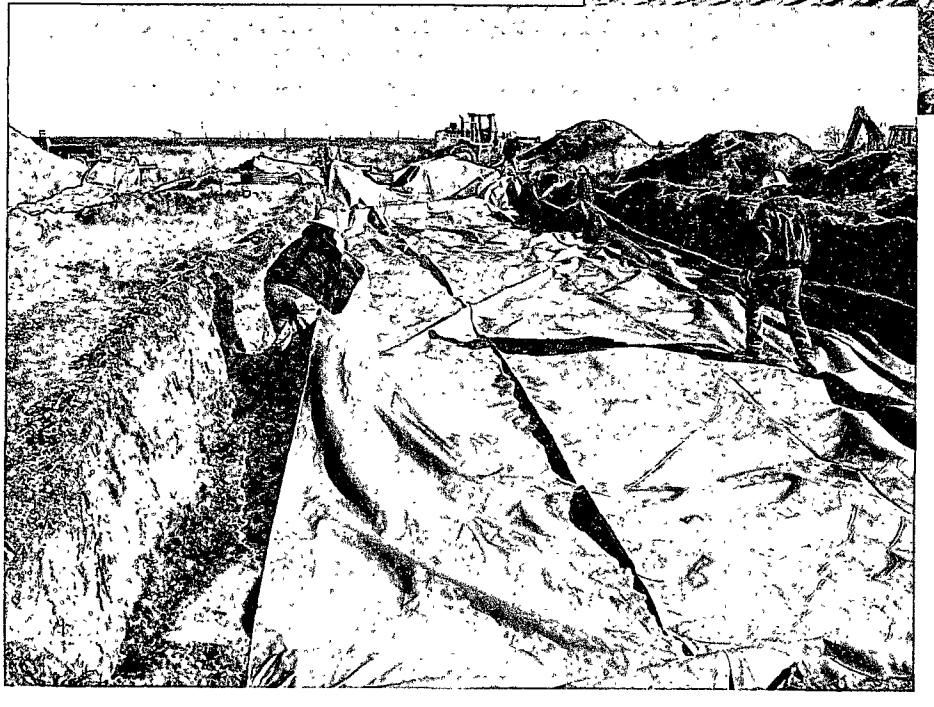
< 12/11/08 – Delineation Trench #1 on NW side of E/W injection line.



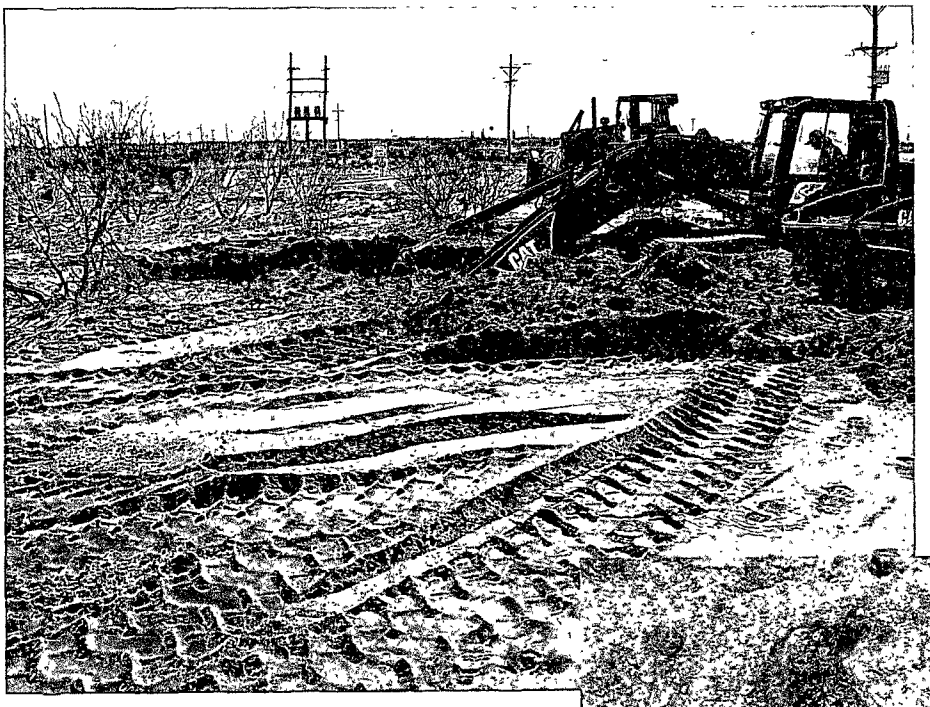
< 12/11/08 – Delineation Trench #4 on SE side of E/W injection line.



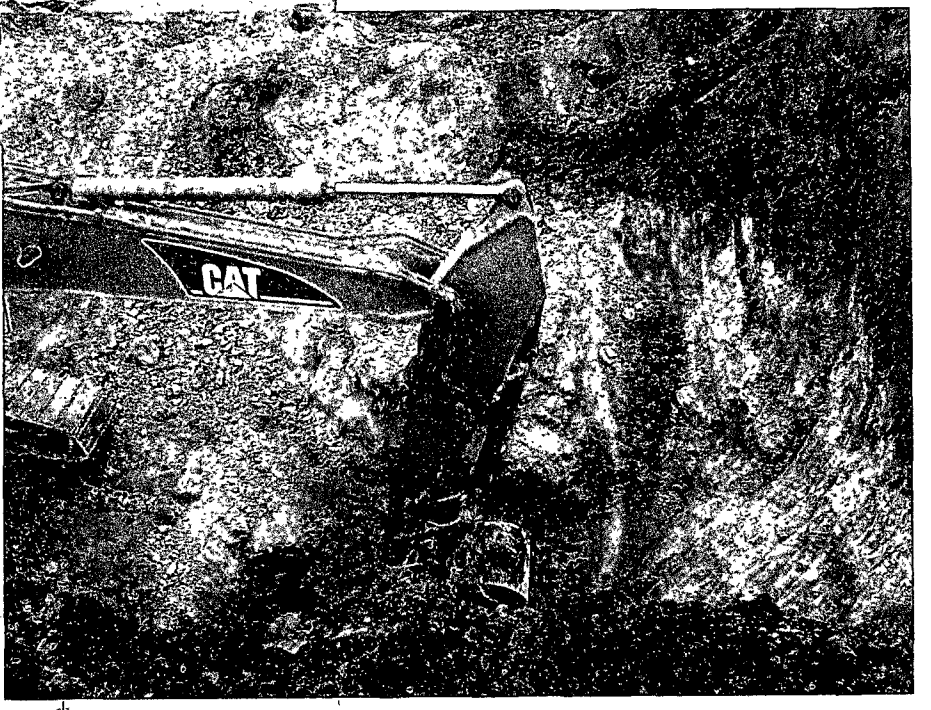
12/11/08 – Delineation Trench #3 on north side center of E/W injection line. >



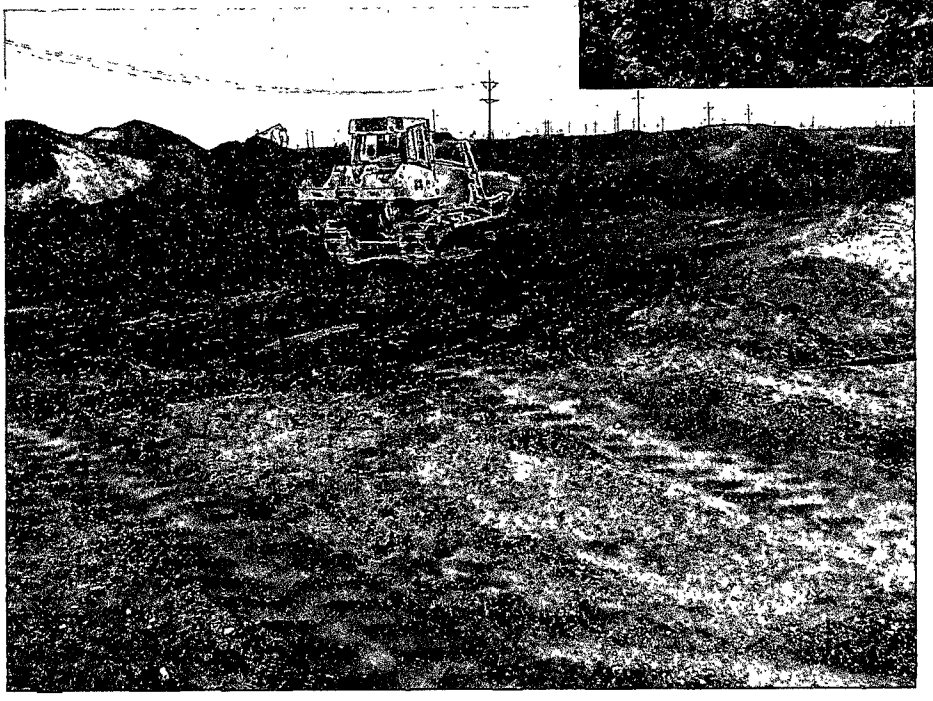
< 12/12/08 – installing two parallel 24' X 170' 20-mil liners on north and south sides of E/W injection line



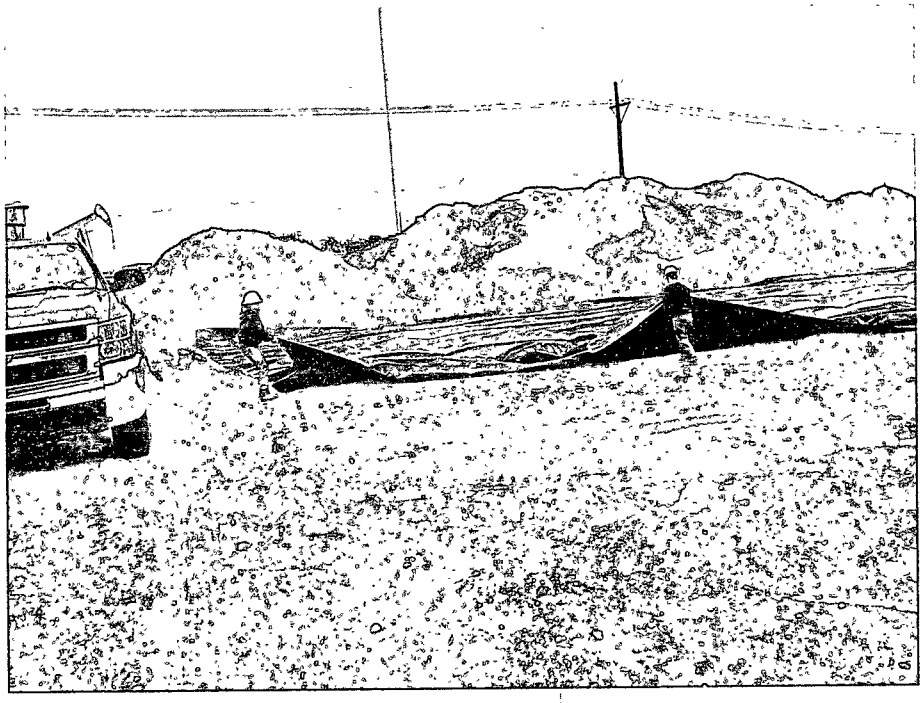
< 12/15/08 – Commencing excavation at south portion of central area.



12/17/08 – Excavating to 38'-bgs to determine depth of contamination. >

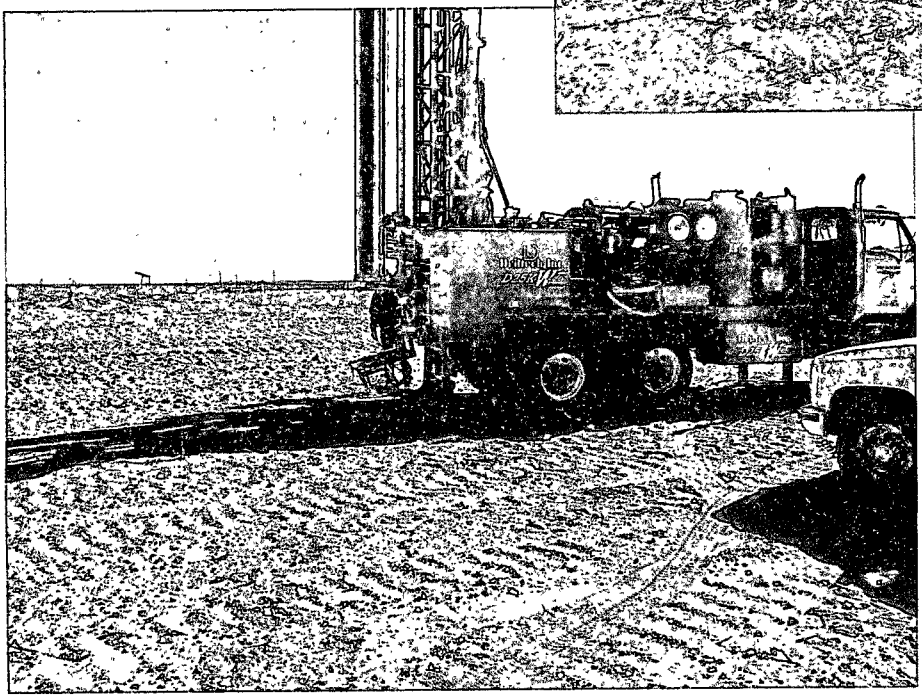


< 12/18/08 – preparing south part of central area for liner installation.



< 12/18/08 – installing 90' X 75' 12-mil liner over the south portion of the central area.

12/18/08 – Installing 60' X 25' 12-mil liner over pooling area opposite the east area.



< 01/12/09 – commencing drilling of monitor well on SE side of east area remediation.

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

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:** Mike Warren
Address: P.O. Box 1849	**Telephone No.:** (505) 394-2743
Facility Name: N.E.D.U. Well #805	**Facility Type:** Pipeline

Surface Owner: Millard Deck Estate	**Mineral Owner:**	**Lease No.:**

API # 30025 06736 0000

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	22	21 S	37 E					Lea

50' +

Latitude: N 32° 28' 0.73" **Longitude:** W 103° 09' 12.19"

NATURE OF RELEASE

Type of Release: Produced water	**Volume of Release:** 1,000 bbls	**Volume Recovered:** 420 bbls
Source of Release: 2 inch Fiberglass Injection Line.	**Date and Hour of Occurrence:** 12 November 2005	**Date and Hour of Discovery:** 13 November 2005 @ 0830
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Gary Wink, OCD	
By Whom? Clayton Frank, Apache	**Date and Hour:** 14 November 2005 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** Not Applicable	

If a Watercourse was Impacted, Describe Fully.* Not Applicable

Describe Cause of Problem and Remedial Action Taken.* Structural integrity of 2" injection line comprised. Pipeline was excavated and line clamped.

Describe Area Affected and Cleanup Action Taken.* Approximately 20,900 square feet of surface area was impacted by the release. The point of release was exposed and a line clamp installed. Saturated soil has been excavated from the vicinity of the point of release and stockpiled on plastic. Once initial excavation activities are complete, samples will be collected to delineate the lateral and vertical extents of impacts associated with this release. Upon receipt of analytical results, the remediation plan will be developed and submitted to the NMOCD for approval. The excavated soil will be disposed of at an approved land treatment facility. Remedial Goals: TPH 8015m = 1,000 mg/Kg, benzene = 10 mg/Kg, BTEX = 50 mg/Kg and chloride residuals not capable of impacting groundwater above 250 mg/L.

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:	**OIL CONSERVATION DIVISION**	
Printed Name: Mike Warren	**Approved by District Supervisor:**	
Title: Area Supervisor	**Approval Date:**	**Expiration Date:**
E-mail Address: mike.warren@apachecorp.com	**Conditions of Approval:**	**Attached** ☐
Date: **Phone:** (505) 394-2743		

*** Attach Additional Sheets If Necessary**

Apache - 873
incident - nPAC0606636141
application - pPAC0606638140

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

Form C-141
Revised March 17, 1999

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 **Mike Warren**
Address PO Box 1849 1.5 miles North of Eunice Eunice, New Mexico 88231	Telephone No. 505.394.2743
Facility Name NEDU 805	Facility Type Water injection system 2" fiberglass pipeline

API# 30025067360000

Surface Owner Millard Deck Estate	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County: Lea
22	22	T21S	37E					

Latitude: 32°28'0.73"N Longitude: 103°09'12.19"W

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 1,000 barrels	Volume Recovered 420 barrels
Source of Release Water injection system 2" fiberglass pipeline	Date and Hour of Occurrence 11-12-2005	Date and Hour of Discovery 11-13-05 @ 8:30AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Gary Wink	
By Whom? Clayton Frank, Apache	Date and Hour 11-14-05 AM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. NA	

If a Watercourse was Impacted, Describe Fully.*
NA

Describe Cause of Problem and Remedial Action Taken.*
The Apache NEDU 805 2" Fiberglass injection pipeline failed. Dynegy also experienced a leak in the same location.

Describe Area Affected and Cleanup Action Taken.*
The site will be delineated and remediated in accordance with the NMOCD guidelines. Remedial Goals: TPH 8015m = 1000 mg/Kg, Benzene = 10 mg/Kg, and BTEX, i.e , the mass sum of Benzene, Ethyl Benzene, Toluene, and Xylenes = 50 mg/Kg.

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:	**OIL CONSERVATION DIVISION**
Printed Name: Mike Warren	Approved by District Supervisor: Environ Engr
Title: Area Supervisor email: mike.warren@apachecorp.com	Approval Date: 6-27-05 Expiration Date: 8-27-05
Date: 11/18/2005 Phone: 505.394.2743	Conditions of Approval: Submit Final C-141 w/ Documentation Attached ☐

* Attach Additional Sheets If Necessary

incident - nPAC0606636141
application - pPAC0627638860

RP# 1060

Apache Corporation	Incident Date: 11/12/05 NMOCD Notified: 11/13/05

SITE: NEDU #805		API No.	30-025-06736
Company:	Apache Corporation		
Street Address:	North Eunice Loop, Hwy 207		
Mailing Address:	P.O. Box 1849		
City, State, Zip:	Eunice, NM 88231		
Representative:	Natalie Gladden		
Representative Telephone:	575-390-4186		
Telephone:			
Fluid Volume Released (bbl): > 1000	Volume Recovered (bbl): 420	Net Release: > 580	

>25 bbl: Notify NMOCD verbally within 24 hours and submit C-141 within 15 days.

5-25 bbl: Submit Form C-141 within 15 days. (Also applies to unauthorized release of >50 mcf Natural Gas).

Leak, Spill, or Pit (LSP) Name:	NEDU #805
Source of Contamination:	2" PVC Injection Line (loss of integrity)
Land Owner, i.e. BLM, ST, Fee, Other:	Deck Estate
LSP Dimensions:	Irregular - reference site diagram
LSP Area	~ 20000 -ft^2
Location of Reference Point (RP):	
Location distance and direction from RP:	
Latitude: North	32 28.017
Longitude: West	103 9.225
Elevation above mean sea level (amsl):	3420 feet 1042 meters
Distance from North Section Line (feet):	1680
Distance from West Section Line (feet):	1500
Location - Unit Letter and 1/4 1/4:	UL- F SE 1/4 of NW 1/4
Location - Section	22
Location - Township	21S
Location - Range	37E
Location - County	Lea
Surface water body within 1000' radius of site:	0
Surface water body within 1000' radius of site:	0
Domestic water wells within 1000' radius of site:	0
Domestic water wells within 1000' radius of site:	0
Agricultural water wells within 1000' radius of site:	0
Agricultural water wells within 1000' radius of site:	0
Public water supply wells within 1000' radius of site:	0
Public water supply wells within 1000' radius of site:	0
Depth (feet) from land surface to Ground Water (DG): ~	60
Depth (feet) of lowest contamination (DC):	56
Depth (feet) to Ground Water (DG - DC = DtGW): ~	4

1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water
If Depth to GW <50-feet: 20 points	If <1000' from water source, or, <200' from private domestic water source: 20 points	<200 horizontal feet: 20 points
If Depth to GW 50 to 100-feet: 10 points	If >1000' from water source, or, >200' from private domestic water source: 0 points	200-1000 horizontal feet: 10 points
If Depth to GW >100-feet: 0 points		>1000 horizontal feet: 0 points
Ground Water Score: 20	Wellhead Protection Score: 0	Surface Water Score: 0

Site Ranking (1 + 2 + 3): **20**

Total Site Ranking Score and Acceptable Concentrations

Parameter	20 or >	10	0
Benzene[1]	**10-ppm**	10-ppm	10-ppm
BTEX[1]	**50-ppm**	50-ppm	50-ppm
TPH	**100-ppm**	1000-ppm	5000-ppm

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State of New Mexico
Energy Minerals and Natural Resources

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1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised June 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	**P.O. Box 1849** **Eunice, NM 88231**	Telephone No.	**575-390-4186**
Facility Name	**NEDU #805**	Facility Type	**Produced Water Injection Well**

Surface Owner **Deck Estate**	Mineral Owner	API No. **30-025-06736**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from North Line	Feet from West Line	Longitude-W	Latitude-N	County
F	**22**	**21S**	**37E**	**1680**	**1500**	**103.1538**	**32.4670**	**Lea**

NATURE OF RELEASE

Type of Release **Produced Water w/ minor hydrocarbon component**	Volume of Release **Greater than 1000 bbl**	Volume Recovered **420 bbl**
Source of Release **2" PVC Injection Line (loss of integrity)**	Date and Hour of Occurrence **11/12/05**	Date and Hour of Discovery **11/13/05 8:30 AM**
Was Immediate Notice Given? ☑ YES ☐ NO ☐ Not Required	If YES, To Whom? **NMOCD - Hobbs - Gary Wink**	
By Whom? **Clayton Frank**	Date and Hour **11/14/2005 AM**	
Was a Watercourse Reached? ☐ YES ☑ NO	If YES, Volume Impacting the Watercourse **NA**	

If a Watercourse was Impacted, Describe Fully*

Describe Cause of Problem and Remedial Action Taken. *
Loss of integrity of 2" PVC Produced Water Injection Line. Line was excavated and repaired.

Describe Area Affected and Cleanup Action Taken. *
The release affected area comprised ~21,000-ft^2. Three areas (east, center and west) were remediated with a risk-based methodology incorporating excavation/disposal, blending and 20-mil polyvinyl liner installation(s). The east area demonstrated the deepest chloride contamination (55-ft bgs) and resulted in the most extensive remediation of the project. Remediation was performed by Ocotillo Environmental - Hobbs.

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:		**OIL CONSERVATION DIVISION**	
Printed Name:	**Natalie Gladden**	Approved by District Supervisor:	
Title:	**Environmental Tech - Permian Basin**	Approval Date:	Expiration Date:
E-Mail Address:	Natalie.Gladden@usa.apachecorp.com	Conditions of Approval: **RP# 1060**	☐ Attached
Date: **5/4/2009**	Phone: **575-390-4186**		