

HUNGRY HORSE, LLC

ENVIRONMENTAL SERVICES

January 23, 2007

Mr. Larry Johnson
Energy, Minerals, and Natural Resources Department
New Mexico Oil Conservation Division
1625 N. French Drive
Hobbs, New Mexico 88240

Subject: Apache Corporation - - North Monument Grayburg San Andres Unit 1815 - Final C-141 and Closure Documentation

Dear Mr. Johnson:

Hungry Horse, LLC, on behalf of Apache Corporation (APACHE) submits for your consideration and approval the Final C-141 and Closure Documentation for the "North Monument Grayburg San Andres Unit 1815" remediation site. This report documents the vertical and horizontal extents of chloride contamination at the site, excavation and disposal of chloride contaminated soils, risk based closure (20-mil liners placed over in-situ >250-ppm Cl⁻ soil) of two deeply contaminated areas within the overall release affected area, and backfilling of all excavated areas with clean caliche obtained from an off-site source. This submittal is consistent with NMOCD Guidelines for remediation and closure of hydrocarbon and/or produced water releases. Therefore, on behalf of Apache Corporation, Hungry Horse LLC requests that the NMOCD consider the information provided within this documentation and require "no further action" at this site.

Questions or comments regarding this project should be directed to Mr. Jerry Brian at the Hungry Horse office, or at 505-390-6149. Mr. Mike Warren of Apache Corporation can be contacted by phone at 432-556-2184.

Please address all official correspondence regarding this release and subsequent remediation activities to Mr. Mike Warren at:

Apache Corporation
P.O. Drawer D
Monument, NM 88265

Sincerely,



Jerry Brian, Senior Environmental Consultant/General Manager

cc: Mike Warren, Apache Corporation, Monument, NM, w/enclosure
Thaddeus Kostrubala, NM State Land Office
File

Incident - n PAC 0712951151

**P.O. Box 1058, Hobbs, NM 88241
Phone: (505) 393-3386 Fax: (505) 391-4585**

Application - p PAC 0712951307

*APP#
1313*

APACHE CORPORATION

FINAL C-141 AND CLOSURE DOCUMENTATION

NM GRAYBURG SAN ANDRES UNIT #1815 RELEASE

UL-O (SW¼ OF THE SE¼) OF SECTION 2 T20S R36E
LATITUDE: N32° 35.815' LONGITUDE: 103° 19.356'
~2.7 MILES SOUTHWEST (BEARING 224°) OF LOCO HILLS
EDDY COUNTY, NEW MEXICO

January 23, 2007

PREPARED FOR APACHE CORPORATION BY:

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

3709 S. Eunice Hwy, P.O. Box 1058, Hobbs, New Mexico 88241
(505) 393-3386; Fax (505) 391-4585

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Project Summary

Operating Company: Apache Corporation
Company Representative: Mike Warren Phone: 432-556-2184
Remediation Company: Hungry Horse, LLC Phone: 505-393-3386
Project Consultant: Jerry Brian Phone: 505-390-6149
Project Name: North Monument Grayburg San Andres Unit #1815
Project Reference: NMGSAU1815

SITE SPECIFIC DATA:

Legal Description: Lea County, New Mexico
UL-O Sec 2 T20S R36E
General Location: 3.9 miles southwest (bearing 242.3°) of Monument, NM.
Latitude: N32° 35.815' Longitude: W103° 19.356'
Elevation: 3,560-ft amsl
Land Ownership: State of NM; Faye Klein
Ground Water Elevation: ~50-ft bgs
Water Wells within 1000-ft: none Surface Water within 1000-ft: none

RELEASE SPECIFIC DATA:

Date of Release: 9/18/06
Material Released: Produced Water
Volume Released: ~2000-bbl Volume Recovered: ~1700-bbl
Cause of Release: Water flood injection line failure

REMEDATION SPECIFIC DATA:

Release Affected Area: ~14,800-ft² (flow path); ~6200-ft² (caliche pit)
Contaminant(s): Produced Water
Depth of Contamination: Maximum 42-ft. @ caliche pit 850-ft south of release point
Remediation Option Selected: Excavation/Disposal/Plastic Liners/Backfill
The southerly flow path was excavated to varying depths to achieve <250-ppm chloride concentrations based on vertical delineation results. One area of the flow path (centered on sample point 9) was excavated to 20-ft bgs to achieve <1000-ppm chloride concentrations, then covered with a 100' X 10' 20-mil plastic liner. The contaminated caliche pit area (76' X 82') was excavated to a depth of 21-ft bgs (10-ft below the existing excavated surface) to achieve a 1679-ppm chloride concentration. This excavated pit area was covered with a 20-mil plastic liner. All excavated material was disposed of at a facility approved by NMOCD to receive and process chloride contaminated soils. All excavations were backfilled with clean caliche obtained off-site.
Ground Water Monitoring: Not Applicable
Remediation Start: 9/21/06 Remediation Complete: 11-10-06
Contaminated Soil Disposal: Sundance Land Farm; ~7700-yd³

1.0 Introduction and Background

This report addresses the produced water release which occurred at the Apache Corporation (APACHE) North Monument Grayburg San Andres Unit 1815 injection well site. The release occurred on September 18, 2007. The estimated total volume of the release is ~2000-bbl, with approximately 1700-bbl recovered by vacuum truck. Total surface area affected by the release is ~21,000-ft². Site remediation was conducted by Hungry Horse, LLC – Environmental Services. Remediation activities were completed on November 10, 2006.

The release site is located on State of NM and private land in Unit Letter O, (SW¼ of the SE¼), Section 2, T20S, and R36E. The GPS coordinates are: Latitude: N32° 35.815'; Longitude: W103° 19.356'. A location map, topographical map of the site area, aerial photograph and a site detail drawing are included as Plates 1-4 in the Attachments.

The on-site remediation project commenced on 21-Sep-06 and was completed on 10-Nov-06 by Hungry Horse LLC. All laboratory analyses were conducted by Cardinal Laboratories, Hobbs, NM. Photocopies of the laboratory analytical results are attached to all printed copies of this report to substantiate the analytical results tables found on Page 13 of this report. (*Electronic copies will not have laboratory reports included due to the resulting file size; refer to the analyses summary table on Page 14 of the Attachments*).

2.0 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 Laguna Valley physiographic subdivision, described by Nicholson & Clebsch as "covered almost entirely by dune sand which is stable or semi-stable over most of the area, but which locally drifts. The surface is very irregular and has no drainage features except at the edges of several playas. The sand is generally underlain by recent alluvium but in several places the sand forms topographic highs where it is underlain by a caliche surface. The thickness of the sand cover ranges from a few inches to a probable maximum of 20-feet."

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 (*Quercus 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

Based on current available data, ground water is projected to be ~50-ft bgs.

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 surface water bodies exist within 1000 horizontal feet of the site.

3.0 NMOCD Site Ranking

Contaminant delineation and remedial 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 (BTEX⁸²⁶⁰), 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 presented below.

NMOCD 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	5	0	
BENZENE	10 PPM	10 PPM	50 PPM	10 PPM	
BTEX	80 PPM	80 PPM	50 PPM	50 PPM	
TPH	100 PPM	100 PPM	1000 PPM	5000 PPM	

4.0 Subsurface Soil Investigation

The vertical contamination extents beneath the southerly flow path, lateral ponding areas at the fence/gate area and the final flow terminus at the caliche pit were determined by trenching and sampling 15 points (14 along the flow path and 1 in the center of the caliche pit). Sampling trenches were extended until soil chloride concentrations were less than 250-ppm. Plate 5 of the Attachments displays all 15 sample points with a graphical representation of the contamination profile of each sample point. A summary table of all analytical results is contained on Page 14 of the Attachments.

5.0 Ground Water Investigation

No ground water investigation was conducted, nor will be necessary as a result of this release. The sample trench within the caliche pit was extended to 43-ft bgs with no ground water encountered.

6.0 Remediation Process

The initial phase of the site remediation was the excavation and installation of a 20-mil liner at the caliche pit located at the southern terminus of the contaminant flow path. The pre-existing bottom of the caliche pit was approximately 11-ft bgs. The results of the sampling protocol within the caliche pit indicated that the chloride concentration at the 21-ft bgs level was 1679-ppm. The bottom of the pit was excavated to 21-ft bgs and the walls of the pit were extended laterally to allow for a liner overlap. Excavated soil was disposed of at the Sundance Land Farm. The excavated bottom area (21-ft bgs) was then lined with a 76' X 82' 20-mil plastic liner and backfilled with a 10-ft layer of clean caliche.

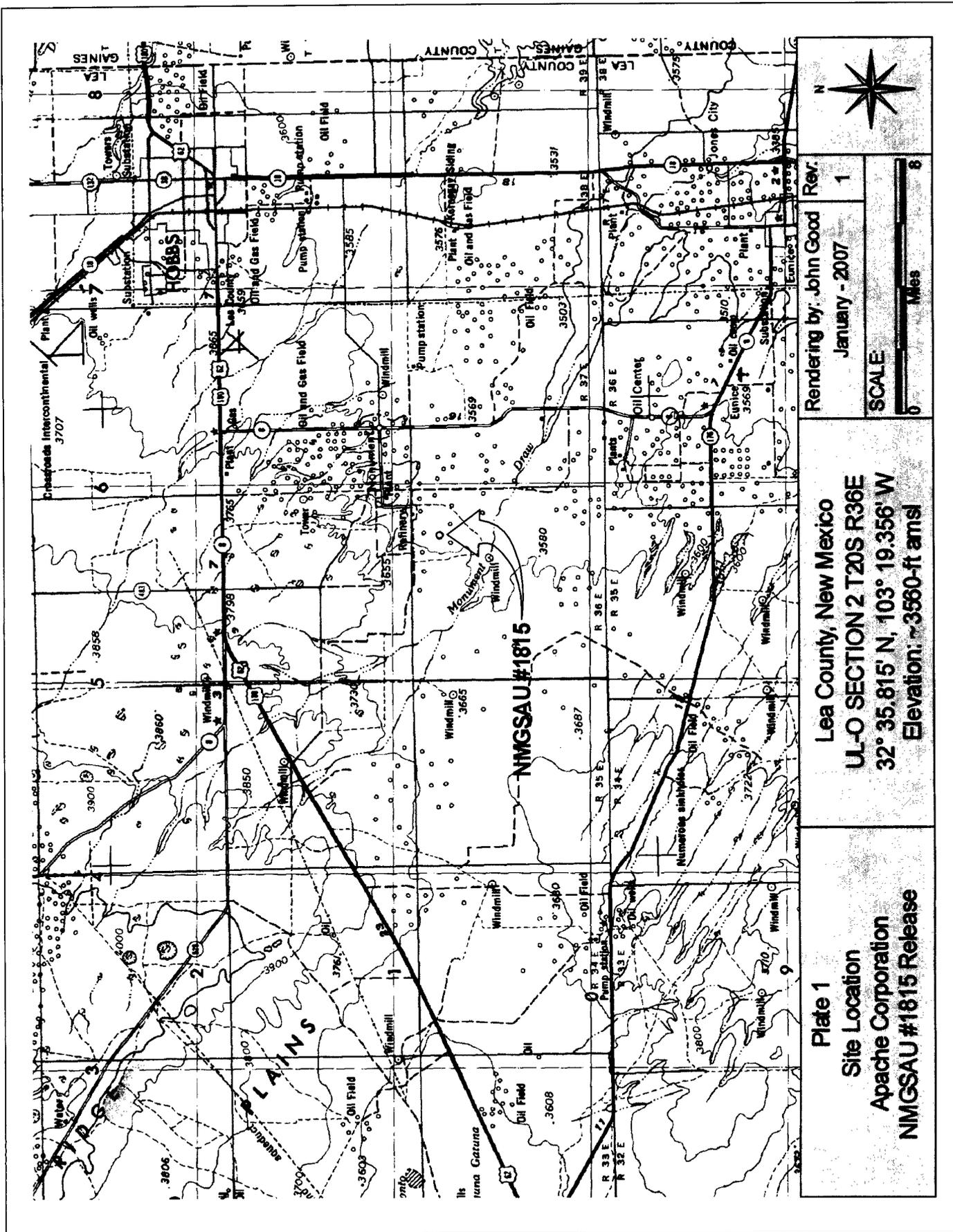
The 850-ft flow path emanating from the release point and the East-West lateral ponding areas at the fence/gate area were excavated to varying depths depending on the vertical contaminant profiles determined by the 14 sample trenches along the flow extent. Excavated depth ranged from just a few feet at the sample point #8 location to 23-ft bgs at the sample point #7 location. The excavation (50-ft north and south of sample point #9) was extended to 20-ft bgs to achieve a contaminant concentration of <1000-ppm in the remaining, unexcavated soil. This area was covered with a 10' X 100' 20-mil liner. All excavated soils were disposed of at the Sundance Land Farm. All excavated flow path areas were then backfilled with clean caliche obtained from an off-site source.

7.0 Closure Justification

This report documents successful remediation of the Apache Corporation "North Monument Grayburg San Andres Unit #1815" release site. Contaminated soil within the affected areas, except two, was excavated to <250-ppm chloride concentration levels, and disposed of. The caliche pit was excavated to the 21-ft bgs level which displayed a chloride concentration of 1679-ppm. Soil below the 21-ft level was left in place and covered with a 76' X 82', 20-mil plastic liner. The trench area extending 50-ft on each side of sample point #9 was excavated to 20-ft bgs and then covered with a 100' X 10', 20-mil plastic liner. Soil left in-place below this liner displayed <1000-ppm chloride concentrations. Based on the information and data presented in this report, Hungry Horse LLC, on behalf of Apache Corporation, requests that the New Mexico Oil Conservation Division require "NO FURTHER ACTION" at this site in relation to the 9-18-06 release event.

ATTACHMENTS

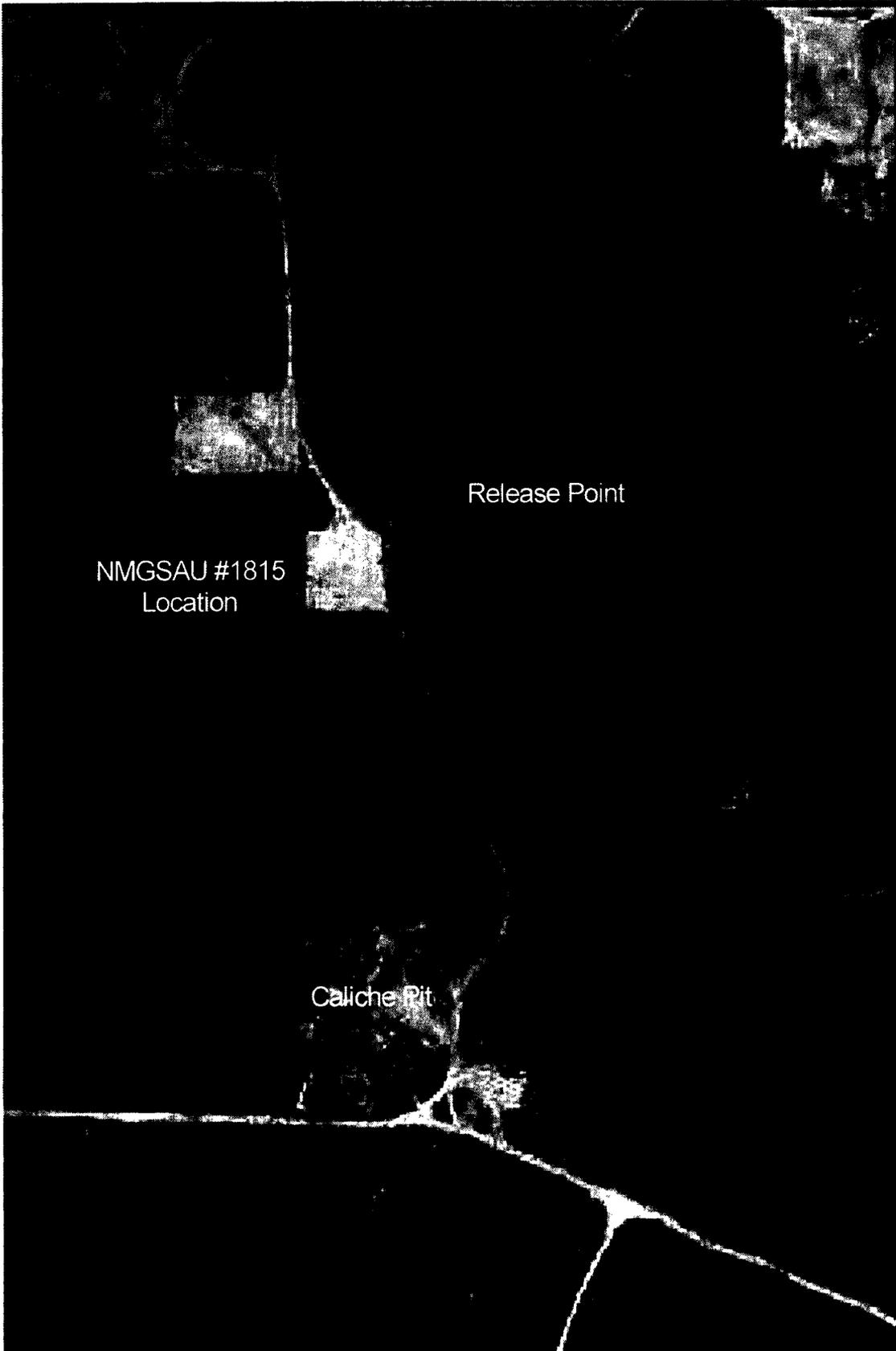
Plate 1: Site Location Map	9
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Rendering by: John Good
 January - 2007
 SCALE
 0 8 Miles

Lea County, New Mexico
 UL-O SECTION 2 T20S R36E
 32° 35.815' N, 103° 19.356' W
 Elevation: ~3560-ft amsl

Plate 1
 Site Location
 Apache Corporation
 NMGSAU #1815 Release

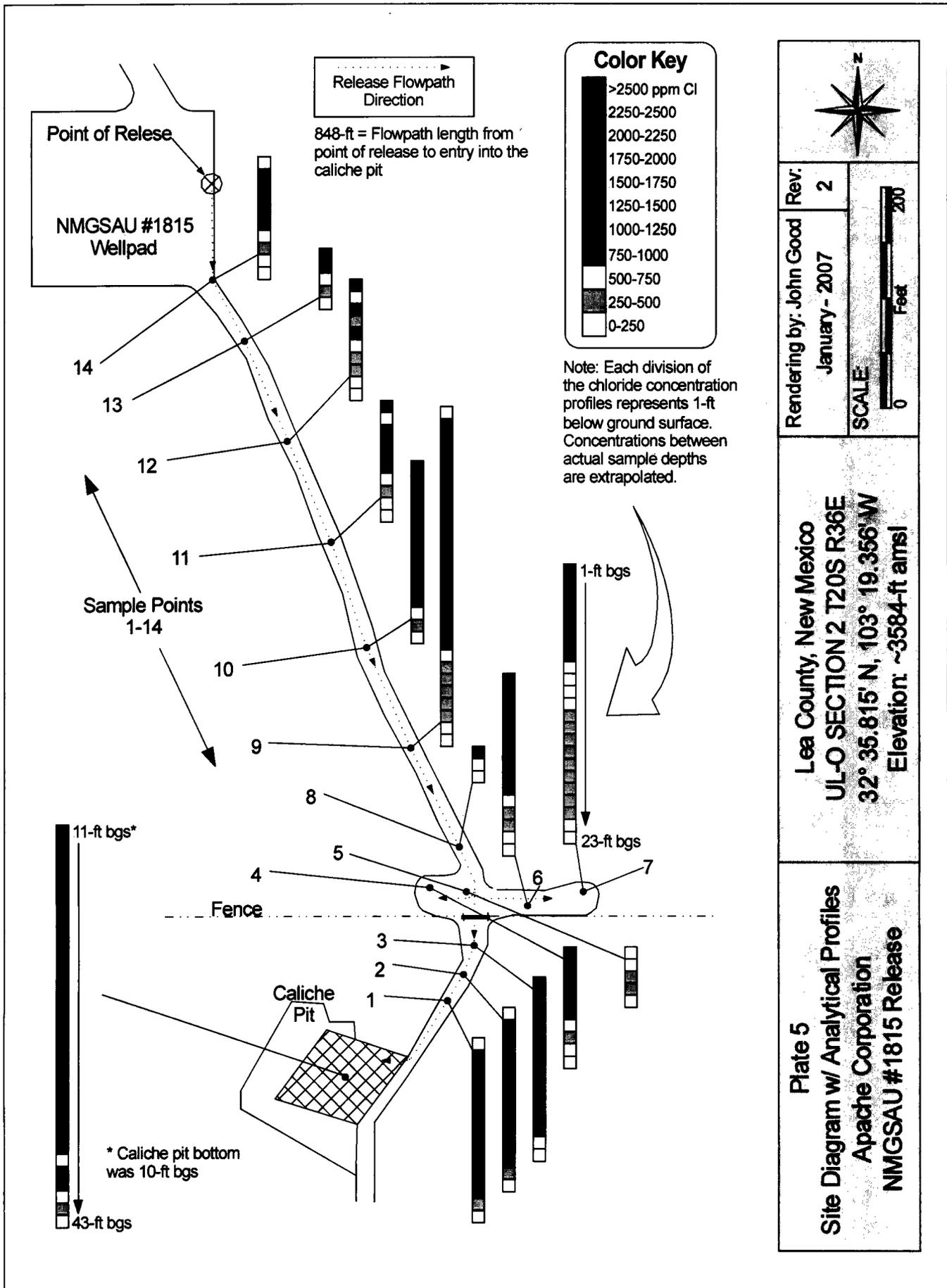


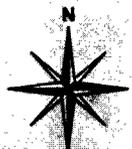
Rendering by: John Good
January - 2007

Rev. 2
SCALE
0 600
Feet

Lea County, New Mexico
U-L-O SECTION 2 T20S R36E
32° 35.815' N, 103° 19.356' W
Elevation: ~3560-ft amsl

Plate 3
Aerial Photograph
Apache Corporation
NMGSAU #1815 Well Location

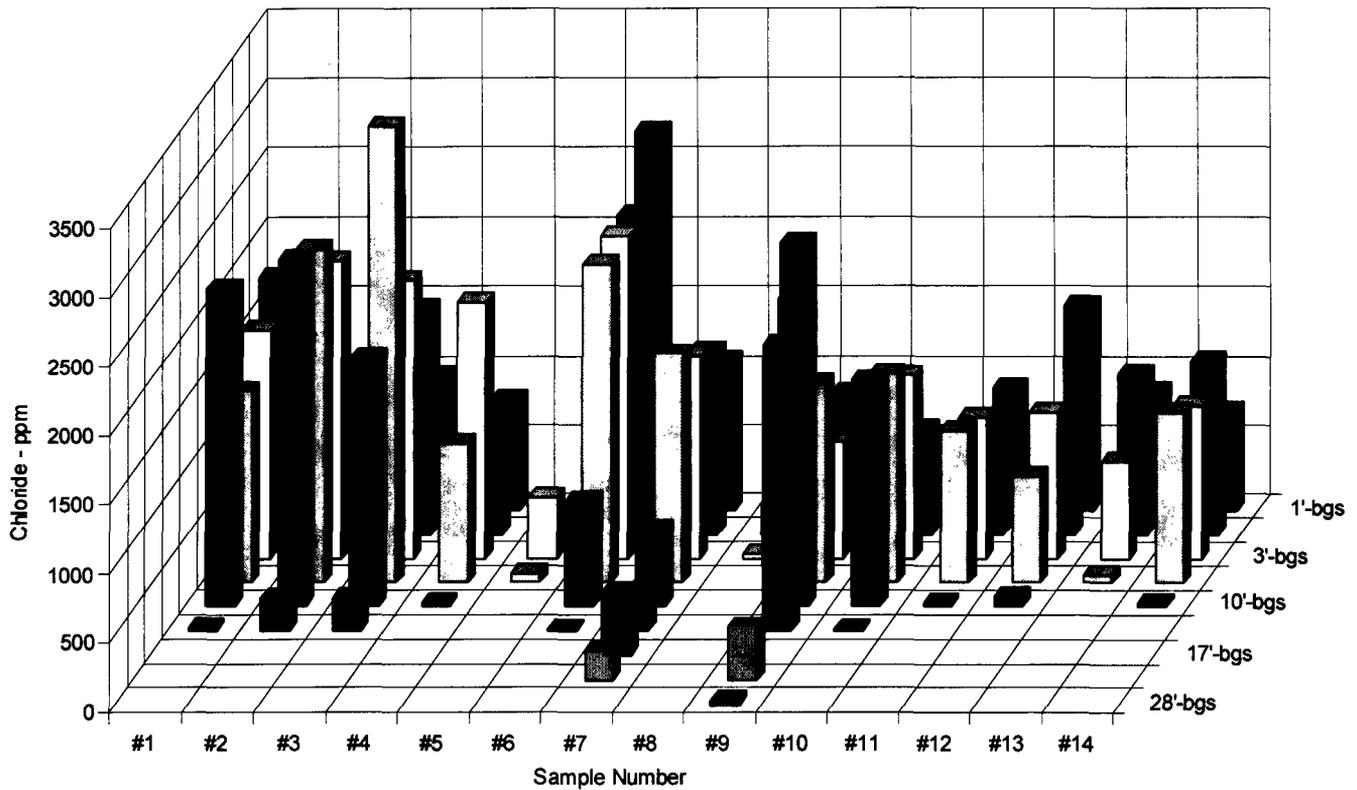


	
Rendering by: John Good January - 2007	Rev: 2 SCALE 
Lea County, New Mexico UL-O SECTION 2 T20S R36E 32° 35.815' N, 103° 19.356' W Elevation: ~3584-ft amsl	
Plate 5 Site Diagram w/ Analytical Profiles Apache Corporation NMGSAU #1815 Release	

Chloride Analyses Summary Table(s)

ID	Sample Depth								
	1'-bgs	2'-bgs	3'-bgs	5'-bgs	10'-bgs	15'-bgs	17'-bgs	23'-bgs	28'-bgs
#1	720	1855	1663	1392	2303	32			
#2	672	1232	2159	2415	2511	240			
#3	976	1631	2015	3295	1807	240			
#4	800	928	1855	1008	32				
#5	32	16	448	64					
#6	2735	2303	2335	2303	768	15			
#7	1088	1328	1472	1663	560	272	464	208	
#8	1536	224	32						
#9	736	1024	848	1440	2639	2079		384	32
#10	544	768	1328	1520	1647	16			
#11	880	736	1024	1104	32				
#12	1488	560	1056	768	80				
#13	864	1168	704	48					
#14	720	1264	1104	1232	32				

ID	Sample Depth										
	11'-bgs	16'-bgs	21'-bgs	26'-bgs	31'-bgs	34'-bgs	36'-bgs	38'-bgs	40'-bgs	42'-bgs	43'-bgs
Pit	3167	1839	1679	1919	2047	1216	1360	624	1232	320	192



Incident Date: 9/18/06 NMOCD Notified: 9/18/06

SITE: NMGSA Unit #1815 Assigned Site Reference: AP-NMGSAU1815
 Company: Apache Corporation
 Street Address:
 Mailing Address: P.O. Drawer D
 City, State, Zip: Monument, NM 88265
 Representative: Mike Warren
 Representative Telephone: 432-556-2184
 Telephone:

Fluid Volume Released (bbl): ~ 2000 Volume Recovered (bbl): ~ 1700 Net Release: ~ 300

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

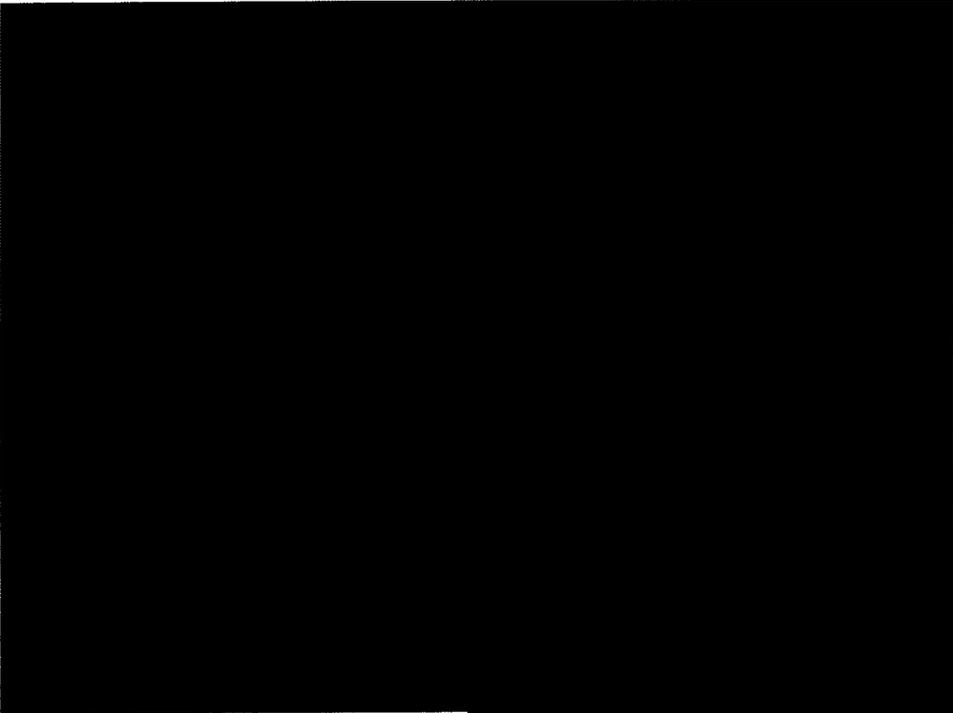
5-25 bbl: Submit Form C-141 within 15 days. (Also applies to unauthorized release of >50 mcf Natural Gas).

Leak, Spill, or Pit (LSP) Name: NMGSA Unit #1815
 Source of Contamination: Produced Water Injection Line
 Land Owner, i.e. BLM, ST, Fee, Other: State of NM; Faye Klein
 LSP Dimensions: ~ 850' X 15' flowpath; 76' X 82' @ caliche pit
 LSP Area ~ 21000 -ft²
 Location of Reference Point (RP):
 Location distance and direction from RP:
 Latitude: North 32deg 35.815'
 Longitude: West 103deg 19.356'
 Elevation above mean sea level (amsl): 3560 feet 1085 meters
 Distance from North Section Line (feet): 660
 Distance from West Section Line (feet): 1980
 Location - Unit Letter and 1/4 1/4: UL- O SW - 1/4 of SE - 1/4
 Location - Section 2
 Location - Township 20S
 Location - Range 36E
 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): ~ 50
 Depth (feet) of lowest contamination (DC): 42
 Depth (feet) to Ground Water (DG - DC = DtGW): ~ 8

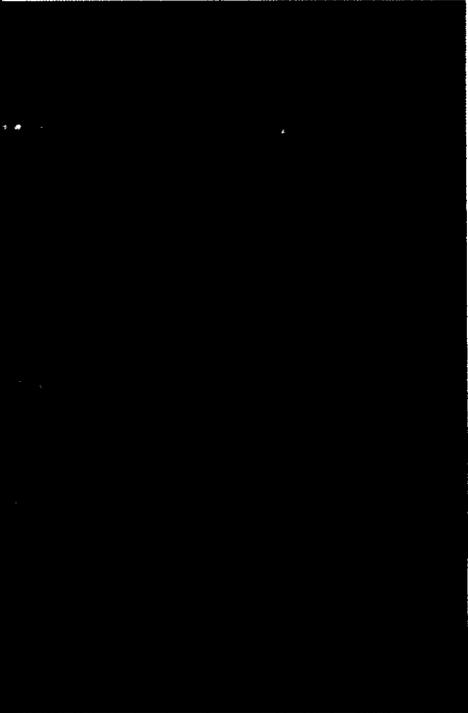
1. Ground Water	2. Wellhead Protection Area	3. Distance to Surface Water
If Depth to GW <50-feet: 20 points	If <1000' from water source, or, <200' from private domestic water source: 20 points If >1000' from water source, or, >200' from private domestic water source: 0 points	<200 horizontal feet: 20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



← Ponding on the caliche road extending south from the release point.

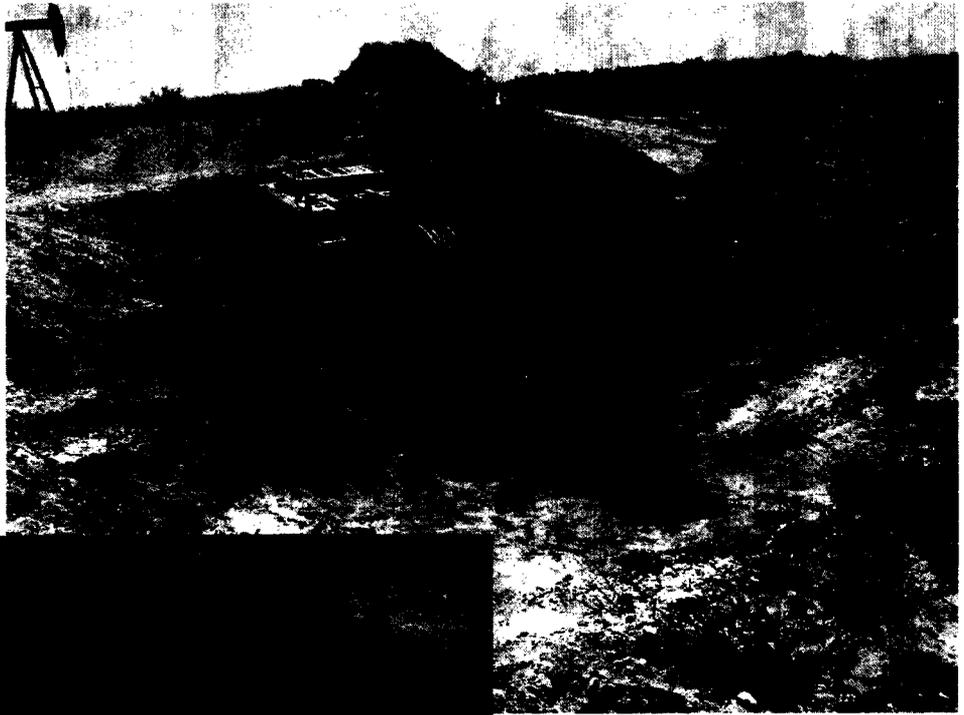


Ponding at the fence/gate area approximated 600-ft south of the wellhead area. →



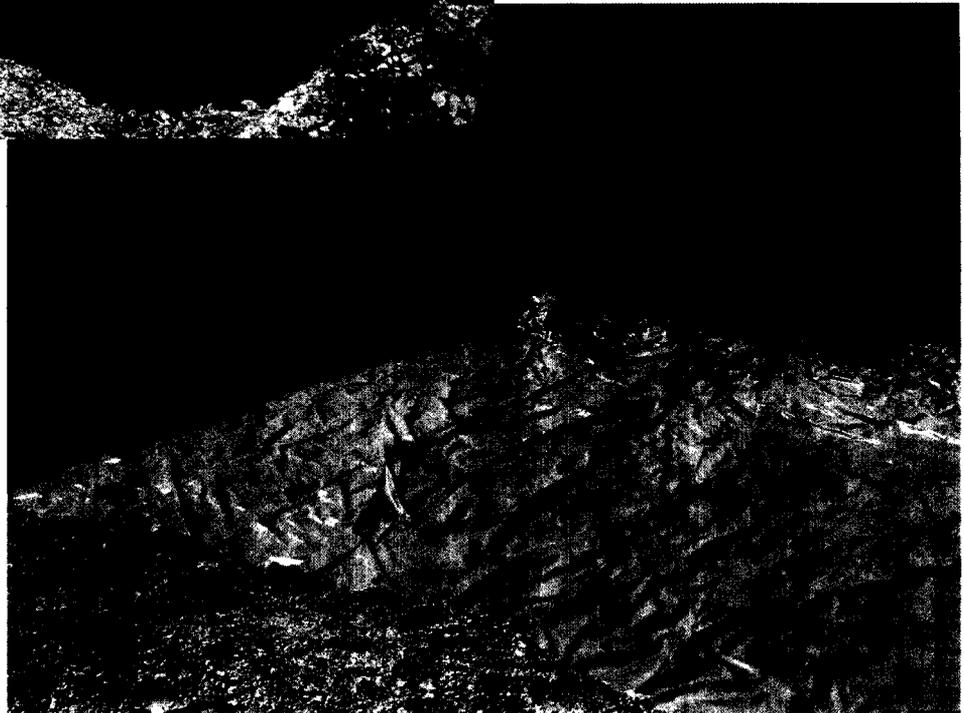
← Poned area within the caliche pit at the southern terminus of the flow path.

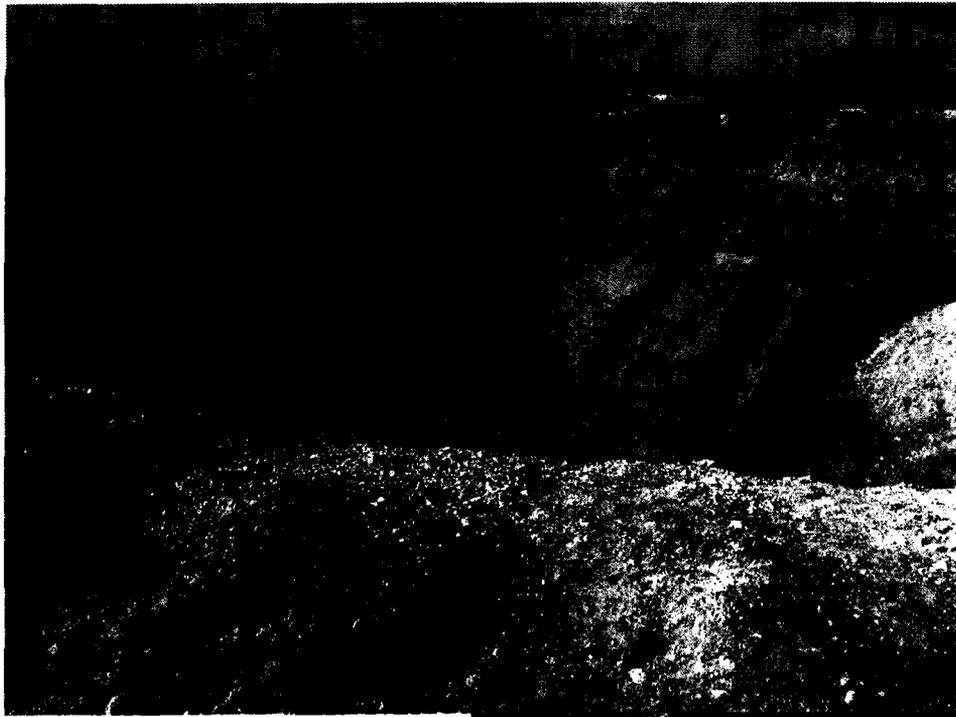
Excavating the sample trench from the bottom surface (10-ft bgs) of the caliche pit. →



← Caliche pit excavation complete and ready for liner installation.

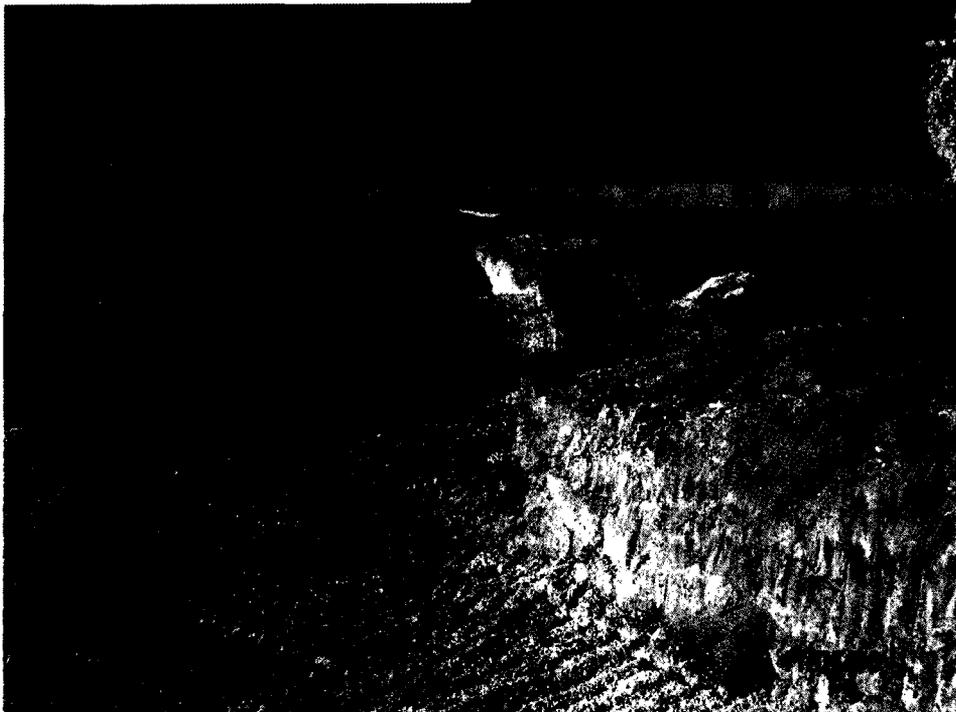
20-mil liner installed. →





← Backfilling the excavated and lined caliche pit area with clean caliche

Plastic liner installed at Sample Point #9 area →



← Excavated flow path from fence/gate area north to the well pad.



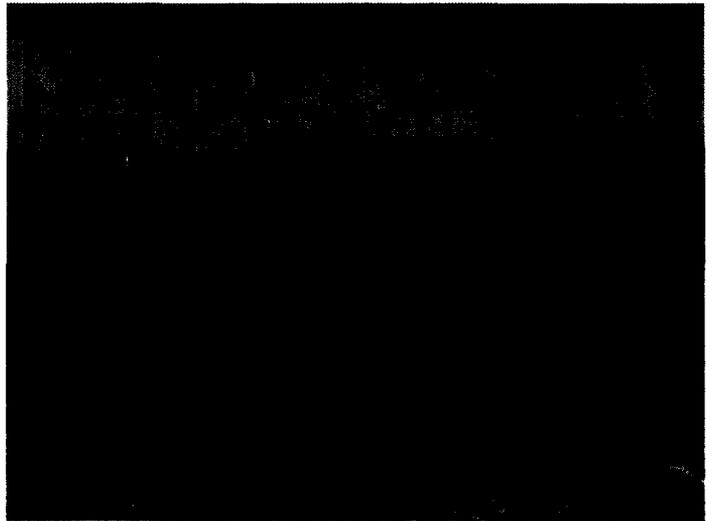
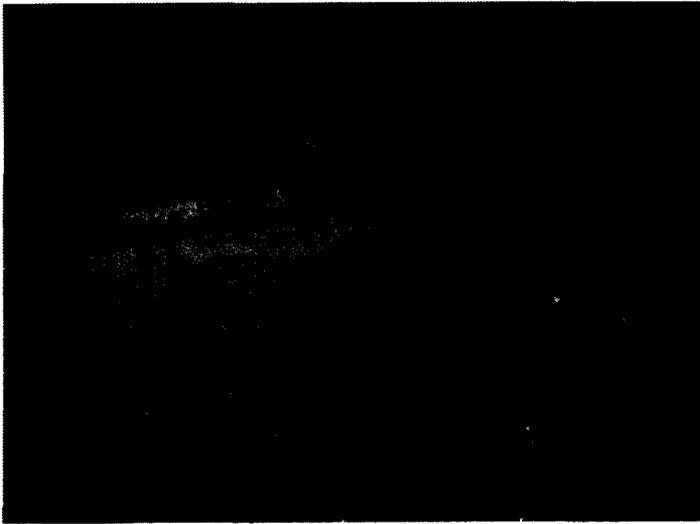
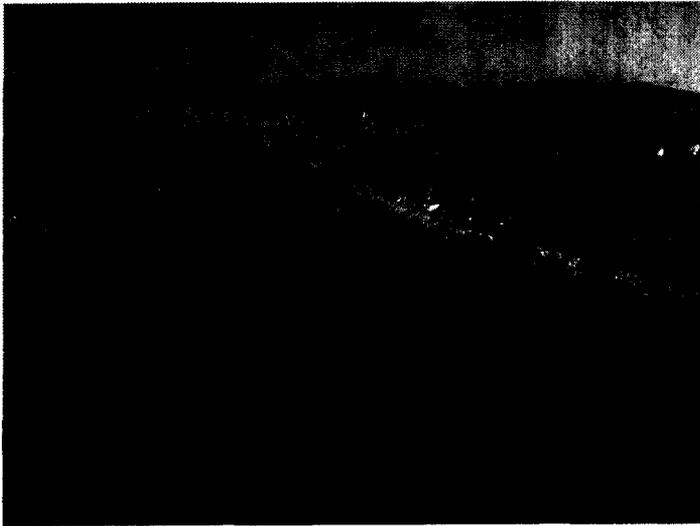
← Excavated area north of fence and west of gate.

Excavated area north of fence and east of gate. →



← Deep excavated area on south side of ponding area at the gate/fence area.

Completed Project Photographs



Cardinal Laboratories Analytical Reports

(Photocopies attached to printed reports)



PHONE (325) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
HUNGRY HORSE
ATTN: JERRY BRIAN
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (505) 391-4585

Receiving Date: 10/25/06
Reporting Date: 10/26/06
Project Owner: APACHE
Project Name: NMG SAU 1815
Project Location: LEA COUNTY

Analysis Date: 10/25/06
Sampling Date: 10/23/06
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: NF
Analyzed By: LB

LAB NO.	SAMPLE ID	Cl ⁻ (mg/Kg)
ANALYSIS DATE:		10/25/06
H11704-1	S-9 28' BGS	32

Quality Control	510
True Value QC	500
% Recovery	102
Relative Percent Difference	0.0

METHOD: Standard Methods	4500-Cl ⁻ B
--------------------------	------------------------

NOTE: Analysis performed on a 1:4 w:v aqueous extract.


Chemist

10/26/06
Date

H11704

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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above-stated reasons or otherwise.

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.

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

Company Name: <u>HURLEY HOISE</u>		P.O. #:		ANALYSIS REQUEST	
Project Manager: <u>Jerry Beard</u>		Company:			
Address: <u>P.O. Box 1058</u>		Attn:			
City: <u>Hobbs</u>		Address:			
Phone #: <u>State: NM Zip: 88240</u>		City:			
Project #: <u>Project Owner: Apache</u>		State:			
Project Name: <u>WAGSAL 1815</u>		Phone #:			
Project Location: <u>Lee County</u>		Fax #:			
Sampler Name: <u>Kelton Beard</u>					
FOR LAB USE ONLY					
Lab I.D. <u>Sample I.D.</u>		PRESERV.		DATE	
H11704-1		ACID/BASE:		TIME	
S-9 28 BGS		OTHER:		10-28-06 3:50	
		ICE / COOL			
		OTHER:			
		SLUDGE			
		OIL			
		SOIL			
		WASTEWATER			
		GROUNDWATER			
		# CONTAINERS			
		(G)RAB OR (C)OMP.			
		X 1			

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 service. 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 interruption, 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.

Sampler Relinquished: Date: 10-25-06 Time: 11:10

Relinquished By: [Signature]

Received By: (Lab Staff) [Signature]

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

Sample Condition: Intact? Yes No

Checked By: [Signature] (Initials) NA

Phone Result: Yes No

Fax Result: Yes No

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to (325) 673-7020.



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of

Company Name: <u>Husky Horse</u>		Project Location: <u>mpgs 1815</u>	
Project Manager: <u>Jersey Brad</u>		Sampler Name: <u>Le Hernandez</u>	
Address: <u>Box 1058</u>		Project Name: <u>Apache</u>	
City: <u>Hobbs</u>		Project Location: <u>mpgs 1815</u>	
Phone #: <u>390-6149</u>		Project Location: <u>mpgs 1815</u>	
State: <u>NM</u>		Project Location: <u>mpgs 1815</u>	
Zip: <u>88240</u>		Project Location: <u>mpgs 1815</u>	
Project #: <u> </u>		Project Location: <u>mpgs 1815</u>	
Project Owner: <u>Apache</u>		Project Location: <u>mpgs 1815</u>	
Project Location: <u>mpgs 1815</u>		Project Location: <u>mpgs 1815</u>	
Sampler Name: <u>Le Hernandez</u>		Project Location: <u>mpgs 1815</u>	

Lab I.D. <u>Sample I.D.</u>		DATE <u>10-6-06</u>		TIME <u>7:35</u>	
<u>H11621-1</u>		<u>5-2</u>		<u>171365</u>	
MATRIX		PRESERV		SAMPLING	
<input checked="" type="checkbox"/> GROUNDWATER	<input type="checkbox"/> OTHER	<input type="checkbox"/> ACID/BASE	<input type="checkbox"/> ICE / COOL	<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER
<input type="checkbox"/> WASTEWATER	<input type="checkbox"/> SLUDGE	<input type="checkbox"/> CRUDE OIL	<input type="checkbox"/> SOIL	<input checked="" type="checkbox"/> WASTEWATER	<input checked="" type="checkbox"/> GROUNDWATER
<input type="checkbox"/> # CONTAINERS	<input type="checkbox"/> (G)RAB OR (C)OMP.	<input checked="" type="checkbox"/> X	<input type="checkbox"/> X	<input type="checkbox"/> X	<input type="checkbox"/> 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 services. 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.

Sampler Relinquished: [Signature] Date: 10-6-06 Time: 8:35

Relinquished By: [Signature] Date: 10-6-06 Time: 8:35

Delivered By: (Article One) [Signature]

Received By: (Lab Staff) [Signature]

Sample Condition
Cool Intact Yes No

CHECKED BY: (Initials) [Initials]

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of

Company Name: <u>Hungry Horse</u>		P.O. #:			
Project Manager: <u>Sally Brian</u>		Company:			
Address: <u>Box 1058</u>		Attn:			
City: <u>Hobbs</u>		Address:			
Phone #: <u>390-6149</u>		City:			
Project #: <u> </u>		State:			
Project Name: <u> </u>		Phone #:			
Project Location: <u> </u>		Fax #:			
Sampler Name: <u> </u>		Project Owner: <u>Apache</u>			
FOR LAB USE ONLY					
Lab I.D.	Sample I.D.	PRESERV		SAMPLING	
		OTHER:	ICE / COOL	DATE	TIME
		GROUNDWATER	ACIDBASE:	10-6	10:40 X
		WASTEWATER	OTHER:	10-6	10:15 X
		SOL	SLUDGE		
		CRUDE OIL			
		# CONTAINERS			
		(G) RAB OR (COMP.			

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 2 1/2% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: [Signature] Date: 10-6-06 Time: 11:30

Relinquished By: [Signature] Date: 10-6-06 Time: 11:30

Delivered By: [Signature] Date: 10-6-06 Time: 11:30

Received By: (Lab Staff) [Signature]

Checked By: (Initials) [Initials]

Sample Condition: Cool Intact Yes No

Sampler UPS Bus Other:

Phone Result: Yes No Add'l Phone #:

Fax Result: Yes No Add'l Fax #:

REMARKS:

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

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Page of

Company Name: <u>Blungty Horse</u>		P.O. #:		ANALYSIS REQUEST														
Project Manager: <u>Box 1058</u>		Company:																
Address: <u>Hobbs</u>		Attn:																
City: <u>State: NM Zip: 88240</u>		Address:																
Phone #: <u>Project Owner: Apache</u>		City:																
Project #: <u>Project Location: WAGSAY 1815</u>		State:																
Project Name: <u>Project Name:</u>		Phone #:																
Project Location: <u>Project Location:</u>		Fax #:																
Sampler Name: <u>Kelton Baird</u>																		
FOR LAB USE ONLY																		
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOL	CRUDE OIL	MATRIX	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	PRESERV	SAMPLING	DATE	TIME	CI*	
#11614-1	S-9 10' BGS	X	1	X											10-5-06	8:05a	X	
-2	S-10 10' BGS																	
-3	S-11 10' BGS																	
-4	S-12 10' BGS																	
-5	S-14 10' BGS																	

PLEASE NOTE: Liability and Damages. Cardinal's facility 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 causes whatsoever shall be deemed waived unless made in writing and received by Cardinal within 30 days after completion of the applicable services. 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.

Sampler Relinquished: [Signature] Date: 10-5-06 Time: 10:25

Received By: [Signature] Date: 10-5-06 Time: 10:25

Reinquired By: [Signature] Date: 10-5-06 Time: 10:25

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

Checked By: (Initials) [Signature]

Phone Result: Yes No **Add'l Phone #:**

Fax Result: Yes No **Add'l Fax #:**

REMARKS:

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CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

CARDINAL LABORATORIES, INC.
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 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

FOR LAB USE ONLY		BILL TO		ANALYSIS REQUEST												
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	PRESERV	SAMPLING	DATE	TIME
H11609-1	S-1 15' BGS	X	1			X									10-7-06	12:00
-2	S-2 15' BGS															
-3	S-3 15' BGS															
-4	S-6 15' BGS															
-5	S-7 15' BGS															

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.

Sampler Relinquished: [Signature] Date: 10-7-06 Time: 9:20
Received By: [Signature] Date: 10-4-06 Time: 4:20

Refiniquished By: [Signature] Date: 10-4-06 Time: 4:20
Delivered By: (Circle One) [Signature] Date: 10-4-06 Time: 4:20

Phone Result: Yes No **Add'l Phone #:**
Fax Result: Yes No **Add'l Fax #:**

REMARKS:

Sample Condition: Cool intact Yes No

CHECKED BY: (Initials) [Signature]

Sampler - UPS - Bus - Other:

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page _____ of _____

ARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: <u>Hungry Horse</u>		BILL TO												
Project Manager: <u>Deezy Brien</u>		P.O. #:												
Address: <u>P.O. 1058</u>		Company:												
City: <u>Hobbs</u>		Attn:												
Phone #: <u>(505) 390-6149</u>		Address:												
Project #: _____		City:												
Project Name: _____		State:												
Project Location: <u>NMG SAN 1815</u>		Phone #: _____												
Sampler Name: <u>Kelton Reard</u>		Fax #: _____												
Project Owner: <u>Apache</u>		Matrix:												
		WASTEWATER												
		GROUNDWATER												
		WASTEWATER												
		SOIL												
		CRUDE OIL												
		SLUDGE												
		OTHER:												
		ACID/BASE:												
		ICE / COOL:												
		OTHER:												
		PRESERV:												
		SAMPLING:												
FOR LAB USE ONLY	Lab I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL:	OTHER:	DATE	TIME
	11548-1	X	5-9	5' BGS	X	X	X	X	X	X	X	X	10-3	2:45
	11548-2	X	5-10	5' BGS	X	X	X	X	X	X	X	X	10-3	2:50
	11548-3	X	5-11	5' BGS	X	X	X	X	X	X	X	X	10-3	2:50
	11548-4	X	5-12	5' BGS	X	X	X	X	X	X	X	X	10-3	2:50
	11548-5	X	5-13	5' BGS	X	X	X	X	X	X	X	X	10-3	3:00
	11548-6	X	5-14	5' BGS	X	X	X	X	X	X	X	X	10-3	3:00

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Sampler Relinquished:	Received By:	Phone Result:	Phone #:
Relinquished By: <u>[Signature]</u>	Received By: (Lab Staff) <u>[Signature]</u>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Delivered By: (Circle One)	Checked By: (Initials)	Fax Result:	Add'l Phone #:
Sampler - JPS - Bus - Other:	Cool Intact <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Sample Condition	REMARKS:	

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page of

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: <u>HUMANE HOPE</u>		P.O. #:	
Project Manager: <u>Jerry Brian</u>		Company:	
Address: <u>P.O. 10578</u>		Attn:	
City: <u>Hobbs</u>		Address:	
Phone #: <u>(505) 390-6149</u> Fax #:		City:	
Project #: <u> </u>		State:	
Project Name: <u>Apache</u>		Phone #:	
Project Location: <u>NMG SAU 1815</u>		Fax #:	
Sampler Name: <u>Kelton Beird</u>			

Lab I.D.	Sample I.D.	CONTAINERS			MATRIX			PRESERV			SAMPLING		
		(G) RAB OR (C)OMP.	GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME
11544-1	5-8 1' BGS	X			X							10-2-06	7:20
-2	5-8 2' BGS											7:20	7:20
-3	5-8 3' BGS											7:30	7:30
-4	5-9 1' BGS											7:30	7:30
-5	5-9 2' BGS											7:50	7:50
-6	5-9 3' BGS											7:50	7:50
-7	5-10 1'											7:50	7:50
-8	5-10 2'											8:10	8:10
-9	5-10 3'												
-10	5-11 1'												

PLEASE NOTE: Utility and Damages. Cardinal's liability and client's exclusion remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the services. All claims, including those for negligence and any other causes 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 participation in services furnished by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Sampler Relinquished: [Signature] Date: 10-2-06 Time: 1:30

Relinquished By: [Signature] Date: 10-2-06 Time: 1:30

Delivered By: [Signature] Date: 10-2-06 Time: 1:30

Received By: (Lab Staff) [Signature]

Checked By: (Initials)

Sample Condition: Cool/Intact Yes No

Phone Result: Yes No Add'l Phone #:

Fax Result: Yes No Add'l Fax #:

REMARKS:

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

ARDINAL LABORATORIES, INC.

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of

BILL TO		ANALYSIS REQUEST									
Company Name:	Hungry Horse	P.O. #:		Company:		DATE		TIME		CI*	
Project Manager:	Jenny Brian	Address:		Attn:		10-2-06		8:10		X	
Address:	PO 10578	City:		Address:		8:10		8:10			
City:	Hobbs	State:	NM	City:		8:30		8:30			
Phone #:	(505) 390-6149	Zip:	88240	State:		8:30		8:30			
Fax #:		Project Owner:	dpacbx	Phone #:		8:50		8:50			
Project #:		Project Name:		Fax #:		9:10		9:10			
Project Location:	NM & SAU 1815	Project Name:		Project Name:		9:10		9:10			
Sampler Name:	Kelton Beaird	Project Name:		Project Name:		9:10		9:10			

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.

Sampler Relinquished: Date: 10-2-06 Time: 1:30
 Relinquished By: [Signature]
 Date: 10-7-06 Time: 1:30
 Delivered By: [Signature]

Received By: Date: 10-2-06 Time: 1:30
 Received By: (Lab Staff) [Signature]

Sample Condition: Cool Intact Yes No

Checked By: (Initials) [Signature]

Sampler: UPS Bus Other:

Phone Result: Yes No **Add'l Phone #:**
Fax Result: Yes No **Add'l Fax #:**

REMARKS:

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: <u>Hangry Horse</u>		P.O. #:	
Project Manager: <u>Jerry B. Bica</u>		Company:	
Address: <u>P.O. 1058</u>		Attn:	
City: <u>Hobbs</u>		Address:	
State: <u>NM</u> Zip: <u>88240</u>		City:	
Phone #: <u>(505) 390-6149</u> Fax #:		State:	
Project #: _____		Phone #:	
Project Name: _____		Fax #:	
Project Location: <u>WAGSAY 1815</u>			
Sampler Name: <u>Keith Beario</u>			
Project Owner: <u>Apache</u>			

Lab I.D.	Sample I.D.	MATRIX			PRESERV			DATE	TIME
		GROUNDWATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:		
H11594-21	5-14 3' BGS	X						10-2-06	9:10
-22	1'								12:00
-23	2'								12:00
-24	3'								12:00
-25	1'								12:10
-26	2'								12:10
-27	3'								12:10
-28	1'								12:10
-29	2'								12:10
-30	3'								12:10

PLEASE NOTE: Utility and Demog. 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 services. 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.

Sampler Relinquished By: _____	Date: _____	Time: _____	Received By: _____	Date: _____	Time: _____
Relinquished By: _____	Date: _____	Time: _____	Received By: (Lab Staff) _____	Date: _____	Time: _____
Delivered By: (Circle One)	UPS	Bus	Other	Sample Condition	CHECKED BY: (Initials)
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cool Intact	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Yes	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No	<input type="checkbox"/>

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
(915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: <u>Hangy Horse</u>		P.O. #:	
Project Manager: <u>Jenny Brian</u>		Company:	
Address: <u>PO 10578</u>		Attn:	
City: <u>Hobbs</u>		Address:	
State: <u>NM</u> Zip: <u>88240</u>		City:	
Phone #: <u>(505) 390-6149</u> Fax #:		State:	
Project #: <u> </u>		Phone #:	
Project Name: <u>Apache</u>		Fax #:	
Project Location: <u>WMC SA 4 1815</u>			
Sampler Name: <u>Kelton Beard</u>			

Lab I.D.	Sample I.D.	CONTAINERS		MATRIX		PRESERV		DATE	TIME	CF
		(G) RAB OR (C) MF	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	GRUDE OIL			
H1588-1	S-4 S' BGS	X						9-28-06	11:40	X
-2	S-5 S' BGS							9-28-06	11:30	
-3	S-6 S' BGS							9-28-06	11:45	
-4	S-7 S' BGS							9-28-06	11:50	

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Sampler Relinquished: [Signature] Date: 9-28-06 Time: 12:40

Relinquished By: [Signature] Date: 9-28-06 Time: 12:40

Delivered By: [Signature] Date: 9-28-06 Time: 12:40

Received By: (Lab Staff) [Signature]

Sample Condition: Cool Intact Yes No

Checked By: (Initials)

Phone Result: Yes No Add'l Phone #:

Fax Result: Yes No Add'l Fax #:

REMARKS:

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page _____ of _____

CARDINAL LABORATORIES, INC.

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 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Company Name: <u>Heavy Horse</u>		BILL TO		ANALYSIS REQUEST											
Project Manager: <u>Jerry Brian</u>		P.O. #:		Company:		PRESERV:		SAMPLING		DATE		TIME			
Address: <u>P.O. Box 1058</u>		State: <u>NM</u> Zip: <u>88240</u>		Attn:		ACID/BASE:		GROUNDWATER		9-25-06		12:20		X	
City: <u>Hobbs</u>		Project Owner: <u>Apache</u>		Address:		OTHER:		WASTEWATER		12:26		12:20			
Phone #: <u>(505)-390-6149</u> Fax #:		Project Location: <u>UMG SA 1815</u>		City:		SLUDGE		GROUNDWATER		12:20		12:35			
Project #:		Sampler Name: <u>Kelton Beard</u>		State:		CRUDE OIL		WASTEWATER		12:35		12:38			
Project Name:		FOR LAB USE ONLY		Phone #:		SOIL		# CONTAINERS		11:00		11:04			
Lab I.D. <u>Sample I.D.</u>				Fax #:		WASTEWATER		(G)RAB OR (C)OMP		11:04		10:48		V	
H11569-1 <u>S-4 1' BGS</u>						GROUNDWATER									
-2 <u>S-4 2' BGS</u>						WASTEWATER									
-3 <u>S-4 3' BGS</u>						SLUDGE									
-4 <u>S-5 1' BGS</u>						OTHER:									
-5 <u>S-5 2' BGS</u>						ICE / COOL									
-6 <u>S-5 3' BGS</u>						OTHER:									
-7 <u>S-6 1' BGS</u>						ACID/BASE:									
-8 <u>S-6 2' BGS</u>						OTHER:									
-9 <u>S-6 3' BGS</u>						GROUNDWATER									
-10 <u>S-7 1' BGS</u>						WASTEWATER									

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.

Sampler Relinquished: _____ Date: _____ Time: _____

Received By: _____ Date: 9-25-06 Time: 1:45 PM

Relinquished By: _____

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

Checked By: (Initials) JA

Sample Condition: Cool Intact Yes No No

Phone Result: Yes No Add'l Phone #: _____

Fax Result: Yes No Add'l Fax #: _____

REMARKS:

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

CARDINAL LABORATORIES, INC.

2111 Beechwood, Abilene, TX 79603 101 East Marland, Hobbs, NM 88240
 (915) 673-7001 Fax (915) 673-7020 (505) 393-2326 Fax (505) 393-2476

Page of

Company Name: <u>Hungry Horse</u>		Project Name: <u>NMBSAU - #1815</u>	
Project Manager: <u>P.O. Box 1058</u>		Project Location: <u> </u>	
Address: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		FOR LAB USE ONLY	
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>		# CONTAINERS	
Phone #: <u>390-649</u>		(G)RAB OR (C)MP. <u> </u>	
Fax #: <u>393-3386</u>		WASTEWATER	
Project #: <u> </u>		SOIL	
Project Owner: <u>Apache</u>		OIL	
Phone #: <u> </u>		SLUDGE	
State: <u>NM</u> Zip: <u>88240</u>		OTHER:	
Address: <u> </u>		ACID:	
City: <u> </u>		ICE / COOL	
Attn: <u> </u>		OTHER:	
Company: <u> </u>		PRES.	
PO #: <u> </u>		SAMPLING	

LAB I.D.	Sample I.D.	(G)RAB OR (C)MP.	# CONTAINERS	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID:	ICE / COOL	OTHER:	PRES.	SAMPLING	DATE	TIME
HL500-1	PT-11' BBS	X												9/21/06	9:40AM
-2	PT-16/13 BBS													9:50	
3	PT-21' BBS													10:35	
4	PT-26' BBS													11:00	
5	PT-31' BBS													11:40	
6	PT-34' BBS													12:15PM	
7	PT-36' BBS													1:10	
8	PT-38' BBS													2:35	
9	PT-40' BBS													4:00	

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 2 1/4% per annum from the original date of invoice, and all costs of collections, including attorney's fees.

Sampler Relinquished: J. Boim Date: 9/21/06 Time: 5:10

Relinquished By: J. Boim Date: Time:

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

Received By: (Lab Staff) Checked By: (Initials)

Sample/Condition: Cool Intact: Yes No

Received By: Date: Time:

Phone Result: Yes No Additional Fax #: Yes No

Fax Result: Yes No

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 915-673-7020.

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

Form C-141
Revised June 10, 2003

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.

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	Apache Corporation	Contact	Mike Warren
Address	P.O. Drawer D Monument, NM 88265	Telephone No.	432-556-2184
Facility Name	NMGSA Unit #1815	Facility Type	Injection Well

Surface Owner	State of NM; Faye Klein	Mineral Owner	State of NM	Lease No.
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LOCATION OF RELEASE

API # 30025041360000

Unit Letter	Section	Township	Range	Feet from South Line	Feet from East Line	Longitude-W	Latitude-N	County
O	2	20S	36E	660	1980	103deg 19.356'	32deg 35.815'	Lea

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Produced Water	estimated 2000 bbl	1700 bbl
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Produced Water Injection Line	9/18/2006	09/18/06
Was Immediate Notice Given?	If YES, To Whom?	
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Not Required	NMOCD - Hobbs Office	
By Whom?	Date and Hour	
Mike Warren - Apache Corporation	09/18/06	
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse	
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	NA	

If a Watercourse was Impacted, Describe Fully*

Describe Cause of Problem and Remedial Action Taken. *
Loss of integrity of produced water injection line. Free fluids vacuumed from terminal end of flowpath at caliche pit south of well pad. Hungry Horse, LLC - Environmental Services contracted to perform remediation.

Describe Area Affected and Cleanup Action Taken. *
The area affected was approximately 21,000-ft² including the 848' flowpath and ponded area within the caliche pit. Hungry Horse LLC, Hobbs, NM conducted the site remediation. Final Closure document attached.

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: Senior Production Foreman	Approval Date: 5.9.07	Expiration Date: _____
E-Mail Address: Mike.Warren@Apachecorp.com	Conditions of Approval:	
Date: 1/23/2007 Phone: 432-556-2184	<input type="checkbox"/> Attached	

API # 1313