



EXPLORING WHAT'S POSSIBLE

# APACHE CORPORATION

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

## Geronimo 28 State #1

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# Closure Report

API 30-015-31829

Release Date: August 24, 2011

Unit Letter J, Section 28, Township 17S, Range 28E

# Rice Environmental Consulting & Safety

P.O. Box 2948 Hobbs, NM 88241

Phone 575.393.2967

**April 11, 2013**

Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources

Oil Conservation Division, Environmental Bureau – District 2

811 S. First St.

Artesia, NM 88210

**RE: TERMINATION REQUEST**

**Apache – Geronimo 28 State #1 AD**

**UL/J sec. 28 T17S R28E**

**API No. 30-015-31829**

Mr. Bratcher:

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

## **Background and Previous Work**

The site is an accidental discharge of produced water associated with the Geronimo 28 State #1. A water line ruptured and released fluids onto pasture land. The line was repaired and an initial form C-141 was submitted by Apache Corporation on August 26, 2011 (Appendix A). The site is located 11 miles east of Carlsbad, in unit letter 'J' of section 28, T17S, R28E in Eddy County, New Mexico.

On August 25, 2011, RECS personnel initiated work on the Geronimo 28 State #1 (Figure 1). Surface soil samples were collected and field tested for chloride. Headspace measurements were also taken in the field using a Photo Ionization Detector (PID). The samples were submitted to a commercial laboratory for chloride and TPH (GRO/DRO) analyses (Appendix C). Chloride ranged from 19,600 ppm (parts per million or mg/kg) to 33,200 ppm. GRO ranged from <10.0 ppm to 473 ppm and DRO ranged from 54.3 ppm to 26,100 ppm.

The impacted area was excavated to 1 ft. below ground surface (bgs), however, a gas line and several flow lines running along the south edge of the area prevented safe excavation activities along the south wall. On August 30, 2011, RECS personnel collected and field tested representative grab samples from the north, west, and east walls and the floor of the excavation (Figure 2). The samples were submitted to a commercial laboratory for chloride and TPH analyses (Appendix C). Chloride did not exceed 240 ppm in all samples. TPH did not exceed 17.1 ppm in all samples.

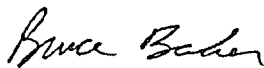
Impacted soils were removed from the excavation and transported to a NMOCD approved disposal facility with the exception of impacted soils near the south edge of the leak area. The excavation was backfilled with clean topsoil and contoured to the surrounding area. See Appendix B for photographs of field activities.

## Conclusion

According to the NM Office of the State Engineer and the U.S. Geological Survey, depth to groundwater in the area is approximately 88 ft. bgs (Appendix D). Due to the removal of the majority of impacted soils excepting the south edge by reason of excavation safety risks, and also due to the shallow depth of constituent impact throughout the affected area, Apache submits the final C-141 (Appendix E) and respectfully requests the closure of the regulatory file for this site.

Apache Corporation appreciates the opportunity to work with you on this project.

Sincerely,



Bruce Baker  
Project Manager  
RECS  
(575) 631-5157

## Attachments:

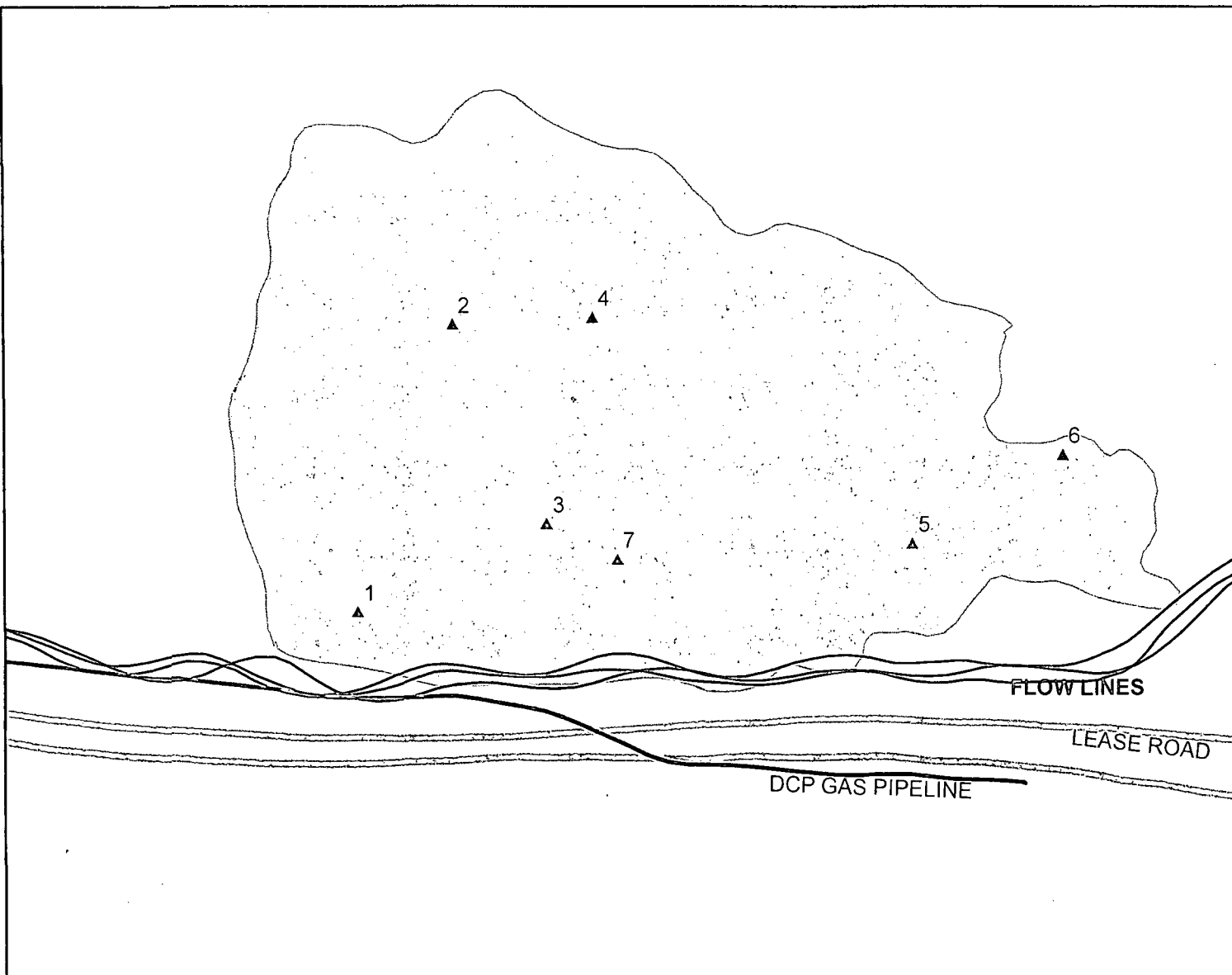
- Figure 1: Site Plat including Initial Sample Data
- Figure 2: Site Plat including Final Excavation Sample Data
- Appendix A: Initial Form C-141
- Appendix B: Site Photographs
- Appendix C: Laboratory Results
- Appendix D: Groundwater Study
- Appendix E: Final Form C-141



# Figures

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

# Site Plat



INITIAL SAMPLING LAB DATA

Sample Description	Cl-	GRO	DRO
Pt. 1	25,200	473	26,100
Pt. 2	19,600	96.2	1,800
Pt. 3	31,200	15.2	109
Pt. 4	19,600	233	14,400
Pt. 5	31,600	14.7	54.3
Pt. 6	32,000	<10	122
Pt. 7	33,200	16.8	294

## Legend

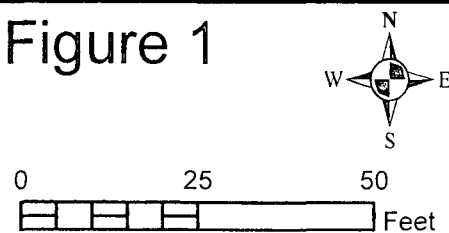
- ▲ SAMPLE POINT
- BURIED PIPELINE
- FLOW LINE
- == LEASE ROAD
- ▨ AD IMPACT AREA (11,052 sq ft)



**APACHE  
GERONIMO 28  
State #1**

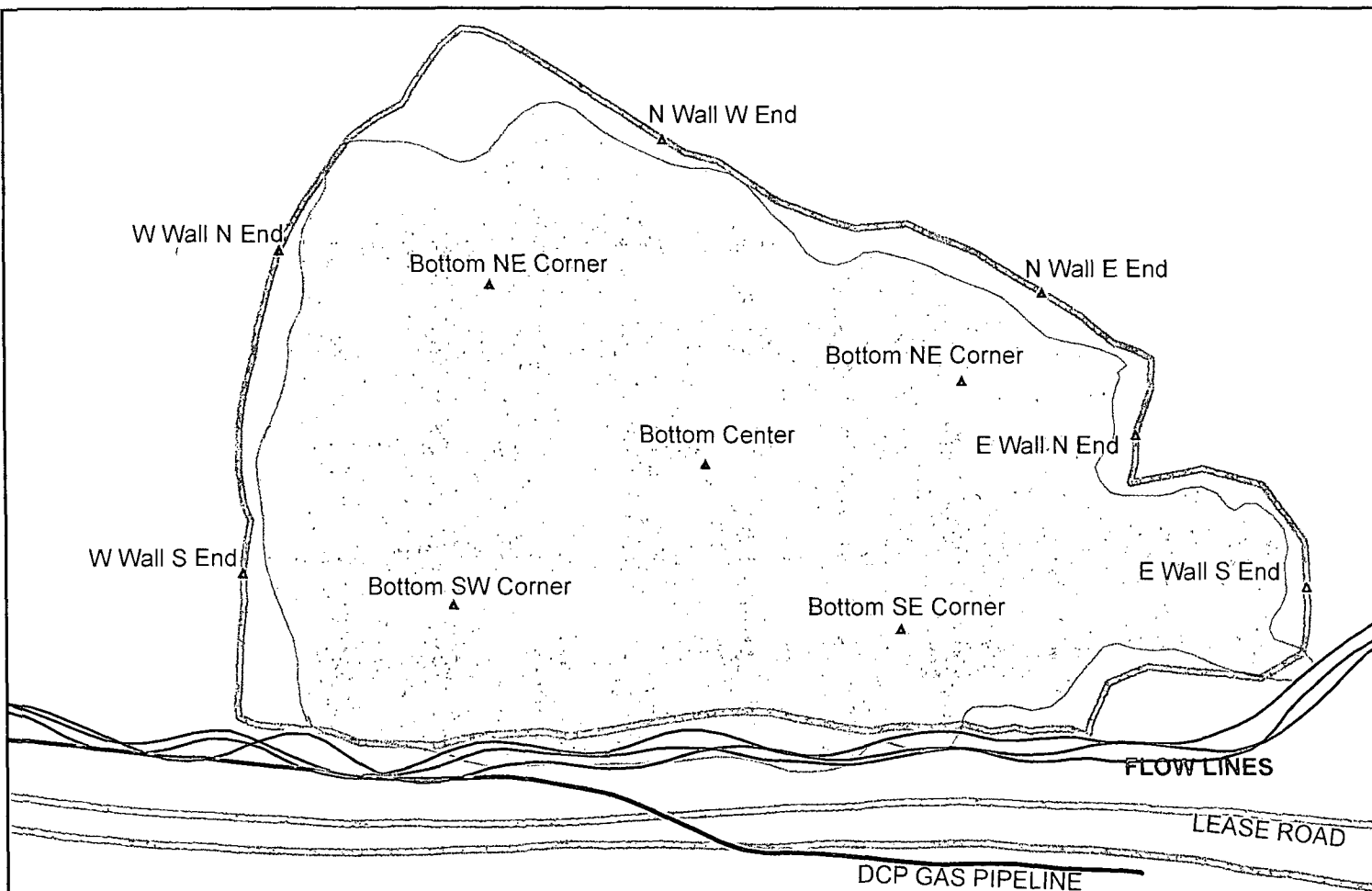
**UL/O SECTION 28  
T-17-S R-28-E  
EDDY COUNTY, NM**

Figure 1



GPS date: 8/25&29/11 DH  
Drawing date: 8/30/11  
Drafted by: T. Grieco, L. Weinheimer

# Site Plan



FINAL EXCAVATION LAB DATA

Sample Description	CI-	GRO	DRO
Bottom Center	240	<10	<10
Bottom NW Corner	48	<10	<10
Bottom SE Corner	<16	<10	<10
Bottom NE Corner	<16	<10	<10
Bottom SW Corner	160	<10	17.1
W Wall S End	<16	<10	<10
W Wall N End	<16	<10	<10
N Wall E End	<16	<10	<10
E Wall N End	<16	<10	<10
N Wall W End	32	<10	<10
E Wall S End	<16	<10	<10

## Legend

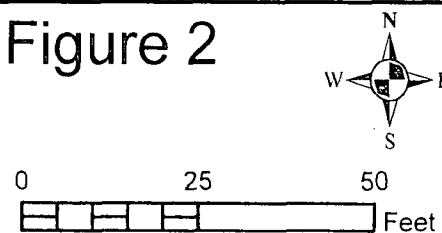
- ▲ FINAL SAMPLE POINTS
- BURIED PIPELINE
- FLOW LINE
- LEASE ROAD
- ▨ SCRAPED AREA (12,163 sq ft)
- ▤ AD IMPACT AREA (11,052 sq ft)



**APACHE  
GERONIMO 28  
State #1**

**UL/O SECTION 28  
T-17-S R-28-E  
EDDY COUNTY, NM**

Figure 2



GPS date: 8/25&29/11 DH  
Drawing date: 8/30/11  
Drafted by: T. Grieco, L. Weinheimer

# Appendix A

Initial Form C-141

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

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

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

### Release Notification and Corrective Action

#### OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Apache Corporation	Contact Natalie Gladden	
Address PO Box 1849 Eunice NM 88231	Telephone No. 575-390-4186	
Facility Name Geronimo 28 State #1	Facility Type Production well	
Surface Owner Unknown	Mineral Owner St	API No. 30-015-31829

#### LOCATION OF RELEASE

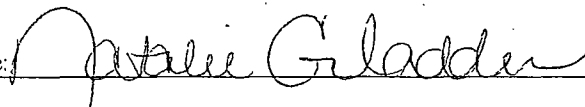
Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	17S	28E	1500	FSL	1800	FEL	Lea

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

#### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 5	Volume Recovered 0
Source of Release Water line	Date and Hour of Occurrence 8/24/11	Date and Hour of Discovery 8/24/11 12pm
Was Immediate Notice Given? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Waterline leak between the Red Lake Battery and the Geronimo well. Line was repaired and remediation began.		
Describe Area Affected and Cleanup Action Taken.* Site will be remediated to closure following the NMOCD Guidelines.		

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

Signature: 	<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Natalie Gladden	Approved by Environmental Specialist:	
Title: EHS Environmental Tech	Approval Date:	Expiration Date:
E-mail Address: natalie.gladden@yahoo.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 8/26/11 Phone: 575-390-4186		

Attach Additional Sheets If Necessary

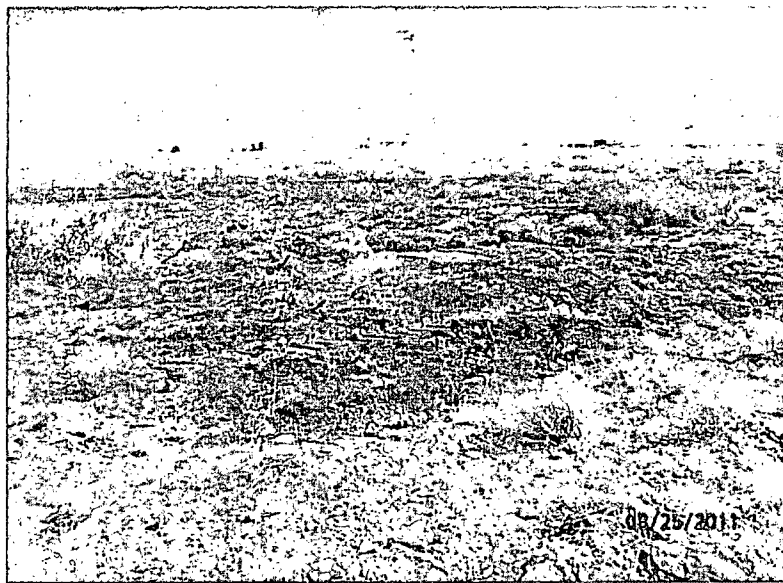
# Appendix B

## Site Photographs

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

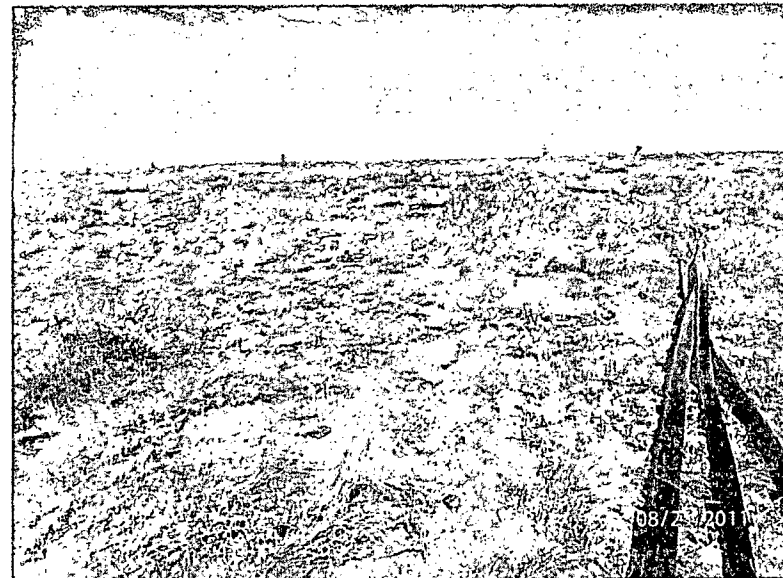
# Geronimo 28 State #1

Unit Letter J, Section 28, T17S, R28E



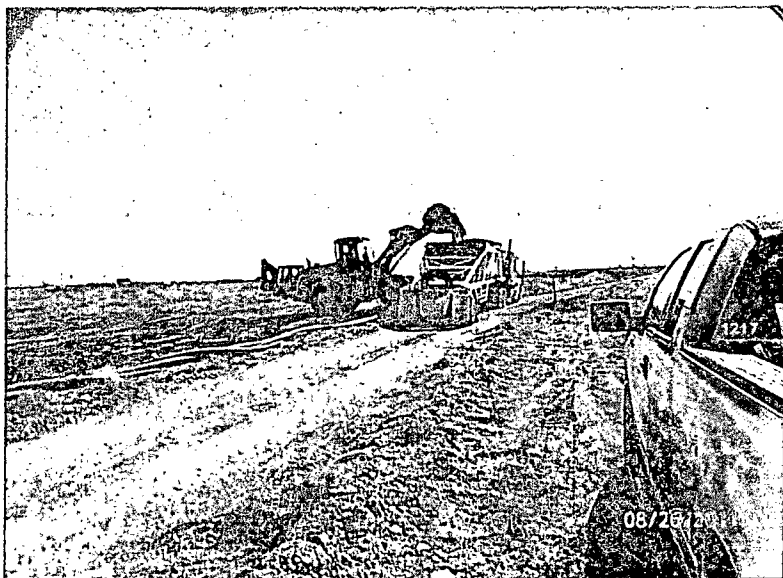
Initial release, facing north

8/25/2011



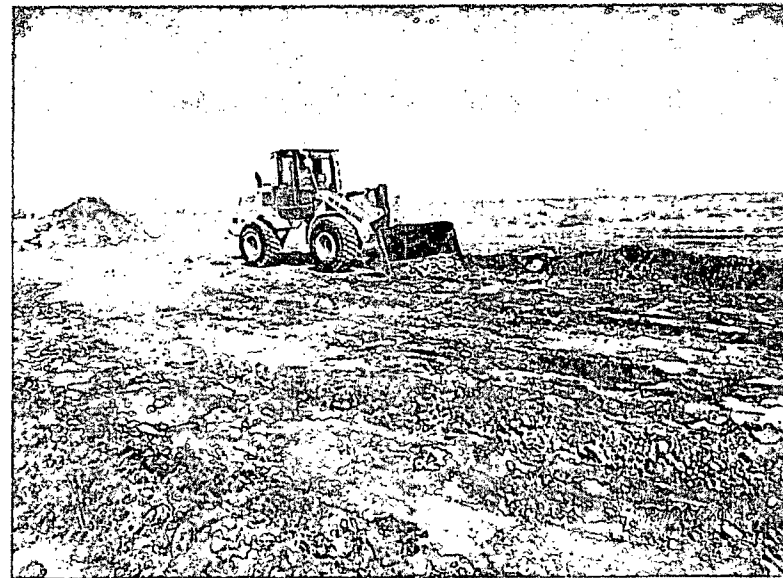
Initial release, facing west

8/25/2011



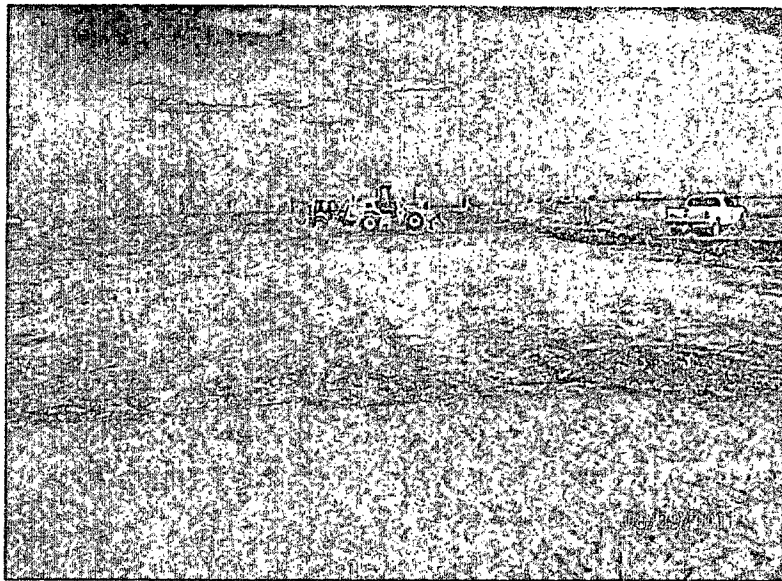
Exporting soil, facing northeast

8/26/2011



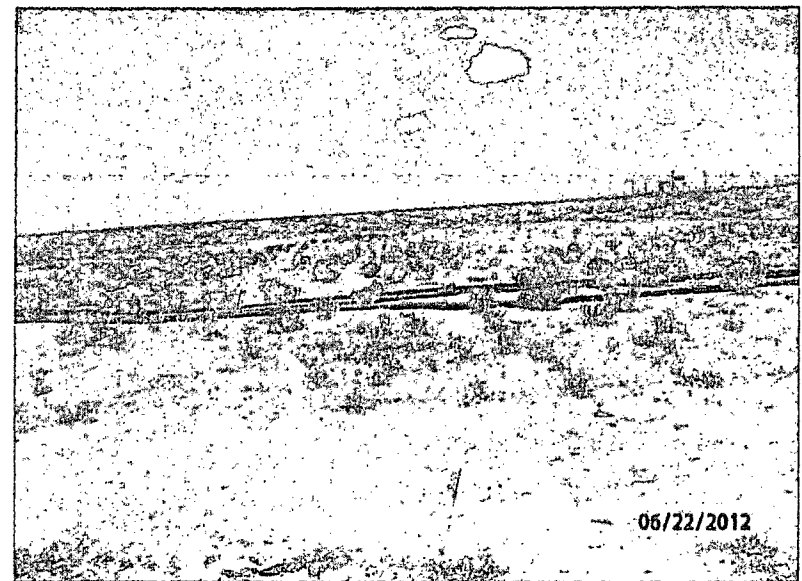
Scraping, facing northwest

8/26/2011



Excavation complete, facing east

8/29/2011



Site complete, facing north

6/22/2012



Site complete, facing northeast

6/22/2012



Site complete, facing southwest

6/22/2012

# Appendix C

## Laboratory Results

**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967 Fax 575.393.0293

August 29, 2011

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: GERONOMO #1

Enclosed are the results of analyses for samples received by the laboratory on 08/26/11 8:03.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

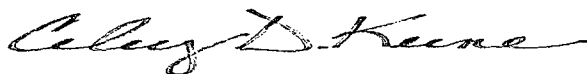
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/26/2011  
 Reported: 08/29/2011  
 Project Name: GERONOMO #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/25/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 1 (H101806-01)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	25200	16.0	08/26/2011	ND	432	108	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	473	50.0	08/28/2011	ND	206	103	200	0.766	
DRO >C10-C28	26100	50.0	08/28/2011	ND	184	91.8	200	1.99	

Surrogate: 1-Chlorooctane 98.3 % 55.5-154

Surrogate: 1-Chlorooctadecane 80.6 % 57.6-158

**Sample ID: PT. 2 (H101806-02)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	19600	16.0	08/26/2011	ND	432	108	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	96.2	50.0	08/28/2011	ND	206	103	200	0.766	
DRO >C10-C28	1800	50.0	08/28/2011	ND	184	91.8	200	1.99	


Surrogate: 1-Chlorooctane 100 % 55.5-154

Surrogate: 1-Chlorooctadecane 99.5 % 57.6-158

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/26/2011  
 Reported: 08/29/2011  
 Project Name: GERONOMO #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/25/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 3 (H101806-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	31200	16.0	08/26/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	15.2	10.0	08/28/2011	ND	206	103	200	0.766	
DRO >C10-C28	109	10.0	08/28/2011	ND	184	91.8	200	1.99	

Surrogate: 1-Chlorooctane 63.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 79.1 % 57.6-158

**Sample ID: PT. 4 (H101806-04)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	19600	16.0	08/26/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	233	50.0	08/28/2011	ND	206	103	200	0.766	
DRO >C10-C28	14400	50.0	08/28/2011	ND	184	91.8	200	1.99	

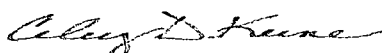
Surrogate: 1-Chlorooctane 97.1 % 55.5-154

Surrogate: 1-Chlorooctadecane 90.5 % 57.6-158

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/26/2011  
 Reported: 08/29/2011  
 Project Name: GERONOMO #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/25/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 5 (H101806-05)**

Chloride, SM4500CI-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>31600</b>	16.0	08/26/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>14.7</b>	10.0	08/28/2011	ND	206	103	200	0.766	
<b>DRO &gt;C10-C28</b>	<b>54.3</b>	10.0	08/28/2011	ND	184	91.8	200	1.99	

Surrogate: 1-Chlorooctane 77.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 89.2 % 57.6-158

**Sample ID: PT. 6 (H101806-06)**

Chloride, SM4500CI-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>32000</b>	16.0	08/26/2011	ND	432	108	400	3.64	
TPH 8015M			mg/kg		Analyzed By: ab				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>&lt;10.0</b>	10.0	08/28/2011	ND	206	103	200	0.766	
<b>DRO &gt;C10-C28</b>	<b>122</b>	10.0	08/28/2011	ND	184	91.8	200	1.99	

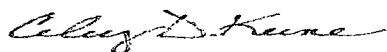
Surrogate: 1-Chlorooctane 83.8 % 55.5-154

Surrogate: 1-Chlorooctadecane 90.6 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/26/2011  
 Reported: 08/29/2011  
 Project Name: GERONOMO #1  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/25/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 7 (H101806-07)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	33200	16.0	08/26/2011	ND	432	108	400	3.64	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	16.8	10.0	08/28/2011	ND	206	103	200	0.766	
DRO >C10-C28	294	10.0	08/28/2011	ND	184	91.8	200	1.99	

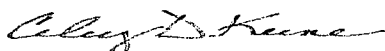
Surrogate: 1-Chlorooctane 79.8 % 55.5-154

Surrogate: 1-Chlorooctadecane 88.4 % 57.6-158

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

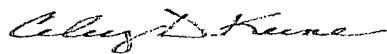
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received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

---

**Cardinal Laboratories**

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

[illegible]

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Relinquished By: <i>Doc Hays</i>		Date: <i>8/24/11</i> <i>10:23:00</i>	Received By: <i>[Signature]</i>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
Time: <i>7:13</i>			Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #:	REMARKS:
Relinquished By: <i>[Signature]</i>		Date: <i>8/24/11</i>	Received By: <i>Jodi Henson</i>	email results
Time: <i>6:03</i>				Natalie.Gladden@usa.apachecorp.com;
Delivered By: (Circle One)		Sample Condition	CHECKED BY:	Zconder@rice-ecs.com; Bbaker@rice-ecs.com;
Sampler - UPS - Bus - Other:		Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/>	(Initials)	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com
		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<i>[Signature]</i>	

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

#26

September 02, 2011

NATALIE GLADDEN

APACHE - EUNICE

P. O. BOX 1849

EUNICE, NM 88231

RE: GERONIMO #1 A.D. FLOWLINE

Enclosed are the results of analyses for samples received by the laboratory on 08/30/11 8:05.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

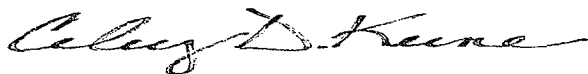
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/30/2011  
 Reported: 09/02/2011  
 Project Name: GERONIMO #1 A.D. FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/29/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: BOTTOM CENTER (H101829-01)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		92.9 %	55.5-154						
Surrogate: 1-Chlorooctadecane		94.8 %	57.6-158						

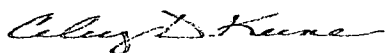
**Sample ID: BOTTOM NW CORNER (H101829-02)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		101 %	55.5-154						
Surrogate: 1-Chlorooctadecane		105 %	57.6-158						

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received:	08/30/2011	Sampling Date:	08/29/2011
Reported:	09/02/2011	Sampling Type:	Soil
Project Name:	GERONIMO #1 A.D. FLOWLINE	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: BOTTOM SE CORNER (H101829-03)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		94.0 %	55.5-154						
Surrogate: 1-Chlorooctadecane		95.4 %	57.6-158						

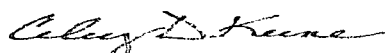
**Sample ID: BOTTOM NE CORNER (H101829-04)**

Chloride, SM4500Cl-B		mg/ kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/ kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane	92.6 %	55.5-154							
Surrogate: 1-Chlorooctadecane	93.7 %	57.6-158							

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 08/30/2011  
Reported: 09/02/2011  
Project Name: GERONIMO #1 A.D. FLOWLINE  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 08/29/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: BOTTOM SW CORNER (H101829-05)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	17.1	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane	75.0 %	55.5-154							
Surrogate: 1-Chlorooctadecane	75.0 %	57.6-158							

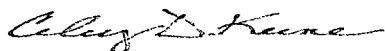
**Sample ID: W. WALL S. END (H101829-06)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		99.9 %	55.5-154						
Surrogate: 1-Chlorooctadecane		105 %	57.6-158						

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 08/30/2011  
Reported: 09/02/2011  
Project Name: GERONIMO #1 A.D. FLOWLINE  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 08/29/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: W. WALL N. END (H101829-07)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane	100 %	55.5-154							
Surrogate: 1-Chlorooctadecane	103 %	57.6-158							

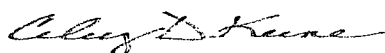
**Sample ID: N. WALL E. END (H101829-08)**

Chloride, SM4500CI-B		mg/kg	Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg	Analyzed By: ab						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane	91.3 %	55.5-154							
Surrogate: 1-Chlorooctadecane	94.8 %	57.6-158							

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 08/30/2011  
Reported: 09/02/2011  
Project Name: GERONIMO #1 A.D. FLOWLINE  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 08/29/2011  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: E. WALL N. END (H101829-09)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		89.1 %	55.5-154						
Surrogate: 1-Chlorooctadecane		89.6 %	57.6-158						

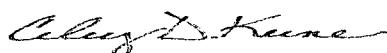
**Sample ID: N. WALL W. END (H101829-10)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	08/31/2011	ND	400	100	400	7.69	
TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	
Surrogate: 1-Chlorooctane		99.0 %	55.5-154						
Surrogate: 1-Chlorooctadecane		101 %	57.6-158						

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

 Received: 08/30/2011  
 Reported: 09/02/2011  
 Project Name: GERONIMO #1 A.D. FLOWLINE  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 08/29/2011  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: E. WALL S. END (H101829-11)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	08/31/2011	ND	400	100	400	7.69	

TPH 8015M		mg/kg		Analyzed By: ab					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	09/01/2011	ND	163	81.5	200	1.53	
DRO >C10-C28	<10.0	10.0	09/01/2011	ND	161	80.3	200	2.07	

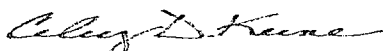
Surrogate: 1-Chlorooctane 94.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 94.7 % 57.6-158

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

### Notes and Definitions

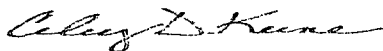
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received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

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---

Celey D. Keene, Lab Director/Quality Manager



# CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1081

Company Name: Apache		<b>BILL TO</b>		<b>ANALYSIS REQUEST</b>																																																																																																																																																																																								
Project Manager: Natalie Gladden		P.O. #:		<div style="display: flex; justify-content: space-around;"> <div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div> </div>																																																																																																																																																																																								
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City: State: NM Zip:		Attn:																																																																																																																																																																																										
Phone #: Fax #:		Address:																																																																																																																																																																																										
Project #: Project Owner:		City:																																																																																																																																																																																										
Project Name: Geronimo #1 A.D. Flowline		State: Zip:																																																																																																																																																																																										
Project Location:		Phone #:																																																																																																																																																																																										
Sampler Name: Dak Herris		Fax #:																																																																																																																																																																																										
<table border="1"> <thead> <tr> <th colspan="2">FOR LAB USE ONLY</th> <th rowspan="2">Lab I.D.</th> <th rowspan="2">Sample I.D.</th> <th rowspan="2"># CONTAINERS</th> <th colspan="5">MATRIX</th> <th colspan="2">PRESERV.</th> <th colspan="2">SAMPLING</th> </tr> <tr> <th>GROUNDWATER</th> <th>WASTEWATER</th> <th>SOIL</th> <th>OIL</th> <th>SLUDGE</th> <th>OTHER</th> <th>ACID/BASE</th> <th>ICE/COOL</th> <th>OTHER</th> <th>DATE</th> <th>TIME</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BHM Center</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:00</td> </tr> <tr> <td>2</td> <td>BHM NW Corner</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:05</td> </tr> <tr> <td>3</td> <td>BHM SE Corner</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:10</td> </tr> <tr> <td>4</td> <td>BHM NE Corner</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:15</td> </tr> <tr> <td>5</td> <td>BHM SW Corner</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:20</td> </tr> <tr> <td>6</td> <td>N. Wall S. End</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:25</td> </tr> <tr> <td>7</td> <td>N. Wall N. End</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:30</td> </tr> <tr> <td>8</td> <td>N. Wall E. End</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:35</td> </tr> <tr> <td>9</td> <td>E. Wall N. End</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:40</td> </tr> <tr> <td>10</td> <td>N. Wall W. End</td> <td>G-1</td> <td></td> <td>1</td> <td></td> <td></td> <td>✓</td> <td></td> <td></td> <td></td> <td>✓</td> <td></td> <td>8/29/11</td> <td>9:45</td> </tr> </tbody> </table>														FOR LAB USE ONLY		Lab I.D.	Sample I.D.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING		GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	1	BHM Center	G-1		1			✓				✓		8/29/11	9:00	2	BHM NW Corner	G-1		1			✓				✓		8/29/11	9:05	3	BHM SE Corner	G-1		1			✓				✓		8/29/11	9:10	4	BHM NE Corner	G-1		1			✓				✓		8/29/11	9:15	5	BHM SW Corner	G-1		1			✓				✓		8/29/11	9:20	6	N. Wall S. End	G-1		1			✓				✓		8/29/11	9:25	7	N. Wall N. End	G-1		1			✓				✓		8/29/11	9:30	8	N. Wall E. End	G-1		1			✓				✓		8/29/11	9:35	9	E. Wall N. End	G-1		1			✓				✓		8/29/11	9:40	10	N. Wall W. End	G-1		1			✓				✓		8/29/11	9:45
FOR LAB USE ONLY		Lab I.D.	Sample I.D.	# CONTAINERS	MATRIX					PRESERV.		SAMPLING																																																																																																																																																																																
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7	N. Wall N. End	G-1		1			✓				✓		8/29/11	9:30																																																																																																																																																																														
8	N. Wall E. End	G-1		1			✓				✓		8/29/11	9:35																																																																																																																																																																														
9	E. Wall N. End	G-1		1			✓				✓		8/29/11	9:40																																																																																																																																																																														
10	N. Wall W. End	G-1		1			✓				✓		8/29/11	9:45																																																																																																																																																																														

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

Relinquished By:	Date: 8/30/11 Time: 7:30	Received By:	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
Relinquished By:	Date: 8/30/11 Time: 8:05	Received By:	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: -72	Sample Condition: Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	CHECKED BY:	REMARKS:	
			email results Natalie.Gladden@usa.apachecorp.com; Zconder@rice-ecs.com; Bbaker@rice-ecs.com; hconder@rice-ecs.com; Lweinheimer@rice-ecs.com	

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

#26



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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

# Appendix D

## Groundwater Study

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

Apache

Company

Geronimo 28 State #1

site name

J

28

17S

28E

Unit Letter

Section

Township

Range

Groundwater Depth: 88 ft

Compiled by: Amy C. Ruth

Date: 10/9/2012

Comments: nearest well less than 2 miles NNE

● = Wells of unknown use (USGS)

● = Non-production wells  
(commercial, sanitation, stock)

★ = Subject Site

	16S 27E ● 70' Domestic	16S 28E	16S 29E ● 110' Domestic	
14' Dom ● 86' Dom ●	● 30' Dom ● 56' ● 50' Stock 226' Dom/Mon ● ● 194' Dom/Expl 17S 27E ● 80' Dom ● 40' Prospect ★ ● 120' Prospect	17S 28E ● 78'	17S 29E	
	● 50' Prospect 18S 27E 17' Prospect ● ● 100' Prospect 65' Prospect ● ● 97' Stk/Expl	18S 28E ● 225' ● 65'	18S 29E	



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

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced.  
O=orphaned,

C=the file is

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Depth Y	Depth Well	Water Column
RA 00399			ED	2	3	31	16S	27E		.563583	3637879*		
RA 02550			ED	3	3	1	27	16S	27E	.567884	3639835*	.83	
RA 02550-REPAR			ED	3	3	1	27	16S	27E	.567884	3639835*	180	70 110
RA 04176			XX	3	4	1	23	16S	27E	.569885	3641470*	300	

Average Depth to Water: 70 feet

Minimum Depth: 70 feet

Maximum Depth: 70 feet

Record Count: 4

PLSS Search:

Township: 16S

Range: 27E

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)  
Sub  
WR File Nbr Basin Use Diversion Owner County POD Number Code Grant Source 6416.4 Sec 17s Rng X Y  
RA 02550 REPAR DOM 3 R.B. HORNER ED RA 02550 REPAR Shallow 3 3 1 27 16S 27E 567884 3639835

Record Count: 1

POD Search:

POD Number: RA 02550 REPAR

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



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

No records found.

PLSS Search:

Township: 16S      Range: 28E



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW#### in the  
POD suffix indicates the  
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& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,

C=the file is  
closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
------------	----------	----------	--------	------	------	-----	-----	-----	-----	---	---	------------	-------------	--------------

RA 09342

ED 4 4 3 19 16S 29E 582737 3640640\* 220 110 110

Average Depth to Water: 110 feet

Minimum Depth: 110 feet

Maximum Depth: 110 feet

Record Count: 1

PLSS Search:

Township: 16S

Range: 29E

\*UTM location was derived from PLSS - see Help

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WATER COLUMN/AVERAGE  
DEPTH TO WATER



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Num	Sub	Basin	Use/Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Sec	Tws	Rng	X	Y
RA 09342		DOM		3 RUSTY AND JOSIE VAN CUREN	ED	RA 09342			Shallow	4	4	3	19	16S	29E		582737	3640640*

Record Count: 1

POD Search:

POD Number: RA 09342

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 01493			ED	2	1	27	17S	27E		568468	3630529*	876		
RA 01716 (D)	O		ED	4	4	3	16	17S	27E	566953	3632420*	1220	175	1045
RA 01716 S			ED	4	4	3	16	17S	27E	566953	3632420*	1200		
RA 02966			ED	4	4	4	05	17S	27E	566117	3635707*	80	30	50
RA 03279			ED	3	2	07	17S	27E		564020	3635011*	250	14	236
RA 03661			ED	3	2	3	32	17S	27E	565186	3628038*	330	140	190
RA 03664			CH	3	2	3	32	17S	27E	565186	3628038*	400	100	300
RA 03694			ED		4	17	17S	27E		565854	3632721*	300	90	210
RA 03616			CH		4	17	17S	27E		565854	3632721*	945	931	14
RA 04114			LE	4	4	3	16	17S	27E	566953	3632420*	1042	260	782
RA 04153			CH	4	4	3	16	17S	27E	566953	3632420*	1220	175	1045
RA 04320			ED		3	17	17S	27E		565053	3632719*	120	50	70
RA 04554			ED		1	23	17S	27E		569859	3631947*	220	40	180
RA 04561			ED		4	2	26	17S	27E	570871	3630142*	250		
RA 04786			ED	4	3	2	18	17S	27E	564133	3633277*	138	111	27
RA 06531			ED	4	1	4	17	17S	27E	565747	3632821*	200		
RA 06560			CH	2	1	2	20	17S	27E	565757	3632217*	133	80	53
RA 06635			ED	2	2	2	18	17S	27E	564531	3633852*	325	60	265
RA 07774			ED	3	2	1	11	17S	27E	569933	3635251*	100	50	50
RA 07844			ED	3	4	3	16	17S	27E	566753	3632420*	1300	180	1120
RA 07844 EXPL			ED		4	3	16	17S	27E	566854	3632521*	1300	180	1120
RA 08823			ED	1	1	3	17	17S	27E	564745	3633019*	348	60	288
RA 11691 POD1			ED	2	1	4	17	17S	27E	565800	3633029	150	0	150

\*UTM location was derived from PLSS - see Help

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WATER COLUMN/AVERAGE  
DEPTH TO WATER

Average Depth to Water: 143 feet

Minimum Depth: 0 feet

Maximum Depth: 931 feet

---

Record Count: 23

PLSS Search:

Township: 17S

Range: 27E



---

*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

POD Search:

POD Number: RA 01716 D



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Sec	Tws	Range	X	Y
RA 04114		DOM			J. HIRAM MOORE	LE	RA 04114			Artesian	4	4	3 16	17S 27E	566953 3632420

Record Count: 1

POD Search:

POD Number: RA 04114

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Soc	Tws	Rng	X	Y
RA 04153		DOM			3. J. HIRAM MOORE	CH	RA 04153			Artesian	4	4	3	16	17S	27E	566953	3632420	

Record Count: 1

POD Search:

POD Number: RA 04153

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

										(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE). C=the file is closed) (quarters are smallest to largest) (NAD83-UTM in meters)									
(acre.ft per annum)																			
Sub										Q Q Q									
WR File Nbr										County/POD Number									
RA/07844										C=07844									
EXP										EXP									
RIVERSIDE WATER USERS ASSOC.										ED RA/07844									
RA/07844 EXPL										ED RA/07844 EXPL									
EXP										EXP									
0 RIVERSIDE WATER USERS ASSOC.										ED RA/07844 EXPL									
										Source/6419.4 Sec/Tws/Rng									
										Shallow 3 4 3 18 17S 27E 566753 3632420									
										Artesian 4 3 16 17S 27E 566954 3632521									

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE).  
 C=the file is closed) (quarters are smallest to largest) (NAD83-UTM in meters)

Record Count: 2

POD Search:

POD Number: RA 07844

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr.	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Sec	Twp	Rng	X?	Y
RA 02966		DOM			3 JIM HOOTEN	ED	RA 02966			Shallow	4	4	4	05	17S	27E		566117	3635707*

(R=POD has been replaced  
and no longer serves this file,  
C=the file is closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 02966

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 9:32 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr.	Sub.	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	6416 4	Sec	Tws	Range	X	Y
IRA-03279		DOM			3 EMIL P. BACH	ED	RA 03279				3 2 07	17S	27E		564020	3635011

Record Count: 1

POD Search:

POD Number: RA 03279

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 9:34 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Shallow	3	2	3	32	17S	27E	565186	3628038	X	Y
RA 03661			PRO		HUMBLE OIL & REFINING	ED	RA 03661														

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 03661

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr.	Sub.	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	64164	Sec	Tws	Rng	X	Y
RA 03694		IDOM			3 C. M. BERRY	ED	RA 03694			Shallow	4	17	17S	27E	565854	3632721

(R=POD has been replaced and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)

C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 03694

Sorted by: File Number

\*UTM location was derived from PLSS - see Help \*

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:38 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

WR File No.	Sub.	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Sec	Twp	Rng	X	Y	
RA 03816					DOM	3	R. D. COLLIER	CH	RA 03816		Artesian	4	17	17S	27E				565854	3632721

Record Count: 1

POD Search:

POD Number: RA 03816

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:39 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub-basin	Use/Diversion	Owner	County	POD Number	Code	Grant	Source	Quarter	Sec	Twp	Rng	X	Y
RA 04320		DOM	J. C. V. BROWN	ED	RA 04320			Artesian	3	17	17S	27E	565053	3632719

(R=POD has been replaced

and no longer serves this file. (quarters are 1=NW 2=NE 3=SW 4=SE)

C=the file is closed)

(quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 04320

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 9:40 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub #	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Shallow	1	1	3	17	17S	27E	564745	3633019
RA 08823		DOM			3. HAMMOND PHILLIP J.	ED	RA 08823			64164	1	1	3	17	17S	27E		564745	3633019

Record Count: 1

POD Search:

POD Number: RA 08823

Sorted by: File Number

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
(C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:40 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Sec	Tws	Rng	X	Y
RA 11691		MON			0 INTEGRATED WATER SERVICES	ED	RA 11691-POD1			6416.4	2	1	4	17	17S	27E		565800	3633029

Record Count: 1

POD Search:

POD Number: RA 11691-POD1

Sorted by: File Number

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:41 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft. per annum)  
Sub  
WR File Nbr Basin Use Diversion Owner County POD Number Code Grant Source (6410.4) Sec. Twp. Rng. Y  
RA 04554 PRO 0 LOWE DRILLING COMPANY ED RA 04554 Artesian 1 23 17S 27E 569859 3631947

Record Count: 1

POD Search:

POD Number: RA 04554

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC, and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:46 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft. per annum)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Quarter	Sec	Twp	Rng	X	Y	
RA 04786		DOM			3 DAVE COLLIER	ED	RA 04786			Artesian	4	3	2	18	17S	27E	564133 3633277*

Record Count: 1

POD Search:

POD Number: RA 04786

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:48 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr.	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q1	Q2	Q3	Q4	Sec	Twp	Rng	X	Y	
RA 06560					DOM	3	TONY HALL	CH	RA 06560											

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 06560

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:50 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	UTM	X	Y
RA 07774		STK			3 BOGLE FARMS	ED	RA 07774			Shallow	3 2 1 11 17S 27E	569933	3635251

Record Count: 1

POD Search:

POD Number: RA 07774

Sorted by: File Number

\*UTM location was derived from PLSS: see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 9:52 AM

Page 1 of 1

ACTIVE & INACTIVE POINTS OF DIVERSION



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

No records found.

**PLSS Search:**

Township: 17S      Range: 28E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/13/12 3:49 PM

Page 1 of 1

WATER COLUMN/ AVERAGE  
DEPTH TO WATER



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

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is

closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD		Q Q Q			Depth Depth Water					
POD Number	Code	Subbasin	County	64 16 4 Sec	Tws	Rng	X	Y	Well	Water Column

RA 11807 POD1

ED 1 2 3 22 17S 29E 587360 3631585 250

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

PLSS Search:

Township: 17S

Range: 29E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/13/12 3:50 PM

Page 1 of 1

WATER COLUMN/AVERAGE  
DEPTH TO WATER



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

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is  
closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 03714			CH	4	4	2	08	18S	27E	566212	3625253*	381		
RA 03917			LE	4	1	2	10	18S	27E	569019	3625660*	130	50	80
RA 04048			LE	1	4	4	14	18S	27E	570841	3623030*	2096		
RA 04211			CH	3	1	28	18S	27E	566512	3620562*	120	100	20	
RA 04299			ED	1	2	19	18S	27E	564062	3622523*	92			
RA 05524			ED	2	4	33	18S	27E	567721	3618532*	90	49	41	
RA 05660			ED	3	4	31	18S	27E	564094	3618090*	305	65	240	
RA 05664			ED	4	1	33	18S	27E	566914	3618936*		145		
RA 06091			ED	1	2	3	29	18S	27E	565211	3620222*	90	17	73

Average Depth to Water: 71 feet

Minimum Depth: 17 feet

Maximum Depth: 145 feet

Record Count: 9

PLSS Search:

Township: 18S,

Range: 27E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/13/12 3:50 PM

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WATER COLUMN/AVERAGE  
DEPTH TO WATER



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File No.	Sub.	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	UTM	X	Y
RA 03917		PRO			PAN AMERICAN PETROLEUM CORP.	LE	RA 03917			6416.4	18S 27E	569019	3625660

(R=POD has been replaced and no longer serves this file, (quarters are 1=NW 2=NE 3=SW 4=SE)  
C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 03917

Sorted by: File Number

\*UTM location was derived from PLSS-- see Help

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7/16/12 9:55 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	(acre ft per annum)	basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	0416.4	Sec	Tws	Rng	X	Y	
RA 04211			PRO			JOHN H. TRIGG	CH	RA 04211			Shallow	3	1	28	18S	27E	566512	3620562

(R=POD has been replaced  
and no longer serves this file; (quarters are 1=NW 2=NE 3=SW 4=SE)  
C=the file is closed) (quarters are smallest to largest) (NAD83 UTM in meters)

Record Count: 1

POD Search:

POD Number: RA 04211

Sorted by: File Number

\*UTM location was derived from PLSS--see Help

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7/16/12 10:04 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

Sub (acre ft per annum)

WR File Nbr: basin Use (Diversion) Owner: County POD Number Code Grant Source 6416 4 Sec Tws Rng X Y

RA 05524 STK 3 RAYMOND NETHERLIN ED RA 05524 Shallow 2 4 33 18S 27E 567721 3618532

Record Count: 1

POD Search:

POD Number: RA 05524

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 10:05 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

WR File Nbr	Sub	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q	1	2	3	4	Sec	Twp	Rng	X	Y
RA 05664			EXP		O. YATES DRILLING COMPANY		RA 05664			Artesian	4	1	33	18S	27E	566914	3618936*			
RA 05664	EXPL		OBS		YATES DRILLING COMPANY		RA 05664			Artesian	4	1	33	18S	27E	566914	3618936*			

Record Count: 2

POD Search:

POD Number: RA 05664

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

Sub: (quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

WR File No: RA 05660 Basin Use Diversion Owner: PRO INC. READ & STEVENS County POD Number: ED RA 05660 Code Grant: Source: 6416 4 Sec: 17s Rng: 18S 27E 564094 3618090

Record Count: 1

POD Search:

POD Number: RA 05660

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 10:07 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



# New Mexico Office of the State Engineer

## Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

WR File Nbr	Basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	Q	16	4	Sec	Tws	Ring	X	Y
RA 06091		PRO		O. YATES PETROLEUM CORPORATION	ED	RA 06091			Shallow	1	2	3	29	18S	27E	565211	3620222

Record Count: 1

POD Search:

POD Number: RA 06091

Sorted by: File Number

\*UTM location was derived from PLSS - see Help

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7/16/12 10:09 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



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

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is

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

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	POD Code	Subbasin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 01142.POD1	L	LE		2	4	15	18S	28E		578921	3623453*	80		
L 01150.POD1	L	LE		1	1	35	18S	28E		579344	3619433*	135	65	70
RA 09588		ED		1	2	33	18S	28E		576976	3619384*	300		

Average Depth to Water: 65 feet

Minimum Depth: 65 feet

Maximum Depth: 65 feet

Record Count: 3

PLSS Search:

Township: 18S

Range: 28E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/13/12 3:50 PM

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WATER COLUMN/AVERAGE  
DEPTH TO WATER



---

*New Mexico Office of the State Engineer*  
**Active & Inactive Points of Diversion**  
(with Ownership Information)

---

No PODs found.

POD Search:

POD Number: RA-01150.POD1

---

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/16/12 10:11 AM

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ACTIVE & INACTIVE POINTS OF DIVERSION



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

(A CLW##### in the  
POD suffix indicates the  
POD has been replaced  
& no longer serves a  
water right file.)

(R=POD has  
been replaced,  
O=orphaned,  
C=the file is

closed)

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

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD			Q Q Q					Depth Depth Water			
POD Number	Code	Subbasin	County	64 16 4	Sec	Tws	Rng	X	Y	Well	Water Column
CP.00863			ED	1	4	2	27 18S	29E	588341	3620768*	320

Average Depth to Water: --

Minimum Depth: --

Maximum Depth: --

Record Count: 1

## PLSS Search:

Township: 18S

Range: 29E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

7/13/12 3:51 PM

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WATER COLUMN/AVERAGE  
DEPTH TO WATER

**USGS 325122104151001 17S.27E.11.12311**

Available data for this site

Groundwater: Field measurements

[GO](#)

Eddy County, New Mexico

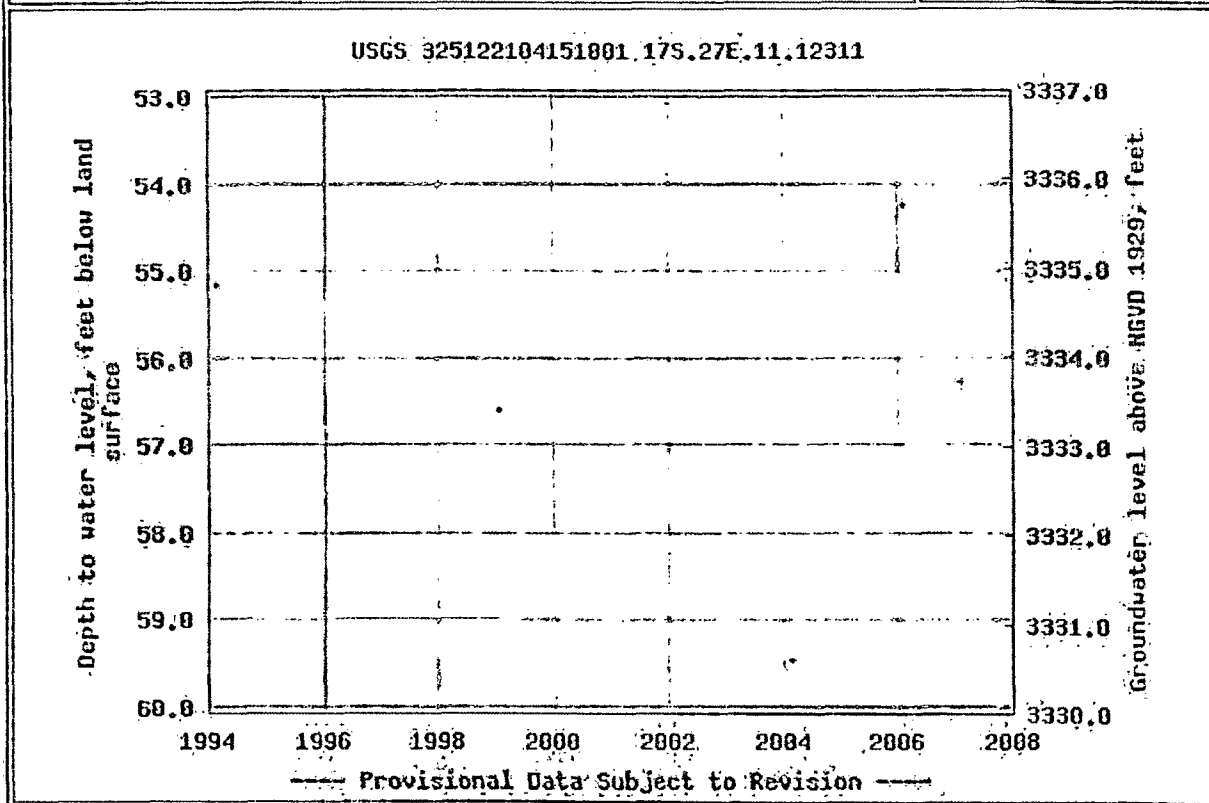
Hydrologic Unit Code 13060011

Latitude 32°51'22", Longitude 104°15'10" NAD27

Land-surface elevation 3,390 feet above NGVD29

The depth of the well is 100.00 feet below land surface.

This well is completed in the Artesia Group (313ARTS) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

**USGS 324855104093101 17S.28E.22.34242**

Available data for this site

Groundwater: Field measurements

Eddy County, New Mexico

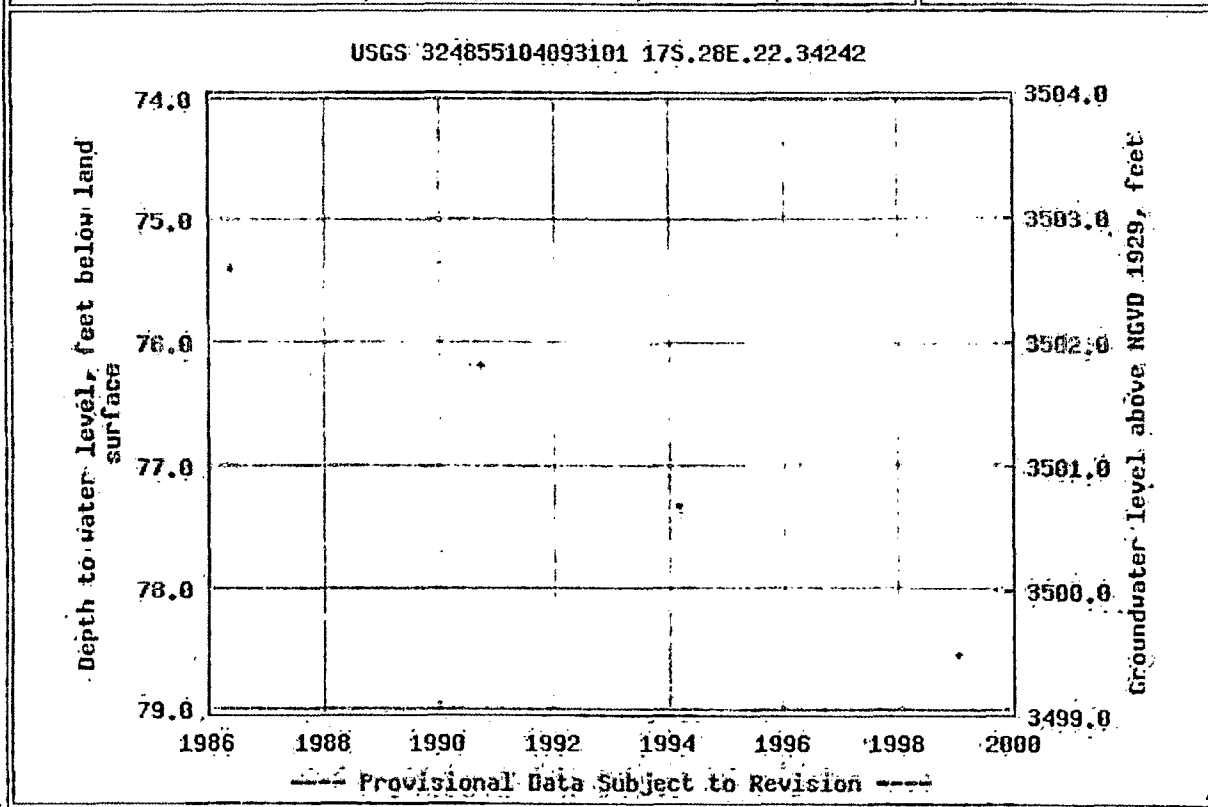
Hydrologic Unit Code 13060011

Latitude 32°48'55", Longitude 104°09'31" NAD27

Land-surface elevation 3,578 feet above NGVD29

The depth of the well is 95.00 feet below land surface.

This well is completed in the Alluvium, Bolson Deposits and Other Surface Deposits (110AVMB) local aquifer.

**Output formats**[Table of data](#)[Tab-separated data](#)[Graph of data](#)[Reselect period](#)

**USGS 324424104103901 18S.28E.21.21212**

Available data for this site

Groundwater: Field measurements

[GO]

Eddy County, New Mexico

Hydrologic Unit Code 13060011

Latitude 32°44'24", Longitude 104°10'39" NAD27

Land-surface elevation 3,580 feet above NGVD29

The depth of the well is 250.00 feet below land surface.

This well is completed in the Artesia Group (313ARTS) local aquifer.

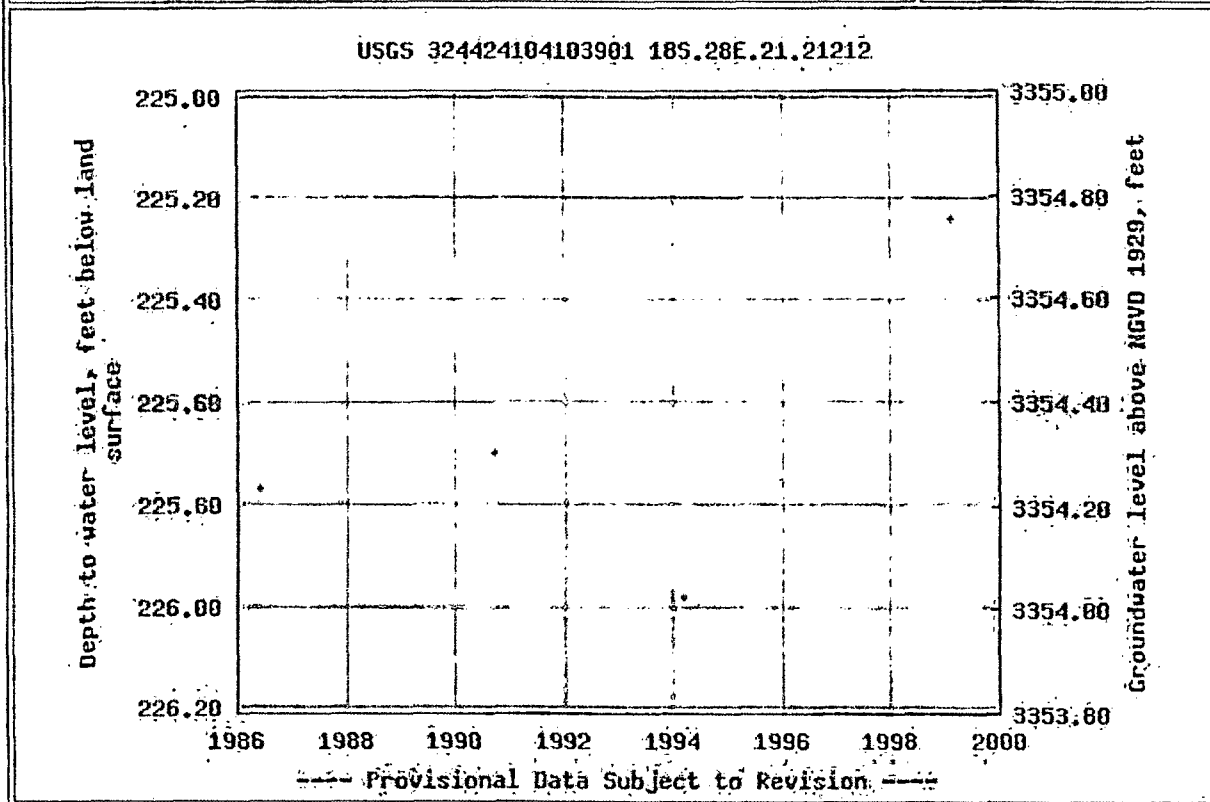
**Output formats**

Table of data

Tab-separated data

Graph of data

Reselect period



# Appendix E

Final Form C-141

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

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 Corp.	Contact	Bruce Baker
Address	PO BOX 1849, Eunice, NM 88231	Telephone No.	(575) 394-1503
Facility Name	Geronimo 28 State #1	Facility Type	Production Well
Surface Owner	Unknown	Mineral Owner	State
		API No.	30-015-31829

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	17S	28E	1500	FSL	1800	FEL	Eddy

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

### NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	5 bbls	Volume Recovered	0 bbls
Source of Release	Water Line	Date and Hour of Occurrence	8/24/11	Date and Hour of Discovery	8/24/11 12 pm
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

Water line leaked between the Red Lake Battery and the Geronimo well. Line was repaired and remediation began.

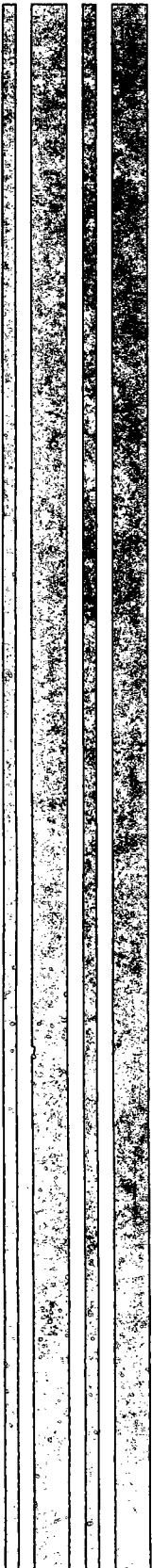
Describe Area Affected and Cleanup Action Taken.\*

The leak affected 11,052 ft<sup>2</sup> of pasture land adjacent to a lease road. Impacted soils were removed to a NMOCD approved disposal facility. Soil samples were collected from the 1 ft. deep excavation and sent to a commercial laboratory for confirmation of chloride and TPH. The site was backfilled with clean topsoil and contoured to the surrounding area.

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

Signature: <i>Bruce Baker</i>		<u>OIL CONSERVATION DIVISION</u>	
Printed Name: Bruce Baker		Approved by District Supervisor:	
Title: <i>Environmental Tech</i>	Approval Date:	Expiration Date:	
E-mail Address: <i>Larry.baker@apachecorp.com</i>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: <i>8-1-13</i>	Phone: (575) 394-1503		

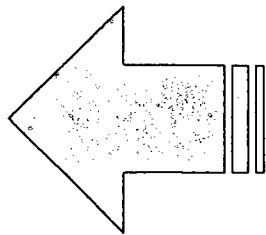
\* Attach Additional Sheets If Necessary



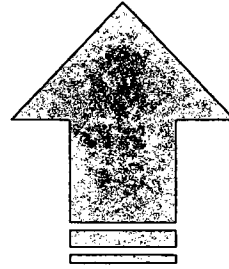
This is a Patch T type separator sheet.



Form Type = "Well file form"  
CODE128 type barcode



Landscape Feed  
*New Form Follows...*



Portrait Feed  
*New Form Follows...*

This is a Patch T type separator sheet.



Form Type = "Well file form"  
CODE128 type barcode

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 Corp.	Contact	Bruce Baker
Address	PO BOX 1849, Eunice, NM 88231	Telephone No.	(575) 394-1503
Facility Name	Geronimo 28 State #1	Facility Type	Production Well
Surface Owner	Unknown	Mineral Owner	State
		API No. 30-015-31829	

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	28	17S	28E	1500	FSL	1800	FEL	Eddy

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

#### NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	5 bbls	Volume Recovered	0 bbls
Source of Release	Water Line	Date and Hour of Occurrence	8/24/11	Date and Hour of Discovery	8/24/11 12 pm
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	Date and Hour				
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			
If a Watercourse was Impacted, Describe Fully.*					
Describe Cause of Problem and Remedial Action Taken.* Water line leaked between the Red Lake Battery and the Geronimo well. Line was repaired and remediation began.					
Describe Area Affected and Cleanup Action Taken.* The leak affected 11,052 ft <sup>2</sup> of pasture land adjacent to a lease road. Impacted soils were removed to a NMOCD approved disposal facility. Soil samples were collected from the 1 ft. deep excavation and sent to a commercial laboratory for confirmation of chloride and TPH. The site was backfilled with clean topsoil and contoured to the surrounding area.					
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.					
Signature: <i>Bruce Baker</i>		OIL CONSERVATION DIVISION			
Printed Name: Bruce Baker		Approved by District Supervisor: <i>[Signature]</i>			
Title: <i>Environmental Tech</i>		Approval Date: <i>4/20/15</i>		Expiration Date: <i>N/A</i>	
E-mail Address: <i>Larry.baker@apachecorp.com</i>		Conditions of Approval: <i>Fixed</i>		Attached <input type="checkbox"/>	
Date: <i>8-1-13</i>		Phone: (575) 394-1503			

\* Attach Additional Sheets If Necessary

2RP-2958