

DATE IN 12/10/12	SUSPENSE	ENGINEER WVT	LOGGED IN	TYPE SWD B80	APP NO. DWOS 1300457122
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

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



APACHE CORP.

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☒ Offset Operators, Leaseholders or Surface Owner

[C] ☒ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
 U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Catanach
 Print or Type Name

Signature

Date

David Catanach

12/10/12

Agent-Apache Corporation
 Title

drcatanach@netscape.com
 E-Mail Address

December 10, 2012

Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attention: Ms. Jami Bailey, CPG
Division Director

Re: Form C-108
Apache Corporation
Washington 34 State SWD No. 2
API No. (Not Yet Assigned)
590' FSL & 1705' FWL, Unit N
Section 34, T-17S, R-28E, NMPM,
Eddy County, New Mexico

Dear Ms. Bailey,

Enclosed please find a Division Form C-108 (Application for Authorization to Inject) for the Apache Corporation Washington 34 State SWD No. 2. Apache Corporation proposes to drill and utilize this well as a produced water disposal well, injection to occur into the Devonian and Ellenburger formations through the perforated interval from approximately 11,504 feet to 12,700 feet. Produced water from the Glorieta and Yeso formations originating from Apache Corporation operated wells in this area will be injected into the well.

I believe that all the information necessary to approve the application is enclosed. If additional information is needed, please contact me at (505) 690-9453.

Sincerely,



David Catanach-Agent
Apache Corporation
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705

Xc: OCD-Artesia

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance X Disposal Storage
Application qualifies for administrative approval? X Yes No
- II. OPERATOR: Apache Corporation (OGRID-873)
ADDRESS: 303 Veterans Airpark Lane, Suite 3000 Midland, Texas 79705
CONTACT PARTY: David Catanach-Agent PHONE: (505) 690-9453
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes X No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: David Catanach TITLE: Agent-Apache Corporation
SIGNATURE: David Catanach DATE: 12/10/12
E-MAIL ADDRESS: drcatanach@netscape.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108 Application
Apache Corporation
Washington 34 State SWD No. 2
590' FSL & 1705' FWL (Unit N)
Section 34, T-17S, R-28E, NMPM
Eddy County, New Mexico

- I. The purpose of the application is to request approval to utilize the proposed Washington 34 State SWD No. 2 as a produced water disposal well. This is a new well to be drilled for injection.
- II. Apache Corporation
303 Veterans Airpark Lane
Suite 3000
Midland, Texas 79705
Contact Party: David Catanach (505) 690-9453
- III. Injection well data sheet and wellbore schematic diagram showing the proposed wellbore configuration is attached.
- IV. This is not an expansion of an existing project.
- V. Attached is a map that identifies all wells/leases within a 2-mile radius of the proposed water disposal well and a map that identifies the ½ mile "Area of Review" ("AOR").
- VI. A listing of all wells within the AOR, including API No., operator, well name & number, well type and status, well location, and total depth is attached. An examination of the AOR well listing shows that no well within the AOR penetrates the proposed injection interval.
- VII.
 1. The average injection rate is anticipated to be approximately 4,000 BWPD. The maximum rate will be approximately 15,000 BWPD. If the average or maximum rates increase in the future, the Division will be notified.
 2. This will be a closed system.
 3. Apache Corporation will initially inject water into the subject well at or below a surface injection pressure that is in compliance with the Division's limit of 0.2 psi/ft., or approximately 2,300 psi. If a surface injection pressure above 2,300 psi is necessary, Apache will conduct a step rate injection test to determine the fracture pressure of the Devonian and Ellenburger formations in this area.

4. Produced water from the Glorieta and Yeso formations originating from Apache Corporation operated wells in this area will be injected into the subject well. Attached is a water analysis from Apache's Barnsdall Federal Well No. 9 which produces from the East Empire Glorieta-Yeso Pool, and a water analysis from Apache's Barnsdall Federal Well No. 17 which produces from the Bear Grass Draw Glorieta-Yeso Pool.
5. The Devonian and Ellenburger formations are not productive within one mile of the Washington 34 State SWD No. 2, and consequently, formation water samples are not available. The Devonian and Ellenburger formations are productive in numerous locations in Eddy and Lea Counties, and literature indicates that the water present in these formations is highly saline.

- VIII. Geologic Formation: Devonian
 Estimated Top: 11,504'
 Thickness: 1,000'
 Lithology: Dolomitic Limestone/Limestone
- Geologic Formation: Ellenburger
 Estimated Top: 12,504'
 Thickness: 200'
 Lithology: Dolomitic Limestone/Limestone
- USDW's: According to data obtained from the New Mexico
 State Engineer, there is fresh water present in this
 area at a depth of approximately 55 feet.
- IX. If necessary, the well will be stimulated with a mild acid job.
- X. Logs will be filed subsequent to the completion of drilling operations.
- XI. Attached is a water analysis from a fresh water well located within one mile of the Washington 34 State SWD No. 2.
- XII. Affirmative statement is enclosed.
- XIII. Proof of Notice is enclosed.

INJECTION WELL DATA SHEET

OPERATOR: Apache Corporation

WELL NAME & NUMBER: Washington 34 State SWD No. 2 (API No. N/A)

WELL LOCATION:	590' FSL & 1705' FWL	N	34	17 South	28 East
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attached Wellbore Schematic

WELL CONSTRUCTION DATA (PROPOSED)

Surface Casing

Hole Size: 17 1/2" Casing Size: 13 3/8" @ 500'

Cemented with: 580 Sx. or ft³

Top of Cement: Surface Method Determined: Circulate

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8" @ 4,500'

Cemented with: 1400 Sx. or ft³

Top of Cement: Surface Method Determined: Circulate

Production Casing

Hole Size: 8 3/4" Casing Size: 7" @ 12,700'

Cement with: 1st Stage-280 sx. DV Tool @ 11,000' ft³
 2nd Stage-820 sx. or

Top of Cement: 3,000' Method Determined: Calculated

Total Depth: 12,700'

Injection Interval

Perforated Interval -11,504'- 12,700'

INJECTION WELL DATA SHEET

Tubing Size: 4 1/2" Lining Material: Duo Lined (Extruded Thermoplastic)

Type of Packer: Model A Lockset Injection Packer

Packer Setting Depth: 11,404' or within 100' of the uppermost injection perforations

Other Type of Tubing/Casing Seal (if applicable): None

Additional Data

1. Is this a new well drilled for injection: X Yes No

If no, for what purpose was the well originally drilled: _____

2. Name of the Injection Formation: Devonian & Ellenburger

3. Name of Field or Pool (if applicable): N/A

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.

None

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Artesia Queen-Grayburg-San Andres Pool (2,500'); Artesia Glorieta-Yeso Pool (4,200'); Empire-Abo Pool (6,200')

Empire-Penn Gas Pool (10,600');

~~2200~~
~~2200~~

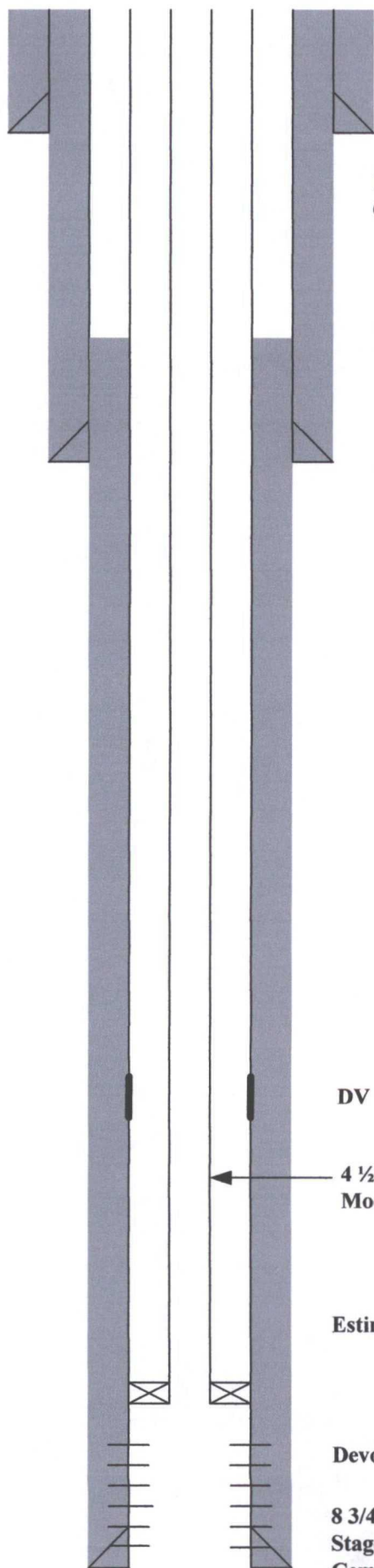
Proposed Wellbore Configuration

Apache Corporation
Washington 34 State SWD No. 2

API No. N/A

590' FSL & 1705' FWL (Unit N)

Section 34, T-17 South, R-28 East, NMPM



17 1/2" Hole; Set 13 3/8" 48# H-40 Csg @ 500'
Cement w/580 Sx. Circulate cement to surface.

TOC @ 3,000' (Proposed)

12 1/4" Hole; Set 9 5/8" 40# J-55 Csg @ 4,500'
Cement w/1400 Sx. Circulate cement to surface.

DV Tool @ 11,000'

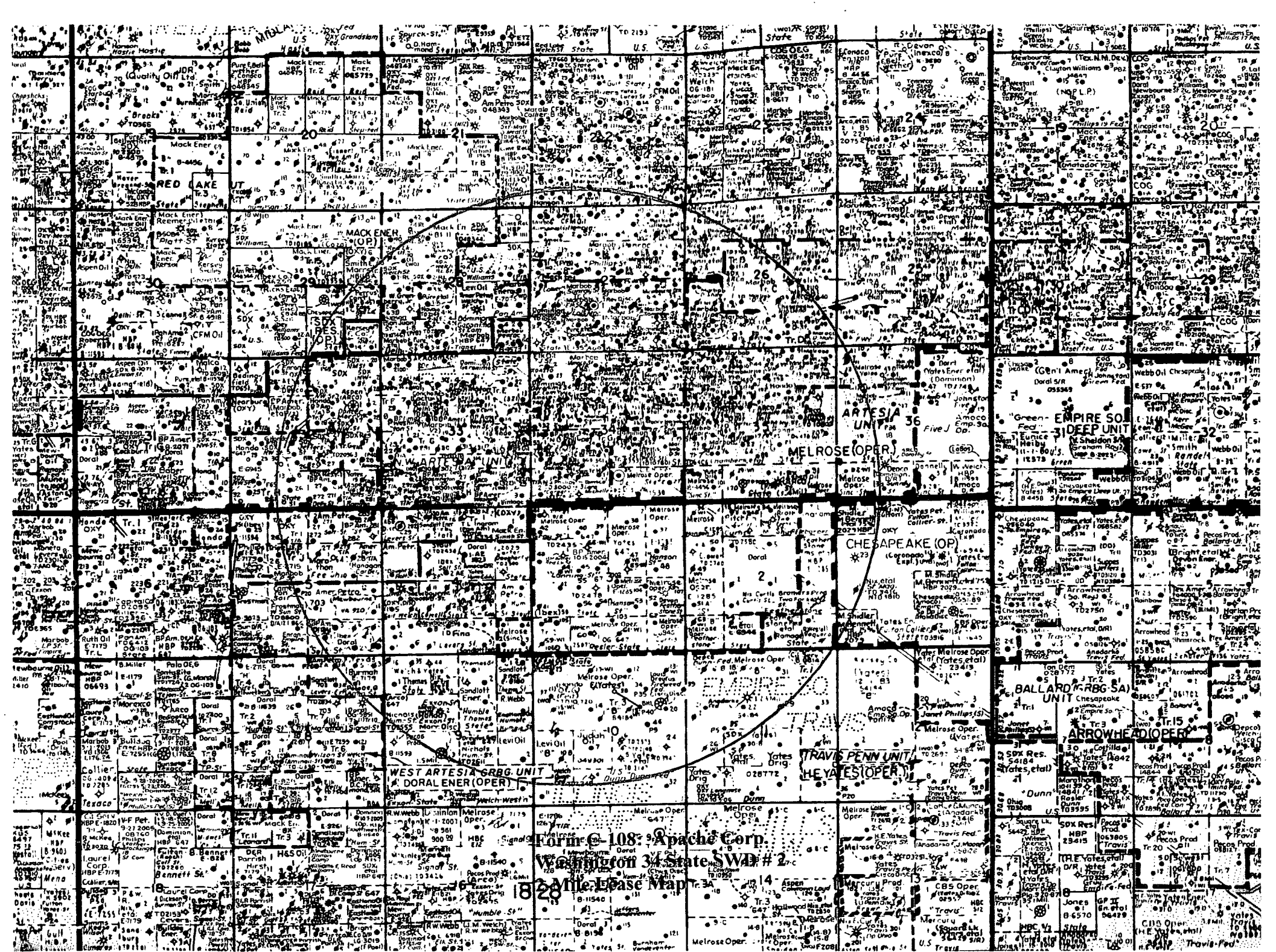
4 1/2" Duo-Lined Injection Tubing set in a
Model A Lockset Packer @ 11,404'

Estimated Formation Tops: Devonian: 11,504'
Ellenburger: 12,504'

Devonian & Ellenburger Perforations: 11,504'-12,700'

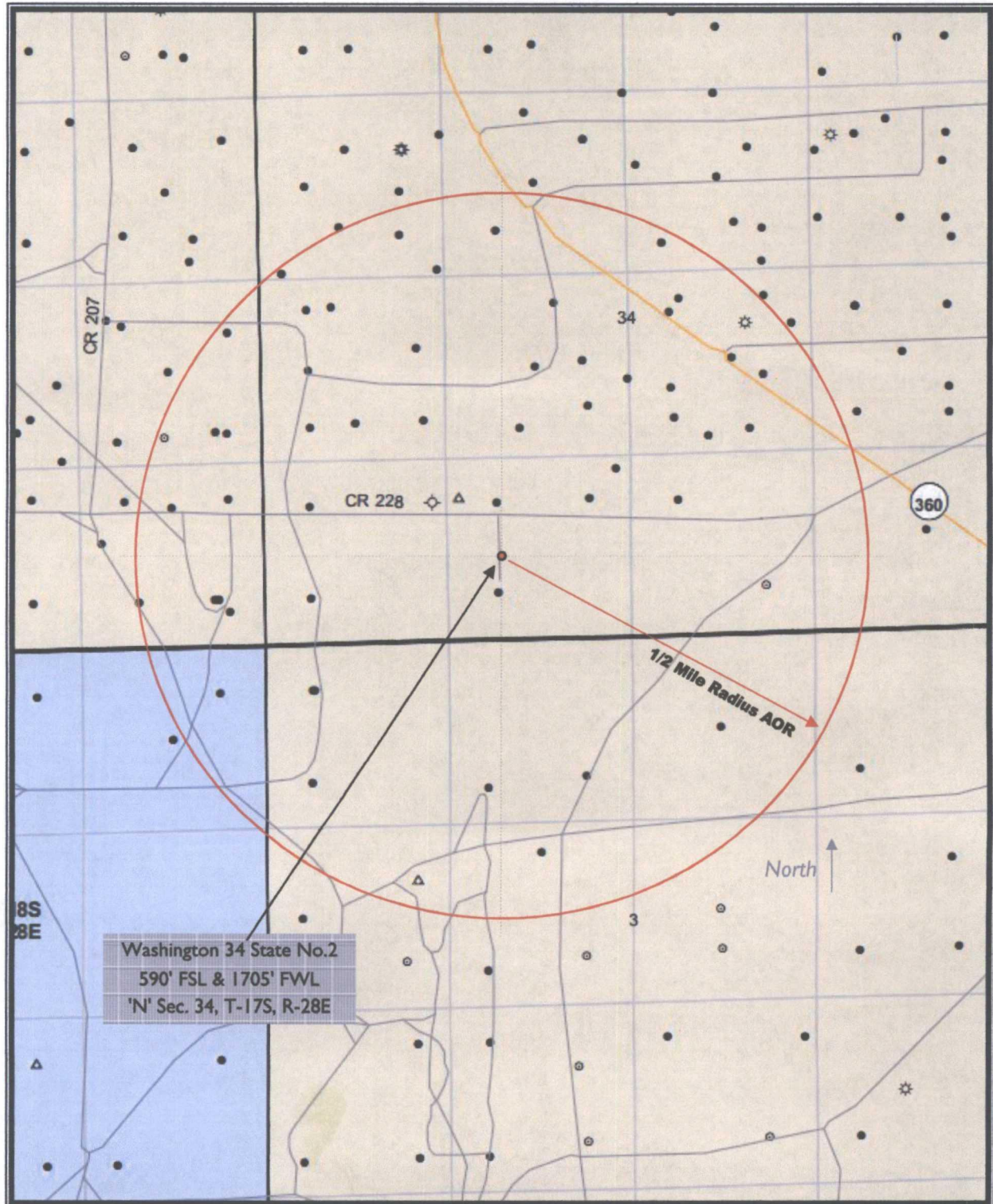
8 3/4" Hole; Set 7" 26# L-80 & HCL-80 Csg. @ 12,700'
Stage Cement: 1st-280 Sx. 2nd-820 Sx. DV Tool @ 11,000'
Cement to a depth of 3,000'

T.D. 12,700'



C-108 - Item V
Area of Review Map

Washington 34 State SWD No.2



APACHE CORPORATION
FORM C-108: WASHINGTON 34 STATE SWD NO. 2
AREA OF REVIEW WELL LIST

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP.	RNG.	DATE DRILLED	TOTAL DEPTH
30-015-01703	Arco Oil & Gas Co.	Empire Abo Unit	35	P	PA	969'	S	2274'	E	O	34	17S	28E		6,299'
30-015-01708	Quantum Resources	Artesia Unit	26	P	Active	330'	S	1650'	E	O	34	17S	28E		2,399'
30-015-01713	BP America Prod. Co.	Empire Abo Unit	34B	P	PA	972'	S	1650'	W	N	34	17S	28E		6,332'
30-015-01722	N. G. Phillips	Carper Levers	3	P	PA	330'	S	1650'	W	N	34	17S	28E		2,312'
30-015-22912	BP America Prod. Co.	Empire Abo Unit	341C	P	PA	1200'	S	2500'	W	N	34	17S	28E		6,360'
30-015-24910	COG Operating, LLC	Lara Michelle	1	P	Active	990'	S	2310'	W	N	34	17S	28E		3,840'
30-015-29344	Apache Corp.	Washington 34	1	SWD	Active	1017'	S	1379'	W	N	34	17S	28E		10,950'
30-015-01705	Legacy Reserves Op. LP	Carper Levers	2	P	Active	330'	S	330'	W	M	34	17S	28E		2,403'
30-015-01712	BP America Prod. Co.	Empire Abo Unit	33B	P	PA	975'	S	330'	W	M	34	17S	28E		6,337'
30-015-22418	COG Operating, LLC	Lara Michelle	3	P	Active	1000'	S	1200'	W	M	34	17S	28E		6,370'
30-015-01704	Phillip N. Gordon	Carper Levers	1	P	PA	2390'	S	330'	W	L	34	17S	28E		3,383'
30-015-01711	COG Operating, LLC	Lara Michelle St.	5	P	Active	1965'	S	330'	W	L	34	17S	28E		6,340'
30-015-21784	Apache Corp.	Empire Abo Unit	331A	P	Active	1580'	S	1140'	W	L	34	17S	28E		6,400'
30-015-22416	BP America Prod. Co.	Empire Abo Unit	332A	P	PA	1575'	S	660'	W	L	34	17S	28E		6,250'
30-015-22631	Apache Corp.	Empire Abo Unit	333A	P	Active	2100'	S	1100'	W	L	34	17S	28E		6,350'
30-015-22787	Arco Oil & Gas Co.	Empire Abo Unit	334	P	PA	2400'	S	500'	W	L	34	17S	28E		6,140'
30-015-24446	COG Operating, LLC	Lara Michelle	4	P	Active	1550'	S	330'	W	L	34	17S	28E		3,200'
30-015-01710	Arco Oil & Gas Co.	Empire Abo Unit	34	P	PA	1943'	S	1947'	W	K	34	17S	28E		6,130'
30-015-01721	Vintage Drilling, LLC	Carper Levers	4	P	PA	1650'	S	2310'	W	K	34	17S	28E		2,236'
30-015-21797	Apache Corp.	Empire Abo Unit	341	P	Active	1850'	S	2591'	W	K	34	17S	28E		6,400'
30-015-21964	Apache Corp.	Empire Abo Unit	342	P	Active	2400'	S	2080'	W	K	34	17S	28E		6,376'
30-015-22463	BP America Prod. Co.	Empire Abo Unit	343G	P	PA	1500'	S	1820'	W	K	34	17S	28E		6,353'
30-015-25493	COG Operating, LLC	Lara Michelle	2	P	Active	1980'	S	2270'	W	K	34	17S	28E		3,300'
30-015-01723	Quantum Resources	Artesia Unit	25	P	Active	1980'	S	1880'	E	J	34	17S	28E		2,324'
30-015-01763	Apache Corp.	Empire Abo Unit	35C	P	Active	2310'	S	2310'	E	J	34	17S	28E		6,380'
30-015-22123	Apache Corp.	Empire Abo Unit	351A	P	Active	1850'	S	1650'	E	J	34	17S	28E		6,365'
30-015-22865	BP America Prod. Co.	Empire Abo Unit	353A	P	PA	1420'	S	2050'	E	J	34	17S	28E		6,350'
30-015-26452	Quantum Resources	Artesia Unit	68	P	Active	2220'	S	1765'	E	J	34	17S	28E		3,121'
30-015-30185	SDX Resources, Inc.	Artesia Unit	80	P	ND	1770'	S	2310'	E	J	34	17S	28E		N/A
30-015-40232	Apache Corp.	D State	87	P	NYD	1555'	S	2290'	E	J	34	17S	28E		4,800'
30-015-40233	Apache Corp.	D State	88	P	NYD	1460'	S	1755'	E	J	34	17S	28E		4,800'
30-015-40441	Apache Corp.	D State	85	P	NYD	2405'	S	2250'	E	J	34	17S	28E		4,800'

APACHE CORPORATION
M C-108: WASHINGTON 34 STATE SWD NO. 2
AREA OF REVIEW WELL LIST (PAGE 2)

[illegible]



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	64	16	4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
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L 06915	L	LE	1	1	3	02	18S	28E	579195	3626784*	125	55	70
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Average Depth to Water: 55 feet

Minimum Depth: 55 feet

Maximum Depth: 55 feet

Record Count: 1

PLSS Search:

Section(s): 2-4

Township: 18S

Range: 28E

**Form C-108: Apache Corp.
Washington 34 State SWD # 2
State Engineer-Fresh Water Data**

*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.

North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 513-9135
Area:	ARTESIA, NM	Sample #:	636261
Lease/Platform:	WASHINGTON STATE	Analysis ID #:	126761
Entity (or well #):	33-51	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 636261 @ 75 °F					
Sampling Date:	11/13/2012	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	11/28/2012	Chloride:	80.0	2.26	Sodium:	47.2	2.05
Analyst:	SANDRA GOMEZ	Bicarbonate:	192.2	3.15	Magnesium:	33.0	2.71
		Carbonate:	0.0	0.	Calcium:	101.0	5.04
TDS (mg/l or g/m3):	680.7	Sulfate:	220.0	4.58	Strontium:	3.0	0.07
Density (g/cm3, tonne/m3):	1.001	Phosphate:			Barium:	0.1	0.
Anion/Cation Ratio:	1.0000001	Borate:			Iron:	0.1	0.
		Silicate:			Potassium:	4.0	0.1
					Aluminum:		
Carbon Dioxide:	20 PPM	Hydrogen Sulfide:		0 PPM	Chromium:		
Oxygen:		pH at time of sampling:		7.8	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		7.8	Manganese:	0.060	0.
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ *2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.51	5.95	-1.22	0.00	-1.29	0.00	-1.05	0.00	0.58	0.00	0.04
100	0	0.61	8.06	-1.22	0.00	-1.22	0.00	-1.03	0.00	0.44	0.00	0.06
120	0	0.73	10.51	-1.21	0.00	-1.13	0.00	-1.00	0.00	0.33	0.00	0.08
140	0	0.85	13.66	-1.18	0.00	-1.02	0.00	-0.96	0.00	0.24	0.00	0.11

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

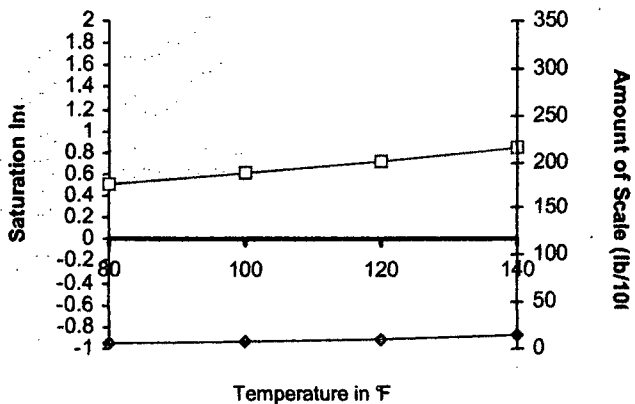
Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

**Form C-108: Apache Corp.
Washington 34 State SWD # 2
Fresh Water Analysis**

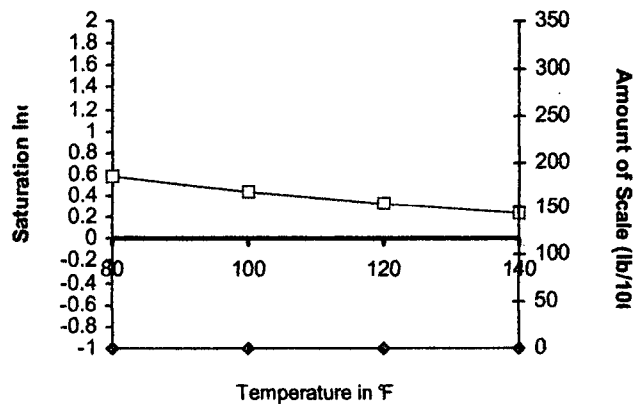
Scale Predictions from Baker Petrolite

Analysis of Sample 636261 @ 75 °F for APACHE CORPORATION, 11/28/2012

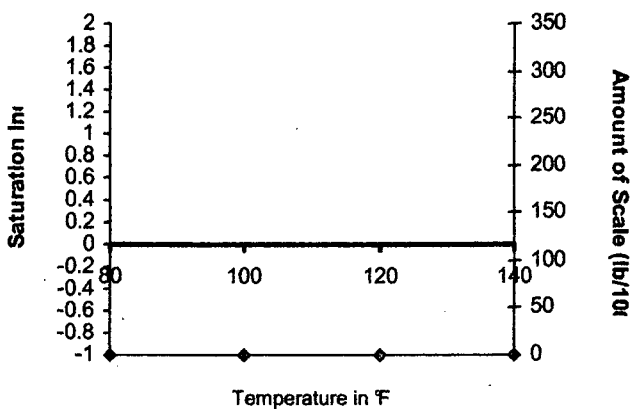
Calcite - CaCO_3



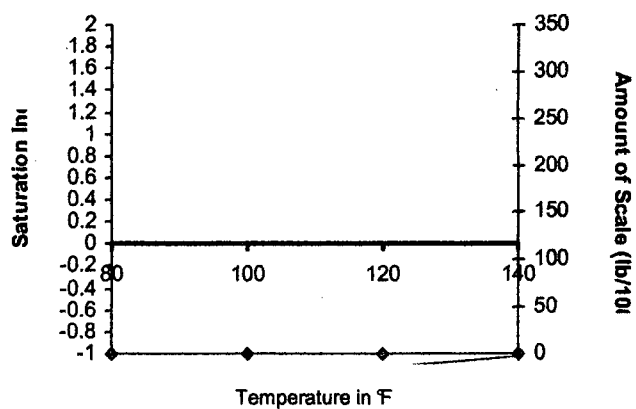
Barite - BaSO_4



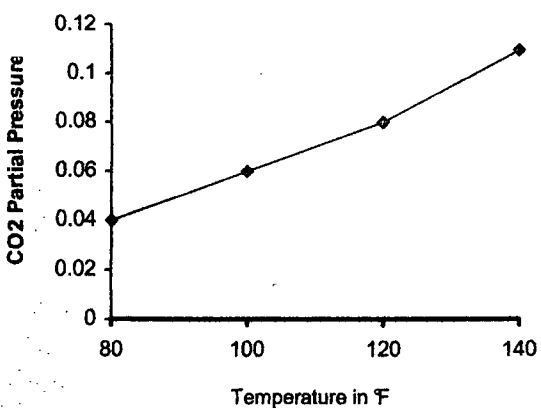
Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



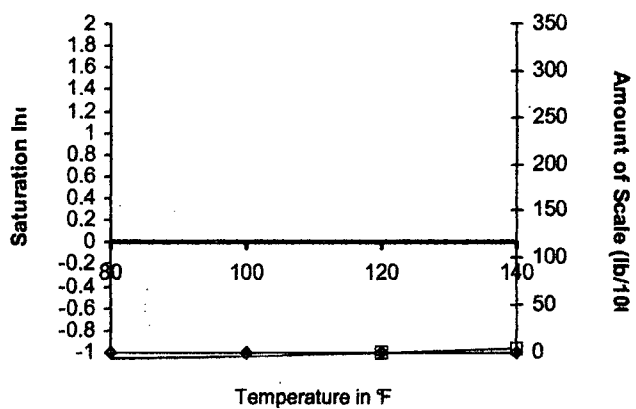
Anhydrite - CaSO_4



Carbon Dioxide Partial Pressure



Celestite - SrSO_4



North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	33514
Region:	PERMIAN BASIN	Account Manager:	REGGIE GUY (575) 513-9135
Area:	ARTESIA, NM	Sample #:	580738
Lease/Platform:	BARNSDALL FED	Analysis ID #:	119642
Entity (or well #):	9	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 580738 @ 75 °F					
Sampling Date:	04/13/12	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	04/26/12	Chloride:	56172.0	1584.41	Sodium:	35903.6	1561.72
Analyst:	STACEY SMITH	Bicarbonate:	939.4	15.4	Magnesium:	226.0	18.59
TDS (mg/l or g/m3):	99816	Carbonate:	0.0	0.	Calcium:	1973.0	98.45
Density (g/cm3, tonne/m3):	1.065	Sulfate:	4237.0	88.21	Strontium:	36.0	0.82
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.1	0.
		Borate:			Iron:	1.5	0.05
		Silicate:			Potassium:	327.0	8.36
Carbon Dioxide:	200 PPM	Hydrogen Sulfide:		221 PPM	Aluminum:		
Oxygen:		pH at time of sampling:		6.6	Chromium:		
Comments:		pH at time of analysis:			Copper:		
RESISTIVITY: .075 OHM-M @ 75°F		pH used In Calculation:		6.6	Lead:		
					Manganese:	0.400	0.01
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	0.53	71.15	-0.02	0.00	-0.05	0.00	0.00	0.00	0.57	0.00	1.91
100	0	0.63	85.77	-0.08	0.00	-0.03	0.00	-0.02	0.00	0.38	0.00	2.43
120	0	0.73	100.70	-0.12	0.00	0.01	18.74	-0.02	0.00	0.22	0.00	3
140	0	0.84	115.94	-0.15	0.00	0.07	167.09	-0.02	0.00	0.08	0.00	3.61

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

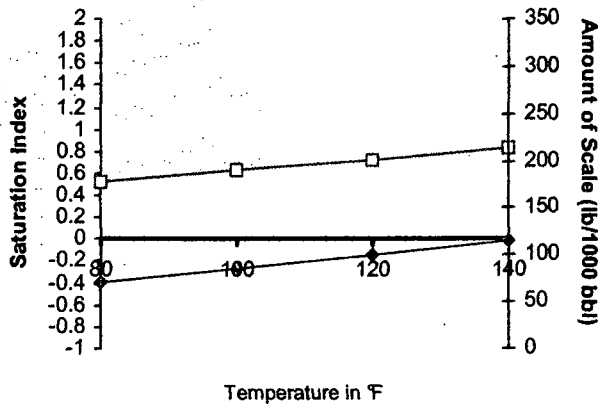
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO₂ pressure is actually the calculated CO₂ fugacity. It is usually nearly the same as the CO₂ partial pressure.

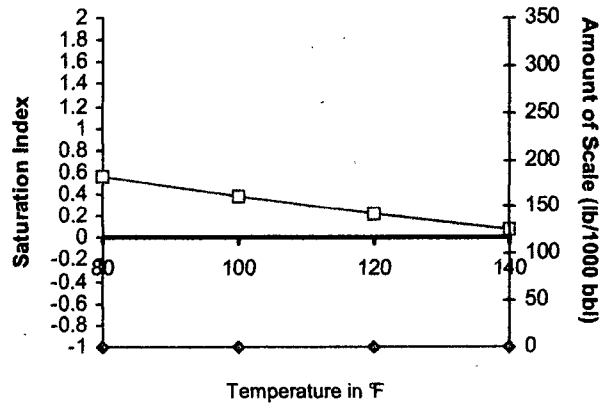
Scale Predictions from Baker Petrolite

Analysis of Sample 580738 @ 75 °F for APACHE CORPORATION, 04/26/12

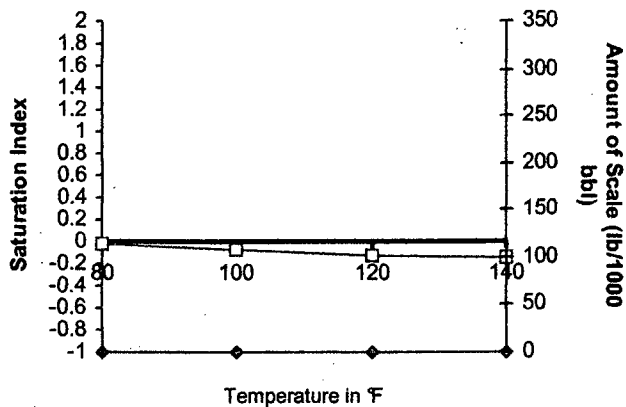
Calcite - CaCO_3



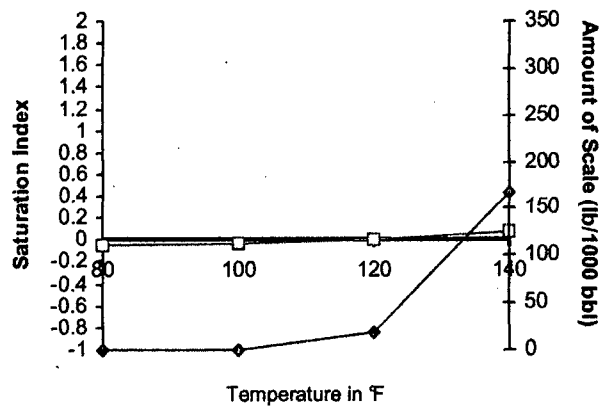
Barite - BaSO_4



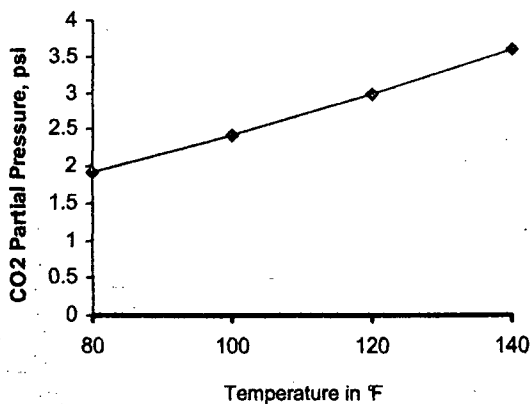
Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



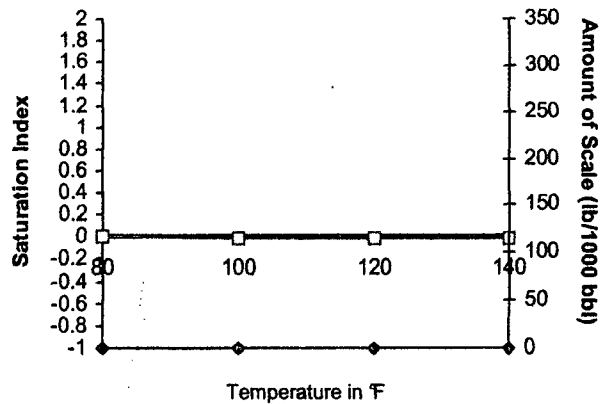
Anhydrite - CaSO_4



Carbon Dioxide Partial Pressure



Celestite - SrSO_4



North Permian Basin Region
P.O. Box 740
Sundown, TX 79372-0740
(806) 229-8121
Lab Team Leader - Sheila Hernandez
(432) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	33512
Region:	PERMIAN BASIN	Account Manager:	WAYNE PETERSON (575) 910-9389
Area:	LOCO HILL, NM	Sample #:	580725
Lease/Platform:	BARNSDALL FED	Analysis ID #:	118869
Entity (or well #):	17	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 580725 @ 75 °F					
Sampling Date:	03/28/12	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	04/05/12	Chloride:	141028.0	3977.89	Sodium:	72252.0	3142.78
Analyst:	LEAH DURAN	Bicarbonate:	73.2	1.2	Magnesium:	3784.0	311.29
		Carbonate:	0.0	0.	Calcium:	10305.0	514.22
TDS (mg/l or g/m3):	231342	Sulfate:	1906.0	39.68	Strontium:	267.0	6.09
Density (g/cm3, tonne/m3):	1.155	Phosphate:			Barlum:	0.2	0.
Anion/Catlon Ratio:	1	Borate:			Iron:	21.0	0.76
		Silicate:			Potassium:	1705.0	43.6
					Aluminum:		
Carbon Dioxide:	200 PPM	Hydrogen Sulfide:		0	Chromium:		
Oxygen:		pH at time of sampling:		6.2	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		6.2	Manganese:	0.600	0.02
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.14	0.00	0.19	352.34	0.23	323.47	0.21	59.14	0.19	0.00	0.29
100	0	-0.06	0.00	0.11	224.52	0.22	310.29	0.18	53.26	-0.01	0.00	0.35
120	0	0.02	0.28	0.05	98.11	0.23	325.43	0.17	50.17	-0.19	0.00	0.41
140	0	0.10	1.12	-0.01	0.00	0.27	363.55	0.17	49.61	-0.34	0.00	0.47

Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

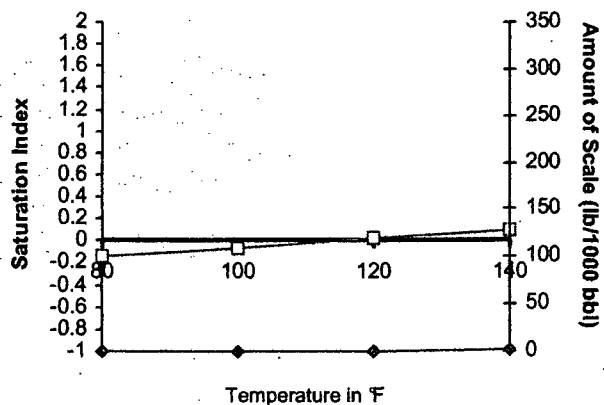
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

Note 3: The reported CO2 pressure is actually the calculated CO2 fugacity. It is usually nearly the same as the CO2 partial pressure.

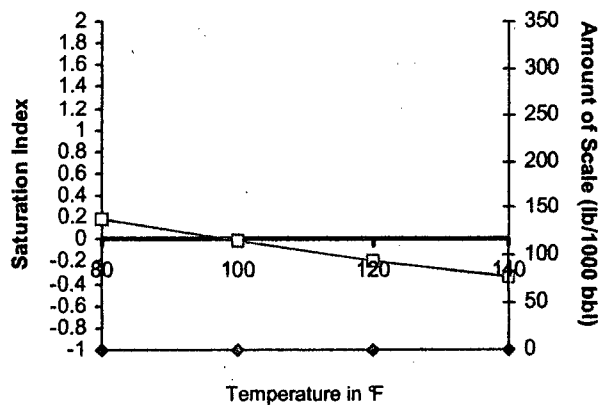
Scale Predictions from Baker Petrolite

Analysis of Sample 580725 @ 75 °F for APACHE CORPORATION, 04/05/12

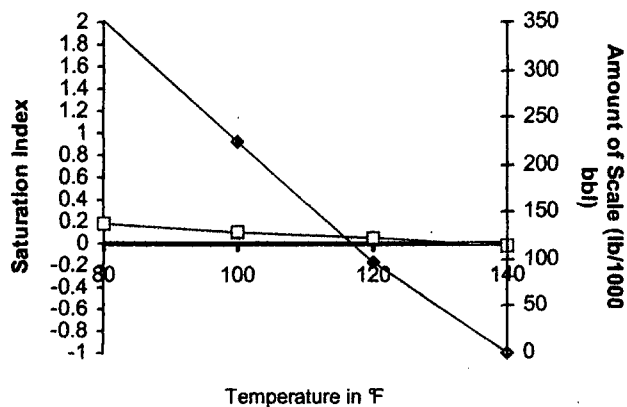
Calcite - CaCO_3



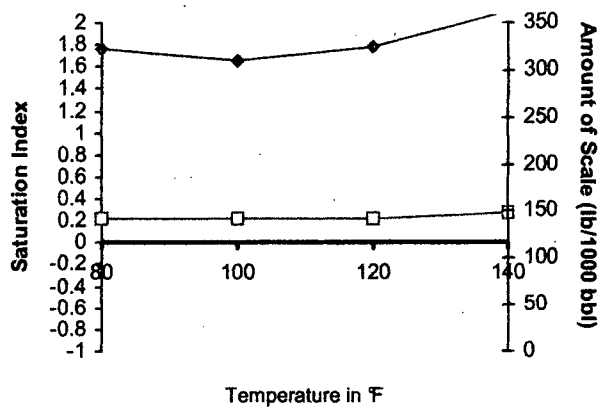
Barite - BaSO_4



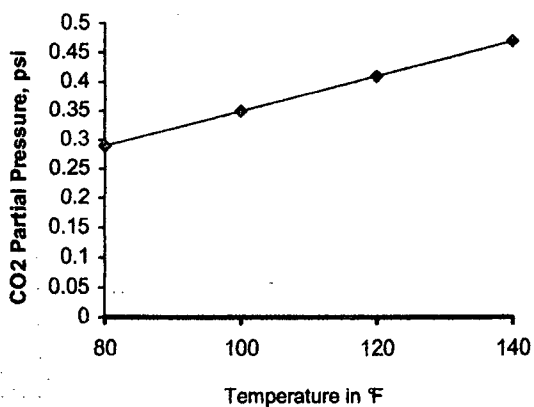
Gypsum - $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$



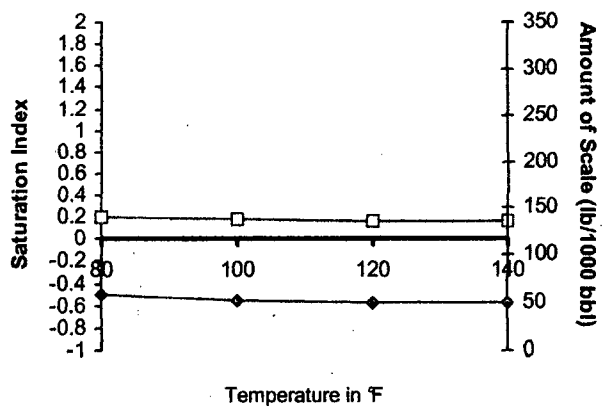
Anhydrite - CaSO_4



Carbon Dioxide Partial Pressure



Celestite - SrSO_4



Form C-108
Affirmative Statement
Apache Corporation
Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM,
Eddy County, New Mexico

Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.



David Catanach
Agent for Apache Corporation

12/10/12

Date

28 East

33

34

Tract 3

Tract 4

Tract 2

Tract 1

Tract 5

Tract 6

Tract 7

½ Mile

Washington 34
State SWD No. 2

Tract 11

Tract 9

Tract 8 3

Tract 12

Tract 10

17S

4

3

Apache Corporation

Form C-108: Washington 34 State SWD No. 2 Offset Leasehold Owner Tract Identification

Apache Corporation
Form C-108: Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (See Attached Map)

Tract No. 1

Leasehold Owners: (All depths below the base of the Abo Formation)

COG Operating, LLC
Concho Oil & Gas Company ✓
600 W. Illinois Ave.
One Concho Center
Midland, Texas 79701

Tract No. 2

Leasehold Owner: (All depths below 10,600')

Occidental Permian Ltd. Partnership ✓
P.O. Box 50250
Midland, Texas 79705

Tract No. 3

Leasehold Owner (All depths below the Abo Formation):

ZPZ Delaware I, LLC ✓
(A wholly owned subsidiary of Apache Corporation)

Tract No. 4

Leasehold Owner (All depths below 4,000'):

ZPZ Delaware I, LLC ✓

Michael Harrison Moore, Trustee of the Michael Harrison Moore 2006 ✓
Trust under Third Amendment and Restatement of the Moore Revocable
Trust dated 12/15/98
P.O. Box 51570
Midland, Texas 79710-1570

Richard Lyons Moore, Trustee of the Richard Lyons Moore 2006 ✓
Trust under Third Amendment and Restatement of the Moore Revocable
Trust dated 12/15/98
1150 North Carroll Avenue
Southlake, Texas 76092

Apache Corporation
Form C-108: Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (Page 2)

Tract No. 5

Leasehold Owners (All depths below 4,000'):

ZPZ Delaware I, LLC ✓

Tract No. 6

Leasehold Owner:

ZPZ Delaware I, LLC ✓

Marathon Oil Company
P.O. Box 552 ✓
Midland, Texas 79702

Khody Land & Minerals Company ✓
210 Park Avenue, Suite 900
Oklahoma City, Oklahoma 73102

Yates Industries LLC
P.O. Box 1091 ✓
Artesia, New Mexico 88211-1091

Sharbro Energy, LLC ✓
P.O. Box 840
Artesia, New Mexico 88211-0840

Tract 7

Leasehold Owners (All depths below the Abo Formation):

Apache Corporation ✓

ConocoPhillips Company ✓
P.O. Box 2197
Houston, Texas 77252

Chisos Ltd. ✓
670 Dona Ana Rd. SW
Deming, New Mexico 88030

Apache Corporation
Form C-108: Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (Page 3)

Tract 8

Leasehold Owner (All Depths):

McBride Oil & Gas Corporation
400 N. Pennsylvania Avenue
Roswell, New Mexico 88201 ✓

Tract 9

Leasehold Owners (All depths below the Abo Formation)

Occidental Permian Ltd. Partnership
P.O. Box 50250
Midland, Texas 79705 ✓

Marathon Oil Company
P.O. Box 552
Midland, Texas 79702 ✓

Khody Land & Minerals Company ✓
210 Park Avenue, Suite 900
Oklahoma City, Oklahoma 73102

Yates Industries LLC
P.O. Box 1091
Artesia, New Mexico 88211-1091 ✓

Sharbro Energy, LLC
P.O. Box 840
Artesia, New Mexico 882110840 ✓

Tract 10

Leasehold Owners (All depths below 4,500')

Nearburg Exploration Company LLC
P.O. Box 823085
Dallas, Texas 75382-3085 ✓

Pioneer Natural Resources USA, Inc. ✓
1400 Williams Square West
5205 N. O'Connor Blvd.
Irving, Texas 75039

Apache Corporation
Form C-108: Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (Page 4)

Tract 10 (Continued)

Kaywal, Inc
P.O. Box 1060
Roswell, New Mexico 88202 ✓

Marsha June Hickson
(Address Unknown)

Louetta Rowley Morton
(Address Unknown)

Sally Marie Morton
(Address Unknown)

Deborah Anne Morton
(Address Unknown)

✓
See
Newspaper
NOTICE

Tract 11

Leasehold Owners (All depths below the top of the Wolfcamp Formation):

The Dietz Family Revocable Trust 2001
5852 Tillicum Bay Road
B.C. Von 3A4

H & S Oil, LLC
P.O. Box 186
Artesia, New Mexico 88211 ✓

20 OUT of
County

Tract 12

Leasehold Owner (All depths below 10,396')

Oxy USA WTP Ltd. Partnership
6 Desta Drive, Suite 6000
Midland, Texas 79705 ✓

Surface Owner

Apache Corporation ✓

Additional Notice

Oil Conservation Division
811 S. First Street
Artesia, New Mexico 88210 ✓

December 10, 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO: OFFSET LEASEHOLD OWNERS

Re: Apache Corporation
Form C-108 (Application for Authorization to Inject)
Washington 34 State SWD No. 2
API No. N/A
590' FSL & 1705' FWL, Unit N, Section 34, T-17S, R-28E, NMPM,
Eddy County, New Mexico

Ladies & Gentlemen:

Enclosed please find a copy of Oil Conservation Division Form C-108 (Application for Authorization to Inject) for the Apache Corporation Washington 34 State SWD No. 2. You are being provided a copy of the application as an offset leaseholder. Apache Corporation proposes to drill the Washington 34 State SWD No. 2 and utilize the well as a produced water disposal well, injection to occur into the Devonian and Ellenburger formations through the perforated interval from approximately 11,504 feet to 12,700 feet.

Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

If you should have any questions, please contact me at (505) 690-9453.

Sincerely,



David Catanach-Agent
Apache Corporation
303 Veterans Airpark Lane, Suite 3000
Midland, Texas 79705

Enclosure

7012 0470 0001 5936 1648

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MIDLAND TX 79705

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Certified Fee		\$2.95
Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Postmark Here
 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Occidental Permian Ltd. Part.**
P.O. Box 50250
Midland, Texas 79705

PS Form 3800, August 2006 See Reverse for Instructions

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Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

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 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Richard Lyons Moore**
Trustee: Richard Lyons Moore 2006
Trust dated 12/15/98
1150 North Carroll Avenue
Southlake, Texas 76092

PS Form 3800, August 2006 See Reverse for Instructions

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Total Postage & Fees	\$	\$7.20

Postmark Here
 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Khody Land & Minerals Co.**
210 Park Avenue, Suite 900
Oklahoma City, Oklahoma 73102

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Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

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 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Concho Oil & Gas Company**
600 W. Illinois Ave.
On the Concho Center
Midland, Texas 79701

PS Form 3800, August 2006 See Reverse for Instructions

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Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Postmark Here
 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Michael Harrison Moore**
Trustee: Michael Harrison Moore
2006 Trust dated 12/15/98
P.O. Box 51570
Midland, Texas 79710-1570

PS Form 3800, August 2006 See Reverse for Instructions

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Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Postmark Here
 DEC 10 2012
 SANTA FE NM 87501
 CORONADO STATION

Sent To **Marathon Oil Company**
P.O. Box 552
Midland, Texas 79702

PS Form 3800, August 2006 See Reverse for Instructions

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ARTESIA NM 88211

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **Sharbro Energy, LLC**
P.O. Box 840
 Street, Apt. No., or PO Box No.
Artesia, New Mexico 88211-0840
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1594

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ARTESIA NM 88211

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **Yates Industries, LLC**
P.O. Box 1091
 Street, Apt. No., or PO Box No.
Artesia, New Mexico 88211-1091
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

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DEMING NM 88030

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **Chisos, Ltd.**
670 Donna Ana Road SW
 Street, Apt. No., or PO Box No.
Deming, New Mexico 88030
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

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HOUSTON TX 77252

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **ConocoPhillips Company**
P.O. Box 2197
 Street, Apt. No., or PO Box No.
Houston, Texas 77252
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1532

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ARTESIA NM 88211

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **H & S Oil, LLC**
P.O. Box 186
 Street, Apt. No., or PO Box No.
Artesia, New Mexico 88211
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

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ROSWEIL NM 88202

Postage	\$ 1.90
Certified Fee	\$ 2.95
Return Receipt Fee (Endorsement Required)	\$ 2.35
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 7.20

Sent To: **Kaywal, Inc.**
P.O. Box 1060
 Street, Apt. No., or PO Box No.
Roswell, New Mexico 88202
 City, State, ZIP+4

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1515

7012 0470 0001 5936 1495

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OFFICIAL USE

ROSWELL, NM 88201

Postage	\$	\$1.90
Certified Fee		\$2.95
Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Sent To **McBride Oil & Gas Corporation**
400 N. Pennsylvania Ave.
Roswell, New Mexico 88201

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
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For delivery information visit our website at www.usps.com

OFFICIAL USE

IRVING, TX 75039

Postage	\$	\$1.90
Certified Fee		\$2.95
Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Sent To **Pioneer Natural Resources, USA**
1400 Williams Square West
5205 N. O'Connor Blvd.
Irving, Texas 75039

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1525

7012 0470 0001 5936 1501

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OFFICIAL USE

MIDLAND, TX 79705

Postage	\$	\$1.90
Certified Fee		\$2.95
Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Sent To **Oxy USA WTP Ltd. Partnership**
6 Dosta Drive, Suite 6000
Midland, Texas 79705

PS Form 3800, August 2006 See Reverse for Instructions

U.S. Postal Service™
CERTIFIED MAIL™ RECEIPT
 (Domestic Mail Only; No Insurance Coverage Provided)

For delivery information visit our website at www.usps.com

OFFICIAL USE

DALLAS, TX 75382

Postage	\$	\$1.90
Certified Fee		\$2.95
Return Receipt Fee (Endorsement Required)		\$2.35
Restricted Delivery Fee (Endorsement Required)		\$0.00
Total Postage & Fees	\$	\$7.20

Sent To **Nearburg Exploration Company**
P.O. Box 823085
Dallas, Texas 75382-3085

PS Form 3800, August 2006 See Reverse for Instructions

Registered No.
 RE148249996US

Date Stamp
 0501
 01
 DEC 10 2012
 CORONADO STATION

To Be Completed By Post Office	Reg. Fee	\$11.75	To Be Completed By Customer (Please Print) All Entries Must Be in Ballpoint or Typist
	Handling Charge	\$0.00	
	Postage	\$2.25	
	Received by	<i>[Signature]</i>	
Customer Must Declare Full Value \$0.00		Domestic Insurance up to \$25,000 is included based upon the declared value. International Indemnity is limited. (See Reverse).	
OFFICIAL USE			
FROM		TO	
Apache Corp.		C.D. Family Revocable Trust	
303 Veterans Airpark Ln, Suite 3000		5852 Tillicum Bay Rd.	
Midland, Texas 79705		B.C. Van 3A4	

Form C-108
Apache Corporation
Washington 34 State SWD No. 2
Section 34, T-17 South, R-28 East, NMPM,
Eddy County, New Mexico

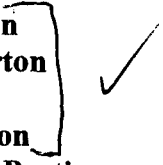
The following-described legal notice will be published in the:

Artesia Daily Press
503 W. Main Street
Artesia, New Mexico 88210-2067

The Affidavit of Publication will be forwarded to the Division upon receipt by Apache Corporation.

LEGAL NOTICE

TO: **Marsha June Hickson**
Louetta Rowley Morton
Sally Marie Morton
Deborah Anne Morton
All Other Interested Parties



Apache Corporation, 303 Veterans Airpark Lane, Suite 3000, Midland, Texas 79705 has filed a Form C-108 (Application for Authorization to Inject) with the Oil Conservation Division ("Division") seeking administrative approval to drill its proposed Washington 34 State SWD No. 2 (API No. N/A) located 590 feet from the South line and 1705 feet from the West line (Unit N) of Section 34, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico and complete the well as a produced water disposal well in the Devonian and Ellenburger formations. Injection is to occur through the perforated interval from approximately 11,504 feet to 12,700 feet.

Produced water from the Glorieta & Yeso formations originating from Apache Corporation operated wells in this area will be injected into the Washington 34 State SWD No. 2 at average and maximum rates of 4,000 and 15,000 barrels of water per day, respectively. The initial surface injection pressure for the well is anticipated to be at or below 2,300 psi., which is in compliance with Division regulations. The maximum surface injection pressure will be determined by step rate injection test.

Interested parties must file objections with the New Mexico Oil Conservation Division, 1220 S. St Francis Drive, Santa Fe, New Mexico 87505, within 15 days of the date of this publication.

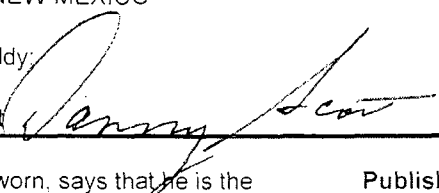
Additional information can be obtained by contacting Mr. David Catanach Agent-Apache Corporation at (505) 690-9453.

Affidavit of Publication

NO. 22397

STATE OF NEW MEXICO

County of Eddy:

Danny Scott 

being duly sworn, says that he is the Publisher

of the Artesia Daily Press, a daily newspaper of general circulation, published in English at Artesia, said county and state, and that the hereto attached

Legal Notice

was published in a regular and entire issue of the said Artesia Daily Press, a daily newspaper duly qualified for that purpose within the meaning of Chapter 167 of the 1937 Session Laws of the state of New Mexico for 1 Consecutive weeks/days on the same

day as follows:

First Publication December 9, 2012

Second Publication

Third Publication

Fourth Publication

Fifth Publication

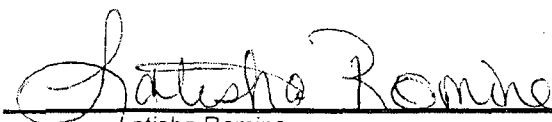
Subscribed and sworn to before me this

9th day of December 2012



OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO

My commission expires 8/12/2015



Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

LEGAL NOTICE

TO: Marsha June Hickson
Louetta Rowley Morton
Sally Marie Morton
Deborah Anne Morton
All Other Interested Parties

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Published in the Artesia Daily Press, Artesia, N.M., Dec. 9, 2012. Legal No 22397.

Injection Permit Checklist

First Email Date: _____

Final Reply Date: _____

Final Notice Date: 12/10/12Issued Permit: Type: WFX/PMX (SWD) Number: 1380Permit Date: 1/4/13

(Legacy Permit: _____)

Wells: 1Well Name(s): WASHINGTON 34 STATE SWD #2API Num: 30-015-NASpud Date: Not yetNew/Old: N

(UIC CI II Primacy March 7, 1982)

Footages: 590 FSL/1705 FWLLot: 1Unit: NSec: 34Tsp: 175Rge: 28ECounty: EDDY

General Location or Pool Area: _____

Operator: APACHE CORP.Contact: DAVID CATENACHOGRID: 873RULE 5.9 Compliance (Wells) 2/2123(Finan Assur) OKIS 5.9 OK? OKWell File Reviewed: ✓Current Status: NOT PermittedPlanned Work to Well: Permit / Drill / Equip / DisposeDiagrams: Before Conversion: ✓After Conversion: ✓Are Elogs in Imaging?: will be filed

Well Details:	Sizes		Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
	Hole.....	Pipe				
Planned <u>✓</u> or Existing <u> </u> Surface	17 1/2 - 13 3/8		500'	—	580 SX	CIRC
Planned <u>✓</u> or Existing <u> </u> Interm	12 1/4 - 9 5/8		4500'	—	1400 SX	CIRC
Planned <u>✓</u> or Existing <u> </u> LongSt	8 3/4 - 7		12700 TD	11000	280/820	3000' calc
Planned <u> </u> or Existing <u> </u> Liner						
Planned <u> </u> or Existing <u> </u> OpenHole						

Depths/Formations:

	Depths, Ft.	Formation	Tops?	
Above				
Above	11504	DEV	✓	
Proposed Interval TOP:	11504	DEV		Max. PSI 2301
Proposed Interval BOTTOM:	12700	ELEN.		Open hole — Perfs ✓
Below	12504	ELEN.	✓	Tubing Size 4 1/2 Packer Depth 11404
Below				

also see SWD-710 (ACTIVE)
30-015-29344 7378-9223 U.S.
located in THIS Q-Q
(at 3000 B WPD)

Capitan Reef? (in /thru) Potash? Noticed? [WIPP? Noticed?] Salado Top Bot Cluff House?

Fresh Water: Max Depth: 55'

FW Formation: _____

Wells? yesAnalysis? ✓Affirmative Statement ✓Disposal Fluid: Formation Source(s) GWR / yesOn Lease Only from Operator: ✓or Commercial Disposal Interval: Protectable Waters? NOH/C Potential: Log /Mudlog /DST /Tested /Depleted Other: DEV ProductionNOT WITHIN 1 mileNotice: Newspaper Post Date: 12/9/12Surface Owner: APACHE CORPN. Date: 12/10/12RULE 26.7(A) Affected Persons: See LISTN. Date: 12/10/12AOR: Maps? ✓Well List? ✓Producing in Interval? NOFormerly Produced in Interval? NOPenetrating.....No. Active Wells 0 Num Repairs? 0 on which well(s)? Penetrating.....No. P&Aed Wells 0 Num Repairs? 0 on which well(s)? Diagrams? Permit Conditions: MUDLOGIssues: Enpro; Barnett Gas Pool ≈ 1.5 mi to NWIssues: ILLINOIS CAMP; CHATEAU, N Gas Pool ≈ 2.5 mi to S.Issues: