DATE 11/29/12	SUSPENSE	ENGINEER WVJ	LOGGED IN	TYPE SWD 1379	APP NO. pWVJ1300359483

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505

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]

APACHE CORP.
BARNSDALL FEDERAL SWD #1
API # 30-015-NA
~11840' - 13,000'
DEV/ELL
2368

[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	David Catanach	Agent-Apache Corporation
Print or Type Name	Signature	Title
11/28/12		drcatanach@netscape.com
Date		E-Mail Address

November 28, 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
Barnsdall Federal SWD No. 1
API No. (Not Yet Assigned)
330' FNL & 1880' FEL, Unit B
Section 27, T-17S, R-29E, 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 Barnsdall Federal SWD No. 1. 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 11,840 feet to 13,000 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

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

Xc: OCD-Artesia

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

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: 11/28/12

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: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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
Barnsdall Federal SWD No. 1
330' FNL & 1880' FEL (Unit B)
Section 27, T-17S, R-29E, NMPM
Eddy County, New Mexico

I. The purpose of the application is to request approval to utilize the proposed Barnsdall Federal SWD No. 1 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 are 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 2,368 psi. If a surface injection pressure above 2,368 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. There are currently no Devonian or Ellenburger pools within one mile of the proposed Barnsdall Federal SWD No. 1, 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:	11,840'
Thickness:	1,100'
Lithology:	Dolomitic Limestone/Limestone
Geologic Formation:	Ellenburger
Estimated Top:	12,958'
Thickness:	42'
Lithology:	Dolomitic Limestone/Limestone
USDW's:	According to data obtained from the New Mexico State Engineer, there is a fresh water well located within one mile of the Barnsdall Federal SWD No. 1. This well data indicates the well to be 250 feet deep, but does not indicate depth to water.

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 fresh water analysis obtained from a fresh water well located within one-mile of the proposed injection well.

XII. Affirmative statement is enclosed.

XIII. Proof of Notice is enclosed.

INJECTION WELL DATA SHEET

OPERATOR: Apache Corporation

WELL NAME & NUMBER: Barnsdall Federal SWD No. 1 **(API No. N/A)**

WELL LOCATION:	330' FNL & 1880' FEL	B	27	17 South	29 East
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

See Attached Wellbore Schematic

WELL CONSTRUCTION DATA (PROPOSED)

Surface Casing

Hole Size: 17 ½" Casing Size: 13 3/8" @ 500'

Cemented with: 580 Sx. or _____ ft^3

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 _____ ft^3

Top of Cement: Surface Method Determined: Circulate

Production Casing

Hole Size: 8 3/4" Casing Size: 7" @ 13,000'

Cement with: 1st Stage-280 sx. DV Tool @ 11,350'
2nd Stage-850 sx. or _____ ft^3

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

Total Depth: 13,000'

Injection Interval

Perforated Interval –11,840'- 13,000'

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: 11,740' 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

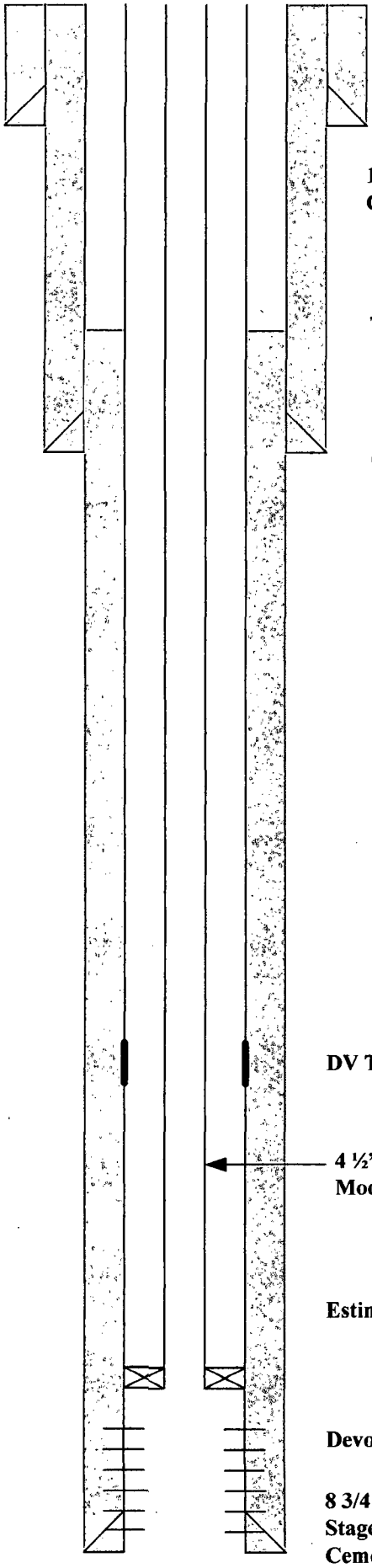
5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

   Grayburg Jackson Seven Rivers-Queen-Grayburg-San Andres Pool (2,900'); Bear Grass Draw Glorieta-Yeso Pool (6,100');

   Grayburg Upper-Penn Pool (9,500'); Grayburg-Morrow Gas Pool;

Proposed Wellbore Configuration

Apache Corporation
Barnsdall Federal SWD No. 1
API No. N/A
330' FNL & 1880' FEL (Unit B)
Section 27, T-17 South, R-29 East, NMPM



17 ½" Hole; Set 13 3/8" 48# H-40 Csg @ 500'
Cement w/580 Sx. Circulate cement to surface.

TOC @ 3,000' (Proposed)

12 ¼" Hole; Set 9 5/8" 40# J-55 Csg @ 4,500'
Cement w/1400 Sx. Circulate cement to surface.

DV Tool @ 11,350'

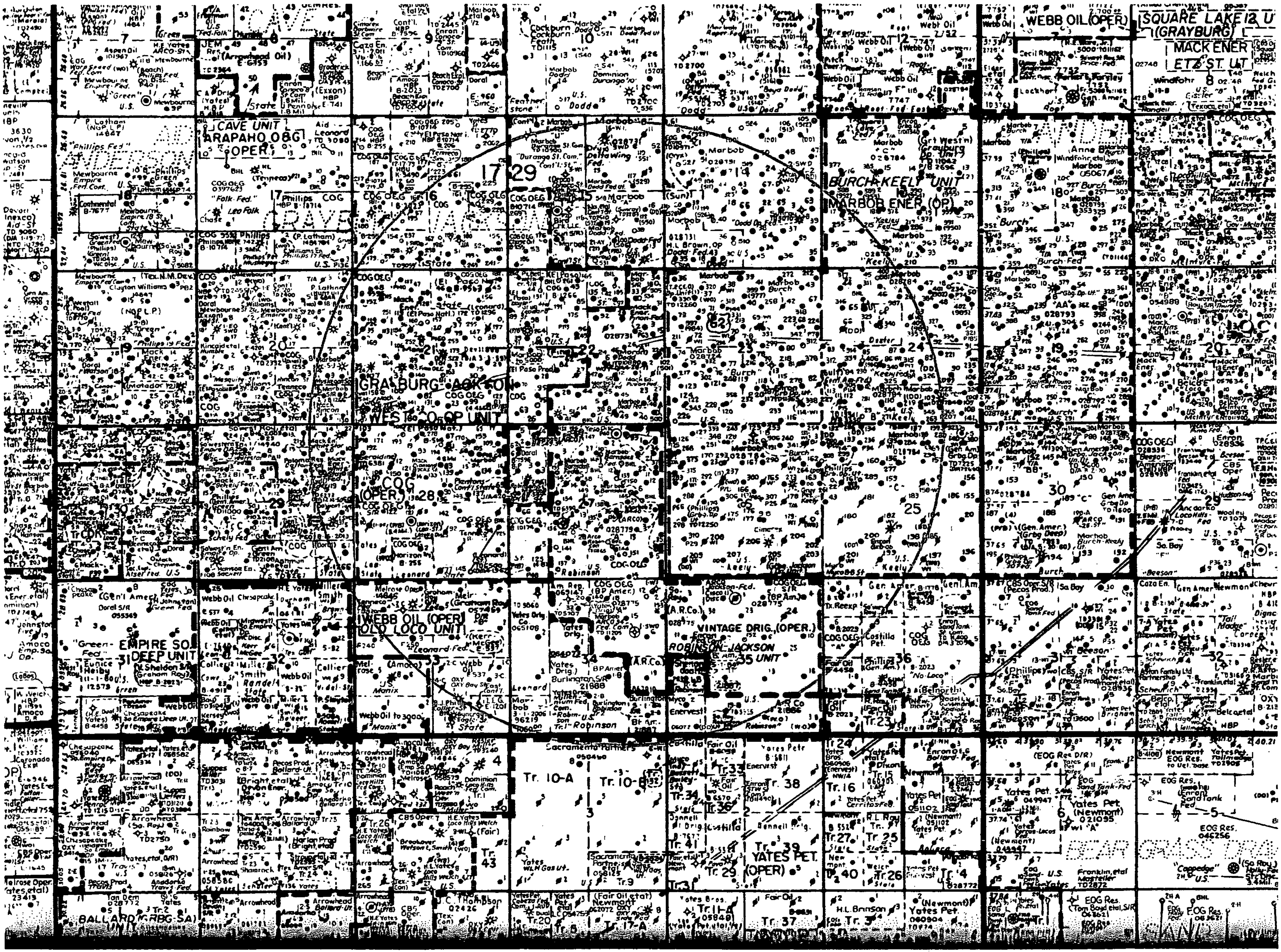
4 ½" Duo-Lined Injection Tubing set in a
Model A Lockset Packer @ 11,740'

Estimated Formation Tops: Devonian: 11,840'
Ellenburger: 12,958'

Devonian & Ellenburger Perforations: 11,840'-13,000'

8 3/4" Hole; Set 7" 26# L-80 & HCL-80 Csg. @ 13,000'
Stage Cement: 1st-280 Sx. 2nd-850 Sx. DV Tool @ 11,350'
Cement to a depth of 3,000'

T.D. 13,000'

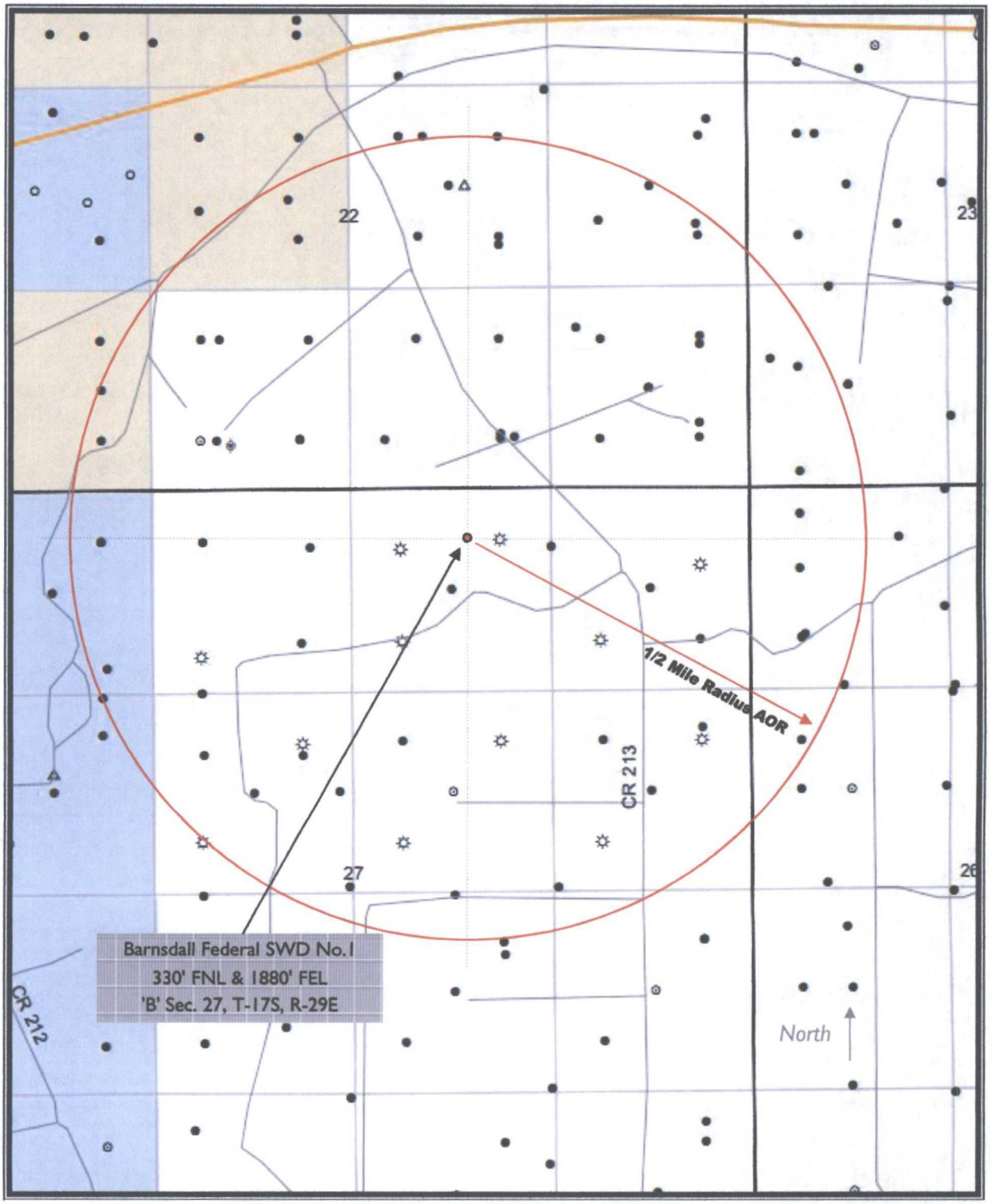


WEBB OIL (OPER)
(GRAYBURG)
MACK ENER
CAVE UNIT
ARAPAHO O&G (OPER.)
BURCH-KEELY UNIT
MARBOB ENER. (OP)
WEST CO-OP UNIT
COG (OPER.)
WEBB OIL (OPER)
OLD LOCO UNIT
EMPIRE SO. DEEP UNIT
VINTAGE DRLG. (OPER.)
ROBINSON-JACKSON
35 UNIT
YATES PET. (OPER)
Tr. 10-A

C-108 - Item V

Area of Review Map

Barnsdall Federal SWD No.1



APACHE CORPORATION
FORM C-108: BARNSDALL FEDERAL SWD NO. 1
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.	TOTAL DEPTH
30-015-03153	COG Operating, LLC	RJ Unit	106	P	Active	990'	N	330'	E	A	27	17S	29E	3,310'
30-015-03164	COG Operating, LLC	RJ Unit	104	P	Active	660'	N	660'	E	A	27	17S	29E	2,800'
30-015-29147	Apache Corp.	Barnsdall Federal	2	P	Active	500'	N	330'	E	A	27	17S	29E	4,640'
30-015-30391	Apache Corp.	Barnsdall Federal	9	P	Active	990'	N	990'	E	A	27	17S	29E	4,694'
30-015-03140	COG Operating, LLC	RJ Unit	102	P	Active	660'	N	1980'	E	B	27	17S	29E	3,300'
30-015-25882	COG Operating, LLC	RJ Unit	103	P	Active	385'	N	1325'	E	B	27	17S	29E	3,500'
30-015-29146	Apache Corp.	Barnsdall Federal	1	P	Active	330'	N	1650'	E	B	27	17S	29E	5,766'
30-015-29973	Apache Corp.	Barnsdall Federal	10	P	Active	990'	N	2310'	E	B	27	17S	29E	4,566'
30-015-03155	COG Operating, LLC	RJ Unit	101	P	Active	990'	N	2310'	W	C	27	17S	29E	3,258'
30-015-29148	Apache Corp.	Barnsdall Federal	3	P	Active	1090'	N	1650'	W	C	27	17S	29E	4,600'
30-015-30142	Apache Corp.	Barnsdall Federal	4	P	Active	380'	N	2310'	E	C	27	17S	29E	4,690'
30-015-34624	COG Operating, LLC	RJ Unit	132	P	Active	330'	N	1650'	W	C	27	17S	29E	3,615'
30-015-37680	Apache Corp.	Barnsdall Federal	16	P	NYD	380'	N	2370'	W	C	27	17S	29E	6,150'
30-015-03160	Mack Energy Corp.	Robinson State	4	P	PA	330'	N	990'	W	D	27	17S	29E	3225'
30-015-40255	COG Operating, LLC	BR-549 State	6	P	NYD	1165'	N	1015'	W	D	27	17S	29E	5,550'
30-015-03158	Alamo Permian Res.	Robinson State	3	P	Active	1345'	N	990'	W	E	27	17S	29E	3,263'
30-015-03143	COG Operating, LLC	RJ Unit	109	P	Active	2615'	N	2615'	W	F	27	17S	29E	2,877'
30-015-03177	COG Operating, LLC	RJ Unit	107	P	Active	1980'	N	1980'	W	F	27	17S	29E	2,840'
30-015-29339	Apache Corp.	Barnsdall Federal	5	P	Active	1650'	N	2310'	W	F	27	17S	29E	4,695'
30-015-31127	COG Operating, LLC	RJ Unit	108	P	Active	1740'	N	2310'	W	F	27	17S	29E	3,223'
30-015-34625	COG Operating, LLC	RJ Unit	133	P	Active	1330'	N	1650'	W	F	27	17S	29E	3,610'
30-015-34988	COG Operating, LLC	RJ Unit	149	P	NYD	1980'	N	2553'	W	F	27	17S	29E	3,600'
30-015-37681	Apache Corp.	Barnsdall Federal	17	P	Active	1730'	N	1650'	W	F	27	17S	29E	6,016'
30-015-03152	COG Operating, LLC	RJ Unit	110	I	Active	1980'	N	1980'	E	G	27	17S	29E	2,870'
30-015-29341	Apache Corp.	Barnsdall Federal	7	P	Active	2310'	N	2310'	E	G	27	17S	29E	6,600'
30-015-29974	Apache Corp.	Barnsdall Federal	12	P	Active	1650'	N	1650'	E	G	27	17S	29E	4,700'
30-015-35159	COG Operating, LLC	RJ Unit	150C	P	ND	1980'	N	1425'	E	G	27	17S	29E	N/A
30-015-37643	Apache Corp.	Barnsdall Federal	18	P	Active	1650'	N	2310'	E	G	27	17S	29E	6,046'
30-015-03151	COG Operating, LLC	RJ Unit	112	P	Active	1980'	N	660'	E	H	27	17S	29E	3,500'
30-015-03154	COG Operating, LLC	RJ Unit	111	P	Active	1650'	N	990'	E	H	27	17S	29E	3,310'
30-015-03157	COG Operating, LLC	RJ Unit	114	P	Active	2615'	N	1295'	E	H	27	17S	29E	2,920'
30-015-29340	Apache Corp.	Barnsdall Federal	6	P	Active	2310'	N	990'	E	H	27	17S	29E	4,700'
30-015-30392	Apache Corp.	Barnsdall Federal	11	P	Active	1650'	N	330'	E	H	27	17S	29E	4,705'
30-015-31210	COG Operating, LLC	RJ Unit	113	P	Active	1570'	N	330'	E	H	27	17S	29E	3,620'
30-015-34976	COG Operating, LLC	RJ Unit	138	P	Active	2630'	S	1980'	E	J	27	17S	29E	3,610'
30-015-03130	COG Operating, LLC	Burch Keely Ut.	127	P	Active	330'	N	990'	W	D	26	17S	29E	3,325'
30-015-03138	Marbob Energy Corp.	Burch Keely Ut.	125	P	PA	990'	N	330'	W	D	26	17S	29E	3,225'
30-015-24417	COG Operating, LLC	Burch Keely Ut.	126	P	Active	530'	N	330'	W	D	26	17S	29E	3,507'
30-015-29478	COG Operating, LLC	Burch Keely Ut.	268	P	Active	955'	N	365'	W	D	26	17S	29E	4,745'

APACHE CORPORATION
FORM C-108: BARNSDALL FEDERAL SWD NO. 1
AREA OF REVIEW WELL LIST (PAGE 2)

API NUMBER	OPERATOR	LEASE NAME	WELL NO.	WELL TYPE	STATUS	FTG. N/S	N/S	FTG. E/W	E/W	UNIT	SEC.	TSHP.	RNG.	TOTAL DEPTH
30-015-38651	COG Operating, LLC	Burch Keely Ut.	726	P	Active	180'	N	330'	W	D	26	17S	29E	4,808'
30-015-24442	COG Operating, LLC	Burch Keely Ut.	172	P	Active	1650'	N	330'	W	E	26	17S	29E	3,503'
30-015-24415	COG Operating, LLC	Burch Keely Ut.	124	P	Active	790'	S	330'	W	M	23	17S	29E	3,500'
30-015-28243	COG Operating, LLC	Burch Keely Ut.	226	P	Active	100'	S	330'	W	M	23	17S	29E	4,625'
30-015-38954	COG Operating, LLC	Burch Keely Ut.	725	P	Active	835'	S	134'	W	M	23	17S	29E	4,974'
30-015-03029	COG Operating, LLC	Dodd Federal Ut.	83	P	Active	1980'	S	660'	E	I	22	17S	29E	2,927'
30-015-03046	Marbob Energy Corp.	Dodd Federal Ut.	85	P	PA	1650'	S	330'	E	I	22	17S	29E	3,290'
30-015-29757	COG Operating, LLC	Dodd Federal Ut.	82	P	Active	1750'	S	990'	E	I	22	17S	29E	6,438'
30-015-40125	COG Operating, LLC	Dodd Federal Ut.	654	P	NYD	1731'	S	345'	E	I	22	17S	29E	4,550'
30-015-03032	COG Operating, LLC	Dodd Federal Ut.	78	P	Active	1980'	S	1980'	E	J	22	17S	29E	2,745'
30-015-03047	Marbob Energy Corp.	M Dodd A	12	P	PA	1650'	S	1650'	E	J	22	17S	29E	3,495'
30-015-20408	COG Operating, LLC	M Dodd A	47	SWD	Active	1980'	S	1880'	E	J	22	17S	29E	9,712'
30-015-25679	COG Operating, LLC	Dodd Federal Ut.	80	P	Active	1650'	S	2190'	E	J	22	17S	29E	4,570'
30-015-32458	COG Operating, LLC	Dodd Federal Ut.	81	P	Active	1600'	S	1650'	E	J	22	17S	29E	4,537'
30-015-03038	Marbob Energy Corp.	G-J West Coop Ut.	27	P	PA	1650'	S	2310'	W	K	22	17S	29E	3,270'
30-015-37232	COG Operating, LLC	G-J West Coop Ut.	266	P	Active	1900'	S	2240'	W	K	22	17S	29E	5,530'
30-015-03036	COG Operating, LLC	G-J West Coop Ut.	26	P	Active	330'	S	990'	W	M	22	17S	29E	2,771'
30-015-03037	COG Operating, LLC	G-J West Coop Ut.	25	P	Active	660'	S	990'	W	M	22	17S	29E	3,248'
30-015-03033	Sun Oil Company	M Dodd A	1	P	PA	330'	S	1650'	W	N	22	17S	29E	2,993'
30-015-03048	Marbob Energy Corp.	M Dodd A	14	P	PA	330'	S	2309'	W	N	22	17S	29E	3,263'
30-015-24684	COG Operating, LLC	Dodd Federal Ut.	98	P	Active	990'	S	1652'	W	N	22	17S	29E	3,425'
30-015-25686	COG Operating, LLC	Dodd Federal Ut.	97	P	Active	330'	S	1750'	W	N	22	17S	29E	4,660'
30-015-26535	COG Operating, LLC	Dodd Federal Ut.	95	P	Active	990'	S	2360'	W	N	22	17S	29E	4,520'
30-015-31998	Marbob Energy Corp.	M Dodd A	1	P	PA	300'	S	1850'	W	N	22	17S	29E	325'
30-015-32505	COG Operating, LLC	Dodd Federal Ut.	96	P	Active	330'	S	2310'	W	N	22	17S	29E	4,533'
30-015-39670	COG Operating, LLC	Dodd Federal Ut.	655	P	Active	990'	S	1774'	W	N	22	17S	29E	4,548'
30-015-03042	Marbob Energy Corp.	M Dodd A	8	P	PA	330'	S	1650'	E	O	22	17S	29E	3,239'
30-015-24549	COG Operating, LLC	Dodd Federal Ut.	94	P	Active	990'	S	2210'	E	O	22	17S	29E	3,420'
30-015-25625	COG Operating, LLC	Dodd Federal Ut.	93	P	Active	330'	S	2410'	E	O	22	17S	29E	4,510'
30-015-26814	COG Operating, LLC	Dodd Federal Ut.	91	P	Active	990'	S	1650'	E	O	22	17S	29E	4,520'
30-015-32504	COG Operating, LLC	Dodd Federal Ut.	92	P	Active	355'	S	1650'	E	O	22	17S	29E	4,597'
30-015-37642	COG Operating, LLC	Mary Federal	3	P	Active	345'	S	1550'	E	O	22	17S	29E	6,360'
30-015-03030	Marbob Energy Corp.	M Dodd A	4	P	PA	660'	S	660'	E	P	22	17S	29E	2,803'
30-015-03031	Sunray DX Oil Co.	Mary Dodd A	5	P	PA	660'	S	660'	E	P	22	17S	29E	2,803'
30-015-03034	COG Operating, LLC	Dodd Federal Ut.	88	P	Active	330'	S	330'	E	P	22	17S	29E	3,311'
30-015-24492	COG Operating, LLC	Dodd Federal Ut.	90	P	Active	990'	S	990'	E	P	22	17S	29E	3,410'
30-015-24609	COG Operating, LLC	Dodd Federal Ut.	87	P	Active	940'	S	330'	E	P	22	17S	29E	3,491'
30-015-25517	COG Operating, LLC	Dodd Federal Ut.	89	P	Active	330'	S	990'	E	P	22	17S	29E	4,680'
30-015-30790	COG Operating, LLC	Dodd Federal Ut.	86	P	Active	990'	S	330'	E	P	22	17S	29E	4,545'
30-015-37115	COG Operating, LLC	Mary Federal	2	P	Active	430'	S	330'	E	P	22	17S	29E	6,350'
30-015-40003	COG Operating, LLC	Dodd Federal Ut.	657	P	Active	1051'	S	1152'	E	P	22	17S	29E	4,535'

NYD-Not Yet Drilled; ND-Never Drilled

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	
Sampling Date:	04/13/12
Analysis Date:	04/26/12
Analyst:	STACEY SMITH
TDS (mg/l or g/m3):	99816
Density (g/cm3, tonne/m3):	1.065
Anion/Cation Ratio:	1
Carbon Dioxide:	200 PPM
Oxygen:	
Comments:	
RESISTIVITY: .075 OHM-M @ 75°F	

Analysis of Sample 580738 @ 75 °F

Anions	mg/l	meq/l
Chloride:	**56172.0**	**1584.41**
Bicarbonate:	**939.4**	**15.4**
Carbonate:	**0.0**	**0.**
Sulfate:	**4237.0**	**88.21**
Phosphate:		
Borate:		
Silicate:		

Cations	mg/l	meq/l
Sodium:	**35903.6**	**1561.72**
Magnesium:	**226.0**	**18.59**
Calcium:	**1973.0**	**98.45**
Strontium:	**36.0**	**0.82**
Barium:	**0.1**	**0.**
Iron:	**1.5**	**0.05**
Potassium:	327.0	8.36
Aluminum:		
Chromium:		
Copper:		
Lead:		
Manganese:	0.400	0.01
Nickel:		

Hydrogen Sulfide:	221 PPM
pH at time of sampling:	6.6
pH at time of analysis:	
pH used in Calculation:	**6.6**

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		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

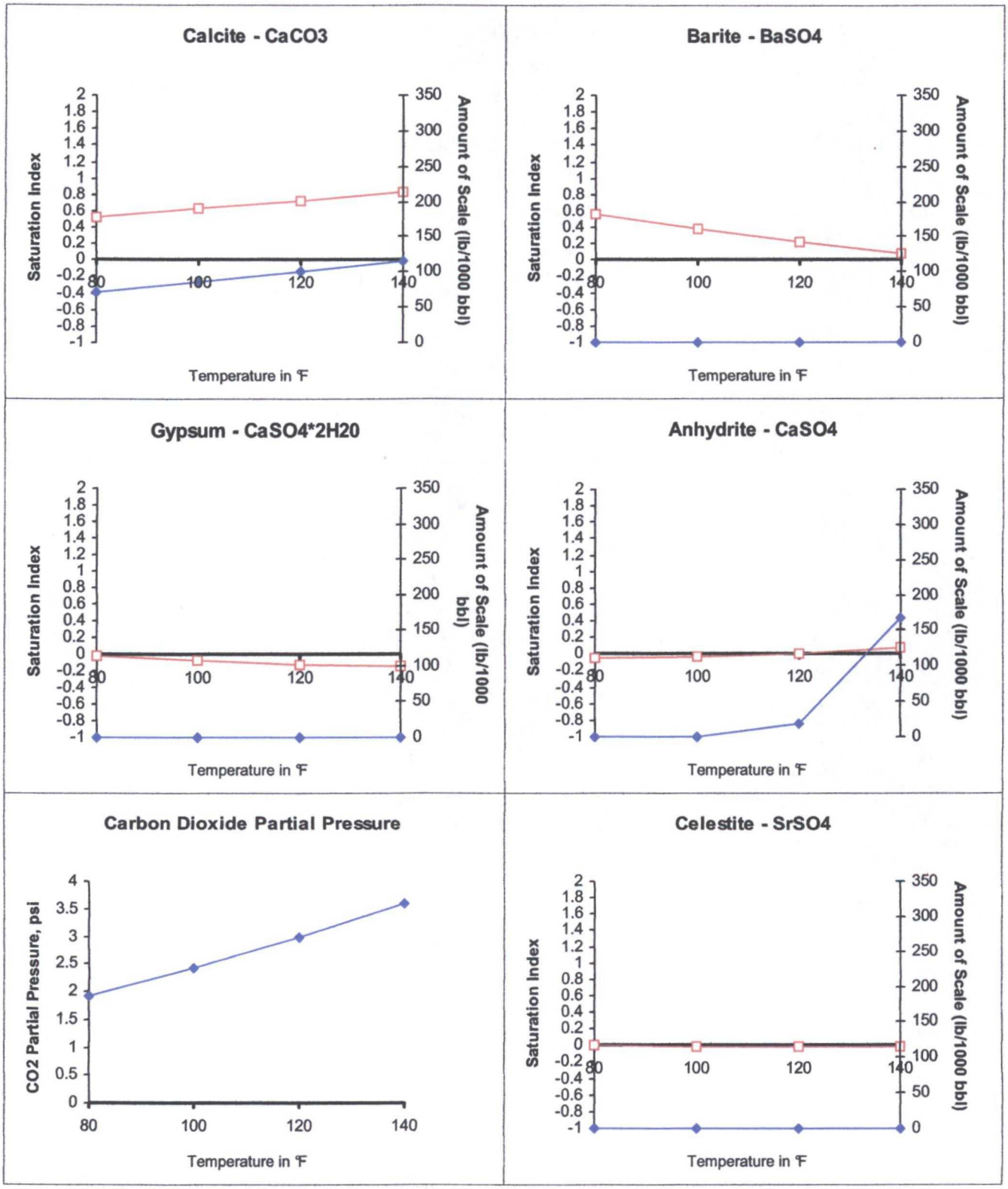
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

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 ℉ for APACHE CORPOR ATION, 04/26/12



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	
Sampling Date:	03/28/12
Analysis Date:	04/05/12
Analyst:	LEAH DURAN
TDS (mg/l or g/m3):	231342
Density (g/cm3, tonne/m3):	1.155
Anion/Cation Ratio:	1
Carbon Dioxide:	200 PPM
Oxygen:	
Comments:	

Analysis of Sample 580725 @ 75 ℉

Anions	mg/l	meq/l
Chloride:	**141028.0**	**3977.89**
Bicarbonate:	**73.2**	**1.2**
Carbonate:	**0.0**	**0.**
Sulfate:	**1906.0**	**39.68**
Phosphate:		
Borate:		
Silicate:		
Hydrogen Sulfide:		0
pH at time of sampling:		6.2
pH at time of analysis:		
pH used in Calculation:		**6.2**

Cations	mg/l	meq/l
Sodium:	**72252.0**	**3142.78**
Magnesium:	**3784.0**	**311.29**
Calcium:	**10305.0**	**514.22**
Strontium:	**267.0**	**6.09**
Barium:	**0.2**	**0.**
Iron:	**21.0**	**0.76**
Potassium:	1705.0	43.6
Aluminum:		
Chromium:		
Copper:		
Lead:		
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 $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
℉	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

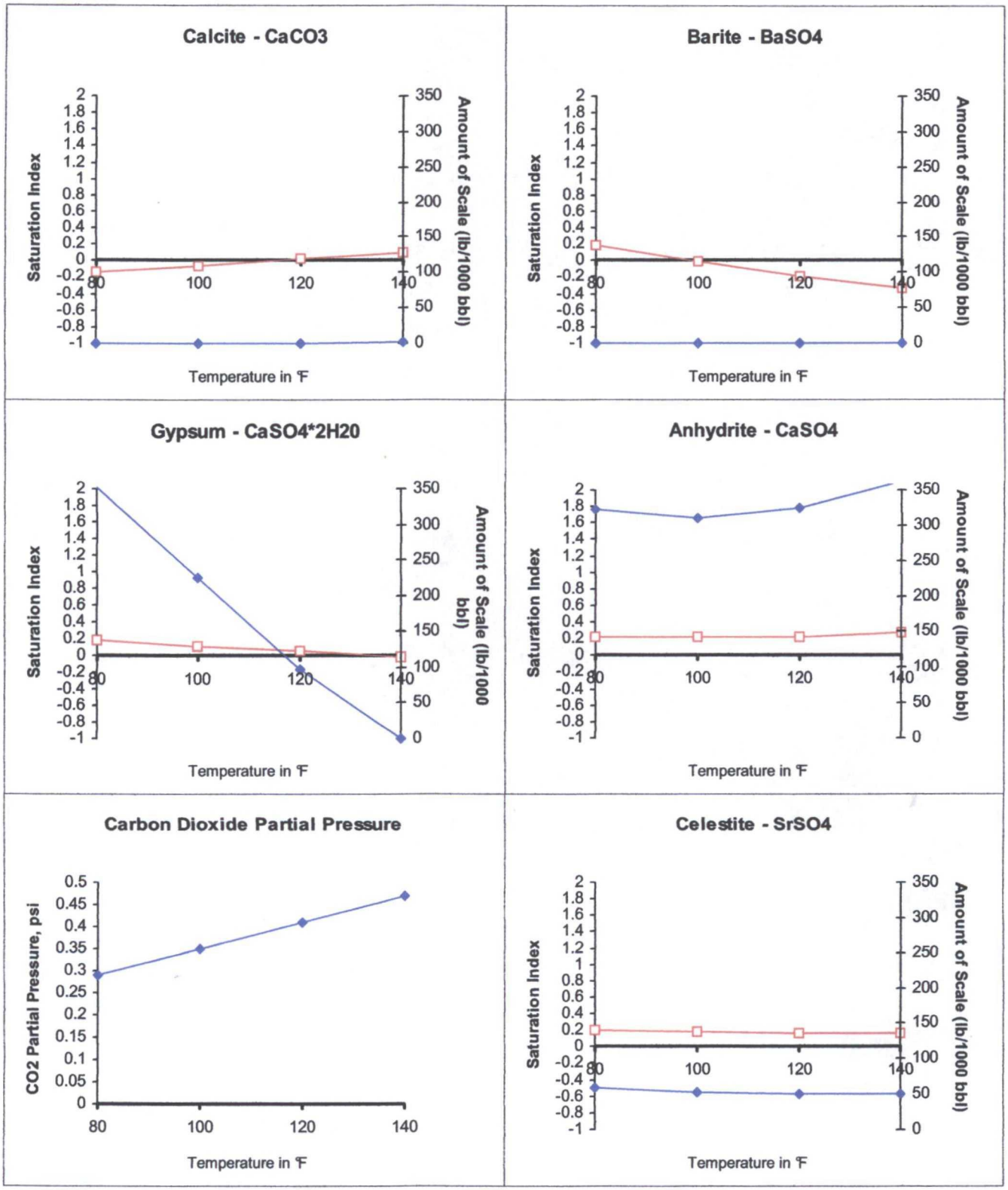
Note 1: When assessing the severity of the scale problem, both the saturation index (SI) and amount of scale must be considered.

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 ℉ for APACHE CORPOR ATION, 04/05/12



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 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:

Section(s): 21-23 **Township:** 17S **Range:** 29E

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

No records found.

PLSS Search:

Section(s): 26-28 **Township:** 17S **Range:** 29E

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 #:	636219
Lease/Platform:	BARNSDALL FEDERAL	Analysis ID #:	126370
Entity (or well #):	FRESH WATER WELL	Analysis Cost:	$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary	
Sampling Date:	10/30/12
Analysis Date:	11/13/12
Analyst:	SANDRA GOMEZ
TDS (mg/l or g/m3):	44492.9
Density (g/cm3, tonne/m3):	1.031
Anion/Cation Ratio:	1
Carbon Dioxide:	30 PPM
Oxygen:	
Comments:	

Analysis of Sample 636219 @ 75 ℉

Anions	mg/l	meq/l	Cations	mg/l	meq/l
Chloride:	**23900.0**	**674.13**	**Sodium:**	**14080.5**	**612.47**
Bicarbonate:	**195.2**	**3.2**	**Magnesium:**	**511.0**	**42.04**
Carbonate:	**0.0**	**0.**	**Calcium:**	**1963.0**	**97.95**
Sulfate:	**3737.0**	**77.8**	**Strontium:**	**29.0**	**0.66**
Phosphate:			**Barium:**	**0.1**	**0.**
Borate:			**Iron:**	**3.5**	**0.13**
Silicate:			Potassium:	73.0	1.87
			Aluminum:		
Hydrogen Sulfide:		0 PPM	Chromium:		
pH at time of sampling:		6.5	Copper:		
pH at time of analysis:			Lead:		
pH used in Calculation:		**6.5**	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 $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$		CO_2 Press
℉	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	-0.22	0.00	0.12	359.53	0.07	165.34	0.05	2.01	0.72	0.00	0.55
100	0	-0.11	0.00	0.09	280.04	0.10	256.23	0.04	2.01	0.55	0.00	0.71
120	0	0.01	0.67	0.07	233.43	0.17	396.42	0.05	2.35	0.41	0.00	0.88
140	0	0.14	5.37	0.07	215.31	0.25	564.45	0.07	3.02	0.29	0.00	1.05

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

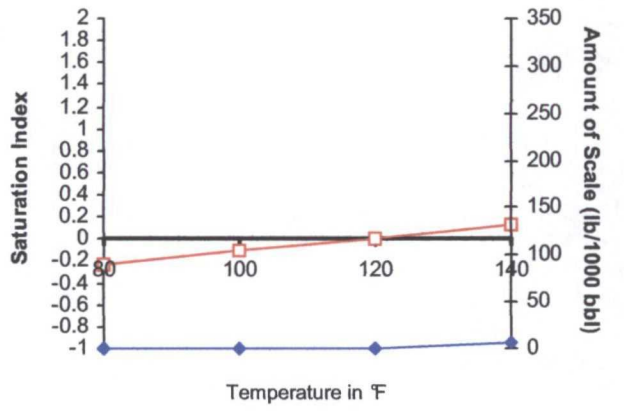
Note 2: Precipitation of each scale is considered separately. Total scale will be less than the sum of the amounts of the five scales.

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

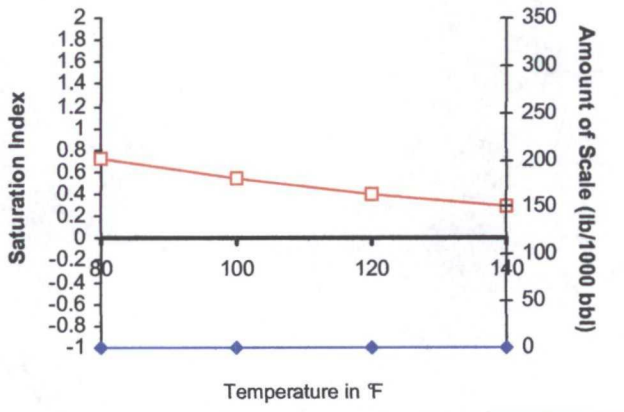
Scale Predictions from Baker Petrolite

Analysis of Sample 636219 @ 75 ℉ for APACHE CORPOR ATION, 11/13/12

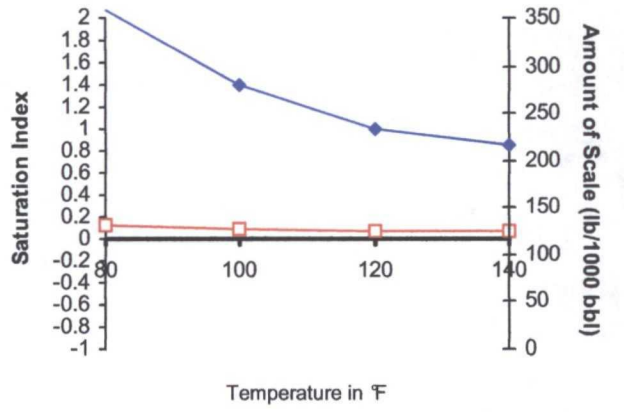
Calcite - CaCO3



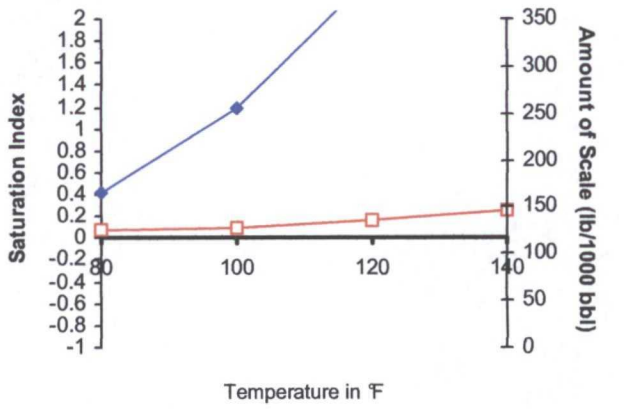
Barite - BaSO4



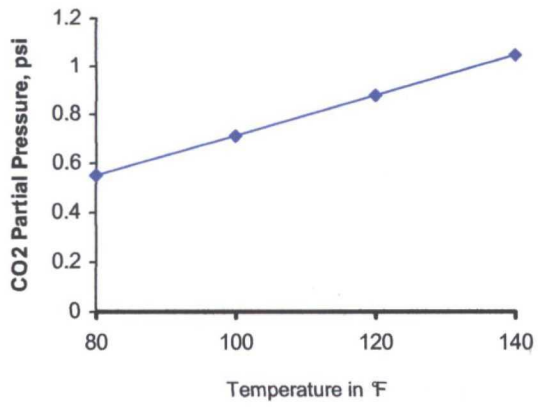
Gypsum - CaSO4*2H20



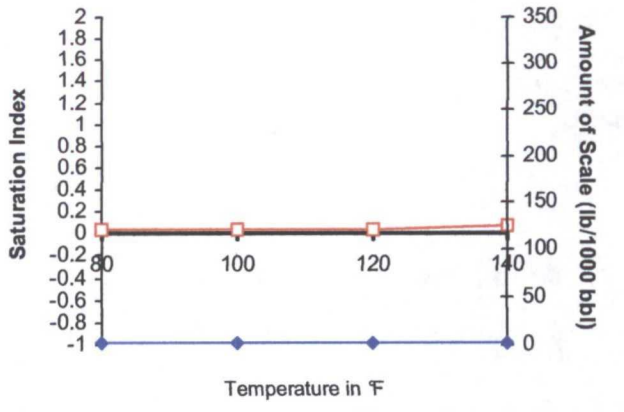
Anhydrite - CaSO4



Carbon Dioxide Partial Pressure



Celestite - SrSO4



Form C-108
Affirmative Statement
Apache Corporation
Barnsdall Federal SWD No. 1
Section 27, T-17 South, R-29 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

11/28/12
Date

November 28, 2012

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO: OFFSET LEASEHOLD OWNERS & SURFACE OWNER

Re: Apache Corporation
Form C-108 (Application for Authorization to Inject)
Barnsdall Federal SWD No. 1
API No. N/A
330' FNL & 1880' FEL, Unit B, Section 27, T-17S, R-29E, 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 Barnsdall Federal SWD No. 1. You are being provided a copy of the application as an offset leaseholder or the surface owner of the land on which the well is located. Apache Corporation proposes to drill the Barnsdall Federal SWD No. 1 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 11,840 feet to 13,000 feet.

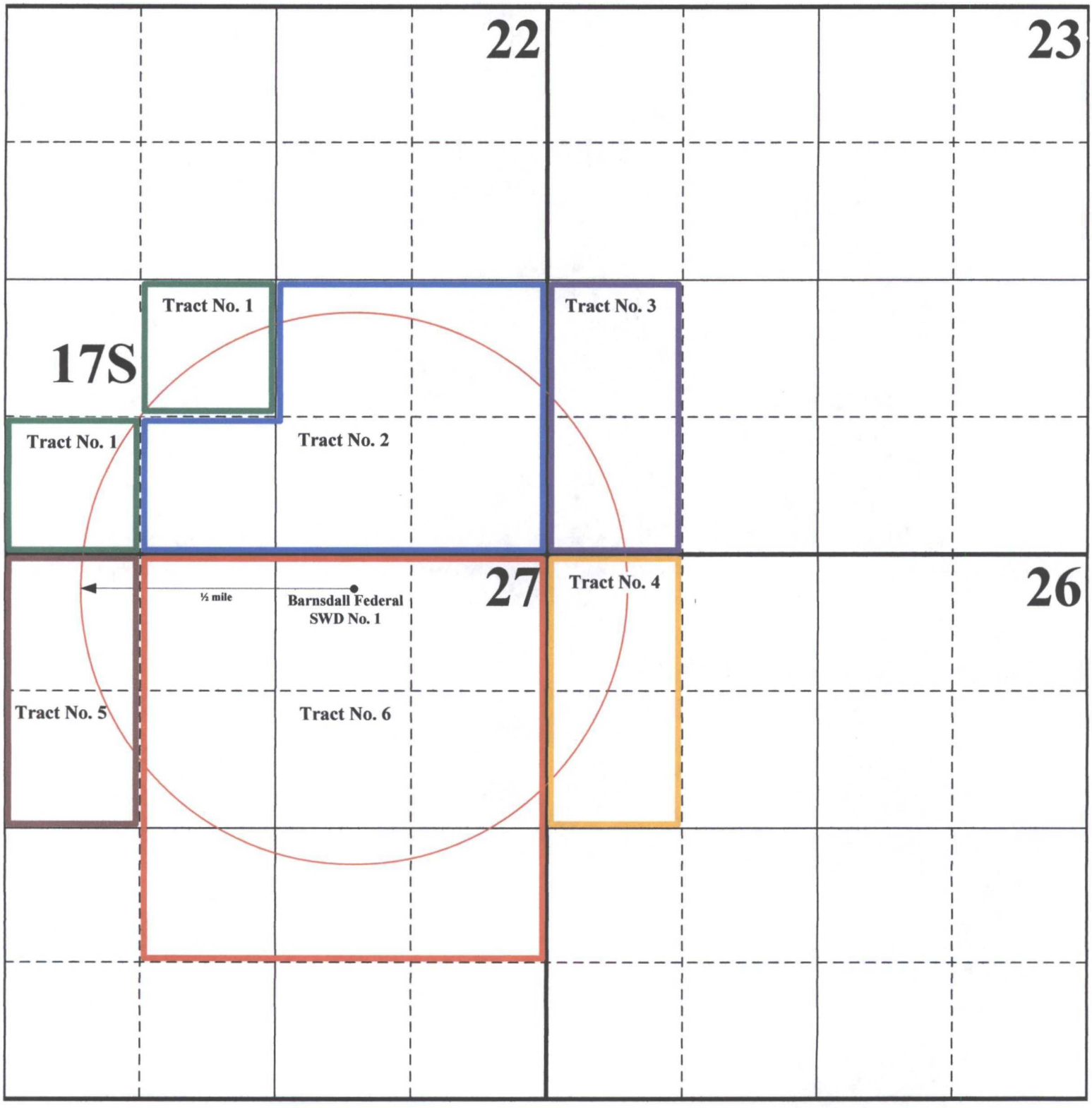
Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

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



Apache Corporation
Form C-108: Barnsdall Federal SWD No. 1
Offset Leasehold Owner Tract Identification

Apache Corporation
Form C-108: Barnsdall Federal SWD No. 1
Section 27, T-17 South, R-29 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (See Attached Map)

Tract No. 1

Leasehold Owner: (All depths below 5,000')

Cimarex Energy Company
600 N. Marienfeld Street
Suite 600
Midland, Texas 79701

Tract No. 2

Leasehold Owner: (All depths below 10,964')

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

Tract No. 3

Leasehold Owner (All depths below the top of the Devonian Formation):

ConocoPhillips Company
P.O. Box 7500
Bartlesville, Oklahoma 74005

Tract No. 4

Leasehold Owner (All depths below the top of the Devonian Formation):

ConocoPhillips Company

Tract No. 5

Leasehold Owner (All depths below 11,163'):

Chase Oil Corporation
P.O. Box 1767
Artesia, New Mexico 88211-1767

Robert C. Chase
P.O. Box 960
Artesia, New Mexico 88211-0960

Apache Corporation
Form C-108: Barnsdall Federal SWD No. 1
Section 27, T-17 South, R-29 East, NMPM
Eddy County, New Mexico

Offset Leasehold Owner Notification List (Page 2)

Tract No. 5 (Cont.)

Bill W. Chase
P.O. Box 515
Artesia, New Mexico 88211-0515

Buckhorn Enterprises Corporation
2101 West Runyan Ave.
Artesia, New Mexico 88210

Ventana Minerals, LLC
P.O. Box 359
Artesia, New Mexico 88211-0359

Diakan Minerals, LLC
P.O. Box 693
Artesia, New Mexico 88211-0693

Tract No. 6

Leasehold Owner (All depths below the base of the Abo Formation)

ZPZ Delaware I, LLC
(Wholly owned subsidiary of
Apache Corporation)

Surface Owner

Bureau of Land Management
620 E. Greene Street
Carlsbad, New Mexico 88220-6292

Additional Notice

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

7012 0470 0001 5936 1303

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ARTESIA NM 88211 OFFICIAL USE

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

0501 10 Postmark Here NOV 28 2012 11/28/2012

Sent To: Chase Oil Corporation
Street, Apt. No.; or PO Box No.: P.O. Box 1767
City, State, ZIP+4: Artesia, New Mexico 88211-1767

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1259

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Postage	$ $1.70
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$2.35
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $7.00

0501 10 Postmark Here NOV 28 2012 11/28/2012

Sent To: Bill W. Chase
Street, Apt. No.; or PO Box No.: P.O. Box 515
City, State, ZIP+4: Artesia, New Mexico 88211-0515

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1242

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Postage	$ $1.70
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$2.35
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $7.00

0501 10 Postmark Here NOV 28 2012 11/28/2012

Sent To: Buckhorn Enterprises Corporation
Street, Apt. No.; or PO Box No.: 2101 West Runyan Ave.
City, State, ZIP+4: Artesia, New Mexico 88210

PS Form 3800, August 2006 See Reverse for Instructions

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Restricted Delivery Fee (Endorsement Required)	$0.00
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0501 10 Postmark Here NOV 28 2012 11/28/2012

Sent To: COG Operating, LLC
Concho Oil & Gas Company
Street, Apt. No.; or PO Box No.: 600 W. Illinois Ave.
City, State, ZIP+4: One Concho Center
Midland, Texas 79701

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1297

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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

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Sent To: ConocoPhillips Company
Street, Apt. No.; or PO Box No.: P.O. Box 7500
City, State, ZIP+4: Bartlesville, Oklahoma 74005

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1266

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ARTESIA NM 88211 OFFICIAL USE

Postage	$ $1.70
Certified Fee	$2.95
Return Receipt Fee (Endorsement Required)	$2.35
Restricted Delivery Fee (Endorsement Required)	$0.00
Total Postage & Fees	$ $7.00

0501 10 Postmark Here NOV 28 2012 11/28/2012

Sent To: Robert C. Chase
Street, Apt. No.; or PO Box No.: P.O. Box 960
City, State, ZIP+4: Artesia, New Mexico 88211-0960

PS Form 3800, August 2006 See Reverse for Instructions

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Postage	$ $1.70	0501
Certified Fee	$2.95	10
Return Receipt Fee (Endorsement Required)	$2.35	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	NOV 28 2012
Total Postage & Fees	$ $7.00	11/28/2012

Sent To: Diakan Minerals, LLC
Street, Apt. No.; or PO Box No.: P.O. Box 693
City, State, ZIP+4: Artesia, New Mexico 88211-0693

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1235

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ARTESIA NM 88211 OFFICIAL USE

Postage	$ $1.70	0501
Certified Fee	$2.95	10
Return Receipt Fee (Endorsement Required)	$2.35	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	NOV 28 2012
Total Postage & Fees	$ $7.00	11/28/2012

Sent To: Ventana Minerals, LLC
Street, Apt. No.; or PO Box No.: P.O. Box 359
City, State, ZIP+4: Artesia, New Mexico 88211-0359

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1273

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Postage	$ $1.90	0501
Certified Fee	$2.95	10
Return Receipt Fee (Endorsement Required)	$2.35	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	NOV 28 2012
Total Postage & Fees	$ $7.20	11/28/2012

Sent To: Cimarex Energy Company
Street, Apt. No.; or PO Box No.: 600 N. Marienfeld Street, Suite 600
City, State, ZIP+4: Midland, Texas 79701

PS Form 3800, August 2006 See Reverse for Instructions

7012 0470 0001 5936 1211

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Postage	$ $1.90	0501
Certified Fee	$2.95	10
Return Receipt Fee (Endorsement Required)	$2.35	Postmark Here
Restricted Delivery Fee (Endorsement Required)	$0.00	NOV 28 2012
Total Postage & Fees	$ $7.20	11/28/2012

Sent To: Bureau of Land Management
Street, Apt. No.; or PO Box No.: 620 E. Greene Street
City, State, ZIP+4: Carlsbad, New Mexico 88220-6292

PS Form 3800, August 2006 See Reverse for Instructions

Form C-108
Apache Corporation
Barnsdall Federal SWD No. 1
Section 27, T-17 South, R-29 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

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 Barnsdall Federal SWD No. 1 (API No. N/A) located 330 feet from the North line and 1880 feet from the East line (Unit B) of Section 27, Township 17 South, Range 29 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 11,840 feet to 13,000 feet.

Produced water from the Glorieta & Yeso formations originating from Apache Corporation operated wells in this area will be injected into the Barnsdall Federal SWD No. 1 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 2,368 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.

Jones, William V., EMNRD

From: David Catanach <drcatanach@netscape.com>
Sent: Tuesday, December 04, 2012 7:10 AM
To: Jones, William V., EMNRD
Subject: Apache-Legal Ad
Attachments: Legal Ad-Barnsdall.pdf

Will,

Attached is the affidavit of publication for the SWD application that I filed last week for the Apache Barnsdall Federal SWD No. 1

If there is anything else you need, let me know.

Thanks,

David

Affidavit of Publication

NO. 22385

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 November 29, 2012

Second Publication

Third Publication

Fourth Publication

Fifth Publication

Subscribed and sworn to before me this

29th day of November 2012

OFFICIAL SEAL
Latisha Romine
NOTARY PUBLIC-STATE OF NEW MEXICO
My commission expires: 3/12/2015

Latisha Romine

Latisha Romine
Notary Public, Eddy County, New Mexico

Copy of Publication:

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Published in the Artesia Daily Press, Artesia, N.M., Nov. 29, 2012. Legal No 22385.

Injection Permit Checklist First Email Date: ~~11/29/12~~ Final Reply Date: _____ Final Notice Date: 11/29/12

Issued Permit: Type:WFX/PMX/SWD Number: 1379 Permit Date 1/3/13 (Legacy Permit: _____)

Wells 1 Well Name(s): BARNSDALL Federal SWD #1

API Num: 30-0 15- NA Spud Date: N.Y. New/Old: N (UIC Cl II Primacy March 7, 1982)

Footages 330 FNL/1880 FEL Lot ___ Unit B Sec 27 Tsp 17S Rge 29E County EDDY

General Location or Pool Area: GBG JACKSON West AREA

Operator: APACHE CORP. Contact DAVID CATANACH

OGRID: 873 RULE 5.9 Compliance (Wells) 2/2723 (Finan Assur) OK IS 5.9 OK? OK

Well File Reviewed ✓ Current Status: NOT Permitted

Planned Work to Well: Permit/Drill/EOP/DISPOSE

Diagrams: Before Conversion ✓ After Conversion ✓ Are Elogs in Imaging?: NOT Drilled

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
Planned ✓ or Existing __Surface	17½ 13 3/8	500'	—	580 SX	CIRC
Planned ✓ or Existing __Interm	12¼ 9 5/8	4,500'	—	1400 SX	CIRC
Planned ✓ or Existing __LongSt	8 3/4 - 7"	13,000	11,350'	280/850	3000' CALC
Planned __or Existing __Liner					
Planned __or Existing __OpenHole					

Depths/Formations:	Depths, Ft.	Formation	Tops?	
Above				
Above	11840	DEV	✓	
Proposed Interval TOP:	11840	Dev		Max. PSI 2368 ~~OpenHole~~ Perfs ✓
Proposed Interval BOTTOM:	13,000	Ell.		Tubing Size 4½ Packer Depth 11740'
Below	12958	Ell	✓	
Below				

~~Capitan Reef?~~ (in ~~/thru~~) Potash? ~~Noticed?~~ ~~WIPP?~~ ~~Noticed?~~ Salado Top _____ Bot _____ ~~Cliff House?~~

Fresh Water: MaxDepth: 250' FW Formation _____ Wells? yes Analysis? ✓ Affirmative Statement ✓

Disposal Fluid: Formation Source(s) GLOR ✓/Yeso ✓ On Lease ___ Only from Operator ✓ or Commercial ___

Disposal Interval: Protectable Waters? NO H/C Potential: Log ___ /Mudlog (DEPTHS) /DST ___ /Tested ___ /Depleted ___ Other NO CLOSE PROD.

Notice: Newspaper Post Date 11/29/12 Surface Owner BLM N. Date 11/28/12

RULE 26.7(A) Affected Persons See LIST N. Date 11/28/12

AOR: Maps? ✓ Well List? ✓ Producing in Interval? NO Formerly Produced in Interval? NO

Penetrating.....No. Active Wells 0 Num Repairs? — on which well(s)? —

Penetrating.....No. P&Aed Wells 0 Num Repairs? — on which well(s)? — Diagrams? —

Permit Conditions: MUDLOG

Issues: Chaves Gas/OCL 3 MI SOUTH

Issues:

Issues: