DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
4/01/2014		PRG	4/02/2014	WFX 424	pMAM1409228863

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]

-WFX
-Apache Corporation
873

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

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

Well
-West Blinebry Drinkard Unit #178

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
X WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

West Blinebry
Drinkard Unit 178
30-025-41547

[D] Other: Specify _____

RECEIVED OCD
2014 APR -1 P 3:15

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

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

[B] X Offset Operators, Leaseholders or Surface Owner

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

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

Pool
-Eunice; Bli-Tubb, North
22900

[E] X 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.

Brian Wood	B. Wood	Consultant	3-31-14
Print or Type Name	Signature	Title	Date

brian@permitswest.com
e-mail Address

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: XXX Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No

II. OPERATOR: APACHE CORPORATION

ADDRESS: 303 VETERANS AIRPARK LANE, SUITE 3000, MIDLAND, TX 79705

CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120

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 XXX No
If yes, give the Division order number authorizing the project: R-12981

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.

WEST BLINEBRY DRINKARD UNIT 178
30-025-41547

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).

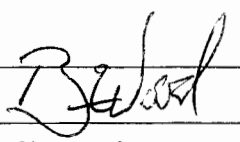
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: MARCH 31, 2014

E-MAIL ADDRESS: brian@permitswest.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

Side 2

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.

Side 1

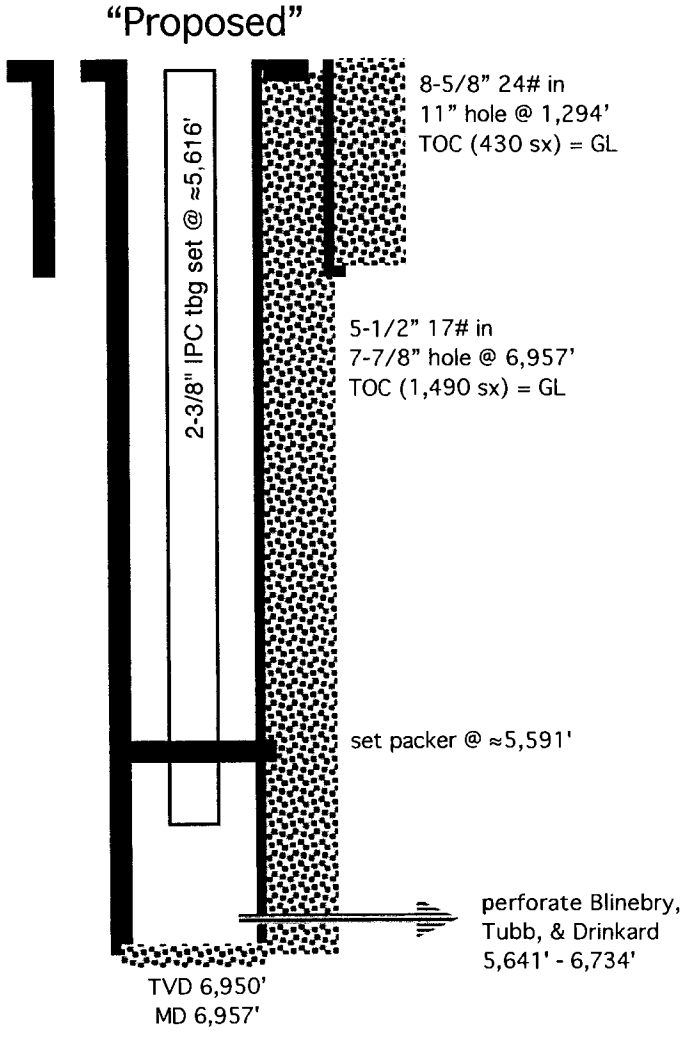
INJECTION WELL DATA SHEET

OPERATOR: APACHE CORPORATION

WELL NAME & NUMBER: WEST BLINEBRY DRINKARD UNIT 178

WELL LOCATION:	SHL: 520' FNL & 2095' FEL BHL: 740' FNL & 2080' FEL	B	16	21 S	37 E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 11" Casing Size: 8-5/8"

Cemented with: 430 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: VISUAL

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7-7/8" Casing Size: 5-1/2"

Cemented with: 1,490 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: VISUAL

Total Depth: 6,950' TVD & 6,957' MD

Injection Interval

5,641' feet to 6,734'

(Perforated or Open Hole; indicate which)

Side 2

INJECTION WELL DATA SHEET

Tubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COAT

Type of Packer: LOCK SET INJECTION

Packer Setting Depth: ≈5,591'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? XXX Yes _____ No

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

2. Name of the Injection Formation: BLINEBRY, TUBB, & DRINKARD

3. Name of Field or Pool (if applicable): EUNICE; BLI-TU-DR, NORTH (POOL CODE 22900)

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. _____

   NO

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

   OVER: GRAYBURG (3,730'), SAN ANDRES (3,995'), PADDOCK (5,240')

   UNDER: ABO (6,735'), FUSSELMAN (7,250')

WEST BLINEBRY DRINKARD UNIT 178
SHL: 520' FNL & 2095' FEL
BHL: 740' FNL & 2080' FEL
SEC. 16, T. 21 S., R. 37 E., LEA COUNTY, NM 30-025-41547

I. Purpose is to drill a 6,950' TVD (6,957' MD) water injection well to increase oil recovery. The well will inject (5,641' - 6,734') into the Blinebry, Tubb, and Drinkard, which are part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900).

The well and zones are part of the West Blinebry Drinkard Unit (Unit Number 300341, Case Numbers 14125 and 14126, both Order Number R-12981) that was established in 2008 by Apache. There have been two subsequent WFX approvals, WFX-854 and WFX-857. This is an active water flood. There are currently 25 active water injectors in the unit.

Well will be directionally drilled because the preferred SHL is occupied by a Chevron Grayburg well, 2 overhead power lines, and paved County Road 49 (Hill Road).

II. Operator: Apache Corporation (OGRID #873)
Operator phone number: (432) 818-1167
Operator address: 303 Veterans Airpark Lane, Suite 3000
Midland, TX 79705
Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: NMSLO B017320001
Lease Size: 8,837.66 acres (see Exhibit A for maps and C-102)
Closest Lease Line: from SHL = 520' & from BHL = 560'
Lease Area: NE4 of Section 16, T. 21 S., R. 37 E. et al
Unit Size: 2,480 acres
Closest Unit Line: from SHL = 2095' & from BHL = 2080'
Unit Area: T. 21 S., R. 37 E.
Section 4: Lot 15, S2SW4, & SE4
Section 8: E2, NENW, & E2SW
Sections 9 & 16: all
Section 17: E2 & E2SW4
Section 21: E2NE4

A. (2) Surface casing (8-5/8", 24#) will be set at 1,294' in an 11" hole. Cement will be circulated to the surface with 430 sacks.

Production casing (5-1/2", 17#) will be set at 6,957' (MD) in a 7-7/8" hole. Cement will be circulated to the surface with 1,490 sacks.

Mechanical integrity of the casing will be assured by hydraulically pressure testing to 500 psi for 30 minutes.

A. (3) Tubing specifications are 2-3/8", J-55, 4.7#, and internally plastic coated. Setting depth will be ≈5,616'. (Disposal interval will be 5,641' to 6,734'.)

A. (4) A lock set injection packer will be set at ≈5,591' (≈50' above the highest proposed perforation of 5,641').

B. (1) Injection zone will be the Blinebry, Tubb, and Drinkard carbonates. The zones are part of the Eunice; Blinebry-Tubb-Drinkard, North Pool. Estimated fracture gradient is ≈0.56 psi per foot.

B. (2) Injection interval will be 5,641' to 6,734' in a cased hole. See attached C-108 well profile for more perforation information.

B. (3) The well has not yet been drilled. It will be completed as a water injection well after approval.

B. (4) The well will be perforated from 5,641' to 6,734' with 2 shots per foot. Shot diameter = 0.40".

B. (5) Next higher oil or gas zone in the area of review is the San Andres. Its bottom is at ≈5,169'. Injection will occur in the Blinebry - Drinkard interval. Blinebry top is at ≈5,640'. Injection interval will be 5,641' to 6,734'. The injection interval is part of the Eunice; Blinebry-Tubb-

Drinkard, North Pool (NMOCD pool code number = 22900). The San Andres is part of the Hare; San Andres, East Pool (NMOCD pool code number = 96601).

The next lower oil or gas zone in the area of review is the Wantz; Abo (pool code 62700). Its top is at ≈6,735'. Deepest perforation in the injection interval will be 6,734'.

IV. This is not a horizontal or vertical expansion of an existing injection project. The case file for the unit approval (R-12981) includes a discussion of the water flood. There have been 2 water flood expansions (WFX-854 & WFX-857) since then. Closest unit boundary is 2,080' east. Four existing injection wells are within a half-mile radius. All four are in the unit (see Exhibit B).

V. Exhibit B shows all 54 existing wells (48 oil wells + 4 water injection wells + 1 brine supply well + 1 P & A well) within a half-mile radius, regardless of depth. Exhibit C shows all 710 existing wells (565 oil or gas producing wells + 77 injection or disposal wells + 52 P & A wells + 15 water wells + 1 brine supply well) within a two-mile radius.

Exhibit D shows all leases (only BLM and State) within a half-mile radius. Exhibit E shows all lessors (BLM, fee, and state) within a two-mile radius. Details on the leases within a half-mile are:

T. 21 S., R. 37 E.	Lessor	Lease	*Operator
S2S2 Sec. 9	BLM	NMNM-090161	Apache
SWSW Sec. 10	NMSLO	B009350000	Apache
NWNW Sec. 15	NMSLO	B091880008	Apache
SWNW Sec. 15	NMSLO	B014810018	Apache
NE4 Sec. 16	NMSLO	B017320001	Apache
NW4 Sec. 16	NMSLO	B015570002	Apache
N2S2 Sec. 16	NMSLO	B000850016	Apache

*Blinebry, Drinkard, Tubb

VI. There are 54 existing wells within a half-mile radius. Thirty of the wells penetrated the Blinebry, Tubb, or Drinkard. The penetrators include 25 oil wells, 4 water injection wells, and 1 P & A well. A table abstracting the well construction details and histories of the penetrators is in Exhibit F. A diagram of the P & A well is also in Exhibit F. The 54 wells and their distances from the 178 well bore are:

API	OPERATOR	WELL	TYPE	SECTION	TVD	CURRENT ZONE	DISTANCE (feet)
3002506622	Chevron	Harry Leonard NCT E 003	O	16	6710	Penrose Skelly; Grayburg	190
3002538197	Apache	WBDU 051	O	9	6837	Eunice; Bli-Tu-Dr, N	786
3002536095	Apache	State C Tract 12 013	O	16	4150	Penrose Skelly; Grayburg	874
3002535880	Apache	Hawk Federal B 1 028	O	9	4200	Penrose Skelly; Grayburg	933
3002538198	Apache	WBDU 052	O	9	6870	Eunice; Bli-Tu-Dr, N	939
3002537202	Apache	State C Tract 12 021	O	16	7300	Wantz; Abo	959
3002536613	Apache	State C Tract 12 017	O	16	4386	Penrose Skelly; Grayburg	986
3002536662	Apache	Hawk Federal B 1 035	O	9	4350	Penrose Skelly; Grayburg	1028
3002539119	Apache	WBDU 098	O	16	6880	Eunice; Bli-Tu-Dr, N	1075
3002538268	Apache	WBDU 064	O	16	6892	Eunice; Bli-Tu-Dr, N	1095
3002509906	Apache	WBDU 038	I	9	6770	Eunice; Bli-Tu-Dr, N	1172
3002506627	Stanolind	State C Tract 12 006	P&A	16	5762	Eunice; Bli-Tu-Dr, N	1197
3002506628	Apache	WBDU 060	I	16	6699	Eunice; Bli-Tu-Dr, N	1206
3002536741	Chevron	Harry Leonard NCT E 007	O	16	4345	Penrose Skelly; Grayburg	1317
3002535707	Apache	State C Tract 12 009	O	16	4450	Penrose Skelly; Grayburg	1321

3002506623	Apache	WBDU 057	I	16	6699	Tubb Oil; Gas (Pro Gas)	1446
3002506620	Chevron	Harry Leonard NCT E 001	O	16	6670	Penrose Skelly; Grayburg	1478
3002525198	Chevron	Harry Leonard NCT E 006	O	16	6720	Penrose Skelly; Grayburg	1508
3002536531	Apache	Hawk Federal B 1 038	O	9	4350	Penrose Skelly; Grayburg	1655
3002535882	Apache	Hawk Federal B 1 031	O	9	4204	Penrose Skelly; Grayburg	1790
3002535806	Apache	Hawk Federal B 1 027	O	9	4200	Penrose Skelly; Grayburg	1791
3002535708	Apache	State C Tract 12 010	O	16	4200	Penrose Skelly; Grayburg	1796
3002506439	Apache	WBDU 037	O	9	6750	Eunice; Bli-Tu-Dr, N	1848
3002537743	Apache	WBDU 049	O	9	6950	Eunice; Bli-Tu-Dr, N	1864
3002536618	Apache	State C Tract 12 016	O	16	4350	Penrose Skelly; Grayburg	1903
3002506626	Apache	WBDU 059	O	16	7502	Eunice; Bli-Tu-Dr, N	1907
3002536478	Apache	State C Tract 12 015	O	16	4725	Penrose Skelly; Grayburg	1914
3002539277	Apache	WBDU 113	O	16	6912	Eunice; Bli-Tu-Dr, N	1937
3002509907	Apache	Hawk Federal B 1 006	O	9	7530	Eunice Monument; Grayburg - San Andres	1969
3002536530	Apache	Hawk Federal B 1 036	O	9	4743	Penrose Skelly; Grayburg	1976
3002538959	Apache	Hawk Federal B 1 068	O	9	4455	Penrose Skelly; Grayburg	2008
3002538267	Apache	WBDU 063	O	16	6845	Eunice; Bli-Tu-Dr, N	2017
3002536305	Apache	WBDU 062	O	16	6950	Eunice; Bli-Tu-Dr, N	2035

3002536725	Apache	State C Tract 12 019	O	16	4350	Penrose Skelly; Grayburg	2039
3002506621	Apache	WBDU 056	O	16	6614	Blinebry Oil & Gas (Oil)	2062
3002537744	Apache	WBDU 050	O	9	6875	Eunice; Bli-Tu-Dr, N	2088
3002537834	Chevron	Harry Leonard NCT E 008	O	16	4300	Penrose Skelly; Grayburg	2098
3002538230	Apache	WBDU 081	O	16	6793	Eunice; Bli-Tu-Dr, N	2214
3002538231	Apache	WBDU 082	O	16	6875	Eunice; Bli-Tu-Dr, N	2268
3002536344	Apache	WBDU 045	O	9	6900	Eunice; Bli-Tu-Dr, N	2302
3002535798	Apache	Hawk Federal B 1 025	O	9	4200	Penrose Skelly; Grayburg	2339
3002535515	Apache	State C Tract 12 008	O	16	4450	Penrose Skelly; Grayburg	2367
3002537998	Apache	Hawk Federal B 1 052	O	9	4358	Penrose Skelly; Grayburg	2420
3002536809	Apache	NEDU 526	O	15	6900	Eunice; Bli-Tu-Dr, N	2460
3002506438	Apache	WBDU 033	I	9	6695	Eunice; Bli-Tu-Dr, N	2489
3002506629	Apache	WBDU 061	O	16	6690	Eunice; Bli-Tu-Dr, N	2518
3002539442	Apache	WBDU 112	O	9	6965	Eunice; Bli-Tu-Dr, N	2521
3002536786	Apache	STATE DA 010	O	16	4345	Penrose Skelly; Grayburg	2525
3002506624	Chevron	Harry Leonard NCT E 005	O	16	8220	Penrose Skelly; Grayburg	2530
3002533547	Key	State 1	BSW	15	2200	BSW; Salado	2573
3002506618	Apache	WBDU 077	O	16	6250	Eunice; Bli-Tu-Dr, N	2577
3002535765	Apache	STATE DA 008	O	16	4200	Penrose Skelly; Grayburg	2577
3002535799	Apache	Hawk Federal B 1 026	O	9	4200	Penrose Skelly; Grayburg	2624

3002536533	Apache	Hawk Federal B 1 040	O	9	4775	Penrose Skelly; Grayburg	2626
3002537223	*Apache*	*NEDU 628*	*O*	*15*	*7106*	*Eunice; Bli-Tu-Dr, N*	*2644*

VII. 1. Average injection rate will be ≈2,500 bwpd.
Maximum injection rate will be ≈3,000 bwpd.

2. System will be closed. The well will be tied into the existing unit pipeline system. It consists of a branched injection system with centrifugal injection pumps.

3. Average injection pressure will be ≈1,000 psi. Maximum injection pressure will be ~~1,128 psi (=0.2~~ psi/foot x 5,641' (highest perforation)). 1120

4. Water source will be water pumped from two existing ≈4,000' deep San Andres water supply wells, plus produced water from Blinebry, Tubb, and Drinkard zones. The source water and produced water are collected in separate skim tanks. The two water streams (source and produced) are commingled in a tank before being piped to the injection wells. A comparison of nearby analyses and San Andres follows. No compatibility problems have reported from the 23,359,028 barrels that have been injected in the unit to date.

	NEDU Injection Pump Discharge	San Andres 919-S
Anion/Cation Ratio	1.0	N/A
Barium	0.1 mg/l	0.38 mg/l
Bicarbonate	671.0 mg/l	562.0 mg/l
Calcium	1,099.0 mg/l	608.0 mg/l
Carbon Dioxide	80.0 ppm	80.0 ppm
Chloride	10,086.0 mg/l	6,200.0 mg/l
Hydrogen Sulfide	90.0 ppm	408.0 ppm

Iron	0.3 mg/l	0.0 mg/l
Magnesium	439.0 mg/l	244.0 mg/l
Manganese	N/A	0.01 mg/l
pH	7.5	6.49
Potassium	115.0 mg/l	N/A
Sodium	5,799.5 mg/l	3,909.0 mg/l
Strontium	28.0 mg/	19.0 mg/l
Sulfate	2,465.0 mg/l	1,750.0 mg/l
Total Dissolved Solids	20,702.9 mg/l	13,273.0 mg/l

5. The Blinebry, Tubb, and Drinkard currently produce from 112 oil wells in the unit. It is the goal of the project to increase production.

VIII. The Unit is on the north end of a north-northwest to south-southeast trending anticline. It is part of the Penrose Skelly trend and parallels the west edge of the Central Basin Platform. Dips are 1° to 2°. The injection interval is Leonardian in age, 1093' thick, and consists of tan to dark gray shallow marine carbonates, many of which have been dolomitized. Core filling and replacement anhydrite are common in the limestone. Nodular anhydrite is common in the dolomite. Five per cent porosity cut off is used to determine pay zones. Impermeable shale and carbonates vertically confine the interval.

There are currently 109 Blinebry injection wells, 1 Blinebry saltwater disposal well, 129 Tubb injection wells, 159 Drinkard injection wells, and 1 Tubb saltwater disposal well in the state. Some of these wells inject into 2 or more zones. The West Blinebry Drinkard Unit shares its east border with Apache's Northeast Drinkard Unit. Three other similar water floods (East Blinebry Drinkard Units, Central Drinkard Unit, and Warren Blinebry Unit) are within a mile of the West Blinebry Drinkard Unit. The Central Drinkard Unit has been under water flood since the 1960s.

Estimated formation depths are:

Quaternary = 0'
Santa Rosa = 950'
Anhydrite = 1,295'
Top salt = 1,400'
Base salt = 2,480'
Yates = 2,660'
Seven Rivers = 2,860'
Queen = 3,440'
Grayburg = 3,730'
San Andres = 3,995'
Glorieta = 5,170'
Paddock = 5,240'
Blinebry = 5,640'
Tubb = 6,135'
Drinkard = 6,445'
Abo = 6,735'
TVD = 6,950'
MD = 6,957'

Two fresh water wells are within a mile radius. A 70' deep well (CP 00554) with an electric pump was dry during a January 7, 2014 field inspection. A neighbor, Gary Deck, confirmed the well's lack of water. Mr. Deck owns and lives in Section 9. A Google Earth air photo shows a stock pond 500' northeast of the now dry well that held water on May 27, 2004. The air photos do not show water on July 15, 2004; July 30, 2005; August 14, 2009, August 21, 2011; and November 14, 2011.

A sample (analysis is in Exhibit G) was collected from Mr. Deck's water well, 4,555' north in Section 9. His well is not in the State Engineer's database. Depth is likely in the Quaternary. The Ogallala is 2 miles northeast.

No existing underground drinking water sources are below the injection interval within a mile radius.

There will be >5,000' of vertical separation and 1,185' of salt and anhydrite between the bottom of the only likely underground fresh water source and the top of the injection interval.

Produced water is currently being injected (188 wells) or disposed (19 wells) into the Blinebry-Tubb-Drinkard, San Andres, Grayburg, Queen, Seven Rivers, and Yates within T. 21 S., R. 37 E.

IX. The well will be stimulated with acid to clean out scale or fill.

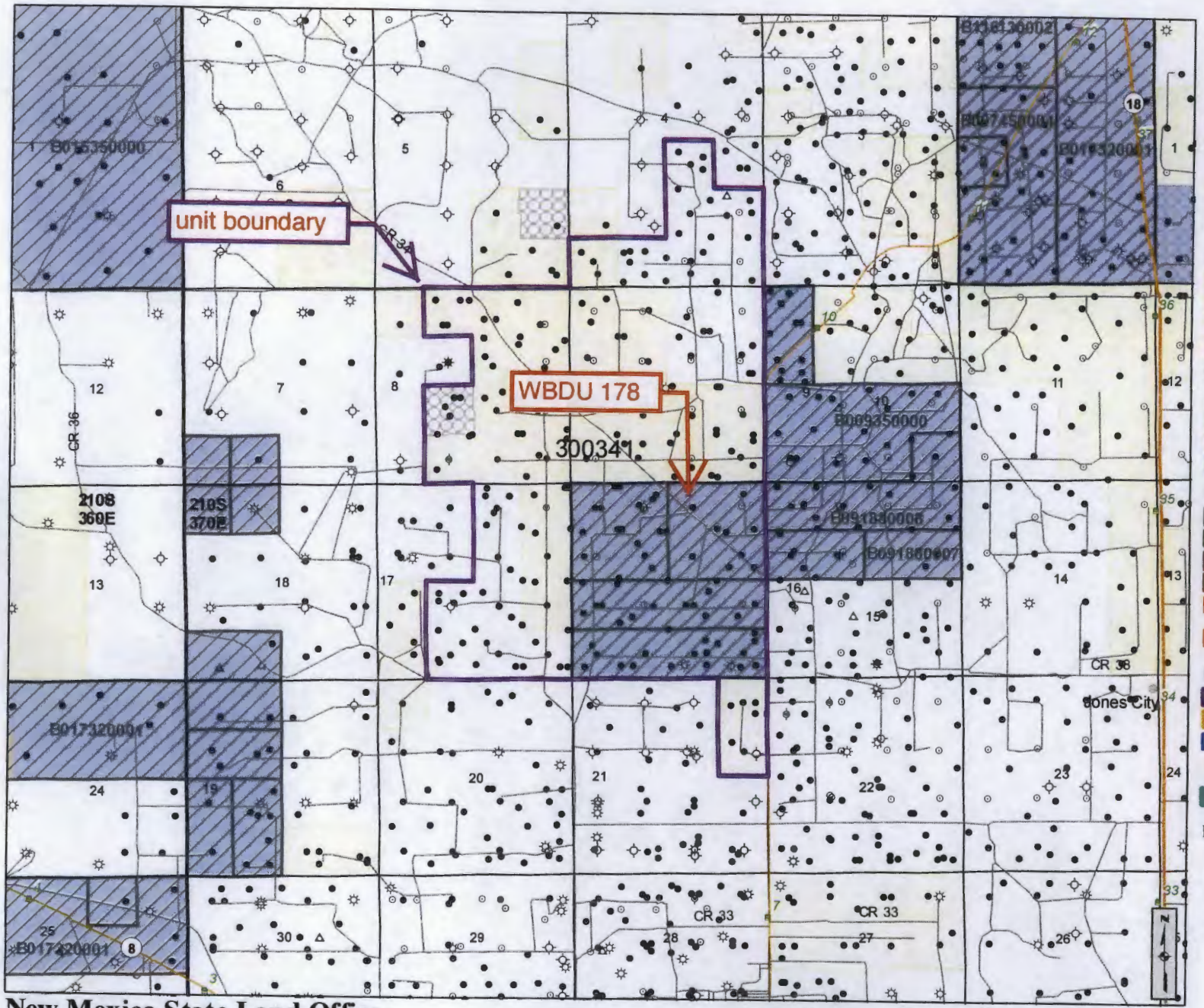
X. Spectral gamma ray, spectral density/compensated neutron, dual laterolog/MSFL, and sonic logs are planned.

XI. No fresh water well is within a mile. An analysis from a fresh water well that is 4,555' north is attached (Exhibit G).

XII. Apache is not aware of any geologic or engineering data that may indicate the injection interval is in hydrologic connection with any underground sources of water. Closest Quaternary faults are >100 miles west and southwest (Exhibit H). At least 1,620 injection and 139 saltwater disposal wells are active in the Blinebry, Tubb, or Drinkard in the New Mexico. Previously approved water flood expansions in the unit include:

WFX-854 (August 28, 2009)
WFX-857 (December 22, 2009)

XIII. A legal ad (see Exhibit I) was published on March 22, 2014. Notice (this application) has been sent (Exhibit J) to the surface owner (NM State Land Office), BLM, the offset Blinebry, Tubb, and Drinkard operators (only Apache), and other lessee or leasehold operating rights holders (Chevron, ConocoPhillips, ExxonMobil Corporation, John H. Hendrix Corp., Oxy USA WTP LP, Penroc Oil Corp.).



Cartographic Features
- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- US Hwy
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership
- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands
- Surface Estate
- Subsurface Estate
- Surface and Subsuface Estate

State Leases
- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features
- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOCD Order R-111-P Potash Enclave Outline

NMOCD Oil and Gas Wells
- CO^2
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA

New Mexico State Land Office
Oil, Gas and Minerals

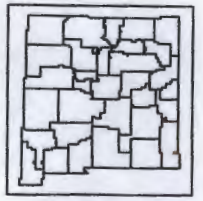
0 0.1 0.2 0.4 0.6 0.8 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

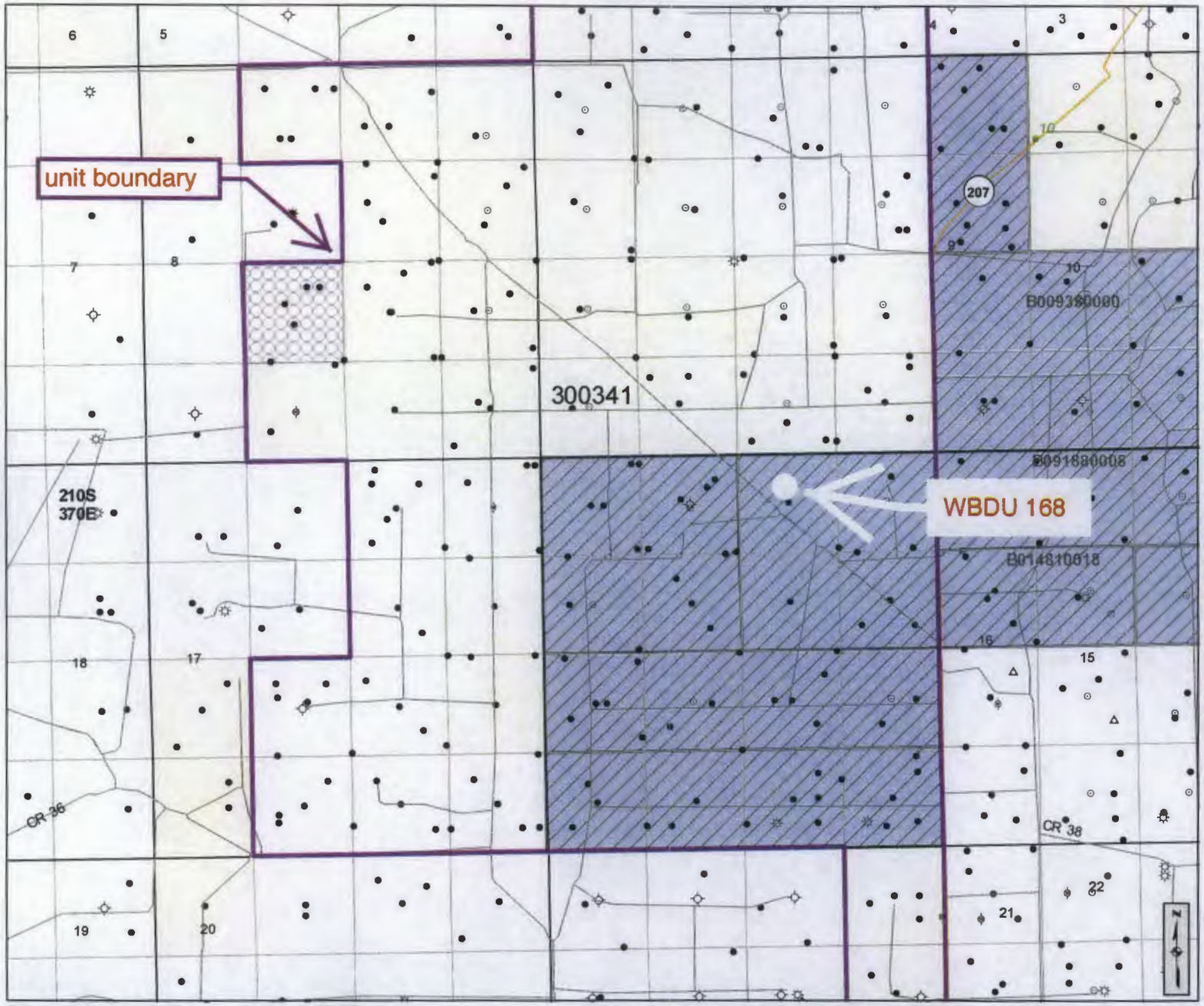
EXHIBIT A

Land Office Geographic Information Center
logic@slo.state.nm.us

Created On: 3/22/2014 2:51:13 PM



www.nmstatelands.org



Cartographic Features
- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- US Hwy
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership
- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands
- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases
- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features
- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOCD Order R-111-P Potash Enclave Outline

NMOCD Oil and Gas Wells
- CO^2
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA

New Mexico State Land Office
Oil, Gas and Minerals

0 0.05 0.1 0.2 0.3 0.4
Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

EXHIBIT A

Land Office Geographic Information Center
logic@slo.state.nm.us

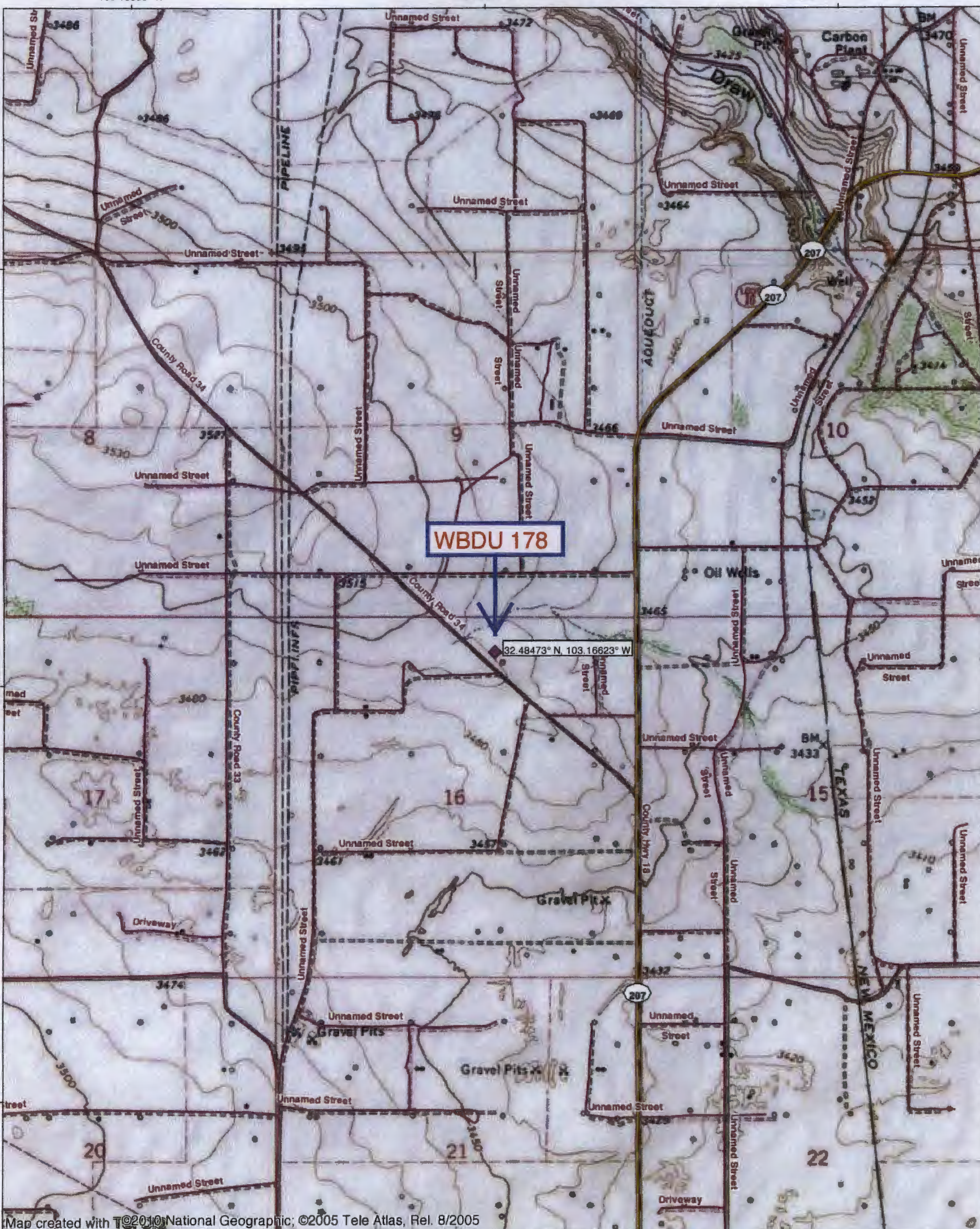
Created On: 3/22/2014 2:52:40 PM

www.nmstatelands.org

TOPO! map printed on 03/24/14 from "Untitled.tpo"

103.18333° W | 103.16667° W | WGS84 103.15000° W

32.50000° N | 32.48333° N | 32.46667° N



103.18333° W | 103.16667° W | WGS84 103.15000° W

NATIONAL GEOGRAPHIC

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 miles
0.0 0.5 1.0 km

EXHIBIT A

TN MN 7°

03/24/14

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-	22900	Eunice; BLI-TU-DR, North

Property Code	Property Name	Well Number
	WBDU	178W

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3488'

Surface Location

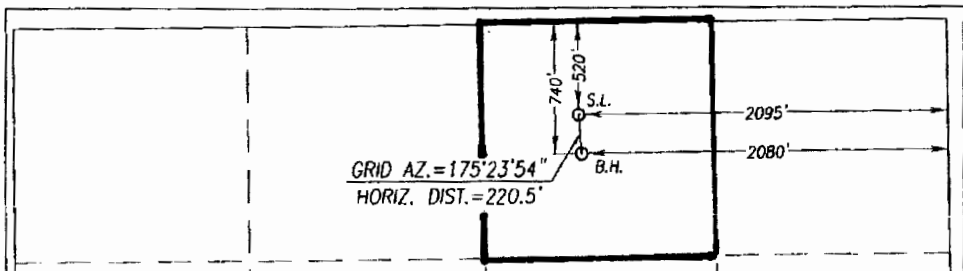
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	16	21-S	37-E		520	NORTH	2095	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	16	21-S	37-E		740	NORTH	2080	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



GEODETIC COORDINATES
NAD 27 NME

SURFACE LOCATION
Y=541988.2 N
X=860034.0 E

LAT.=32.484620° N
LONG.=103.165765° W

LAT.=32.° 29' 04.6" N
LONG.=103.° 09' 56.8" W

BOTTOM HOLE LOCATION
Y=541768.4 N
X=860051.6 E

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Michelle Cooper 12-10-13
Signature Date

Michelle Cooper
Printed Name

michelle.cooper@apachecorp.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NOVEMBER 20, 2013
Date of Survey
Signature & Seal of Professional Surveyor:

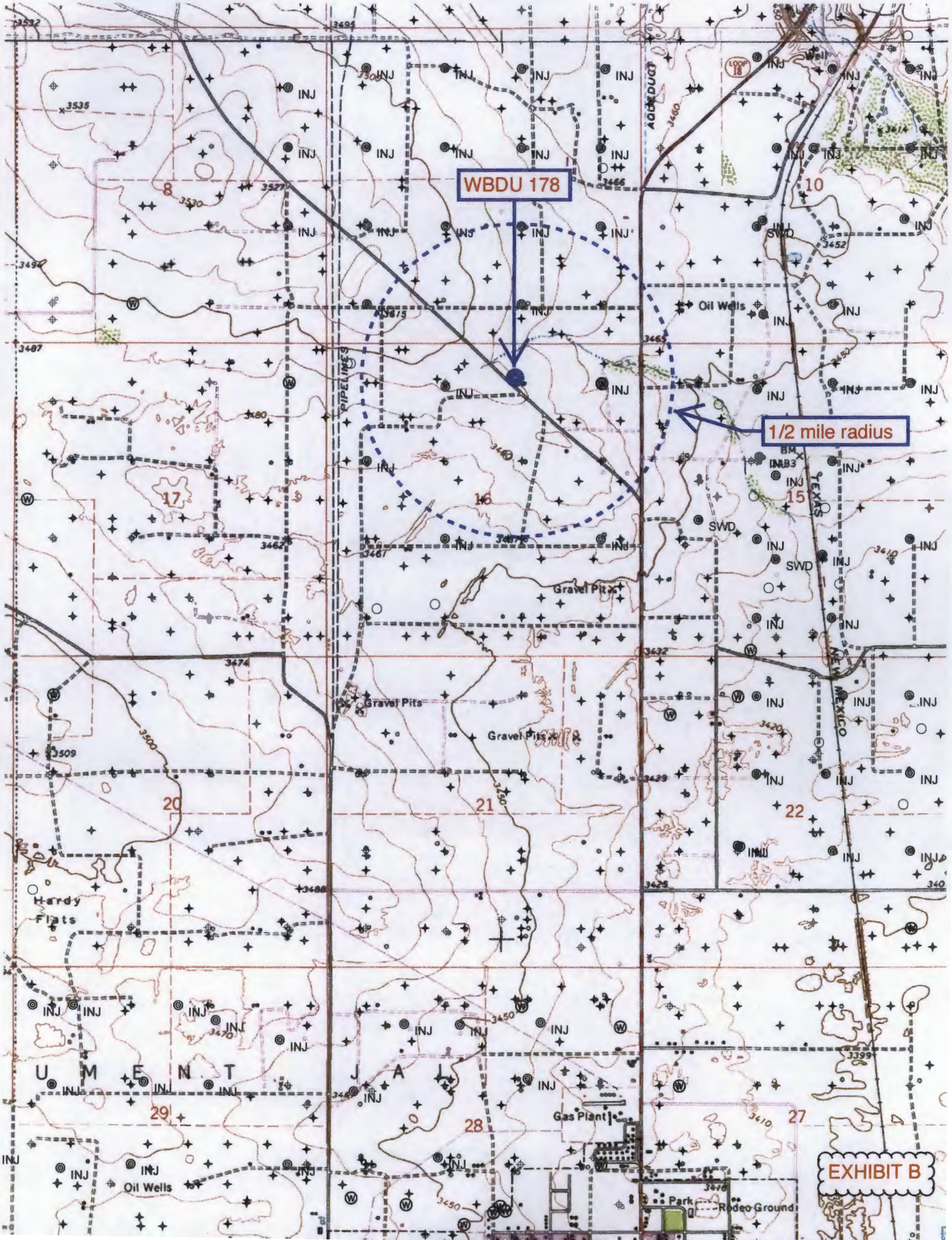
RONALD J. EIDSON
NEW MEXICO
3239

Ronald J. Eidson 02/03/2013

Certificate Number		
	Gary G. Eidson	12641
	Ronald J. Eidson	3239

BKL JWSC W.O.: 13.11.1277

EXHIBIT A


WBDU 178
1/2 mile radius
EXHIBIT B
Gravel Pit
Gravel Pits
Gravel Pits
Hardy Flats
Oil Wells
Oil Wells
Gas Plant
Park
Rodeo Ground
SWD
SWD
SWD
INJ
PIPELINES
TEXAS
NEW MEXICO
U M E N T
J A L
8
10
15
16
17
20
21
22
27
28
29

2 mile radius

WBDU 178

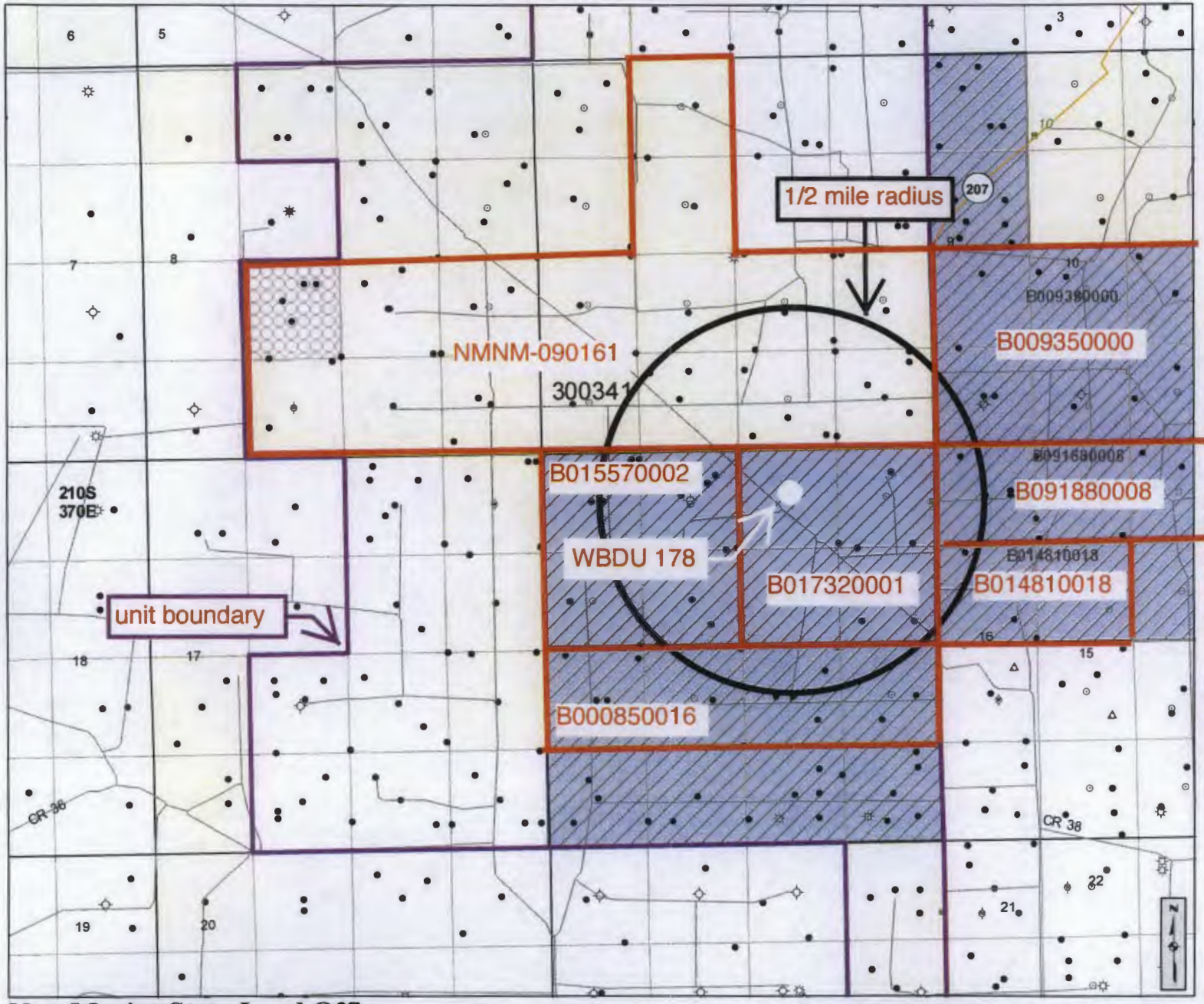
EXHIBIT C

SCALE 1:29629

0 1 MILES

0 1000 2000 YARDS

0 1 2 KILOMETI



Cartographic Features
- County Boundaries
- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
- Interstate
- US Hwy
- NM Hwy
- Local Road
- Continental Divide

Federal Minerals Ownership
- All Minerals
- Coal Only
- Oil and Gas Only
- Oil, Gas and Coal Only
- Other Minerals

State Trust Lands
- Surface Estate
- Subsurface Estate
- Surface and Subsuface Estate

State Leases
- Oil and Gas Leases
- Agricultural Leases
- Commercial Leases
- Minerals Leases
- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

Oil and Gas Related Features
- Oil and Gas Unit Boundary
- Participating Areas in Units
- Geologic Regions
- Volcanic Vents
- NMOCD Order R-111-P Potash Enclave Outline

NMOCD Oil and Gas Wells
- CO^2
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA

New Mexico State Land Office
Oil, Gas and Minerals

0 0.05 0.1 0.2 0.3 0.4 Miles

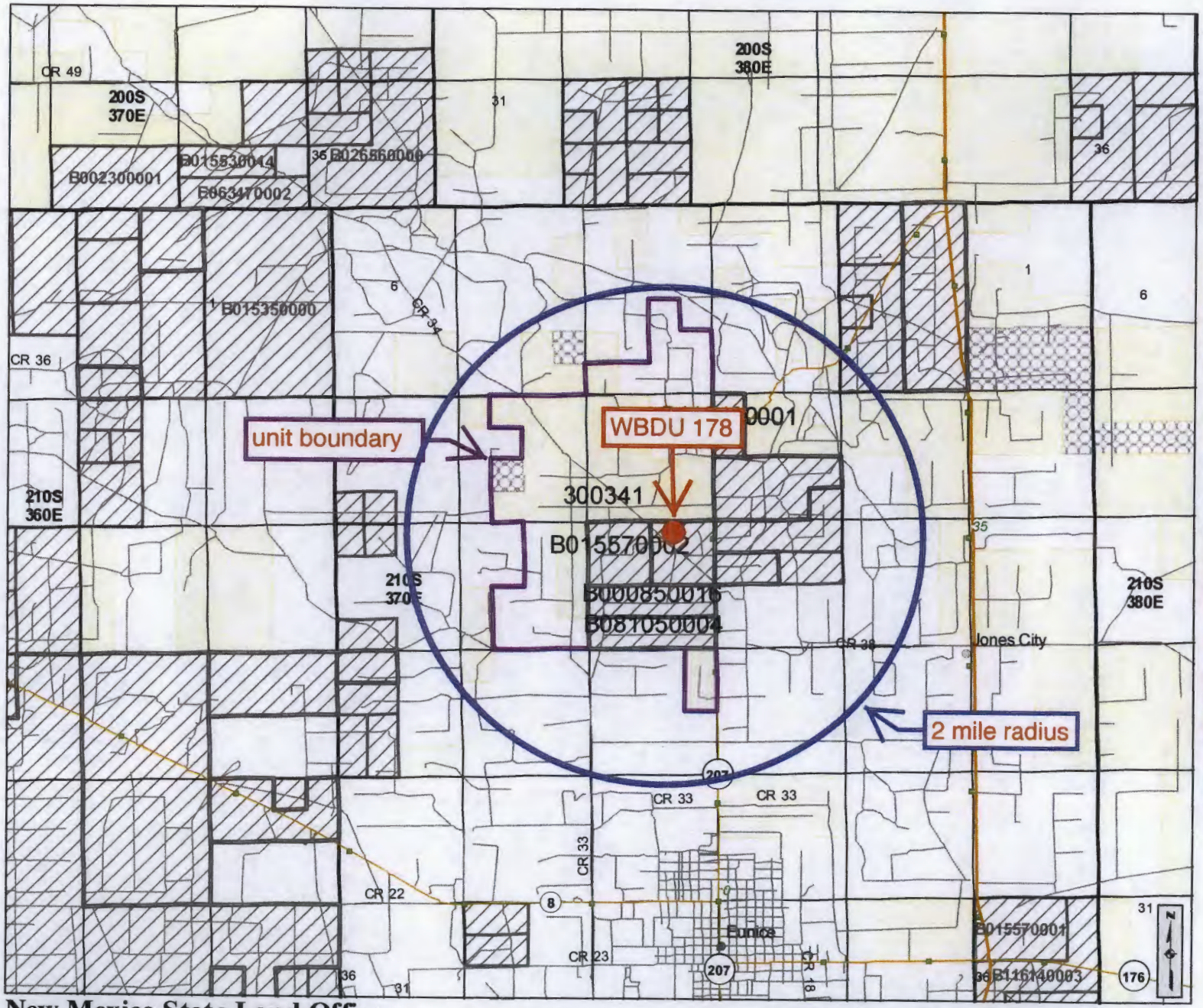
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

EXHIBIT D

Land Office Geographic Information Center
logic@slo.state.nm.us

Created On: 3/22/2014 2:52:40 PM

www.nmstatelands.org



New Mexico State Land Office

Oil, Gas and Minerals

0 0.25 0.5 1 1.5 2 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

EXHIBIT E

Land Office Geographic Information Center
logic@slo.state.nm.us

Created On: 2/16/2014 1:56:08 PM

www.nmstatelands.org

Sorted by distance from WBDU 178 well bore

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Harry Leonard NCT E 003	9/10/48	6710	Penrose Skelly; Grayburg	Oil	17.25	13.375	304	300 sx	GL	circulated
30-025-06622					12.25	9.625	2800	1200 sx	GL	circulated
B-16-21s-37e					8.75	7	6649	700 sx	3200	temperature survey
WBDU 051	3/6/07	6837	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1307	575 sx	GL	circulated
30-025-38197					7.875	5.5	6895	1150 sx	227	CBL
O-9-21s-37e										
WBDU 052	2/2/07	6870	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1296	600 sx	GL	circulated to surface
30-025-38198					7.875	5.5	6870	1500 sx	300	CBL
O-9-21s-37e										
State C Tract 12 021	7/26/05	7300	Wantz; Abo	Oil	12.25	8.625	1287	600 sx	GL	circulated 116 sx
30-025-37202					7.875	5.5	7300	1400 sx	390	CBL
C-16-21s-37e										
WBDU 098	6/15/09	6880	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1313	450 sx	GL	circulated to surface
30-025-39119					7.875	5.5	6880	1050 sx	GL	circulated to surface
B-16-21s-37e										
WBDU 064	4/27/07	6892	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1322	575 sx	GL	circulated to surface
30-025-38268					7.875	5.5	6892	1300 sx	280	CBL
F-16-21s-37e										
WBDU 038	11/4/48	6770	Eunice; Blinebry-Tubb-Drinkard, North	WIW	17	13.375	212	200 sx	GL	circulated to surface
30-025-09906					12.25	9.625	2794	500 sx	1950	temperature survey
O-9-21s-37e					8.75	7	6767	900 sx	2700	temperature survey
State C TR 12 006	2/10/48	5762	Eunice; Blinebry-Tubb-Drinkard, North	P & A	17.5	13.375	312	300 sx	no report	no report
30-025-06627					12	9.625	1385	600 sx	no report	no report
C-16-21s-37e										

Sorted by distance from WBDU 178 well bore

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 060	2/22/54	6699	Eunice; Blinebry-Tubb-Drinkard, North	WIW	17.5	13.375	297	300 sx	GL	circulated
30-025-06628					12.25	9.625	2953	1500 sx	GL	circulated
C-16-21s-37e					8.75	7	6694	1000 sx	GL	circulated
WBDU 057	7/16/63	6699	Eunice; Blinebry-Tubb-Drinkard, North	WIW	17.5	13.375	297	300 sx	GL	circulated
30-025-06623					12.25	9.625	2800	1300 sx	540	temperature survey
A-16-21s-37e					8.75	7	6645	700 sx	2550	temperature survey
Harry Leonard NCT E 001	10/4/05	6670	Penrose Skelly; Grayburg	Oil	17.25	13.375	294	300 sx	GL	circulated
30-025-06620					12.25	9.625	2950	1300 sx	1345	temperature survey
G-16-21s-37e					8.75	7	6610	700 sx	1360	temperature survey
Harry Leonard NCT E 006	1/1/76	6720	Penrose Skelly; Grayburg	Oil	11	8.625	1296	600 sx	GL	circulated
30-025-25198					7.875	5.5	6870	1500 sx	47	tagged
A-16-21s-37e										
WBDU 037	8/25/48	6750	Eunice; Blinebry-Tubb-Drinkard, North	Oil	17	13.375	232	200 sx	GL	circulated to surface
30-025-06439					12.25	9.625	2779	500 sx	1720	temperature survey
P-9-21s-37e					8.75	7	6723	800 sx	2750	temperature survey
WBDU 049	8/23/06	6950	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1323	550 sx	GL	circulated to surface
30-025-37743					7.875	5.5	6950	1400 sx	200	CBL
J-9-21s-37e										
WBDU 059	9/17/47	7502	Eunice; Blinebry-Tubb-Drinkard, North	Oil	17	13.375	316	324 sx	GL	circulated
30-025-06626					12	9.625	2900	500 sx	1325	temperature survey
F-16-21s-37e					8.75	7	6656	700 sx	2800	temperature survey
WBDU 113	9/15/09	6912	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1342	650 sx	GL	circulated to surface
30-025-39277					7.875	5.5	6912	1000 sx	GL	circulated
A-16-21s-37e										

EXHIBIT F

Sorted by distance from WBDU 178 well bore

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Hawk Fed B 1 006	6/26/48	7530	Fusselman	Oil	17.5	13.375	220	200 sx	no report	no report
30-025-09907					12.5	9.625	2779	550 sx	no report	no report
N-9-21s-37e					8.75	7	6680	950 sx	no report	no report
WBDU 063	4/5/07	6845	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1286	575 sx	GL	circulated to surface
30-025-38267					7.875	5.5	6845	1600 sx	GL	CBL
D-16-21s-37e										
WBDU 062	7/24/03	6950	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1276	550 sx	GL	circulated 232 sx to pit
30-025-36305					7.875	5.5	6950	1275 sx	GL	circulated 126 sx to pit
D-16-21s-37e										
WBDU 056	11/24/47	6614	Eunice; Blinebry-Tubb-Drinkard, North	Oil	17.5	13.375	301	300 sx	GL	circulated
30-025-06621					12.25	9.625	2952	1300 sx	GL	no report
H-16-21s-37e					8.75	7	6547	700 sx	2715	temperature survey
WBDU 050	9/8/06	6875	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1288	600 sx	GL	circulated to surface
30-025-37744					7.875	5.5	6875	1625 sx	590	CBL
J-9-21s-37e										
WBDU 081	2/28/07	6793	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1255	600 sx	GL	circulated to surface
30-025-38230					7.875	5.5	6793	1200 sx	GL	CBL
K-16-21s-37e										
WBDU 082	4/8/07	6875	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1285	650 sx	GL	circulated to surface
30-025-38231					7.875	5.5	6875	1250 sx	320	CBL
J-16-21s-37e										
WBDU 045	9/16/03	6900	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1330	600 sx	GL	circulated 67 sx to surface
30-025-36344					7.875	5.5	6900	1250 sx	GL	circulated 184 sx to pit
N-9-21s-37e										

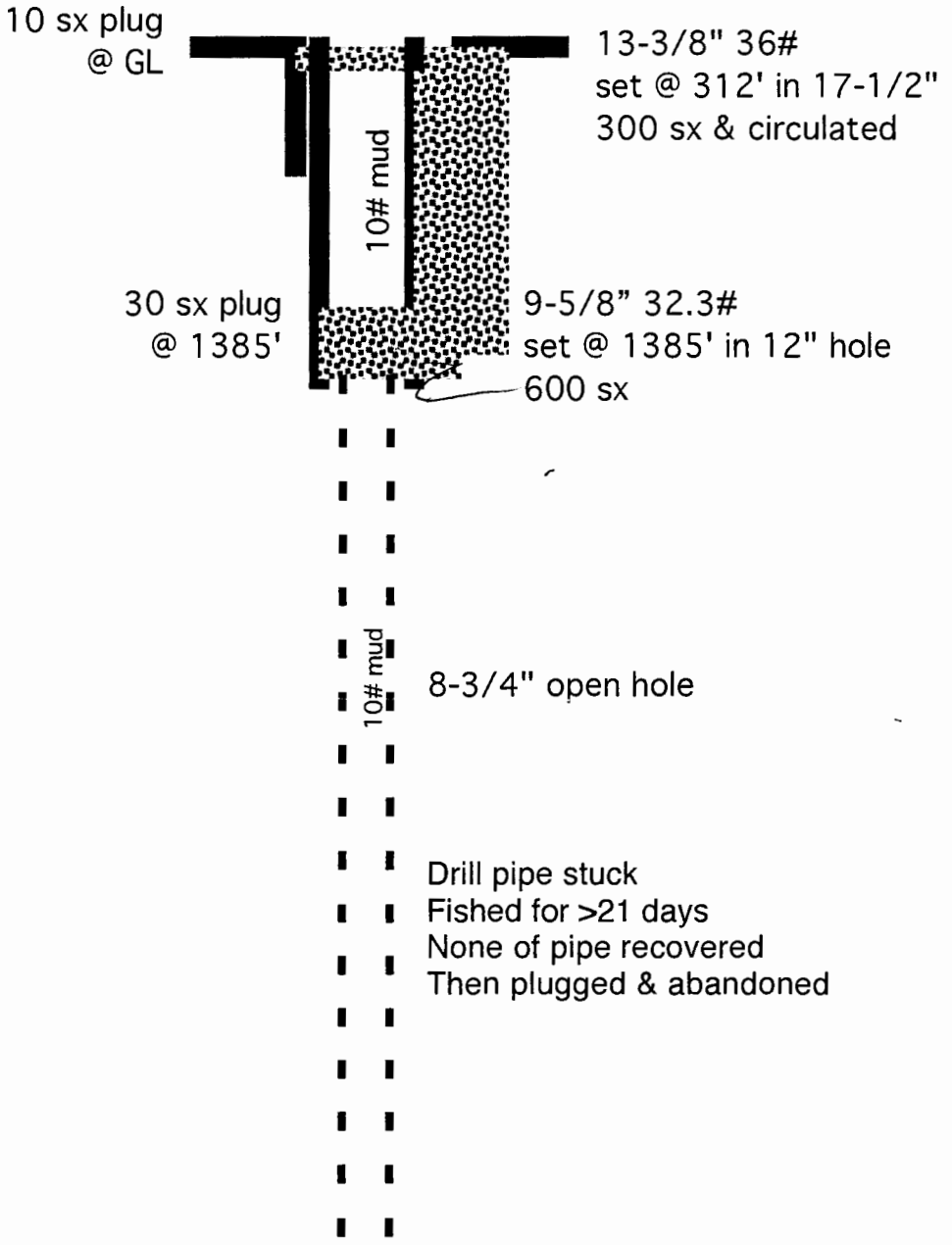
EXHIBIT F

Sorted by distance from WBDU 178 well bore

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NEDU 526	11/27/04	6900	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1278	575 sx	GL	circulated 113 sx to pit
30-025-36809					7.875	5.5	6900	1100 sx	220	no report
D-15-21s-37e										
WBDU 033	2/26/48	6695	Eunice; Blinebry-Tubb-Drinkard, North	WIW	17.5	13.375	200	200 sx	no report	no repot
30-025-06438					12.25	9.625	2789	500 sx	1400	diagram
J-9-21s-37e					8.75	7	6694	500 sx	3434	temperature survey
WBDU 061	6/6/49	6690	Eunice; Blinebry-Tubb-Drinkard, North	Oil	17	13.375	335	300 sx	GL	circulated
30-025-06629					12	9.625	2898	1500 sx	675	temperature survey
D-16-21s-37e					8.75	5.5	6629	1300 sx	2700	temperature survey
WBDU 112	1/28/11	6965	Eunice; Blinebry-Tubb-Drinkard, North	Oil	12.25	8.625	1340	665 sx	GL	circ. 29 sx to surface
30-025-39442					7.875	5.5	6965	1285 sx	GL	circ. 117 sx to surface
P-9-21s-37e										
Harry Leonard NCT E 005	11/21/74	8220	Penrose Skelly; Grayburg	Oil	17.25	12.75	268	325 sx	GL	circulated
30-025-06624					11	8.625	2799	1000 sx	2290	temperature survey
H-16-21s-37e					7.875	5.5	7999	131 sx	7540	temperature survey
WBDU 077	7/4/47	6630	Eunice; Blinebry-Tubb-Drinkard, North	Oil	17.5	13.375	225	200	GL	circulated
30-025-06618					11	8.625	2812	1500	580	temperature survey
J-16-21s-37e					7.785	5.5	6630	500	2845	temperature survey
NEDU 628	*12/30/05*	*7106*	*Eunice; Blinebry-Tubb-Drinkard, North*	*Oil*	*12.25*	*8.625*	*1198*	*575 sx*	*GL*	*circulated 160 sx*
30-025-37223					*7.875*	*5.5*	*7018*	*1800 sx*	*1202*	*CBL*
E-16-21s-37e										

EXHIBIT F

Stanolind's
State C Tract 12 #6
API 30-025-06627
660 FNL & 1980 FWL 16-21s-37e
Spud: 2-10-48
P & A: 5-3-48



TD 5762'
(not to scale)

EXHIBIT F

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

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

(acre ft per annum)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Twn	Rng	X	Y	Distance
CP 00554		STK	3	MILLARD DECK	LE	CP 00554			Shallow	2 2	16	21S	37E	672744	3595610*	440

Record Count: 1

UTMNAD83 Radius Search (in meters):

Easting (X): 672305 **Northing (Y):** 3595648 **Radius:** 1610

Sorted by: Distance

1610 meters
x 3.28 ft/m
5,280 feet

440 meters
x 3.28 ft/m
1,443 feet

EXHIBIT G

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

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 Sub-basin	County	Q64	Q16	Q4	Sec	Twn	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00554		LE	2	2		16	21S	37E	672744	3595610*	440	80	70	10

440 meters
x 3.28 ft/m
1,443 feet

Average Depth to Water: **70 feet**

Minimum Depth: **70 feet**

Maximum Depth: **70 feet**

now dry

Record Count: 1

UTMNAD83 Radius Search (in meters):

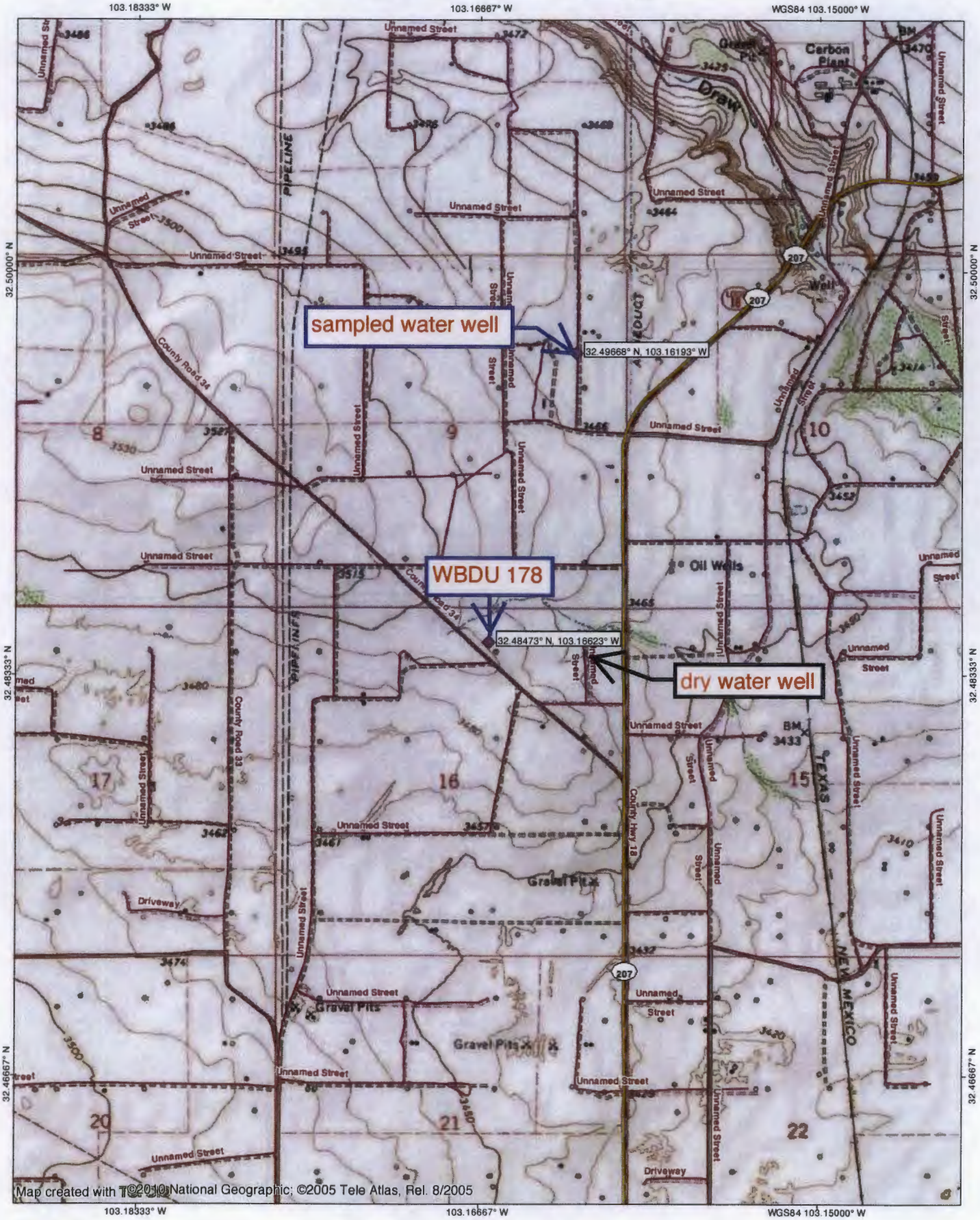
Easting (X): 672305 Northing (Y): 3595648 Radius: 1610

1610 meters
x 3.28 ft/m
5,280 feet

EXHIBIT G

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

TOPO! map printed on 03/29/14 from "Untitled.tpo"



NATIONAL GEOGRAPHIC

0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 miles
0.0 0.5 1.0 km

EXHIBIT G

TN MN
7°
03/29/14

Analytical Report
Lab Order **1401404**
Date Reported: **1/20/2014**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache SWD Water Samples
Lab ID: 1401404-001 **Matrix:** AQUEOUS

Client Sample ID: AP-WBD-NE Sec 9
Collection Date: 1/7/2014 12:32:00 PM
Received Date: 1/10/2014 11:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: **JRR**
Chloride	86	5.0		mg/L	10	1/10/2014 8:49:28 PM	R16037
EPA METHOD 1664A							Analyst: **JDC**
N-Hexane Extractable Material	ND	5.1		mg/L	1	1/15/2014	11189
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: **KS**
Total Dissolved Solids	405	20.0		mg/L	1	1/14/2014 7:27:00 PM	11204

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401404

20-Jan-14

Client: Permits West

Project: Apache SWD Water Samples

Sample ID	MB-11189	SampType:	MBLK		TestCode:	EPA Method 1664A				
Client ID:	PBW	Batch ID:	11189		RunNo:	16085				
Prep Date:	1/13/2014	Analysis Date:	1/15/2014		SeqNo:	463280	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	5.0								

Sample ID	LCS-11189	SampType:	LCS		TestCode:	EPA Method 1664A				
Client ID:	LCSW	Batch ID:	11189		RunNo:	16085				
Prep Date:	1/13/2014	Analysis Date:	1/15/2014		SeqNo:	463281	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	36	5.0	40.00	0	89.5	78	114			

Qualifiers:

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401404

20-Jan-14

Client: Permits West

Project: Apache SWD Water Samples

Sample ID	A6	SampType:	CCV_6		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461898	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	101	90	110			

Sample ID	MB	SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBW	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461902	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS-b	SampType:	LCS		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSW	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461904	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.3	90	110			

Sample ID	A4	SampType:	CCV_4		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461910	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.3	90	110			

Sample ID	A5	SampType:	CCV_5		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461922	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.2	90	110			

Sample ID	A6	SampType:	CCV_6		TestCode:	EPA Method 300.0: Anions				
Client ID:	BatchQC	Batch ID:	R16037		RunNo:	16037				
Prep Date:		Analysis Date:	1/10/2014		SeqNo:	461934	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	102	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401404

20-Jan-14

Client: Permits West

Project: Apache SWD Water Samples

Sample ID	A4	SampType:	CCV_4			TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC	Batch ID:	R16037			RunNo:	16037			
Prep Date:		Analysis Date:	1/10/2014			SeqNo:	461946	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.4	90	110			

Sample ID	A5	SampType:	CCV_5			TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC	Batch ID:	R16037			RunNo:	16037			
Prep Date:		Analysis Date:	1/10/2014			SeqNo:	461958	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	7.9	0.50	8.000	0	98.6	90	110			

Sample ID	A6	SampType:	CCV_6			TestCode:	EPA Method 300.0: Anions			
Client ID:	BatchQC	Batch ID:	R16037			RunNo:	16037			
Prep Date:		Analysis Date:	1/11/2014			SeqNo:	461966	Units:	mg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	12	0.50	12.00	0	102	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1401404

20-Jan-14

Client: Permits West

Project: Apache SWD Water Samples

Sample ID	MB-11204	SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW	Batch ID:	11204		RunNo:	16069				
Prep Date:	1/13/2014	Analysis Date:	1/14/2014		SeqNo:	462742	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

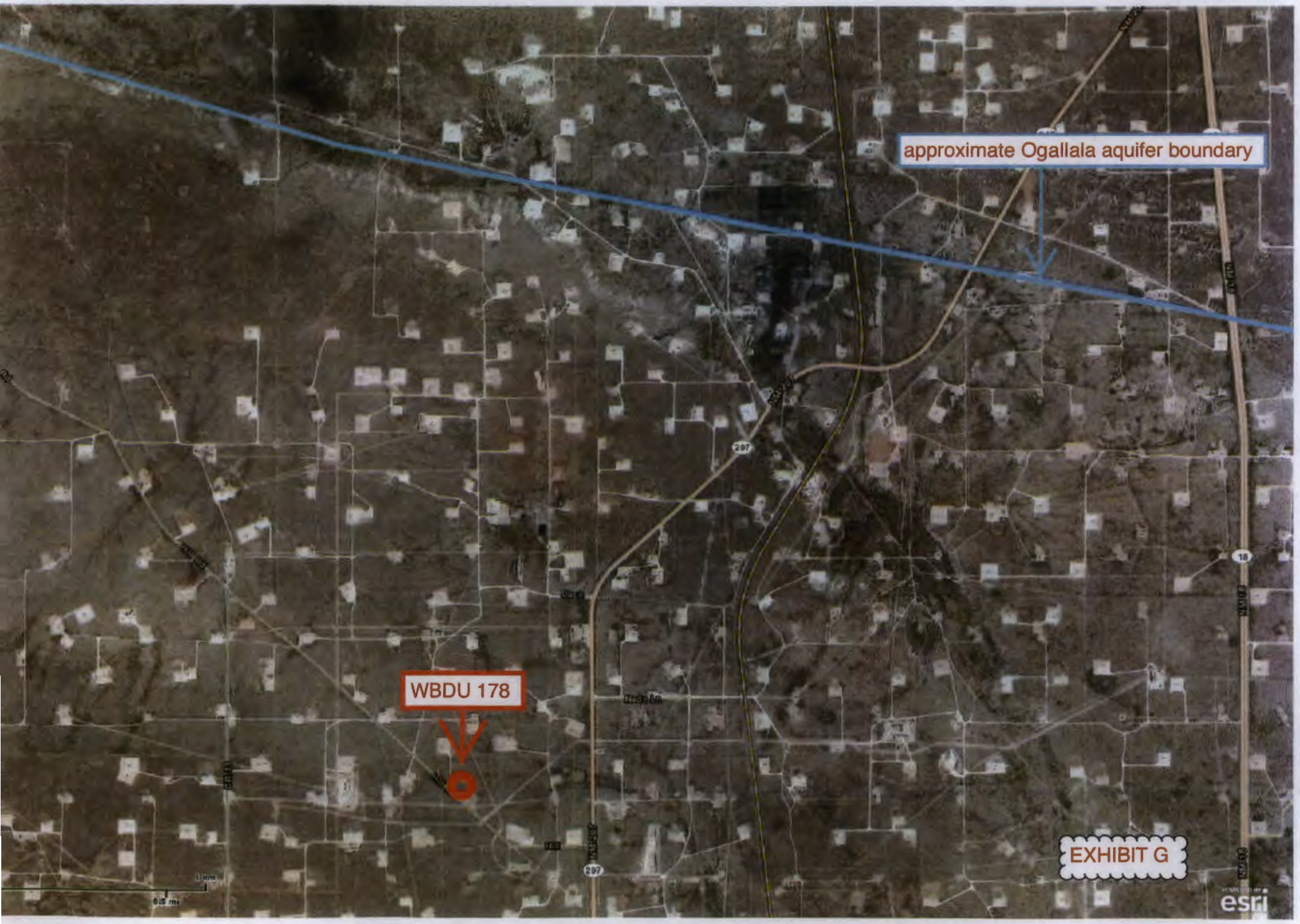
Sample ID	LCS-11204	SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW	Batch ID:	11204		RunNo:	16069				
Prep Date:	1/13/2014	Analysis Date:	1/14/2014		SeqNo:	462743	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1040	20.0	1000	0	104	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

EXHIBIT G


approximate Ogallala aquifer boundary
WBDU 178
EXHIBIT G
esri

USGS
science for a changing world

Geologic Hazards Science Center

EHP Quaternary Faults

Search for fault: Guadalupe Select a state or region map: Submit

Submit Clear Selected Features

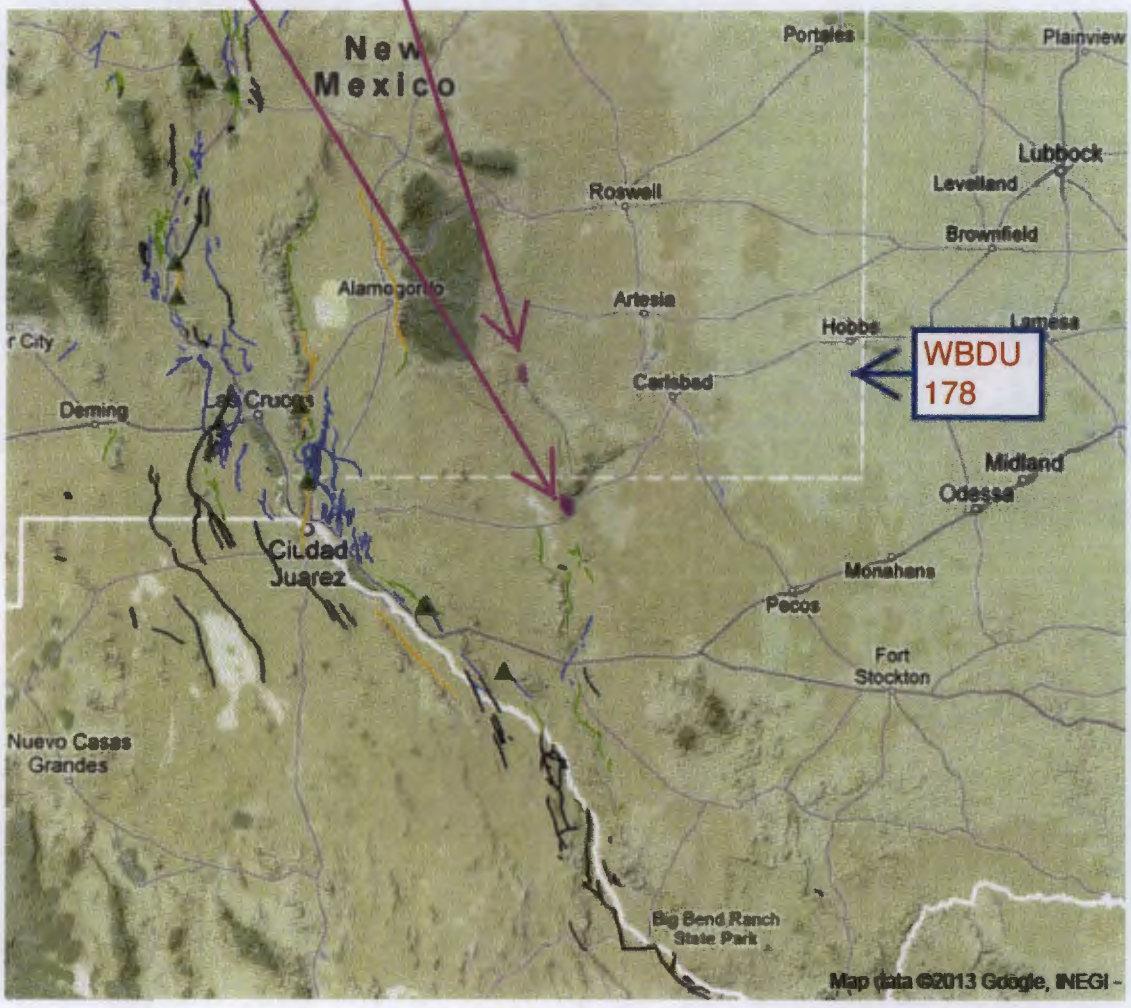


EXHIBIT H

Affidavit of Publication

State of New Mexico,
County of Lea.

I, DANIEL RUSSELL
PUBLISHER
of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
March 22, 2014
and ending with the issue dated
March 22, 2014

PUBLISHER
Sworn and subscribed to before me
this 24th day of
March, 2014

Notary Public

My commission expires
January 29, 2015
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-15

This newspaper is duly qualified to publish legal notices or advertisments within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said publication has been made.

LEGAL

LEGAL NOTICE
March 22, 2013

Apache Corporation is applying to drill the West Blinebry Drinkard Unit 178 well as a water injection well. The well is staked at (SHL) 520 FNL & 2095 FEL, Sec. 16, T. 21 S., R. 37 E., Lea County, NM. BHL will be 740 FNL & 2080 FEL 16-21s-37e. This is 3 miles north of Eunice, NM. It will inject water into the Blinebry, Tubbs, and Drinkard (maximum injection pressure = 1,128 psi) from 5,641' to 6,734'. Injection will be at a maximum rate of 3,000 bwpd. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting: Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120.
#28871

02108485 00133002

BRIAN WOOD
PERMITS WEST
37 VERANO LOOP
SANTA FE, NM 87508

EXHIBIT I

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

NM State Land Office
P. O. Box 1148
Santa Fe, NM 87504-1148

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

Postmark Here
DECOS NM
MAR 31 2014
87552

Sent To NMSLO
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

EXHIBIT J

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

BLM
620 E. Greene St.
Carlsbad NM 88220

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

7013 0600 0001 8656 7158

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$ 7.82

Postmark Here
DECOS NM
MAR 31 2014
87552

Sent To BLM
Street, Apt. No.; or PO Box No.
City, State, ZIP+4 Carls.

PS Form 3800, August 2006 See Reverse

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

Chevron USA Inc.
P. O. Box 1635
Houston TX 77251

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

DECOS NM
Postmark Here
MAR 31 2014
87552

Sent To Chevron
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

ConocoPhillips
500 Westlake Park Blvd.
Houston TX 77079

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

DECOS NM
Postmark Here
MAR 31 2014
87552

Sent To ConocoPhillips
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

7013 0600 0001 4656 7172

EXHIBIT C

PS Form 3800, August 2006 See Reverse

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

ExxonMobil Corporation
800 Bell St.
Houston TX 77002

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

B Wood

Brian Wood

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

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $

PECOS NM
Postmark Here
MAR 31 2014
87552

Sent To ExxonMobil
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

EXHIBIT J

7013 0600 0001 8656 7196

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

John H. Hendrix Corp.
P. O. Box 3040
Midland TX 79702

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

T Wood

Brian Wood

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

Postage $
Certified Fee
Return Receipt Fee (Endorsement Required)
Restricted Delivery Fee (Endorsement Required)
Total Postage & Fees $

PECOS NM
Postmark Here
MAR 31 2014
87552

Sent To Hendrix
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

Oxy USA WTP LP
8 Desta Dr., #6000
Midland TX 79705

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

PECOS NM Postmark Here MAR 31 2014 87552

Sent To Oxy
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

EXHIBIT J

7013 0600 0001 8656 7219

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

March 31, 2014

Penroc Oil Corp.
P. O. Box 2769
Hobbs NM 88241

Apache Corporation is applying (see attached application) to drill its West Blinebry Drinkard Unit 178 well as a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well in Lea County, NM. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 178 (state lease) MD = 6,957'
Proposed Injection Zone: Blinebry, Tubb, & Drinkard from 5,641' - 6,734'
Surface Hole Location: 520' FNL & 2095' FEL Sec. 16, T. 21 S., R. 37 E.
Bottom Hole Location: 740' FNL & 2080' FEL Sec. 16, T. 21 S., R. 37 E.
Approximate Location: 3 air miles north of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1167
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

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

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	$

87552 Postmark Here MAR 31 2014 PECOS NM

Sent To Penroc
Street, Apt. No.; or PO Box No.
City, State, ZIP+4

C-108 Review Checklist: Received 04/01/14 Add. Request: — Reply Date: — Suspended: [Ver 13]

PERMIT TYPE: (WFX) PMX / SWD Number: 924 Permit Date: 06/05/14 Legacy Permits/Orders: R-12981

Well No. 178 Well Name(s): West Blinebry Drinkard Unit

API : 30-0 25-41547 Spud Date: TBD New or Old: N (*UIC Class II Primacy 03/07/1982*)

Footages SHL: 520 FNL/2095 FEL BHL: 740 FNL / 2080 FEL Lot — or Unit B Sec 16 Tsp 21S Rge 37E County Lea

General Location: North of Eunice Pool: North Eunice; BLI-TU-DR Pool No.: 22900

BLM 100K Map: Jal Operator: Apache Corp OGRID: 873 Contact: Brian Wood / Permits West

COMPLIANCE RULE 5.9: Total Wells: 2907 Inactive: 5 Fincl Assur: Yes Compl. Order? No **IS 5.9 OK?** Yes **Date:** 06/05/14

WELL FILE REVIEWED ✓ Current Status: New well / APD on file

WELL DIAGRAMS: NEW: Proposed ✓ or **RE-ENTER:** Before Conv. ○ After Conv. ○ Logs in Imaging: None

Planned Rehab Work to Well: NA - new well

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)		Cement Sx or Cf	Cement Top and Determination Method
Planned ✓ or Existing — **Surface**	11 / 8 5/8	0 to 1294	Stage Tool	430	Circulated to surf
Planned ✓ or Existing — **Interm/Prod**	7 7/8 / 5 1/2	0 to 6957	None	1490	Circulated to surf.
Planned — or Existing — **Interm/Prod**	—	—	—	—	—
Planned — or Existing — **Prod/Liner**	—	—	—	—	—
Planned — or Existing — **Liner**	—	—	—	—	—
Planned ✓ or Existing — **OH / PERF**	7 7/8 / 5 1/2	5641 to 6734	Inj Length 1093		

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		San Andres *	3995
Confining Unit: (Litho) Struc. (Por)	+200	Glorieta Paddock	5170
Proposed Inj Interval TOP:	5641	Drinkard / Blin	5240 5640
Proposed Inj Interval BOTTOM:	6734	Tubb	
Confining Unit: (Litho) Struc. (Por)	+1	Abo	6735
Adjacent Unit: Litho. Struc. Por.		—	—

Completion/Operation Details:

Drilled TD 6950 TVD PBTD 6957 MD

NEW TD — NEW PBTD —

NEW Open Hole ○ or NEW Perfs ✓

Tubing Size 2 3/8 in. Inter Coated? Yes

Proposed Packer Depth 5616 ft

Min. Packer Depth 5541 (100-ft limit)

Proposed Max. Surface Press. — psi R-12981

Admin. Inj. Press. 1120 or 0.2 (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P (NA) Noticed? NA **BLM Sec Ord** (NA) **WIPP** (NA) Noticed? No **SALT/SALADO** T: 1400 B: ~~2480~~ **CLIFF HOUSE** NA

FRESH WATER: Aquifer Shallow alluvial / Ogalla Max Depth ≤300 **HYDRO AFFIRM STATEMENT By Qualified Person** ✓

NMOSE Basin: Capitan **CAPITAN REEF:** thru ○ adj ○ NA (✓) North of Santa Rosa **No. Wells within 1-Mile Radius?** 2 FW Analysis ✓

Disposal Fluid: Formation Source(s) Unit produced water Analysis? Yes On Lease (✓) Operator Only ○ or Commercial ○

*Makeup - Freshwater from shallow well in SA

Disposal Int: Inject Rate (Avg/Max BWPD): 2500 / 3000 Protectable Waters? No Source: Historical System: Closed (✓) or Open ○

HC Potential: Producing Interval? Yes Formerly Producing? — Method: Logs/DST/P&A/Other — 2-Mile Radius Pool Map ~~✓~~

(Water Flood)

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 53 Horizontals? 0

Penetrating Wells: No. Active Wells 52 Num Repairs? 0 on which well(s)? 48 producers + 4 injection Diagrams? No

Penetrating Wells: No. P&A Wells 1 Num Repairs? 0 on which well(s)? — Diagrams? Yes

NOTICE: Newspaper Date 03/22/2014 Mineral Owner SLO Surface Owner SLO N. Date 03/31/14

RULE 26.7(A): Identified Tracts? Yes Affected Persons: BLM / Chevron USA / ConocoPhillips / Hendrix Corp. / OXY USA WTP / Exxon Mobil / Penroc Oil / N. Date 03/31/14

Permit Conditions: **Issues:** None

Add Permit Cond: None