DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
2/24/2016		MAM	2/25/2016	WFX	pMAM1606032522

ABOVE THIS LINE FOR DIVISION USE ONLY

write w/Archis

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 954

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

Apache Corporation (OGRID 873)
West Blinebry Drinkard Unit 58
30-025-06625
Eunice; BLI-TU-DR, North (22900)

[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
X 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] 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

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

[F] ☐ Waivers are Attached

RECEIVED OCD
2016 FEB 25 A 9:

[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		Consultant	2-25-16
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 et al

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 58**

VII. Attach data on the proposed operation, including: **30-025-06625**

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).

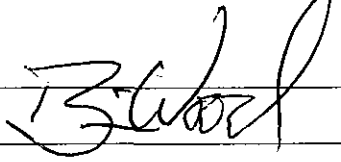
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: FEBRUARY 25, 2016

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

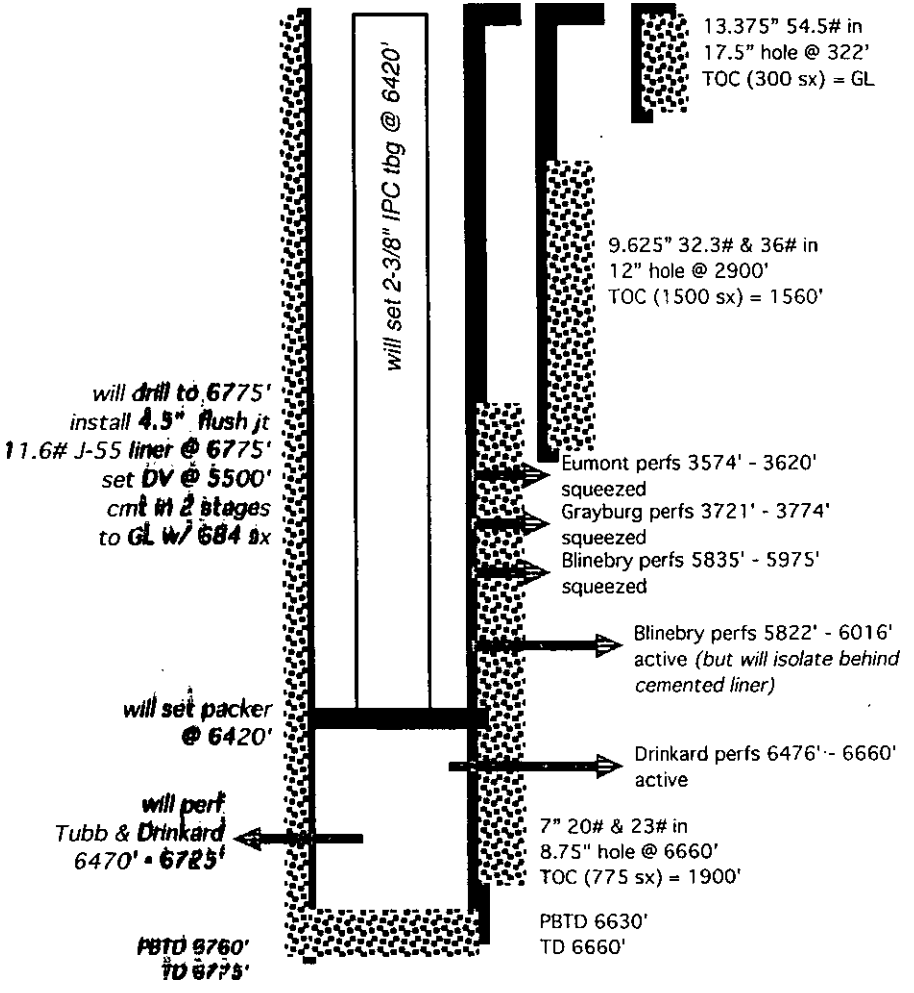
OPERATOR: APACHE CORPORATION

WELL NAME & NUMBER: WEST BLINEBRY DRINKARD UNIT 58

WELL LOCATION:	1980' FNL & 660' FWL	E	16	21 S	37 E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

Planned (not to scale) "As Is"



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17.5" Casing Size: 13.375"

Cemented with: 300 sx. *or* _____ ft³

Top of Cement: GL Method Determined: CIRCULATED

Intermediate Casing

Hole Size: 12" Casing Size: 9.625"

Cemented with: 1500 sx. *or* _____ ft³

Top of Cement: 1560' Method Determined: TEMP. SURVEY

Production Casing

Hole Size: 8-3/4" Casing Size: 7"

Cemented with: 775 sx. *or* _____ ft³

Top of Cement: 1900' Method Determined: TEMP. SURVEY

Total Depth: 6660' now and 6775' proposed

Injection Interval

6470' feet to 6725'

(Perforated or Open Hole; indicate which)

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: ≈6420'

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

Additional Data

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

   If no, for what purpose was the well originally drilled? DRINKARD OIL WELL

2. Name of the Injection Formation: 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 (3685'), SAN ANDRES (3990'),
   BLINEBRY (5660'), & TUBB (6115')

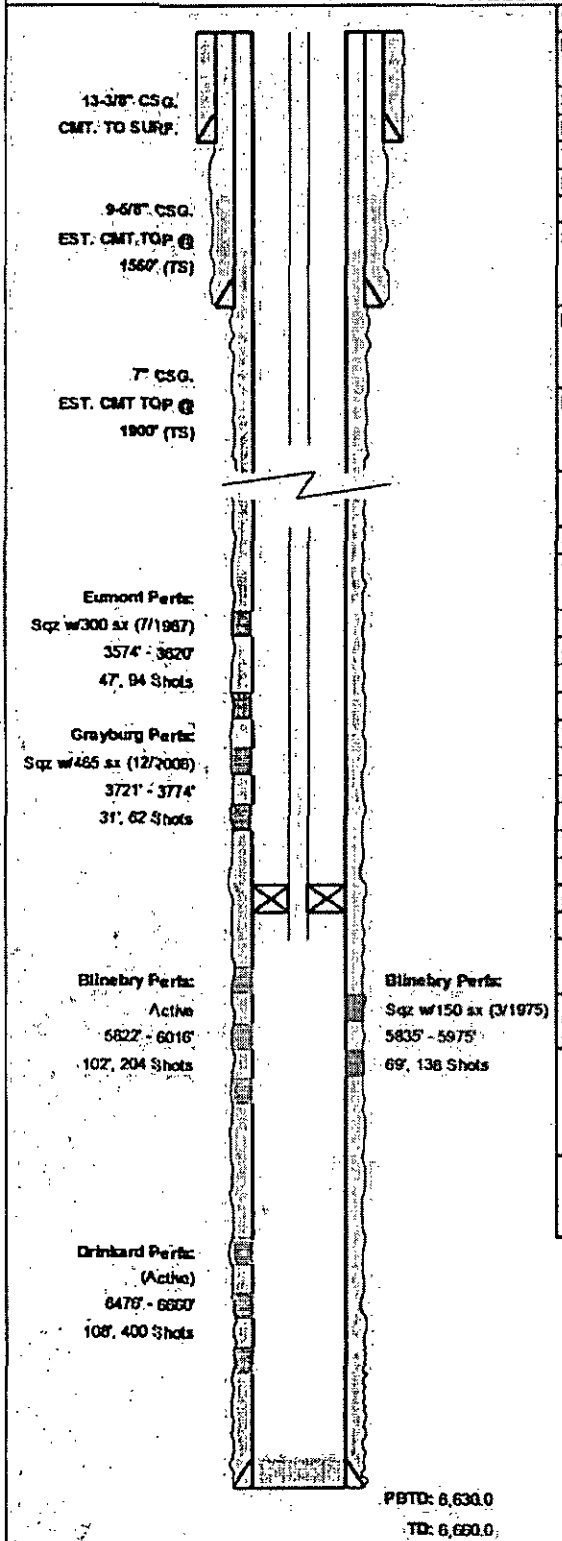
   UNDER: ABO (6727')

Current Wellbore Diagram

Apache Corporation

WBDU #58W (State C Tract 12 #3)

WELL DIAGRAM (CURRENT CONFIGURATION)



WELL NAME:	WBDU #58W (State C Tract 12 #3)	**API:**	30-025-06625
LOCATION:	1980' FNL, 660' FWL, Sec 16, T-21S, R-37E	**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	7/19/1947 - 9/9/1947	**COMP. DATE:**	9/13/1947
PREPARED BY:	Brot Shapot	**DATE:**	11/20/2015
TD (ft): 6,660.0	**KB Elev. (ft):** 3481.0	**KB to Ground (ft)**	12.0
PBTD (ft): 6,630.0	**Ground Elev. (ft):** 3469.0		

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (Cmt. w/ 300sx., Circ.)	54.50		0.00	322.00
Int. Casing	9-5/8" (Cmt. w/ 1500sx) TOC @ 1560' (TS)	32 / 36		0.00	2,900.00
Prod. Casing	7" (Cmt. w/ 775sx) TOC @ 1900' (TS)	20 / 23	J-55 N-80	0.00	6,660.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	178 JTS 2-3/8" IPC Tubing		
2	Baker Lok-set packer w/on-off tool		5,784.00
3			
4			
5			
6			
7			
8			
9			
10			

PERFORATIONS

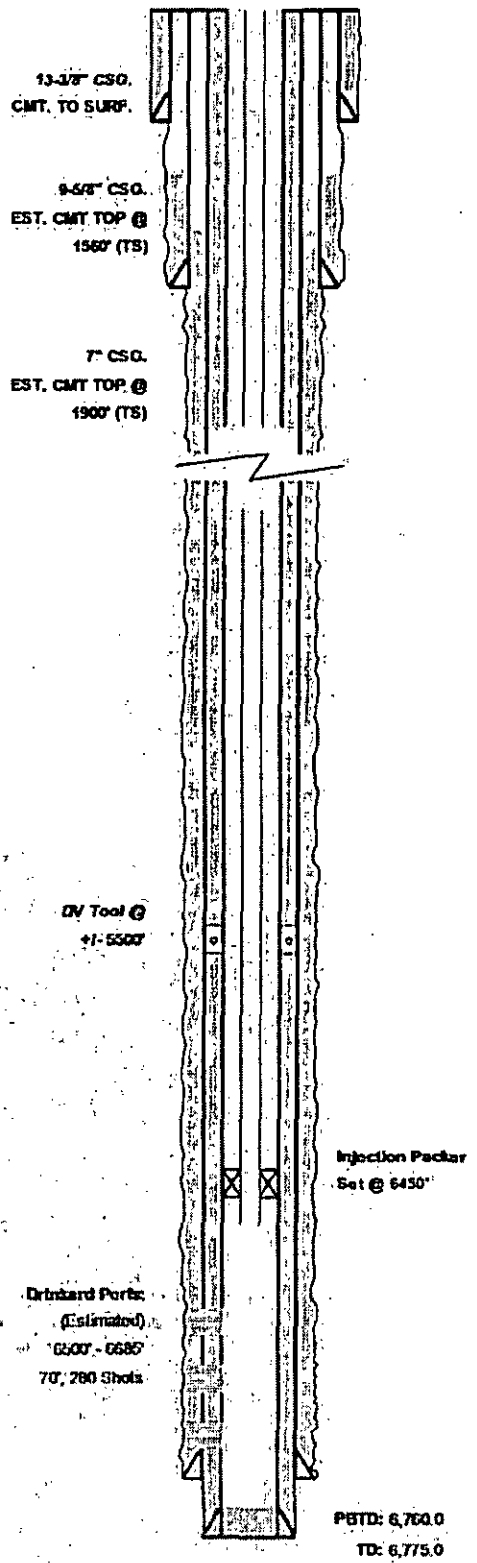
Form.	Intervals	FT	SPF
Eumont	(1/1961) 3574' - 3620' (Squeezed)	47	2
Grayburg	(7/1972) 3721'-24', 34'-44', 55'-63', 66'-68', 71'-74' (Squeezed)	31	2
Bilnebry	(7/1967) 5835'-45', 60'-65', 80'-90', 95'-5905', 5920'-30', 38'-45', 65'-75' (Squeezed)	69	2
	(1/2009) 5822'-42', 58'-63', 72'-86', 5908'-13', 20'-30', 42'-50', 60'-70', 78'-82', 88'-92', 98'-6002', 6008'-16'	102	2
Drinkard	(9/1947) 6615' - 6660'	46	6
	(3/1975) 6476'-82', 6502'-06', 14'-20', 24'-28', 32'-34', 48'-52', 54'-62', 78'-98'	62	2

Proposed Wellbore Diagram

Apache Corporation

WBDU #58W (State C Tract 12 #3)

WELL DIAGRAM (PROPOSED CONFIGURATION)



WELL NAME:	WBDU #58W (State C Tract 12 #3)			**API:**	30-025-06625
LOCATION:	1980' FNL, 660' FWL, Sec 16, T-21S, R-37E			**COUNTY:**	Lea Co., NM
SPUD/TD DATE:	7/19/1947 - 9/9/1947			***COMP. DATE:***	3/3/1961
PREPARED BY:	Bret Shapot			**DATE:**	11/20/2015
TD (ft):	6,775.0	**KB Elev. (ft):**	3481.0	**KB to Ground (ft)**	12.0
PBTD (ft):	6,760.0	**Ground Elev. (ft):**	3469.0		

CASING/TUBING	SIZE (IN)	WEIGHT (LB/FT)	GRADE	DEPTHS (FT)	
Surface Casing	13-3/8" (Cmt. w/ 300sx., Circ.)	54.50		0.00	322.00
Int. Casing	9-5/8" (Cmt. w/ 1500sx.) TOC @ 1560' (TS)	32 / 36		0.00	2,900.00
Prod. Casing	7" (Cmt. w/ 775sx) TOC @ 1900' (TS)	20 / 23	J-55 N-80	0.00	6,660.00
Liner	4-1/2" Cmt. To surf	11.60	J-55	0.00	6,775.00

INJECTION TBG STRING

ITEM	DESCRIPTION	LENGTH (FT)	Btm (FT)
1	2-3/8" 4.7 LB/FT J-55 IPC TBG	6,450.00	6450.00
2	2-3/8" ON/OFF TOOL W/ 1.78 F PROFILE	1.80	6451.80
3	2-3/8" X 4-1/2" NICKLE PLATED ARROW-SET PKR	6.20	6458.00
4	2-3/8" 4.7 LB/FT J-55 IPC TBG	8.00	6466.00
5	2-3/8" PROFILE NIPPLE 1.50 R	0.90	6466.90
6	2-3/8" 4.7 LB/FT J-55 IPC TBG	6.00	6,472.90
7			
8			
9			
10			

PERFORATIONS

Form.	Intervals	FT	SPF
Drinkard	(Estimated) 6500' - 6685'	70	4

APACHE CORPORATION
WEST BLINEBRY DRINKARD UNIT 58
1980' FNL & 660' FWL
SEC. 16, T. 21 S., R. 37 E.
LEA COUNTY, NM 30-025-06625

I. Goal is to change the injection interval of this existing water injection well (fka, State C Tract 12 #3) from its current 5822' - 6016' (Blinebry) and 6476' - 6660' (Drinkard) intervals to a 6470' - 6725' interval (Tubb and Drinkard). All cited intervals are part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900).

The well and zone are part of the West Blinebry Drinkard Unit (Cases 14125 and 14126, both Order Number R-12981) that was established in 2008 by Apache. There have been nine subsequent WFX approvals: WFX-854, WFX-857, WFX-913, WFX-921, WFX-922, WFX-923, WFX-924, WFX-948, and WFX-952. Thirty-four water injectors are now active in the unit.

II. Operator: Apache Corporation (OGRID #873)
Operator phone number: (432) 818-1062
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: NM State Land Office B0-1557-0002
Lease Size: 160.00 acres (see Exhibit A for maps and C-102)
Closest Lease Line: 660'
Lease Area: NW4 Section 16, T. 21 S., R. 37 E. et al
Unit Size: 2480 acres Unit Numbers: 300341 & NMNM-120042X
Closest Unit Line: 3300'
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 (13-3/8", 54.5#) was set in 1947 in a 17-1/2" hole at 322' and cemented with 300 sacks. Cement circulated to surface.

Intermediate casing (9-5/8", 32.3# & 36#) was set in a 12" hole at 2900' and cemented to 1560' (temperature survey) with 1500 sacks.

Production casing (7", 20# & 23#, J-55 & N-80) was set in an 8-3/4" hole at 6660' and cemented to 1900' (temperature survey) with 775 sacks.

A 6-1/8" hole will be drilled to 6775'. A 4-1/2" flush joint liner (11.6#, J-55) will be set at 6775, a DV tool will be set at ≈5500', and the liner cemented to surface with 684 sacks.

A. (3) Tubing will be internally plastic coated 2-3/8", J-55, 4.7#. Setting depth will be ≈6420'. (Injection interval will be 6470' to 6725'.)

A. (4) A 2-3/8" x 4-1/2" nickel-plated Arrow-set packer will be set at ≈6420' (≈50' above the highest perforation of 6470').

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

B. (2) Injection interval will be 6470' to 6725'. The well is a cased hole. Well is currently perforated in the Blinebry (5822' - 6016') and Drinkard (6476' - 6660').

B. (3) Well was originally drilled as a Drinkard oil well. It was converted to a water injection well in 2009 under R-12981.

B. (4) Perforation and isolation history follows.

DEPTH	NAME	STATUS	WHEN
3574' - 3620'	Eumont	squeezed w/ 300 sx	1961
3721' - 3774'	Grayburg	squeezed w/ 465 sx	1972
5835' - 5975'	Blinebry	squeezed w/ 150 sx	1967
5822' - 6016'	Blinebry	102' perforated w/ 204 shots	2009
6615' - 6660'	Drinkard	perforated	1947
6476' - 6498'	Drinkard	108' perforated w/ 400 shots	1975

B. (5) Next higher oil or gas zone in the area of review is the Blinebry. It produced in this well and its bottom is at 6114'. Injection will occur in the Tubb and Drinkard from 6470' to 6725'.

Next lower oil or gas zone in the area of review is the Abo. Abo top is estimated at 6727'. (Abo will not be perforated. However, it will be penetrated to allow for better logging.) Abo is producing elsewhere in the area of review (e. g., 30-025-37202).

IV. This is not a horizontal or vertical expansion of an existing injection project. The case file for the unit approval (R-12981) describes the water flood. There have been nine water flood expansions since then. Closest unit boundary is 3300' south and west. Seven existing injection wells are within a half-mile radius. All are in the unit.

V. Exhibit B shows all 50 existing wells (40 oil or gas wells + 7 water injection wells + 2 P&A wells + 1 water supply well) + 2 proposed wells within a half-mile radius, regardless of depth. Exhibit C shows all 732 existing wells (573 oil or gas wells + 75 injection or disposal wells + 61 P & A wells + 22 water supply wells + 1 brine well) within a two-mile radius.

Exhibit D shows all leases (only BLM, State, and fee) within a half-mile radius. Exhibit E shows all lessors (only BLM, State, and fee) within a two-mile radius. Apache is the operator of all Tubb and/or Drinkard wells within ½ mile, all of which are unit wells. Details on the leases within a half-mile are:

Aliquot Parts in Area of Review (T 21 S, R 37 E)	Lessor	Lease	Lessee(s) of Record
SESE Sec. 8	BLM	NMNM-090161	Apache & Chevron
S2SW4 Sec. 9	BLM	NMNM-090161	Apache & Chevron
W2NE4 Sec. 16	NMSLO	B0-1732-0001	Chevron
NW4 Sec. 16	NMSLO	B0-1557-0002	Apache
NW4 Sec. 16	NMSLO	B0-1557-0001	Occidental
N2SW4 & NWSE Sec. 16	NMSLO	B0-0085-0016	Apache
S2SW4 Sec. 16	NMSLO	B0-8105-0004	Apache
E2NE4 & NWSE Sec. 17	BLM	NMLC-032096A	Apache & Chevron
NWNE Sec. 17	fee	Weatherly	Apache
SWNE & NWSE Sec. 17	fee	W. W. Weatherly	Apache
SESE Sec. 17	fee	Hardy Blinebry	Apache

VI. Fifty existing wells are within a half-mile radius. Twenty-six of the wells penetrated the Tubb (top = 6115'). The penetrators include 21 oil or gas wells, 7 water injection wells, and 1 water supply well. A table abstracting the well construction details and histories of the penetrators is in Exhibit F. The 50 existing wells (+ 2 approved undrilled, wells) and their distances from the #58 are:

API	WHO	WELL	TYPE	UNIT-SECTION	TVD	ZONE	FEET FROM WBDU 58
3002535709	Apache	State C Tract 12 011	O	E-16	4200	Penrose Skelly; Grayburg	332
3002536115	Apache	State C Tract 12 012	O	E-16	4125	Penrose Skelly; Grayburg	731
3002536617	Apache	State DA 009	O	L-16	4350	Penrose Skelly; Grayburg	824
3002536614	Apache	State C Tract 12 018	O	E-16	4350	Penrose Skelly; Grayburg	866

3002536305	Apache	WBDU 062	O	D-16	6950	Eunice; Bli-Tu-Dr, N	960
3002538220	Apache	WBDU 080	O	L-16	6875	Eunice; Bli-Tu-Dr, N	969
3002538206	Apache	WBDU 071	O	A-17	6905	Eunice; Bli-Tu-Dr, N	1023
3002538204	Apache	WBDU 069	O	I-17	6829	Eunice; Bli-Tu-Dr, N	1031
3002536478	Apache	State C Tract 12 015	O	C-16	4725	Penrose Skelly; Grayburg	1048
3002535708	Apache	State C Tract 12 010	O	F-16	4200	Penrose Skelly; Grayburg	1172
3002506626	Apache	WBDU 059	I	F-16	7502	Eunice; Bli-Tu-Dr, N	1298
3002506629	Apache	WBDU 061	I	D-16	6690	Eunice; Bli-Tu-Dr, N	1320
3002506615	Apache	WBDU 075	O	L-16	6650	Eunice; Bli-Tu-Dr, N	1322
3002506638	Apache	WBDU 066	O	H-17	6645	Eunice; Bli-Tu-Dr, N	1326
3002535515	Apache	State C Tract 12 008	O	D-16	4450	Penrose Skelly; Grayburg	1328
3002534245	Apache	State DA 006	O	L-16	4000	Penrose Skelly; Grayburg	1331
3002542496	Apache	WBDU 221	O	I-17	Plan 7200	Plan: Eunice; Bli-Tu-Dr, N	1535
3002537864	Apache	State DA 014	O	L-16	4375	Penrose Skelly; Grayburg	1562
3002536725	Apache	State C Tract 12 019	O	F-16	4350	Penrose Skelly; Grayburg	1593
3002541454	Apache	State C Tract 12 Com 001Y	O	D-16	6872	Wantz; Abo	1675
3002541375	Apache	State C Tract 12 001H	P&A	D-16	1295	fish	1684

8/16

3002542495	Apache	WBDU 130	O	A-17	Plan 7200	Eunice; Bli-Tu-Dr, N	1704
3002536101	Apache	Lockhart A 17 006	O	H-17	4150	Penrose Skelly; Grayburg	1783
3002536159	Apache	Lockhart A 17 007	O	I-17	4100	Penrose Skelly; Grayburg	1787
3002535707	Apache	State C Tract 12 009	O	C-16	4450	Penrose Skelly; Grayburg	1823
3002506628	Apache	WBDU 060	I	C-16	11 6/9 6699	Eunice; Bli-Tu-Dr, N	1827
3002506627	Stanolind	State C TR 12 006	P&A	C-16	5762	Blinebry (fish)	1869
3002506637	Apache	Lockhart A 17 002	O	I-17	21 19 6630	Penrose Skelly; Grayburg	1870
3002506639	Apache	WBDU 067	WSW	A-17	31 11 6770	San Andres	1874
3002506616	Apache	WBDU 076	I	K-16	41 12 6654	Eunice; Bli-Tu-Dr, N	1875
3002538414	Apache	WBDU 083	O	L-16	31 13 6850	Eunice; Bli-Tu-Dr, N	1899
3002538268	Apache	WBDU 064	O	F-16	61 14 6892	Eunice; Bli-Tu-Dr, N	1901
3002536787	Apache	State DA 011	O	K-16	4350	Penrose Skelly; Grayburg	1931
3002538267	Apache	WBDU 063	O	D-16	61 15 6845	Eunice; Bli-Tu-Dr, N	1944
3002536618	Apache	State C Tract 12 016	O	D-16	4350	Penrose Skelly; Grayburg	1979
3002536661	Apache	Lockhart A 17 009	O	A-17	4350	Penrose Skelly; Grayburg	2015
3002536613	Apache	State C Tract 12 017	O	C-16	4386	Penrose Skelly; Grayburg	2050
3002538205	Apache	WBDU 070	O	A-17	4/16 6925	Eunice; Bli-Tu-Dr, N	2054

4/16

3002535516	Apache	State DA 007	O	K-16	4200	Penrose Skelly; Grayburg	2061
3002538230	Apache	WBDU 081	O	K-16	1/17 6793	Eunice; Bli-Tu-Dr, N	2073
3002538411	Apache	WBDU 068	O	H-17	2/14 6905	Eunice; Bli-Tu-Dr, N	2082
3002539958	Apache	WBDU 126	O	P-17	3/14 6920	Eunice; Bli-Tu-Dr, N	2139
3002539987	Apache	WBDU 125	O	B-17	4/20 6951	Eunice; Bli-Tu-Dr, N	2152
3002537202	Apache	State C Tract 12 021	O	C-16	5/11 7300	Wantz; Abo	2194
3002536095	Apache	State C Tract 12 013	O	C-16	4150	Penrose Skelly; Grayburg	2336
3002537379	Apache	Lockhart A 17 010	O	A-17	4360	Penrose Skelly; Grayburg	2343
3002536658	Apache	W W Weatherly 007	O	G-17	4234	Penrose Skelly; Grayburg	2344
3002541548	Apache	WBDU 168	I	G-16	6/12 6982	Eunice; Bli-Tu-Dr, N	2376
3002539606	Apache	State Land 15 019	O	M-16	4414	Penrose Skelly; Grayburg	2410
3002541543	Apache	WBDU 152	I	M-16	7/12 6955	Eunice; Bli-Tu-Dr, N	2488
3002506620	Chevron	Harry Leonard NCT E 001	O	G-16	8/24 6670	Penrose Skelly; Grayburg	2625
3002506441	Apache	WBDU 039	I	M-9	9/25 6770	Eunice; Bli-Tu-Dr, N	2640

VII. 1. Average injection rate will be ≈2500 bwpd.
Maximum injection rate will be ≈3000 bwpd.

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

3. Average injection pressure will be ≈1100 psi. Maximum injection pressure will be 1294 psi (=0.2 psi/ft x 6470' (highest perforation)).

4. Water source will be water pumped from two existing ≈4000' 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 39,054,030 barrels that have been injected to date in the unit since 2009.

	WBDU 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. Apache currently has 124 oil wells and 34 injection 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. Dip is 1° to 2°. The Blinebry/Tubb/Drinkard interval is Leonardian in age, ≈1000' 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 125 Tubb injection wells and 155 Drinkard injection wells in New Mexico. 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. Formation depths are:

Quaternary = 0'
Rustler Anhydrite = 1260'
Cowder Anhydrite = 2290'
(base) salt = 2490'
Yates = 2630'
Queen = 3435'
Grayburg = 3685'
San Andres =3990'
Glorieta = 5205'
Blinebry = 5660'
Tubb = 6115'
Drinkard = 6470'
Injection interval = 6470' - 6725'
Abo = 6727'
PBTD = 6760'
TD = 6775'

State Engineer records (Exhibit G) indicate two water wells are within a mile (1610 meters) radius. Deepest of the water wells is 120'. Water well CP 00164 appears to have been obliterated by a caliche pit. Water well CP 00554 was dry during a January 20-21, 2016 field inspection.

Two nearby water wells beyond a mile were found. A well ≈6000' southeast in Section 15 was sampled. It is not in the State Engineer's database. A well (CP 00162 & 00163) ≈7000' was also sampled. Their analyses are in Exhibit H. Ogallala aquifer is >6 miles northeast.

No existing underground drinking water source is below the injection interval within a mile radius.

There will be 3840' of vertical separation and 1370' of salt and anhydrite between the bottom of the only likely underground fresh water source (red beds) and the top of the injection zone. (No water sands were reported in the red beds penetrated by this well.) Produced water is currently being injected (194 wells) or disposed (9 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.

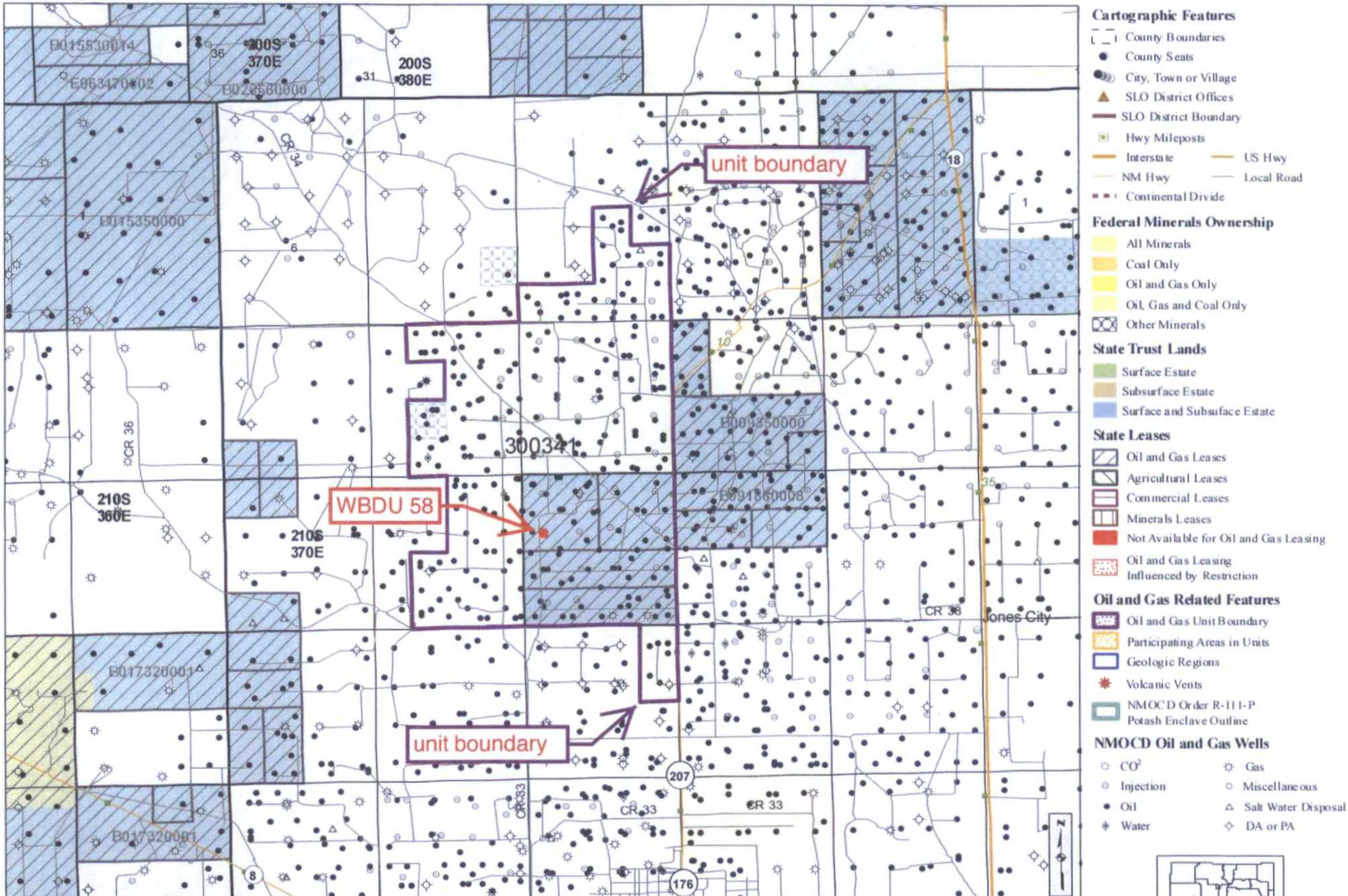
X. A log (title is illegible) was run and is on file with NMOCD. A GR/CBL/CCL log will be run from TD to GL and filed with NMOCD.

XI. Two fresh water wells are within 1-1/4 mile. Analyses from those wells are attached as Exhibit H.

XII. Apache (Exhibit I) 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. There are 155 active Drinkard injection wells in New Mexico. Previously approved

water flood expansions (WFX-) in the unit include 854, 857, 913, 921, 922, 923, 924, 948, and 952.

XIII. A legal ad (see Exhibit K) was published February 11, 2016. Notice (this application) has been sent (Exhibit L) to the surface owner (NM State Land Office), other lessors, lessees, or leasehold operating rights holders (BLM, Chevron USA, ConocoPhillips, John H. Hendrix Corp., NM State Land Office, Oxy USA WTP LP, Penroc Oil Corp.) and non-Drinkard operators (Chevron) in the area of review. Apache is the only offset Tubb or Drinkard operator.



New Mexico State Land Office
Oil, Gas and Minerals

0 0.2 0.4 0.8 1.2 1.6 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

The New Mexico State Land Office assumes no responsibility or liability for, or in connection with, the accuracy, reliability or use of the information provided here, in State Land Office data layers or any other data layer.

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

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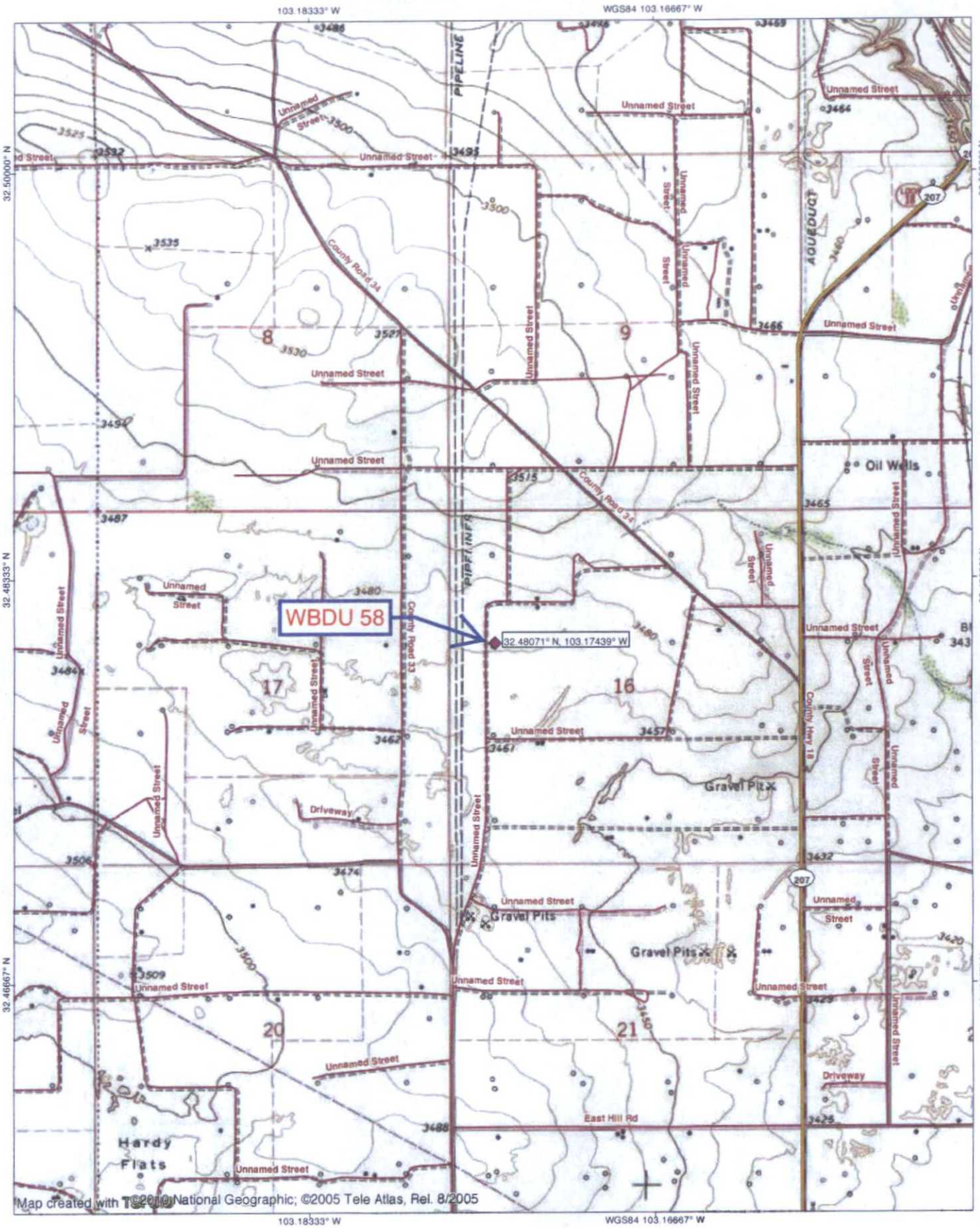
EXHIBIT A

www.nmstatelands.org

TOPO! map printed on 02/21/16 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 A

TN ↑ MN
7°
02/21/16

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

FORM C-128
Revised 5/1/57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

SECTION A

Operator	Lease	Well No.
Pan American Petroleum Corporation	State C, Tract 12	3

Unit Letter	Section	Township	Range	County
K	16	21-S	37-E	Lea

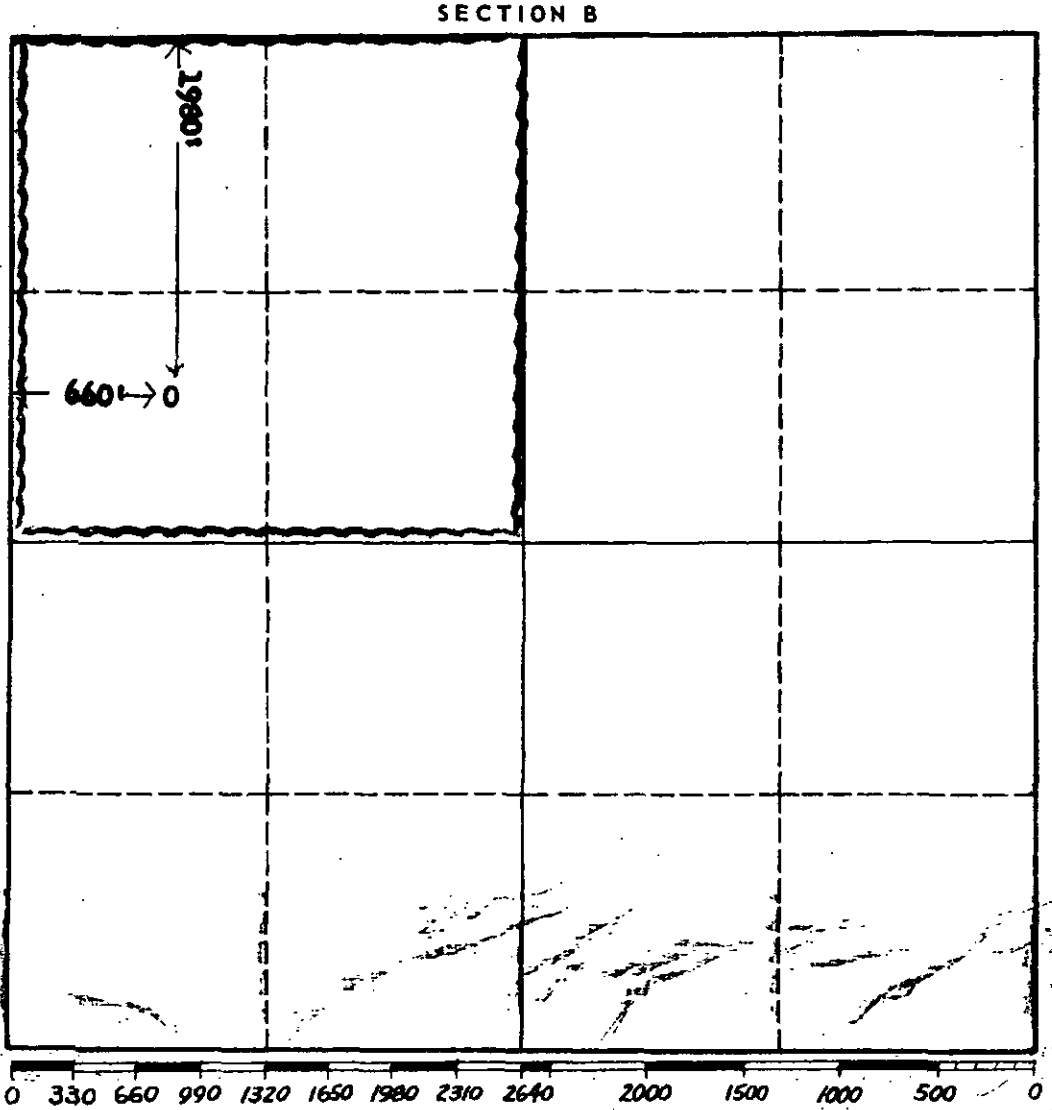
Actual Footage Location of Well: 1980 feet from the North line and 660 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3481 DF	Yates-Seven Rivers	Eumont	160 Acres

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES X NO _____. *("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)*
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES _____ NO _____. *If answer is "yes," Type of Consolidation* _____
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

I hereby certify that the information in *SECTION A* above is true and complete to the best of my knowledge and belief.

Name: Original Signed by: V. E. STALEY

Position: Area Superintendent

Company: Pan American Petroleum Corp.

Date: March 9, 1961

I hereby certify that the well location shown on the plat in *SECTION B* 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 knowledge and belief.

EXHIBIT A

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

RECEIVED
SEP 22 2008
HOBBS OCD

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-06625	22900	Eunice; Bli-Tu-Dr, North

4 Property Code	5 Property Name	6 Well Number
23113	State C Tract 12	003

7 OGRID No.	8 Operator Name	9 Elevation
00873	Apache Corporation (873)	3469'

10 Surface Location

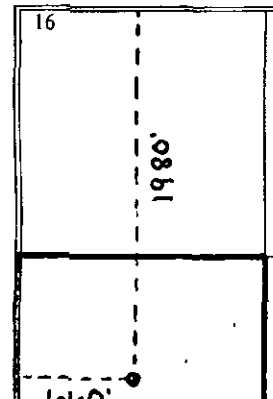
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	16	21S	37E		1980	North	660	West	Lea

11 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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 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.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division

Sophie Mackay 09/18/2008
Signature Date

Sophie Mackay
Printed Name

18 SURVEYOR CERTIFICATION

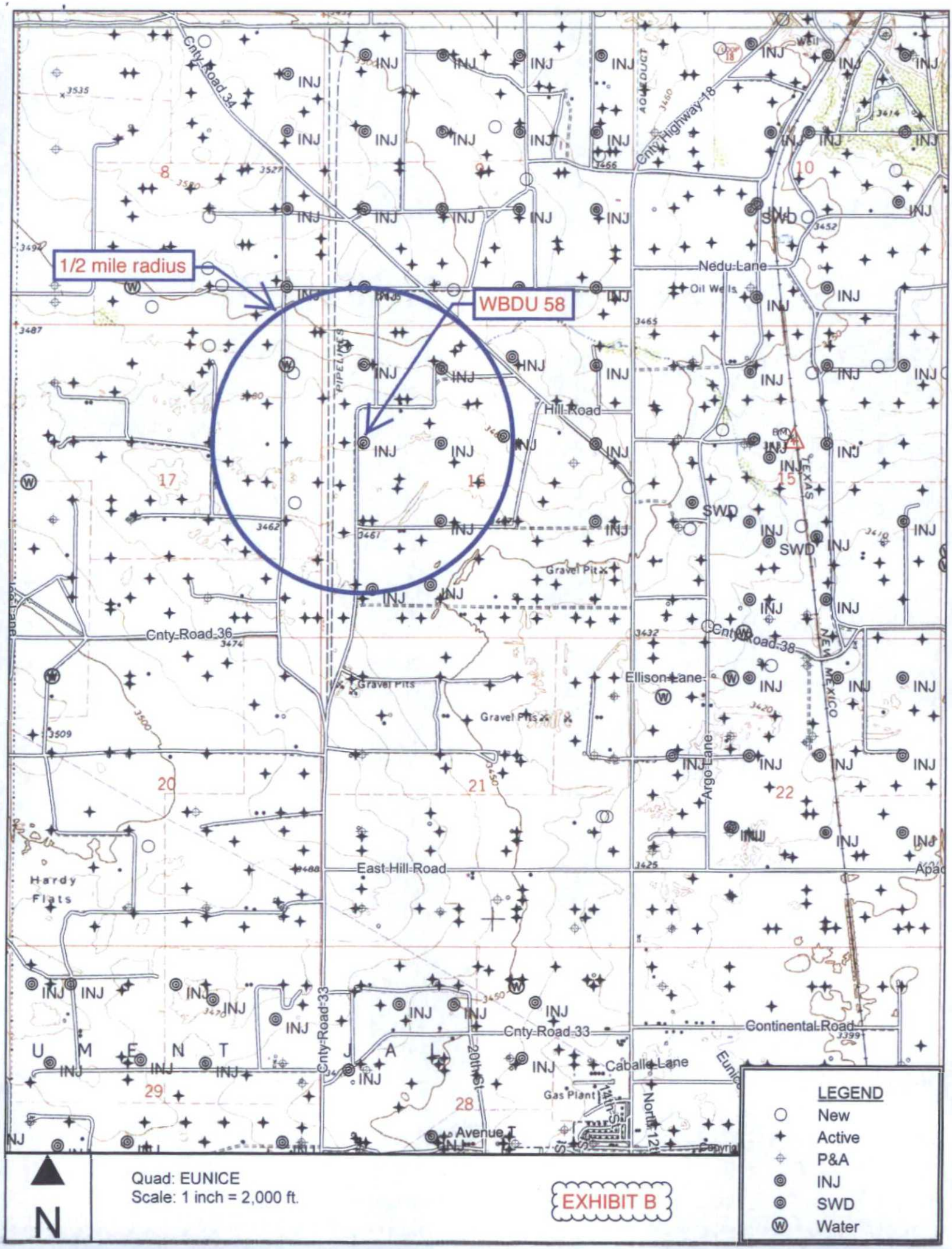
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief

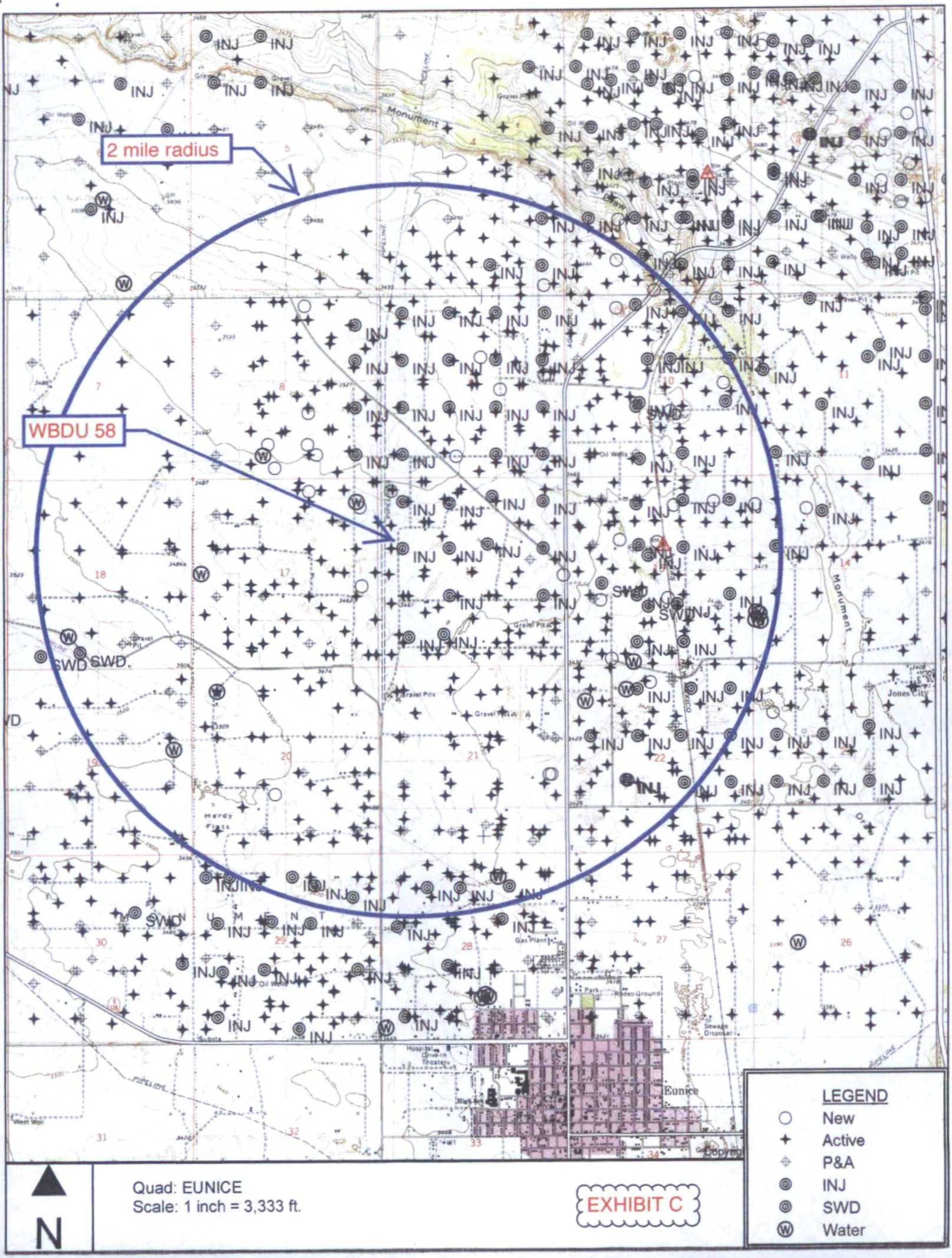
Date of Survey

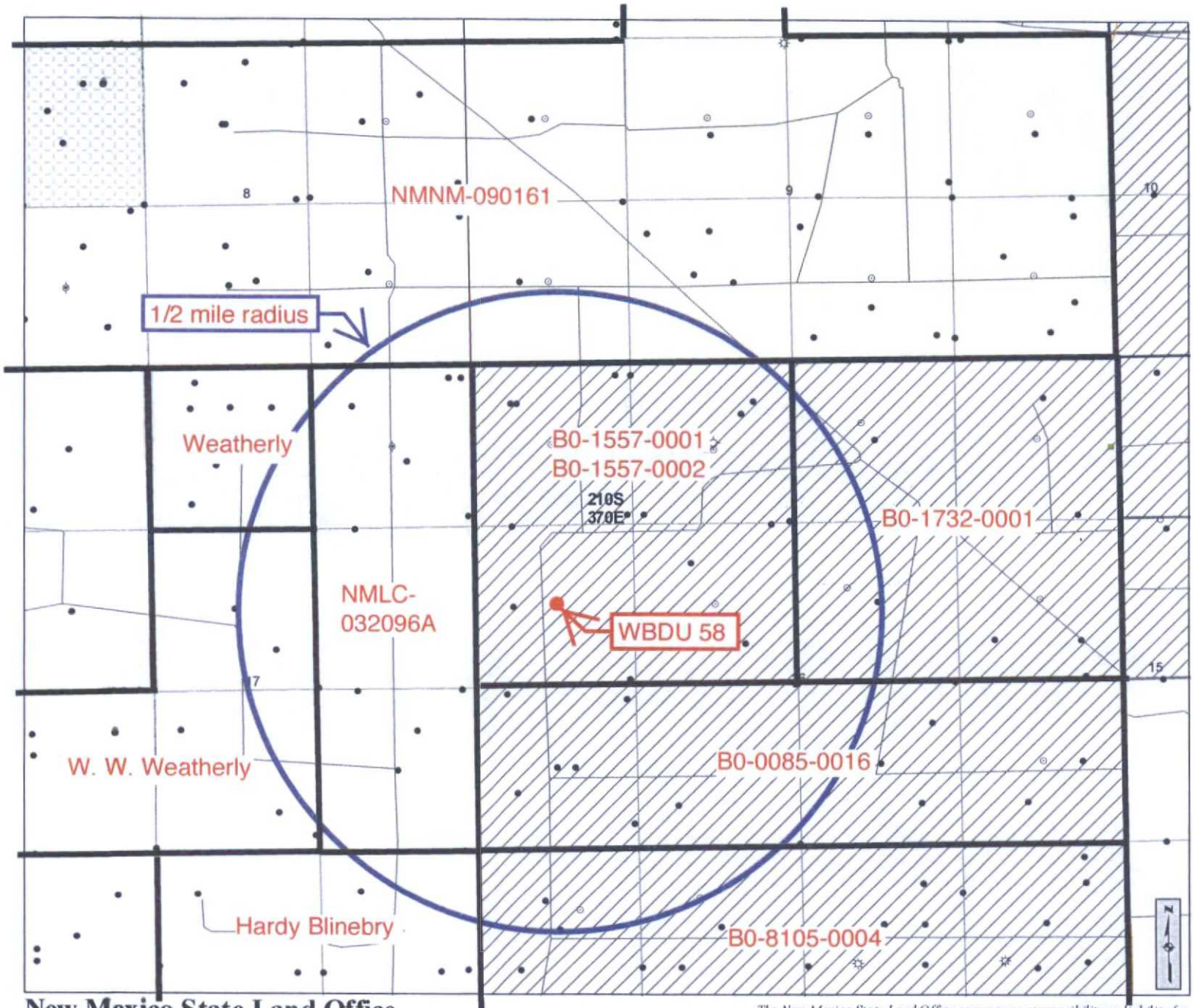
Signature and Seal of Professional Surveyor

EXHIBIT A

Certificate Number


1/2 mile radius
WBDU 58
Cnty Road 34
Cnty Highway 18
Nedu Lane
Oil Wells
Hill Road
Gravel Pit
Cnty Road 36
Cnty Road 38
Ellison Lane
Gravel Pits
Argo Lane
East Hill Road
Hardy Flats
Cnty Road 33
Caballo Lane
Gas Plant
Avenue I
Continental Road
TEXAS
NEW MEXICO
PIPELINES
AQUEDUCT
SWD
INJ
UMENT JAL
LEGEND
New
Active
P&A
INJ
SWD
Water
N
Quad: EUNICE
Scale: 1 inch = 2,000 ft.
EXHIBIT B


2 mile radius
WBDU 58
Monument
Hardy Flats
Gravel Pits
Oil Wells
Gas Plant
Hospital
Drive-in Theater
Park
Rodeo Ground
Sewage Disposal
Jones City
Eunice
West Well
LEGEND
New
Active
P&A
INJ
SWD
Water
N
Quad: EUNICE
Scale: 1 inch = 3,333 ft.
EXHIBIT C



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

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EXHIBIT D

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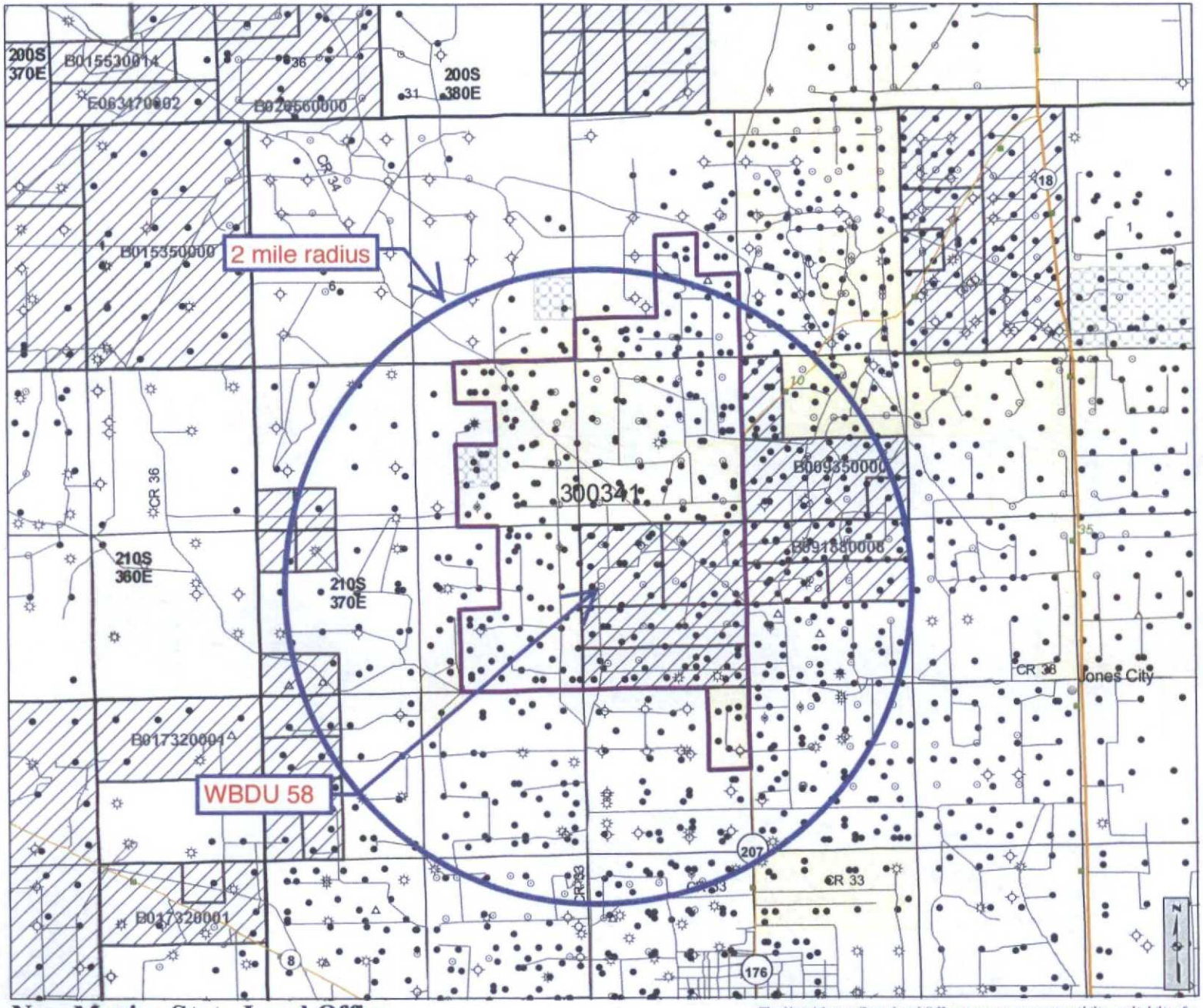

Cartographic Features
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- Oil and Gas Only
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- Other Minerals

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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 0.2 0.4 0.8 1.2 1.6 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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

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EXHIBIT E

www.nmstatelands.org

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 062	7/24/03	6950	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1132	550 sx	Surface	Circ 232 sx
30-025-36305					7.875	5.5	6950	1275 sx	Surface	Circ 126 sx
D-16-21S-37E										
WBDU 080	1/19/07	6875	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1227	575 sx	Surface	Circ
30-025-38220					7.875	5.5	6875	1425 sx	225	CBL
L-16-21S-37E										
WBDU 071	3/17/07	6905	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1300	575 sx	Surface	Circ
30-025-38206					7.875	5.5	6905	1150 sx	240	CBL
A-17-21S-37E										
WBDU 069	2/22/07	6875	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1303	600 sx	Surface	Circ
30-025-38204					7.875	5.5	6875	1075 sx	440	CBL
I-17-21S-37E										
WBDU 059	6/23/83	7502	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	316	325 sx	Surface	Circ
30-025-06626					12.25	9.625	2900	1500 sx	1325	Temp Survey
F-16-21S-37E					8.75	7	6656	700 sx	2800	Temp Survey

EXHIBIT F

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 061	6/6/49	6690	Eunice; Bli-Tu-Dr, N	I	17	13.375	328	300 sx	Surface	Circ
30-025-06629					12	9.625	2898	1500 sx	675	Temp Survey
D-16-21S-37E					8.75	5.5	6629	1300 sx	2700	Temp Survey
WBDU 079	3/24/47	6686	Eunice; Bli-Tu-Dr, N	O	17.25	13.375	216	200 sx	Surface	Circ
30-025-06615					11	8.625	2812	1200 sx	1300	Temp Survey
L-16-21S-37E					7.375	5.5	6686	400 sx	2790	calculated
WBDU 066	7/7/47	6645	Eunice; Bli-Tu-Dr, N	O	17.5	13.375	222	200 sx	Surface	Circ
30-025-06638					12	9.625	2529	500 sx	1513	Temp Survey
H-17-21S-37E					8.75	7	6629	500 sx	3582	CBL
WBDU 221	Plan	7200	Eunice; Bli-Tu-Dr, N	O	11	8.625	1350	530 sx	Surface	N/A
30-025-42496					7.875	5.5	7200	1000 sx	Surface	N/A
I-17-21S-37E										
State C Tract 12 Com 1Y	10/20/13	6940	Wantz; Abo	O	17.5	13.375	1324	1095 sx	Surface	Circ 90 sx
30-025-41454					11	8.625	6083	1350 sx	480	Circ 5 bbl
D-16-21S-37E					7.875	5.5	11219	1595 sx	35	CBL

EXHIBIT F

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 130	Plan	7200	Plan: Eunice; Bli-Tu-Dr, N	O	11	8.625	1375	440 sx	Surface	N/A
30-025-42495					7.875	5.5	7200	975 sx	Surface	N/A
A-17-21S-37E										
WBDU 060	2/22/54	6699	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	297	300 sx	Surface	Circ
30-025-06628					12.25	9.625	2953	1500 sx	Surface	Circ
C-16-21S-37E					8.75	7	6694	1000 sx	1900	calculated
Lockhart A 17 002	3/26/47	6630	Penrose Skelly; Grayburg	O	17.5	13.375	195	200 sx	Surface	Circ
30-025-06637					12.25	9.625	2538	450 sx	1364	Temp Survey
I-17-21S-37E					7.875	5.5	6629	500 sx	3510	Temp Survey
WBDU 067	12/31/49	6770	Eunice; Bli-Tu-Dr, N	W	16	13.375	228	250 sx	Surface	Circ
30-025-06639					12.5	9.625	2819	900 sx	675	Temp Survey
A-17-21S-37E					8.75	7	6767	650 sx	2830	CBL
WBDU 076	5/14/47	6654	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	214	200 sx	Unknown	Did not circ
30-025-06616					11	8.625	2815	1200 sx	1325	Temp Survey
K-16-21S-37E					7.375	5.5	6654	500 sx	2850	Temp Survey

EXHIBIT F

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 083	6/23/07	6850	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1273	575 sx	Surface	Circ
30-025-38414					7.875	5.5	6850	1300 sx	186	CBL
L-16-21S-37E										
WBDU 064	4/27/07	6892	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1322	575 sx	surface	Circ
30-025-38268					7.875	5.5	6892	1300 sx	280	CBL
F-16-21S-37E										
WBDU 063	4/5/07	6845	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1286	575 sx	Surface	Circ
30-025-38267					7.875	5.5	6845	1600 sx	Surface	CBL
D-16-21S-37E										
WBDU 070	3/6/07	6925	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1302	575 sx	Surface	Circ
30-025-38205					7.875	5.5	6925	1100 sx	245	CBL
A-17-21S-37E										
WBDU 081	2/28/07	6793	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1255	600 sx	Surface	Circ
30-025-38230					7.875	5.5	6793	1200 sx	Surface	CBL
K-16-21S-37E										

EXHIBIT F

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 068	7/14/07	6905	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1295	650 sx	Surface	Circ
30-025-38411					7.875	5.5	6905	1250 sx	2660	CBL
H-17-21S-37E										
WBDU 126	1/11/11	6920	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1283	665 sx	Surface	Circ 222 sx
30-025-39958					7.875	5.5	6920	1340 sx	Surface	Circ 130 sx
P-17-21S-37E										
WBDU 129	1/22/11	6951	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1317	665 sx	Surface	Circ 222 sx
30-025-39987					7.875	5.5	6951	1300 sx	Surface	Circ 137 sx
B-17-21S-37E										
State C Tract 12 021	7/26/05	7300	Wantz; Abo	O	12.25	8.625	1287	600 sx	Surface	Circ 116 sx
30-025-37202					7.875	5.5	7300	1400 sx	390	CBL
C-16-21S-37E										
WBDU 168	11/14/14	6982	Eunice; Bli-Tu-Dr, N	I	11	8.625	1293	575 sx	surface	circ 168 sx
30-025-41548					7.875	5.5	6945	1921 sx	surface	circ 270 sx
G-16-21S-37E										

EXHIBIT F

Sorted by distance from WBDU 58

WELL	SPUD	TVD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
WBDU 152	10/25/14	6955	Eunice; Bli-Tu-Dr, N	I	11	8.625	1247	575 sx	Surface	Circ 166 sx
30-025-41543					7.875	5.5	6955	1840 sx	Surface	Circ 323 sx
M-16-21S-37E										
Harry Leonard NCT E 001	10/4/05	6670	Penrose Skelly; Grayburg	O	17.25	13.325	294	300 sx	surface	circulated
30-025-06620					12.25	9.625	2950	1300 sx	1345	temp survey
G-16-21S-37E					8.75	7	6610	700 sx	1360	temp survey
WBDU 039	2/14/49	6770	Eunice; Bli-Tu-Dr, N	I	15	13.375	200	250 sx	Surface	Circ
30-025-06441					12.25	9.625	2824	500 sx	1210	Temp Survey
M-9-21S-37E					8.75	7	6769	750 sx	3011	Temp Survey

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-Code basin	County	Q64	Q16	Q4	Sec	Twns	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00164		LE	2	1	1	21	21S	37E	671665	3594080*	1115	120		
CP 00554		LE		2	2	16	21S	37E	672744	3595610*	1270	80	70	10
CP 01026 POD1		LE	1	1	3	17	21S	37E	669809	3594958	1751	167	95	72
CP 00895		LE		1	1	20	21S	37E	669957	3593956*	2010	163		
CP 00162		LE	1	4	2	09	21S	37E	672621	3596915*	2033	120		
CP 00163		LE	1	4	2	09	21S	37E	672621	3596915*	2033	120		
CP 00447		LE	2	4	4	18	21S	37E	669647	3594451*	2036	95		
CP 00676		LE		4	4	18	21S	37E	669548	3594352*	2165	140	106	34
CP 01141 POD2		LE	3	4	3	15	21S	37E	673541	3594250	2205	40		
CP 01141 POD3		LE	3	4	3	15	21S	37E	673541	3594250	2205	40		
CP 01141 POD4		LE	3	4	3	15	21S	37E	673541	3594250	2205	45		
CP 01575 POD1	CP	LE	1	2	1	22	21S	37E	673543	3594200	2228	40	35	5
CP 01575 POD2	CP	LE	2	2	1	22	21S	37E	673610	3594192	2292	35	35	0
CP 00985 POD1		LE	4	4	2	19	21S	37E	669595	3593453	2610	160		
CC 01999 POD1		CU	3	3	2	29	03N	36E	670385	3592502	2926	415	372	43
CP 01245 POD1		LE	1	4	3	18	21S	37E	668677	3594410	2971	220		
CP 00552		LE		2	4	04	21S	37E	672700	3598022*	3059	90	75	15
CP 00553		LE		2	4	04	21S	37E	672700	3598022*	3059	90	75	15
CP 01574 POD1	CP	LE	2	4	4	15	21S	37E	674563	3594599	3074	68	57	11
CP 01185 POD1		LE		1	3	14	21S	37E	674598	3594689	3094	70		
CP 01185 POD3		LE		1	3	14	21S	37E	674592	3594620	3099	70		
CP 01185 POD2		LE		1	3	14	21S	37E	674623	3594674	3121	70		
CP 01185 POD4		LE		1	3	14	21S	37E	674633	3594610	3141	70		
CP 01574 POD2	CP	LE	1	3	3	14	21S	37E	674654	3594594	3165	68	57	11
CP 00711		LE	4	2	2	28	21S	37E	672900	3592291*	3199	100	65	35

1610 meters = 5280 feet

EXHIBIT G

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

(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-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
														Average Depth to Water:	**94 feet**
														Minimum Depth:	**35 feet**
														Maximum Depth:	**372 feet**

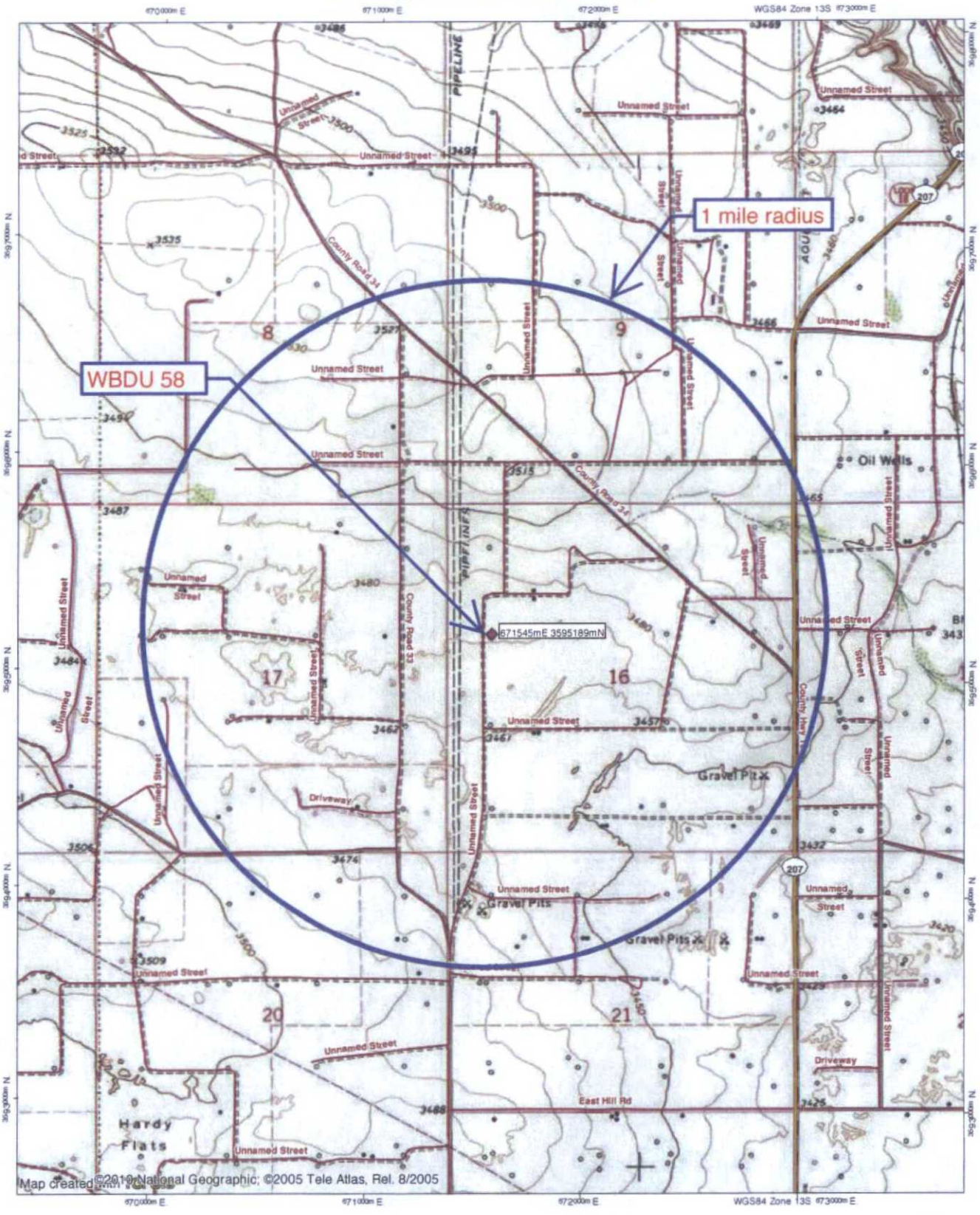
Record Count: 25

UTMNAD83 Radius Search (in meters):

Easting (X): 671545 **Northing (Y):** 3595189 **Radius:** 3220

EXHIBIT G

TOPO! map printed on 02/21/16 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°
02/21/16

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 00164		PLS	3	SAM W GRAVES	LE	CP 00164				2 1 1	21	21S	37E	671665	3594080*	1115
CP 00554		STK	3	MILLARD DECK	LE	CP 00554			Shallow	2 2	16	21S	37E	672744	3595610*	1270
CP 01026		DOM	1	SAMANTHA KERBO	LE	CP 01026 POD1			Shallow	1 1 3	17	21S	37E	669809	3594958	1751
CP 00895		DOM	3	JOE R. SIMS	LE	CP 00895			Shallow	1 1	20	21S	37E	669957	3593956*	2010
CP 00162		PLS	3	SAM W GRAVES	LE	CP 00162				1 4 2	09	21S	37E	672621	3596915*	2033
CP 00163		PLS	3	SAM W GRAVES	LE	CP 00163				1 4 2	09	21S	37E	672621	3596915*	2033
CP 00447		PDL	1	JOE E. SIMS	LE	CP 00447			Shallow	2 4 4	18	21S	37E	669647	3594451*	2036
CP 00676		DOM	3	JOE E. SIMS	LE	CP 00676			Shallow	4 4	18	21S	37E	669548	3594352*	2165
CP 01141		MON	0	SOUTHERN UNION GAS SERVICES	LE	CP 01141 POD5				3 4 3	15	21S	37E	673514	3594253	2180
					LE	CP 01141 POD1				3 4 3	15	21S	37E	673530	3594263	2190
					LE	CP 01141 POD2			Shallow	3 4 3	15	21S	37E	673541	3594250	2205
					LE	CP 01141 POD3			Shallow	3 4 3	15	21S	37E	673541	3594250	2205
					LE	CP 01141 POD4			Shallow	3 4 3	15	21S	37E	673541	3594250	2205
CP 01575		MON	0	GHD SERVICES INC	LE	CP 01575 POD1		NON	Shallow	1 2 1	22	21S	37E	673542	3594200	2228
CP 01436		MON	0	APEX TITAN	LE	CP 01436 POD1				3 4 3	15	21S	37E	673562	3594229	2233
CP 01575		MON	0	GHD SERVICES INC	LE	CP 01575 POD2		NON	Shallow	2 2 1	22	21S	37E	673609	3594192	2292
CP 00985		STK	3	RICKY ZIEGLER	LE	CP 00985 POD1			Shallow	4 4 2	19	21S	37E	669595	3593453	2610
CP 01511		MON	0	RICE OPERATING COMPANY	LE	CP 01511 POD1				4 4 3	20	21S	37E	670582	3592732	2638

1610 meters = 5280 feet

EXHIBIT G

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

(acre ft per annum)

(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)

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
CC 01999		DOM	0	VICKY CLARK	CU	CC 01999 POD1			Shallow	3 3 2	29	03N	36E	670384	3592502	2926
CP 01195		SAN	1	PIPER ENERGY	LE	CP 01245 POD1			Shallow	1 4 3	18	21S	37E	668676	3594410	2971
CP 01245		COM	80	PIPER ENERGY LLC	LE	CP 01245 POD1			Shallow	1 4 3	18	21S	37E	668676	3594410	2971
CP 00552		STK	3	MILLARD DECK	LE	CP 00552			Shallow	2 4	04	21S	37E	672700	3598022*	3059
CP 00553		STK	3	MILLARD DECK	LE	CP 00553			Shallow	2 4	04	21S	37E	672700	3598022*	3059
CP 01574		MON	0	GHD SERVICES INC	LE	CP 01574 POD1		NON	Shallow	2 4 4	15	21S	37E	674562	3594599	3074
CP 01110		MON	0	SOUTHERN UNION GAS SERVICES	LE	CP 01110 POD1				1 3	14	21S	37E	674585	3594648	3088
					LE	CP 01110 POD2				1 3	14	21S	37E	674585	3594648	3088
					LE	CP 01110 POD3				1 3	14	21S	37E	674585	3594648	3088
					LE	CP 01110 POD4				1 3	14	21S	37E	674585	3594648	3088
					LE	CP 01110 POD5				1 3	14	21S	37E	674585	3594648	3088
CP 01185		MON	0	STRAUB CORPORATION	LE	CP 01185 POD1			Shallow	1 3	14	21S	37E	674598	3594689	3094
					LE	CP 01185 POD3			Shallow	1 3	14	21S	37E	674592	3594620	3099
CP 01121		EXP	0	SOUTHERN UNION GAS SERVICES	LE	CP 01121 POD1				3 1 3	14	21S	37E	674605	3594639	3109
L 12639	L	CLS	0	SOUTHERN UNION GAS SERVICES	LE	L 12639 POD1	C			3 1 3	14	21S	37E	674605	3594639	3109
CP 01185		MON	0	STRAUB CORPORATION	LE	CP 01185 POD2			Shallow	1 3	14	21S	37E	674623	3594674	3121
CP 01437		MON	0	APEX TITAN	LE	CP 01437 POD1				1 3 3	14	21S	37E	674611	3594596	3122
CP 01185		MON	0	STRAUB CORPORATION	LE	CP 01185 POD4			Shallow	1 3	14	21S	37E	674632	3594610	3141
CP 01437		MON	0	REGENCY FIELD SERVICES LLC	LE	CP 01437 POD2				1 3 3	14	21S	37E	674636	3594615	3144
CP 01574		MON	0	GHD SERVICES INC	LE	CP 01574 POD2		NON	Shallow	1 3 3	14	21S	37E	674654	3594594	3165
CP 00711		DOM	3	FLOYD G. BLOCK	LE	CP 00711			Shallow	4 2 2	28	21S	37E	672900	3592291*	3199

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

EXHIBIT G

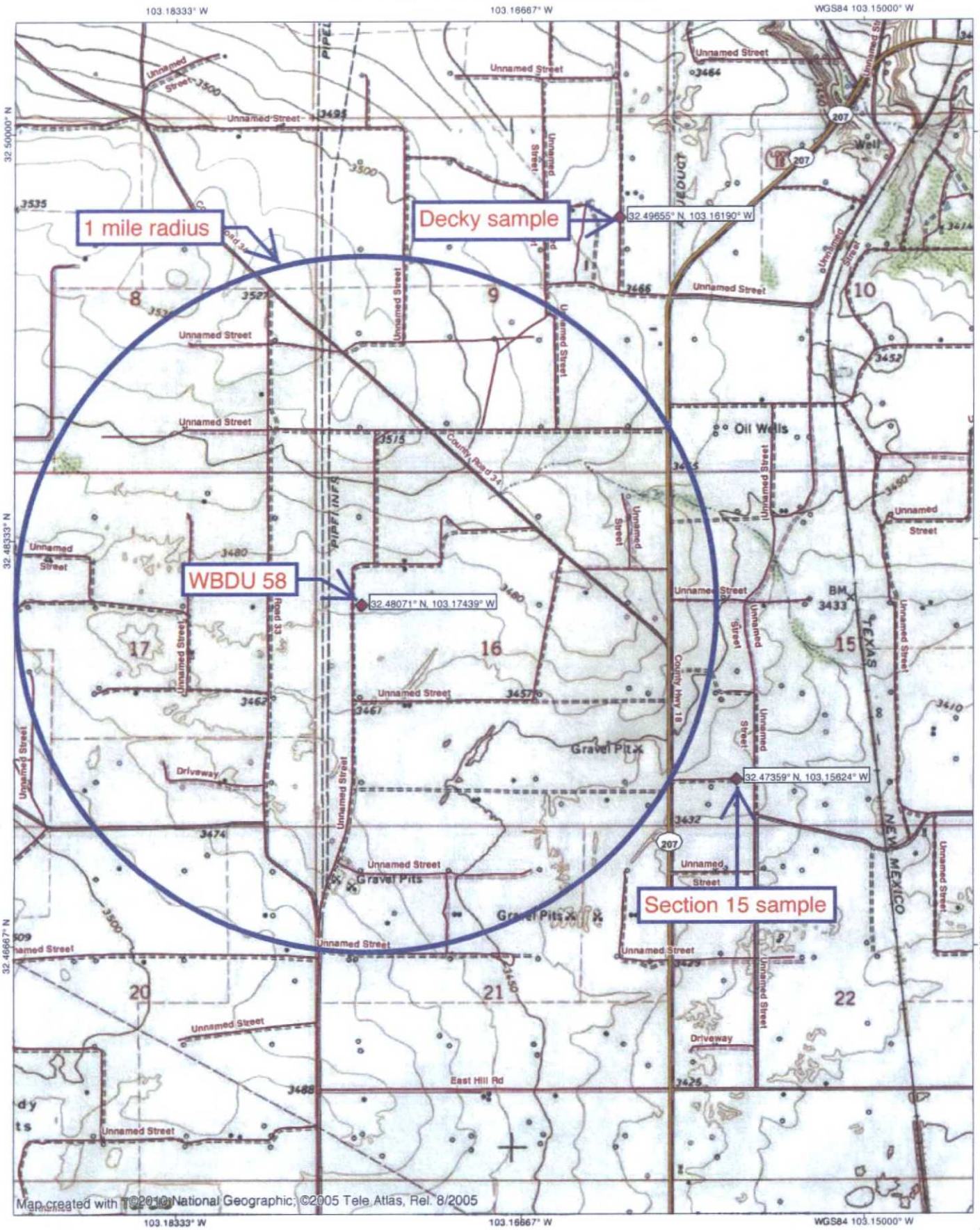
Record Count: 39

UTMNAD83 Radius Search (in meters):

Easting (X): 671545 **Northing (Y):** 3595189 **Radius:** 3220

Sorted by: Distance

EXHIBIT G


TOPO! map printed on 02/23/16 from "Untitled.tpo"
103.18333° W
103.16667° W
WGS84 103.15000° W
32.50000° N
32.48333° N
32.46667° N
1 mile radius
Decky sample
32.49655° N, 103.16190° W
WBDU 58
32.48071° N, 103.17439° W
Section 15 sample
32.47359° N, 103.15624° W
Unnamed Street
Oil Wells
Gravel Pit
Gravel Pits
Driveway
East Hill Rd
County Road 34
County Hwy 18
TEXAS
NEW MEXICO
Map created with TOPO! ©2010 National Geographic, ©2005 Tele Atlas, Rel. 8/2005
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 H
TN MN
7°
02/23/16

Analytical Report
Lab Order **1601901**
Date Reported: **2/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache WBDUSWD
Lab ID: 1601901-001 **Matrix:** AQUEOUS

Client Sample ID: Apache Decky Pond
Collection Date: 1/20/2016 4:48:00 PM
Received Date: 1/25/2016 11:19:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664A						Analyst: **tnc**	
N-Hexane Extractable Material	ND	13		mg/L	1	1/25/2016 1:30:00 PM	23379
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	260	10	*	mg/L	20	1/25/2016 5:03:44 PM	R31665
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	751	20.0	*	mg/L	1	1/28/2016 6:43:00 PM	23428

EXHIBIT H

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1601901**
Date Reported: **2/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache WBDUSWD
Lab ID: 1601901-002 **Matrix:** AQUEOUS

Client Sample ID: Apache MD Windmill
Collection Date: 1/21/2016 9:01:00 AM
Received Date: 1/25/2016 11:19:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664A						Analyst: **tnc**	
N-Hexane Extractable Material	ND	9.8		mg/L	1	1/25/2016 1:30:00 PM	23379
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	170	10		mg/L	20	1/25/2016 3:49:15 PM	R31665
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	774	20.0	*	mg/L	1	1/28/2016 6:43:00 PM	23428

EXHIBIT H

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache WBDUSWD
Lab ID: 1601901-003 **Matrix:** AQUEOUS

Client Sample ID: Apache McCasland Tr
Collection Date: 1/21/2016 1:21:00 PM
Received Date: 1/25/2016 11:19:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664A						Analyst: **tnc**	
N-Hexane Extractable Material	ND	9.9		mg/L	1	1/25/2016 1:30:00 PM	23379
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	48	10		mg/L	20	1/25/2016 7:07:50 PM	R31665
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	434	20.0		mg/L	1	1/28/2016 6:43:00 PM	23428

EXHIBIT H

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

Analytical Report
Lab Order **1601901**
Date Reported: **2/2/2016**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache WBDUSWD
Lab ID: 1601901-004 **Matrix:** AQUEOUS

Client Sample ID: Apache Section 15
Collection Date: 1/21/2016 11:33:00 AM
Received Date: 1/25/2016 11:19:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 1664A						Analyst: **tnc**	
N-Hexane Extractable Material	ND	9.9		mg/L	1	1/25/2016 1:30:00 PM	23379
EPA METHOD 300.0: ANIONS						Analyst: **LGT**	
Chloride	620	25	*	mg/L	50	1/26/2016 7:36:31 PM	R31714
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**	
Total Dissolved Solids	1570	20.0	*	mg/L	1	1/28/2016 6:43:00 PM	23428

EXHIBIT H

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
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601901**

02-Feb-16

Client: Permits West

Project: Apache WBDUSWD

Sample ID	MB-23379	SampType:	MBLK		TestCode:	EPA Method 1664A				
Client ID:	PBW	Batch ID:	23379		RunNo:	31670				
Prep Date:	1/25/2016	Analysis Date:	1/25/2016		SeqNo:	969206	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10								

Sample ID	LCS-23379	SampType:	LCS		TestCode:	EPA Method 1664A				
Client ID:	LCSW	Batch ID:	23379		RunNo:	31670				
Prep Date:	1/25/2016	Analysis Date:	1/25/2016		SeqNo:	969207	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	39	10	40.00	0	96.5	78	114			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

EXHIBIT H

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1601901

02-Feb-16

Client: Permits West

Project: Apache WBDUSWD

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R31665	RunNo:	31665					
Prep Date:		Analysis Date:	1/25/2016	SeqNo:	969035	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R31665	RunNo:	31665					
Prep Date:		Analysis Date:	1/25/2016	SeqNo:	969036	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	93.1	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R31714	RunNo:	31714					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	970466	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R31714	RunNo:	31714					
Prep Date:		Analysis Date:	1/26/2016	SeqNo:	970467	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	96.5	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- D Sample Dilution Due to Matrix
- 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
- P Sample pH Not In Range
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit
- S % Recovery outside of range due to dilution or matrix
- W Sample container temperature is out of limit as specified

EXHIBIT H

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1601901**

02-Feb-16

Client: Permits West

Project: Apache WBDUSWD

Sample ID	MB-23428	SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW	Batch ID:	23428		RunNo:	31755				
Prep Date:	1/27/2016	Analysis Date:	1/28/2016		SeqNo:	971754	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-23428	SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW	Batch ID:	23428		RunNo:	31755				
Prep Date:	1/27/2016	Analysis Date:	1/28/2016		SeqNo:	971755	Units:	mg/L		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

EXHIBIT H

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

'Ogallala boundary

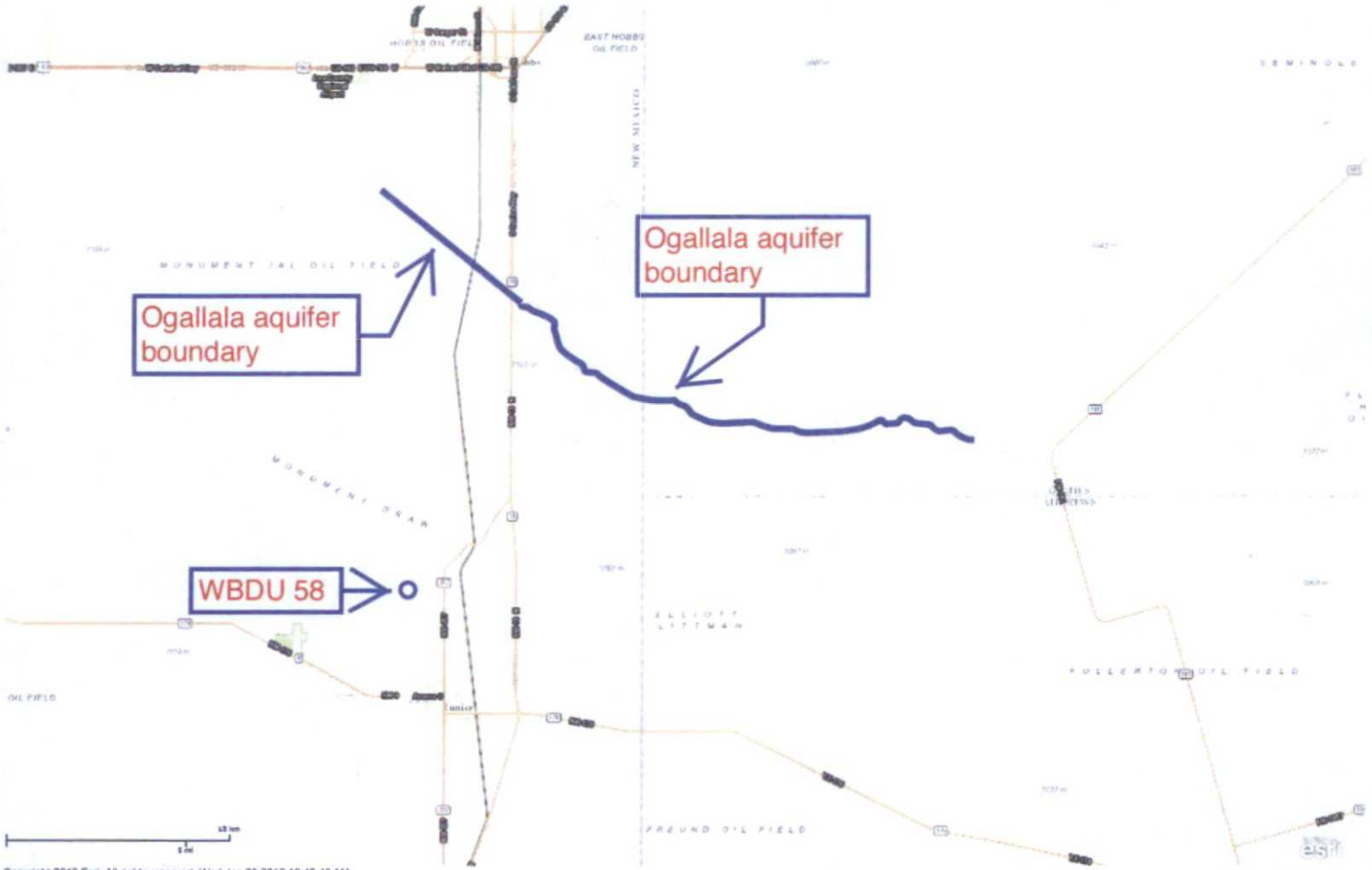


EXHIBIT H

From: **Oldani, Martin** Martin.Oldani@apachecorp.com
Subject: FW: shallow faulting in the vicinity of WBDU
Date: January 11, 2016 at 4:27 PM
To: brian@permitswest.com
Cc: Shapot, Bret Bret.Shapot@apachecorp.com

Brian,

As per Mark's comments below, our G&G staff has taken a look at the potential issue of shallow faulting in the WBDU area and have concluded there is none present across the area and no danger of shallow faulting as a conduit to groundwater contamination.

Regards,

MARTIN J. OLDANI
PERMIAN REGION EXPLORATION & EXPLOITATION MANAGER
Apache *main* (432) 818 1000 | *fax* (432) 818 1982
office 6100A | *direct* (432) 818 1030 | *mobile* (432) 234-1925
martin.oldani@apachecorp.com
APACHE CORPORATION - PERMIAN REGION
303 Veterans Airway Park
Midland, TX 79705

From: Pasley, Mark
Sent: Monday, January 11, 2016 4:48 PM
To: Oldani, Martin <Martin.Oldani@apachecorp.com>
Cc: O'Shay, Justin <Justin.O'Shay@apachecorp.com>; Riley, Brent <Brent.Riley@apachecorp.com>; Shapot, Bret <Bret.Shapot@apachecorp.com>; Piggott, Fiona <fiona.piggott@apachecorp.com>
Subject: shallow faulting in the vicinity of WBDU

Martin:

In reference to the meeting this morning where we discussed the possibility of shallow faulting in the WBDU area and its potential impact on the permitting of the injection well(s) into the Drinkard, I submit to you the attached slide set from me and Justin. You will see that we have done several extractions on the seismic data and there is no indication of faulting above the Glorieta which is well above the Drinkard and below the younger evaporites. Also, as we suspected, there are no surface faults mapped in the area – the nearest being more than 50 miles away.

Please contact me or Justin if you have further questions.

Sincerely,

DR. MARK PASLEY
GEOLOGICAL ADVISOR
direct +1 432.818.1835 | *mobile* +1 832.943.9040 | *office* 6112A
APACHE PERMIAN
303 Veterans Airpark Lane
Midland, TX 79705 USA
ApacheCorp.com | LinkedIn | Facebook | Twitter | StockTwits | YouTube

EXHIBIT I

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

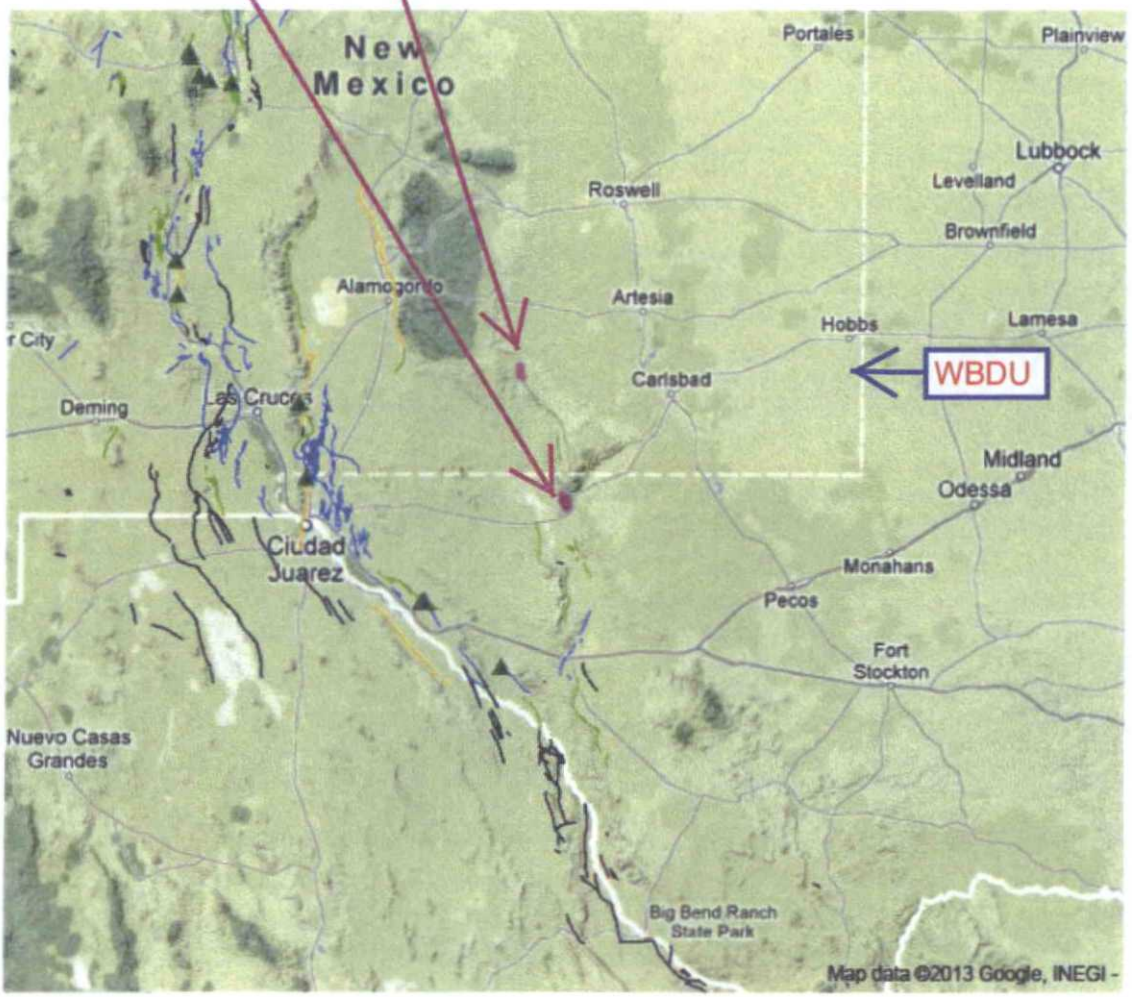


EXHIBIT I

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, 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
February 11, 2016
and ending with the issue dated
February 11, 2016.

Daniel Russell
Publisher

Sworn and subscribed to before me this
11th day of February 2016.

Gussie Black
Business Manager

My commission expires
January 29, 2019
(Seal)

OFFICIAL SEAL
GUSSIE BLACK
Notary Public
State of New Mexico
My Commission Expires 1-29-19

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937 and payment of fees for said

LEGALS

LEGAL NOTICE
February 11, 2016

Apache Corporation is applying to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. The well is at 1980 FNL & 660 FWL Sec. 16, T-21-S, R-37-E, Lea County, NM. This is 3 miles north-northwest of Eunice, NM. It will inject water into the Tubb and Drinkard (maximum injection pressure = 1,294 psi) from 6,470' to 6,725'. 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. #30674

02108485 00170240

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

EXHIBIT J

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

Oxy USA WTP LP
P. O. Box 4294
Houston TX 77210

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: West Blinebry Drinkard Unit 58 (state lease) TD = 6,775'
Proposed Injection Zones: Tubb & Drinkard from 6,470' to 6,725'
Location: 1980' FNL & 660' FWL Sec. 16, T. 21 S., R. 37 E., Lea County, NM
Approximate Location: 3 air miles north-northwest of Eunice, NM
Applicant Name: Apache Corporation (432) 818-1062
Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

Submittal Information: Application for a water injection well change 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 NMOCD address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Sincerely,

Brian Wood

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PECOS NM
FEB 25 2016
87552-9998

EXHIBIT K

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

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

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Please call me if you have any questions.

Sincerely,

Brian Wood

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PS Form 3800, April 2015 PSN 7530-02-000-9047

PECOS NM
Postmark Here
FEB 25 2016
87552-9998

7015 1730 0001 0168 9984

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

February 25, 2016

BLM
620 E. Greene St.
Carlsbad NM 88220

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Sincerely,

Brian Wood

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City, State, ZIP+4® CARLSBAD
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PECOS NM 87552-9998

EXHIBIT K

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

February 25, 2016

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

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Sincerely,

Brian Wood

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☐ Return Receipt (electronic) $
☐ Certified Mail Restricted Delivery $
☐ Adult Signature Required $ FEB 25 2016
☐ Adult Signature Restricted Delivery $
Postage
$
Total Postage and Fees
$
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Street and Apt. No., or PO Box No.
City, State, ZIP+4® HOUSTON
PS Form 3800, April 2015 PSN 7530-02-000-0047 See Reverse for Instructions

PECOS NM 87552-9998

7015 1730 0001 0168 5127

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

John H. Hendrix Corp.
110 N. Marienfeld St., Suite 400
Midland TX 79701

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Applicant's Address: 303 Veterans Airpark Lane, #3000, Midland, TX 79705

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Sincerely,

Brian Wood

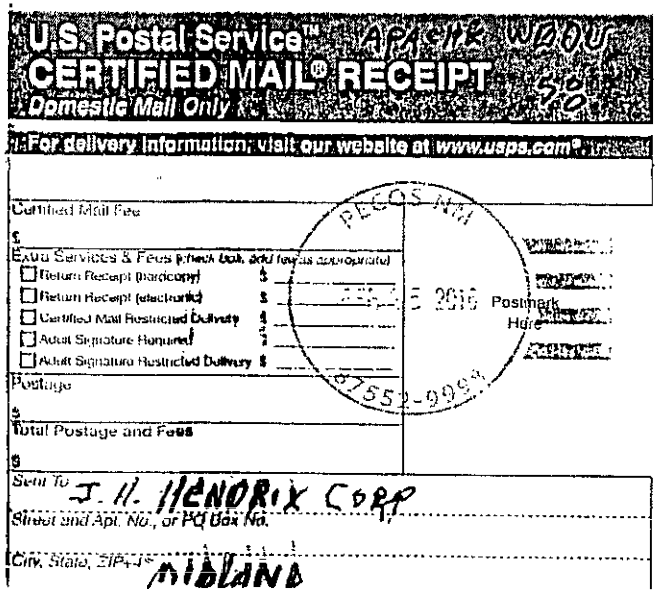

EXHIBIT K

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

ConocoPhillips
P. O. Box 7500
Bartlesville OK 74005

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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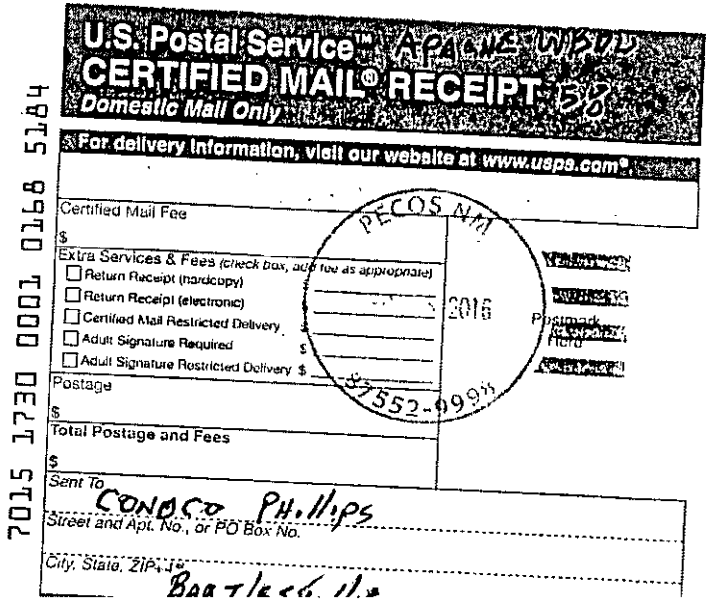
Sincerely,

Brian Wood



PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

Six Aeches Co.
P. O. Box 481
Midland TX 79702-0481

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Sincerely,

Brian Wood

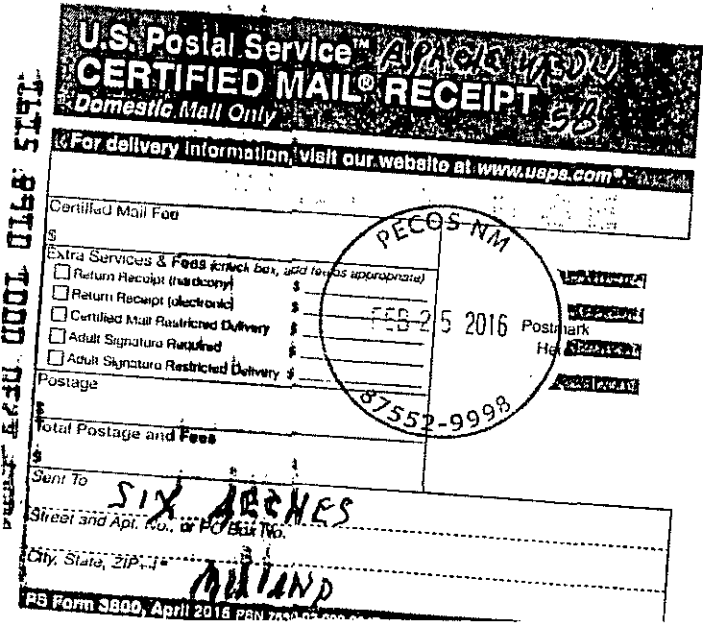

EXHIBIT K

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

February 25, 2016

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

Apache Corporation is applying (see attached application) to change the injection interval of its West Blinebry Drinkard Unit 58 water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection change. This letter is a notice only. No action is needed unless you have questions or objections.

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Sincerely,

Brian Wood

C-108 Review Checklist: Received 2/24/2016 Add. Request: ________ Reply Date: ________ Suspended: ________ [Ver 15]

ORDER TYPE: (WFX) / PMX / SWD Number: 954 Order Date: ________ Legacy Permits/Orders: R-7285

Well No. 58 Well Name(s): WBDU

API : 30-025-06625 Spud Date: 7-8-47 New or Old: O (UIC Class II Primacy 03/07/1982)

Footages 1980 FNL 660 FWL Lot ____ or Unit E Sec 16 Tsp 21S Rge 37E County Lea

General Location: ~1 mile NE Eunice Pool: Eunice; BLI-T-DR Pool No.: 22900

BLM 100K Map: JAL Operator: Apache Corp OGRID: 873 Contact: Brian Wood/agent

COMPLIANCE RULE 5.9: Total Wells: 387 Inactive: 2 Fincl Assur: Y Compl. Order? Y IS 5.9 OK? Y Date: 3-14-2016

WELL FILE REVIEWED ○ Current Status: ~~Prod~~ Prod ucer - injector Blinebry - Drinkard

WELL DIAGRAMS: NEW: Proposed ○ or **RE-ENTER:** Before Conv. ○ After Conv. ○ Logs in Imaging: Y Tubb/Blinebry/Drinkard/Catenary(?)/Lithologies/basedonLogs

Planned Rehab Work to Well: * Require CBL FN 4½" Liner / B/F new tubing

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)		Cement (Sx) or Cf	Cement Top and Determination Method
Planned __or Existing __Surface	17½/13⅜	322'	Stage Tool	300	Surface/Visual
Planned__or Existing __Interm/Prod	12"/9⅝	2900		1500	1560/TS
Planned__or Existing __Interm/Prod	8¾/7"			775	1400/TS
Planned__or Existing __Prod/Liner	7"/4½	6775	5500	684	Surface/CBL
Planned__or Existing __Liner					
Planned__or Existing __OH / (PERF)	6470/6725		Inj Length 255		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.			6470
Confining Unit: Litho. Struc. Por.			6725
Proposed Inj Interval TOP:			
Proposed Inj Interval BOTTOM:			
Confining Unit: Litho. Struc. Por.			
Adjacent Unit: Litho. Struc. Por.			

Completion/Operation Details:

Drilled TD 6660 PBTD ________

NEW TD 6775 NEW PBTD 6760

NEW Open Hole ○ or NEW Perfs ○

Tubing Size 2⅜ in. Inter Coated? Y

Proposed Packer Depth 6420 ft

Min. Packer Depth 6370 (100-ft limit)

Proposed Max. Surface Press. 1294 psi

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

AOR: Hydrologic and Geologic Information

POTASH: R-111-P ____ Noticed? ____ **BLM Sec Ord** ○ **WIPP** ○ Noticed? ____ **Salt/Salado T:** ____ **B:** ____ **NW: Cliff House fm** ____

FRESH WATER: Aquifer Quaternary Max Depth 95 **HYDRO AFFIRM STATEMENT By Qualified Person** ○

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

Disposal Fluid: Formation Source(s) San Andres Analysis? Y On Lease ○ Operator Only ○ or Commercial ○

Disposal Int: Inject Rate (Avg/Max BWPD): 2500/3000 Protectable Waters? ____ Source: ________ System: (Closed) or Open

HC Potential: Producing Interval? Y Formerly Producing? ____ Method: Logs/DST/P&A/Other ________ 2-Mile Radius Pool Map ○

AOR Wells: 1/2-M Radius Map? Y Well List? Y Total No. Wells Penetrating Interval: 25 Horizontals? 0

Penetrating Wells: No. Active Wells 25 Num Repairs? ____ on which well(s)? ________ Diagrams? ____

Penetrating Wells: No. P&A Wells 0 Num Repairs? ____ on which well(s)? ________ Diagrams? ____

NOTICE: Newspaper Date 2-11-2016 Mineral Owner BLM, NMSLO Surface Owner NMSLO N. Date 2-25-2016

RULE 26.7(A): Identified Tracts? Y Affected Persons: OXY, Chevron, Petrol N. Date 2-25-2016

Order Conditions: Issues: * CBL 4½ → Surface

Add Order Cond: ________