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June 8, 2015

VIA HAND DELIVERY

Florene Davidson
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Case 15343

Re: LRE Operating, LLC Application

Dear Florene:

Enclosed please find (i) for filing, the original and one (1) copy of an application by LRE Operating, LLC for approval of a pilot water flood project; and (ii) a proposed hearing notice. I will email the proposed hearing notice to you in Word format.

As stated in the application, LRE Operating requests that the application be placed on the Division's July 9, 2015 hearing docket.

Thank you for your assistance.

Very truly yours,

Gary W. Larson

GWL:rc
Enclosures

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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APPLICATION OF LRE OPERATING, LLC FOR APPROVAL OF A PILOT WATER FLOOD PROJECT IN THE SAN ANDRES FORMATION, EDDY COUNTY, NEW MEXICO

Case No. 15343

APPLICATION

LRE Operating, LLC ("LRE") applies for an order approving a pilot water flood project in the NE/4 and SW/4 of Section 32, Township 17 South, Range 28 East, N.M.P.M., in Eddy County. In support of its Application, LRE states:

1. For purposes of its pilot water flood project, LRE proposes to convert to injection the following three wells:

   A. The NW State No. 1 (API 30-015-30609), which is located 990 feet from the north line and 990 feet from the east line of Section 32, Township 17 South, Range 28 East.

   B. The NW State No. 3 (API 30-015-30684), which is located 1,650 feet from the north line and 1,650 feet from the east line of Section 32, Township 17 South, Range 28 East.

   C. The NW State No. 7 (API 30-015-30685), which is located 990 feet from the south line and 990 feet from the west line of Section 32, Township 17 South, Range 28 East.

2. Form C-108s addressing each of these wells are attached hereto as Exhibits A, B, and C.

3. LRE proposes to inject into the San Andres zone of the Artesia Queen-Grayburg-San Andres Pool at depths between 2,400 and 3,300 feet subsurface.

4. The pilot water flood project will benefit State Lease No. XO-0647-0405, insofar as it covers the NE/4 and SW/4 of Section 32, Township 17 South, Range 28 East.

5. The granting of this Application will prevent waste and protect correlative rights.

WHEREFORE, LRE requests that this Application be set for hearing on July 9, 2015 and that, after notice and hearing, the Division enter an order approving the Application.

HINKLE SHANOR, LLP

Gary W. Larson
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Santa Fe, NM 87504-2068
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Counsel for LRE Operating, LLC

EXHIBIT A

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

Case 15343

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 XXX No

II. OPERATOR: LRE OPERATING, LLC OGRID 281994

ADDRESS: 1111 BAGBY, SUITE 4600, HOUSTON TX 77002

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: _____

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.

NW STATE 1 30-015-30609

VII. Attach data on the proposed operation, including:

Artesia;Queen-Grayburg-San Andres

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: B Wood DATE: JUNE 5, 2015

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

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

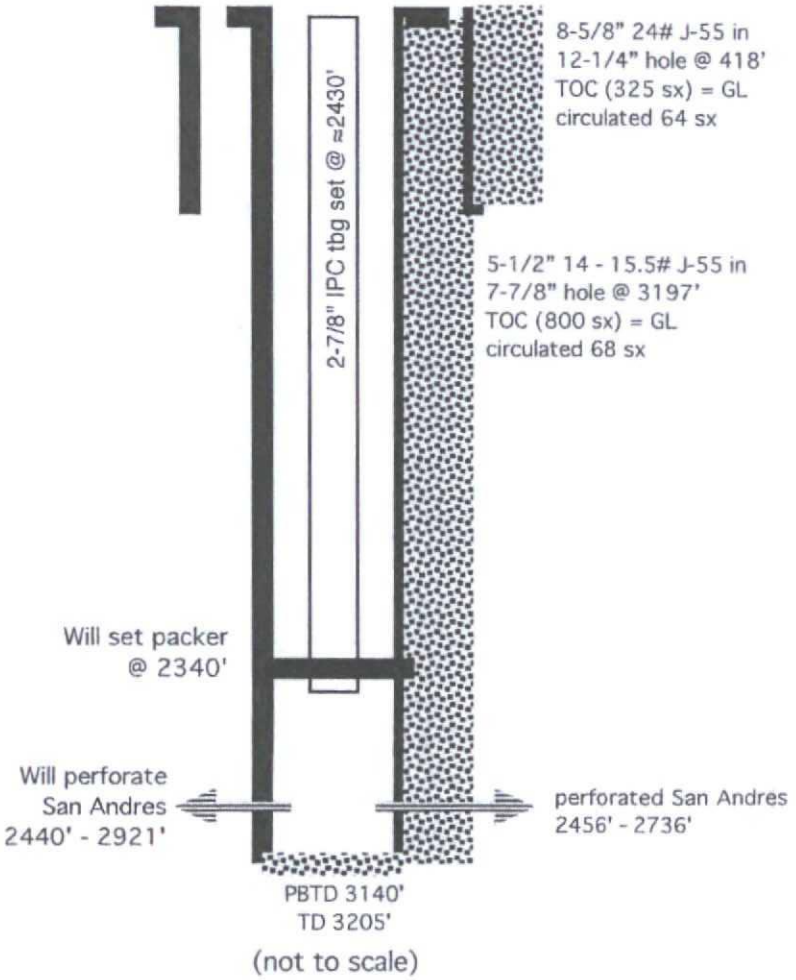
INJECTION WELL DATA SHEET

OPERATOR: LRE OPERATING, LLC

WELL NAME & NUMBER: NW STATE 1

WELL LOCATION:					
990' FNL & 990' FEL	A	32	17 S	28 E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 325 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 64 SX

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: 800 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 68 SX

Total Depth: 3205'

Injection Interval

2440' feet to 2921'

(Perforated or Open Hole; indicate which)

Side 2

NW STATE 1

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" TK70ST Lining Material: INTERNAL PLASTIC COAT

Type of Packer: 2-7/8" x 5-1/2" INTERNAL & EXTERNAL NICKEL PLATED

Packer Setting Depth: ≈2430'

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

NW STATE 1

Additional Data

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

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

2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): ARTESIA; QUEEN-GRAYBURG-SAN ANDRES (POOL CODE 3230)

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: QUEEN 1378', GRAYBURG 1650'

   PROPOSED INJECTION ZONE: SAN ANDRES 2458' - 2921'

   UNDER: ABO 5889', MORROW 10,050'

I. Purpose is to convert an existing oil well to a water injection well to increase oil recovery. The well will inject into the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230) from 2440' to 2921'. Highest perforation will be 500' below the top of the San Andres. A 5 spot pattern will result. The injector will be inside a ring of LRE producers on the same lease. See Exhibit A for maps and C-102 form.

II. Operator: LRE Operating, LLC (OGRID #281994)
Operator phone number: (713) 360-5714 (Eric McClusky)
Operator address: 1111 Bagby St., Suite 4600, Houston, TX 77002

Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: (NM State Land Office) X0-0647-0405 (see Exhibit B)
Lease Size: 8,746.59 acres
Lease Area: NE4 Sec. 32, T. 17 S., R. 28 E. et al
Distance to closest lease line: 990'

A. (2) Well construction details are:

Surface Casing	8.625" and 24#
Surface Hole	12.25"
Depth Set	418'
sx Cement	325
TOC	GL
Production Casing	5.5" and 14# & 15.5#
Production Hole	7.875"
Depth Set	3197'
sx cement	800
TOC	GL
PBTD	3140'
TD	3205'

A. (3) Tubing specifications are 2-7/8", TK70ST, 10-20 mil, internally plastic coated. Setting depth will be ≈2,400'.

A. (4) A 2-7/8" x 5-1/2" internal and external nickel-plated injection packer will be set 100' above the highest perforation.

B. (1) Injection formation will be the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230). There are currently 88 water injection wells and 545 oil wells in that pool.

B. (2) Injection interval will be the San Andres. Interval thickness is 1,265'. The well is cased. See attached C-108 well profile for more perforation information.

B. (3) Well was drilled and completed in 1999 as an oil well and is so to date.

B. (4) Well is exclusively perforated in the San Andres from 2456' to 2736'.

B. (5) Producing oil and gas zones above and below the San Andres within the area of review are:

Queen (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
Grayburg (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
San Andres
Glorieta (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Yeso (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Abo (Empire; Abo (#22040)
Morrow (Red Lake: Morrow (#96515)

IV. This is not a horizontal or vertical expansion of an existing injection project. There is a shallower Grayburg waterflood (LRE's Northwest Artesia Unit) in the areas of review. There will be 501' of vertical separation between the bottom of the Grayburg (1939') and top of the San Andres waterflood (2440'). Order R-4727 Case 5144 covers the Grayburg water flood.

V. Exhibit C shows all 55 existing wells (1 gas well, 2 water injectors, 42 oil wells, and 10 P & A wells) within a half-mile radius, regardless of depth. (Apache has 14 Jackrabbit State wells approved in the NE4 Section 32, but not yet drilled. All will be 5300' deep Yeso wells. Both strings will be cemented to the surface.) Exhibit D shows all 857 existing wells (562 oil or gas wells + 262 P & A wells + 33 injection or disposal wells) within a two-mile radius.

Exhibit E shows all leases (mostly State + 1 BLM lease) within a half-mile radius. Details on the leases within a half-mile are:

Aliquot Parts in NW State 1 Area of Review (T17S, R28E)	Lessor	Lease	Lessee(s) of Record	San Andres operator, if any
NWSW Sec. 28	NMSLO	X0-0636-0064	Granberry	LRE
S2SW4 Sec. 28	NMSLO	B0-4575-0010	ConocoPhillips & Atofina	N/A
NESE Sec. 29	NMSLO	B0-4575-0010	ConocoPhillips & Atofina	N/A
NWSE & S2SE4 Sec. 29	NMSLO	X0-0647-0405	Khody	W2SE4 = N/A SESE = LRE
SESW Sec. 29	BLM	NMNM-048344	Apache, Chisos, Cross Borders, LRE, States	N/A
NE4 Sec. 32	NMSLO	X0-0647-0405	Khody	LRE
NENW Sec. 32	NMSLO	B0-5862-0021	Occidental	LRE
SENW Sec. 32	NMSLO	E0-0949-0001	BP	N/A
NESW Sec. 32	NMSLO	X0-0647-0405	Khody	LRE

NWSE Sec. 32	NMSLO	E0-1717-0003	Occidental	Alamo
NESE Sec. 32	NMSLO	B0-2071-0029	Occidental	LRE
E2NW4 Sec. 33	NMSLO	X0-0647-0408	Apache	Apache
NWNW Sec. 33	NMSLO	B0-4575-0011	ConocoPhillips & Atofina	COG
SWNW & NWSW Sec. 33	NMSLO	X0-0647-0411	Apache	Apache

Exhibit F shows all lessors (only BLM and state) within a 2-mile radius.

VI. Fifty-five wells are within a half-mile radius, of which fifty-four penetrated the San Andres (top = 1940'). The exception was an 863' deep well. The penetrators include 43 oil or gas wells, 10 P & A wells, and 2 injection or disposal wells. A table abstracting the well construction details and histories of the penetrators is in Exhibit G. Diagrams illustrating the P & A wells are in Appendix H. Diagrams are sequenced by API number. The wells and their distances from the NW State 1 are:

API	WHO	WELL	UL	T17S, R28E, SECTION	TVD	WELL TYPE	CURRENT ZONE	FEET FROM NW STATE 1
3001510109	LRE	NW Artesia Unit 3	B	32	1984	I	Art.;Q-Gray-SA	663
3001501675	SDX	NW Artesia Unit 2	A	32	1965	P&A	Art.;Q-Gray-SA	671
3001501664	BP	EAU 28A	A	32	6100	P&A	Empire; Abo	684
3001528863	LRE	NW State 33	H	32	10610	G	Red Lake; Morrow	742
3001510313	BP	EAU 27C	B	32	6182	P&A	Empire; Abo	914
3001530890	LRE	NW State 16	B	32	3210	O	Art.;Q-Gray-SA	935
3001530892	LRE	NW State 20	A	32	3210	O	Art.;Q-Gray-SA	936
3001530684	LRE	NW State 3	G	32	3205	O	Art.;Q-Gray-SA	936
3001530683	LRE	NW State 2	H	32	2850	O	Art.;Q-Gray-SA	941
3001501674	LRE	NW Artesia Unit 6	H	32	1973	I	Art.;Q-Gray-SA	1191

3001502312	LRE	NW Artesia Unit 5	G	32	1955	O	Art.;Q-Gray-SA	1192
3001531933	LRE	NW State 17	H	32	3225	O	Art.;Q-Gray-SA	1247
3001530734	LRE	NW State 4	B	32	3200	O	Art.;Q-Gray-SA	1302
3001530824	LRE	NW State 14	P	29	3240	O	Art.;Q-Gray-SA	1320
3001521809	COG	Delhi State 4	D	33	2086	O	Art.;Q-Gray-SA	1326
3001501658	BP	EAU 28	H	32	6176	P&A	Empire; Abo	1476
3001501663	BP	EAU 27	G	32	6108	P&A	Empire; Abo	1478
3001510079	LRE	NW Artesia Unit 1	P	29	1940	O	Art.;Q-Gray-SA	1481
3001539885	Apache	Wash. 33 State 35	E	33	5000	O	Art.; Glor-Yeso (O)	1504
3001531934	LRE	NW State 18	G	32	3215	O	Art.;Q-Gray-SA	1819
3001540832	Alamo	Delhi B State 4	M	28	3194	O	Red Lake; Q-Gray-SA	1831
3001530190	Apache	Wash. 33 State 8	E	33	4000	O	Art.;Q-Gray-SA	1837
3001501687	BP	EAU 29A	E	33	6150	P&A	Empire; Abo	1892
3001537693	LRE	Kersey State 5	I	32	5106	O	Art.; Glor-Yeso (O)	1914
3001501672	LRE	NW Artesia Unit 7	I	32	2527	O	Art.;Q-Gray-SA	1939
3001539996	LRE	Enron State 17	C	32	4215	O	Art.; Glor-Yeso (O)	1941
3001539019	Apache	EAU 402	I	32	6300	O	Empire; Abo	1956
3001501677	Devon	Delhi A State 1	D	33	6084	O	Empire; Abo	1979
3001501676	Beal	Delhi ST 1	D	33	863	P&A	Empire; Yate-7 Riv.	1989
3001530891	LRE	NW State 19	P	29	3192	O	Art.;Q-Gray-SA	2027
3001501655	Alamo	State 32 1	J	32	2065	O	Art.;Q-Gray-SA	2029
3001530189	Apache	Wash. 33 State 7	E	33	3950	O	Art.;Q-Gray-SA	2073
3001501684	Marbob	Delhi State 2	D	33	1968	P&A	Art.;Q-Gray-SA	2100
3001541682	Apache	Wash. 33 State 69	E	33	4498	O	Art.; Glor-Yeso (O)	2125

3001536979	LRE	Enron State 14	C	32	4205	O	Art.; Glor-Yeso (O)	2172
3001538513	LRE	Jeffers 32 State 3	J	32	5093	O	Art.; Glor-Yeso (O)	2187
3001530887	LRE	Jeffers 32 State 1	J	32	3220	O	Art.;Q-Gray-SA	2194
3001539590	Alamo	Delhi B State 3	M	28	3004	O	Red Lake; Q-Gray-SA	2272
3001530888	LRE	Kersey State 1	I	32	4075	O	Art.;Q-Gray-SA	2297
3001539006	Apache	EAU 407	J	32	6296	O	Empire; Abo	2348
3001540021	Apache	Wash. 33 State 44	E	33	4861	O	Art.; Glor-Yeso (O)	2380
3001541890	LRE	Wms. A Fed'l. 12	N	29	3758	O	Art.; Glor-Yeso (O)	2394
3001540019	Apache	Wash. 33 State 42	L	33	4969	O	Art.; Glor-Yeso (O)	2402
3001501594	Alamo	Delhi B State 2	M	28	6048	O	Red Lake; Q-Gray-SA	2402
3001501656	Alamo	State 32 2	J	32	2038	O	Art.;Q-Gray-SA	2460
3001541500	Apache	AB State 647 2	K	32	4989	O	Art.; Glor-Yeso (O)	2469
3001541833	LRE	Enron State 19	C	32	4206	O	Red Lake; Glor-Y, NE	2509
3001532554	LRE	Wms. A Fed'l. 1Z	N	29	3545	O	Art.; Glor-Yeso (O)	2554
3001501604	Alamo	Delhi B State 1	M	28	3636	O	Red Lake; Q-Gray-SA	2559
3001501673	BP	EAU 26C	C	32	10300	P&A	Empire; Abo	2559
3001535562	LRE	Kersey State 3	I	32	3950	O	Art.; Glor-Yeso (O)	2573
3001501657	Apache	AA State 1	F	32	6171	O	Art.; Glor-Yeso (O)	2576
3001501669	BP	EAU 28C	I	32	6250	P&A	Empire; Abo	2591
3001531530	LRE	Enron State 1	C	32	4000	O	Art.;Q-Gray-SA	2599
3001533579	Apache	Red Lake 29 I State 1	I	29	3800	O	Art.; Glor-Yeso (O)	2640

VII. 1. Average injection rate will be ≈150 bwpd.
Maximum injection rate will be 600 bwpd.

2. System will be closed. Well will tie into an existing pipeline system.

3. Average injection pressure will be ≈500 psi. Maximum injection pressure will be 488 psi (= 0.2 psi/ft x 2440' (highest perforation). If step rate test results support it, the maximum will be raised to 1464 psi (= 0.6 psi/foot x 2440' (highest perforation).

4. Water source will be water produced from LRE's Abo, Glorieta, Grayburg, Queen, San Andres, and Yeso wells.

5. Project goal is to increase production from the San Andres. LRE currently operates 9 San Andres oil wells in NE4 Section 32.

VIII. The proposed waterflood will inject into a portion of the San Andres Formation. This portion is mainly a dolomite with porosity ranging from 5% to 10%. The porosity is due inter-crystalline and finely crystalline dolomite and secondary moldic vuggy development in the dolomitized wackestone and packstone. Estimated fracture gradient is ≈0.70 psi per foot. There are currently 1,276 San Andres injection wells in the state. Formation tops are:

	NW State 1	contents
Quaternary	GL	fresh water
Rustler		anhydrite
Salado (top of salt)		salt
Tansill (base of salt)	610	gas, oil, & water
Yates	610	gas, oil, & water
Seven Rivers	930	gas, oil, & water
Queen	1378	gas, oil, & water
Penrose		gas, oil, & water
Grayburg	1650	gas, oil, & water
San Andres top	1940	gas, oil, & water
San Andres injection interval	2400 - 2950	gas, oil, & water
Total Depth	3205	
Glorieta	*3341*	*gas, oil, & water*

Records from the Office of the State Engineer (Exhibit I) indicate no fresh water wells are within a mile. This was confirmed during a July 24 & 25, 2014 field inspection. Closest (8380' southeast) fresh water well is Atlantic Richfield's abandoned RA 09001. No completion report has been filed for the well. Depth data is unknown.

No existing underground drinking water sources are above or below the San Andres within a mile radius.

There is ≈1,720' of vertical separation and ≈350' of anhydrite and salt between the bottom of the only likely underground water source (red beds) and the top of the San Andres. Ogallala aquifer is >20 miles northeast (Exhibit I).

Produced water has been injected into two zones (Queen, Grayburg) above the San Andres in 13 wells within Sections 28, 29, 32, and 33. Produced water is being injected into the San Andres in two wells in Section 32.

IX. The well will be further perforated, fracture stimulated, and acidized to clean out scale or fill.

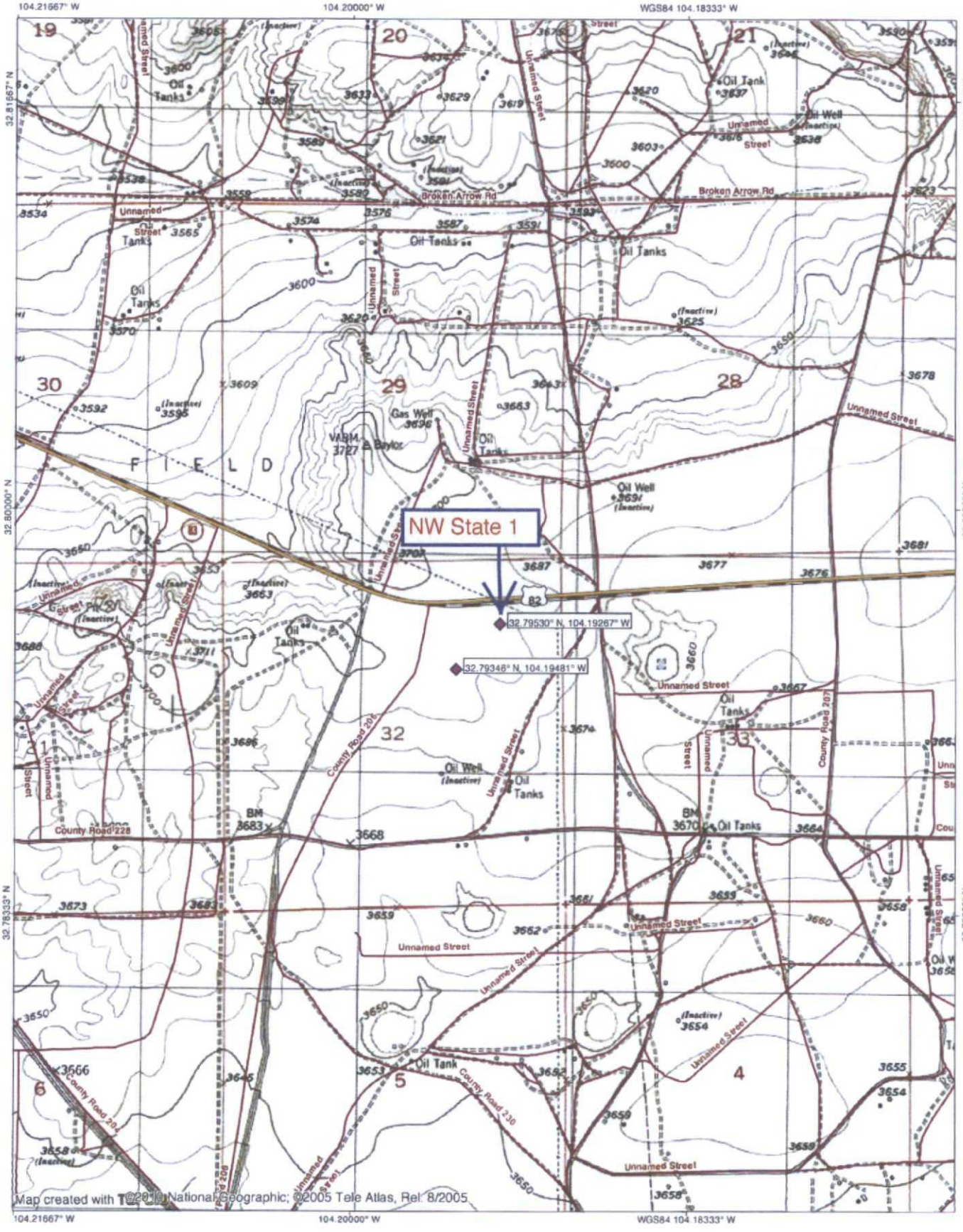
X. Azimuthal laterolog micro-CFL/GR, litho-density compensated neutron/GR, acoustic velocity, and guard logs were run. All are on file with the NMOCD.

XI. No fresh water well is within a mile. Closest water well (RA 09001) is 8380' southeast. Well is locked, abandoned, and unavailable for sampling.

XII. LRE Operating, LLC is not aware of any geologic or engineering data that may indicate the San Andres is in hydrologic connection with any underground sources of water. Closest Quaternary fault is 58 miles southwest (Exhibit J). Water has been injected into the San Andres in Section 32 for the last 41 years. Over 410,339 barrels have been injected in the San Andres in Section 32 since 2007. There are 1,276 injection and 125 saltwater disposal wells active in the San Andres in New Mexico.

XIII. A legal ad (see Exhibit L) will be published. Notice (this application) will be sent to the surface owner (COG & John R. Gray, LLC), the offset San Andres operators (Alamo, Apache, COG), lessors (BLM & NM State Land Office), lessees (Apache, Atofina, BP, Chisos, ConocoPhillips, Cross Border, Granberry, Khody, Occidental, States Ltd.), or leasehold operating rights holders (Apache, Chesapeake, Chisos, Clayton Williams, COG, ConocoPhillips, Cross Border Resources, Dominion, Edge, Jalapeno, Khody, Nearburg (Charles), Nearburg Exploration, Occidental Permian, Overton Energy Investments, Oxy USA WTP LP, Perry (Wesley), RSE Partners, SDX Properties, SDX Resources, States Ltd., The Salient Zarvona Energy Fund, Yates Energy).

TOPO! map printed on 02/15/15 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
7.5°
02/15/15


NW State
16 (oil)
NW State
20 (oil)
NW State
1 (WIW)
NW State
4 (oil)
NMSLO lease
X0-0647-0405
NW State
3 (WIW)
NW State
33 (oil)
NW State
2 (oil)
NW State
18 (oil)
NW State
17 (oil)
EXHIBIT A
Survey
Google earth

RECEIVED
OCT 20 2010
NMOCD ARTESIA

MAR 23 1999

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994
Instructions on back
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
30-015-30609	03230	Artesia (QN-GB-SA)

⁴ Property Code	⁵ Property Name	⁶ Well Number
305465	NW STATE	1

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
020451	SDX RESOURCES, INC.	3692.

¹⁰ Surface Location

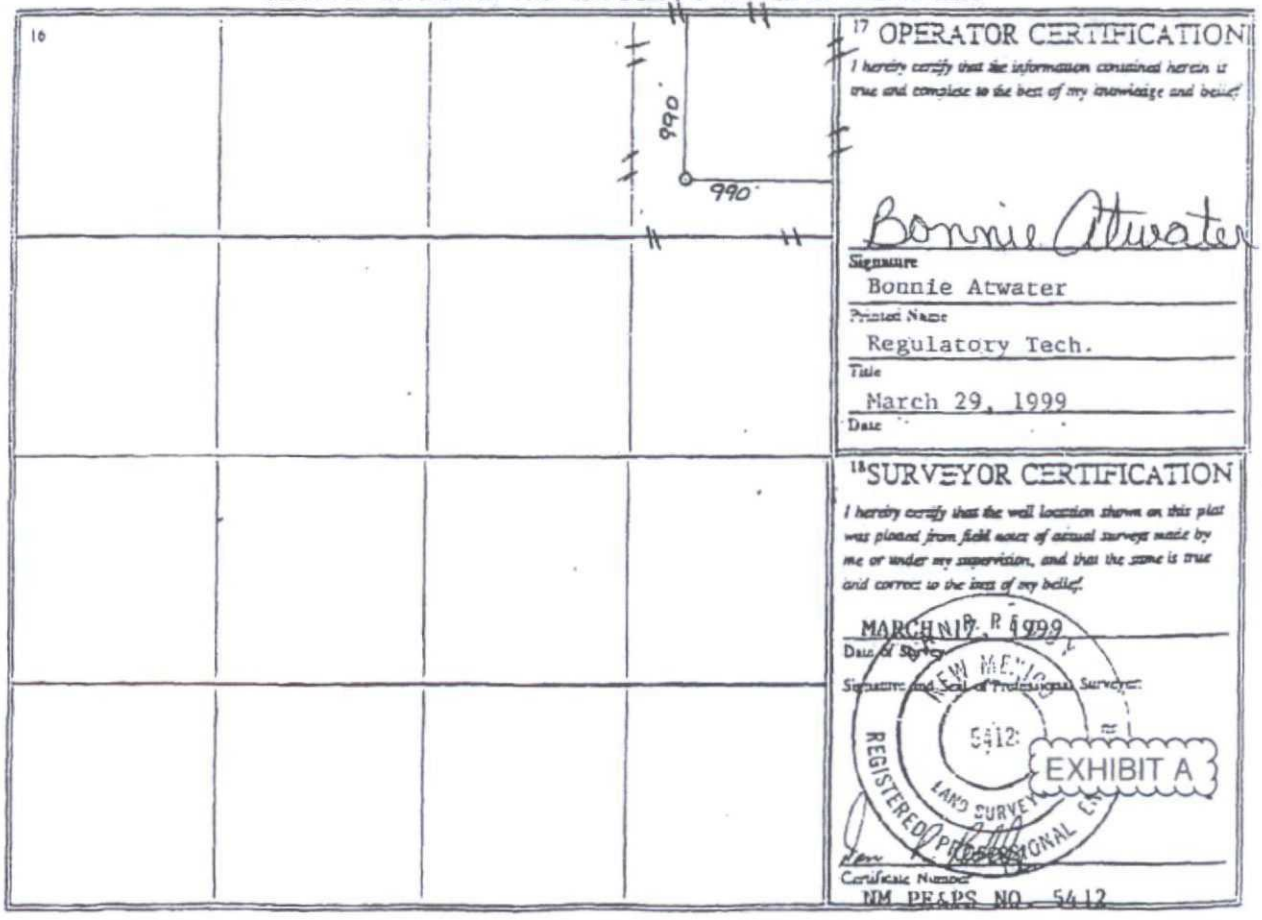
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	32	17-S	28-E		990	NORTH	990	EAST	EDDY

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.

Bonnie Atwater
Signature

Bonnie Atwater
Printed Name

Regulatory Tech.
Title

March 29, 1999
Date

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.

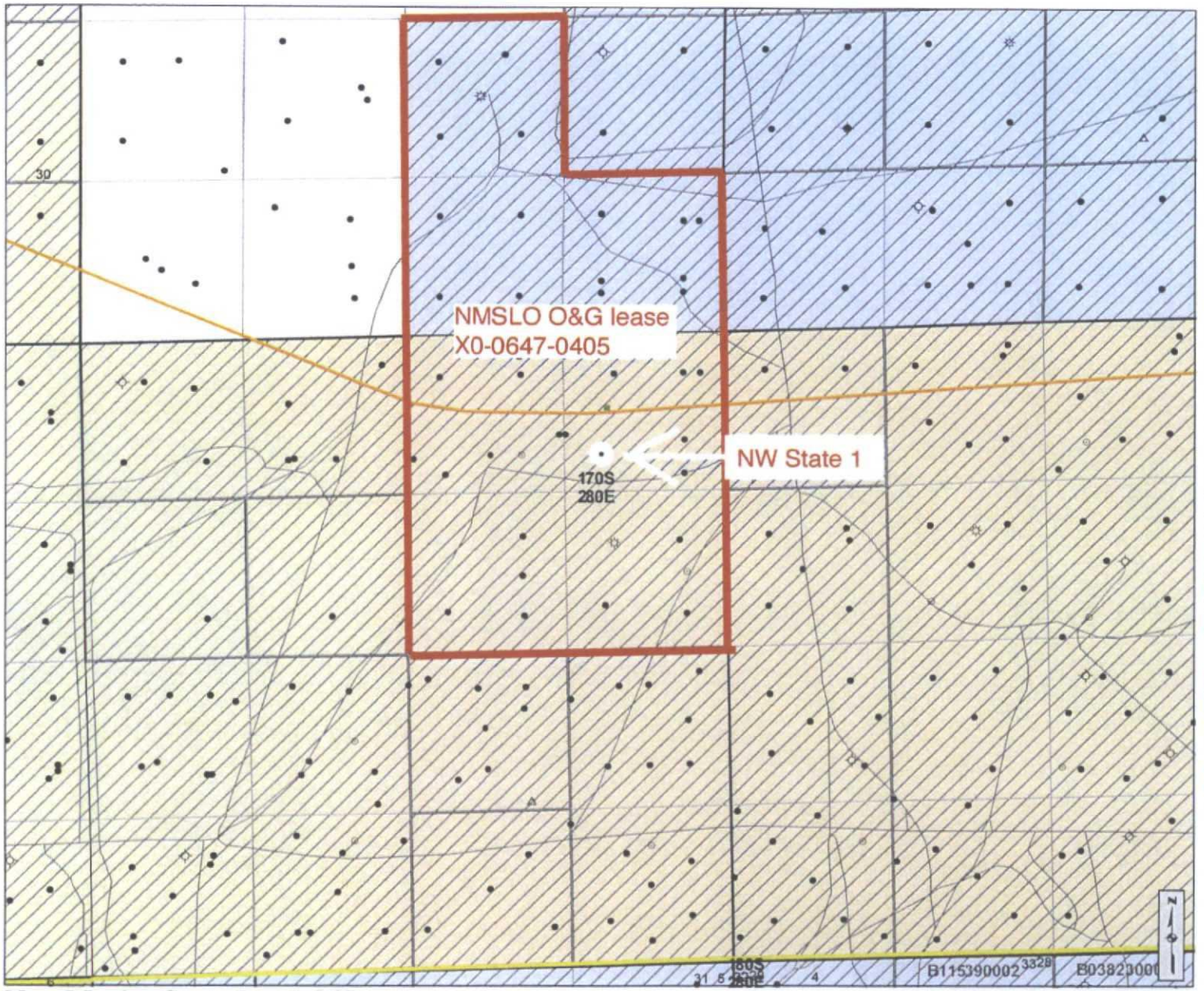
MARCH 17, 1999
Date of Survey

Signature and Seal of Professional Surveyor

NEW MEXICO
5412
REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number
NM PE&PS NO. 5412

EXHIBIT A



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

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

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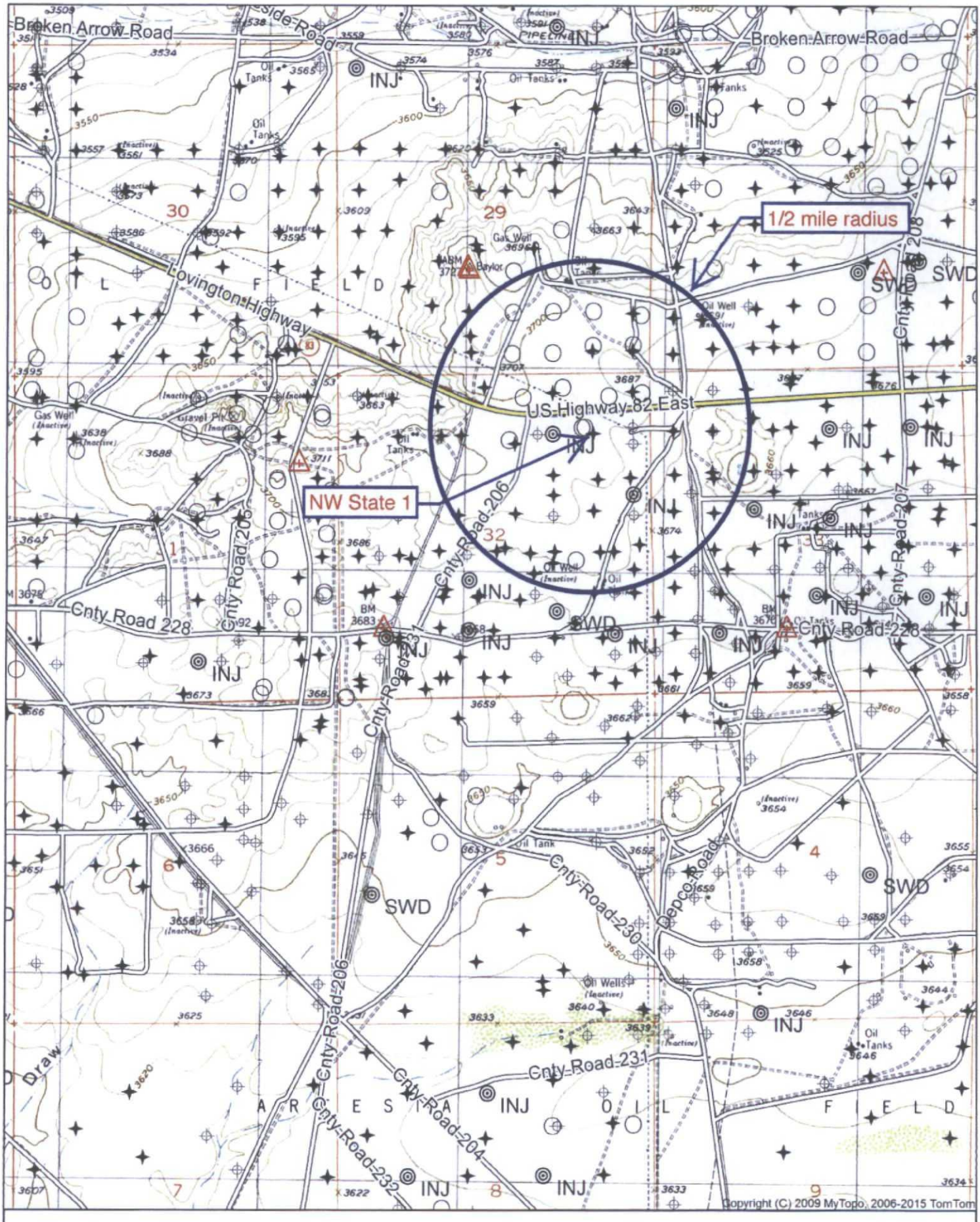
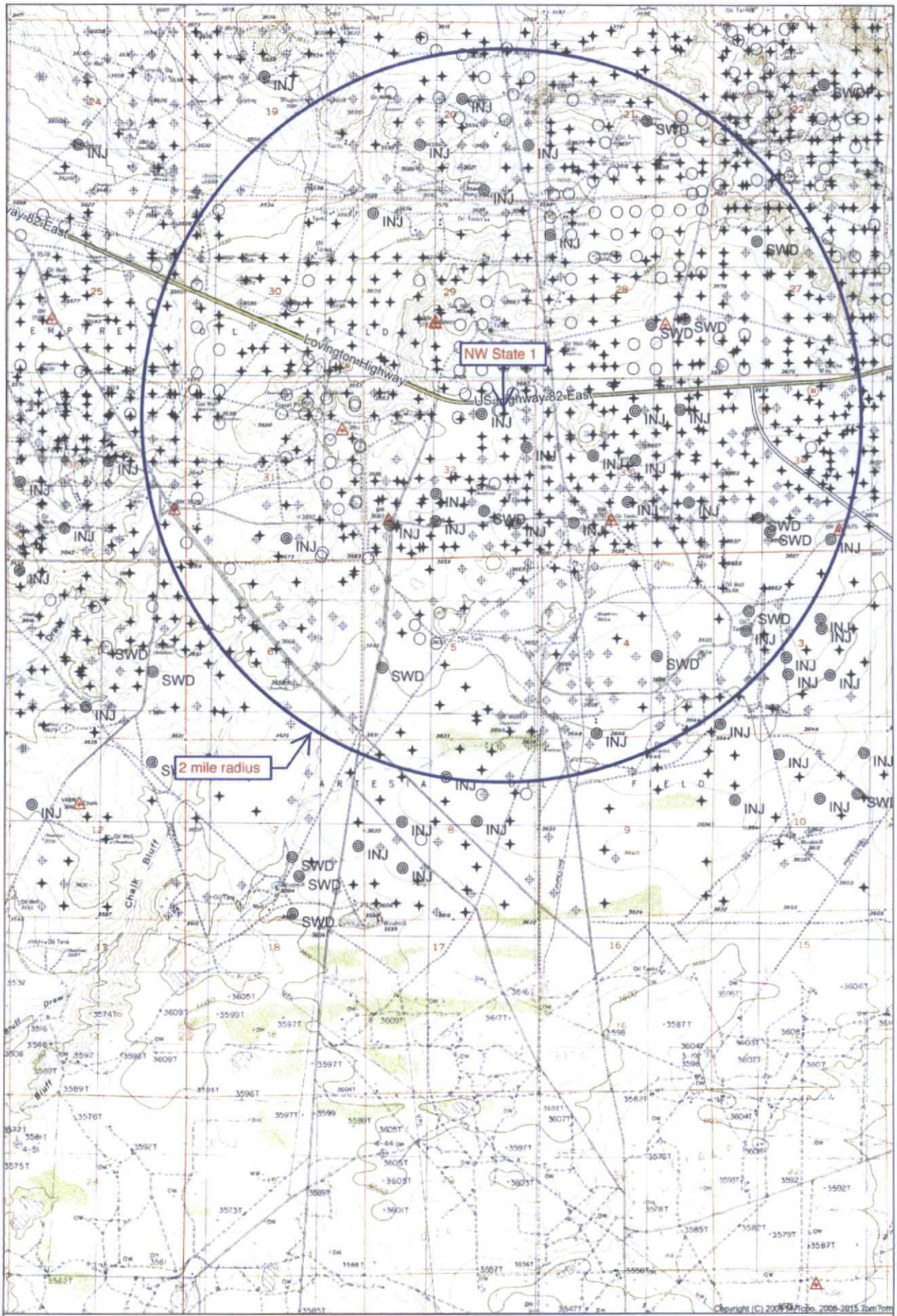
EXHIBIT B

www.nmstatelands.org



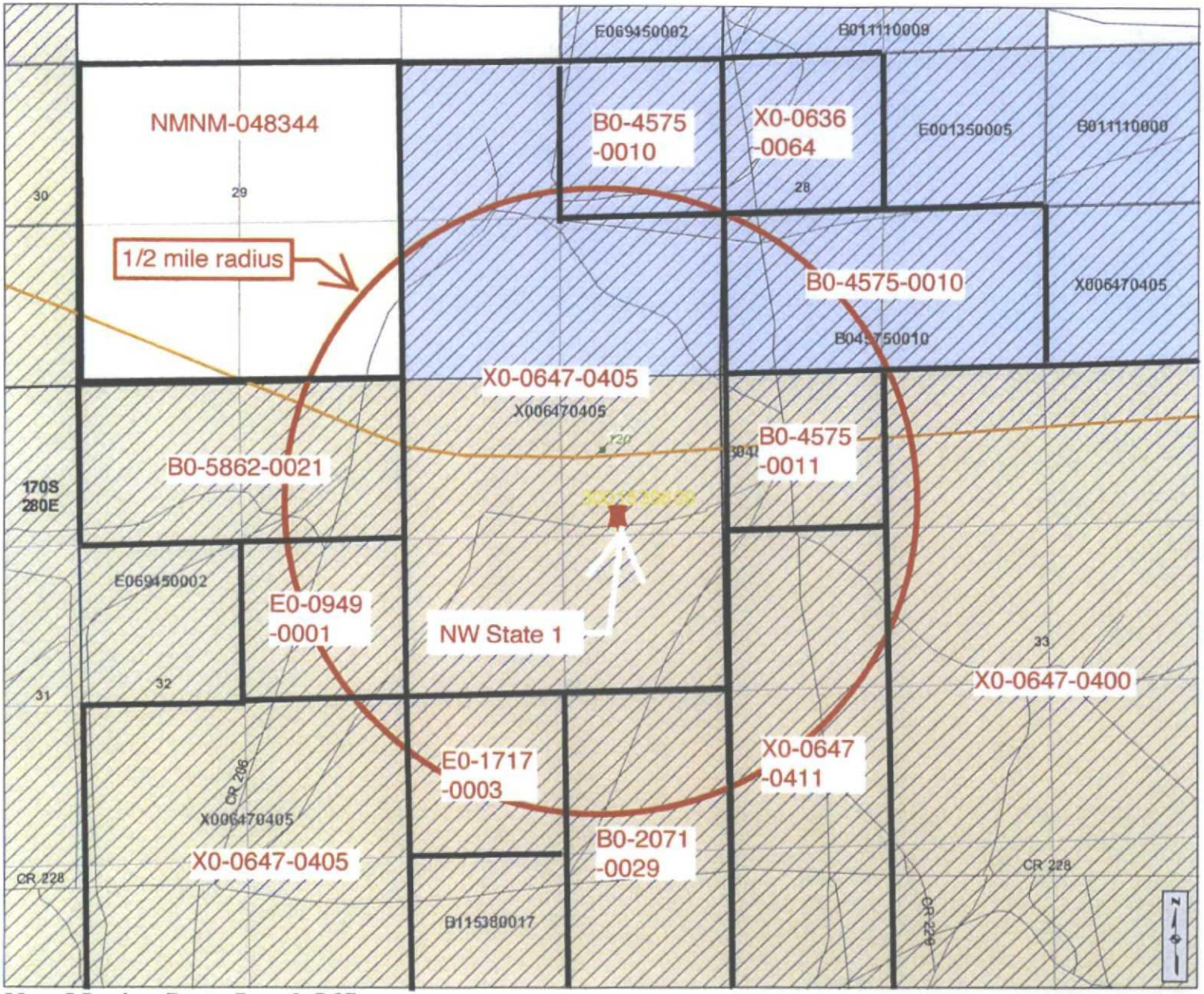
Quad: RED LAKE
Scale: 1 inch = 2,000 ft.

EXHIBIT C



Quad: RED LAKE
Scale: 1 inch = 2,564 ft.

EXHIBIT D



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NMOCD Oil and Gas Wells
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- Water
- DA or PA

New Mexico State Land Office
Oil, Gas and Minerals

0 0.03 0.06 0.12 0.18 0.24
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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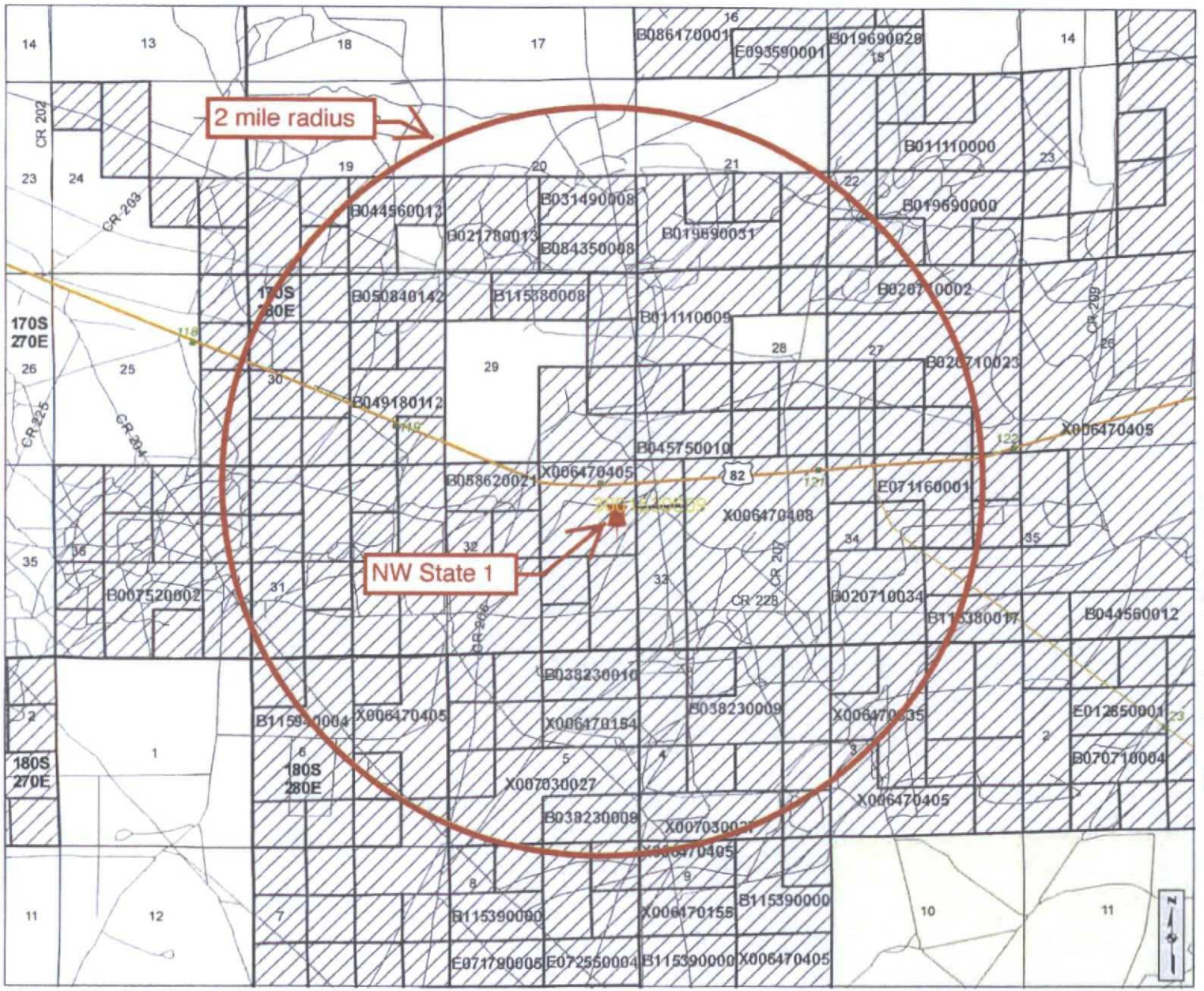
EXHIBIT E

www.nmstatelands.org



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

New Mexico State Land Office

Oil, Gas and Minerals

0 0.15 0.3 0.6 0.9 1.2 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 F

www.nmstatelands.org

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EAU 028A	12/27/60	6100	Empire; Abo	P & A	11	8.625	717	300 sx	GL	circulated
30-015-01664					7.875	5.5	6072	170 units HYS 400 + 150 sx	GL	circulated
A-32-17s-28e										
NW State 033	3/17/96	10610	Red Lake; Morrow	Gas	17.5	13.375	560	600 sx	GL	circulated to surface
30-015-28863					12.25	9.625	2640	925 sx	GL	circulated to surface
H-32-17s-28e					8.75	5.5	10610	1300 sx	5953	CBL
EAU 027C	6/5/64	6182	Empire; Abo	P & A	11	8.625	1004	175 sx	GL	circulated
30-015-10313					7.875	4.5	6146	820 sx	3461	operator
B-32-17s-28e										
NW State 016	4/24/00	3210	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	518	350 sx	GL	circulated 48 sx
30-015-30890					7.875	5.5	3205	600 sx	GL	circulated 40 sx
B-32-17s-28e										
NW State 020	4/14/00	3210	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	505	350 sx	GL	circulated 21 sx
30-015-30892					7.875	5.5	3205	650 sx	GL	circulated 92 sx
A-32-17s-28e										
NW State 003	8/16/99	3205	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	524	375 sx	GL	circ 86 sx to pit
30-015-30684					7.875	5.5	3200	625 sx	GL	circ 52 sx to pit
G-32-17s-28e										
NW State 002	8/6/99	2850	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	408	375 sx	GL	circ 102 sx to pit
30-015-30683					7.875	5.5	2845	750 sx	GL	circulated
H-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NW State 017	9/13/01	3225	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	508	375 sx	GL	circ 85 sx to pit
30-015-31933					7.875	5.5	3217	625 sx	GL	circulated 18 sx
H-32-17s-28e										
NW State 004	9/6/99	3200	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	525	350 sx	GL	circulated 64 sx
30-015-30734					7.875	5.5	3195	650 sx	GL	circ 65 sx to pit
B-32-17s-28e										
NW State 014	1/3/00	3240	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	531	382 sx	GL	circulated 80 sx
30-015-30824					7.875	5.5	3235	700 sx	GL	circulated 66 sx
P-29-17s-28e										
Delhi State 004	5/11/76	2086	Artesia; Queen-Grayburg San Andres	Oil	10	8.625	492	110 sx	approx. GL	trace of cmt to surface
30-015-21809					6.25	4.5	2086	475 sx	500	CBL
D-33-17s-28e										
EAU 028	8/26/60	6176	Empire; Abo	P & A	11	8.625	735	375 sx	GL	circulated
30-015-01658					7.875	5.5	6176	170 units HYS 400 + 150 sx	1950	calculated
H-32-17s-28e										
EAU 027	6/7/60	6165	Empire; Abo	P & A	11	8.625	859	450 sx	GL	circulated
30-015-01663					7.875	4.5	6165	850 sx	1800	estimated
G-32-17s-28e										
Delhi State 005	11/20/79	2120	Artesia; Queen-Grayburg San Andres	P & A	11	8.625	478	250 sx	GL	circulated 28 sx
30-015-23070					7.875	5.5	2105	535 sx	GL	circulated 125 sx
D-33-17s-28e										

EXHIBIT G

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Washington 33 State 035	3/3/12	5000	Artesia; Glorieta-Yeso	Oil	12.25	8.625	468	440 sx	GL	circ 250 sx to surface
30-015-39885					7.875	5.5	5000	780 sx	GL	circ 227 sx to surface
E-33-17s-28e										
NW State 018	2/26/02	3215	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	485	375 sx	GL	circulated 119 sx
30-015-31934					7.875	5.5	3208	800 sx	GL	circulated 166 sx
G-32-17s-28e										
Delhi B State 004	2/20/13	3194	Red Lake; Queen-Grayburg-San Andres	Oil	12.25	8.625	498	325 sx	GL	circ 12 sx to surface
30-015-40832					7.875	5.5	3186	550 sx	GL	circ 38 sx to surface
M-28-17s-28e										
Washington 33 State 008	7/30/98	4000	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	508	325 sx	GL	circ 26 sx to surface
30-015-30190					7.875	5.5	4000	760 sx	GL	circ 30 sx to pit
E-33-17s-28e										
EAU 029A	4/13/60	6150	Empire; Abo	P & A	11.25	8.625	1003	450 sx	GL	circulated to surface
30-015-01687					7.875	4.5	6150	800 sx	2058	CBL
E-33-17s-28e										
Kersey State 005	11/6/10	5106	Artesia; Glorieta-Yeso	Oil	12.25	8.625	458	525 sx	GL	circ 157 sx to surface
30-015-37693					7.875	5.5	5089	1200 sx	1200	calculated
I-32-17s-28e										
NAU 007	4/16/35	2527	Artesia: Queen-Grayburg San Andres	Oil	?	7	478	25 sx	?	no report
30-015-01672					6.25	4.5	2206	725 sx	GL	circulated 29 sx
I-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Enron State 017	3/5/12	4215	Artesia; Glorieta-Yeso	Oil	12.25	8.625	438	300 sx	GL	circ 155 sx to surface
30-015-39996					7.875	5.5	4209	900 sx	GL	circ 30 sx to pit
C-32-17s-28e										
EAU 402	10/23/11	6300	Empire; Abo	Oil	12.25	8.625	504	400 sx	GL	circ 42 sx to surface
30-015-39019					7.875	5.5	6300	1190 sx	GL	circ 214 sx to surface
I-32-17s-28e										
Delhi A State 1	3/6/60	6084	Empire; Abo	Oil	12.25	8.625	903	300 sx	GL	circulated
30-015-01677					7.875	4.5	6052	950 sx	1000	temp. survey
D-33-17s-28e										
NW State 019	4/7/00	3192	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	520	350 sx	GL	circulated 85 sx
30-015-30891					7.875	5.5	3185	550 sx	GL	circulated 52 sx
P-29-17s-28e										
State 32 001	2/7/58	2075	Artesia; Queen-Grayburg San Andres	Oil	10.75	8.625	516	50 sx	?	no report
30-015-01655					8	5.5	2074	150 sx	?	no report
J-32-17s-28e										
~~EAU 406~~	~~no spud yet~~	~~planned 6400~~	~~Empire; Abo~~	~~Oil~~	~~12.25~~	~~8.625~~	~~500~~	~~360 sx~~	~~GL~~	~~planned circulate~~
~~30-015-39005~~					~~7.875~~	~~5.5~~	~~6400~~	~~1080 sx~~	~~GL~~	~~planned circulate~~
~~I-32-17s-28e~~										
Washington 33 State 007	8/27/98	3950	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	530	325 sx	GL	circ 37 sx to surface
30-015-30189					7.875	5.5	3950	810 sx	GL	circ 49 sx to surface
E-33-17s-28e										

EXHIBIT G

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Washington 33 State 069	11/26/13	4498	Artesia; Glorieta-Yeso	Oil	12.25	8.625	510	360 sx	GL	circ 104 sx to surface
30-015-41682					7.875	5.5	4498	640 sx	GL	circ 40 sx to surface
E-33-17s-28e										
Enron State 014	6/9/09	4205	Red Lake; Glorieta-Yeso	Oil	12.25	8.625	348	330 sx	GL	circ 158 sx to surface
30-015-36979					7.875	5.5	4195	950 sx	GL	circ 136 sx to pit
C-32-17s-28e										
Jeffers 32 State 003	9/7/11	5093	Artesia; Glorieta-Yeso	Oil	12.25	8.625	350	500 sx	GL	circ 136 sx to pit
30-015-38513					7.875	5.5	5076	1200 sx	GL	circ 264 sx to pit
J-32-17s-28e										
Jeffers 32 State 001	1/27/00	3220	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	512	350 sx	GL	circulated
30-015-30887					7.875	5.5	3212	650 sx	GL	circulated 68 sx
J-32-17s-28e										
Delhi B State 3	12/10/11	3004	Red Lake; Queen-Grayburg-San Andres	Oil	12.25	8.625	470	300 sx	?	no report
30-015-39590					7.875	5.5	3004	600 sx	?	no report
M-28-17s-28e										
Kersey State 001	5/16/00	4075	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	529	350 sx	GL	circ 55 sx to pit
30-015-30888					7.875	5.5	4072	900 sx	GL	circ 16 sx to pit
I-32-17s-28e										
EAU 407	11/4/11	6296	Empire; Abo	Oil	12.25	8.625	500	310 sx	GL	circ 50 sx to surface
30-015-39006					7.875	5.5	6296	1470 sx	GL	circ 205 sx to surface
J-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Washington 33 State 044	4/5/12	4861	Artesia; Glorieta-Yeso	Oil	12.25	8.625	513	360 sx	GL	circ 42 sx to surface
30-015-40021					7.875	5.5	5000	830 sx	GL	circ 236 sx to surface
E-33-17s-28e										
Williams A Fed 012	2/28/14	3700	Red Lake; Glorieta-Yeso	Oil	12.25	8.625	437	300 sx	GL	circ 25 sx to pit
30-015-41890					7.875	5.5	3694	635 sx	GL	circ 150 sx to surface
N-29-17s-28e										
Washington 33 State 042	3/30/12	4969	Artesia; Glorieta-Yeso	Oil	12.25	8.625	505	350 sx	GL	circ 19 bbls to surface
30-015-40019					7.875	5.5	4969	840 sx	GL	circ 34 bbls + 80 sx to surface
L-33-17s-28e										
Delhi B State 002	5/29/61	6048	first Empire; Abo	P&A	10	7.75	612	165 sx	?	no report
30-015-01594					8.625	4.5	4987-6048	100 sx	?	no report
M-28-17s-28e			now Red Lake; Queen-Grayburg-San Andres	Oil	8.625	4.5	1995	100 sx	?	no report
State 32 002	1/23/56	2038	Artesia: Queen-Grayburg San Andres	Oil	10	8.625	497	41 sx	?	no report
30-015-01656					?	7	1680	200 sx	?	no report
J-32-17s-28e										
AB State 647 002	8/17/13	4989	Artesia; Glorieta-Yeso	Oil	12.25	8.625	408	290 sx	GL	circ 84 sx to surface
30-015-41500					7.875	5.5	5013	790 sx	GL	circ 103 sx to surface
K-32-17s-28e										
Enron State 019	12/28/13	4206	Red Lake; Glorieta-Yeso	Oil	11	8.625	427	250 sx	GL	circ 121 sx to surface
30-015-41833					7.875	5.5	4201	875 sx	GL	circ 162 sx to pit
C-32-17s-28e										

EXHIBIT G

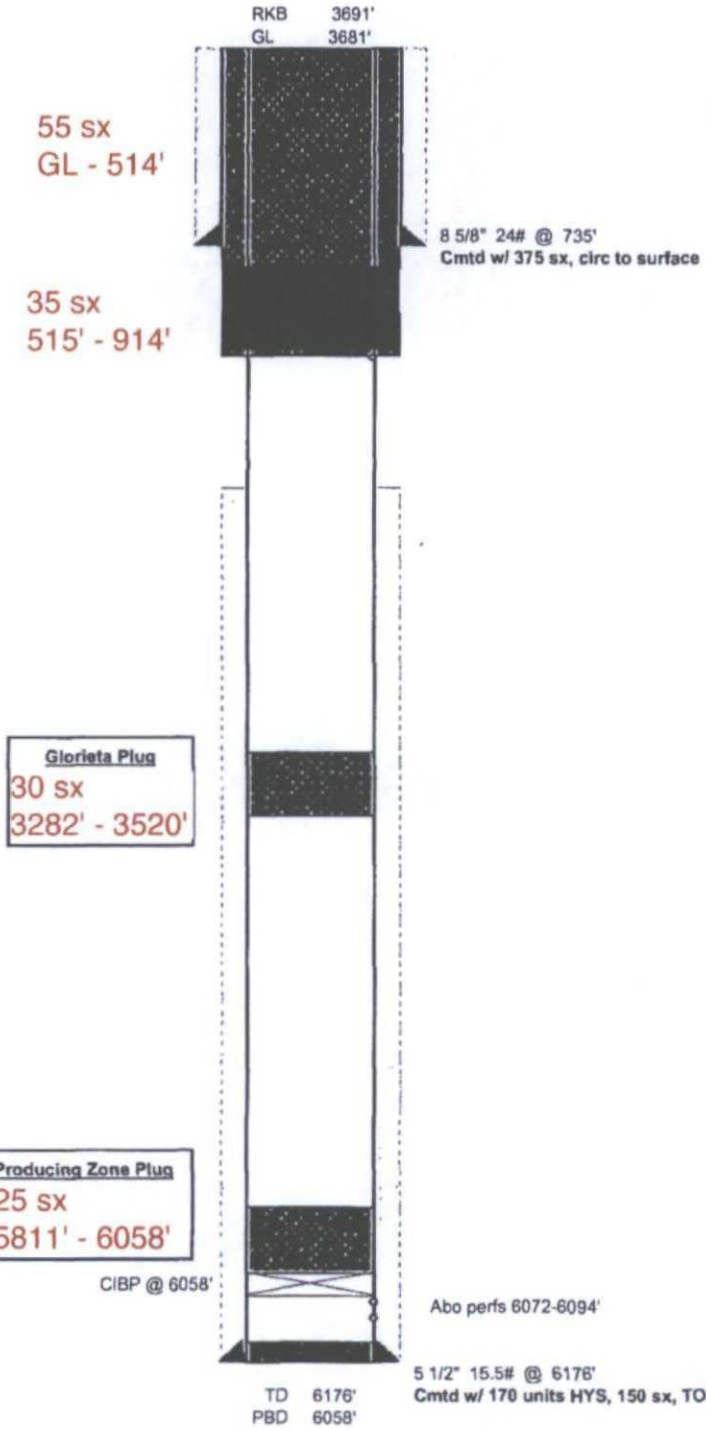
Sorted by distance from NW State 1

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Williams A Fed 001Z	9/15/03	3545	Artesia; Glorieta-Yeso	Oil	12.25	8.625	465	375 sx	GL	circulated
30-015-32554					7.875	5.5	3544	750 sx	GL	circulated
N-29-17s-28e										
Delhi B State 001	10/19/53	3636	Red Lake; Queen-Grayburg-San Andres	Oil	17.5	13.375	599	600 sx	GL	circulated to surface
30-015-01604					12.5	9.625	1894	500 sx	350	temperature survey
M-28-17s-28e					7.875	4.5	3630	800 sx	?	no report
EAU 026C	1/8/54	10300	Empire; Abo	P & A	17.5	13.375	554	550 sx	GL	circulated
30-015-01673					12.5	9.625	1969	600 sx	500	calculated
C-32-17s-28e					7.875	5.5	7505	200 sx	6350	calculated
Kersey State 003	7/2/07	3950	Artesia; Glorieta-Yeso	Oil	12.25	8.625	486	375 sx	GL	circulated to pit
30-015-35562					7.875	5.5	3943	950 sx	GL	circ 75 sx to pit
I-32-17s-28e										
AA State 001	7/30/60	6171	Empire; Abo	Oil	11	8.625	1007	550 sx	GL	circulated
30-015-01657					7.875	4.5	6171	1000 sx	920	temperature survey
F-32-17s-28e										
EAU 028C	5/20/60	6250	Empire; Abo	P & A	11	8.625	1304	680 sx	GL	circulated
30-015-01669					7.875	4.5	6250	850 sx	GL	circulated
I-32-17s-28e										
Enron State 001	5/2/01	4000	Artesia; Queen-Grayburg San Andres	Oil	12.25	8.625	390	325 sx	GL	circulated 87 sx
30-015-31530					7.875	5.5	3933	900 sx	GL	circulated 10 sx
C-32-17s-28e										
Red Lake 29 I State 001	10/5/04	3800	Artesia; Glorieta-Yeso	Oil	12.25	8.625	528	350 sx	GL	circulated
30-015-33579					7.875	5.5	3796	550 sx	528	CBL
I-29-17s-28e										

EXHIBIT G

BP America
Empire Abo Unit 28
30-015-01658

2310' FNL & 330' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico



Spud 8/26/60
Completed 9/10/60
P&A 2-24-09

EXHIBIT H

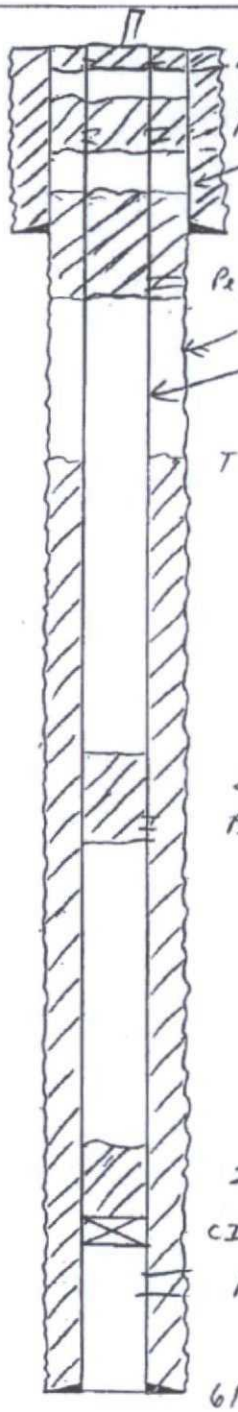
30-015-01663
BP's Empire Abo Unit 27
Spud: 9-10-60
P&A: 4-13-09

#35

WELL NAME: Empire Abo Unit E-27 FIELD AREA: Empire Abo
LOCATION: Sec. 32 T17S R28E "B" 990' FNL 1900' FEL Eddy Co., NM
GL: ____' ZERO: ____' AGL: ____'
KB: ____' ORIG. DRLG./COMPL. DATE: ____
COMMENTS: ____

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET



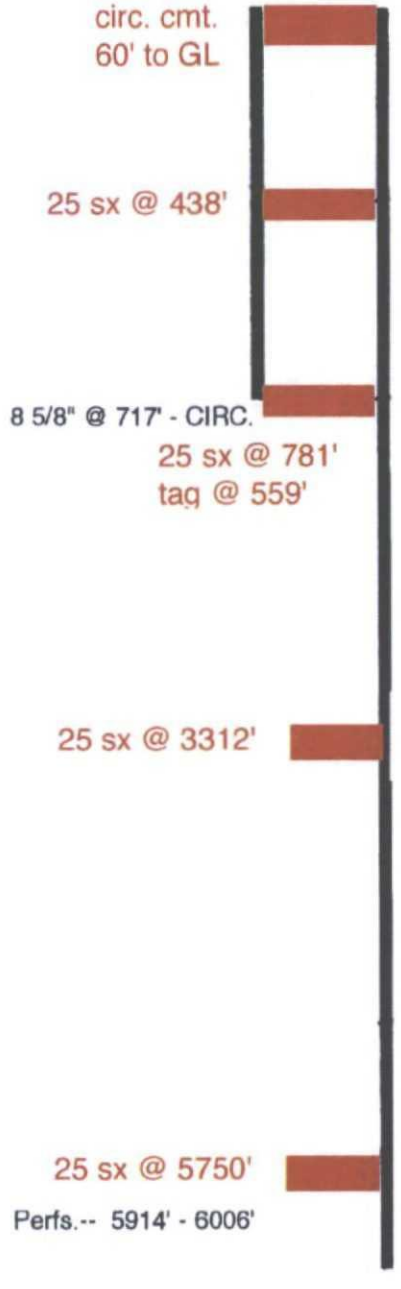
TOC Est. 1428' (75% eff)

P&A 3/2003

EXHIBIT H

BP America's Empire Abo Unit 28A
30-015-01664
1160 FNL & 330 FEL 32-17s-28e
spud: 11-17-60 P&A: 03-03-03

OPERATOR: B-P America Production						**API#**	30-015-01664
WELL: Empire Abo Ut. "E" # 28						**LOCATION:**	A-32-17-28
SURFACE CSG-	**HOLE SIZE** ?"	**CSG. SIZE** 8 5/8"	**SET @** 717'	**SX. CMT.**	**TOC.** Circ		
INT.CSG-	**HOLE SIZE** ??	**CSG. SIZE** "	**SET @** '	**SX. CMT.**	**TOC.**		
LONG STRING-	**HOLE SIZE** ??	**CSG. SIZE** 5.5"	**SET @** 6072'	**SX. CMT.** ?	**TOC.** Circ.		
OTHER-							



TOPS

Fresh Wtr._____
T. Salt_____
B. Salt_____
Yates 388
Glorieta 3307
Delaware_____
Bone Sp._____
Abo 5889
Wolfcamp_____
Morrow_____
Devonian_____
Fusselman_____
Other _____

EXHIBIT H

BP America
Empire Abo Unit 28C
30-015-01669

1650' FSL & 660' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico

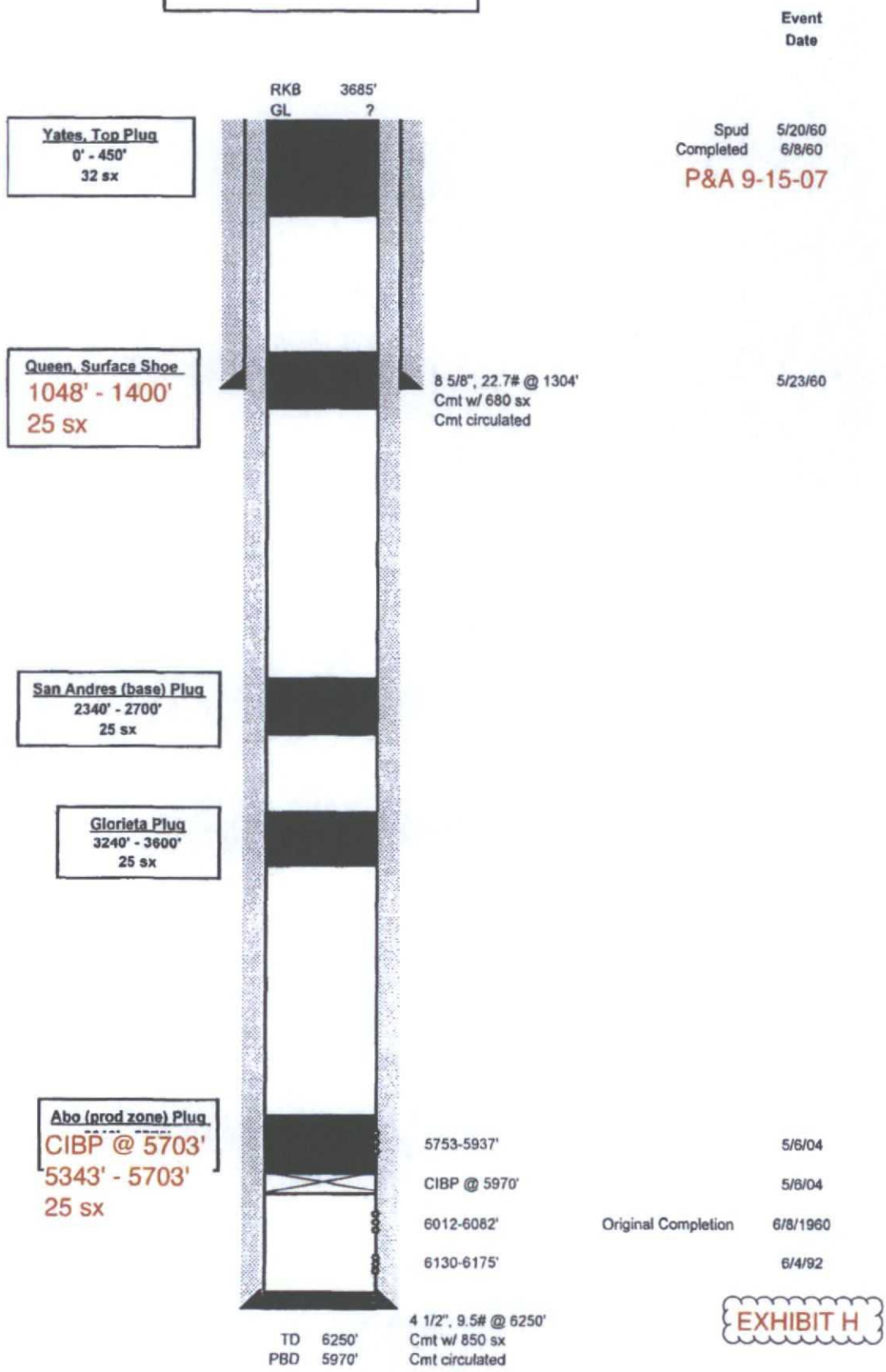


EXHIBIT H

BP America
Empire Abo Unit 26C
30-015-01673
990' FNL & 1650' FWL
Sec 32 - T17S - R28E
Eddy County, New Mexico

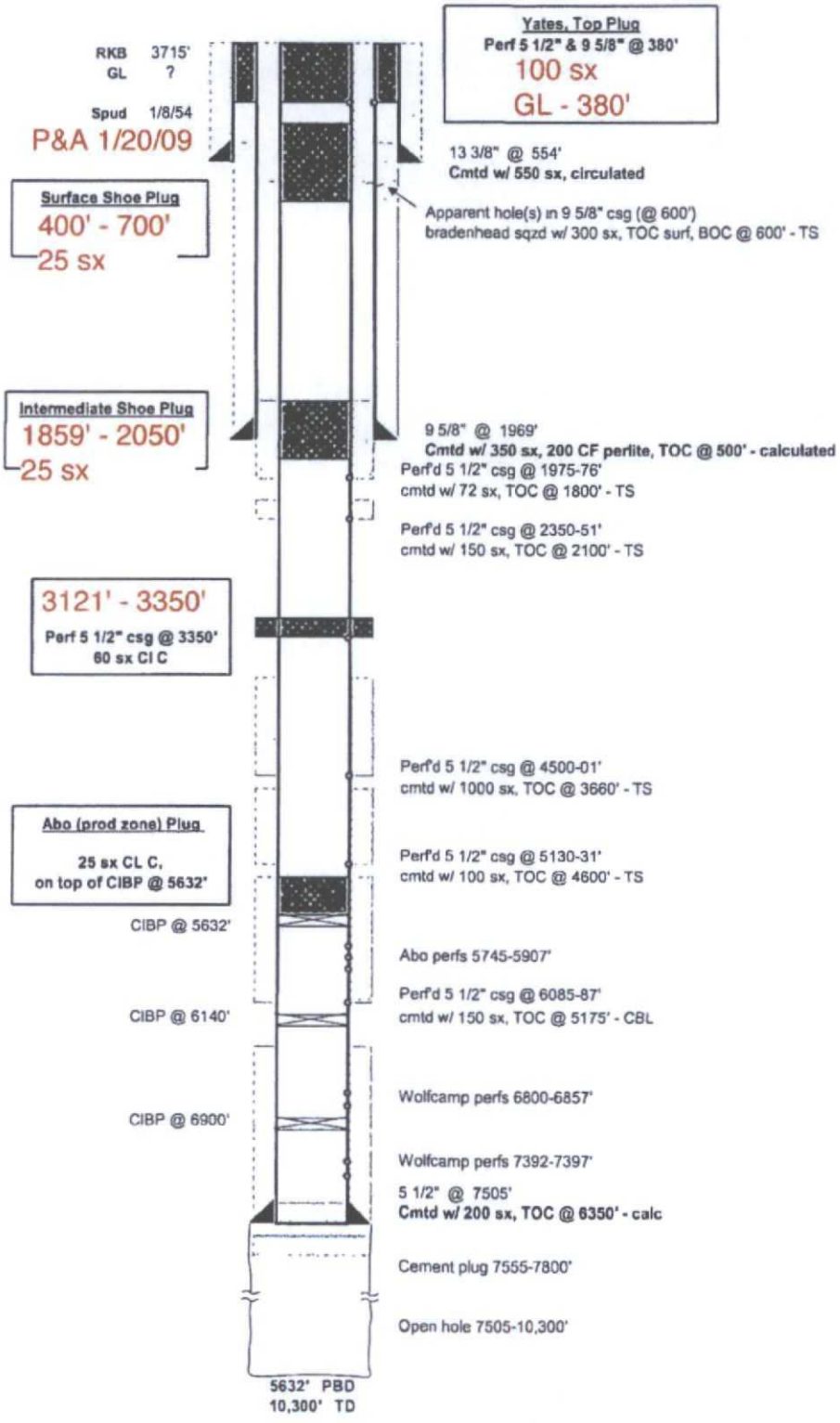
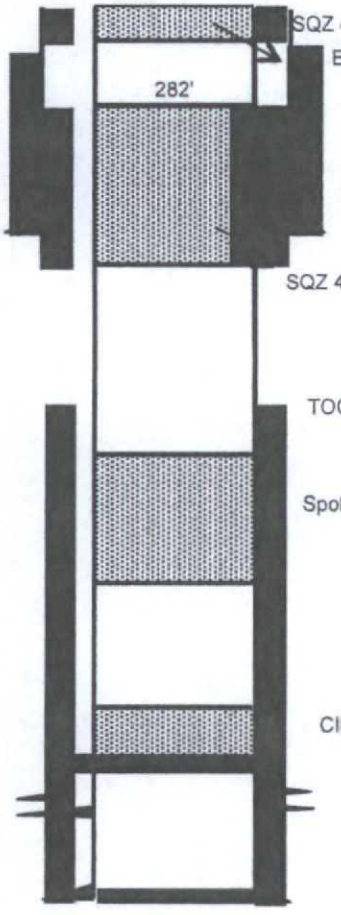


EXHIBIT H

SDX Resources Inc. - Wellbore Schematic

WELL NAME: NW Artesia Unit #2			spud:1-27-62 P&A: 11-11-06			
LOCATION: A - 32 -T17S-28E			COUNTY: Eddy			STATE: NM
890 FNL & 330 FWL						
API#: 30-015-01675	PREPARED BY: D. Sibley					
	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 523'	7"	17#			9-5/8"
CASING:	0' - 1970'	4 1/2"	11.6#			6 1/4"
LINER:						
TUBING:						
TUBING:						



SQZ 40 Sx cement into perfs @ 100' (11-7-06) circulated up 7" and left 4 1/2" full of cement

Estimated TOC @ 107'

7" 17# @ 523' cemented with 100 SX

SQZ 40 Sx cement into perfs @ 573' (11-7-06) Tag TOC @ 282'

TOC @ 810' by temperature survey

Spot 25 Sx cement plug in 4 1/2" @ 1,264'

CIBP @ 1,850' with 25 sx cement on top

1915-1923' San Andres

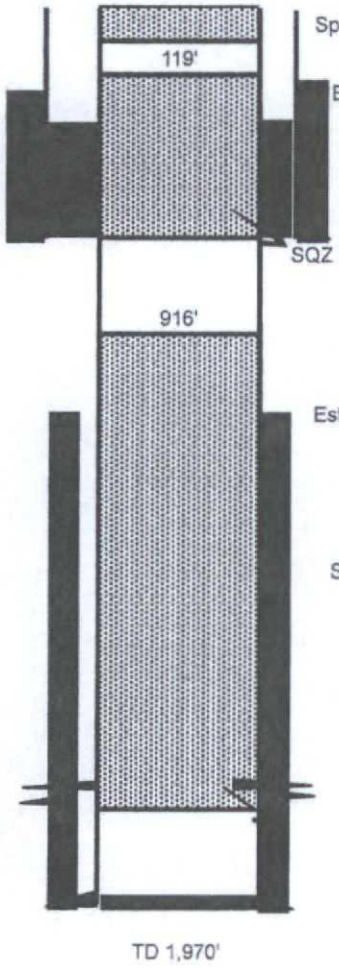
4 1/2" 11.6# @ 1,970' cemented with 150 Sx

TD 1,971'

EXHIBIT H

Marbob Energy Corp - Wellbore Schematic

WELL NAME: Delhi State #2						
LOCATION: D - 33 -T17S-28E			COUNTY: Eddy			STATE: NM
330 FNL & 990 FWL			spud: 10-4-61		P&A: 1989-1990	
API#: 30-015-01684	PREPARED BY: D. Sibley					
	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 500'	8 5/8"	32#			10"
CASING:	0' - 1967'	4 1/2"	9.5#			8"
LINER:						
TUBING:						
TUBING:						



Spot 10 Sx cement plug at surface

Estimated TOC @ 175'

8 5/8" 32# @ 500' cemented with 35 SX

SQZ 175 Sx cement into perfs @ 500' (10-29-90) **Tag TOC @ 119'**

Estimated TOC @ 1,654'

SQZ production perfs @ 1922-34 with 100 Sx cement **Tagged TOC @ 916'**

1922-1934' San Andres

4 1/2" 9.5# @ 1,968' cemented with 75 Sx

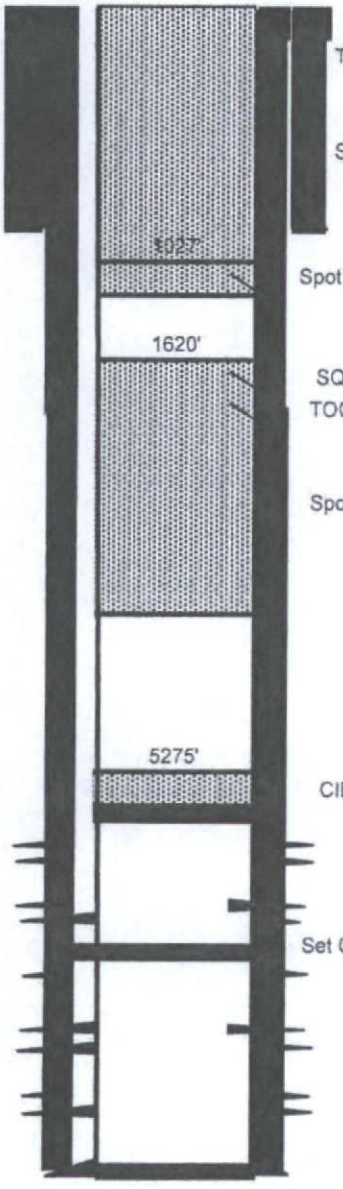
TD 1,970'

EXHIBIT H

BP America Production Co. - Wellbore Schematic

WELL NAME: Empire Abo Unit 29A		spud 4-13-60 plug 7-8-09	
LOCATION: E - 33-T17S-28E		COUNTY: Eddy	STATE: NM
1980 FNL 620 FWL			
API#: 30-015-01687	PREPARED BY: D. Sibley		

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1,003'	8-5/8"	22.7#			11"
CASING:	0' - 6,150'	4 1/2"	11.6#			7-7/8"
LINER:						
TUBING:						
TUBING:						



Grout cement to surface with 1" pipe from 110' (4-16-60)
TOC 110' by temperature survey (4-16-60)

Spot 80 Sx cement in 4 1/2" from 1,027' to surface (7-6-09)

8-5/8" 22.7# @ 1,003' cemented with 450 Sx

Spot 22 Sx cement plug in 4 1/2" from 1,050-1,372' (7-1-09) **Tagged at 1,027'**

SQZ 900 Sx cement at 2,008' (1-18-80) **Circulated 220 Sx**
TOC @ 2,058' by CBL (1-13-80)

Spot 135 Sx cement in 4 1/2" from 1,620-3,500' (6-25-09) **Tagged TOC @ 1,620'**

CIBP @ 5,628' with 25 sx cement on top (6-25-09)

5682-5776' (7-17-97)

5820-5885' (7-17-97)

Set CIBP @ 5,930' (5-21-90)

5956-5978' (8-7-69)

6015-6035' (1-9-65)

6038-6073' (5-10-60)

4 1/2" 11.6# @ 6,150' cemented with 800 Sx

TD 6,150'

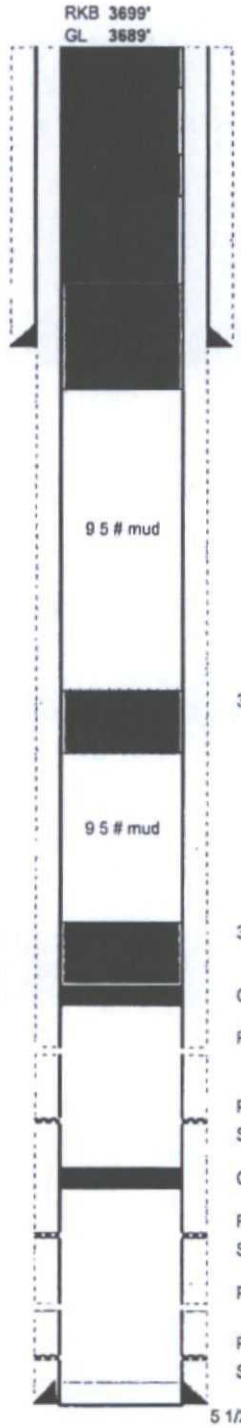
EXHIBIT H

BP America
Empire Abo Unit 27C
30-015-10313

2310' FNL & 1650' FEL
Sec 32- T17S - R28E
Eddy County, New Mexico

	Event Date
Spud	9/10/60
Completed	9/29/60

P&A 4-13-09



GL - 1253'
130 sx

15 sx cement @ surface	NEW
15 sx cement @ 410'	NEW
40 sx cement @ 1250'	NEW
8 5/8" 28# @ 993' Cmtd w/ 450 sx	9/11/60
Pressure test csg to 550 psi	3/10/2004

Gloneta Plug
3118' - 3425'
30 sx

30 sx cement @ 3425'	NEW

Abo Plug
5550-5830'
30 sx Cl C cement
on top of CIBP @ 5830'

30 sx cement	NEW
CIBP @ 5830'	NEW
Perfs 5870-5930' 2 SPF 120 shots	4/16/97
Perfs 5884-5920' 12 shots	7/24/75
Squeezed w/ 250 sx cmt	7/21/90
CIBP @ 5970'	4/15/97
Perfs 5980-5990 S SPF	9/29/60
Squeezed	7/23/75
Perfs 6030-6055' 2 SPF 50 holes	7/24/90
Perfs 6041-6068 15 shots	6/28/74
Squeezed	7/23/75
5 1/2" 15.5# @ 6108' Cmtd w/ 150 Units HYS 400 and 150 sx	9/28/60

PBTD
6068'

7/24/1990

EXHIBIT H

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

No records found.

UTMNAD83 Radius Search (in meters): NW State 1

Easting (X): 575592 **Northing (Y):** 3628883 **Radius:** 3220

3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

EXHIBIT I

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)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance
12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD34				2 1 3	28	17S	28E	576125	3629928	1173
proposed 50' deep monitoring wells					ED	RA 12030 POD33				3 3 1	28	17S	28E	575895	3630120	1274
					ED	RA 12030 POD38				1 2 3	28	17S	28E	576432	3629909	1326
					ED	RA 12030 POD30				1 4 2	29	17S	28E	575545	3630219	1337
					ED	RA 12030 POD37				3 4 1	28	17S	28E	576381	3630112	1460
					ED	RA 12030 POD32				4 2 2	29	17S	28E	575869	3630391	1533
					ED	RA 12030 POD28				3 2 2	29	17S	28E	575616	3630503	1620
					ED	RA 12030 POD29				3 1 2	29	17S	28E	575250	3630472	1626
					ED	RA 12030 POD39				3 3 2	28	17S	28E	576764	3630081	1676
					ED	RA 12030 POD31				1 1 1	28	17S	28E	576008	3630651	1816
					ED	RA 12030 POD27				1 1 2	29	17S	28E	575175	3630660	1825
					ED	RA 12030 POD36				3 2 1	28	17S	28E	576409	3630515	1825
					ED	RA 12030 POD25				4 4 4	20	17S	28E	575808	3630877	2006
					ED	RA 12030 POD40				3 1 2	28	17S	28E	576799	3630524	2038
					ED	RA 12030 POD41				1 4 2	28	17S	28E	577142	3630238	2059
					ED	RA 12030 POD24				4 3 4	20	17S	28E	575433	3630960	2083
					ED	RA 12030 POD35				3 4 3	21	17S	28E	576391	3630814	2090
					ED	RA 12030 POD26				2 4 3	20	17S	28E	574944	3631040	2252

EXHIBIT I

(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)

File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Code	Grant	Source	q q q 6416 4	Sec	Tws	Rng	X	Y	Distance
					ED	RA 12030 POD23				2 4 4	20	17S	28E	575733	3631163	2284
					ED	RA 12030 POD43				3 3 4	21	17S	28E	576760	3630857	2294
					ED	RA 12030 POD42				3 2 2	28	17S	28E	577163	3630555	2294
					ED	RA 12030 POD46				2 4 3	21	17S	28E	576496	3631083	2378
					ED	RA 12030 POD44				3 4 4	21	17S	28E	577156	3630844	2508
)9001		OFM	5	ATLANTIC RICHFIELD COMPANY	ED	RA 09001				1 1	03	18S	28E	577707	3627449*	2555
12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD9				2 2 4	20	17S	28E	575715	3631468	2588
proposed 50' deep monitoring wells					ED	RA 12030 POD4				2 1 4	20	17S	28E	575375	3631480	2606
					ED	RA 12030 POD18				2 3 4	21	17S	28E	576906	3631135	2608
					ED	RA 12030 POD22				1 1 3	21	17S	28E	575988	3631461	2608
					ED	RA 12030 POD3				2 2 3	20	17S	28E	574979	3631471	2660
					ED	RA 12030 POD21				2 1 3	21	17S	28E	576271	3631506	2709
					ED	RA 12030 POD45				4 4 4	21	17S	28E	577441	3630902	2738
					ED	RA 12030 POD17				2 4 4	21	17S	28E	577327	3631151	2856
					ED	RA 12030 POD20				3 4 1	21	17S	28E	576382	3631725	2950
					ED	RA 12030 POD2				2 4 1	20	17S	28E	575031	3631792	2962
					ED	RA 12030 POD5				1 4 2	20	17S	28E	575574	3631870	2987
					ED	RA 12030 POD10				1 3 1	21	17S	28E	576042	3631898	3049
					ED	RA 12030 POD15				4 3 2	21	17S	28E	577009	3631656	3114
					ED	RA 12030 POD16				3 1 3	22	17S	28E	577573	3631310	3133

A location was derived from PLSS - see Help

EXHIBIT I

:ord Count: 38

UTMNAD83 Radius Search (in meters): NW State 1

Easting (X): 575592 **Northing (Y):** 3628883 **Radius:** 3220

3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

Sorted by: Distance

EXHIBIT I

Ogallala boundary

EXHIBIT I

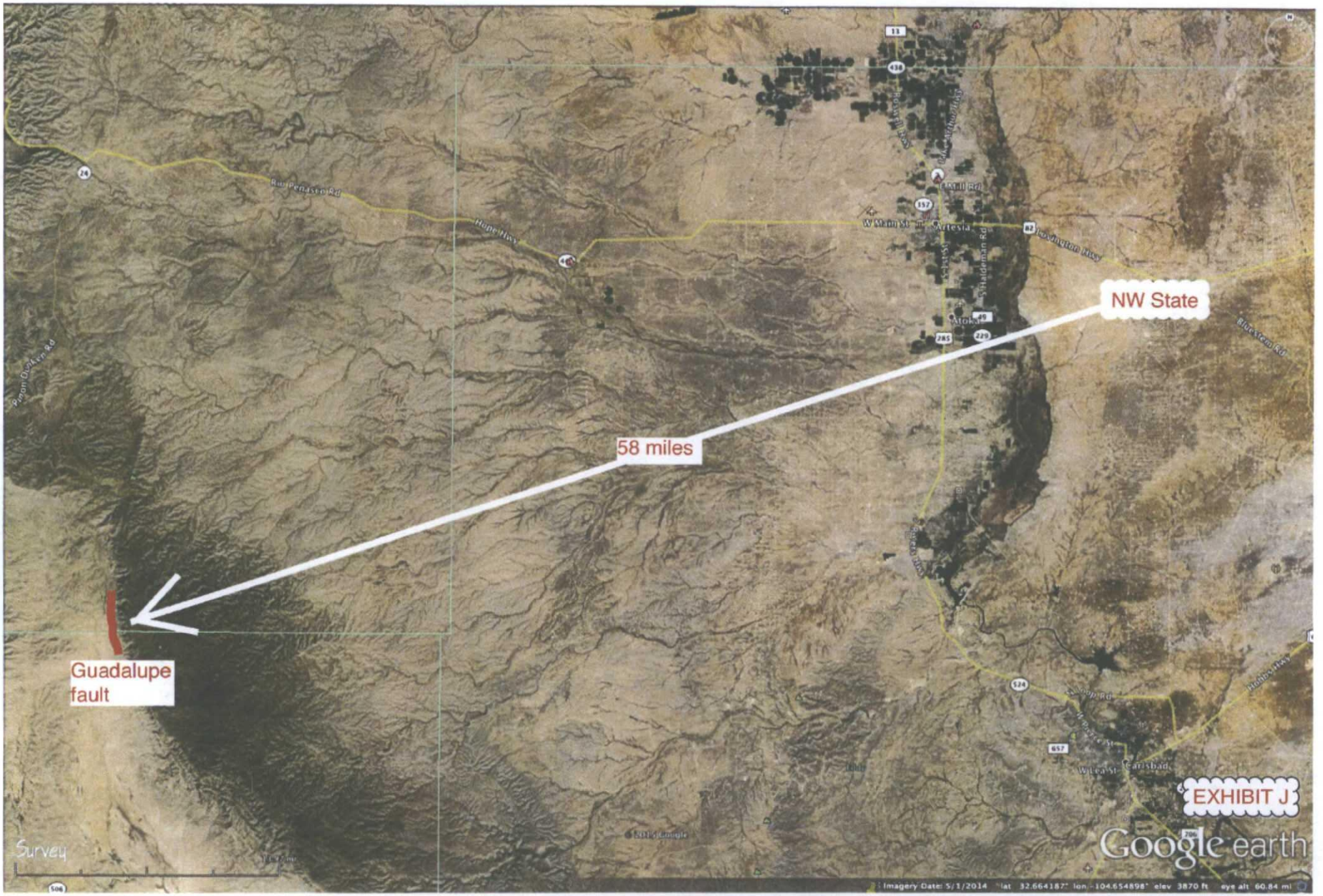

NW State
58 miles
Guadalupe
fault
EXHIBIT J
Survey
Google earth

EXHIBIT B

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 XXX No

II. OPERATOR: LRE OPERATING, LLC OGRID 281994

ADDRESS: 1111 BAGBY, SUITE 4600, HOUSTON TX 77002

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: _____

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.

NW STATE 3 30-015-30684

VII. Attach data on the proposed operation, including:

Artesia;Queen-Grayburg-San Andres

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: B. Wood DATE: JUNE 6, 2015

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

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

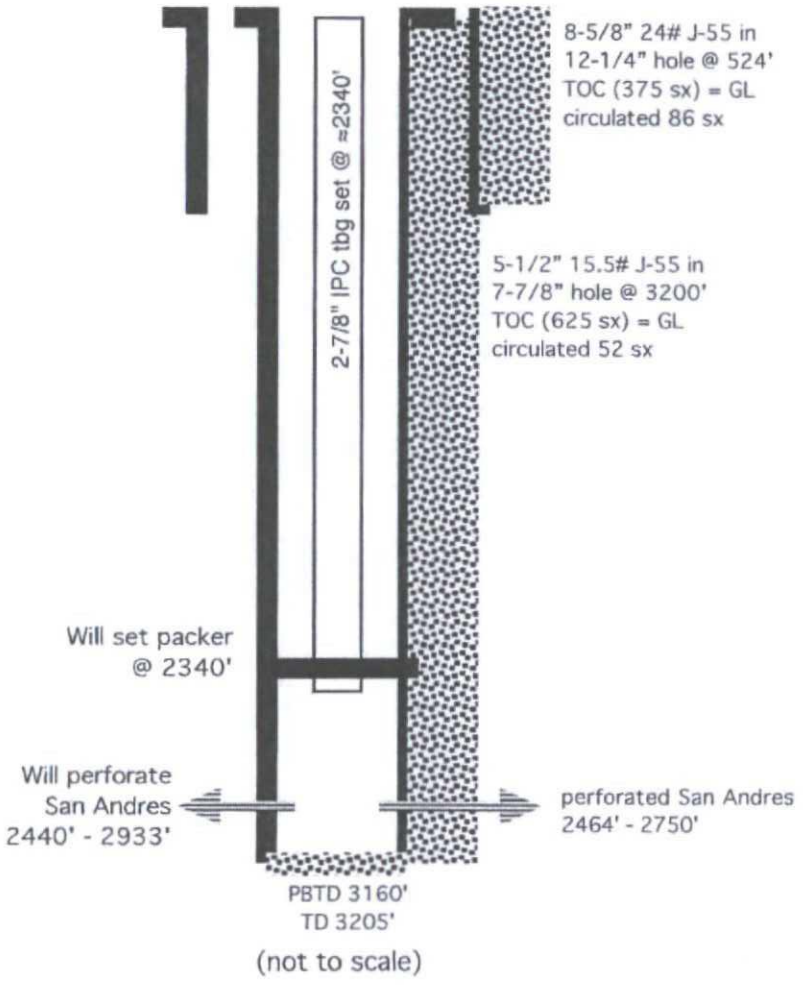
INJECTION WELL DATA SHEET

OPERATOR: LRE OPERATING, LLC

WELL NAME & NUMBER: NW STATE 3

WELL LOCATION:					
	1650' FNL & 1650' FEL	G	32	17 S	28 E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 375 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 86 SX

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: 625 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 52 SX

Total Depth: 3205'

Injection Interval

2440' feet to 2933'

(Perforated or Open Hole; indicate which)

Side 2

NW STATE 3

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" TK70ST Lining Material: INTERNAL PLASTIC COAT

Type of Packer: 2-7/8" x 5-1/2" INTERNAL & EXTERNAL NICKEL PLATED

Packer Setting Depth: 2340'

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

NW STATE 3
Additional Data

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

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

2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): ARTESIA; QUEEN-GRAYBURG-SAN ANDRES (POOL CODE 3230)

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: QUEEN 1200', GRAYBURG 1620'

   PROPOSED INJECTION ZONE: SAN ANDRES 2440' - 2933'

   UNDER: ABO 5860', MORROW 10,050'

I. Purpose is to convert an existing oil well to a water injection well to increase oil recovery. The well will inject into the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230) from 2440' to 2933'. Highest perforation will be 500' below the top of the San Andres. A 5 spot pattern will result. The injector will be inside a ring of LRE producers on the same lease. See Exhibit A for a map and C-102 forms.

II. Operator: LRE Operating, LLC (OGRID #281994)
Operator phone number: (713) 360-5714 (Eric McClusky)
Operator address: 1111 Bagby St., Suite 4600, Houston, TX 77002

Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: (NM State Land Office) X0-0647-0405 (see Exhibit B)
Lease Size: 8,746.59 acres
Lease Area: NE4 Sec. 32, T. 17 S., R. 28 E. et al
Distance to closest lease line: 990'

A. (2) Well construction details are:

Surface Casing	8.625" and 24#
Surface Hole	12.25"
Depth Set	524'
sx Cement	375
TOC	GL
Production Casing	5.5" and 15.5#
Production Hole	7.875"
Depth Set	3200'
sx cement	625
TOC	GL
PBTD	3160'
TD	3205'

A. (3) Tubing specifications are 2-7/8", TK70ST, 10-20 mil, internally plastic coated. Setting depth will be ≈2,340'.

A. (4) A 2-7/8" x 5-1/2" internal and external nickel-plated injection packer will be set 100' above the highest perforation.

B. (1) Injection formation will be the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230). There are currently 88 water injection wells and 545 oil wells in that pool.

B. (2) Injection interval will be the San Andres. Interval thickness is 1,265'. The well is cased. See attached C-108 well profile for more perforation information.

B. (3) Well was drilled and completed in 1999 as an oil well and is so to date.

B. (4) Well is exclusively perforated in the San Andres from 2464' to 2780'.

B. (5) Producing oil and gas zones above and below the San Andres within the areas of review are:

Queen (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
Grayburg (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
San Andres
Glorieta (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Yeso (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Abo (Empire; Abo (#22040)
Morrow (Red Lake: Morrow (#96515)

IV. This is not a horizontal or vertical expansion of an existing injection project. There is a shallower Grayburg waterflood (LRE's Northwest Artesia Unit) in the areas of review. There will be ≥601' of vertical separation between the bottom of the Grayburg (1939') and top of the San Andres waterflood (≥2440'). Order R-4727 Case 5144 covers the Grayburg water flood.

V. Exhibit C shows all 57 existing wells (1 gas + 1 saltwater disposal + 3 water injectors + 41 oil + 11 P&A) within ½ mile of NW State 3. (Apache has 14 Jackrabbit State wells approved in the NE4 Section 32, but not yet drilled. All will be 5300' deep Yeso wells and both strings will be cemented to the surface.) Exhibit D shows all 889 existing wells (601 oil or gas wells + 255 P & A wells + 33 injection or disposal wells) within a two-mile radius.

Exhibit E shows all leases (mostly State and 1 BLM lease) within a half-mile radius. Details on the leases within a half-mile are:

Aliquot Parts in NW State 3 Area of Review (T 17 S, R 28 E)	Lessor	Lease	Lessee(s) of Record	San Andres operator, if any
SWSW Sec. 28	NMSLO	B0-4575-0010	ConocoPhillips & Atofina	N/A
S2SE4 Sec. 29	NMSLO	X0-0647-0405	Khody	SWSE = N/A SESE = LRE
SESW Sec. 29	BLM	NMNM-048344	Apache, Chisos, Cross Borders, LRE, States	N/A
NE4 Sec. 32	NMSLO	X0-0647-0405	Khody	LRE
N2NW4 Sec. 32	NMSLO	B0-5862-0021	Occidental	LRE
SENW Sec. 32	NMSLO	E0-0949-0001	BP	N/A
SWNW Sec. 32	NMSLO	E0-6945-0002	Occidental	N/A
NESW Sec. 32	NMSLO	X0-0647-0405	Khody	LRE
NWSE Sec. 32	NMSLO	E0-1717-0003	Occidental	Alamo
E2SE4 Sec. 32	NMSLO	B0-2071-0029	Occidental	LRE

SWSE Sec. 32	NMSLO	B1-1538-0017	ConocoPhillips & Chisos	Apache
NWNW Sec. 33	NMSLO	B0-4575-0011	ConocoPhillips & Atofina	COG
SWNW Sec. 33	NMSLO	X0-0647-0411	Apache	Apache
NWSW Sec. 33	NMSLO	X0-0647-0408	Apache	Apache

Exhibit F shows all lessors (only BLM and state) within a 2-mile radius.

VI. Fifty-seven wells are within a half-mile radius. All penetrated the San Andres (top = 1940'). The penetrators include 42 oil or gas wells, 11 P & A wells, and 4 injection or disposal wells. A table abstracting the well construction details and histories of the penetrators is in Exhibit G. Diagrams illustrating the P & A wells are in Exhibit H. Diagrams are sequenced by API number. The wells and their distances from the proposed injector are:

API	WHO	WELL	UL	T17S, R28E, SECTION	TVD	WELL TYPE	CURRENT ZONE	FEET FROM NW STATE 3
3001502312	LRE	NW Artesia Unit 5	G	32	1955	O	Art;Q-Gray-SA	330
3001501663	BP	EAU 27	G	32	6108	P&A	Empire; Abo	660
3001510109	LRE	NW Artesia Unit 3	B	32	1984	I	Art;Q-Gray-SA	660
3001510313	BP	EAU 27C	B	32	6182	P&A	Empire; Abo	706
3001528863	LRE	NW State 33	H	32	10610	G	Red Lake; Morrow	741
3001530734	LRE	NW State 4	B	32	3200	O	Art;Q-Gray-SA	810
3001531934	LRE	NW State 18	G	32	3215	O	Art;Q-Gray-SA	883
3001531933	LRE	NW State 17	H	32	3225	O	Art;Q-Gray-SA	885
3001530609	LRE	NW State 1	A	32	3205	O	Art;Q-Gray-SA	936
3001501655	Alamo	State 32 1	J	32	2065	O	Art;Q-Gray-SA	1257

3001530683	LRE	NW State 2	H	32	2850	O	Art;Q-Gray-SA	1272
3001538513	LRE	Jeffers 32 State 3	J	32	5093	O	Art; Glor-Yeso (O)	1317
3001530890	LRE	NW State 16	B	32	3210	O	Art;Q-Gray-SA	1320
3001501674	LRE	NW Artesia Unit 6	H	32	1973	I	Art;Q-Gray-SA	1366
3001539005	Apache	EAU 406	I	32	6400	O	Empire; Abo	1408
3001501664	BP	EAU 28A	A	32	6100	P&A	Empire; Abo	1415
3001539006	Apache	EAU 407	J	32	6296	O	Empire; Abo	1422
3001530887	LRE	Jeffers 32 State 1	J	32	3220	O	Art;Q-Gray-SA	1426
3001537693	LRE	Kersey State 5	I	32	5106	O	Art; Glor-Yeso (O)	1466
3001501658	BP	EAU 28	H	32	6176	P&A	Empire; Abo	1481
3001501675	SDX	NW Artesia Unit 2	A	32	1965	P&A	Art;Q-Gray-SA	1529
3001541500	Apache	AB State 647 2	K	32	4989	O	Art; Glor-Yeso (O)	1538
3001501672	LRE	NW Artesia Unit 7	I	32	2527	O	Art;Q-Gray-SA	1597
3001501656	Alamo	State 32 2	J	32	2038	O	Art;Q-Gray-SA	1623
3001536979	LRE	Enron State 14	C	32	4205	O	Art; Glor-Yeso (O)	1645
3001501657	Apache	AA State 1	F	32	6171	O	Art; Glor-Yeso (O)	1687
3001539996	LRE	Enron State 17	C	32	4199	O	Art; Glor-Yeso (O)	1809
3001539019	Apache	EAU 402	I	32	6300	O	Empire; Abo	1818
3001530892	LRE	NW State 20	A	32	3210	O	Art;Q-Gray-SA	1872
3001510818	SDX	NW Artesia Unit 8	K	32	2003	P&A	Art;Q-Gray-SA	1915
3001501670	BP	EAU 27B	J	32	6165	P&A	Empire; Abo	1944
3001541833	LRE	Enron State 19	C	32	4206	O	Art; Glor-Yeso (O)	1958
3001539885	Apache	Wash. 33	E	33	5000	O	Art; Glor-	2005

		State 35					Yeso (O)	
3001501673	BP	EAU 26C	C	32	10300	P&A	Empire; Abo	2005
3001535562	LRE	Kersey State 3	I	32	3950	O	Art; Glor-Yeso (O)	2023
3001530888	LRE	Kersey State 1	I	32	4075	O	Art;Q-Gray-SA	2031
3001530190	Apache	Wash. 33 State 8	E	33	4000	O	Art;Q-Gray-SA	2081
3001537045	LRE	Jeffers 32 State 2	J	32	5130	O	Art; Glor-Yeso (O)	2084
3001530824	LRE	NW State 14	P	29	3240	O	Art;Q-Gray-SA	2091
3001521809	COG	Delhi State 4	D	33	2086	O	Art;Q-Gray-SA	2105
3001501669	BP	EAU 28C	I	32	6250	P&A	Empire; Abo	2153
3001530781	LRE	NW State 5	K	32	3190	I	Art;Q-Gray-SA	2181
3001534148	LRE	Aspen 32 State Com 1	J	32	10400	SWD	Cisco-Canyon	2197
3001531530	LRE	Enron State 1	C	32	4000	O	Art;Q-Gray-SA	2198
3001541501	Apache	AB State 647 3	K	32	5027	O	Art; Glor-Yeso (O)	2247
3001501661	Apache	EAU 26B	K	32	6083	O	Empire; Abo	2284
3001501687	BP	EAU 29A	E	33	6150	P&A	Empire; Abo	2303
3001541890	LRE	Williams A Federal 12	N	29	3700	O	Art; Glor-Yeso (O)	2386
3001510079	LRE	NW Artesia Unit 1	P	29	1940	O	Art;Q-Gray-SA	2389
3001540019	Apache	Wash. 33 State 42	L	33	4969	O	Art; Glor-Yeso (O)	2400
3001539064	Apache	EAU 403	O	32	6223	P&A	Empire; Abo	2413
3001541492	Apache	AB State 647 8	K	32	4302	O	Art; Glor-Yeso (O)	2515
3001539927	Apache	AB State 647 1	K	32	5016	O	Art; Glor-Yeso (O)	2550
3001532554	LRE	Williams A Federal 1Z	N	29	3545	O	Art; Glor-Yeso (O)	2611
3001501665	LRE	NW Artesia Unit 14	O	32	2099	O	Art;Q-Gray-SA	2627

3001530189	Apache	Wash. 33 State 7	E	33	3950	O	Art;Q-Gray-SA	2632
3001531920	LRE	Enron State 2	D	32	4030	O	Art;Q-Gray-SA	2640
3001501671	*BP*	*EAU 25B*	*E*	*32*	*6013*	*P&A*	*Empire; Abo*	*2649*

VII. 1. Average injection rate will be ≈150 bwpd per well.
Maximum injection rate will be 600 bwpd per well.

2. System will be closed. Well will tie into an existing pipeline system.

3. Average injection pressure will be ≈500 psi. Maximum injection pressure will be 488 psi (= 0.2 psi/ft x 2440' (highest perforation). If step rate test results support it, the maximum will be raised to 1464 psi (= 0.6 psi/foot x 2440' (highest perforation).

4. Water source will be water produced from LRE's Abo, Glorieta, Grayburg, Queen, San Andres, and Yeso wells.

5. Project goal is to increase production from the San Andres. LRE currently operates 9 San Andres oil wells in NE4 Section 32.

VIII. The proposed waterflood will inject into a portion of the San Andres Formation. This portion is mainly a dolomite with porosity ranging from 5% to 10%. The porosity is due inter-crystalline and finely crystalline dolomite and secondary moldic vuggy development in the dolomitized wackestone and packstone. Estimated fracture gradient is ≈0.70 psi per foot. There are currently 1,276 San Andres injection wells in the state. Formation tops are:

	NW State 3	contents
Quaternary	GL	fresh water
Rustler	445	anhydrite
Salado (top of salt)	550	salt
Tansill (base of salt)	590	gas, oil, & water

Yates	590	gas, oil, & water
Seven Rivers	690	gas, oil, & water
Queen	1200	gas, oil, & water
Penrose	1372	gas, oil, & water
Grayburg	1620	gas, oil, & water
San Andres top	1940	gas, oil, & water
San Andres injection interval	2400 - 2950	gas, oil, & water
Total Depth	3205	
Glorieta	*3341*	*gas, oil, & water*

Records from the Office of the State Engineer (Exhibit I) indicate no fresh water wells are within a mile radius. This was confirmed during a July 24 & 25, 2014 field inspection. Closest (8590' southeast of #3) fresh water well is Atlantic Richfield's abandoned RA 09001. No completion report has been filed for the well. Depth data is unknown.

No existing underground drinking water sources are above or below the San Andres within a mile radius.

There is >1,720' of vertical separation and >350' of anhydrite and salt between the bottom of the only likely underground water source (red beds) and the top of the San Andres. Ogallala aquifer is >20 miles northeast (Exhibit I).

Produced water has been injected into two zones (Queen, Grayburg) above the San Andres in 13 wells within Sections 28, 29, 32, and 33.

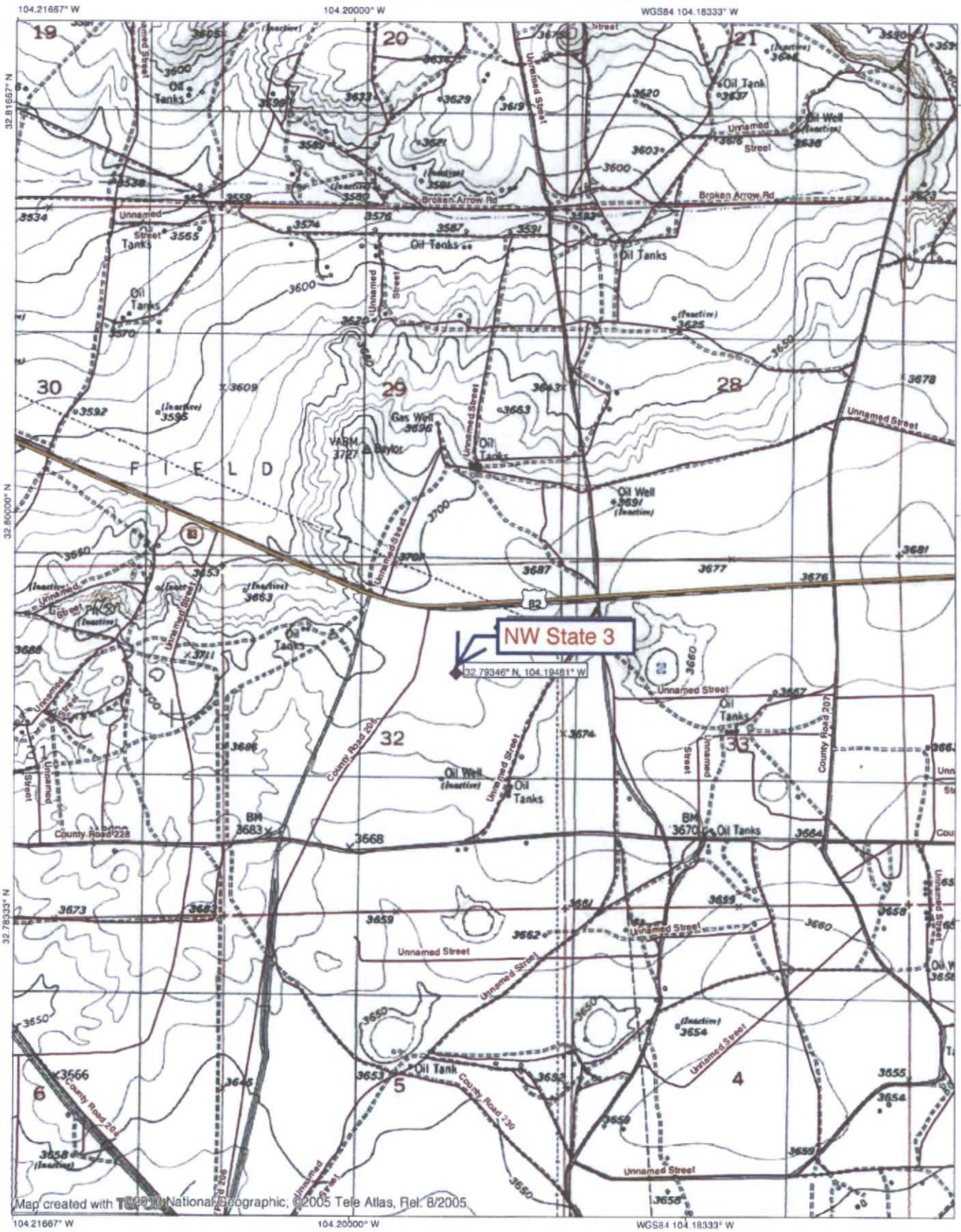
IX. The well will be further perforated, fracture stimulated, and acidized to clean out scale or fill.

X. Azimuthal laterolog micro-CFL/GR and compensated neutron three detector density logs were run and are on file with the NMOCD.

XI. No fresh water well is within a mile. Closest water well (RA 09001) is 8590' southeast. Well is locked, abandoned, and unavailable for sampling.

XII. LRE Operating, LLC is not aware of any geologic or engineering data that may indicate the San Andres is in hydrologic connection with any underground sources of water. Closest Quaternary fault is 58 miles southwest (Exhibit J). Water has been injected into the San Andres in Section 32 for the last 41 years. Over 410,339 barrels have been injected in the San Andres in Section 32 since 2007. There are 1,276 injection and 125 saltwater disposal wells active in the San Andres in New Mexico.

XIII. Notice (this application) will be sent to the surface owner (COG & John R. Gray, LLC), the offset San Andres operators (Alamo, Apache, COG), lessors (BLM & NM State Land Office), lessees (Apache, Atofina, BP, Chisos, ConocoPhillips, Cross Border, Granberry, Khody, Occidental, States Ltd.), or leasehold operating rights holders (Apache, Chesapeake, Chisos, Clayton Williams, COG, ConocoPhillips, Cross Border Resources, Dominion, Edge, Jalapeno, Khody, Nearburg (Charles), Nearburg Exploration, Occidental Permian, Overton Energy Investments, Oxy USA WTP LP, Perry (Wesley), RSE Partners, SDX Properties, SDX Resources, States Ltd., The Salient Zarvona Energy Fund, Yates Energy).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WGS84 104.18333° W
32.81667° N
32.80000° N
32.78333° N
NW State 3
32.79346° N, 104.19481° W
Broken Arrow Rd
Unnamed Street
County Road 207
County Road 228
County Road 230
Oil Tanks
Oil Tank
Oil Well
Gas Well
VABM 3727 Baylor
BM 3683
BM 3670
F I E L D
Map created with TOPO! ©2000 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 A
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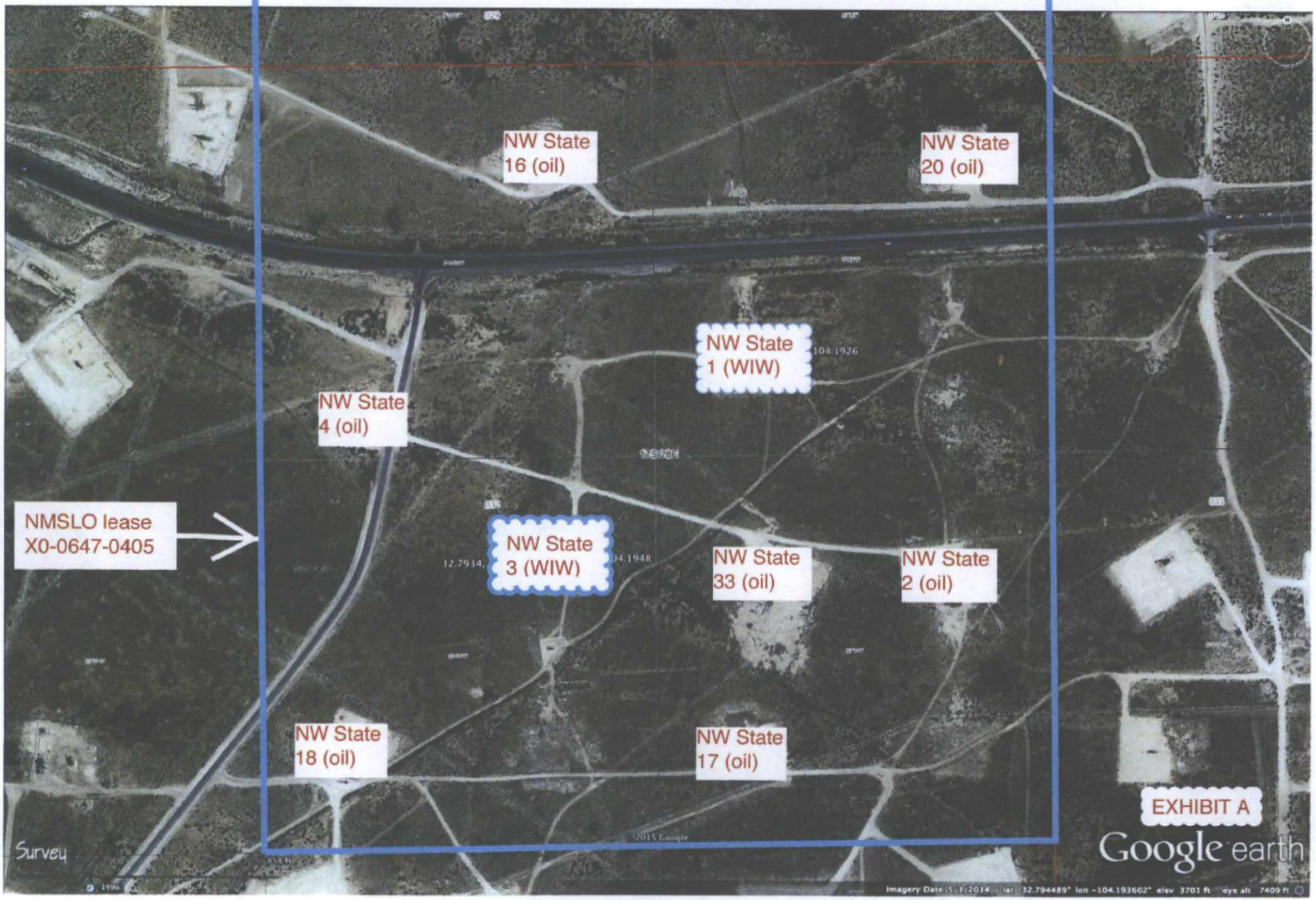
7.5°
02/15/15


NW State
16 (oil)
NW State
20 (oil)
NW State
1 (WIW)
NW State
4 (oil)
NMSLO lease
X0-0647-0405
NW State
3 (WIW)
NW State
33 (oil)
NW State
2 (oil)
NW State
18 (oil)
NW State
17 (oil)
EXHIBIT A
Survey
Google earth

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

JUN 0 1 1999

Form C-102
Revised February 10, 1994
Instructions on back
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
	03230	Artesia (QN-GB-SA)

⁴ Property Code	⁵ Property Name	⁶ Well Number
24439	N. W. STATE	3

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
020451	SDX RESOURCES, INC.	3693.

¹⁰ Surface Location

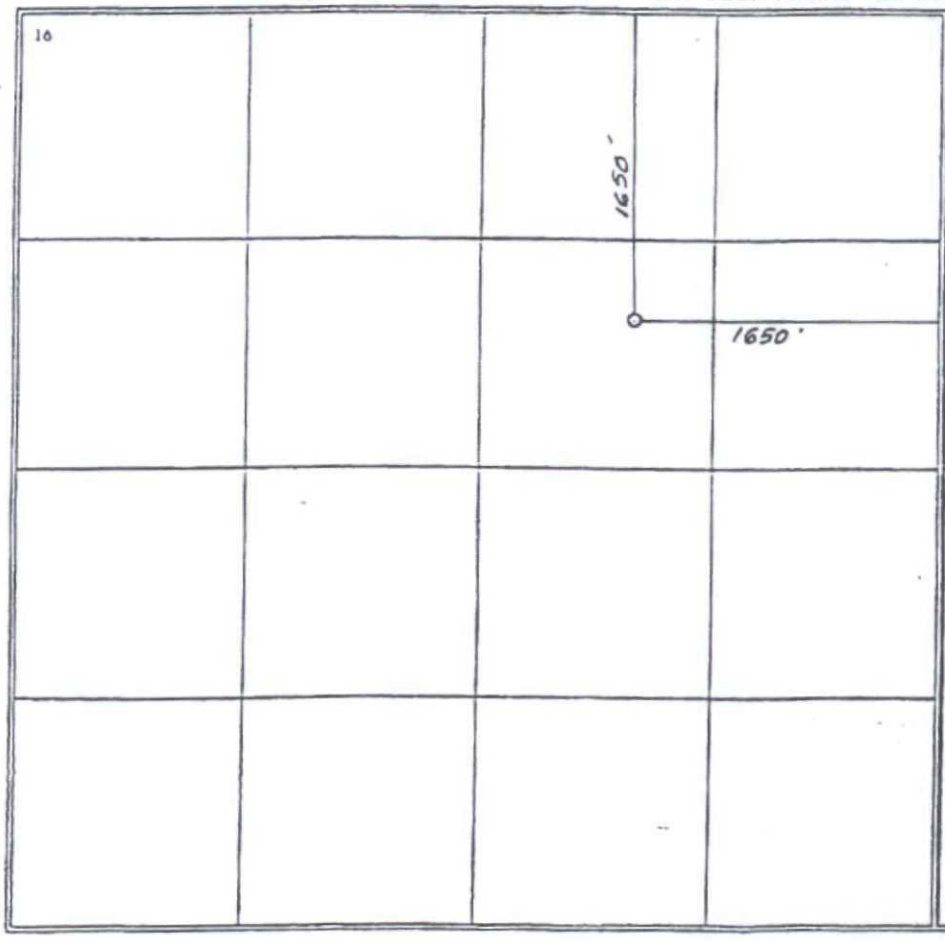
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	32	17-S	28-E		1650	NORTH	1650	EAST	EDDY

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

Bonnie Atwater
Signature

Bonnie Atwater
Printed Name

Regulatory Tech
Title

6/23/99
Date

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.

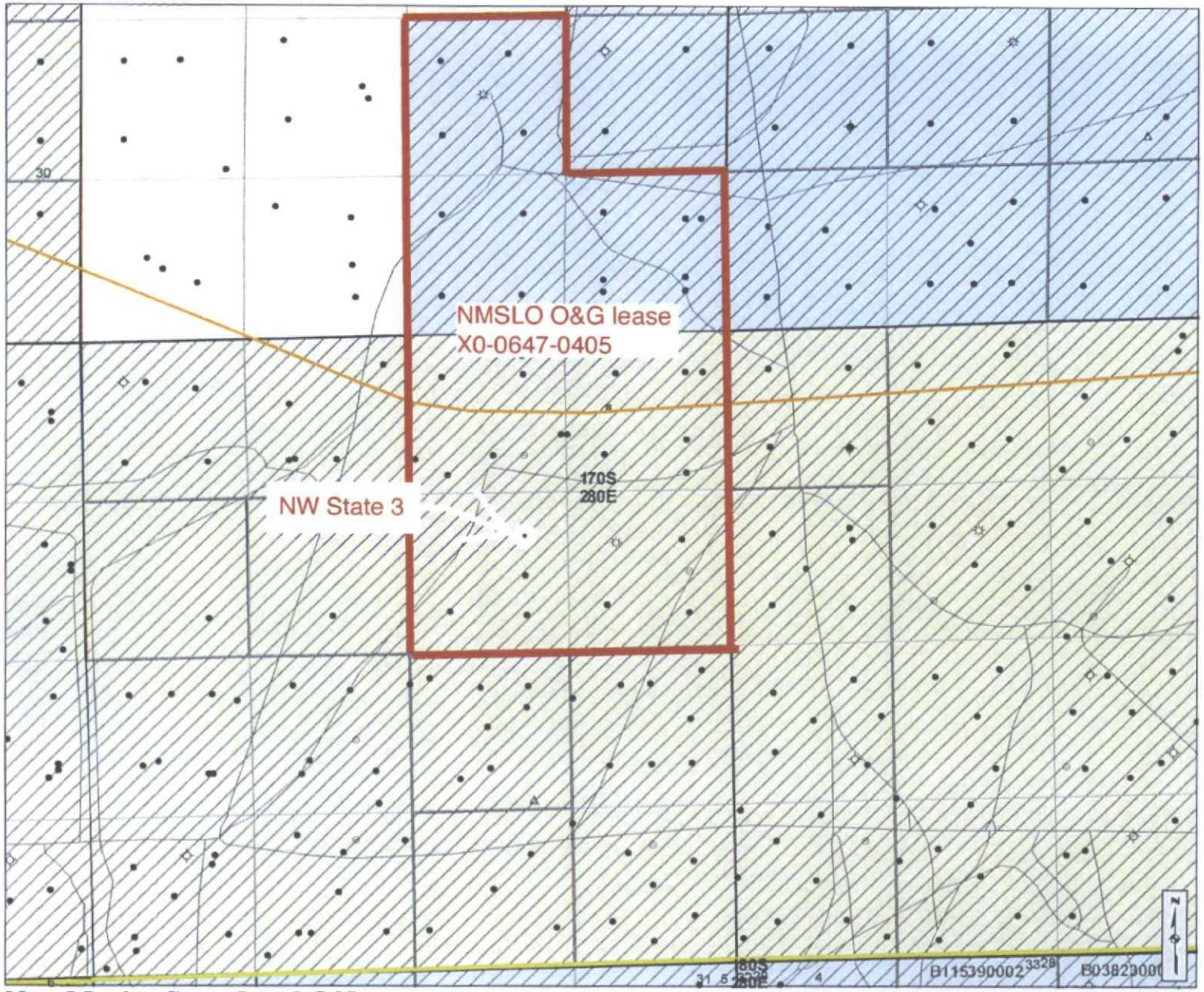
MAY 27, 1999
Date of Survey

Signature and Seal of Professional Surveyor:

NEW MEXICO
5412
REGISTERED PROFESSIONAL LAND SURVEYOR
ENGLISH

Certificate Number NM PE&PS NO. 5412

EXHIBIT A



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

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

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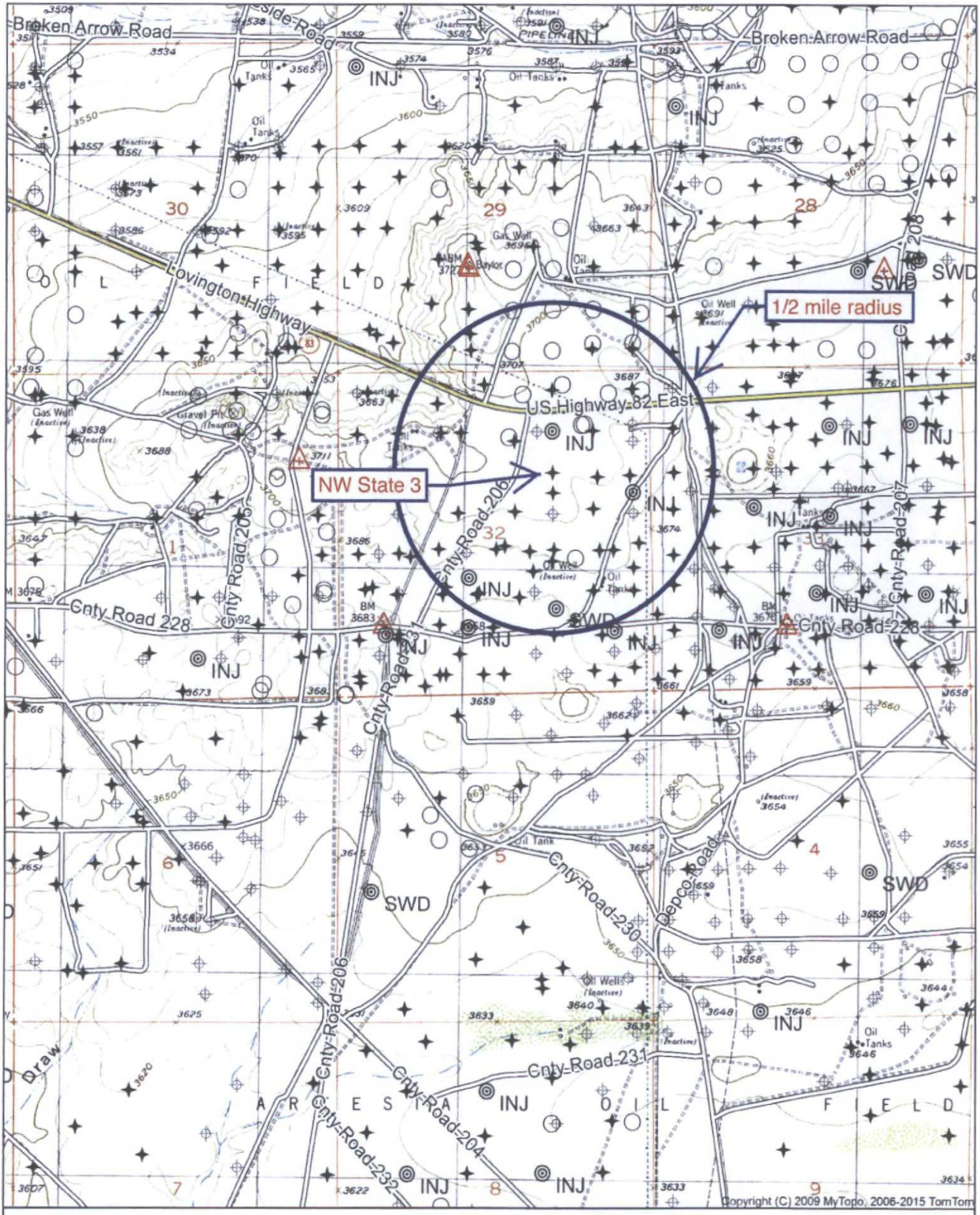
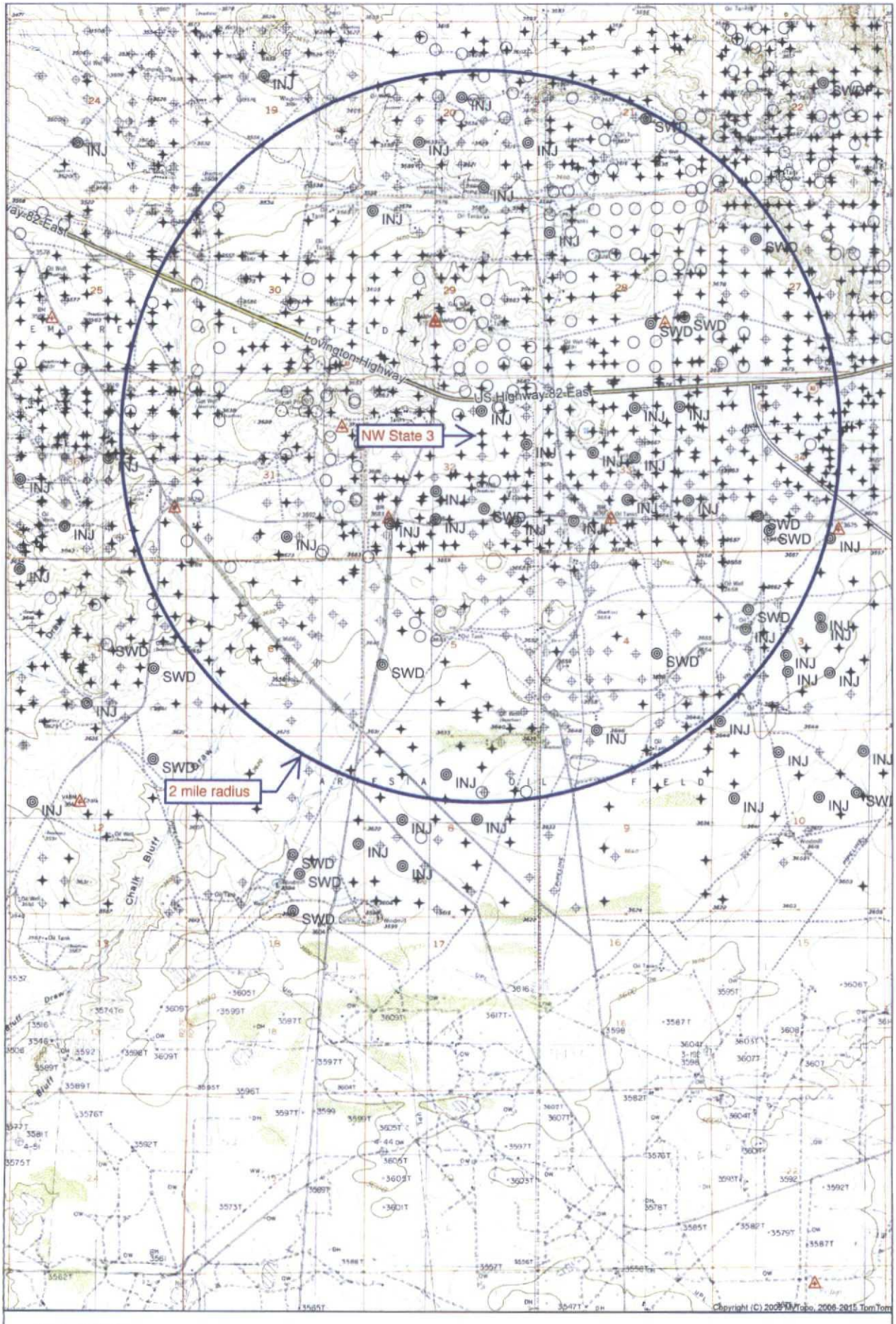
EXHIBIT B

www.nmstatelands.org



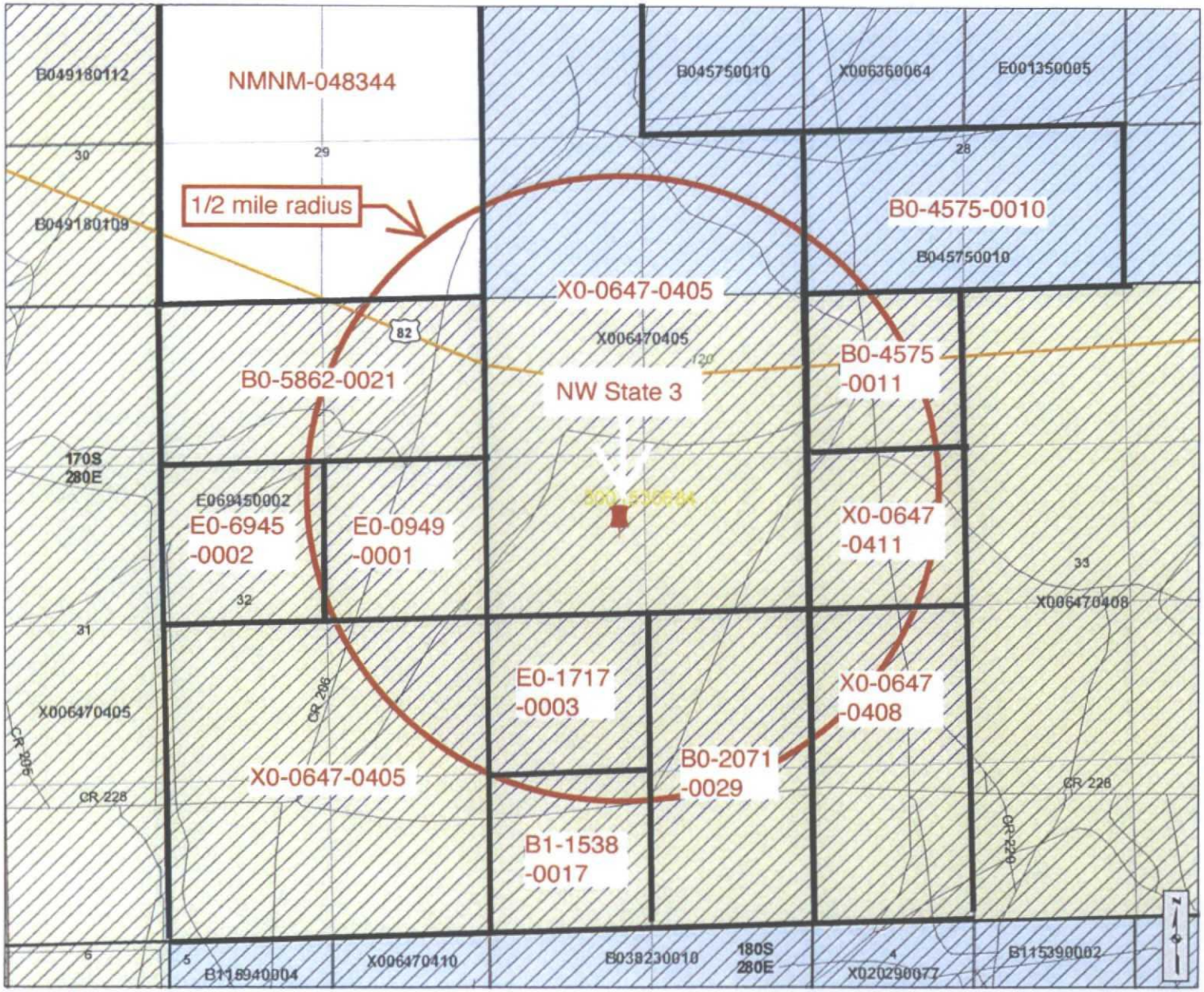
Quad: RED LAKE
Scale: 1 inch = 2,000 ft.

EXHIBIT C



Quad: RED LAKE
Scale: 1 inch = 2,564 ft.

EXHIBIT D



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- County Seats
- City, Town or Village
- SLO District Offices
- SLO District Boundary
- Hwy Mileposts
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- NM Hwy
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- 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
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- Oil and Gas Leasing Influenced by Restriction

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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

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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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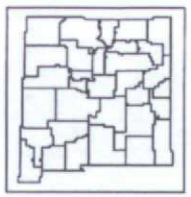
EXHIBIT E



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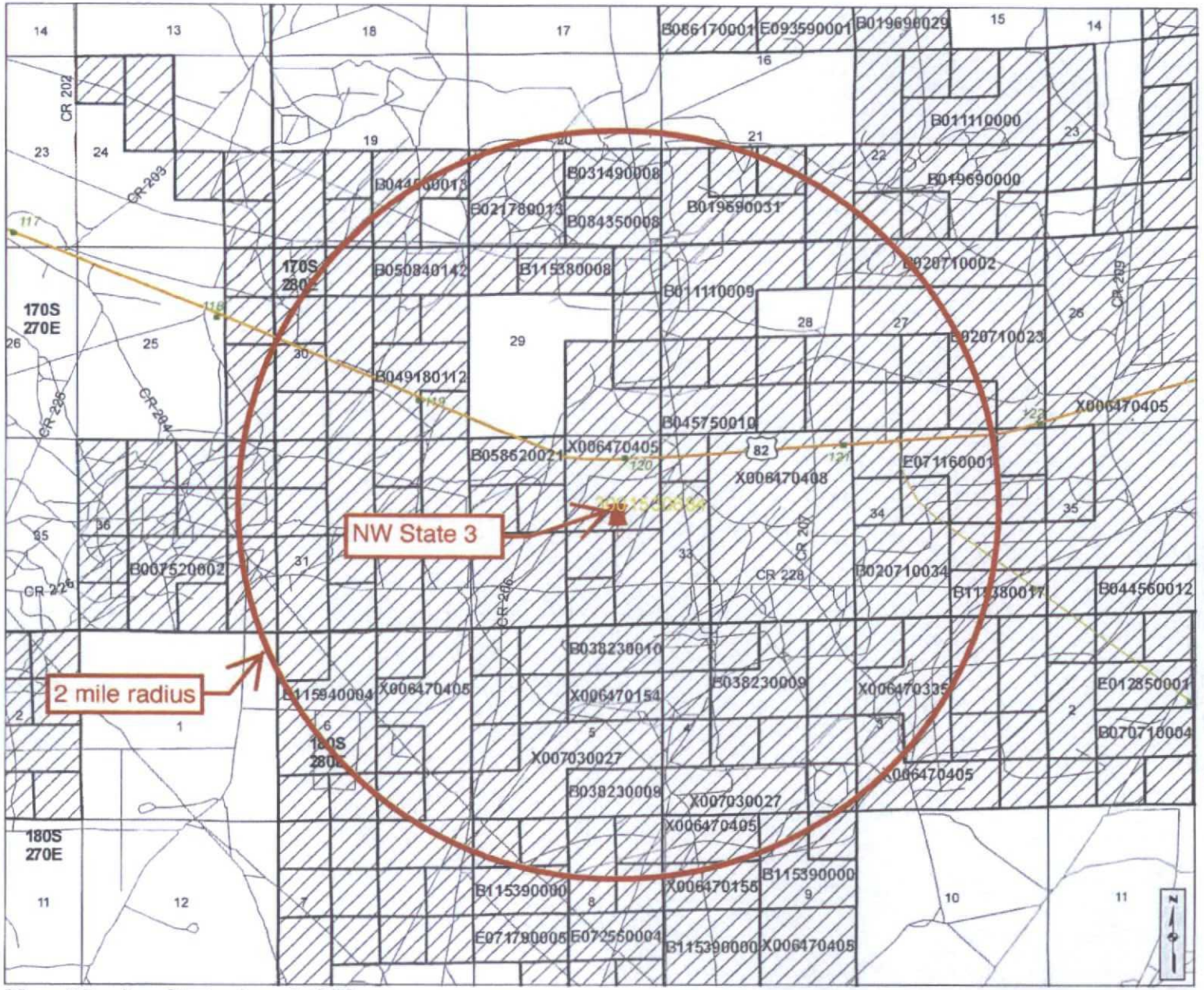


New Mexico State Land Office

Oil, Gas and Minerals

0 0.15 0.3 0.6 0.9 1.2 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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

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

Created On: 3/15/2015 2:38:06 PM

EXHIBIT F

www.nmstatelands.org

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EAU 027	6/7/60	6165	Empire; Abo	P & A	11	8.625	859	450 sx	GL	circulated
30-015-01663					7.875	4.5	6165	850 sx	GL	ARCO sketch
G-32-17s-28e										
EAU 027C	6/5/64	6182	Empire; Abo	P & A	11	8.625	1004	175 sx	GL	circulated
30-015-10313					7.875	4.5	6146	820 sx	3461	operator
B-32-17s-28e										
NW State 033	3/17/96	10610	Red Lake; Morrow	Gas	17.5	13.375	560	600 sx	GL	circulated to surface
30-015-28863					12.25	9.625	2640	925 sx	GL	circulated to surface
H-32-17s-28e					8.75	5.5	10610	1300 sx	5953	CBL
NW State 004	9/6/99	3200	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	525	350 sx	GL	circulated 64 sx
30-015-30734					7.875	5.5	3195	650 sx	GL	circ 65 sx to pit
B-32-17s-28e										
NW State 018	2/26/02	3215	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	485	375 sx	GL	circulated 119 sx
30-015-31934					7.875	5.5	3208	800 sx	GL	circulated 166 sx
G-32-17s-28e										
NW State 017	9/13/01	3225	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	508	375 sx	GL	circ 85 sx to pit
30-015-31933					7.875	5.5	3217	625 sx	GL	circulated 18 sx
H-32-17s-28e										
NW State 001	5/22/99	3205	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	418	325 sx	GL	circulated 64 sx
30-015-30609					7.875	5.5	3197	800 sx	GL	circ 68 sx to pit
A-32-17s-28e										
State 32 001	2/7/58	2075	Artesia; Queen-Grayburg-San Andres	Oil	10.75	8.625	516	50 sx	unknown	no report
30-015-01655					8	5.5	2074	150 sx	unknown	no report
J-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NW State 002	8/6/99	2850	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	408	375 sx	GL	circ 102 sx to pit
30-015-30683					7.875	5.5	2845	750 sx	GL	circulated
H-32-17s-28e										
Jeffers 32 State 3	9/7/11	5093	Artesia; Glorieta-Yeso	Oil	12.25	8.625	350	500 sx	GL	circ 136 sx to pit
30-015-38513					7.875	5.5	5076	1200 sx	GL	circ 264 sx to pit
J-32-17s-28e										
NW State 016	4/24/00	3210	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	518	350 sx	GL	circulated 48 sx
30-015-30890					7.875	5.5	3205	600 sx	GL	circulated 40 sx
B-32-17s-28e										
EAU 406	not yet	6400	Empire; Abo	Oil	12.25	8.625	500	360 sx	GL	plan to circulate
30-015-39005					7.875	5.5	6400	1080 sx	GL	plan to circulate
I-32-17s-28e										
EAU 028A	12/27/60	6100	Empire; Abo	P & A	11	8.625	717	300 sx	GL	circulated
30-015-01664					7.875	5.5	6072	320 sx	GL	circulated 20 sx
A-32-17s-28e										
EAU 407	11/4/11	6296	Empire; Abo	Oil	12.25	8.625	500	310 sx	GL	circ 50 sx to surface
30-015-39006					7.875	5.5	6296	1470 sx	GL	circ 205 sx to surface
J-32-17s-28e										
Jeffers 32 St 1	1/27/00	3220	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	512	350 sx	GL	circulated
30-015-30887					7.875	5.5	3212	650 sx	GL	circulated 68 sx
J-32-17s-28e										
Kersey State 5	11/6/10	5106	Artesia; Glorieta-Yeso	Oil	12.25	8.625	458	525 sx	GL	circ 157 sx to surface
30-015-37693					7.875	5.5	5089	1200 sx	1200	calculated
I-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EAU 028	8/26/60	6176	Empire; Abo	P & A	11	8.625	735	375 sx	GL	circulated
30-015-01658					7.875	5.5	6176	170 units HYS 400 + 150 sx	1950	calculated
H-32-17s-28e										
AB State 647 002	8/17/13	4989	Artesia; Glorieta-Yeso	Oil	12.25	8.625	408	290 sx	GL	circ 84 sx to surface
30-015-41500					7.875	5.5	5013	790 sx	GL	circ 103 sx to surface
K-32-17s-28e										
NAU 007	4/16/35	2527	Artesia: Queen-Grayburg-San Andres	Oil	?	7	478	25 sx	?	no report
30-015-01672					6.25	4.5	2206	725 sx	GL	circulated 29 sx
I-32-17s-28e										
State 32 002	1/23/56	2038	Artesia: Queen-Grayburg-San Andres	Oil	10	8.625	497	41 sx	?	no report
30-015-01656					8	7	1680	200 sx	?	no report
J-32-17s-28e										
Enron State 014	6/9/09	4205	Red Lake; Glorieta-Yeso	Oil	12.25	8.625	348	330 sx	GL	circ 158 sx to surface
30-015-36979					7.875	5.5	4195	950 sx	GL	circ 136 sx to pit
C-32-17s-28e										
AA State 001	7/30/60	6171	Empire; Abo	Oil	11	8.625	1007	550 sx	GL	circulated
30-015-01657					7.875	4.5	6171	1000 sx	920	temperature survey
F-32-17s-28e										
Enron State 17	3/5/12	4215	Artesia; Glorieta-Yeso	Oil	12.25	8.625	438	300 sx	GL	circ 155 sx to surface
30-015-39996					7.875	5.5	4209	900 sx	GL	circ 30 sx to pit
C-32-17s-28e										
EAU 402	10/23/11	6300	Empire; Abo	Oil	12.25	8.625	504	400 sx	GL	circ 42 sx to surface
30-015-39019					7.875	5.5	6300	1190 sx	GL	circ 214 sx to surface
I-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NW State 020	4/14/00	3210	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	505	350 sx	GL	circulated 21 sx
30-015-30892					7.875	5.5	3205	650 sx	GL	circulated 92 sx
A-32-17s-28e										
NAU 008	5/25/66	2003	Artesia; Queen-Grayburg-San Andres	P & A	11	8.625	462	125 sx	60	estimated
30-015-10818					7.875	4.5	2002	175 sx	1241	calculated
K-32-17s-28e										
EAU 027B	6/7/60	6165	Empire; Abo	P & A	11	8.625	860	450 sx	GL	circulated
30-015-01670					7.875	4.5	6165	850 sx	1800	estimated
J-32-17s-28e										
Enron State 019	12/28/13	4206	Red Lake; Glorieta-Yeso	Oil	11	8.625	427	250 sx	GL	circ 121 sx to surface
30-015-41833					7.875	5.5	4201	875 sx	GL	circ 162 sx to pit
C-32-17s-28e										
Washington 33 State 035	3/3/12	5000	Artesia; Glorieta-Yeso	Oil	12.25	8.625	468	440 sx	GL	circ 250 sx to surface
30-015-39885					7.875	5.5	5000	780 sx	GL	circ 227 sx to surface
E-33-17s-28e										
EAU 026C	1/8/54	10300	Empire; Abo	P & A	17.5	13.375	554	550 sx	GL	circulated
30-015-01673					12.5	9.625	1969	600 sx	500	calculated
C-32-17s-28e					7.875	5.5	1800	1622 sx	6350	temp. survey
Kersey State 003	7/2/07	3950	Artesia; Glorieta-Yeso	Oil	12.25	8.625	486	375 sx	GL	circulated to pit
30-015-35562					7.875	5.5	3943	950 sx	GL	circ 75 sx to pit
I-32-17s-28e										
Kersey State 001	5/16/00	4075	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	529	350 sx	GL	circ 55 sx to pit
30-015-30888					7.875	5.5	4072	900 sx	GL	circ 16 sx to pit
I-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Washington 33 State 008	7/30/98	4000	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	508	325 sx	GL	circ 26 sx to surface
30-015-30190					7.875	5.5	4000	760 sx	GL	circ 30 sx to pit
E-33-17s-28e										
Jeffers 32 State 002	7/29/10	5130	Artesia; Glorieta-Yeso	Oil	12.25	8.625	465	375 sx	GL	circ 129 sx to surface
30-015-37045					7.875	5.5	5116	1200 sx	GL	circ 182 sx to pit
J-32-17s-28e										
NW State 014	1/3/00	3240	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	531	382 sx	GL	circulated 80 sx
30-015-30824					7.875	5.5	3235	700 sx	GL	circulated 66 sx
P-29-17s-28e										
Delhi State 004	5/11/76	2086	Artesia; Queen-Grayburg-San Andres	Oil	10	8.625	492	110 sx	approx. GL	trace of cmt to surface
30-015-21809					6.25	4.5	2086	475 sx	500	CBL
D-33-17s-28e										
EAU 028C	5/20/60	6250	Empire; Abo	P & A	11	8.625	1304	680 sx	GL	circulated
30-015-01669					7.875	4.5	6250	850 sx	GL	circulated
I-32-17s-28e										
NW State 005	10/28/99	3190	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	520	350 sx	GL	circ 64 sx to pit
30-015-30781					7.875	5.5	3181	600 sx	GL	circulated 42 sx
K-32-17s-28e										
Aspen 32 State Com 001	9/20/05	10400	Empire Morrow	WIW	17.5	13.375	428	400 sx	GL	circ 75 sx to pit
30-015-34148					12.25	9.625	2660	1100 sx	GL	circ 85 sx to pit
J-32-17s-28e					8.75	7	9457	1130 sx	GL	circ 66 sx to pit
Enron State 001	5/2/01	4000	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	390	325 sx	GL	circulated 87 sx
30-015-31530					7.875	5.5	3933	900 sx	GL	circulated 10 sx
C-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
AB State 647 3	10/23/13	5027	Artesia; Glorieta-Yeso	Oil	12.25	8.625	423	270 sx	GL	circ 101 sx to surface
30-015-41501					7.875	5.5	5027	840 sx	GL	circ 208 sx to surface
K-32-17s-28e										
EAU 026B	3/13/60	6083	Empire; Abo	Oil	11	8.625	748	225 sx	GL	circulated
30-015-01661					7.875	5.5	6099	1350 sx	GL	circ 75 sx to pit
K-32-17s-28e										
EAU 029A	4/13/60	6150	Empire; Abo	P & A	11.25	8.625	1003	450 sx	GL	circulated to surface
30-015-01687					7.875	4.5	6150	800 sx	2058	CBL
E-33-17s-28e										
Wms. A Fed 12	2/28/14	3700	Red Lake; Glorieta-Yeso	Oil	12.25	8.625	437	300 sx	GL	circ 25 sx to pit
30-015-41890					7.875	5.5	3694	635 sx	GL	circ 150 sx to surface
N-29-17s-28e										
Delhi State 005	11/20/79	2120	Artesia; Queen-Grayburg-San Andres	P & A	11	8.625	478	250 sx	GL	circulated 28 sx
30-015-23070					7.875	5.5	2105	535 sx	GL	circulated 125 sx
D-33-17s-28e										
Washington 33 State 042	3/30/12	4969	Artesia; Glorieta-Yeso	Oil	12.25	8.625	505	350 sx	GL	circ 19 bbls to surface
30-015-40019					7.875	5.5	4969	840 sx	GL	circ 34 bbls + 80 sx
L-33-17s-28e										
EAU 403	12/27/11	6223	Empire; Abo	P & A	12.25	8.625	502	810 sx	GL	circ 48 sx to surface
30-015-39064					7.875	5.5	6223	1100 sx	GL	circ 136 sx to surface
O-32-17s-28e										
AB State 647 8	11/15/13	4302	Artesia; Glorieta-Yeso	Oil	12.25	8.625	420	290 sx	GL	circ 134 sx to surface
30-015-41492					7.875	5.5	4326	650 sx	GL	circ 109 sx to surface
K-32-17s-28e										
AB State 647 1	8/11/13	5016	Artesia; Glorieta-Yeso	Oil	12.25	8.625	454	340 sx	GL	circ 171 sx to surface
30-015-39927					7.875	5.5	5016	790 sx	GL	circ 154 sx to surface
K-32-17s-28e										

EXHIBIT G

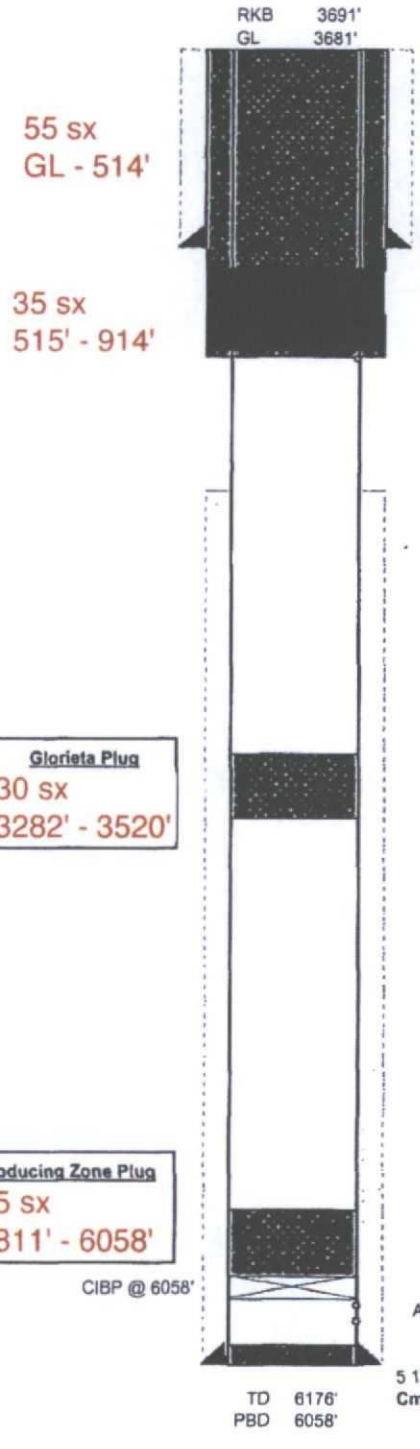
Sorted by distance from NW State 3

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Williams A Fed 001Z	9/15/03	3545	Artesia; Glorieta-Yeso	Oil	12.25	8.625	465	375 sx	GL	circulated
30-015-32554					7.875	5.5	3544	750 sx	GL	circulated
N-29-17s-28e										
NAU 014	2/23/55	2099	Artesia: Queen-Grayburg-San Andres	Oil	10	8.625	485	50 sx	unknown	no report
30-015-01665					8	5.5	1802	25 sx	unknown	no report
O-32-17s-28e										
Washington 33 State 007	8/27/98	3950	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	530	325 sx	GL	circ 37 sx to surface
30-015-30189					7.875	5.5	3950	810 sx	GL	circ 49 sx to surface
E-33-17s-28e										
Enron State 002	9/4/01	4030	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	386	325 sx	GL	circ 93 sx to pit
30-015-31920					7.875	5.5	4010	975 sx	GL	circulated 65 sx
D-32-17s-28e										
EAU 025B	9/1/60	6013	Empire; Abo	P & A	11	8.625	990	425 sx	GL	filled 75 sx to surface
30-015-01671					7.875	5.5	6012	850 sx	GL	circulated
E-32-17s-28e										

EXHIBIT G

BP America
Empire Abo Unit 28
30-015-01658

2310' FNL & 330' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico



Spud 8/26/60
Completed 9/10/60
P&A 2-24-09

8 5/8" 24# @ 735'
Cmtd w/ 375 sx, circ to surface

Abo perfs 6072-6094'

5 1/2" 15.5# @ 6176'
Cmtd w/ 170 units HYS, 150 sx, TOC @ 1950' - calc

EXHIBIT H

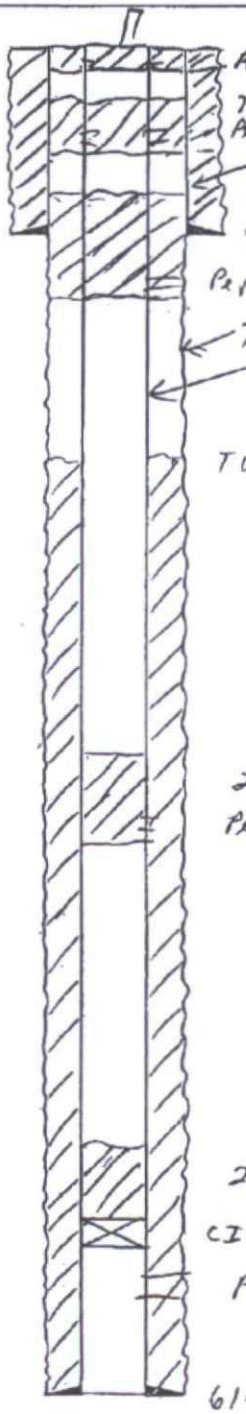
30-015-01663
BP's Empire Abo Unit 27
Spud: 9-10-60
P&A: 4-13-09

#37

WELL NAME: Empire Abo Unit E-27 FIELD AREA: Empire Abo
LOCATION: Sec. 32 T17S R28E "B" 990' FNL 1900' FEL Eddy Co., NM
GL: ____' ZERO: ____' AGL: ____'
KB: ____' ORIG. DRLG./COMPL. DATE: ____
COMMENTS: ____

CASING PROGRAM:

SIZE/WT./GR./CONN.	DEPTH SET

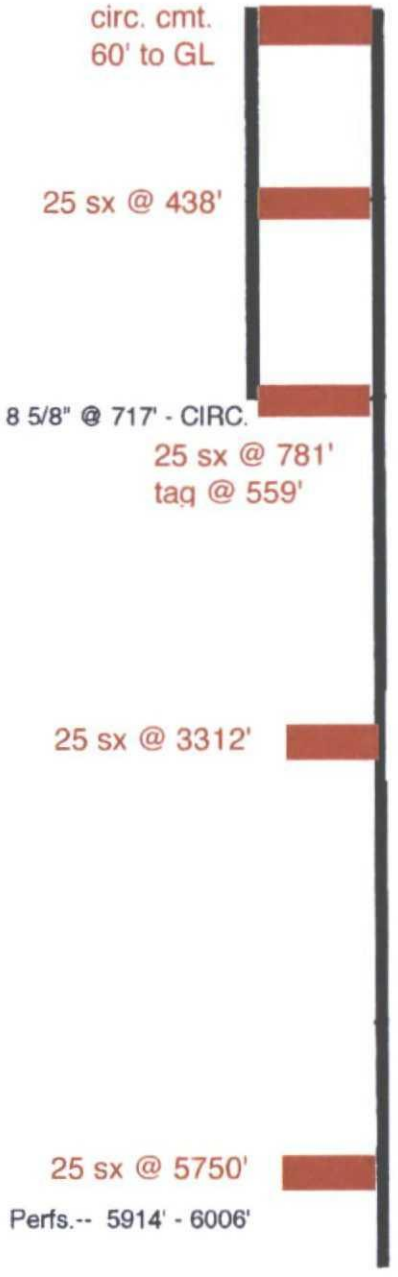


P&A 3/2003

EXHIBIT H

BP America's Empire Abo Unit 28A
30-015-01664
1160 FNL & 330 FEL 32-17s-28e
spud: 11-17-60 P&A: 03-03-03

OPERATOR: B-P America Production						**API#**	30-015-01664
WELL: Empire Abo Ut. "E" # 28						**LOCATION:**	A-32-17-28
SURFACE CSG-	**HOLE SIZE** ?"	**CSG. SIZE** 8 5/8"	**SET @** 717'	**SX. CMT.**	**TOC.** Circ		
INT.CSG-	**HOLE SIZE** ??	**CSG. SIZE** "	**SET @** '	**SX. CMT.**	**TOC.**		
LONG STRING-	**HOLE SIZE** ??	**CSG. SIZE** 5.5"	**SET @** 6072'	**SX. CMT.** ?	**TOC.** Circ.		
OTHER-							



TOPS

Fresh Wtr._____
T. Salt_____
B. Salt_____
Yates 388
Glorieta 3307
Delaware_____
Bone Sp._____
Abo 5889
Wolfcamp_____
Morrow_____
Devonian_____
Fusselman_____
Other _____

EXHIBIT H

BP America
Empire Abo Unit 28C
30-015-01669

1650' FSL & 660' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico

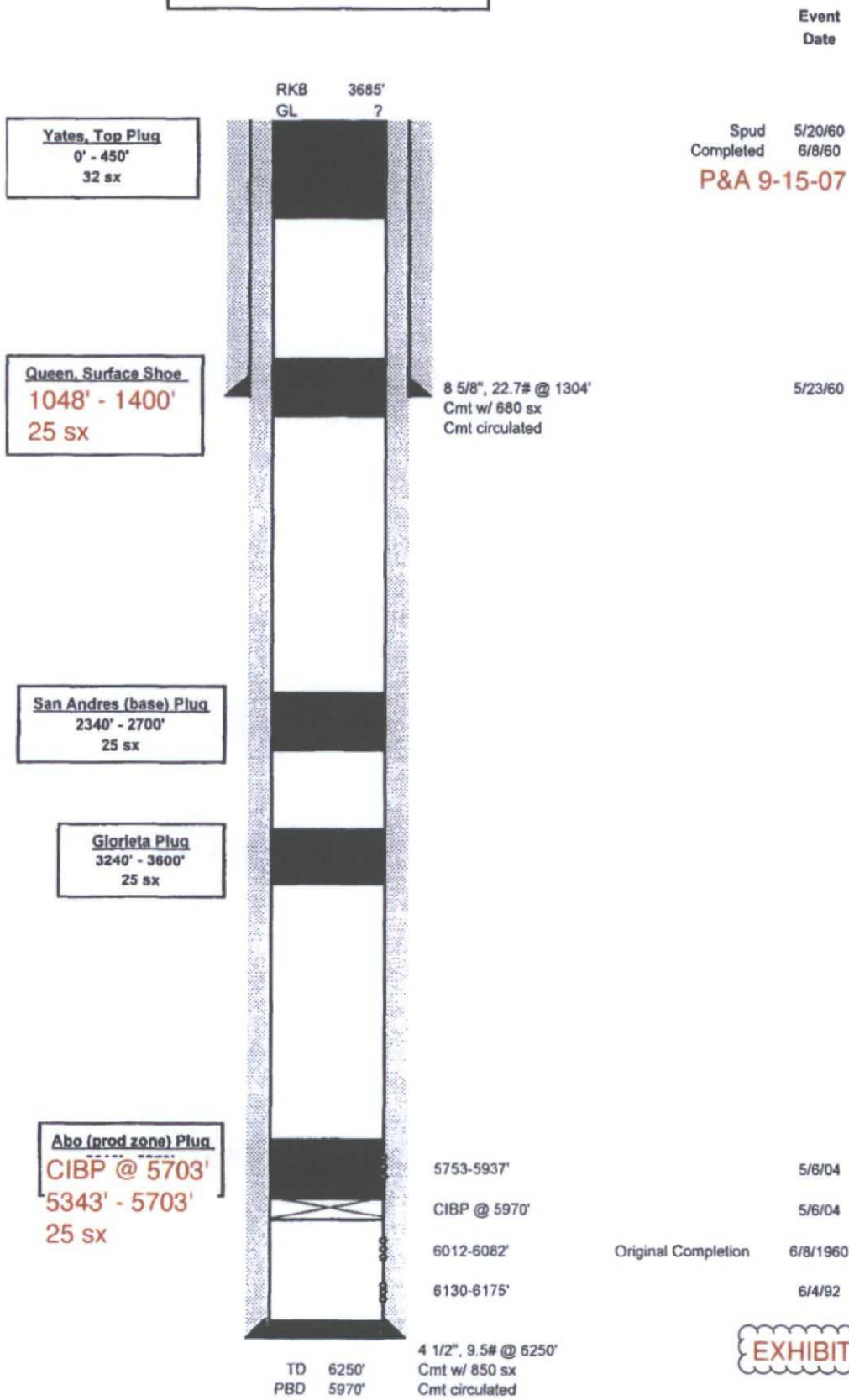


EXHIBIT H

BP America
Empire Abo Unit 27B
30-015-01670

1650' FSL & 1961' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico

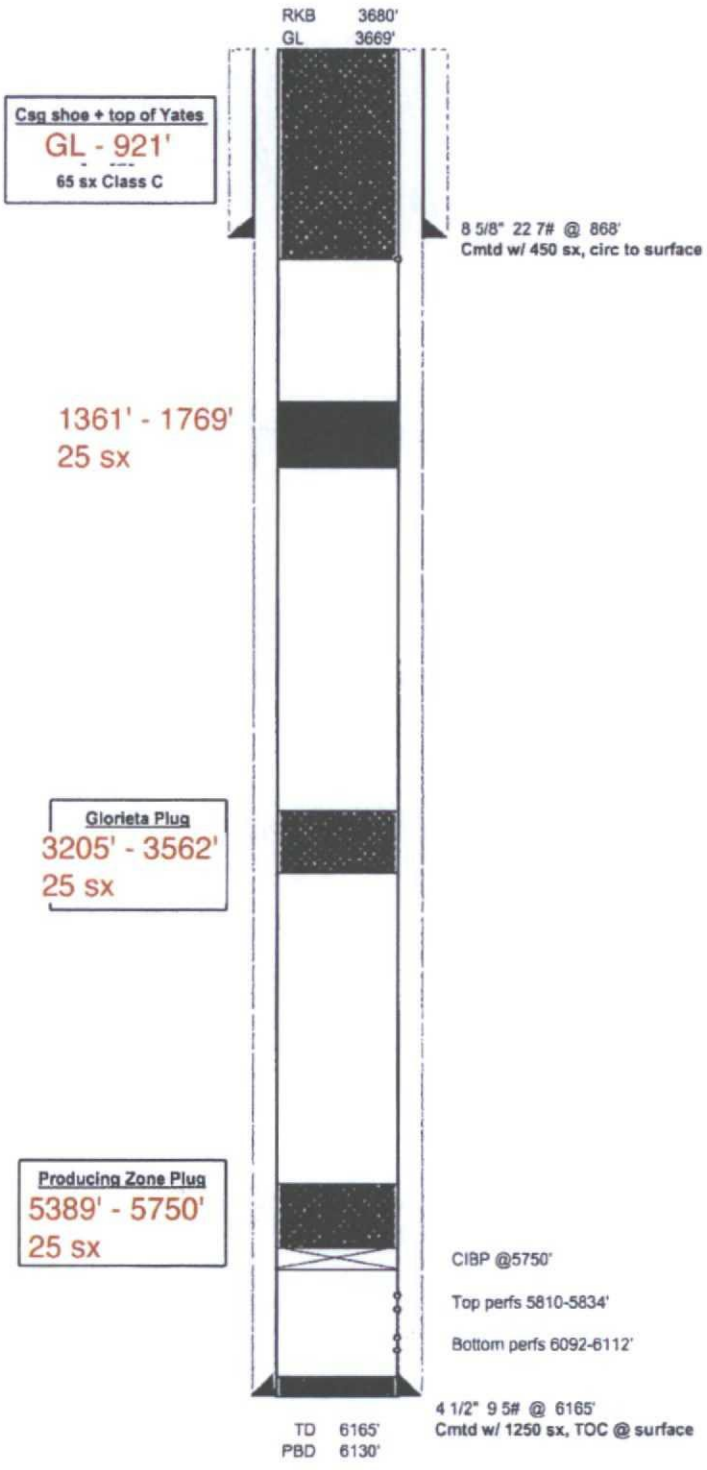
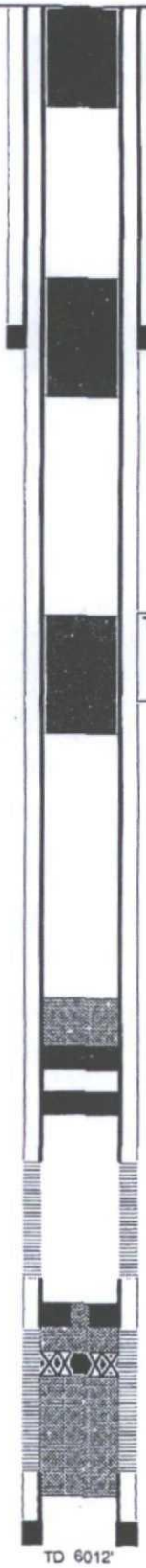


EXHIBIT H

BP America's Empire Abo Unit 25B
30-015-01671
2280 FNL & 978 FWL 32-17s-28e
spud: 9-1-60 P&A: 7-23-08



Proposed WB Diagram			EAU F-25		
Status	Producing		Operator	BP Amenca	
Lease	Empire Abo Unit		Zone	0	
Field	0		API	30-015-01671	
NMOCD	Empire Abo Unit No. 025B		NMOCD		
Location	E 978 FWL and 2280 FNL 32-T17S-R28E				
Reference:					
KB	3,694	TVD	6012'	PBTD	5990'
GL	3,683	MTD		Last CIBP	5550'

Casing	Weight/Grade	Depth	Cmt Sx	Hole	TOC
8 5/8"	22 7#	990	425+75	11"	fld to surf
5 1/2"	14#/ J-55	6012'	850	7 7/8"	calc
0	0	0	0	0	0
Spud	9/1/1960		Top Perf	5611'	
Completion	9/14/1960		Bot Perf	5805'	

Perforation History:

5611-5805' (30 shots) (Squeeze 5830-5880, 5830-5860, 5880-5920')

Plugs, Packers, and Cement:

Pkr dropped @ 5875', CR @ 5825', CIBP. 5580', CIBP @ 5550' w/ 35' cmt on top, PB 5990'

Current Tubulars: Blue boxes use drop down boxes for descriptions

Date sketch checked	3/11/08	by	Laura Lopez	
Date tubulars checked		by:		

Tubing and Rod Assembly			length, ft	Top of Depth from KB, ft
# Jnts	Description of TBG Assembly	RKB	11.00	
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00
				11 00
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00
				11 00
	Current Rod Design			
# Rods	Description of Rod Assembly	RKB	11.00	
				11.00
				11 00
				11.00
				11.00
				11 00
				11.00
				11 00
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00

EXHIBIT H

BP America
Empire Abo Unit 26C
30-015-01673

990' FNL & 1650' FWL
Sec 32 - T17S - R28E
Eddy County, New Mexico

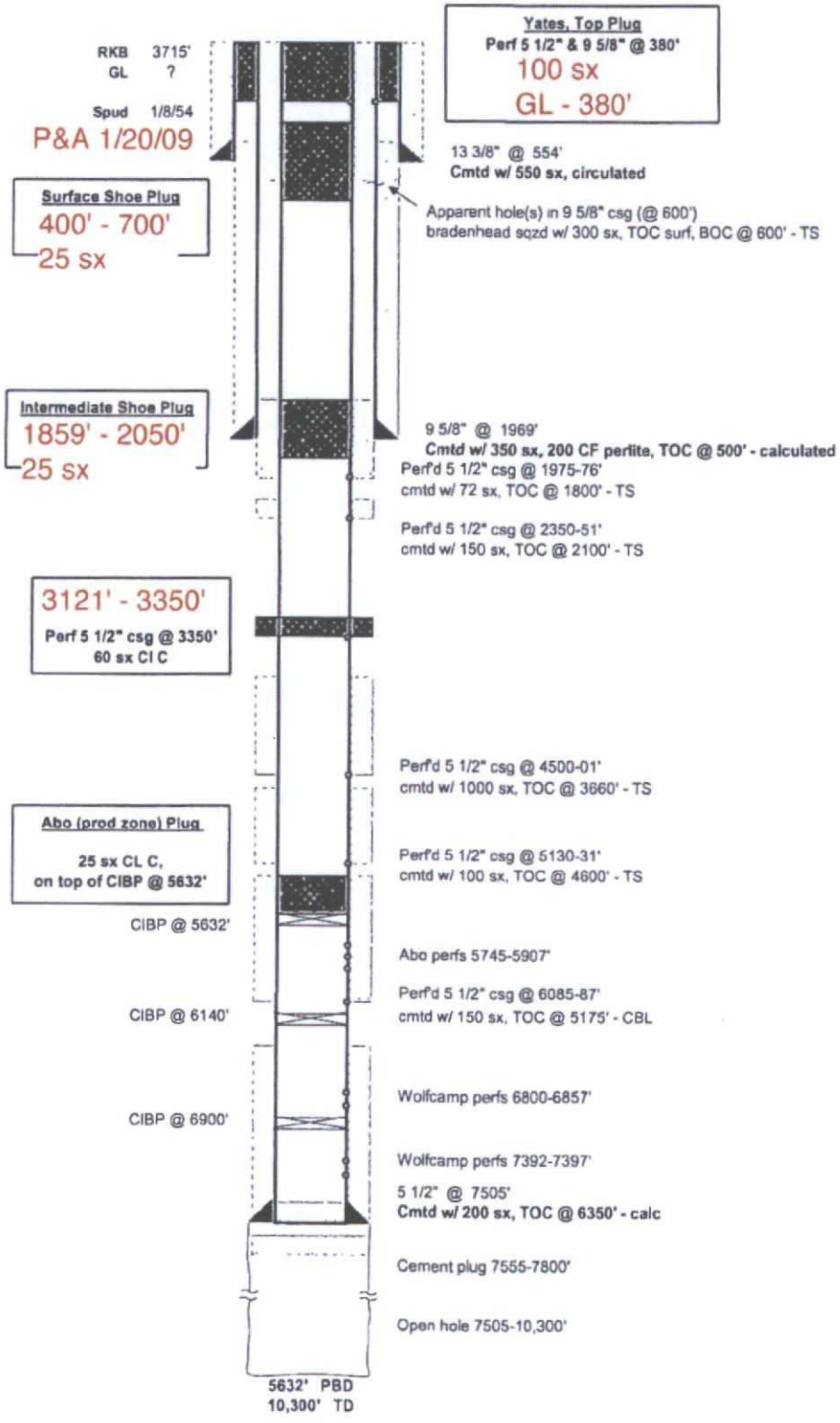
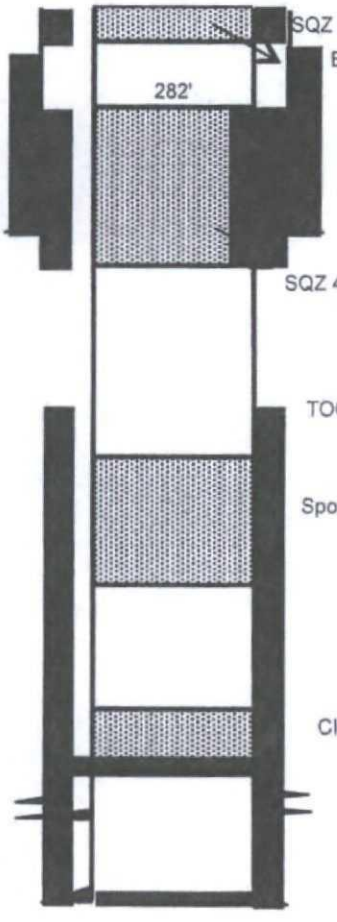


EXHIBIT H

SDX Resources Inc. - Wellbore Schematic

WELL NAME: NW Artesia Unit #2	spud:1-27-62 P&A: 11-11-06		
LOCATION: A - 32 -T17S-28E	COUNTY: Eddy		STATE: NM
890 FNL & 330 FWL			
API#: 30-015-01675	PREPARED BY: D. Sibley		

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 523'	7"	17#			9-5/8"
CASING:	0' - 1970'	4 1/2"	11.6#			6 1/4"
LINER:						
TUBING:						
TUBING:						



SQZ 40 Sx cement into perfs @ 100' (11-7-06) circulated up 7" and left 4 1/2" full of cement

Estimated TOC @ 107'

7" 17# @ 523' cemented with 100 SX

SQZ 40 Sx cement into perfs @ 573' (11-7-06) Tag TOC @ 282'

TOC @ 810' by temperature survey

Spot 25 Sx cement plug in 4 1/2" @ 1,264'

CIBP @ 1,850' with 25 sx cement on top

1915-1923' San Andres

4 1/2" 11.6# @ 1,970' cemented with 150 Sx

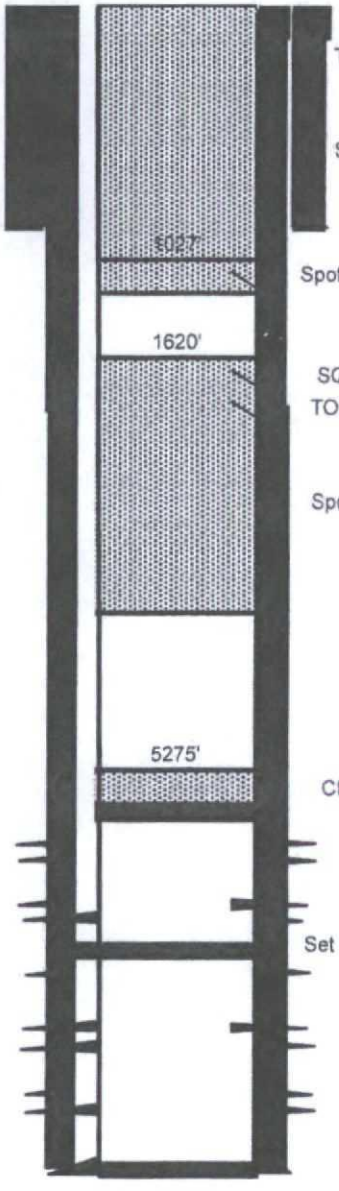
TD 1,971'

EXHIBIT H

BP America Production Co. - Wellbore Schematic

WELL NAME: Empire Abo Unit 29A		spud 4-13-60 plug 7-8-09	
LOCATION: E - 33-T17S-28E		COUNTY: Eddy	STATE: NM
1980 FNL 620 FWL			
API#: 30-015-01687	PREPARED BY: D. Sibley		

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1,003'	8-5/8"	22.7#			11"
CASING:	0' - 6,150'	4 1/2"	11.6#			7-7/8"
LINER:						
TUBING:						
TUBING:						



Grout cement to surface with 1" pipe from 110' (4-16-60)
TOC 110' by temperature survey (4-16-60)

Spot 80 Sx cement in 4 1/2" from 1,027' to surface (7-6-09)

8-5/8" 22.7# @ 1,003' cemented with 450 Sx

Spot 22 Sx cement plug in 4 1/2" from 1,050-1,372' (7-1-09) **Tagged at 1,027'**

SQZ 900 Sx cement at 2,008' (1-18-80) **Circulated 220 Sx**
TOC @ 2,058' by CBL (1-13-80)

Spot 135 Sx cement in 4 1/2" from 1,620-3,500' (6-25-09) **Tagged TOC @ 1,620'**

CIBP @ 5,628' with 25 sx cement on top (6-25-09)

5682-5776' (7-17-97)

5820-5885' (7-17-97)

Set CIBP @ 5,930' (5-21-90)

5956-5978' (8-7-69)

6015-6035' (1-9-65)

6038-6073' (5-10-60)

4 1/2" 11.6# @ 6,150' cemented with 800 Sx

TD 6,150'

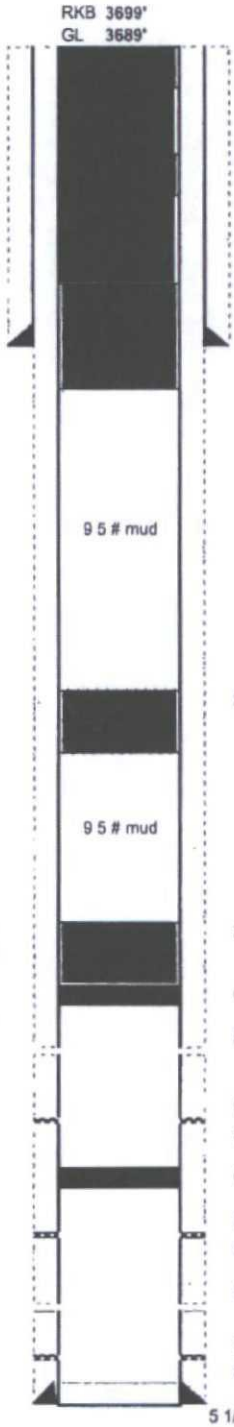
EXHIBIT H

BP America
Empire Abo Unit 27C
30-015-10313

2310' FNL & 1650' FEL
Sec 32- T17S - R28E
Eddy County, New Mexico

	Event Date
Spud	9/10/60
Completed	9/29/60

P&A 4-13-09



GL - 1253'
130 sx

Gloneta Plug
3118' - 3425'
30 sx

Abo Plug
5550-5830'
30 sx Cl C cement
on top of CIBP @ 5830'

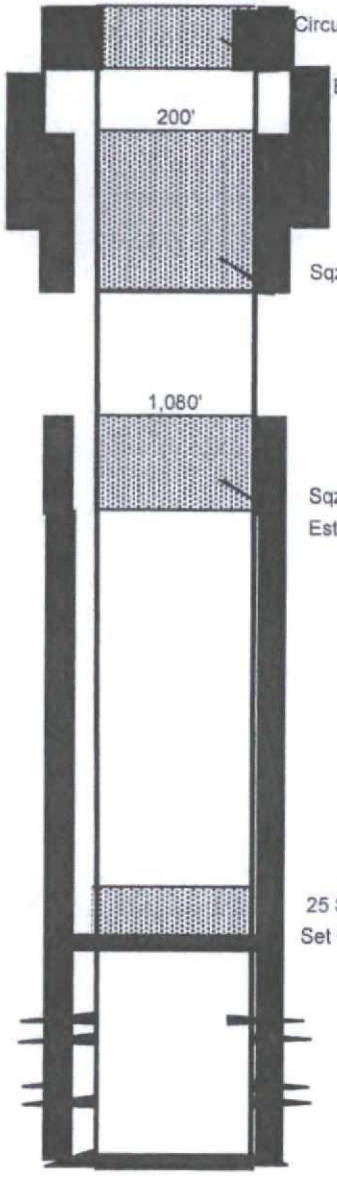
15 sx cement @ surface	NEW
15 sx cement @ 410'	NEW
40 sx cement @ 1250'	NEW
8 5/8" 28# @ 993' Cmtd w/ 450 sx	9/11/60
Pressure test csg to 550 psi	3/10/2004
30 sx cement @ 3425'	NEW
30 sx cement	NEW
CIBP @ 5830'	NEW
Perfs 5870-5930' 2 SPF 120 shots	4/16/97
Perfs 5884-5920' 12 shots	7/24/75
Squeezed w/ 250 sx cmt	7/21/90
CIBP @ 5970'	4/15/97
Perfs 5980-5990 S SPF	9/29/60
Squeezed	7/23/75
Perfs 6030-6055' 2 SPF 50 holes	7/24/90
Perfs 6041-6068 15 shots	6/28/74
Squeezed	7/23/75
5 1/2" 15.5# @ 6108' Cmtd w/ 150 Units HYS 400 and 150 sx	9/28/60
PBTD 6068'	7/24/1990

EXHIBIT H

SDX Resources, Inc. - Wellbore Schematic

WELL NAME: NW Artesia Unit #8			
LOCATION: K - 32-T17S-28E	COUNTY: Eddy		STATE: NM
2310 FSL & 2105 FWL	spudL 5-25-66	P&A: 11-3-06	
API#: 30-015-10818 PREPARED BY: D. Sibley			

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 462'	8-5/8"	24#			11"
CASING:	0' - 2,002'	4 1/2"	11.6#			7-7/8"
LINER:						
TUBING:						
TUBING:						



Circulated 15 Sx cement into perfs at 60', up 8 5/8" csg and leave 4 1/2" full of cmt (11-3-06)

Estimated TOC 60'

8-5/8" 24# @ 462' cemented with 125 Sx

Sqz 70 Sx cement in perfs at 512' (11-3-06) **Tagged TOC @ 200'**

Sqz 35 Sx cement in perfs at 1,240' (11-2-06) **Tagged TOC @ 1,080'**
Estimated TOC @ 1,241'

25 Sx cement on CIBP
Set CIBP @ 1,800' (11-2-06)

1898-1908' (6-2-66)

1930-1934' (6-2-66)

4 1/2" 11.6# @ 6,150' cemented with 175 Sx

TD 2,003'

EXHIBIT H

Apache

WELL BORE INFO.

Apache's Empire Abo Unit 403
30-015-39064
1175 FSL & 1310 FEL 32-17s-28e
spud: 12-27-11 P&A: 3-13-15

0

11" Hole
8 5/8" 24# @ 497'
w/ 440 sx to surf

622

70 sx
GL - 692'

1245

25 sx @ 1280'

1867

45 sx
1532' - 2041'

2489

DVT @ 3002' w/516 to surf

3112

65 sx
2945' - 3591'

3734

4356

60 sx @ 4505'

4978

25 sx
5442' - 5739'

5601

CIBP @ 5762' W/ 35' cmt

Abo perfs @ 5812'-5962'

CIBP @ 5992' w/ 35' cmt

Abo perfs @ 6012'-6084'

7 7/8" Hole
5 1/2" 17# @ 6223' w/ 492 sx
DVT @ 3002' w/ 516 sx to surf

6223

PBTD @ 5762'
TD @ 6223'

EXHIBIT H

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

No records found.

UTMNAD83 Radius Search (in meters): NW State 3

Easting (X): 575393 **Northing (Y):** 3628677 **Radius:** 3220

3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

EXHIBIT I

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	Tws	Rng	X	Y	Distance
RA 12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD34				2 1 3	28	17S	28E	576125	3629928	1449
all proposed 50' deep monitoring wells					ED	RA 12030 POD33				3 3 1	28	17S	28E	575895	3630120	1528
					ED	RA 12030 POD30				1 4 2	29	17S	28E	575545	3630219	1550
					ED	RA 12030 POD38				1 2 3	28	17S	28E	576432	3629909	1612
					ED	RA 12030 POD37				3 4 1	28	17S	28E	576381	3630112	1742
					ED	RA 12030 POD32				4 2 2	29	17S	28E	575869	3630391	1779
					ED	RA 12030 POD29				3 1 2	29	17S	28E	575250	3630472	1801
					ED	RA 12030 POD28				3 2 2	29	17S	28E	575616	3630503	1840
					ED	RA 12030 POD39				3 3 2	28	17S	28E	576764	3630081	1962
					ED	RA 12030 POD27				1 1 2	29	17S	28E	575175	3630660	1995
					ED	RA 12030 POD31				1 1 1	28	17S	28E	576008	3630651	2067
					ED	RA 12030 POD36				3 2 1	28	17S	28E	576409	3630515	2101
					ED	RA 12030 POD25				4 4 4	20	17S	28E	575808	3630877	2239
					ED	RA 12030 POD24				4 3 4	20	17S	28E	575433	3630960	2284
					ED	RA 12030 POD40				3 1 2	28	17S	28E	576799	3630524	2322
					ED	RA 12030 POD41				1 4 2	28	17S	28E	577142	3630238	2344
					ED	RA 12030 POD35				3 4 3	21	17S	28E	576391	3630814	2359
					ED	RA 12030 POD26				2 4 3	20	17S	28E	574944	3631040	2405

EXHIBIT I

(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	Tws	Rng	X	Y	Distance
					ED	RA 12030 POD23				2 4 4	20	17S	28E	575733	3631163	2509
					ED	RA 12030 POD43				3 3 4	21	17S	28E	576760	3630857	2573
					ED	RA 12030 POD42				3 2 2	28	17S	28E	577163	3630555	2581
RA 09001		OFM	5	ATLANTIC RICHFIELD COMPANY	ED	RA 09001				1 1	03	18S	28E	577707	3627449*	2619
RA 12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD46				2 4 3	21	17S	28E	576496	3631083	2646
					ED	RA 12030 POD44				3 4 4	21	17S	28E	577156	3630844	2794
					ED	RA 12030 POD4				2 1 4	20	17S	28E	575375	3631480	2803
					ED	RA 12030 POD9				2 2 4	20	17S	28E	575715	3631468	2809
					ED	RA 12030 POD3				2 2 3	20	17S	28E	574979	3631471	2825
					ED	RA 12030 POD22				1 1 3	21	17S	28E	575988	3631461	2847
					ED	RA 12030 POD18				2 3 4	21	17S	28E	576906	3631135	2887
					ED	RA 12030 POD21				2 1 3	21	17S	28E	576271	3631506	2962
					ED	RA 12030 POD45				4 4 4	21	17S	28E	577441	3630902	3024
					ED	RA 12030 POD2				2 4 1	20	17S	28E	575031	3631792	3136
					ED	RA 12030 POD17				2 4 4	21	17S	28E	577327	3631151	3140
					ED	RA 12030 POD5				1 4 2	20	17S	28E	575574	3631870	3198
					ED	RA 12030 POD20				3 4 1	21	17S	28E	576382	3631725	3205

all proposed 50' deep monitoring wells

EXHIBIT I

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

Record Count: 35

UTMNAD83 Radius Search (in meters): NW State 3

Easting (X): 575393 **Northing (Y):** 3628677 **Radius:** 3220

Sorted by: Distance

3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

EXHIBIT I

Ogallala boundary

EXHIBIT I

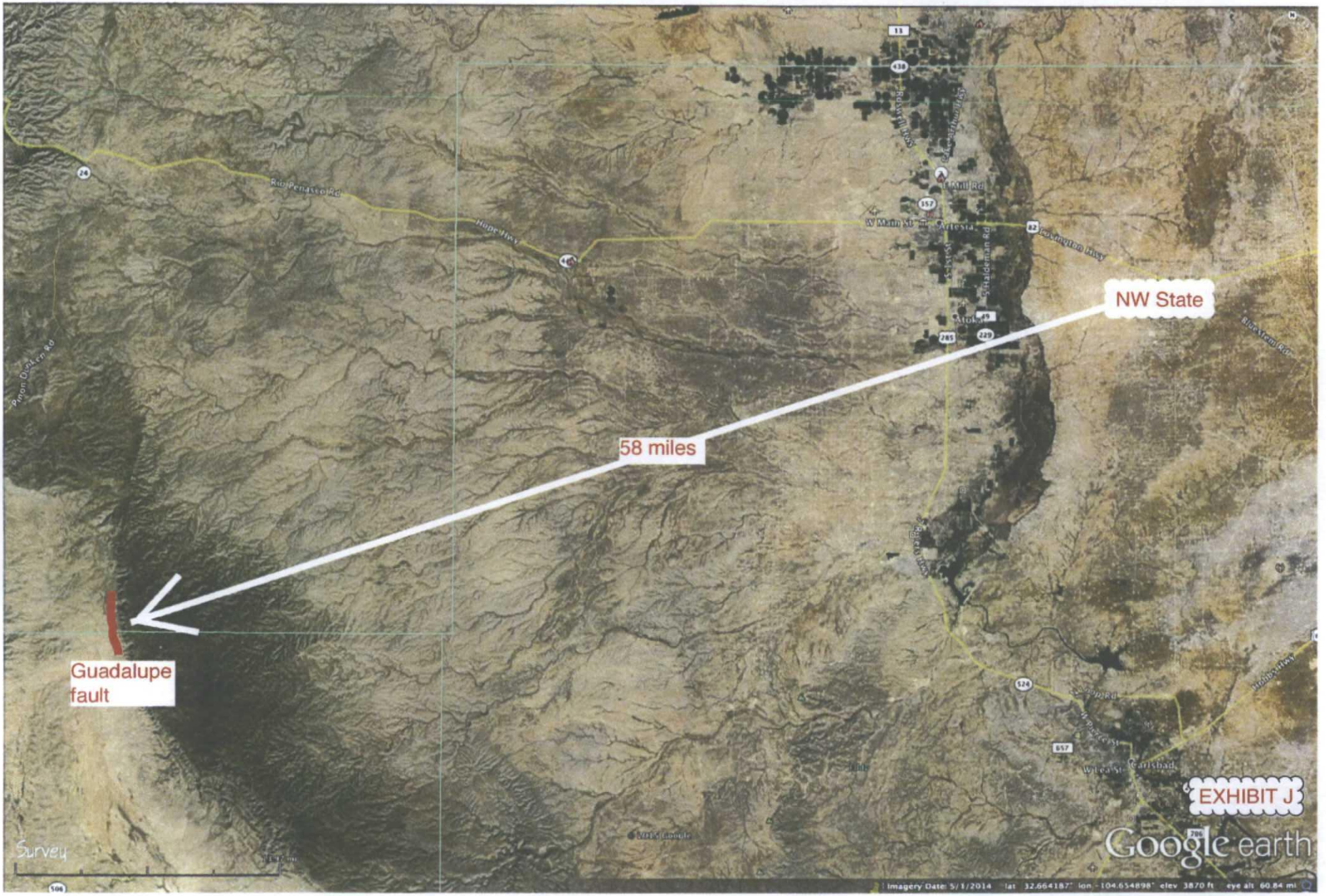

NW State
58 miles
Guadalupe
fault
EXHIBIT J
Survey
Google earth

EXHIBIT C

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 XXX No

II. OPERATOR: LRE OPERATING, LLC OGRID 281994

ADDRESS: 1111 BAGBY, SUITE 4600, HOUSTON TX 77002

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: _____

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.

NW STATE 7 30-015-30685
Artesia;Queen-Grayburg-San Andres

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: B Wood DATE: JUNE 5, 2015

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

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

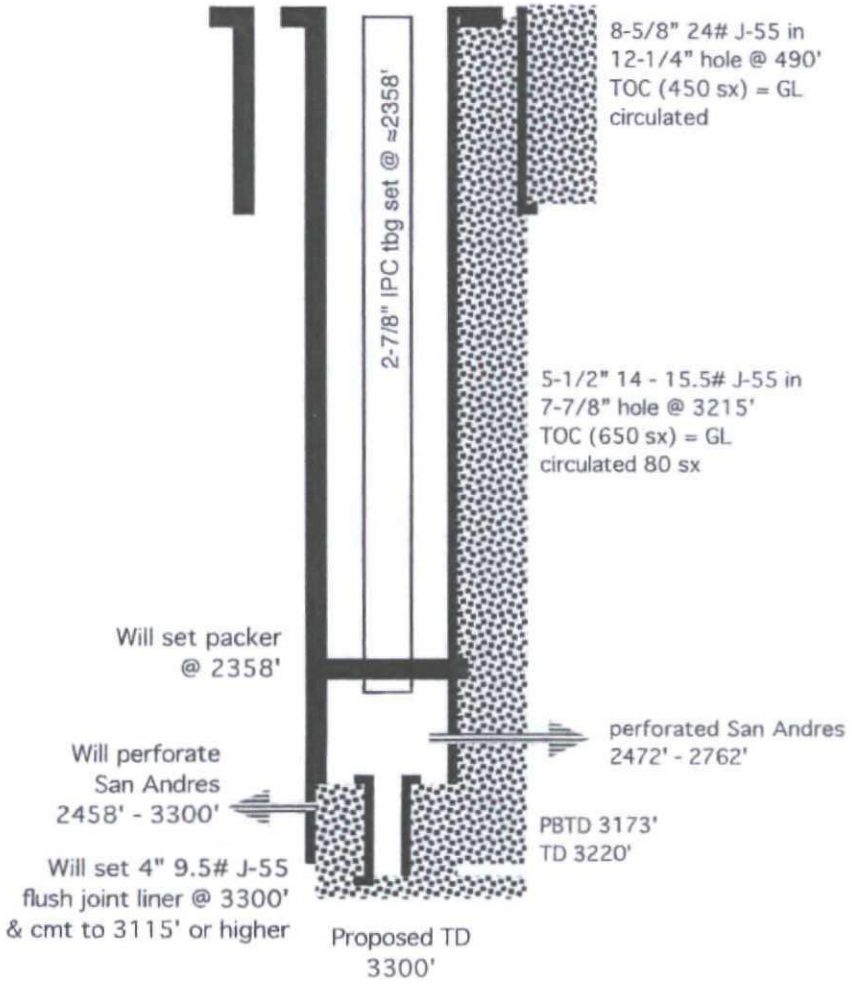
OPERATOR: LRE OPERATING, LLC

WELL NAME & NUMBER: NW STATE 7

WELL LOCATION:				
990' FSL & 990' FWL	M	32	17 S	28 E
FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

(not to scale)



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4" Casing Size: 8-5/8"

Cemented with: 450 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRCULATED

Intermediate Casing

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

Cemented with: 650 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 80 SX

Production Casing

Hole Size: 4-1/2" Casing Size: 4" flush joint

Cemented with: _____ sx. *or* 20 ft³

Top of Cement: 3115' Method Determined: _____

Total Depth: 3300'

Injection Interval

2458' feet to 3300'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" TK70ST Lining Material: INTERNAL PLASTIC COAT

Type of Packer: 2-7/8" x 5-1/2" INTERNAL & EXTERNAL NICKEL PLATED

Packer Setting Depth: 2358'

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? OIL WELL

2. Name of the Injection Formation: SAN ANDRES

3. Name of Field or Pool (if applicable): ARTESIA; QUEEN-GRAYBURG-SAN ANDRES (POOL CODE 3230)

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: QUEEN 1430', GRAYBURG 1650'

   PROPOSED INJECTION ZONE: SAN ANDRES 2458' - 3300'

   UNDER: ABO 5889', MORROW 10,050'

I. Purpose is to deepen (95') an existing oil well and convert it to a water injection well to increase oil recovery. The well will inject into the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230) from 2458' to 3300'. Highest perforation will be 500' below the top of the San Andres. A 5 spot pattern will result. The injector will be inside a ring of LRE producers on the same lease. See Exhibit A for maps and C-102 form.

II. Operator: LRE Operating, LLC (OGRID #281994)
Operator phone number: (713) 360-5714 (Eric McClusky)
Operator address: 1111 Bagby St., Suite 4600, Houston, TX 77002

Contact for Application: Brian Wood (Permits West, Inc.)
Phone: (505) 466-8120

III. A. (1) Lease: (NM State Land Office) X0-0647-0405 (see Exhibit B)
Lease Size: 8,746.59 acres
Area: E2E2 Sec. 31 and SW4 & NE4 Sec. 32, T. 17 S., R. 28 E. et al
Distance to closest lease line: 990'

A. (2) Well construction details are:

Surface Casing	8.625" and 24#
hole	12.25"
depth set	490'
sx Cement	450
TOC	GL
Production Casing	5.5" and 14# & 15.5#
hole	7.875"
depth set	3215'
sx cement	650
TOC	GL
current PBTD	3160'
current TD	3205'

Proposed Liner	4" and 9.5# flush joint
proposed hole	4.5"
proposed depth set	3300'
proposed TOC	3115'
proposed TD	3300'

A. (3) Tubing specifications are 2-7/8", TK70ST, 10-20 mil, internally plastic coated. Setting depth will be 2,358'.

A. (4) A 2-7/8" x 5-1/2" internal and external nickel-plated injection packer will be set 100' above the highest perforation.

B. (1) Injection formation will be the Artesia; Queen-Grayburg-San Andres Pool (pool code = 3230). There are currently 88 water injection wells and 545 oil wells in that pool.

B. (2) Injection interval will be the San Andres. Interval thickness is 1,342'. Well is and will be a cased hole. See attached C-108 well profile for more perforation information.

B. (3) Well was drilled and completed in 1999 as an oil well and is so today.

B. (4) Well is only perforated (2472' - 2762') in the San Andres.

B. (5) Producing oil and gas zones above and below the San Andres within the area of review are:

Queen (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
Grayburg (Artesia; Queen-Grayburg-San Andres (#3230)) & Red Lake; Queen-Grayburg-SA (#51300)
San Andres
Glorieta (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Yeso (Artesia; Glorieta-Yeso (O) (#96830)) & Red Lake; Glorieta-Yeso (#5120)
Abo (Empire; Abo (#22040)

IV. This is not a horizontal or vertical expansion of an existing injection project. There is a shallower Grayburg waterflood (LRE's Northwest Artesia Unit) in the areas of review. There will be 501' of vertical separation between the bottom of the Grayburg (1957') and top of the San Andres waterflood (2458'). Order R-4727 Case 5144 covers the Grayburg water flood.

V. Exhibit C shows all 60 existing wells (1 water injector, 3 saltwater disposal wells, 14 P & A wells, and 42 oil wells) within a half-mile radius, regardless of depth. Exhibit D shows all 726 existing wells (473 oil or gas wells + 220 P & A wells + 32 injection or disposal wells + 1 water well) within a two-mile radius.

Exhibits E (only state) and F (only state and BLM) show all leases within a half-mile and 2-mile radius, respectively. Details on those leases follow:

T 17 S, R 28 E	Lessor	Lease	Lessee(s) of Record	San Andres operator, if any
SENE & E2SE4 Sec. 31	NMSLO	X0-0647-0405	Khody	LRE
W2SE4 Sec. 31	NMSLO	B0-2071-0032	Chisos & Burlington	N/A
SWNW Sec. 32	NMSLO	E0-6945-0002	Occidental Permian	N/A
SENW Sec. 32	NMSLO	E0-0949-0001	BP	N/A
SW4 & SWNE Sec. 32	NMSLO	X0-0647-0405	Khody	LRE
NWSE Sec. 32	NMSLO	E0-1717-0003	Occidental Permian	LRE & Alamo
SWSE Sec. 32	NMSLO	B1-1538-0017	ConocoPhillips & Chisos	LRE
T 18 S, R 28 E				
NWNE Sec. 5	NMSLO	B0-3823-0010	Occidental Permian	N/A
NENW Sec. 5	NMSLO	X0-0647-0410	Apache	N/A
NWNW Sec. 5	NMSLO	B1-1594-0004	BP & Burlington	N/A
SWNW Sec. 5	NMSLO	E0-7179-0001	ConocoPhillips	N/A
SENW Sec. 5	NMSLO	E0-2715-0007	Chaparral	N/A
E2NE4 Sec. 6	NMSLO	X0-0647-0405	Khody	LRE
NWNE Sec. 6	NMSLO	B1-1594-0001	Vilas Trust	N/A

VI. Sixty wells are within a half-mile radius. All penetrated the San Andres (top = 1958'). The penetrators include 42 oil wells, 14 P & A wells, and 4 injection or disposal wells. A table abstracting the well construction details and histories of the penetrators is in Exhibit G. Diagrams illustrating the P & A wells are in Exhibit H. Diagrams are sequenced by API number. The wells and their distances from the proposed injector are:

API	WHO	UL	SECTION TOWNSHIP RANGE	TVD	WELL	WELL TYPE	CURRENT POOL	FEET FROM NW State 7
3001541495	Apache	M	32-17s-28e	5070	AB State 647 011	O	Artesia; Glorieta-Yeso	76
3001520043	LRE	M	32-17s-28e	1998	NW Artesia Unit 012	I	Artesia; Queen-Gray-SA	231
3001501660	BP	M	32-17s-28e	6187	EAU 025	P&A	Empire; Abo	469
3001501662	Apache	L	32-17s-28e	6123	EAU 025A	P&A	Empire; Abo	660
3001541491	Apache	L	32-17s-28e	4300	AB State 647 007	O	Artesia; Glorieta-Yeso	661
3001541498	Apache	M	32-17s-28e	4300	AB State 647 014	O	Artesia; Glorieta-Yeso	667
3001541496	Apache	M	32-17s-28e	5080	AB State 647 012	O	Artesia; Glorieta-Yeso	668
3001541494	Apache	N	32-17s-28e	5076	AB State 647 010	O	Artesia; Glorieta-Yeso	681
3001536554	LRE	L	32-17s-28e	3450	NW State 029	O	Artesia; Queen-Gray-SA	894

3001541503	Apache	L	32-17s-28e	5065	AB State 647 006	O	Artesia; Glorieta-Yeso	927
3001541504	Apache	N	32-17s-28e	5063	AB State 647 015	O	Artesia; Glorieta-Yeso	933
3001521539	Apache	N	32-17s-28e	6220	EAU 261	O	Empire; Abo	933
3001537058	LRE	M	32-17s-28e	3425	NW State 032	O	Artesia; Queen-Gray-SA	938
3001536989	LRE	K	32-17s-28e	3405	NW State 030	O	Artesia; Queen-Gray-SA	969
3001541497	Apache	M	32-17s-28e	5065	AB State 647 013	O	Artesia; Glorieta-Yeso	1006
3001537057	LRE	N	32-17s-28e	3500	NW State 031	O	Artesia; Queen-Gray-SA	1006
3001510834	SDX	N	32-17s-28e	2006	NW Artesia Unit 013	P&A	Artesia; Queen-Gray-SA	1045
3001501659	Apache	N	32-17s-28e	6172	EAU 026A	O	Empire; Abo	1046
3001539927	Apache	K	32-17s-28e	5016	AB State 647 001	O	Artesia; Glorieta-Yeso	1091
3001530815	LRE	N	32-17s-28e	3310	NW State 008	SWD	Art; Queen-Gray-SA	1146
3001541505	Apache	L	32-17s-28e	5046	AB State 647 004	O	Artesia; Glorieta-Yeso	1276
3001530777	LRE	L	32-17s-28e	3204	NW State 006	O	Art; Queen-Gray-SA	1320

3001530760	LRE	P	31-17s-28e	3210	NW State 010	O	Art; Queen-Gray-SA	1352
3001510795	Lime Rock	L	32-17s-28e	1980	NW Artesia Unit 009	P&A	Art; Queen-Gray-SA	1359
3001541492	Apache	K	32-17s-28e	4326	AB State 647 008	O	Artesia; Glorieta-Yeso	1393
3001541502	Apache	L	32-17s-28e	5060	AB State 647 005	O	Artesia; Glorieta-Yeso	1474
3001501644	BP	I	31-17s-28e	6106	EAU 024A	P&A	Empire; Abo	1478
3001530781	LRE	K	32-17s-28e	3190	NW State 005	SWD	Art; Queen-Gray-SA	1480
3001501661	Apache	K	32-17s-28e	6083	EAU 026B	O	Empire; Abo	1485
3001541511	Apache	N	32-17s-28e	4297	AB State 647 016	O	Artesia; Glorieta-Yeso	1528
3001541501	Apache	K	32-17s-28e	5027	AB State 647 003	O	Artesia; Glorieta-Yeso	1534
3001541493	Apache	N	32-17s-28e	5077	AB State 647 009	O	Artesia; Glorieta-Yeso	1556
3001502606	Apache	3	5-18s-28e	6254	EAU 026E	O	Empire; Abo	1622
3001520042	LRE	P	31-17s-28e	2012	NW Artesia Unit 011	O	Art; Queen-Gray-SA	1658
3001502607	Apache	4	5-18s-28e	6273	EAU 025C	P&A	Empire; Abo	1687
3001501641	Apache	P	31-17s-28e	6122	EAU 024	O	Empire; Abo	1692

3001510818	SDX	K	32-17s-28e	2003	NW Artesia Unit 008	P&A	Art; Queen-Gray-SA	1736
3001530849	LRE	I	31-17s-28e	3195	NW State 009	O	Art; Queen-Gray-SA	1824
3001522009	Apache	O	32-17s-28e	6370	EAU 272	O	Empire; Abo	1836
3001522750	Apache	4	5-18s-28e	6250	EAU 251	P&A	Empire; Abo	1863
3001520019	LRE	1	6-18s-28e	3273	NW Artesia Unit 016	O	Art; Queen-Gray-SA	1881
3001510833	LRE	I	31-17s-28e	2000	NW Artesia Unit 010	O	Art; Queen-Gray-SA	1926
3001501671	BP	E	32-17s-28e	6013	EAU 025B	P&A	Empire; Abo	1952
3001530785	LRE	1	6-18s-28e	3225	NW State 015	O	Art; Queen-Gray-SA	1954
3001537045	LRE	J	32-17s-28e	5130	Jeffers 32 State 002	O	Artesia; Glorieta-Yeso	2079
3001541500	Apache	K	32-17s-28e	4989	AB State 647 002	O	Artesia; Glorieta-Yeso	2123
3001501657	Apache	F	32-17s-28e	6171	AA State 001	O	Artesia; Glorieta-Yeso	2196
3001539006	Apache	J	32-17s-28e	6296	EAU 407	O	Empire; Abo	2255
3001522697	BP	3	5-18s-28e	6350	EAU 261A	P&A	Empire; Abo	2256
3001501667	BP	O	32-17s-28e	6216	EAU 027A	P&A	Empire; Abo	2274
3001502605	BP	2	5-18s-28e	6261	EAU 027E	P&A	Empire; Abo	2324

3001539011	Apache	O	31-17s-28e	6310	EAU 419	O	Empire; Abo	2329
3001501670	BP	J	32-17s-28e	6165	EAU 027B	P&A	Empire; Abo	2341
3001502615	Apache	1	6-18s-28e	6241	EAU 024B	O	Empire; Abo	2354
3001510537	LRE	H	31-17s-28e	6200	NW Artesia Unit 004	O	Art; Queen-Gray-SA	2359
3001501656	Alamo	J	32-17s-28e	2038	State 32 002	O	Art; Queen-Gray-SA	2439
3001538513	LRE	J	32-17s-28e	5093	Jeffers 32 State 003	O	Artesia; Glorieta-Yeso	2548
3001501665	LRE	O	32-17s-28e	2099	NW Artesia Unit 014	O	Art; Queen-Gray-SA	2554
3001534148	LRE	J	32-17s-28e	10400	Aspen 32 State Com 001	SWD	SWD; Canyon	2625
3001531086	Marbob	E	5-18s-28e	4503	LP State 001	P&A	Artesia; Glorieta-Yeso	2640
3001501653	*Roberts*	*O*	*31-17s-28e*	*742*	*Parker State 001*	*P&A*	*Empire; Yates 7R*	*2653*

VII. 1. Average injection rate will be ≈150 bwpd.
Maximum injection rate will be 600 bwpd.

2. System will be closed. Well will tie into an existing pipeline system.

3. Average injection pressure will be ≈500 psi. Maximum injection pressure will be 491 psi (= 0.2 psi/ft x 2458' (highest perforation). If step rate test results support it, the maximum will be raised to 1474 psi (= 0.6 psi/foot x 2458' (highest perforation).

4. Water source will be water produced from LRE's Abo, Glorieta, Grayburg, Queen, San Andres, and Yeso wells.

5. Project goal is to increase production from the San Andres. LRE currently operates 6 San Andres oil wells in SW4 Section 32.

VIII. The proposed waterflood will inject into a portion of the San Andres Formation. This portion is mainly a dolomite with porosity ranging from 5% to 10%. The porosity is due inter-crystalline and finely crystalline dolomite and secondary moldic vuggy development in the dolomitized wackestone and packstone. Estimated fracture gradient is ≈0.70 psi per foot. There are currently 1,276 San Andres injection wells in the state. Formation tops are:

	NW State 7	contents
Quaternary	GL	fresh water
Rustler	410	anyhydrite
Tansill (base of salt)	640	gas, oil, & water
Yates	640	gas, oil, & water
Seven Rivers	990	gas, oil, & water
Queen	1430	gas, oil, & water
Grayburg	1650	gas, oil, & water
San Andres top	1958	gas, oil, & water
San Andres injection interval	2458 - 3300	gas, oil, & water
Total Depth (now/proposed)	3220/3300	
Glorieta	*3361*	*gas, oil, & water*

Records from the Office of the State Engineer (Exhibit I) indicate no fresh water wells are within a mile radius. This was confirmed during a July 24 & 25, 2014 field inspection. Closest (9669' southwest) fresh water well is Bogle's livestock well RA 08235. No completion report has been filed for the well. Depth data is unknown.

No existing underground drinking water sources are above or below the San Andres within a mile radius.

There is 1,548' of vertical separation and 230' of anhydrite and salt between the bottom of the only likely underground water source (red beds) and the top of the San Andres. Ogallala aquifer is >20 miles northeast (Exhibit I).

Produced water is being injected into two zones (Queen, Grayburg) above the San Andres in 4 wells within Section 32. Water is also being injected into the San Andres in 2 wells (30-015-30781 & 30-015-30815) in Section 32.

IX. The wells will be further perforated, fracture stimulated, and acidized to clean out scale or fill.

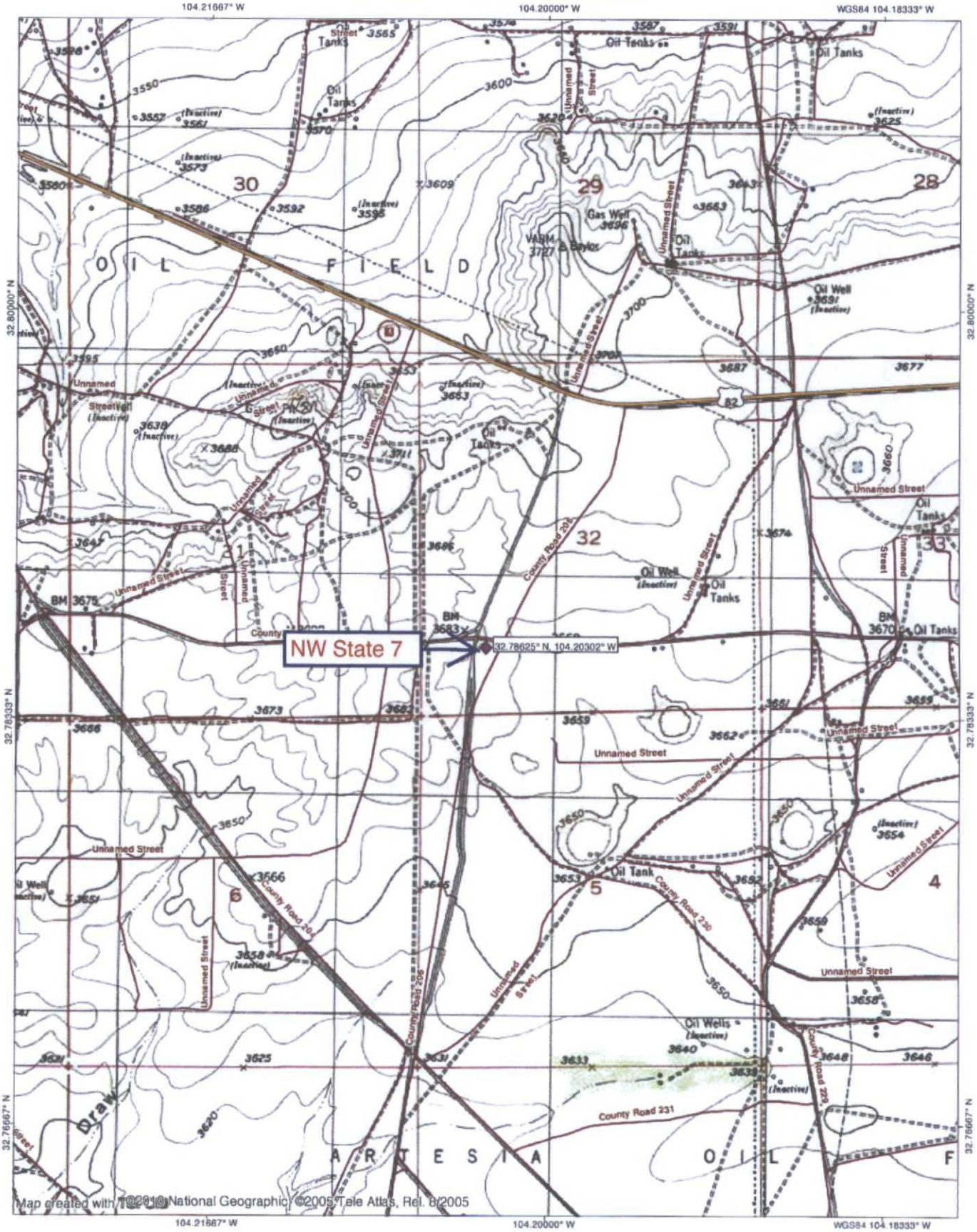
X. Azimuthal laterolog micro-CFL/GR, litho-density compensated neutron/GR, and three detector density/compensated neutron/GR logs were run and are on file with the NMOCD.

XI. No fresh water well is within a mile. Closest water well (RA 09001) is 9669' southwest.

XII. LRE Operating, LLC is not aware of any geologic or engineering data that may indicate the San Andres is in hydrologic connection with any underground sources of water. Closest Quaternary fault is 57 miles southwest (Exhibit J). Water has been injected into the San Andres in Section 32 for the last 41 years. Over 410,399 barrels have been injected in the San Andres in Section 32 since 2007. There are 1,276 injection and 125 saltwater disposal wells active in the San Andres in New Mexico.

XIII. A legal ad (see Exhibit L) will be published. Notice (this application) will be sent to the surface owner (COG & John R. Gray, LLC), the offset San Andres operators (Alamo), lessors (NM State Land Office), and lessees (Apache, BP, Burlington, Chaparral, Chisos, ConocoPhillips, Khody, Occidental Permian, and Vilas Trust).

TOPO! map printed on 04/05/15 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
7.5°
04/05/15


NW State
9 (oil)
NW State
6 (oil)
NW State
5 (SWD)
NW State
29 (oil)
NW State
30 (oil)
NW State
8 (SWD)
NW State
7 (WIW)
NW State
10 (oil)
NMSLO lease
X0-0647-0405
NW State
32 (oil)
NW State
31 (oil)
EXHIBIT A
Survey
Google earth

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

JUN 1 1 1999

Form C-102
Revised February 10, 1994
Instructions on back
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
	24439	Artesia (QN-GB-SA)

⁴ Property Code	⁵ Property Name	⁶ Well Number
24439	N. W. STATE	7

⁷ OGRID No.	⁸ Operator Name	⁹ Elevation
020451	SDX RESOURCES, INC.	3675.

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
M	32	17-S	28-E		990	SOUTH	990	WEST	EDDY

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

16

990'

990'

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Bonnie Atwater
Signature

Bonnie Atwater
Printed Name

Regulatory Tech.
Title

6/23/99
Date

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.

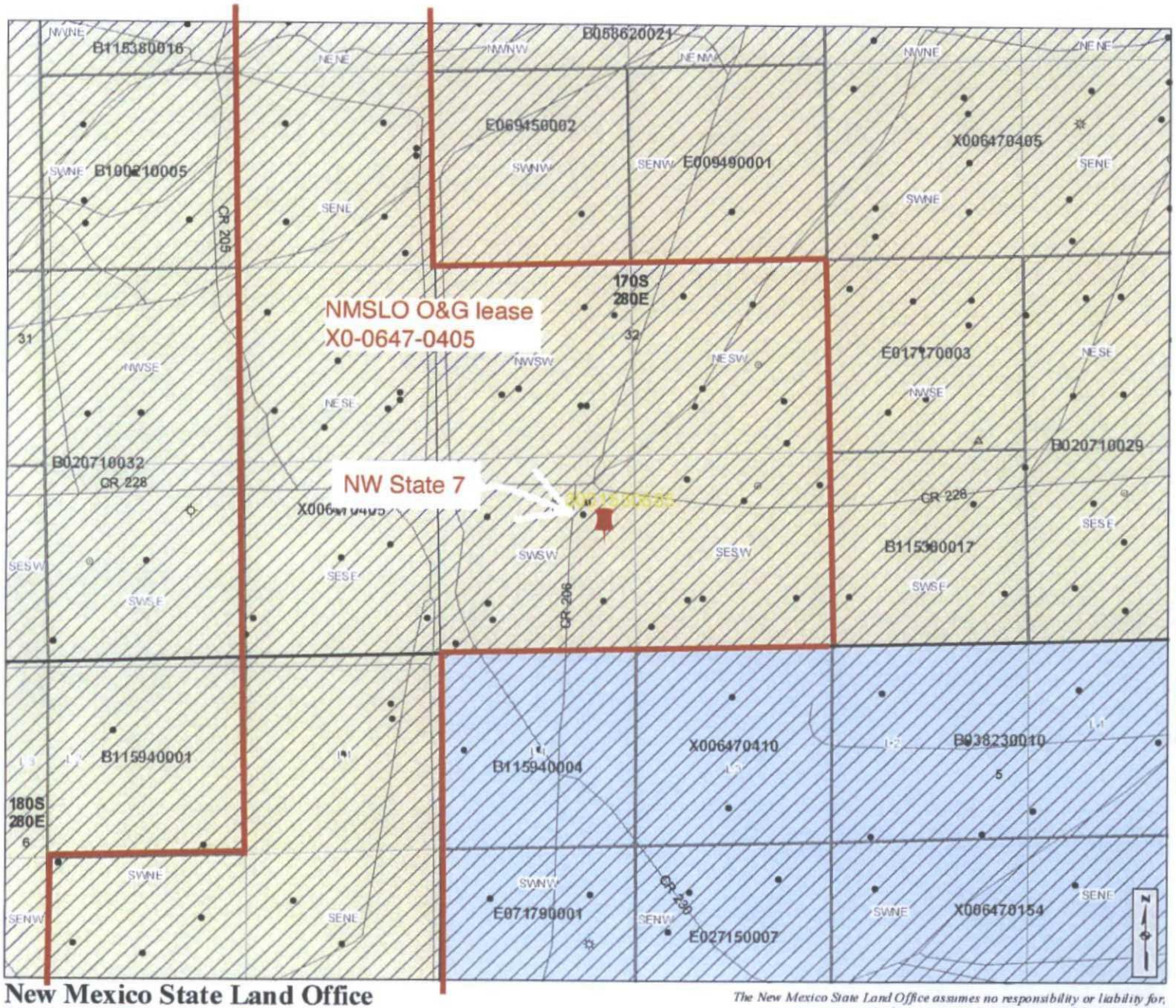
MAY 27, 1999
Date of Survey

Signature and Seal of Professional Surveyor:

GARY R. REDDY
NEW MEXICO
5412
REGISTERED PROFESSIONAL ENGINEER
LAND SURVEYOR

Certificate Number NM PE/LS 5412

EXHIBIT A



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 0.04 0.08 0.16 0.24 0.32 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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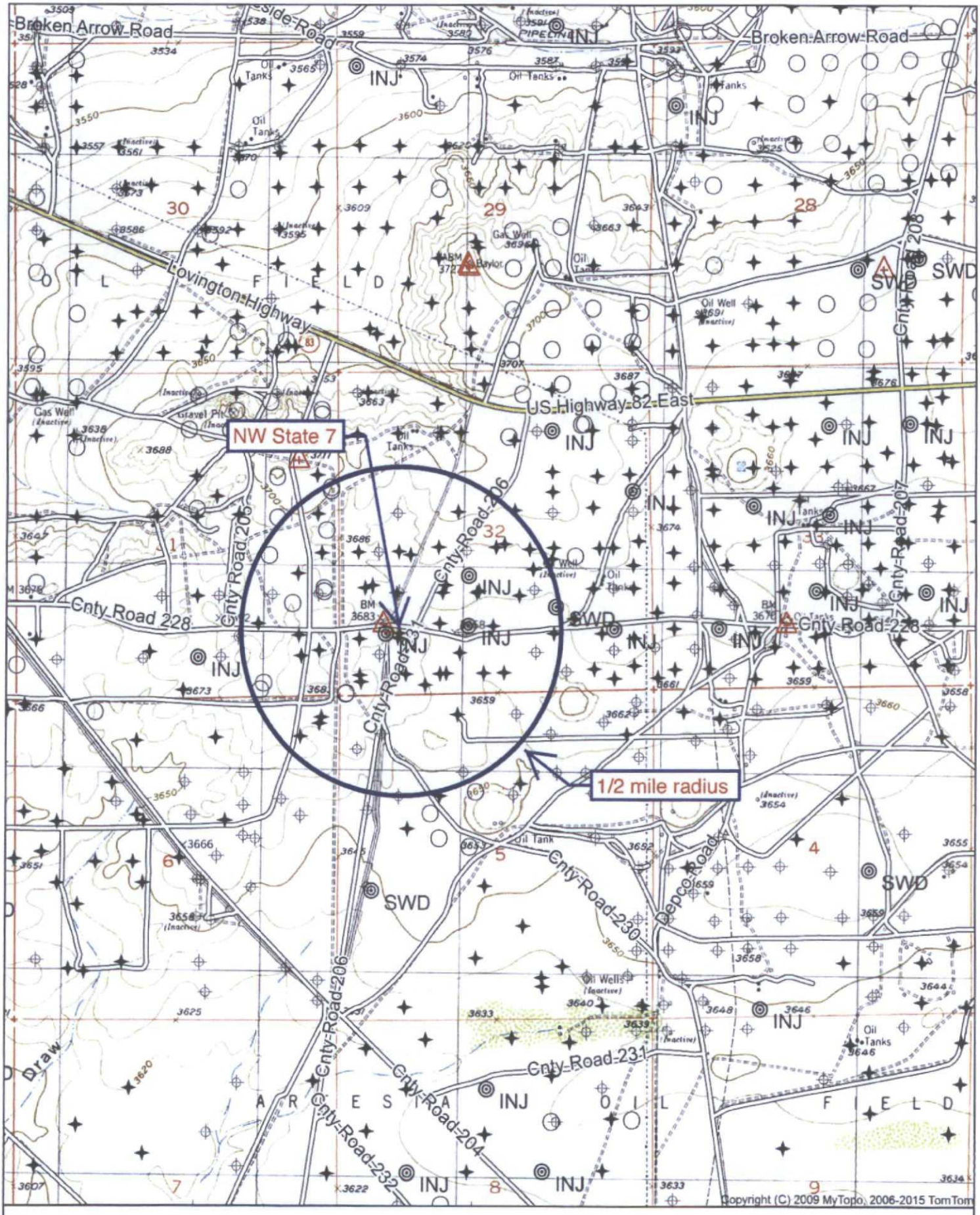
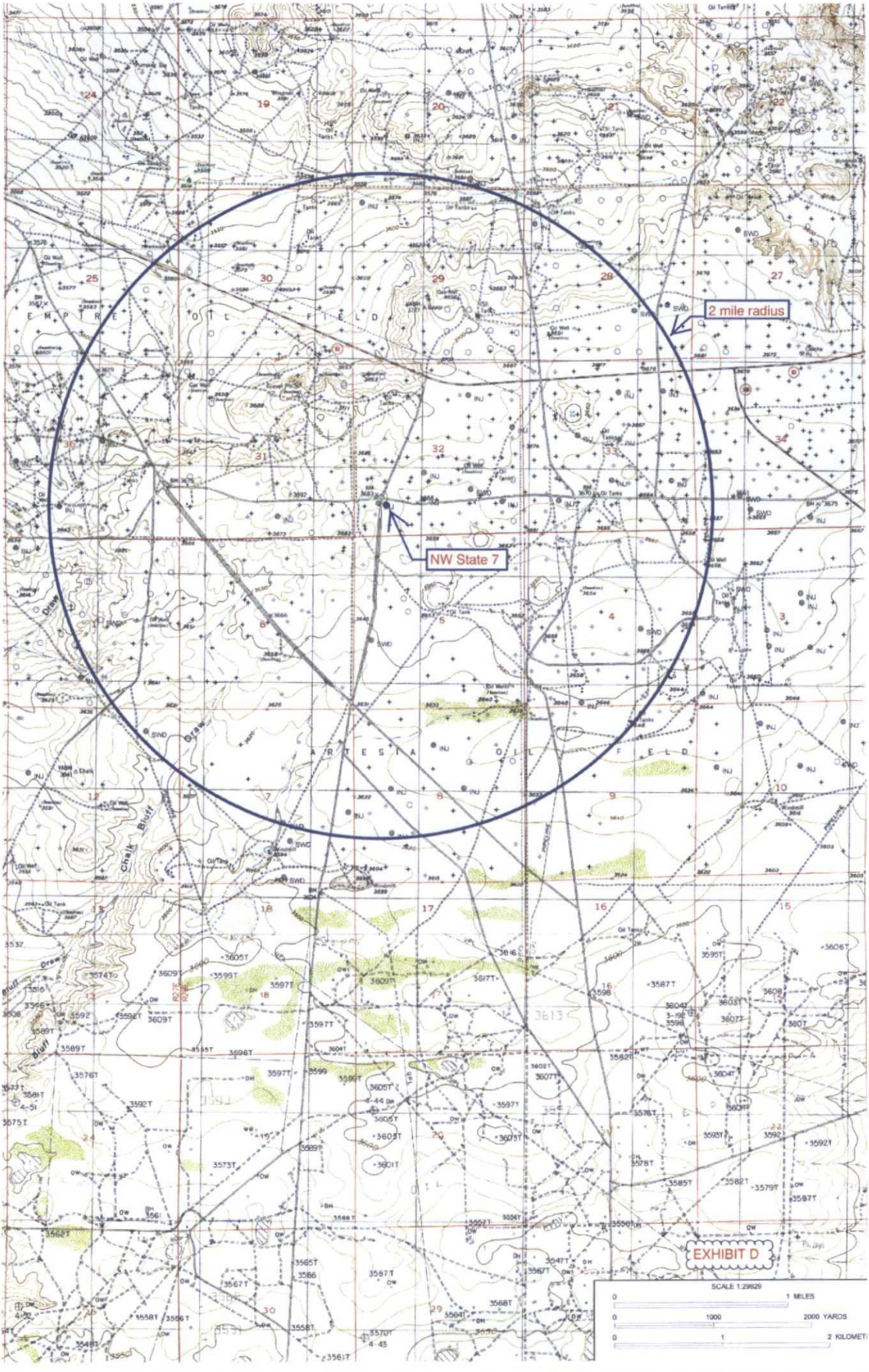
EXHIBIT B

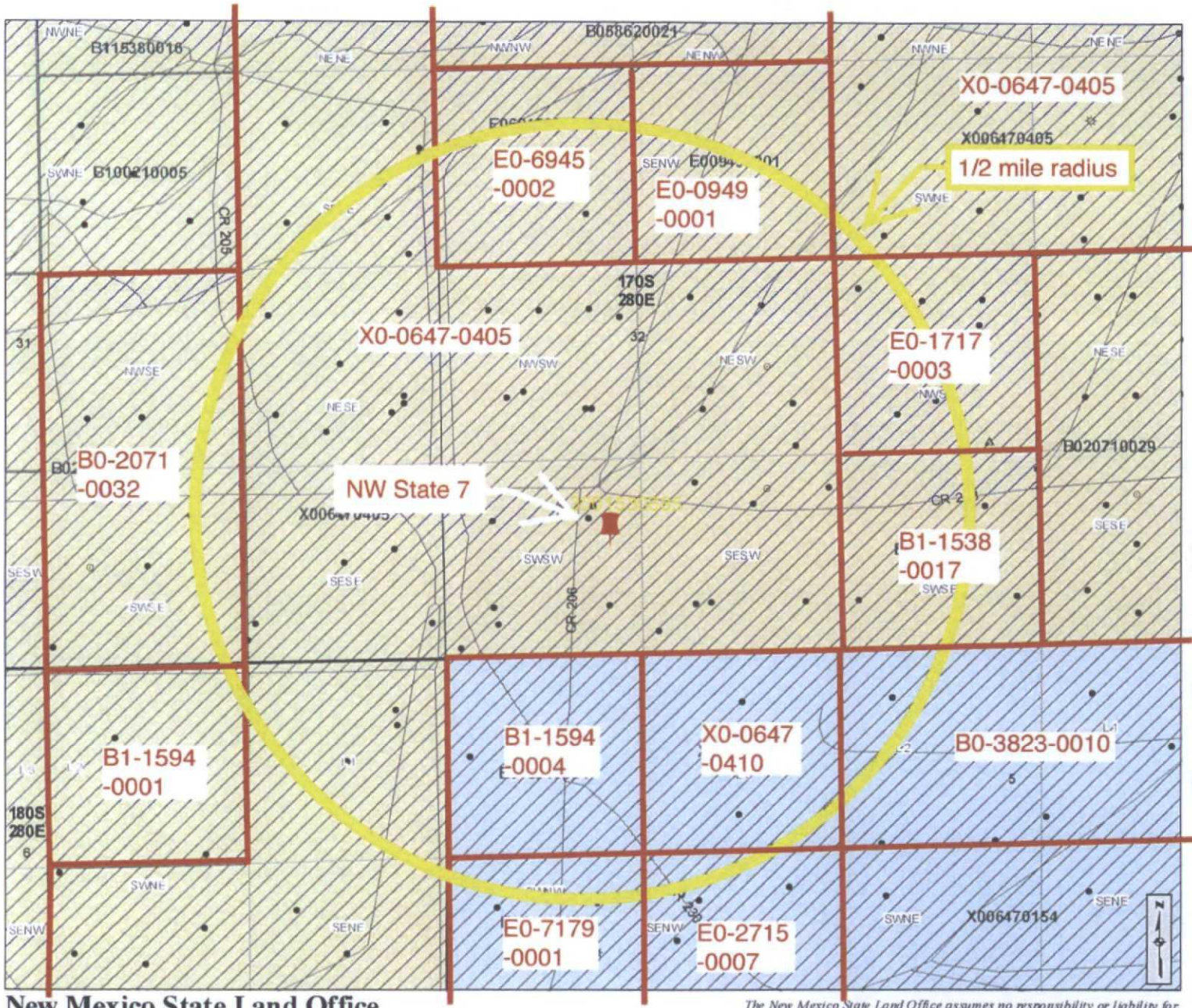
www.nmstatelands.org



Quad: RED LAKE
Scale: 1 inch = 2,000 ft.

EXHIBIT C


2 mile radius
NW State 7
EMPIRE OIL FIELD
ARTESIA OIL FIELD
Chalk Bluff Draw
EXHIBIT D
SCALE 1:29829
1 MILES
1000
2000 YARDS
1
2 KILOMETE



Cartographic Features
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- County Seats
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- SLO District Offices
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- Not Available for Oil and Gas Leasing
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- Volcanic Vents
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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 0.04 0.08 0.16 0.24 0.32 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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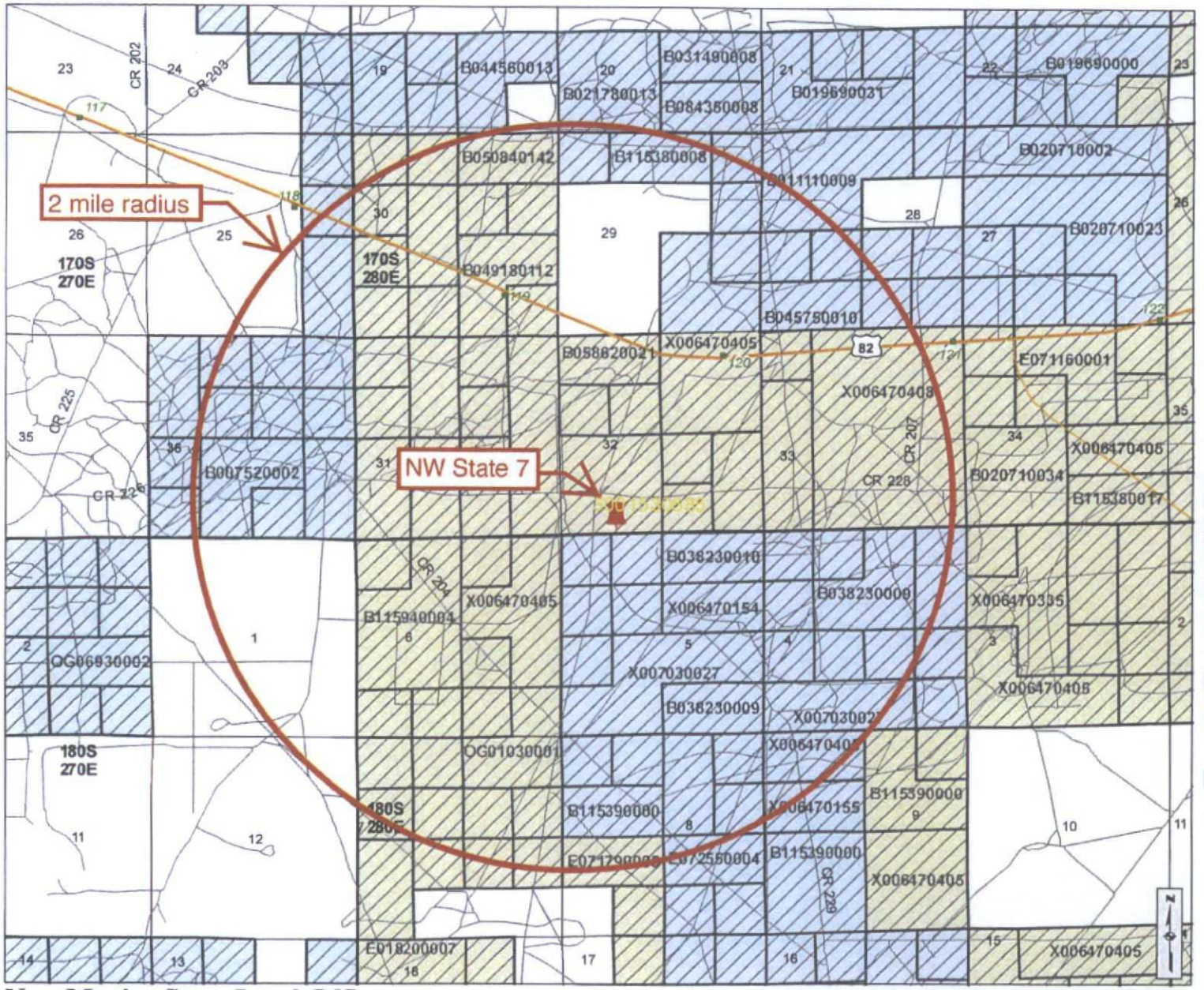
EXHIBIT E

www.nmstatelands.org



Cartographic Features

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- County Seats
- City, Town or Village
- SLO District Offices
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- Subsurface Estate
- Surface and Subsuface Estate

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- Not Available for Oil and Gas Leasing
- Oil and Gas Leasing Influenced by Restriction

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- 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 0.15 0.3 0.6 0.9 1.2 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 F

www.nmstatelands.org

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
AB State 647 011	9/13/13	5070	Artesia; Glorieta-Yeso	Oil	12.25	8.625	405	290 sx	unknown	no report
30-015-41495					7.875	5.5	5070	750 sx	unknown	no report
M-32-17s-28e										
EAU 025	2/16/60	6187	Empire; Abo	P & A	11	8.625	770	450 sx	GL	circulated
30-015-01660					7.875	5.5	6188	450 sx	2622	CBL
M-32-17s-28e										
EAU 025A	3/29/60	6123	Empire; Abo	P & A	11	8.625	728	225 sx	GL	circulated
30-015-01662					7.875	5.5	6125	450 sx	2492	no report
L-32-17s-28e										
AB State 647 007	10/29/13	4300	Artesia; Glorieta-Yeso	Oil	12.25	8.625	405	270 sx	GL	circ 177 sx to surface
30-015-41491					7.875	5.5	4300	660 sx	GL	circ 134 sx to surface
L-32-17s-28e										
AB State 647 014	11/4/13	4300	Artesia; Glorieta-Yeso	Oil	12.25	8.625	425	125 sx	GL	circ 125 sx to surface
30-015-41498					7.875	5.5	4300	660 sx	GL	circ 180 sx to surface
M-32-17s-28e										
AB State 647 012	9/19/13	5080	Artesia; Glorieta-Yeso	Oil	12.25	8.625	417	300 sx	GL	circ 142 sx to surface
30-015-41496					7.875	5.5	5080	760 sx	GL	circ 145 sx to surface
M-32-17s-28e										
AB State 647 010	10/16/13	5076	Artesia; Glorieta-Yeso	Oil	12.25	8.625	422	290 sx	GL	circ 125 sx to surface
30-015-41494					7.875	5.5	5076	840 sx	GL	circ 140 sx to surface
N-32-17s-28e										
NW State 029	1/21/09	3450	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	480	375 sx	GL	circ 113 sx to surface
30-015-36554					7.875	5.5	3436	750 sx	GL	circ 169 sx to pit
L-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
AB State 647 006	8/30/13	5065	Artesia; Glorieta-Yeso	Oil	12.25	8.625	435	290 sx	GL	circ 113 sx to surface
30-015-41503					7.875	5.5	5065	780 sx	GL	circ 160 sx to pit
L-32-17s-28e										
AB State 647 015	9/26/13	5063	Artesia; Glorieta-Yeso	Oil	12.25	8.625	413	650 sx	GL	circ 20 sx to surface
30-015-41504					7.875	5.5	5063	730 sx	GL	circ 145 sx to surface
N-32-17s-28e										
EAU 261	6/24/75	6220	Empire; Abo	Oil	11	8.625	1000	400 sx	GL	circ 8 yds Redi-Mix
30-015-21539					7.875	5.5	6220	1133 sx	unknown	no report
N-32-17s-28e										
NW State 032	8/12/09	3425	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	431	375 sx	GL	circ 104 sx to surface
30-015-37058					7.875	5.5	3408	750 sx	GL	circ 68 sx to pit
M-32-17s-28e										
NW State 030	7/7/09	3405	Artesia; Queen-Grayburg-San Andres	Oil	12.25	8.625	432	375 sx	GL	circ 124 sx to surface
30-015-36989					7.875	5.5	3391	750 sx	GL	circ 202 sx to pit
K-32-17s-28e										
AB State 647 013	10/10/13	5065	Artesia: Glorieta-Yeso	Oil	12.25	8.625	413	270 sx	GL	circ 84 sx to surface
30-015-41497					7.875	5.5	5065	820 sx	GL	circ 46 bbls to surface
M-32-17s-28e										
NW State 031	7/21/09	3500	Artesia: Queen-Grayburg-San Andres	Oil	12.25	8.625	432	375 sx	GL	circ 104 sx to surface
30-015-37057					7.875	5.5	3489	750 sx	GL	circ 125 sx to pit
N-32-17s-28e										
NAU 013	5/31/66	2006	Artesia	P & A	11	8.625	493	125 sx	GL	no report
30-015-10834					7.875	4.5	2003	175 sx	1242	no report
N-32-17s-28e										

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EAU 026A	1/26/60	6172	Empire; Abo	Oil	11	8.625	779	280 sx	GL	circulated 25 sx
30-015-01659					7.875	5.5	6172	400 sx	GL	no report
N-32-17s-28e										
AB State 647 001	8/11/13	5016	Artesia; Glorieta-Yeso	Oil	12.25	8.625	454	340 sx	GL	circ 171 sx to surface
30-015-39927					7.875	5.5	5016	790 sx	GL	circ 154 sx to surface
K-32-17s-28e										
NW State 008	11/18/99	3310	Artesia: Queen-Grayburg-San Andres	SWD	12.25	8.625	492	350 sx	GL	circ 72 sx to pit
30-015-30815					7.875	5.5	3302	600 sx	GL	circulated 47 sx
N-32-17s-28e										
AB State 647 004	10/2/13	5046	Artesia; Glorieta-Yeso	Oil	12.25	8.625	404	270 sx	GL	circ 105 sx to surface
30-015-41505					7.875	5.5	5046	810 sx	GL	circ 73 sx to surface
L-32-17s-28e										
EAU 409	no spud yet	planned 6400	Empire; Abo	Oil	12.25	8.625	500	360 sx	unknown	no report
30-015-39007					7.875	5.5	6400	1080 sx	unknown	no report
M-32-17s-28e										
NW State 006	10/19/99	3204	Artesia: Queen-Grayburg-San Andres	Oil	12.25	8.625	515	350 sx	GL	circ 68 sx to pit
30-015-30777					7.875	5.5	3200	650 sx	GL	circulated 77 sx
L-32-17s-28e										
NW State 010	10/12/99	3210	Artesia: Queen-Grayburg-San Andres	Oil	12.25	8.625	495	350 sx	unknown	no report
30-015-30760					7.875	5.5	3192	650 sx	unknown	no report
P-31-17s-28e										
AB State 647 008	11/15/13	4302	Artesia; Glorieta-Yeso	Oil	12.25	8.625	420	290 sx	GL	circ 134 sx to surface
30-015-41492					7.875	5.5	4326	650 sx	GL	circ 109 sx to surface
K-32-17s-28e										

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
AB State 647 005	8/23/13	5060	Artesia; Glorieta-Yeso	Oil	12.25	8.625	406	310 sx	GL	circ 105 sx to surface
30-015-41502					7.875	5.5	5060	800 sx	GL	circ 170 sx to surface
L-32-17s-28e										
EAU 024A	4/14/60	6106	Empire; Abo	P & A	11	8.625	738	250 sx	GL	circulated
30-015-01644					7.875	5.5	6104	450 sx	3440 (1000)	CBL indicated (calculated)
I-31-17s-28e										
NW State 005	10/28/99	3190	Artesia: Queen-Grayburg-San Andres	SWD	12.25	8.625	520	350 sx	GL	circ 64 sx to pit
30-015-30781					7.875	5.5	3181	600 sx	GL	circulated 42 sx
K-32-17s-28e										
EAU 026B	3/13/60	6083	Empire; Abo	Oil	11	8.625	748	225 sx	GL	circulated
30-015-01661					7.875	5.5	6099	450 sx	unknown	no report
K-32-17s-28e										
AB State 647 016	11/9/13	4297	Artesia; Glorieta-Yeso	Oil	12.25	8.625	415	270 sx	GL	circ 118 sx to surface
30-015-41511					7.875	5.5	4297	620 sx	GL	circ 81 sx to surface
N-32-17s-28e										
AB State 647 003	10/23/13	5027	Artesia; Glorieta-Yeso	Oil	12.25	8.625	423	270 sx	GL	circ 101 sx to surface
30-015-41501					7.875	5.5	5027	840 sx	GL	circ 208 sx to surface
K-32-17s-28e										
AB State 647 009	9/5/13	5077	Artesia; Glorieta-Yeso	Oil	12.25	8.625	430	610 sx	GL	circ 156 sx to surface
30-015-41493					7.875	5.5	5077	820 sx	GL	circ 103 sx to surface
J-32-17s-28e										
EAU 026E	7/6/60	6254	Empire; Abo	Oil	11	8.625	755	450 sx	GL	circulated
30-015-02606					7.875	5.5	6254	850 sx	895	no report
C-5-18s-28e										

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NAU 011	4/27/67	2012	Artesia: Queen-Grayburg-San Andres	WIW	11	8.625	495	125 sx	20	calculated
30-015-20042					7.875	5.5	2005	125 sx	1250	temperature survey
P-31-17s-28e										
EAU 025C	2/28/60	6273	Empire; Abo	P & A	11	8.625	1198	750 sx	GL	circulated
30-015-02607					7.875	5.5	6273	850 sx	1275	no report
D-5-18s-28e										
EAU 024	2/26/60	6122	Empire; Abo	Oil	11	8.625	778	250 sx	GL	circulated
30-015-01641					7.875	5.5	6122	450 sx	2500	no report
P-31-17s-28e										
NAU 008	5/25/66	2003	Artesia	P & A	11	8.625	462	125 sx	60	estimated
30-015-10818					7.875	4.5	2002	175 sx	1241	calculated
K-32-17s-28e										
NW State 009	12/14/99	3195	Artesia: Queen-Grayburg-San Andres	Oil	12.25	8.625	518	350 sx	GL	circulated 59 sx
30-015-30849					7.875	5.5	3186	600 sx	GL	circulated 94 sx
I-31-17s-28e										
EAU 272	2/8/77	6370	Empire; Abo	Oil	11	8.625	600	275 sx	GL	circ 30 sx to pit
30-015-22009					7.875	5.5	6370	1650 sx	GL	circ 150 sx to pit
O-32-17s-28e										
EAU 251	12/22/78	6250	Empire; Abo	P & A	11	8.625	745	400 sx	GL	circ 85 sx to surface
30-015-22750					7.875	5.5	6245	1550 sx	GL	circ 220 sx to surface
D-5-18s-28e										
NAU 016	2/15/67	3273	Artesia: Queen-Grayburg-San Andres	Oil	11	8.625	495	100 sx	unknown	no report
30-015-20019					7.875	4.5	3273	385 sx	1320	temperature survey
A-6-18s-28e										
NAU 010	6/4/66	2000	Artesia: Queen-Grayburg-San Andres	Oil	11	8.625	498	100 sx	unknown	no report
30-015-10833					7.875	4.5	2000	175 sx	unknown	no report
I-31-17s-28e										
EAU 025B	9/1/60	6013	Empire; Abo	P & A	11	8.625	990	425 sx	GL	filled 75 sx to surface
30-015-01671					7.875	5.5	6012	850 sx	GL	circulated
E-32-17s-28e										

EXHIBIT G

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
NW State 015	12/20/99	3225	Artesia: Queen-Grayburg-San Andres	Oil	12.25	8.625	501	350 sx	unknown	no report
30-015-30785					7.875	5.5	3223	600 sx	GL	circulated 26 sx
A-6-18s-28e										
Jeffers 32 State 002	7/29/10	5130	Artesia; Glorieta-Yeso	Oil	12.25	8.625	465	375 sx	GL	circ 129 sx to surface
30-015-37045					7.875	5.5	5116	1200 sx	GL	circ 182 sx to pit
J-32-17s-28e										
AB State 647 002	8/17/13	4989	Artesia; Glorieta-Yeso	Oil	12.25	8.625	408	290 sx	GL	circ 84 sx to surface
30-015-41500					7.875	5.5	5013	790 sx	GL	circ 103 sx to surface
K-32-17s-28e										
EAU 021A	4/15/60	5971	Empire; Abo	P & A	11	8.625	1274	550 sx	GL	circulated
30-015-01648					7.875	4.5	5971	850 sx	GL	circulated
L-31-17s-28e										
AA State 001	7/30/60	6171	Empire; Abo	Oil	11	8.625	1007	550 sx	GL	circulated
30-015-01657					7.875	4.5	6171	1000 sx	920	temperature survey
F-32-17s-28e										
EAU 407	11/4/11	6296	Empire; Abo	Oil	12.25	8.625	500	310 sx	GL	circ 50 sx to surface
30-015-39006					7.875	5.5	6296	1470 sx	GL	circ 205 sx to surface
J-32-17s-28e										
EAU 261A	12/3/78	6350	Empire; Abo	P & A	11	8.625	550	400 sx	GL	circulated 110 sx
30-015-22697					7.875	5.5	6345	1500 sx	GL	circulated 175 sx
C-5-18s-28e										
EAU 027A	12/30/59	6216	Empire; Abo	P & A	11	8.625	985	600 sx	GL	circulated
30-015-01667					7.875	4.5	6215	850 sx	75	temperature survey
O-32-17s-28e										
EAU 027E	3/8/60	6261	Empire; Abo	P & A	11	8.625	1227	750 sx	GL	circulated
30-015-02605					7.875	4.5	6261	900 sx	60	calculated
B-5-18s-28e										
EAU 419	10/11/11	6310	Empire; Abo	Oil	12.25	8.625	496	470 sx	GL	circ 13 sx to surface
30-015-39011					7.875	5.5	6310	1180 sx	GL	circ 124 sx to surface
O-31-17s-28e										

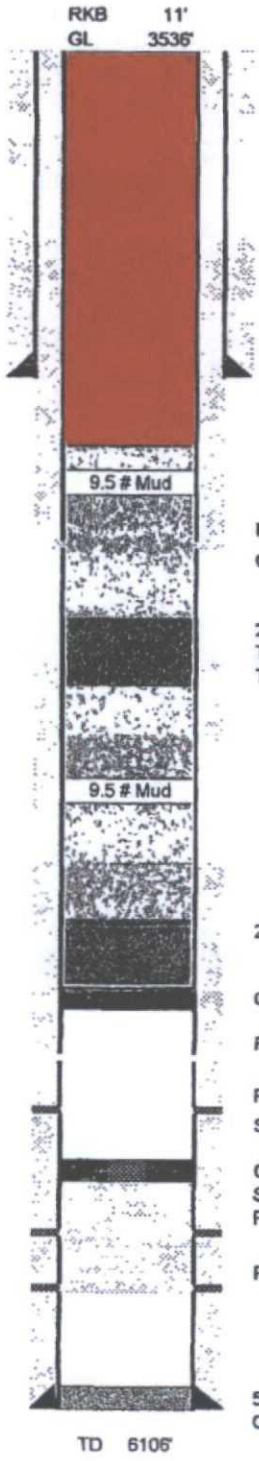
EXHIBIT G

Sorted by distance from NW State 7

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EAU 027B	6/7/60	6165	Empire; Abo	P & A	11	8.625	859	450 sx	GL	circulated
30-015-01670					7.875	4.5	6165	850 sx	1800	estimated
J-32-17s-28e										
EAU 024B	1/28/60	6241	Empire; Abo	Oil	11	8.625	638	250 sx	GL	no report
30-015-02615					7.875	5.5	6241	450 sx	3436	no report
A-6-18s-28e										
NAU 004	9/2/65	6200	Artesia: Queen-Grayburg-San Andres	Oil	11	8.625	809	350 sx	GL	circulated
30-015-10537					7.875	4.5	2018	150 sx	unknown	no report
H-31-17s-28e										
State 32 002	1/23/56	2038	Artesia: Queen-Grayburg-San Andres	Oil	10	8.625	497	41 sx	unknown	no report
30-015-01656					unknown	7	1680	200 sx	unknown	no report
J-32-17s-28e										
EAU 401	no spud yet	planned 6400	Empire; Abo	Oil	12.25	8.625	500	360 sx	unknown	no report
30-015-39004					7.875	5.5	6400	1080 sx	unknown	no report
P-31-17s-28e										
Jeffers 32 State 003	9/7/11	5093	Artesia; Glorieta-Yeso	Oil	12.25	8.625	350	500 sx	GL	circ 136 sx to pit
30-015-38513					7.875	5.5	5076	1200 sx	GL	circ 264 sx to pit
J-32-17s-28e										
NAU 014	2/23/55	2099	Artesia: Queen-Grayburg-San Andres	Oil	10	8.625	485	50 sx	unknown	no report
30-015-01665					8	5.5	1802	25 sx	unknown	no report
O-32-17s-28e										
Aspen 32 State Com 001	9/20/05	10400	Empire Morrow	WIW	17.5	13.375	428	400 sx	GL	circ 75 sx to pit
30-015-34148					12.25	9.625	2660	1100 sx	GL	circ 85 sx to pit
J-32-17s-28e					8.75	7	9457	1130 sx	GL	circ 66 sx to pit
LP State 001	7/3/00	4503	Artesia: Glorieta-Yeso	P & A	12.25	8.625	551	400 sx	GL	circ 127 sx to surface
30-015-31086					7.875	4.5	3927	950 sx	GL	circ 192 sx to surface
E-5-18s-28e										

EXHIBIT G

BP's Empire Abo Unit 24A
30-015-01644
1650 FSL & 330 FEL 31-17s-28e
spud: 4-14-60 P&A: 6-11-09



40 sx @ 365' — NEW

Queen & surface csg plug
GL - 1187'
135 sx

55 sx cement @ 1175' — NEW

8 5/8" 28# J-55 @ 750'
Cement w/ 250 sx to surface — 4/15/60

Perfs 2899-2900' 2 SPF — 2/4/1976
Cemented to surface w/ 650 sx

Glorieta plug
3150' - 3370'
25 sx

25 sx cement @ 3370' — NEW
TOC @ 3334' CBL — 2/4/1976
TOC @ 3440' — 4/30/1960

Abo Plug
25 sx Cl C cement on top of CIBP @ 5750'

25 sx cement @ 5750' — NEW

CIBP @ 5750' — NEW

Perfs 5806-5850' 2 SPF — 9/15/1997

Perfs 5862-5883' 1 SPF — 2/9/1976
Squeeze w/ 150 sx — 8/5/90

Cement retainer @ 6000' — 9/15/97
Squeezed below retainer w/ 100 sx — 9/15/97
Perfs 6024-6044' 2 SPF — 4/30/60

Reperforated 6024-6050 2 SPF
8/8/1990

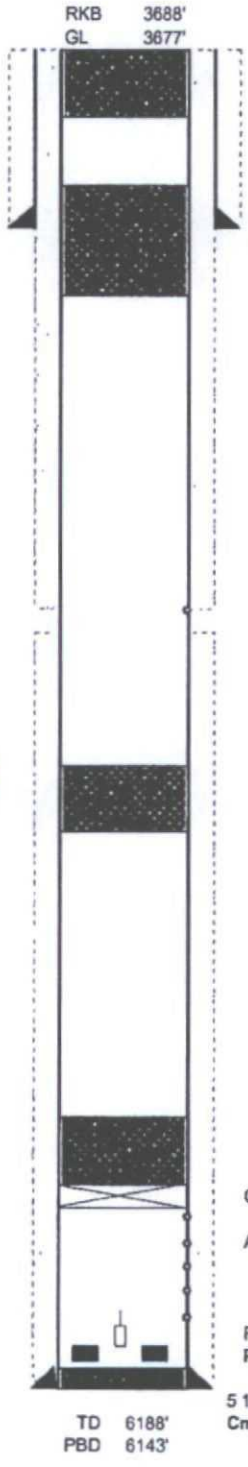
Perfs 6044-6050' 2 SPF — 5/8/72

5 1/2", 15.5#, J-55 @ 6104'
Cement w/ 450 sx — 4/29/1960

DLT 1/26/09

EXHIBIT H

BP's Empire Abo Unit 25
30-015-01660
660 FSL & 660 FWL 32-17s-28e
spud: 2-16-60 P&A: 1-6-09



Yates plug
GL - 460'
sx not stated

Queen plug
648' - 1250'
60 sx

Glorieta plug
3295' - 3550'
25 sx

Abo plug
CIBP @ 5700'
+ 25 sx

WCH 8/27/2008

EXHIBIT H

Apache

WELL BORE INFO.

LEASE NAME	Empire Abo Unit "G"
WELL #	25
API #	30-015-01662
COUNTY	Eddy

Apache's Empire Abo Unit 25A
30-015-01662
990 FSL & 1640 FWL 32-17s-28e
spud: 3-29-60 P&A: 5-16-13

0

GL - 828'
90 sx

613

11" Hole
8 5/8" 24# @ 728'
w/225 sx cmt to surface

1225

25 sx @ 1230'

1838

1843' - 2300'
45 sx

2450

(79) Perf @ 2450' & sqzd w/ 850 sx cmt CIRC to surf

3063

3675

4288

25 sx @ 4000'

4900

5513

CIBP @ 5800'
+ 40 sx

Abo perfs @ 5880'-6060'

Abo perfs @ 5996'-6012'

7 7/8" Hole
5 1/2" 15.5# @ 6125'
w/450 sx(TOC @ 2492')

6125

PBTD @ 6095'
TD @ 6125'

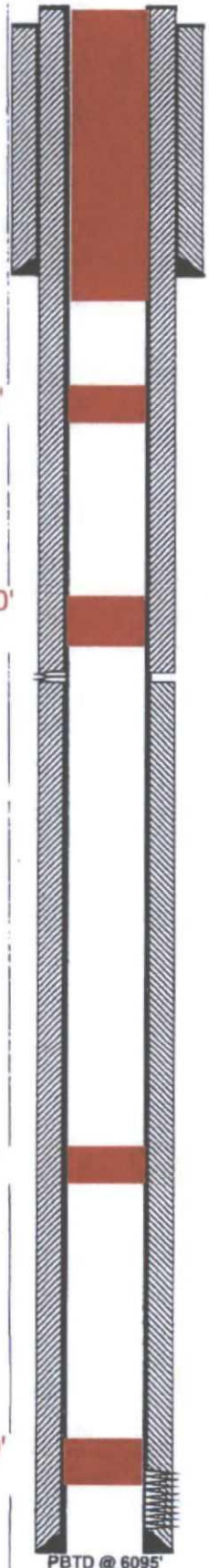
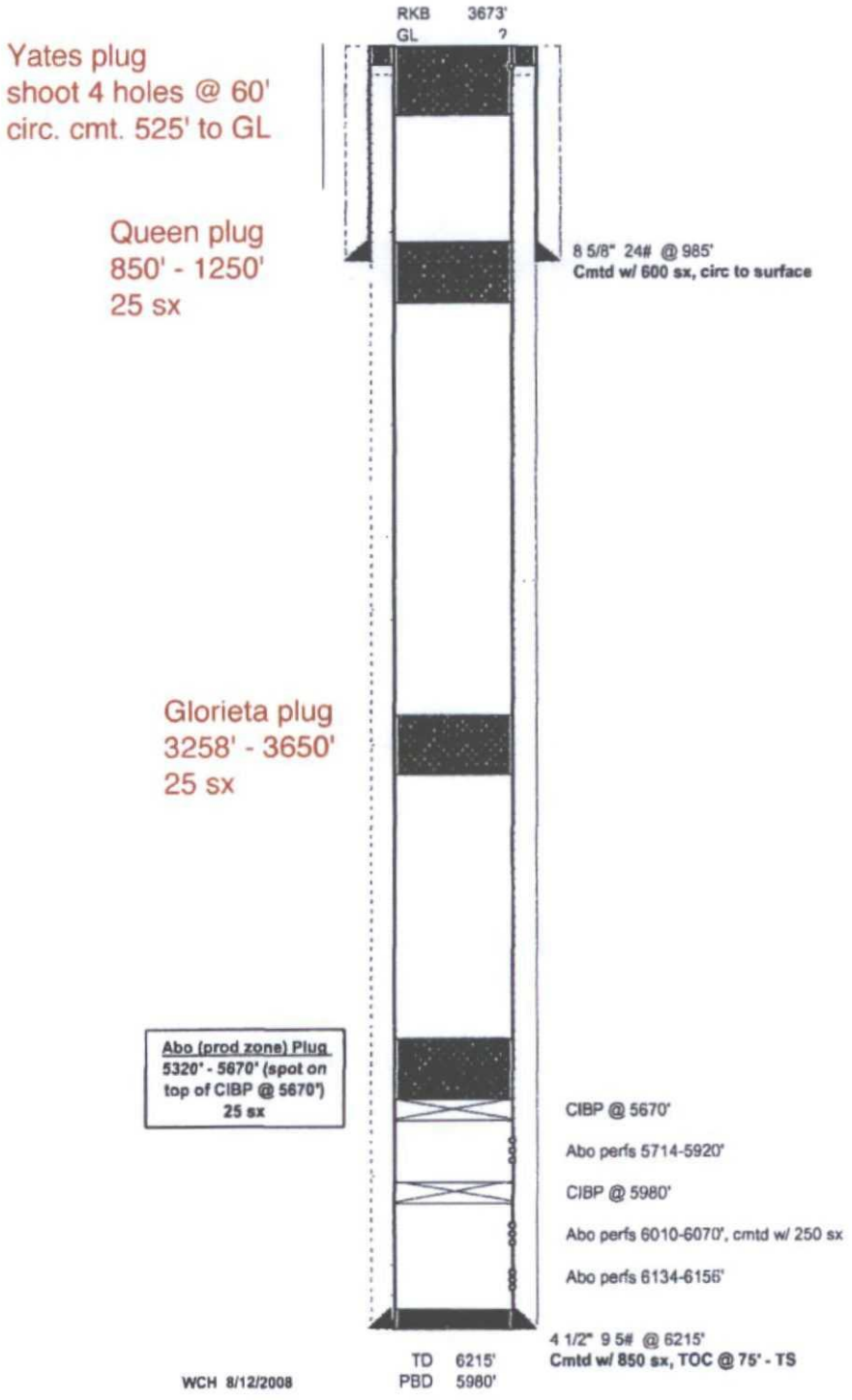


EXHIBIT H

BP's Empire Abo Unit 27A
30-015-01667
650 FSL & 1950 FEL 32-17s-28e
spud: 12-30-59 P&A: 10-14-08



WCH 8/12/2008

EXHIBIT H

BP America
Empire Abo Unit 27B
30-015-01670

1650' FSL & 1961' FEL
Sec 32 - T17S - R28E
Eddy County, New Mexico

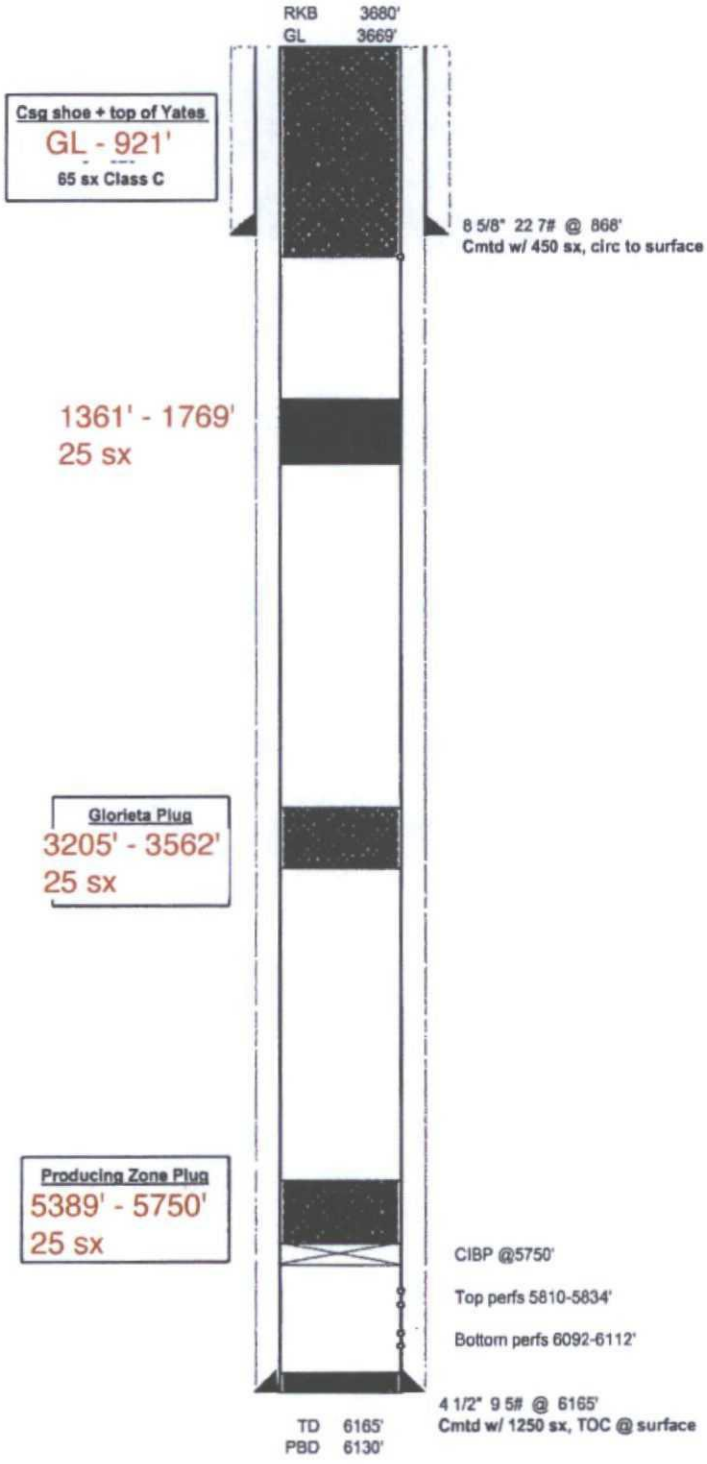
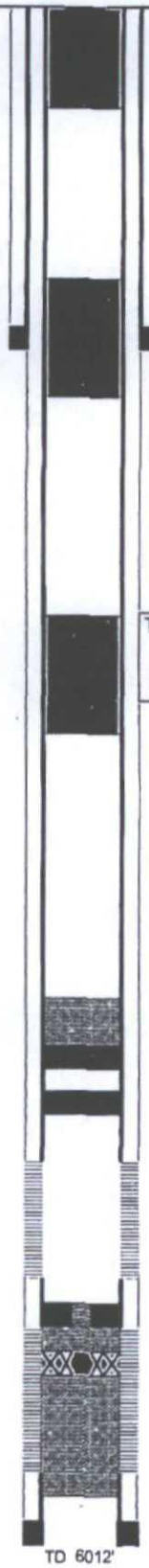


EXHIBIT H

BP America's Empire Abo Unit 25B
30-015-01671
2280 FNL & 978 FWL 32-17s-28e
spud: 9-1-60 P&A: 7-23-08



Proposed WB Diagram			EAU F-25		
Status	Producing		Operator	BP Amenca	
Lease	Empire Abo Unit		Zone	0	
Field	0		API	30-015-01671	
NMOCD	Empire Abo Unit No. 025B		NMOCD		
Location	E 978 FWL and 2280 FNL 32-T17S-R28E				
Reference:					
KB	3,694	TVD	6012'	PBTD	5990'
GL	3,683	MTD		Last CIBP	5550'

Casing	Weight/Grade	Depth	Cmt Sx	Hole	TOC
8 5/8"	22 7#	990	425+75	11"	fld to surf
5 1/2"	14#/ J-55	6012'	850	7 7/8"	calc
0	0	0	0	0	0

Spud	9/1/1960		Top Perf	5611'	
Completion	9/14/1960		Bot Perf	5805'	

Perforation History:

5611-5805' (30 shots) (Squeeze 5830-5880, 5830-5860, 5880-5920')

Plugs, Packers, and Cement:

Pkr dropped @ 5875', CR @ 5825', CIBP. 5580', CIBP @ 5550' w/ 35' cmt on top, PB 5990'

Current Tubulars: Blue boxes use drop down boxes for descriptions

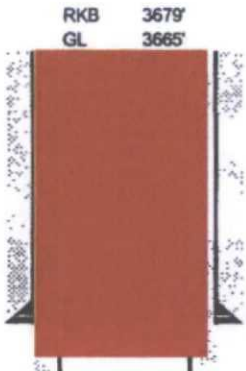
Date sketch checked	3/11/08	by	Laura Lopez	
Date tubulars checked		by:		

Tubing and Rod Assembly			length, ft	Top of Depth from KB, ft
# Jnts	Description of TBG Assembly	RKB	11.00	
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00
				11 00
				11.00
				11.00
				11.00
				11.00
				11.00
				11 00
Current Rod Design				
# Rods	Description of Rod Assembly	RKB	11.00	
				11.00
				11 00
				11.00
				11.00
				11 00
				11.00
				11 00
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00
				11.00

EXHIBIT H

BP's Empire Abo Unit 27E
30-015-02605
330 FNL & 2271 FEL 5-18s-28e
spud: 3-8-60 P&A: 6-12-09

Queen & surface plug
GL - 1300'
perf & squeeze >300 sx



8 5/8" 22.7# @ 1227'
Cmtd w/ 750 sx, circ to surface

Glorieta plug
3430' - 3760'
25 sx

Abo plug
CIBP @ 5700'
+ 25 sx

Abo perfs 5758-5930'

Abo perfs 5957-6062'

CIBP @ 6100'

Abo perfs 6140-6177'

Abo perfs 6184-6197'

4 1/2" 9.5# @ 6261'
Cmtd w/ 900 sx, TOC @ 60' - calc

TD 6261'
PBD 6100'

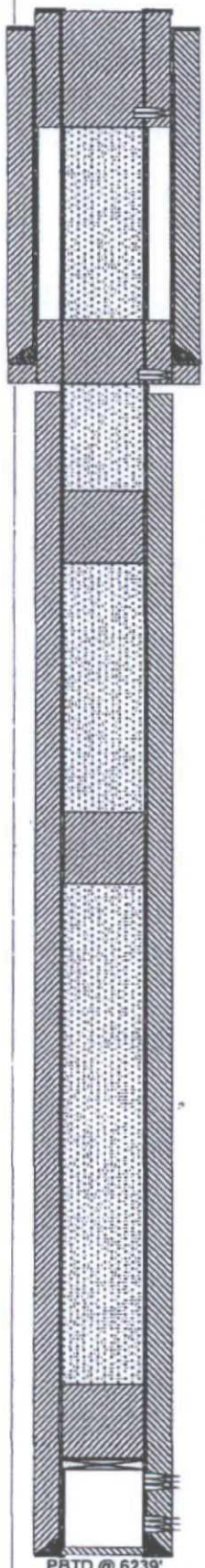
WCH 3/26/2009

EXHIBIT H

Apache

WELL BORE INFO.

Apache's Empire Abo Unit 25C
30-015-02607
660 FNL & 660 FWL 5-18s-28e
spud: 2-28-60 P&A: 6-25-13



surface plug
perf & squeeze 100 sx
GL - 250'

Queen plug
perf & squeeze 50 sx
1047' - 1250'

San Andres plug
25 sx @ 2045'

Glorieta plug
25 sx @ 3310'

CIBP & 25 sx
@ 5775'

Abo perfs @ 5822'-5938'

Abo perfs @ 6122'-6168'

PBTD @ 6239'
TD @ 6273'

0

627

11" Hole
8 5/8" 22.7# @ 1198'
w/ 750 sx cmt to surf

1255

TOC @ 1275'

1882

2509

3137

3764

4391

5018

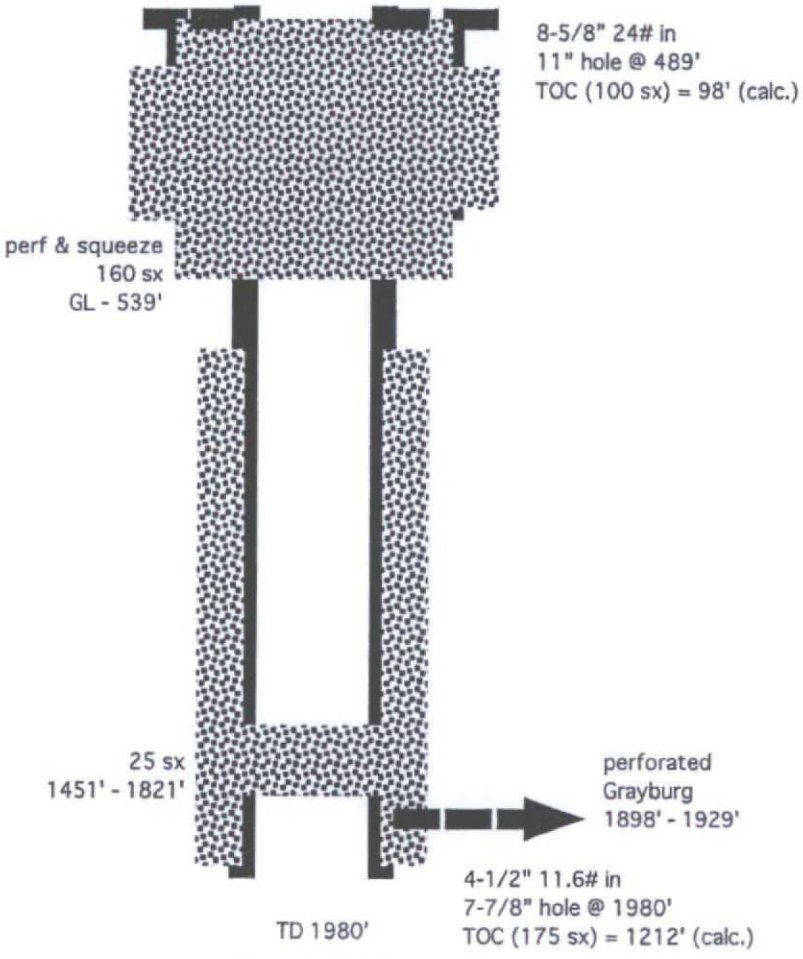
5646

7 7/8" Hole
5 1/2" 14# @ 6273'
w/850 sx (TOC @ 1275')

6273

EXHIBIT H

Lime Rock's Northwest Artesia Unit 9
30-015-10795
2310 FSL & 660 FWL 32-17s-28e
spud: 4-27-66
P&A: 5-28-08
water injection well 1974-1993



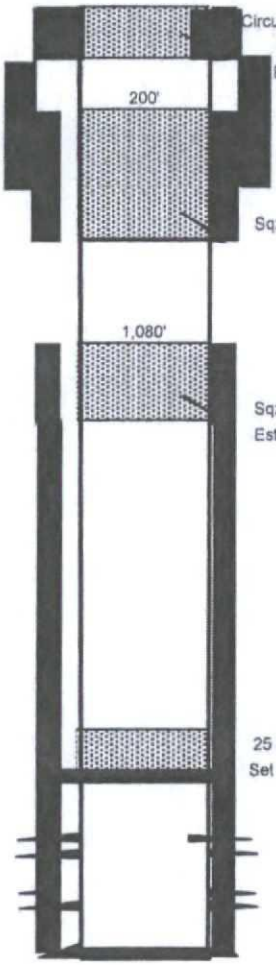
(not to scale)

EXHIBIT H

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS

SDX Resources, Inc. - Wellbore Schematic

WELL NAME: NW Artesia Unit #8						
LOCATION: K - 32-T17S-28E			COUNTY: Eddy			STATE: NM
2310 FSL & 2105 FWL			spudL 5-25-66		P&A: 11-3-06	
API#: 30-015-10818	PREPARED BY: D. Sibley					
	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 462'	8-5/8"	24#			11"
CASING:	0' - 2,002'	4 1/2"	11.6#			7-7/8"
LINER:						
TUBING:						
TUBING:						



Circulated 15 Sx cement into perfs at 60', up 8 5/8" csg and leave 4 1/2" full of cmt (11-3-06)

Estimated TOC 60'

8-5/8" 24# @ 462' cemented with 125 Sx

Sqz 70 Sx cement in perfs at 512' (11-3-06) **Tagged TOC @ 200'**

Sqz 35 Sx cement in perfs at 1,240' (11-2-06) **Tagged TOC @ 1,080'**
Estimated TOC @ 1,241'

25 Sx cement on CIBP
Set CIBP @ 1,800' (11-2-06)

1898-1908' (6-2-66)

1930-1934' (6-2-66)

4 1/2" 11.6# @ 6,150' cemented with 175 Sx

TD 2,003'

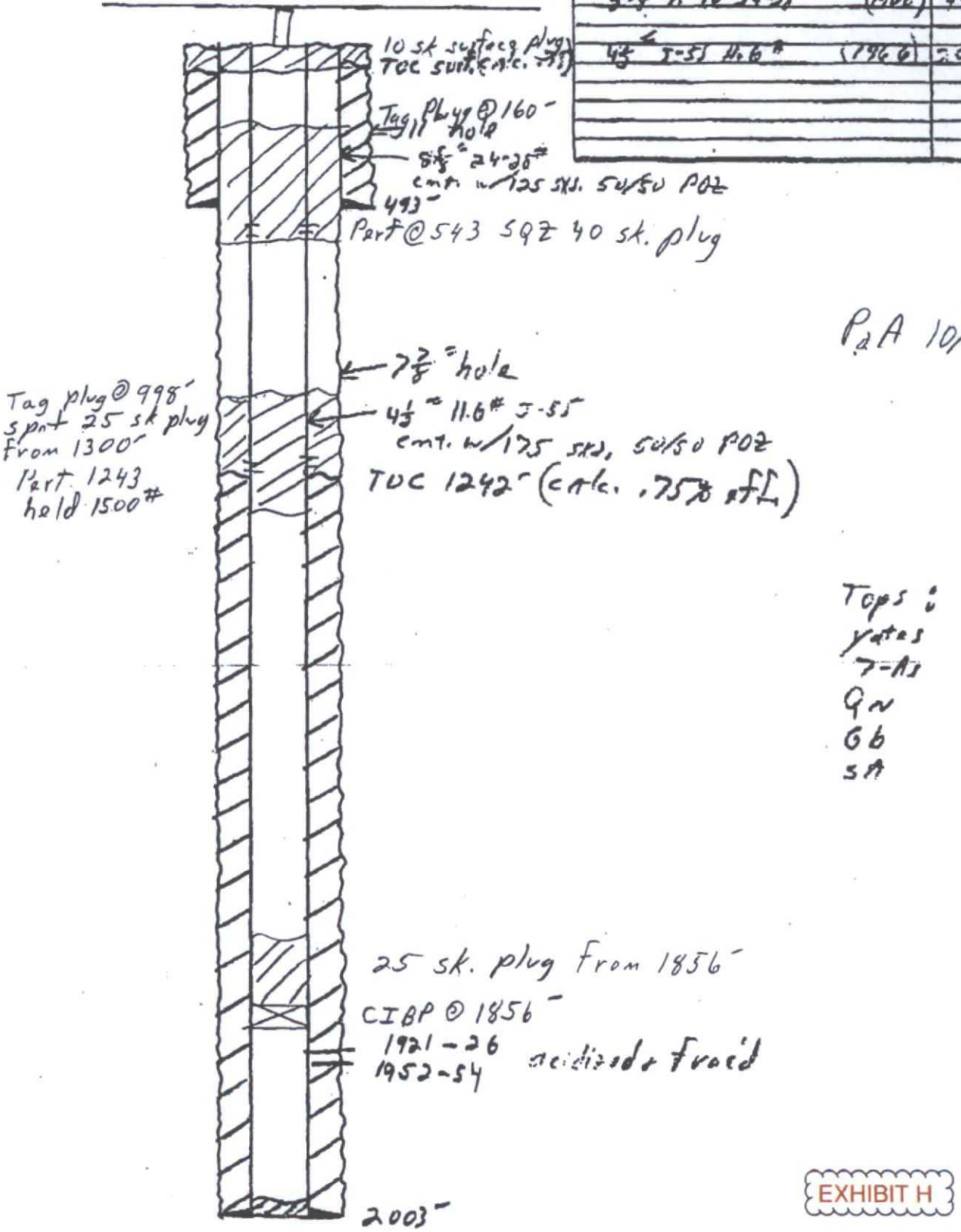
EXHIBIT H

SDX's NW Artesia Unit 13
30-015-10834
990 FSL & 2030 FWL 32-17s-28e
spud: 5-31-66 P&A: 11-1-06

WELL NAME: Northwest Artesia Unit #13 FIELD AREA:
LOCATION: Sec. 32 T17S R28E 990' FSL & 2030'
GL: ____' ZERO: ____' AGL: ____'
KB: 3687' ORIG. DRLG./COMPL. DATE: ____
COMMENTS: API # 30-015-10834

CASING PROGRAM:

SIZE/WT./GR./CONN.		DEPTH SET
8⅝" H-40 24-28#	(1966)	493'
4½" J-55 11.6#	(1966)	2003'



P&A 10/2006

Tops:

Yates	346
7-Rs	607
Qn	1193
Gb	1640
SA	1958

EXHIBIT H

BP's Empire Abo Unit 261A
30-015-22697
1080 FNL & 1914 FWL 5-18s-28e
spud: 12-3-78 P&A: 6-16-09

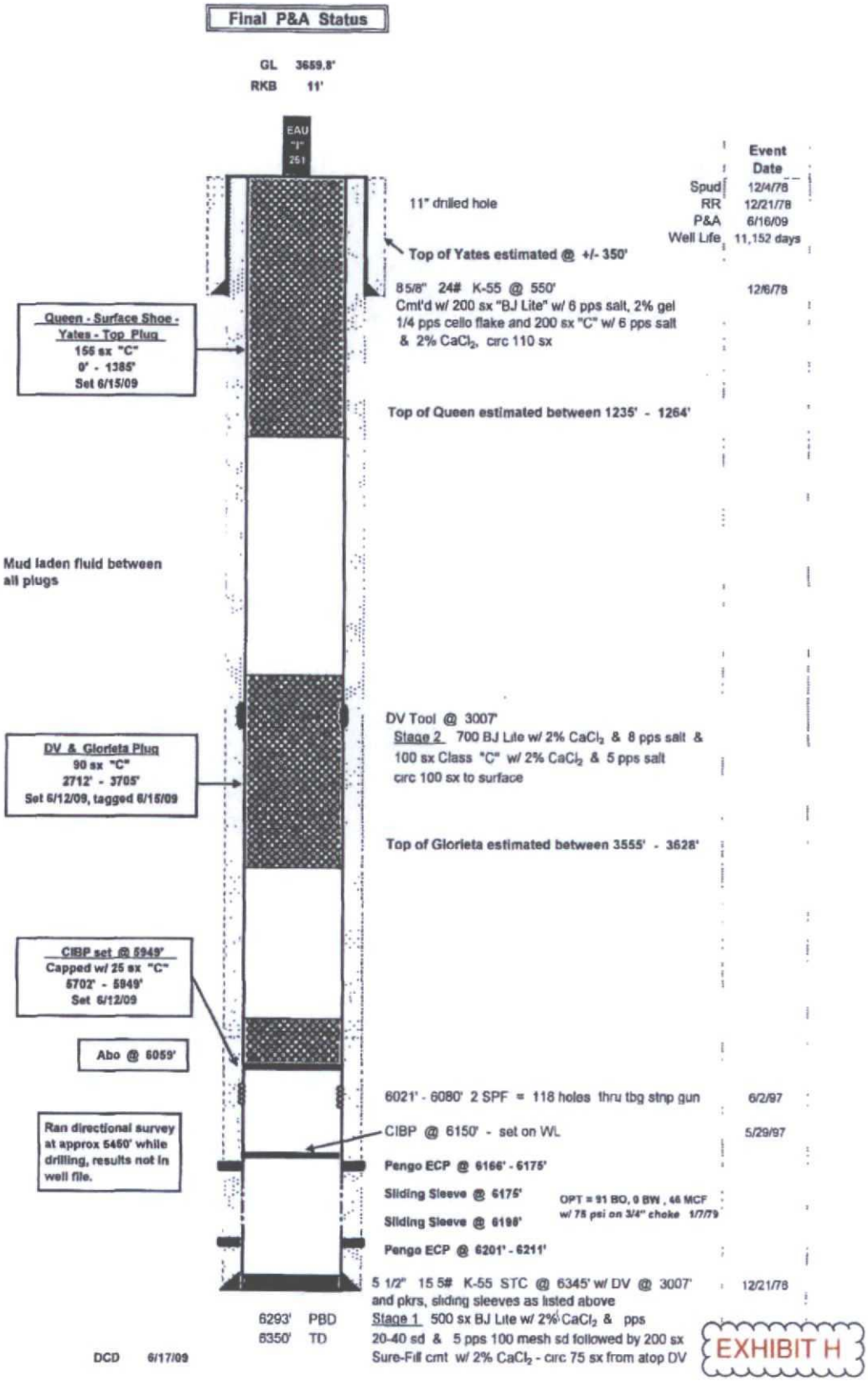
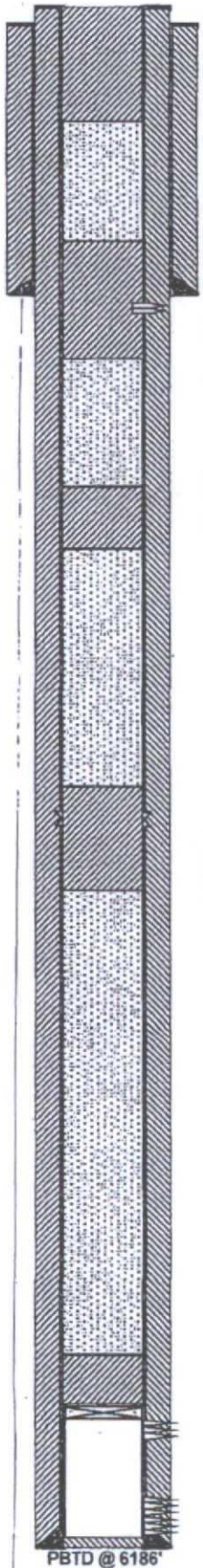


EXHIBIT H

Apache

WELL BORE INFO.

Apache's Empire Abo Unit 251
30-015-22750
660 FNL & 150 FWL 5-18s-28e
spud: 12-22-78 P&A: 6-19-13



0

625

11" Hole
8 5/8" 24# @ 745'
w/ 400 sx cmt to surf

1249

1874

2498

3123

DV Tool @ 3018'

3747

4372

4996

5621

2 3/8" tbg @ 6126'

7 7/8" Hole
5 1/2" 15.5# @ 6245'
w/ 1550 sx cmt to surf

6245

surface plug
25 sx
GL - 250'

Queen plug
perf @ 800' - could not pump into perf
then 60 sx
691' - 1210'

San Andres plug
25 sx @ 2045'

Glorieta plug & DV tool
40 sx
2960' - 3310'

CIBP & 25 sx
@ 5600'

Abo perfs @ 5664'-5740'

Abo perfs @ 5970'-6152'

PBTD @ 6186'
TD @ 6250'

EXHIBIT H

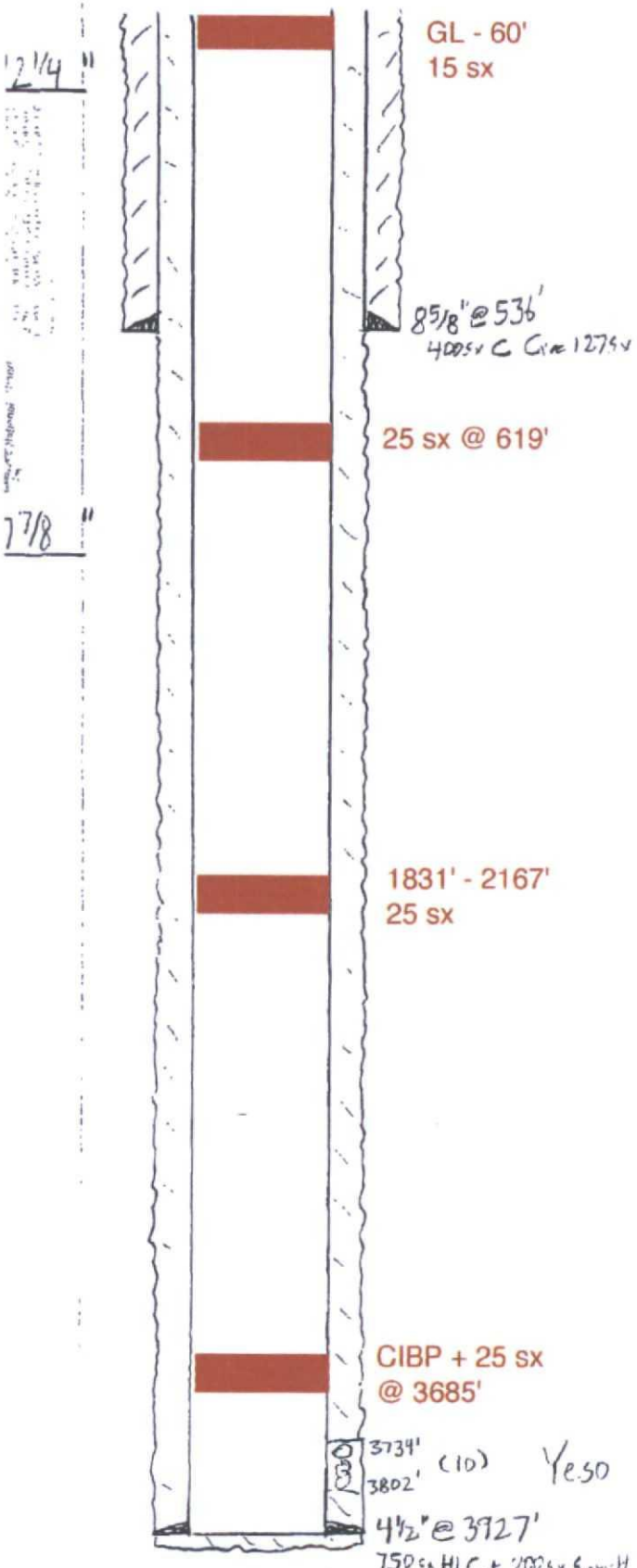
Well: LP St. #1

Location: 1650' FNL, 990' FWL
5-18s-28e
Eddy, NM

Zero: 12.5' AGL
KB 3669.5'
GL: 3657'

Casing Program:

Size	Wt.	Grade	Conn	Depth
8 5/8	24	J55		536'
4 1/2	11.6	J55	LTC	3927'
2 3/8	4.7	J55		



7/00: Perf 3734, 44, 79, 84, 86, 88, 91, 75, 77, 3802' (CIBP)
Acd 1500g. 15% HCl 4.8 @ 2749
ISI = 1470 Swab 25% oil 7 bbls FL 2700
Frac ±40,000g. 40# WF-G + 36,125#
20/40, 12/20, 8/16 Sand
34.3 bpm @ 3650 psi
ISI = 2116, 15" = 1261

Marbob's LP State 1
30-015-31086
1650 FNL & 990 FWL 5-18s-28e
spud: 7-3-00 P&A: 3-10-08

EXHIBIT H

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

No records found.

UTMNAD83 Radius Search (in meters): NW State 7

Easting (X): 574631 **Northing (Y):** 3627872 **Radius:** 3220

3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

EXHIBIT I

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
RA 12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD30				1 4 2	29	17S	28E	575545	3630219	2519
RA 12030 = proposed 50' deep monitoring wells																
					ED	RA 12030 POD34				2 1 3	28	17S	28E	576125	3629928	2542
					ED	RA 12030 POD33				3 3 1	28	17S	28E	575895	3630120	2579
					ED	RA 12030 POD29				3 1 2	29	17S	28E	575250	3630472	2673
					ED	RA 12030 POD38				1 2 3	28	17S	28E	576432	3629909	2719
					ED	RA 12030 POD32				4 2 2	29	17S	28E	575869	3630391	2807
					ED	RA 12030 POD28				3 2 2	29	17S	28E	575616	3630503	2809
					ED	RA 12030 POD27				1 1 2	29	17S	28E	575175	3630660	2840
					ED	RA 12030 POD37				3 4 1	28	17S	28E	576381	3630112	2842
RA 08235		STK	1.43	BOGLE FARMS	ED	RA 08235					07	18S	28E	573537	3625134*	2948
RA 12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD39				3 3 2	28	17S	28E	576764	3630081	3070
RA 12030 = proposed 50' deep monitoring wells																
					ED	RA 12030 POD31				1 1 1	28	17S	28E	576008	3630651	3101
RA 09001		OFM	5	ATLANTIC RICHFIELD COMPANY	ED	RA 09001				1 1	03	18S	28E	577707	3627449*	3104
RA 12030		MON	0	OXY USA WTP LP	ED	RA 12030 POD26				2 4 3	20	17S	28E	574944	3631040	3183
RA 12030 = proposed 50' deep monitoring wells																
					ED	RA 12030 POD36				3 2 1	28	17S	28E	576409	3630515	3186
					ED	RA 12030 POD24				4 3 4	20	17S	28E	575433	3630960	3191

EXHIBIT I

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

Record Count: 16

UTMNAD83 Radius Search (in meters): NW State 7

Easting (X): 574631 **Northing (Y):** 3627872 **Radius:** 3220

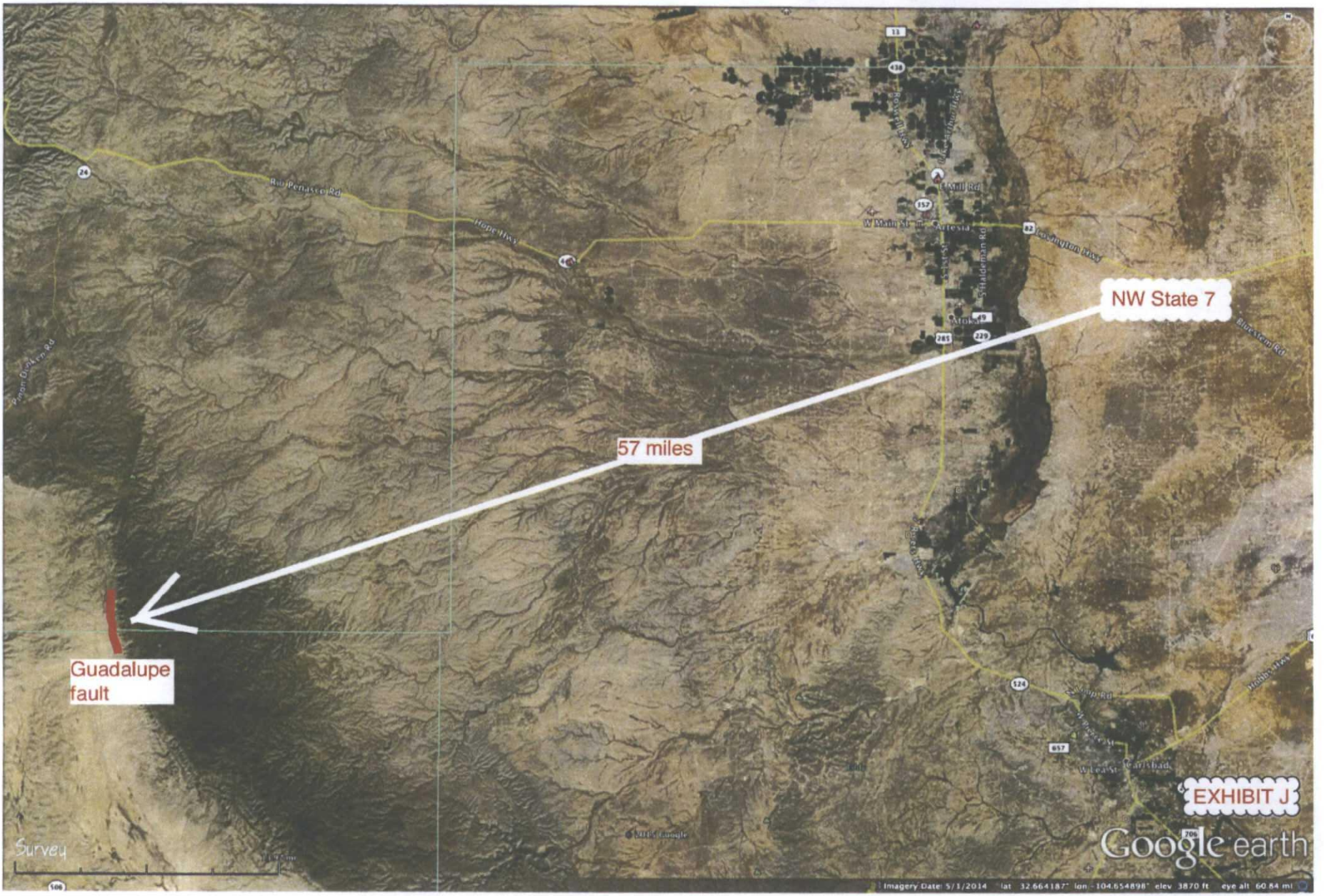
3220 meters
x 3.28 ft/meter
10,561 feet = 2.00 miles

Sorted by: Distance

EXHIBIT I

Ogallala boundary

EXHIBIT I


NW State 7
57 miles
Guadalupe fault
EXHIBIT J
Survey
Google earth

PROPOSED NOTICE

Case No. 15343 **: Application of LRE Operating, LLC for approval of a pilot water flood project, Eddy County, New Mexico.** Applicant seeks an order approving a pilot water flood project in the NE/4 and SW/4 of Section 32, Township 17 South, Range 28 East, N.M.P.M., in Eddy County. Applicant proposes to inject into the San Andres zone of the Artesia Queen-Grayburg-San Andres Pool at depths between 2,400 and 3,300 feet subsurface. The proposed pilot water flood project is located 15 miles east of Artesia, New Mexico.

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