

RECEIVED: 10/18/2017	REVIEWER:	TYPE: WFX	APP NO: DMA1729156788
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Applicant: Apache Corporation	OGRID Number: 873
Well Name: Northeast Drinkard Unit 701	API: 30-025-09916
Pool: Eunice; BLI-TU-DR, North	Pool Code: 22900

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

WFX-974

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL☐ NSP (PROJECT AREA)☐ NSP (PRORATION UNIT)☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC☐ CTB☐ PLC☐ PC☐ OLS☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☒ WFX☐ PMX☐ SWD☐ IPI☐ EOR☐ PPR**2) NOTIFICATION REQUIRED TO:** Check those which apply.A. ☒ Offset operators or lease holdersB. ☐ Royalty, overriding royalty owners, revenue ownersC. ☒ Application requires published noticeD. ☒ Notification and/or concurrent approval by SLOE. ☐ Notification and/or concurrent approval by BLMF. ☒ Surface ownerG. ☒ For all of the above, proof of notification or publication is attached, and/or,H. ☐ No notice required**FOR OCD ONLY**☐ Notice Complete☐ Application
Content
Complete

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

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

Brian Wood

Print or Type Name

Signature

10-17-17

Date

505 466-8120

Phone Number

brian@permitswest.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: XXX Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? XXX Yes No
- II. OPERATOR: APACHE CORPORATION
ADDRESS: 303 VETERANS AIRPARK LANE, SUITE 3000, MIDLAND, TX 79705
CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? Yes XXX No
If yes, give the Division order number authorizing the project: R-8541
- 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.
NORTHEAST DRINKARD UNIT 701
30-025-09916
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: BRIAN WOOD TITLE: CONSULTANT
SIGNATURE:  DATE: OCT. 2, 2017
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.

INJECTION WELL DATA SHEET

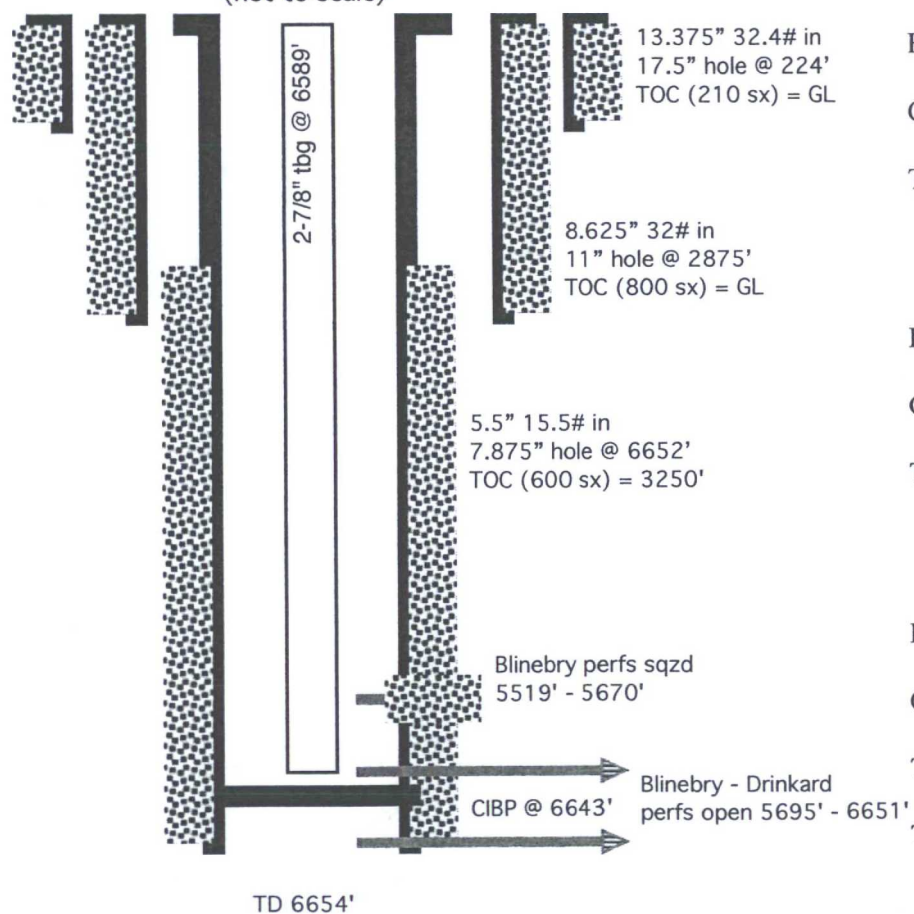
OPERATOR: APACHE CORPORATIONWELL NAME & NUMBER: NORTHEAST DRINKARD UNIT 701

WELL LOCATION: 1980' FSL & 660' FWL L 15 21 S 37 E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

"AS IS"

(not to scale)

WELL CONSTRUCTION DATASurface Casing

Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 210 sx. or _____ ft³
 Top of Cement: SURFACE Method Determined: CIRC. 25 SX

Intermediate Casing

Hole Size: 11" Casing Size: 8.625"
 Cemented with: 800 sx. or _____ ft³
 Top of Cement: SURFACE Method Determined: NO REPORT, JUST SKETCH

Production Casing

Hole Size: 7.875" Casing Size: 5.5"
 Cemented with: 600 sx. or _____ ft³
 Top of Cement: 3250' Method Determined: ESTIMATED
 Total Depth: 6654'

Injection Interval

5715' feet to 6665'

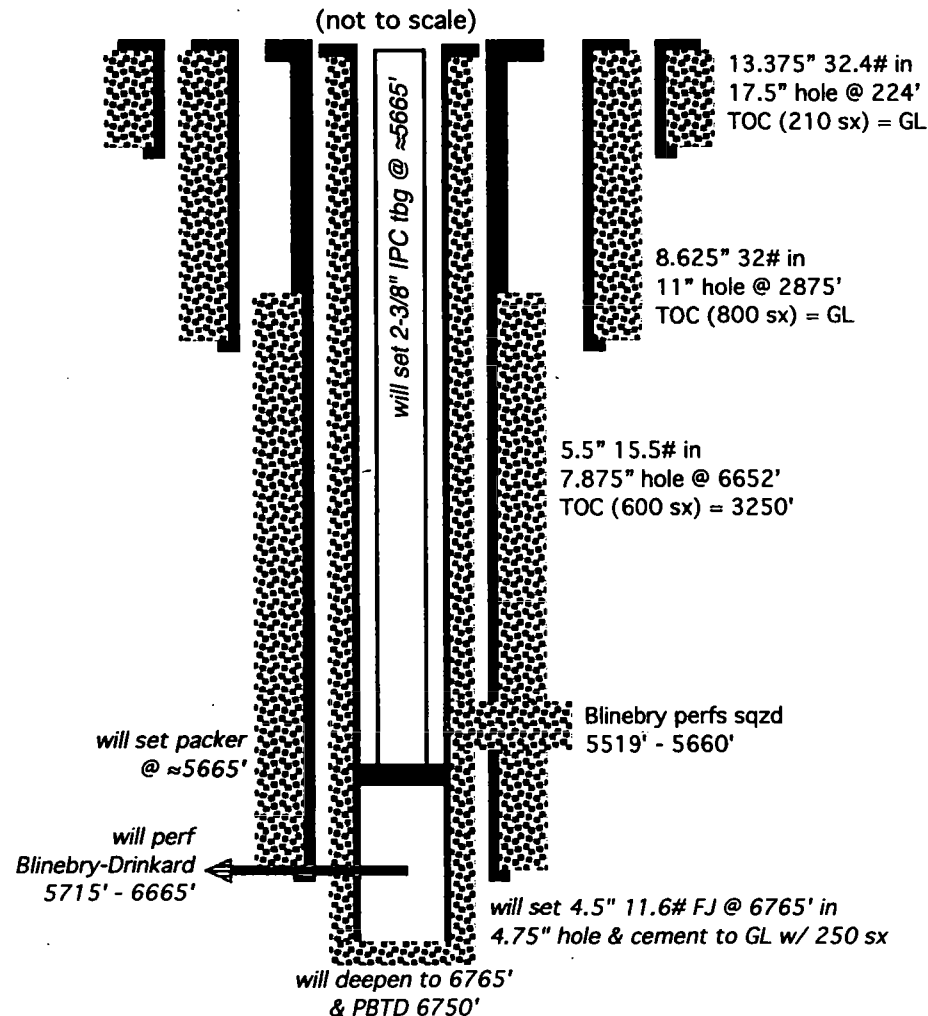
(Perforated or Open Hole; indicate which)

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INJECTION WELL DATA SHEET

OPERATOR: APACHE CORPORATIONWELL NAME & NUMBER: NORTHEAST DRINKARD UNIT 701

WELL LOCATION: 1980' FSL & 660' FWL L 15 21 S 37 E
 FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC
PROPOSED**WELL CONSTRUCTION DATA****Surface Casing**

Hole Size: 17.5" Casing Size: 13.375"
 Cemented with: 210 sx. or _____ ft³
 Top of Cement: SURFACE Method Determined: CIRC. 25 SX

Intermediate Casing

Hole Size: 11" Casing Size: 8.625"
 Cemented with: 800 sx. or _____ ft³
 Top of Cement: SURFACE Method Determined: NO REPORT,
JUST SKETCH

Production Casing

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 Top of Cement: 3250' Method Determined: ESTIMATED
 Total Depth: 6654'

Injection Interval

5715' feet to 6665'

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

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

Type of Packer: LOCK SET INJECTION

Packer Setting Depth: ≈5665'

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

Additional Data

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

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

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

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

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. NO

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

OVER: GRAYBURG (3740'), SAN ANDRES (3970')

UNDER: ABO (6675'), SIMPSON (7300'), McKEE (7500'), ELLENBURGER (7650')

APACHE CORPORATION
NORTHEAST DRINKARD UNIT 701
1980' FSL & 660' FWL
SEC. 15, T. 21 S., R. 37 E., LEA COUNTY, NM

PAGE 1

30-025-09916

I. Purpose is to deepen (from 6654' to 6765') and convert an oil well to a water injection well. The well will inject (5715' - 6665') into the Blinebry, Tubb, and Drinkard, which are part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900). The well and zones are part of the Northeast Drinkard Unit (Unit Number 300160, Case Number 9231, Order Number R-8540) that was established in 1987 by Shell. The unit was subsequently operated by Altura, and now, by Apache. It is an active water flood.

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

III. A. (1) Lease: Fee "Argo"
Lease Size: 160 acres (see Exhibit A for C-102 and map)
Closest Lease Line: 660'
Lease Area: SW4 of Section 15, T. 21 S., R. 37 E.
Unit Size: 4,938 acres
Closest Unit Line: 660'
Unit Area: T. 21 S., R. 37 E.
Section 2: all
Section 3: all
Section 4: Lots 1, 8, 9, & 16
Section 10: all
Section 11: SW4
Section 14: NW4
Section 15, 22, & 23: all

A. (2) Surface casing (13.375", 32.4#, H-40) was set in 1947 at 224' in a 17.5" hole and cemented to GL with 210 sacks, of which 25 circulated.

Intermediate casing (8.625", 32#, H-40) was set at 2875' in an 11" hole and cemented to GL (per diagram) with 800 sacks.

Production casing (5.5", 15.5#, J-55) was set at 6652' in a 7.875" hole and cemented with 600 sacks to 3250' (estimated).

A 4.75" hole will be drilled to 6765' and 4.5" 11.6" flush joint casing run. Casing will be cemented to GL with 250 sacks.

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

- A. (3) Tubing specifications are 2.375", J-55, 4.7#, and internally plastic coated. Setting depth will be $\approx$ 5665'. (Top perforation will be 5715'.)
- A. (4) A lock set injection packer will be set at $\approx$ 5665' ($\approx$ 50' above the top perforation of 5715').
- B. (1) Injection zone will be the Blinebry - Drinkard interval. The interval is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool. Estimated fracture gradient is $\approx$ 0.56 psi per foot.
- B. (2) Injection interval will be 5715' to 6665'. The well is and will be cased.
- B. (3) Well was originally drilled as a Drinkard oil well.
- B. (4) Will perforate from 5715' to 6665' with 2 shots per foot at 90°.
- B. (5) Next higher oil or gas zone within the area of review is the Grayburg. Its estimated bottom is at 3970'. Injection will occur in the Blinebry through Drinkard. Blinebry top is at 5549'. Injection interval will be 5715' to 6665'. Next lower oil or gas zone within the area of review is the Abo. Its estimated top is at 6675'.

IV. This is not a horizontal or vertical expansion of an existing injection project. The case file for the unit approval (R-8540) includes a discussion of the Drinkard water flood. The water flood (R-8541) was approved at the same time in 1987.

Sixteen water flood expansions have been approved since then. Closest unit boundary is 660' west. Eight injection wells are within a half-mile radius. The injection wells are in all four cardinal directions (see Exhibit B).

V. Exhibit B shows and tabulates all 64 existing wells (47 producers + 8 injectors + 6 P&A + 2 SWD + 1 brine supply) within a half-mile radius, regardless of depth. Exhibit C shows all 839 existing wells (616 oil or gas producing wells + 111 injection or disposal wells + 59 P & A wells + 3 waterflood supply wells + 1 brine well + 49 fresh water wells) within a two-mile radius.

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

Aliquot Parts in Area of Review (T21S, R37E)	Lessor	Lease	Lessee(s) of Record	Blinebry, Tubb, or Drinkard operator
N2NW4 Sec. 15	NMSLO	B0-9188-0007	Chevron USA	Apache
S2NW4 Sec. 15	NMSLO	B0-1481-0018	Oxy USA WTP	Apache
SWNE Sec. 15	NMSLO	B0-9188-0007	Occidental Permian	Apache
SW Sec. 15	fee	Argo	Apache	Apache
W2SE4 Sec. 15	fee	L G Warlick	Apache	Apache
NENE & S2NE4 Sec. 16	NMSLO	B0-1732-0001	Chevron USA	Apache
N2SE4 Sec. 16	NMSLO	B0-0085-0016	Apache	Apache
S2SE4 Sec. 16	NMSLO	B0-8105-0004	Apache	Apache
NENE Sec. 21	BLM	NMLC-032591A	Apache, Elliott Hall, & Elliott Industries	Apache
N2NW4 Sec. 22	fee	Argo A	Apache	Apache

VI. Sixty-four existing wells are within a half-mile. Fifty-two of the wells penetrated the Blinebry (top = 5549'). The penetrators include 37 oil wells, 10 water injection or SWD wells, and 5 P&A wells. A table abstracting the well

construction details and histories of the Blinebry penetrators is in Exhibit F. Diagrams illustrating the P & A penetrators are in Appendix G.

- VII. 1. Average injection rate will be ≈ 1500 bwpd.
Maximum injection rate will be ≈ 2000 bwpd.
2. System will be closed. The well will be tied into the existing Unit pipeline system. The system consists of a branched injection system with centrifugal injection pumps.
3. Average injection pressure will be ≈ 1000 psi. Standard maximum injection pressure would be 1143 psi ($= 0.2$ psi/foot $\times$ 5715' (top perforation)). However, in accordance with IPI-185, Apache requests a maximum injection pressure of 1375 psi.
4. Water source will be water pumped from existing $\approx 4000'$ deep San Andres water supply wells plus produced water from Blinebry, Tubb, and Drinkard zones. The source water and produced water are collected in separate skim tanks. The two water streams (source and produced) are commingled in a storage tank before being piped to injection wells. Commingling began in the 1970s. A comparison of analyses from the discharge pump and San Andres follows. Complete analyses are in Exhibit H.

	<u>Injection Pump Discharge</u>	<u>San Andres 919-S</u>
Anion/Cation Ratio	1.0	N/A
Barium	0.1 mg/l	0.38 mg/l
Bicarbonate	671.0 mg/l	562.0 mg/l
Calcium	1,099.0 mg/l	608.0 mg/l
Carbon Dioxide	80.0 ppm	80.0 ppm
Chloride	10,086.0 mg/l	6,200.0 mg/l
Hydrogen Sulfide	90.0 ppm	408.0 ppm
Iron	0.3 mg/l	0.0 mg/l
Magnesium	439.0 mg/l	244.0 mg/l
Manganese	N/A	0.01 mg/l

pH	7.5	6.49
Potassium	115.0 mg/l	N/A
Sodium	5,799.5 mg/l	3,909.0 mg/l
Strontium	28.0 mg/l	19.0 mg/l
Sulfate	2,465.0 mg/l	1,750.0 mg/l
Total Dissolved Solids	20,702.9 mg/l	13,273.0 mg/l

5. The Blinebry, Tubb, and Drinkard currently produce in the Unit. It is the goal of the project to increase production.

VIII. The Unit is on the north end of a north-northwest to south-southeast trending anticline. It is part of the Penrose Skelly trend and parallels the west edge of the Central Basin Platform. Dips are $\approx 1^\circ$ to $\approx 2^\circ$. Core data summary shows:

	Blinebry	Tubb	Drinkard
Porosity (%)	9.79	8.28	11
Permeability (md)	2.45	1.19	2.45
Lithology	dolomite, packstone	sandy dolomite	limestone, packstone, grainstone

Adjacent to the Northeast Drinkard Unit are three other Drinkard water floods (Apache's West Blinebry Drinkard and East Blinebry Drinkard Units and Chevron's Central Drinkard Unit). The Central Drinkard Unit has been under water flood since the 1960s.

Notable depths are:

Quaternary = 0'
 Rustler = 1260'
 Yates = 2605'
 Grayburg = 3740'
 San Andres = 3970'
 Glorieta = 5135'
 Blinebry = 5549'
Injection interval = 5715' - 6665'
 Tubb = 6119'
 Drinkard = 6442'

Current Total Depth = 6654'
Abo = 6675'
Proposed Total Depth = 6765'

State Engineer (Exhibit I) shows four water wells are $\geq 6633'$ deep and within a 2-mile radius. All four were oil wells that were plugged back to produce from the San Andres for water floods. San Andres water had a TDS of 13,273 in NEDU 919S (Exhibit H). Excluding those four wells, then the deepest water well within 2-miles is 136'. NEDU 701 is 2-1/4 miles southwest of the Ogallala aquifer. No existing underground drinking water sources are below the Drinkard within a mile radius. Produced water has been disposed into two zones (Grayburg and San Andres) above the Blinebry within T. 21 S., R. 37 E.

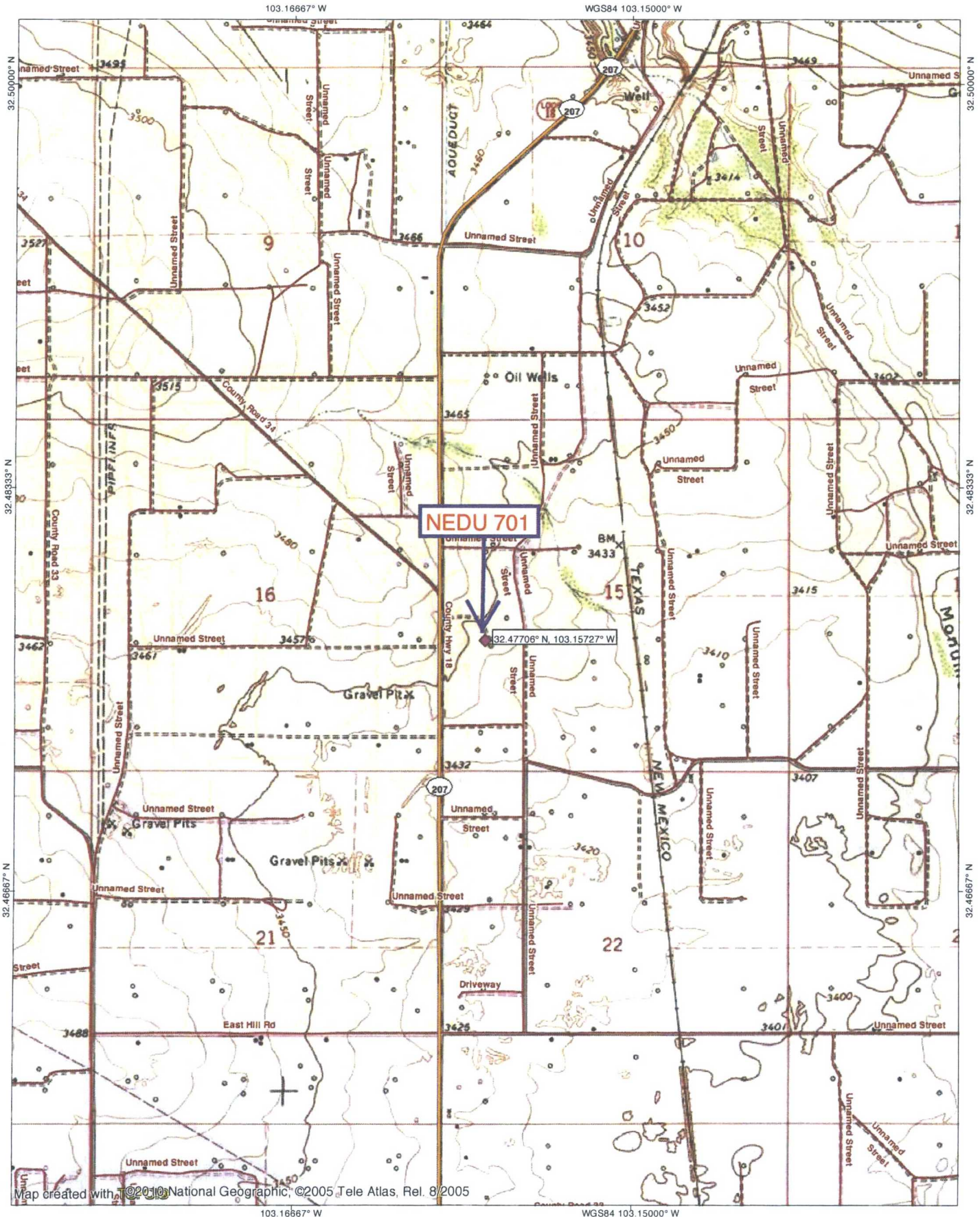
- IX. The well will be stimulated with acid to clean out scale or fill.
- X. A gamma ray neutron log is on file. GR/CBL/CCL/CNL log suite will be run.
- XI. Water sample analyses from four water wells are in Exhibit I. The Section 15 water well is the only water well within a mile that could be found within a mile during a March 24, 2017 field inspection.
- XII. Apache (Exhibit J) is not aware of any geologic or engineering data that may indicate the Blinebry-Drinkard interval is in hydrologic connection with any underground sources of water. Closest Quaternary fault is 109 miles southwest (Exhibit J). There are 106 Blinebry, 124 Tubb, and 152 Drinkard active or new injectors in the state. Previously approved water flood expansions in the Unit are WFX-583, -674, -722, -740, -752, -759, -774, -784, -881, -882, -896, -906, -907, -910, -911, and -971.

APACHE CORPORATION
NORTHEAST DRINKARD UNIT 701
1980' FSL & 660' FWL
SEC. 15, T. 21 S., R. 37 E., LEA COUNTY, NM

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XIII. A legal ad (see Exhibit K) was published on September 24, 2017. Notice (this application) has been sent (Exhibit L) to the lessees of record (Chevron, Elliott Hall, Elliott Industries, Occidental Permian, Oxy USA WTP) with leases in the area of review, government lessors (BLM, NMSLO), and all well operators (Chevron, Key) within the area of review. Apache Corporation is the surface owner.



Map created with ©2010 National Geographic, ©2005 Tele Atlas, Rel. 8/2005

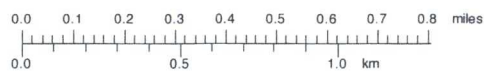


EXHIBIT A

TN MN
6.5°
09/24/17

NUMBER OF COPIES RECEIVED	
DISTRIBUTION	
SANTA FE	
FILE	
U.S.G.S.	
LAND OFFICE	
TRANSPORTER	OIL GAS
PRODUCTION OFFICE	
OPERATOR	

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT
 SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

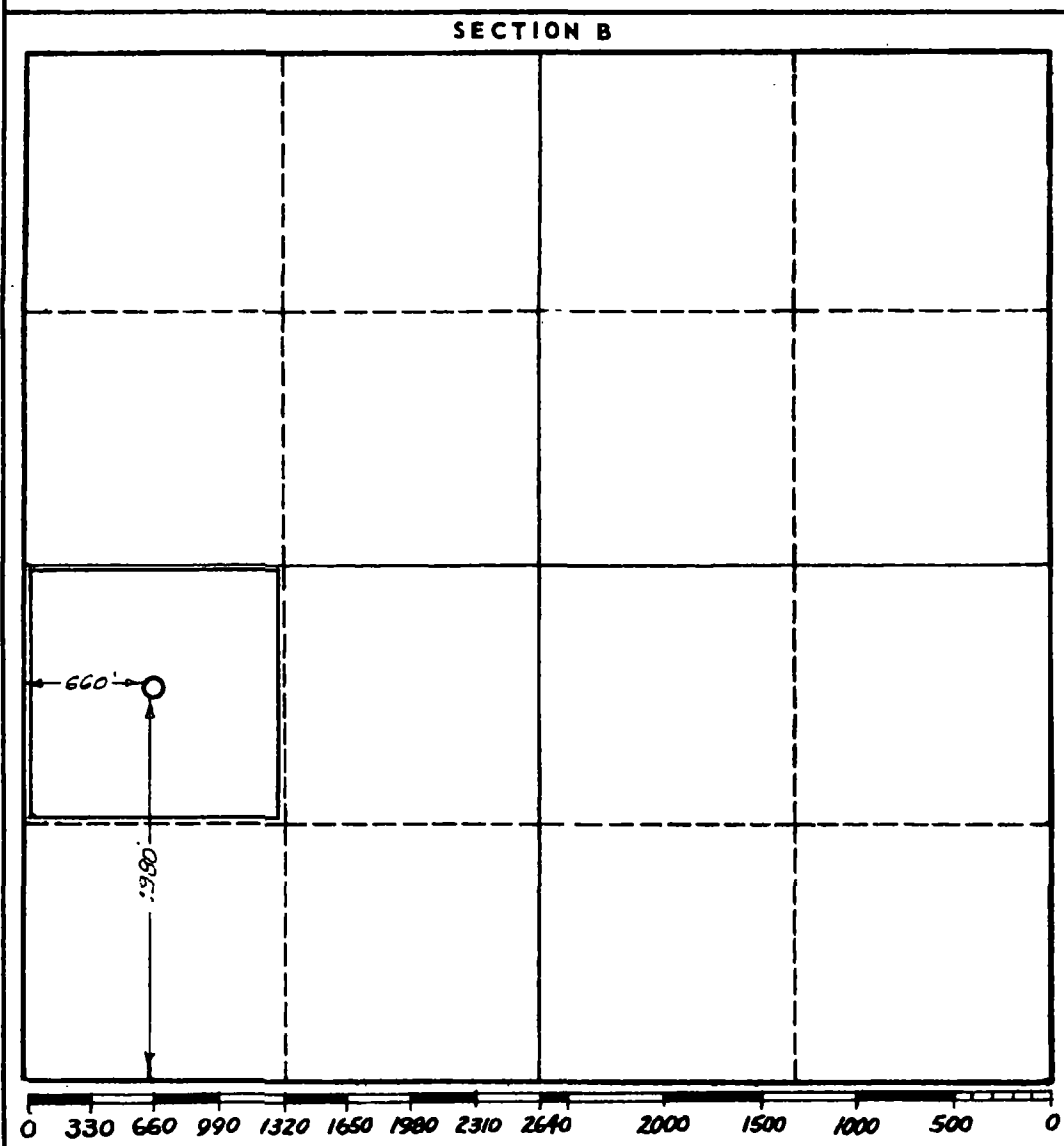
FORM C-128
 Revised 5/1/57

LANDS OFFICE 000

SECTION A					
Operator Shell Oil Company		Lease Argo		Well No. 2	
Unit Letter L	Section 15	Township 21S	Range 37E	County Lea	
Actual Footage Location of Well: 1980 feet from the South line and 660 feet from the West line					
Ground Level Elev. 3442'	Producing Formation Blinberry	Pool Blinberry (Oil)		Dedicated Acreage: 40 Acres	

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

Owner	Land Description



CERTIFICATION

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

Original Signed By

Name **R. A. LOWERY**
R. A. Lowery
 Position
District Exploitation Engineer
 Company
Shell Oil Company
 Date
July 2, 1963

Dual Completed w/existing Drinkard as per Administrative Order No. MO-1335 dated June 5, 1963.

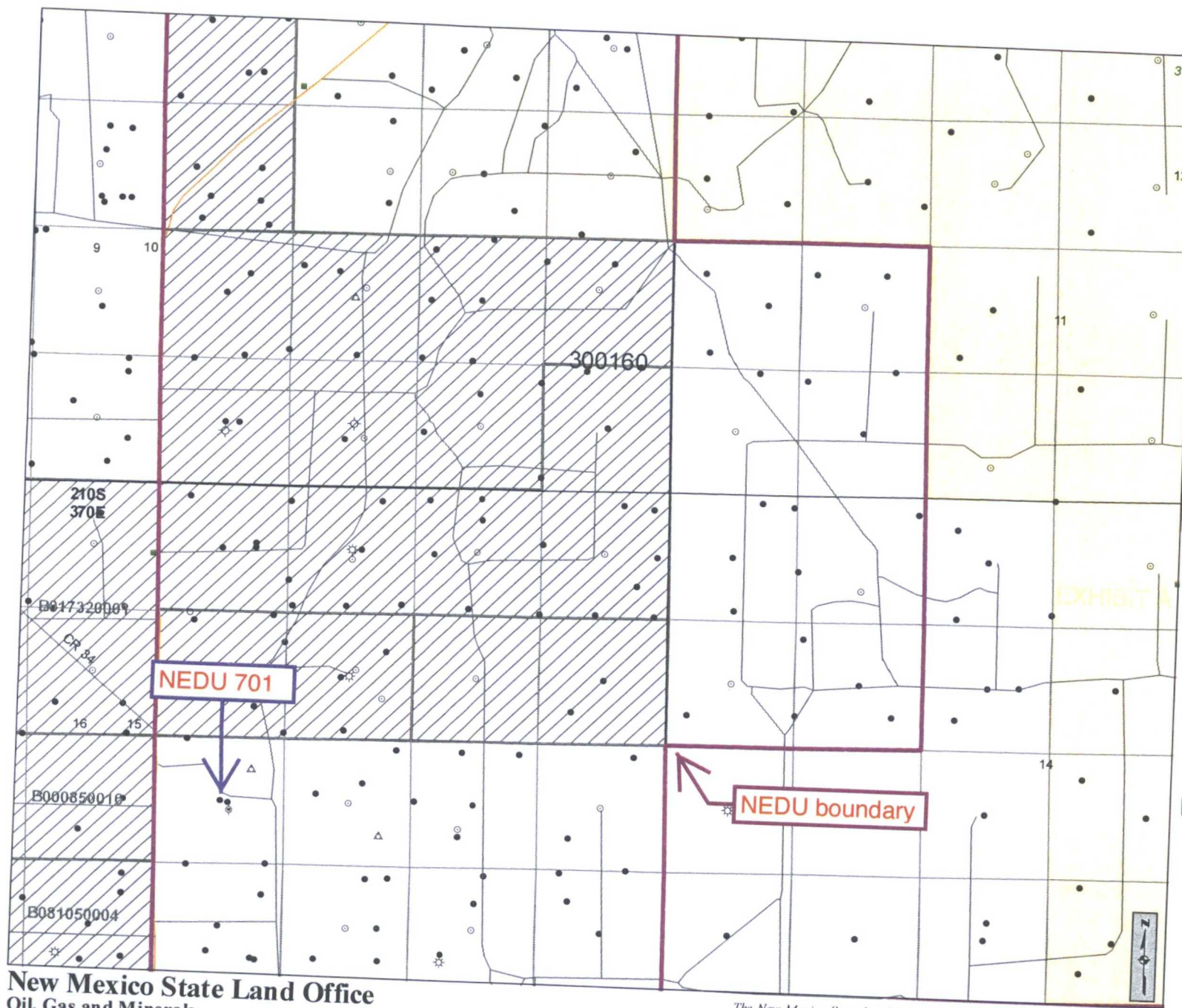
I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

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 Subsurface Estate
- ### State Leases
- Oil and Gas Leases
 - Agricultural Leases
 - Commercial Leases
 - Minerals Leases
 - Not Available for Oil and Gas Leasing
 - Oil and Gas Leasing Influenced by Restriction
- ### Oil and Gas Related Features
- Oil and Gas Unit Boundary
 - Participating Areas in Units
 - Geologic Regions
 - Volcanic Vents
 - NMOC Order R-111-P Potash Enclave Outline
- ### NMOC Oil and Gas Wells
- CO₂
 - Gas
 - Injection
 - Miscellaneous
 - Oil
 - Salt Water Disposal
 - Water
 - DA or PA

New Mexico State Land Office Oil, Gas and Minerals

0 0.04 0.09 0.18 0.27 0.36
Miles

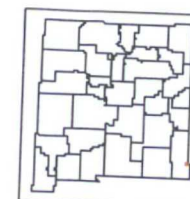
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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

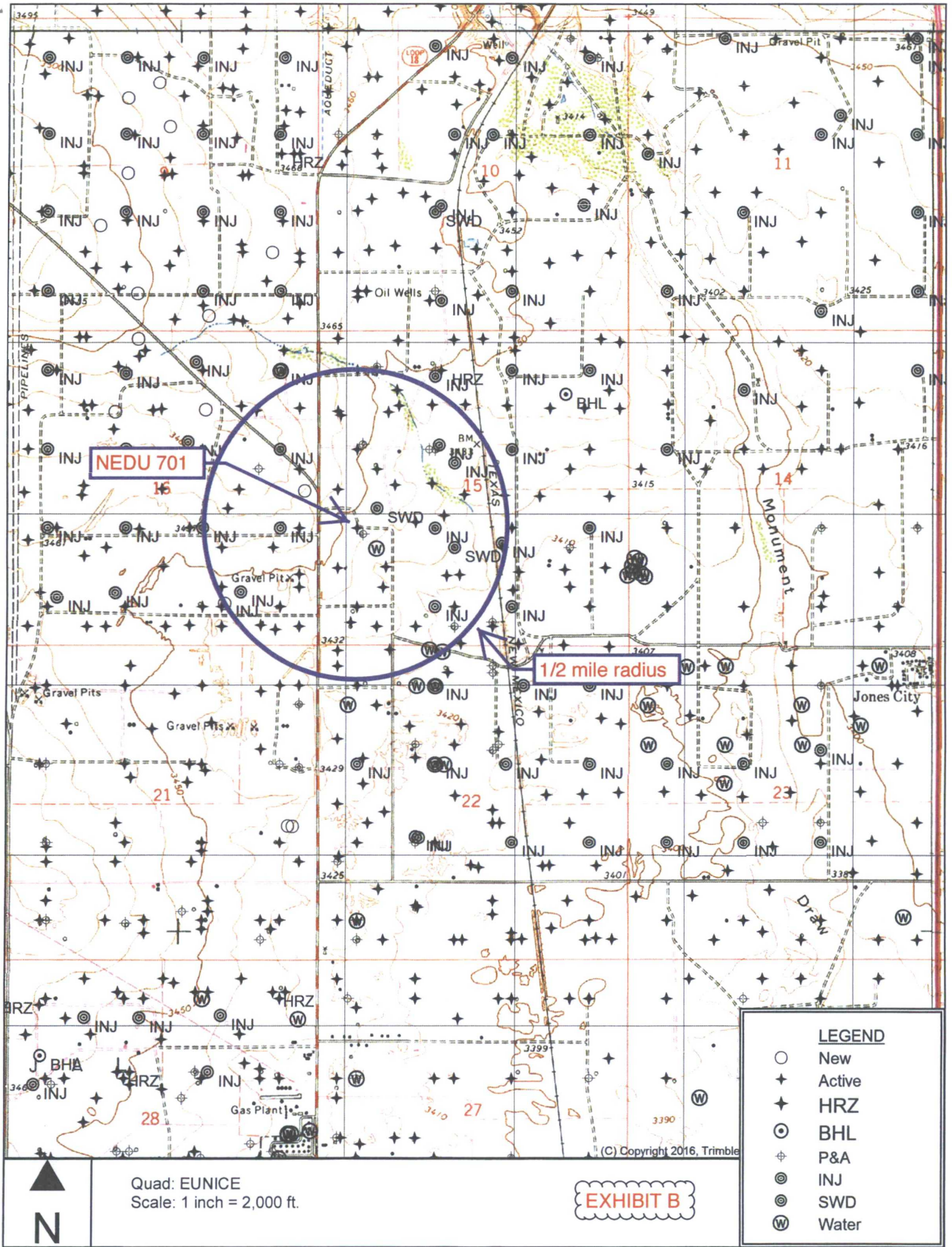
Land Office Geographic Information Center
logic@slo.state.nm.us

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EXHIBIT A



www.nmstatelands.org



NEDU 701

1/2 mile radius

LEGEND

- New
- + Active
- ★ HRZ
- ⊗ BHL
- ⊕ P&A
- ⊖ INJ
- ⊖ SWD
- ⊖ Water

Quad: EUNICE
Scale: 1 inch = 2,000 ft.

EXHIBIT B

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SORTED BY DISTANCE FROM NEDU 701

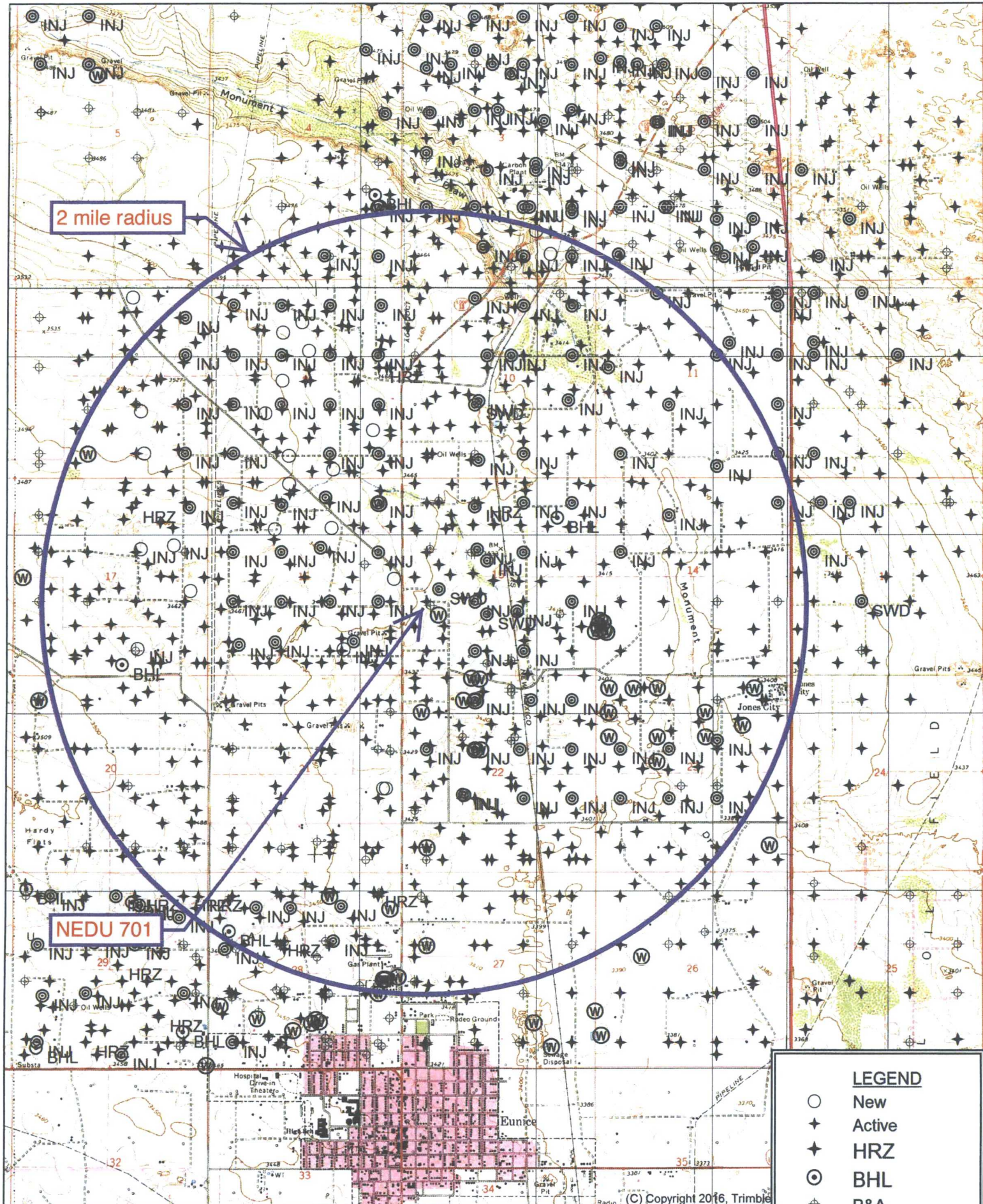
API	OPERATOR	WELL	UNIT- SECTION T21S-R37E	TVD	TYPE	ZONE	FEET FROM NEDU 701
3002506606	Apache	Argo 010	L-15	8015	P&A	Hare; SA (Gas)	142
3002509915	Apache	Argo 007	L-15	8193	S	SWD; San Andres	485
3002537238	Apache	NEDU 629	L-15	6900	O	Eunice; Bli-Tu- Dr, N	730
3002537243	Apache	NEDU 721	M-15	6850	O	Eunice; Bli-Tu- Dr, N	748
3002534888	Apache	NEDU 713	L-15	6790	O	Eunice; Bli-Tu- Dr, N	811
3002535271	Apache	NEDU 625	E-15	6840	O	Eunice; Bli-Tu- Dr, N	965
3002506617	Apache	State DA 005	I-16	8330	O	Paddock	995
3002506607	Apache	Argo 011	K-15	7891	O	Penrose Skelly; Grayburg	1000
3002539557	Apache	Argo 013	M-15	4401	O	Penrose Skelly; Grayburg	1034
3002506591	Apache	NEDU 604	E-15	8193	O	Eunice; Bli-Tu- Dr, N	1044
3002539963	Apache	WBDU 114	P-16	6970	O	Eunice; Bli-Tu- Dr, N	1251
3002509914	Apache	NEDU 602	E-15	6669	O	Eunice; Bli-Tu- Dr, N	1320
3002509911	Apache	NEDU 702	M-15	6646	O	Eunice; Bli-Tu- Dr, N	1320
3002509918	Apache	NEDU 703	K-15	6645	I	Eunice; Bli-Tu- Dr, N	1327
3002506619	Apache	WBDU 078	I-16	6644	I	Eunice; Bli-Tu- Dr, N	1327
3002539449	Apache	State Land 15 017	P-16	4415	O	Penrose Skelly; Grayburg	1383
3002506624	Chevron	Harry Leonard NCT E 005	H-16	8220	O	Penrose Skelly; Grayburg	1404
3002509913	Shell	NEDU 603	E-15	8182	P&A	Eunice; Bli-Tu- Dr, N	1412
3002541275	Apache	NEDU 650	F-15	6858	O	Eunice; Bli-Tu- Dr, N	1467
3002539828	Apache	Argo 014	K-15	4403	O	Penrose Skelly; Grayburg	1472
3002537916	Apache	State DA 013	I-16	4398	O	Penrose Skelly; Grayburg	1497

SORTED BY DISTANCE FROM NEDU 701

3002506608	Apache	Argo 012	M-15	8035	O	Penrose Skelly; Grayburg	1584
3002506605	Apache	NEDU 723	M-15	8179	O	Eunice; Bli-Tu- Dr, N	1683
3002541276	Apache	NEDU 726	N-15	6860	O	Eunice; Bli-Tu- Dr, N	1687
3002506603	Apache	Argo 006	K-15	7991	S	SWD; San Andres	1691
3002506590	Apache	NEDU 608	F-15	7850	P&A	Eunice; Bli-Tu- Dr, N	1801
3002506633	Apache	WBDU 089	P-16	6665	O	Eunice; Bli-Tu- Dr, N	1870
3002506585	Apache	Cities S State 002	F-15	6676	P&A	Eunice; Bli-Tu- Dr, N	1871
3002509917	Apache	NEDU 704	N-15	6630	I	Eunice; Bli-Tu- Dr, N	1872
3002506621	Apache	WBDU 056	H-16	6780	I	Eunice; Bli-Tu- Dr, N	1873
3002539829	Apache	Argo 015	N-15	4408	O	Penrose Skelly; Grayburg	1881
3002537223	Apache	NEDU 628	E-15	6976	O	Eunice; Bli-Tu- Dr, N	1911
3002534657	Apache	NEDU 623	K-15	6840	O	Eunice; Bli-Tu- Dr, N	1915
3002535272	Apache	NEDU 714	N-15	6780	O	Eunice; Bli-Tu- Dr, N	1915
3002506634	Apache	WBDU 090	P-16	8261	O	Eunice; Bli-Tu- Dr, N	1926
3002506587	Apache	NEDU 606	F-15	8032	I	Eunice; Bli-Tu- Dr, N	1953
3002506588	Apache	NEDU 610	G-15	7798	I	Eunice; Bli-Tu- Dr, N	1984
3002533547	Key	State 001	E-15	2200	M	BSW-Salado	1988
3002537834	Chevron	Harry Leonard NCT E 008	H-16	4300	P&A	Penrose Skelly; Grayburg	2005
3002541600	Apache	NEDU 544	E-15	6948	O	Eunice; Bli-Tu- Dr, N	2032
3002536806	Apache	NEDU 720	D-22	6850	O	Eunice; Bli-Tu- Dr, N	2077
3002534660	Apache	NEDU 716	D-22	6810	O	Eunice; Bli-Tu- Dr, N	2115
3002506604	Apache	Argo 008	N-15	8002	O	Paddock	2120
3002534887	Apache	NEDU 624	C-15	6860	O	Eunice; Bli-Tu- Dr, N	2170

SORTED BY DISTANCE FROM NEDU 701

3002539300	Apache	WBDU 115	P-16	7022	O	Eunice; Bli-Tu-Dr, N	2180
3002536786	Apache	State DA 010	J-16	4345	O	Penrose Skelly; Grayburg	2246
3002537535	Apache	WBDU 092	O-16	7284	I	Eunice; Bli-Tu-Dr, N	2264
3002539277	Apache	WBDU 113	A-16	6912	O	Eunice; Bli-Tu-Dr, N	2277
3002539686	Apache	Argo A 014	D-22	4400	O	Penrose Skelly; Grayburg	2286
3002537496	Apache	State Land 15 012	P-16	4415	G	Hare; SA (Gas)	2304
3002506602	Apache	NEDU 705	N-15	8091	P&A	Eunice; Bli-Tu-Dr, N	2340
3002537201	Apache	WBDU 079	J-16	7310	O	Eunice; Bli-Tu-Dr, N	2344
3002541485	Chevron	State S 012	C-15	4110	O	Penrose Skelly; Grayburg	2421
3002541583	Apache	NEDU 661	C-15	6963	O	Eunice; Bli-Tu-Dr, N	2430
3002506601	Apache	NEDU 707	J-15	7670	I	Eunice; Bli-Tu-Dr, N	2462
3002506597	Apache	L G Warlick C 006	J-15	7847	O	Hare; Simpson	2480
3002538378	Apache	State Land 15 016	O-16	4135	O	Penrose Skelly; Grayburg	2525
3002541285	Apache	NEDU 651	J-15	6857	O	Eunice; Bli-Tu-Dr, N	2554
3002535274	Apache	NEDU 717	N-15	6684	O	Eunice; Bli-Tu-Dr, N	2580
3002506592	Apache	NEDU 706	J-15	6629	O	Eunice; Bli-Tu-Dr, N	2618
3002536741	Chevron	Harry Leonard NCT E 007	H-16	4345	O	Penrose Skelly; Grayburg	2630
3002506586	Chevron	State S 001	D-15	6660	O	Penrose Skelly; Grayburg	2640
3002509928	Apache	NEDU 801	D-22	6636	O	Eunice; Bli-Tu-Dr, N	2640
3002506618	Apache	WBDU 077	J-16	6701	I	Eunice; Bli-Tu-Dr, N	2653



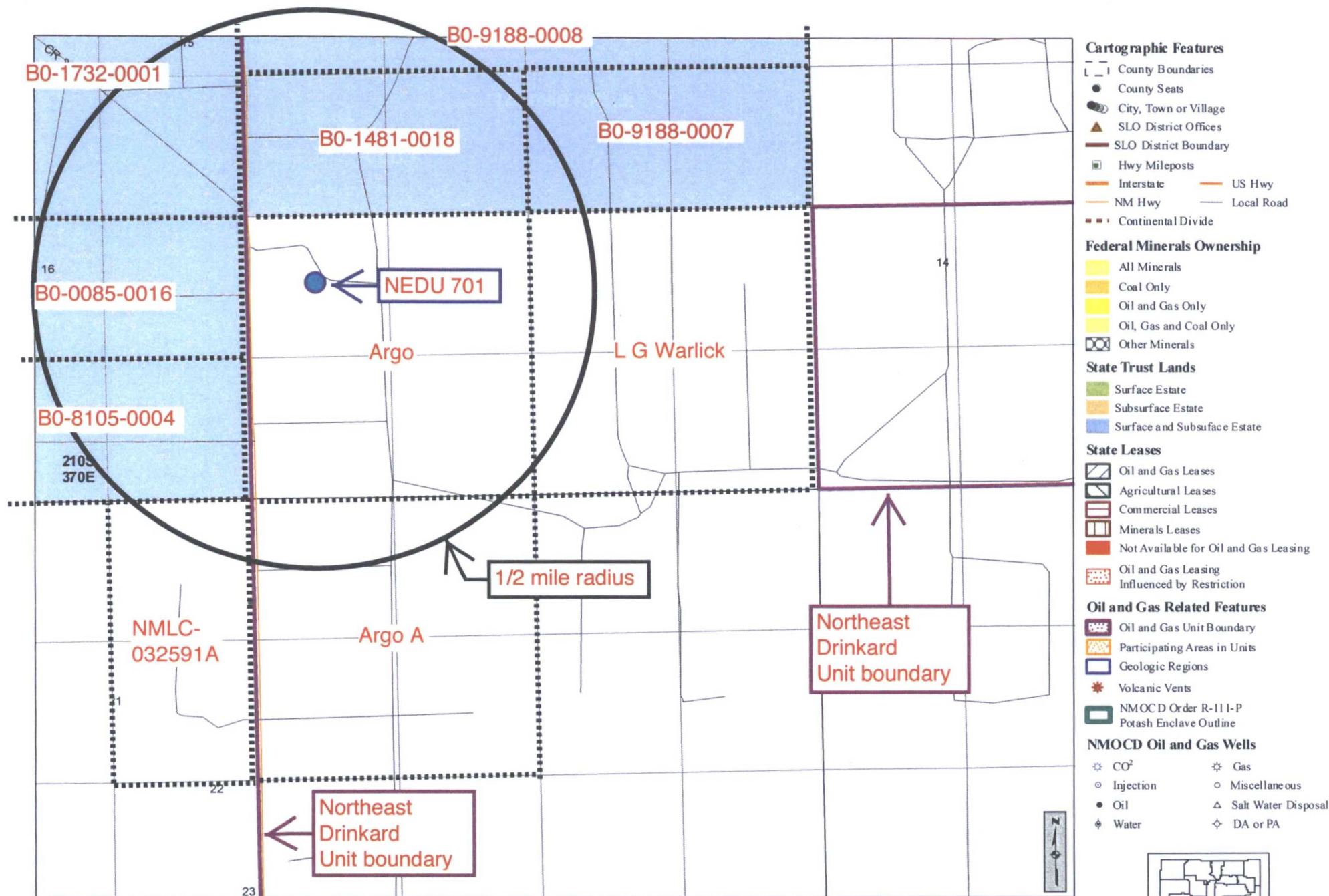
- LEGEND**
- New
 - ★ Active
 - ★ HRZ
 - ⊙ BHL
 - ⊕ P&A
 - ⊙ INJ
 - ⊙ SWD
 - ⊙ Water

EXHIBIT C

Quad: EUNICE
Scale: 1 inch = 3,333 ft.



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New Mexico State Land Office Oil, Gas and Minerals

0.03 0.075 0.15 0.225 0.3 Miles

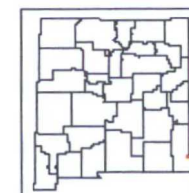
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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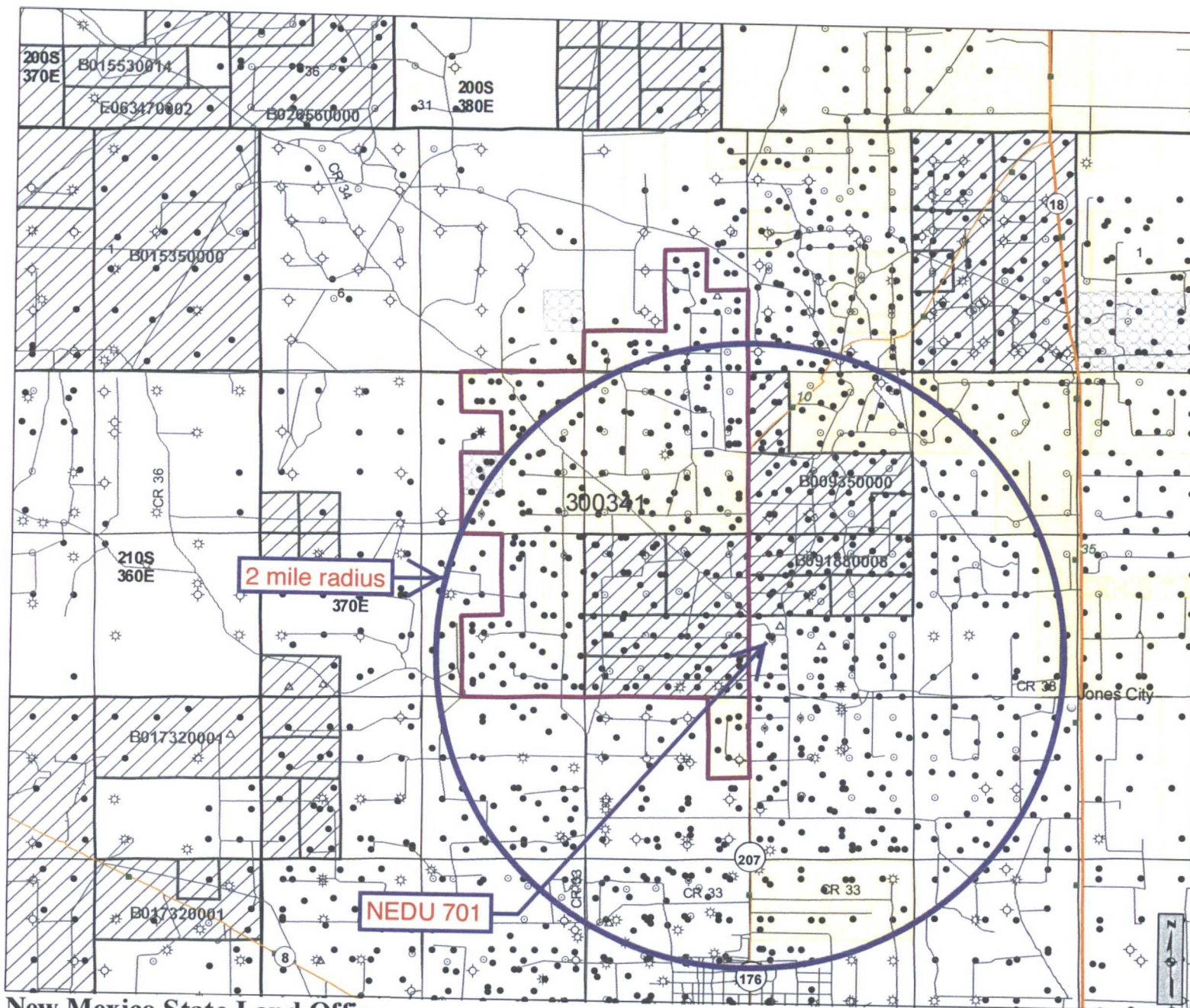
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Created On: 1/29/2015 4:16:44 PM

EXHIBIT D



www.nmstatelands.org



Cartographic Features

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

Federal Minerals Ownership

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

State Trust Lands

- Surface Estate
- Subsurface Estate
- Surface and Subsurface Estate

State Leases

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

Oil and Gas Related Features

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

NMOC D Oil and Gas Wells

- CO₂
- Gas
- Injection
- Miscellaneous
- Oil
- Salt Water Disposal
- Water
- DA or PA

New Mexico State Land Office Oil, Gas and Minerals

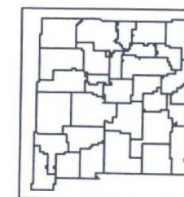
0 0.2 0.4 0.8 1.2 1.6 Miles
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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EXHIBIT E



www.nmstatelands.org

Sorted by distance from NEDU 701

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW TOC DETERMINED
Argo 010	7/19/51	8015	Hare; SA (Gas)	P&A	17.25	13.375	241	250 sx	GL	Circ 50 sx
30-025-06606					11	8.625	2907	1700 sx	GL	Circ 287 sx
L-15-21S-37E					7.875	5.5	8012	875 sx	2660	TOL
Argo 007	4/13/51	8193	Penrose Skelly; Grayburg	S	17.25	13.375	223	250 sx	GL	Circ
30-025-09915					11	8.625	2907	1900 sx	GL	Circ
L-15-21S-37E					7.875	5.5	8016	779 sx	3280	CBL
NEDU 629	6/25/05	6900	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1200	575 sx	GL	Circ
30-025-37238					7.875	5.5	6900	1300 sx	130	CBL
L-15-21S-37E										
NEDU 721	9/16/05	6850	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1275	575 sx	GL	Circ 119 sx
30-025-37243					7.875	5.5	6850	1300 sx	408	CBL
M-15-21S-37E										

Sorted by distance from NEDU 701

NEDU 713	9/25/00	6790	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1245	460 sx	GL	Circ 121 sx
30-025-34888					7.875	5.5	6790	1525 sx	GL	Circ 156 sx
L-15-21S-37E										
NEDU 625	6/5/01	6840	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1219	460 sx	GL	Circ 81 sx
30-025-35271					7.875	5.5	6840	1450 sx	GL	Circ 117 sx
E-15-21S-37E										
State DA 005	8/8/96	8225	Paddock	O	17.5	13.375	258	200 sx	GL	Circ
30-025-06617					11	8.625	2820	1500 sx	565	Temp Surv
I-16-21S-37E					7.875	5.5	8225	500 sx	3448	Temp Surv
Argo 011	7/14/51	7891	Penrose Skelly; Grayburg	O	17.5	13.375	228	250 sx	GL	Circ
30-025-06607					11	8.625	2902	1950 sx	GL	Circ
K-15-21S-37E					7.875	5.5	2680- 7890	800 sx	3025	CBL

Sorted by distance from NEDU 701

NEDU 604	8/28/51	8193	Eunice; Bli-Tu-Dr, N	O	17.25	13.375	336	350 sx	GL	Circ
30-025-06591					11.25	8.625	2835	500 sx	No report	No report
E-15-21S-37E					7.875	5.5	8042	400 sx	4650	CBL
WBDU 114	12/19/10	6970	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1297	665 sx	GL	Circ 171 sx
30-025-39963					7.875	5.5	6952	1195 sx	800	CBL
P-16-21S-37E										
NEDU 602	4/11/48	6669	Eunice; Bli-Tu-Dr, N	O	17.25	13.375	297	300 sx	No report	No report
30-025-09914					11.25	8.625	2799	800 sx	No report	No report
E-15-21S-37E					7.875	5.5	6625	350 sx	4250	Temp Survey
NEDU 702	8/8/47	6646	Eunice; Bli-Tu-Dr, N	O	17.5	13.375	316	250 sx	GL	Circ
30-025-09911					11	8.625	2839	800 sx	GL	Circ
M-15-21S-37E					7.875	5.5	6529	500 sx	3650	Est

Sorted by distance from NEDU 701

NEDU 703	2/29/48	6645	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	208	250 sx	GL	Circ 15 sx
30-025-09918					11	8.625	2891	1500 sx	GL	Circ 200 sx
K-15-21S-37E					7.875	5.5	6495	600 sx	2280	CBL
WBDU 078	8/12/47	6644	Eunice; Bli-Tu-Dr, N	I	17.25	13.375	213	200 sx	GL	Circ
30-025-06619					11	8.625	2807	1550 sx	GL	Circ
I-16-21S-37E					7.375	5.5	6644	500 sx	GL	Circ
Harry Leonard NCT E 005	6/22/52	8220	Penrose Skelly; Grayburg	O	17.25	12.75	268	325 sx	GL	Circ
30-025-06624					11	8.625	2799	1100 sx	2290	Temp Survey
H-16-21S-37E					7.875	5.5	7999	131 sx	7540	Temp Survey
NEDU 603	2/18/51	8182	Penrose Skelly; Grayburg	P & A	17.25	13.375	312	325 sx	GL	Circ
30-025-09913					11.25	8.625	2818	500 sx	GL	Circ
E-15-21S-37E					7.875	5.5	8030	400 sx	5700	CBL

Sorted by distance from NEDU 701

NEDU 650	11/7/13	6858	Eunice; Bli-Tu-Dr, N	O	11	8.625	1309	465 sx	GL	Circ 96 sx
30-025-41275					7.875	5.5	6858	1300 sx	GL	Circ 100 sx
F-15-21S-37E										
Argo 012	8/5/86	8035	Penrose Skelly; Grayburg	O	17.5	13.375	227	250 sx	GL	Circ 60 sx
30-025-06608					11	8.625	2882	1900 sx	GL	Circ 300 sx
M-15-21S-37E					7.875	5.5	2662- 8033	900 sx	3480	CBL
NEDU 723	5/29/51	8179	Eunice; Bli-Tu-Dr, N	O	17.25	13.375	225	250 sx	GL	Circ
30-025-06605					11	8.625	2917	1700 sx	GL	Circ
M-15-21S-37E					7.875	5.5	8000	925 sx	2701	CBL
NEDU 726	10/16/13	6860	Eunice; Bli-Tu-Dr, N	O	11	8.625	1300	469 sx	GL	Circ 112 sx
30-025-41276					7.875	5.5	6879	1320 sx	GL	Circ 126 sx
N-15-21S-37E										

Sorted by distance from NEDU 701

Argo 006	2/27/51	7991	Eunice; Bli-Tu-Dr, N	S	17.5	13.375	225	250 sx	GL	Circ
30-025-06603					11	8.625	3100	200 sx	GL	Circ
K-15-21S-37E					7.875	5.5	7790	500 sx	5070	CBL
NEDU 608	7/9/51	7850	Eunice; Bli-Tu-Dr, N	P&A	17.5	13.375	315	325 sx	GL	Circ
30-025-06590					11	8.625	2805	500 x	GL	Circ
F-15-21S-37E					7.875	5.5	7850	350 sx	4700	Temp survey
WBDU 089	11/24/47	6665	Eunice; Bli-Tu-Dr, N	O	17.5	13.375	219	250 sx	No report	No report
30-025-06633					11	8.625	2864	1700 sx	No report	No report
P-16-21S-37E					7.875	5.5	6664	400 sx	No report	No report
Cities S State 002	6/1/48	6676	Eunice; Bli-Tu-Dr, N	P&A	17.25	13.375	297	300 sx	GL	Circ
30-025-06585					11.25	8.625	2791	500 sx	675	Calc
F-15-21S-37E					6.75	5.5	6585	125 sx	5120	no report

Sorted by distance from NEDU 701

NEDU 704	5/27/63	6630	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	210	250 sx	GL	Circ 15 sx
30-025-09917					12.25	9.625	2883	1500 sx	GL	Circ 460 sx
N-15-21S-37E					8.75	7	6560	1000 sx	2500	Calc
WBDU 056	11/24/47	6780	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	301	300 sx	GL	Circ
30-025-06621					12.25	9.625	2952	1300 sx	1370	No report
H-16-21S-37E					8.75	7	6547	700 sx	2715	Temp Survey
NEDU 628	12/30/05	7106	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1198	575 sx	GL	Circ 160 sx
30-025-37223					7.875	5.5	6889	1800 sx	1202	CBL
E-15-21S-37E										
NEDU 623	8/29/99	6840	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1283	460 sx	GL	Circ 48 sx
30-025-34657					7.875	5.5	6840	1650 sx	GL	Circ 102 sx
K-15-21S-37E										
NEDU 714	5/15/01	6780	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1214	460 sx	GL	Circ 40 sx

Sorted by distance from NEDU 701

30-025-35272					7.875	5.5	6780	1175 sx	GL	Circ 102 sx
N-15-21S-37E										
WBDU 090	4/12/52	8261	Eunice; Bli-Tu-Dr, N	O	17.5	13.375	258	250 sx	GL	Circ
30-025-06634					8.625	8.375	2861	1500 sx	GL	Circ
P-16-21S-37E					No report	5.5	8259	400 sx	3376	Temp Survey
NEDU 606	12/16/50	8032	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	330	350 sx	GL	Circ
30-025-06587					11	8.625	2803	500 sx	1115	Calc
F-15-21S-37E					7.875	5.5	8032	1200 sx	GL	Circ
NEDU 610	1/10/51	7798	Eunice; Bli-Tu-Dr, N	I	17.25	13.375	222	250 sx	GL	Circ 35 sx
30-025-06588					11	8.625	2925	2000 sx	GL	Circ
G-15-21S-37E					7.875	5.5	7635	500 sx	5050	Calc

Sorted by distance from NEDU 701

NEDU 544	2/9/14	6948	Eunice; Bli-Tu-Dr, N	O	11	8.625	1269	430 sx	GL	Circ 45 sx
30-025-41600					7.875	5.5	6954	1250 sx	GL	Circ 176 sx
E-15-21S-37E										
NEDU 720	10/16/04	6850	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1195	600 sx	GL	Circ 130 sx
30-025-36806					7.875	5.5	6850	1150 sx	460	no report
D-22-21S-37E										
NEDU 716	8/1/99	6810	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1269	460 sx	GL	Circ 92 sx
30-025-34660					7.875	5.5	6810	1550 sx	GL	Circ 20 sx
D-22-21S-37E										
Argo 008	5/11/51	8002	Paddock	O	17.5	13.375	226	300 sx	GL	Circ
30-025-06604					11	8.625	2915	1800 sx	GL	Circ
N-15-21S-37E					7.875	5.5	8002	1220 sx	50	CBL

EXHIBIT F

Sorted by distance from NEDU 701

NEDU 624	4/17/00	6860	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1213	460 sx	GL	Circ 82 sx
30-025-34887					7.875	5.5	6860	1400 sx	170	CBL
C-15-21S-37E										
WBDU 082	4/8/07	6875	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1285	650 sx	GL	Circ
30-025-38231					7.875	5.5	6875	1250 sx	320	CBL
J-16-21S-37E										
WBDU 115	5/8/10	7225	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1273	650 sx	GL	Circ
30-025-39300					7.875	5.5	7225	1300 sx	GL	Circ
P-16-21S-37E										
WBDU 092	12/1/05	7284	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1197	575 sx	GL	Circ 171 sx
30-025-37535					7.875	5.5	7284	1150 sx	650	CBL
O-16-21S-37E										

Sorted by distance from NEDU 701

WBDU 113	9/15/09	6912	Penrose Skelly; Grayburg	O	12.25	8.625	1342	650 sx	GL	Circ
30-025-39277					7.875	5.5	6912	1000 sx	GL	Circ
A-16-21S-37E										
NEDU 705	7/27/50	8091	Eunice; Bli-Tu-Dr, N	P&A	17.25	13.375	225	300 sx	GL	Circ
30-025-06602					11	8.625	2903	2000 sx	GL	Circ
N-15-21S-37E					7.875	5.5	7773	500 sx	4412	No report
WBDU 079	6/24/05	7310	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1289	600 sx	GL	Circ 92 sx
30-025-37201					7.875	5.5	7310	1600 sx	270	CBL
J-16-21S-37E										
NEDU 661	2/2/14	6963	Eunice; Bli-Tu-Dr, N	O	11	8.625	1264	440 sx	GL	Circ 134 sx
30-025-41583					7.875	5.5	6963	1250 sx	GL	Circ 135 sx
C-15-21S-37E										

Sorted by distance from NEDU 701

NEDU 707	5/5/52	7670	Eunice; Bli-Tu-Dr, N	I	17.5	13.375	325	250 sx	GL	Circ
30-025-06601					11	8.625	2852	1200 sx	GL	Circ
J-15-21S-37E					7.875	5.5	7665	1155 sx	GL	Circ
L G Warlick C 006	10/29/50	7847	Hare; Simpson	O	17	13.375	303	300 sx	GL	Circ
30-025-06597					11	8.625	2797	1200 sx	275	no report
J-15-21S-37E					8	5.5	7700	575 sx	3230	Temp survey
NEDU 651	11/21/13	6857	Eunice; Bli-Tu-Dr, N	O	11	8.625	1307	460 sx	GL	Circ 116 sx
30-025-41285					7.875	5.5	6859	1265 sx	216	CBL
J-15-21S-37E										
NEDU 717	4/29/01	6684	Eunice; Bli-Tu-Dr, N	O	12.25	8.625	1265	460 sx	GL	Circ 49 sx
30-025-35274					7.875	5.5	6780	1075 sx	150	CBL
N-15-21S-37E										

Sorted by distance from NEDU 701

NEDU 706	6/7/48	6629	Eunice; Bli-Tu-Dr, N	O	17	13.375	299	250 sx	GL	Circ
30-025-06592					11	8.625	2800	1500 sx	GL	Circ
J-15-21S-37E					8	5.5	6597	750 sx	2400	no report
State S 001	6/24/48	6660	Penrose Skelly; Grayburg	O	17.25	13.375	293	300 sx	GL	Circ 10 sx
30-025-06586					11	8.625	2797	1200 sx	GL	Calc
D-15-21S-37E					7.875	5.5	6625	400 sx	3100	CBL
NEDU 801	8/21/47	6636	Eunice; Bli-Tu-Dr, N	O	17.25	13.375	222	250 sx	GL	Circ 50 sx
30-025-09928					11	8.625	1233	600 sx	GL	Circ
D-22-21S-37E					7.875	5.5	6635	800 sx	2734	Calc



WELL BORE INFO.

LEASE NAME

Cities "S" State

WELL #

2 (NEDU 607S)

API #

30-025-06585

COUNTY

Lea

F-15-21S-37E

spud 6-1-48

P&A 9-9-11

13 3/8" csg @ 297'
w/300 sx cmt CIRC to surf

280 sx GL - 347'

8 5/8" csg @ 2791'
w/500 sx cal TOC @ 675'

50 sx 1402' - 1563'

135 sx 2220' - 2841'

TOC @ 3050'

CIBP @ 3970' w/35' cmt

San Andres perms @ 4061'-4900

Csg lk @ 5030' sqzd w/200 sx cmt

TOC @ 5120'

CIBP @ 5990' w/35' cmt

Tubb perms @ 6044'-6235'

CIBP @ 6500' w/35' cmt

5 1/2" csg @ 6586'
w/125 sx

OH 6586'-6676'

25 sx 3731' - 3970'

Stuck Pkr @ 6530'

Stuck Pkr @ 6586'

PBTD 6655'
TD 6676'

EXHIBIT G

from SWD-860

Northeast Drinkard Unit #608
Eunice N. Blinebry-Tubb-Drinkard (22900)
1980' FNL & 1880' FWL
Unit F, Sec 15, T-21S, R-37E
Lea County, New Mexico
30-025-06590
spud 7-9-51
P&A 10-5-01

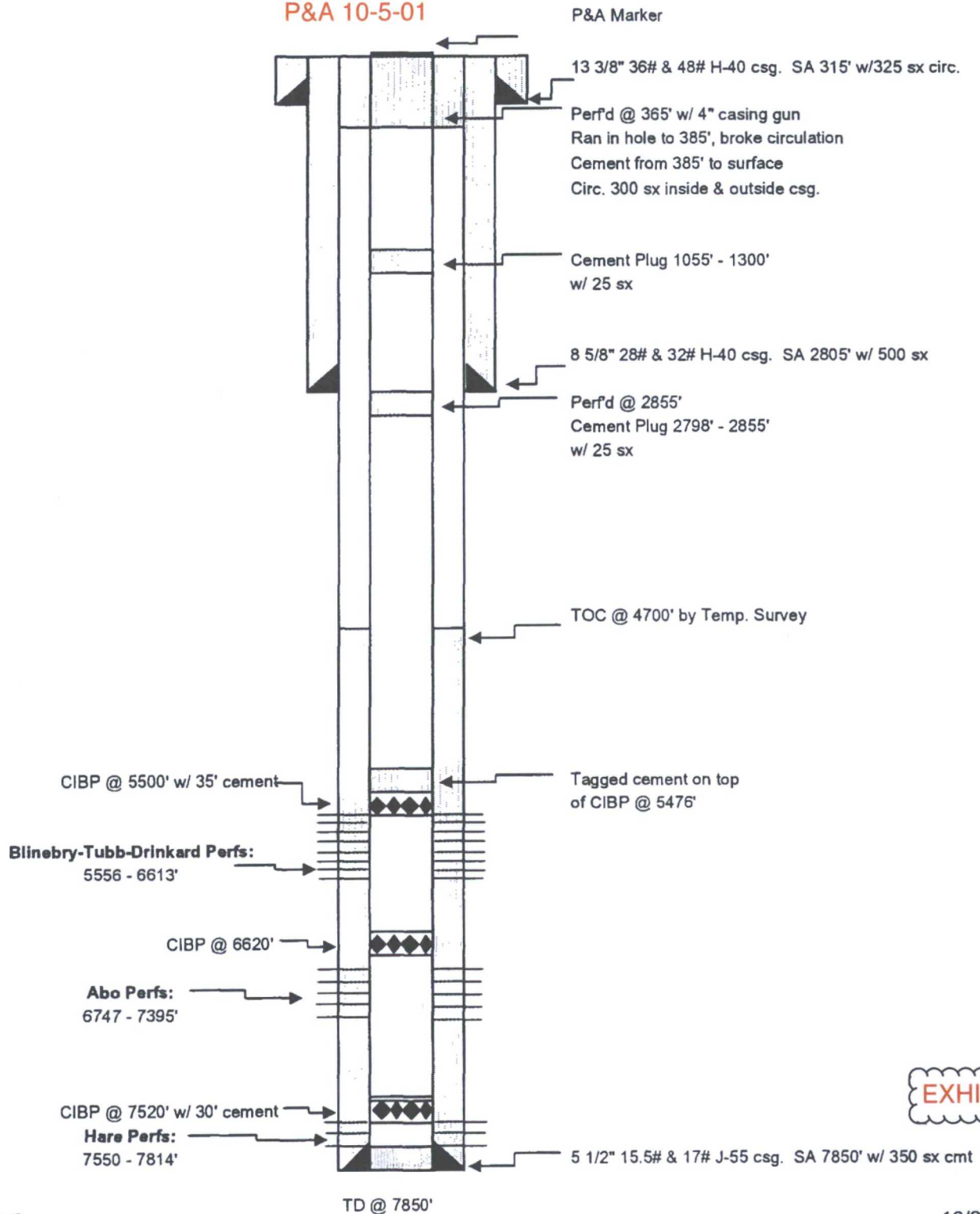


EXHIBIT G



WELL BORE INFO.

LEASE NAME	Northeast Drinkard Unit
WELL #	705
API #	30-025-06602
COUNTY	Lea

N-15-21s-37e
spud 7-27-50
P&A 10-7-11

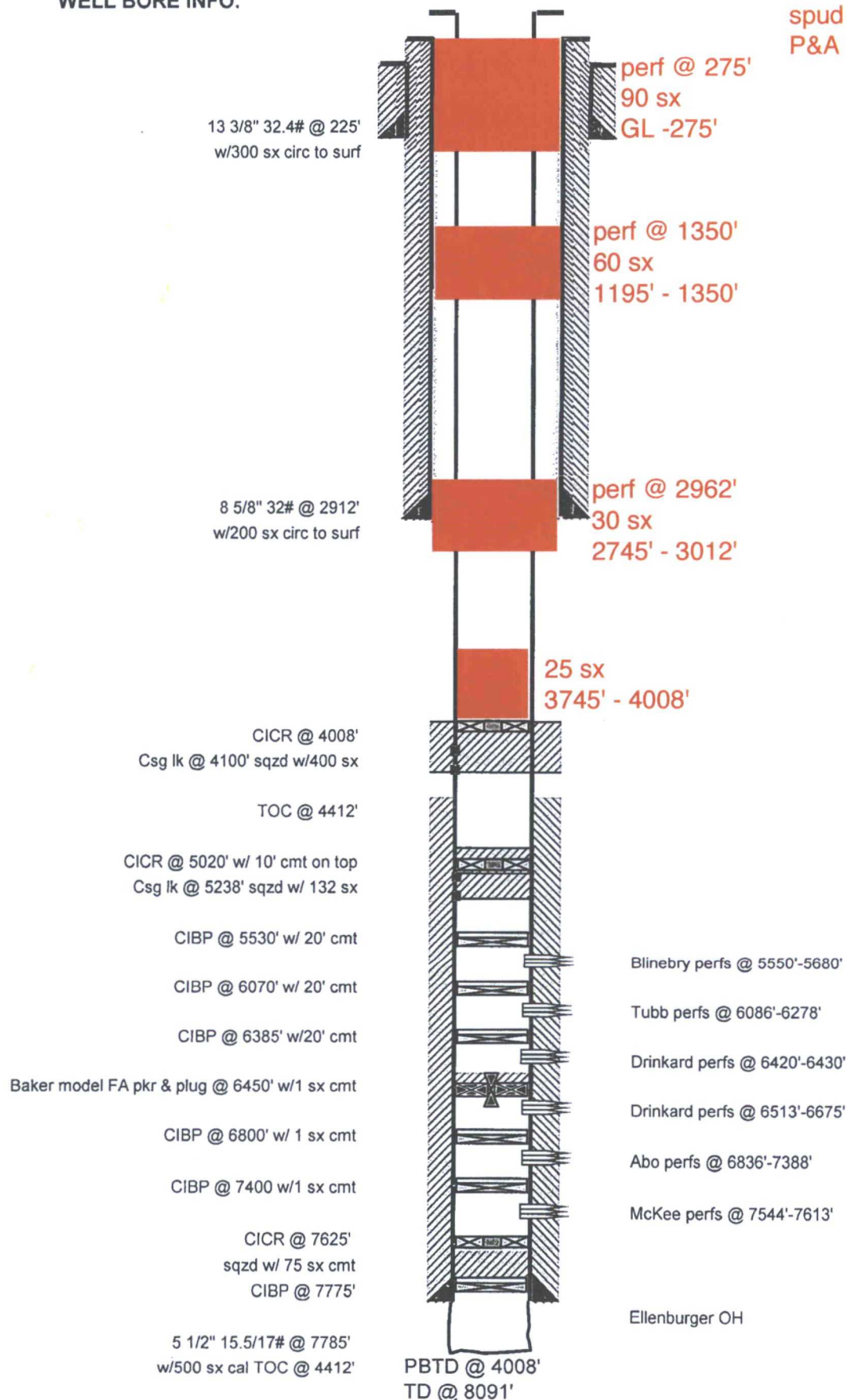


EXHIBIT G



WELL BORE INFO.

LEASE NAME	Argo (NEDU 712S)
WELL #	10
API #	30-025-06606
COUNTY	Lea

L-15-21s-37e
spud 7-19-51
P&A 11-1-11

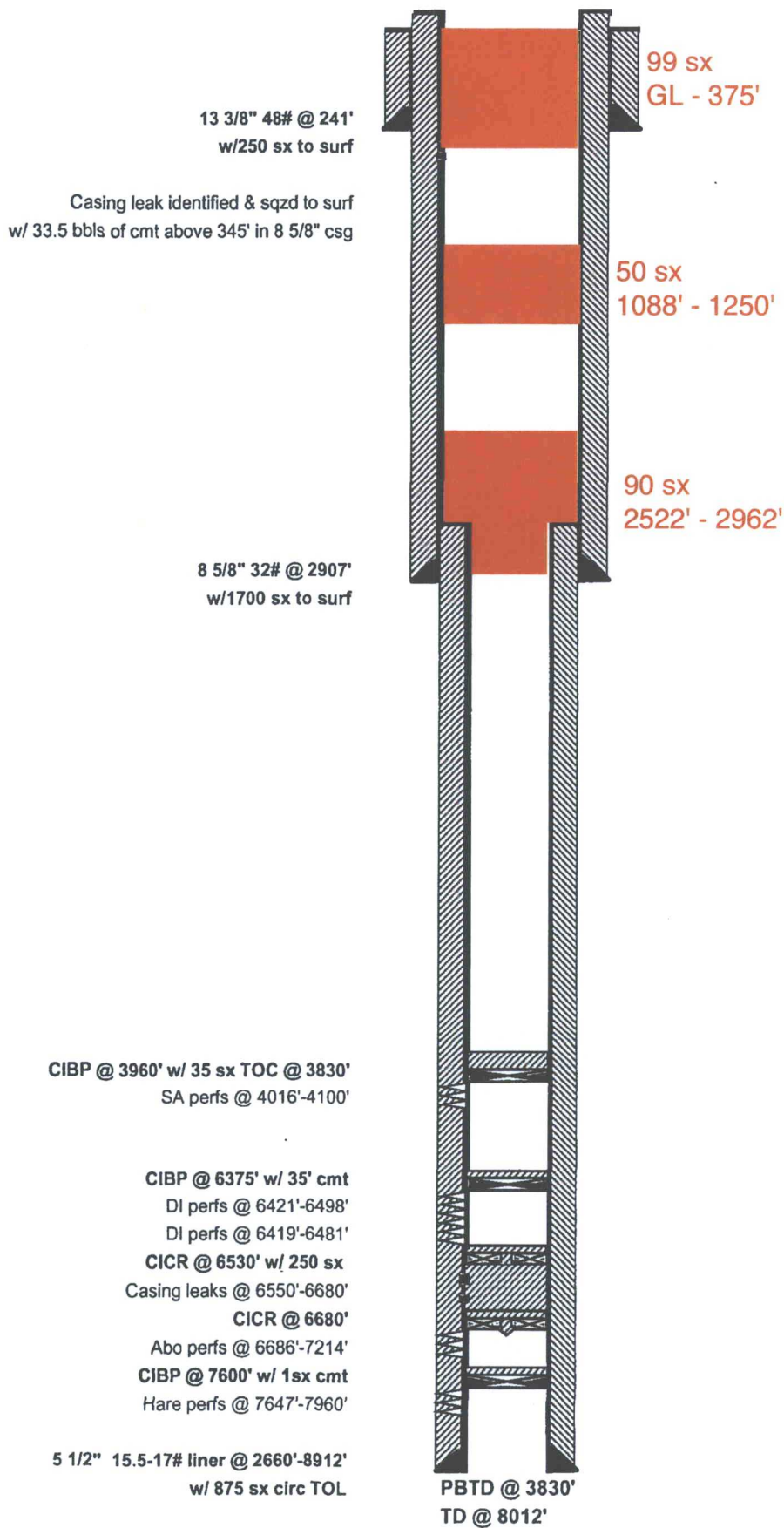


EXHIBIT G

Well: Northeast Drinkard Unit # 603
Field: Eunice N. Blinebry-Tubb-Drinkard
Location: 3390' FNL & 760' FWL
Unit E, Sec. 15, T21S, R37E
Lea County, New Mexico
API #: 30-025-09913

from SWD-860

Current Status: P&A (11/93)

spud 2-18-51
P&A 11-22-93

Install P&A Marker

CICR @ 750'
Perf 5-1/2" casing @ 800'
Cmt to Surface inside & outside casing

CICR @ 2802' (63 sx)
Perf 5-1/2" casing @ 2875'
Cmt sqz 5-1/2" x 8-5/8" annulus (400 sx)
TOC @ 850' (TS)

Bliebry Perfs:
5715-5974 (59 Holes)

Tubb Perfs:
5993-6080 (23 Holes)

Drinkard Perfs:
6466-6682 (58 Holes)

Abo Perfs:
6723-7231 (26 Holes)
Cmt sqz w/ 350 sx

CIBP @ 7281' (2 sx)

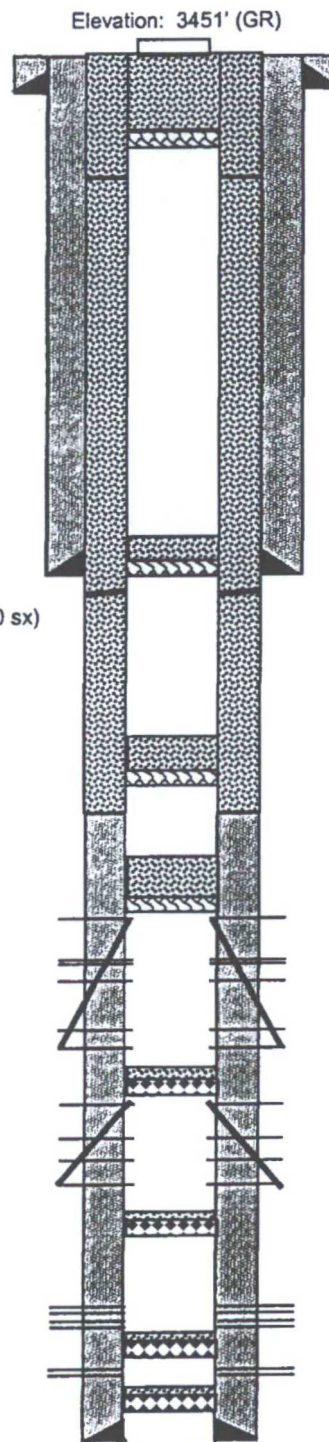
Hare Perfs:
7742-7938 (596 Holes)

CIBP @ 7950' (2 sx)

Hare Perfs:
7974-90 (108 Holes)

CIBP @ 8010' (1 sx)

Ellenburger Open Hole:
8030-8067



17-1/2" Hole
13-3/8" 36# H-40 CSA 312'
Cement w / 325 sx
Circulated to Surface

11" Hole
8-5/8" 24# J-55 CSA 2818'
Cement w / 500 sx
Circulated to Surface

CICR @ 4841' w/ 126' cmt
Cmt sqz leak 4934-65 w /
200 sx

CICR @ 5651' w/ 185' cmt
Cmt sqz perfs 5715-6682 w /
250 sx

CIBP @ 6696' w/ 35' cmt

7-7/8" Hole
5-1/2" 15.5/17# J-55 CSA 8030'
Cement w / 500 sx
TOC @ 5115' (Temp Survey)

EXHIBIT G



from WFX-784

South Permian Basin Region

10520 West I-20 East

Odessa, TX 79765

(915) 488-9191

Lab Team Leader - Sheila Hernandez

(915) 495-7240

Water Analysis Report by Baker Petrolite

Company:	APACHE CORPORATION	Sales RDT:	33102
Region:	PERMIAN BASIN	Account Manager:	MIKE EDWARDS (505) 910-9517
Area:	EUNICE, NM	Sample #:	223099
Lease/Platform:	NORTHEAST DRINKARD UNIT	Analysis ID #:	28971
Entity (or well #):	WATER INJECTION STATION	Analysis Cost	\$40.00
Formation:	UNKNOWN		
Sample Point:	INJECTION PUMP DISCHARGE		

Summary		Analysis of Sample 223099 @ 75 °F					
Sampling Date:	10/3/02	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	10/4/02	Chloride:	10086.0	284.49	Sodium:	5799.5	252.26
Analyst:	SHEILA HERNANDEZ	Bicarbonate:	871.0	11.	Magnesium:	439.0	36.11
TDS (mg/l or g/m3):	20702.9	Carbonate:	0.0	0.	Calcium:	1099.0	54.54
Density (g/cm3, tonne/m3):	1.015	Sulfate	2485.0	51.32	Strontium:	28.0	0.64
Anion/Cation Ratio:	1.000000	Phosphate:			Barium:	0.1	0.
		Borate:			Iron:	0.3	0.01
		Silicate:			Potassium:	115.0	2.94
					Aluminum:		
Carbon Dioxide:	80 PPM	Hydrogen Sulfide:		90 PPM	Chromium:		
Oxygen:		pH at time of sampling:		7.5	Copper:		
Comments:		pH at time of analysis:			Lead:		
		pH used in Calculation:		7.5	Manganese:		
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO ₃		Gypsum CaSO ₄ ·2H ₂ O		Anhydrite CaSO ₄		Celestite SrSO ₄		Barite BaSO ₄		CO ₂ Press
°F	psi	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	psi
80	0	1.18	75.54	-0.08	0.00	-0.14	0.00	0.07	2.75	0.75	0.00	0.21
100	0	1.25	85.15	-0.09	0.00	-0.09	0.00	0.07	3.09	0.60	0.00	0.3
120	0	1.33	95.11	-0.10	0.00	-0.02	0.00	0.09	3.78	0.47	0.00	0.42
140	0	1.41	105.41	-0.10	0.00	0.08	128.07	0.11	4.46	0.36	0.00	0.56

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

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

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

EXHIBIT H

UNICHEM

A Division of BJ Services Company

Lab Test No. 23748

Apache

Sample Date: 3/10/99

Water Analysis

Listed below please find water analysis report from: NEDU

#919-S

Specific Gravity: 1.009
 Total Dissolved Solids: 13273
 pH: 6.49
 Conductivity (umhos):
 Ionic Strength: 0.265

WFX-774 application indicates
 this is San Andres source water

Cations: mg/l

Calcium (Ca++): 608
 Magnesium (Mg++): 244
 Sodium (Na+): 3909
 Iron (Fe++): 0.00
 Dissolved Iron (Fe++):
 Barium (Ba++): 0.38
 Strontium (Sr): 19
 Manganese (Mn++): 0.01
 Resistivity:

Anions:

Bicarbonate (HCO3-): 562
 Carbonate (CO3-):
 Hydroxide (OH-): 0
 Sulfate (SO4-): 1750
 Chloride (Cl-): 6200

Gases:

Carbon Dioxide (CO2): 80.00
 Hydrogen Sulfide (H2S): 408.00
 Oxygen (O2):

Scale Index (positive value indicates scale tendency) a blank indicates some tests were not run

Temperature	CaCO3 SI	CaSO4 SI
86F 30.0C	-0.14	-17.28
104F 40.0C	0.09	-17.28
122F 50.0C	0.35	-17.28
140F 60.0C	0.57	-16.80
168F 70.0C	0.87	-15.02
176F 80.0C	1.20	-15.51

Comments:

cc: Jorry White
 Jay Brown

P.O. Box 61427 • Midland, TX 79711 • 4312 S. County Rd. 1298, Midland, TX 79765
 Office: (915) 563-0241 • Fax: (915) 563-0243

010/2002 0420\$

UNICHEM LAB

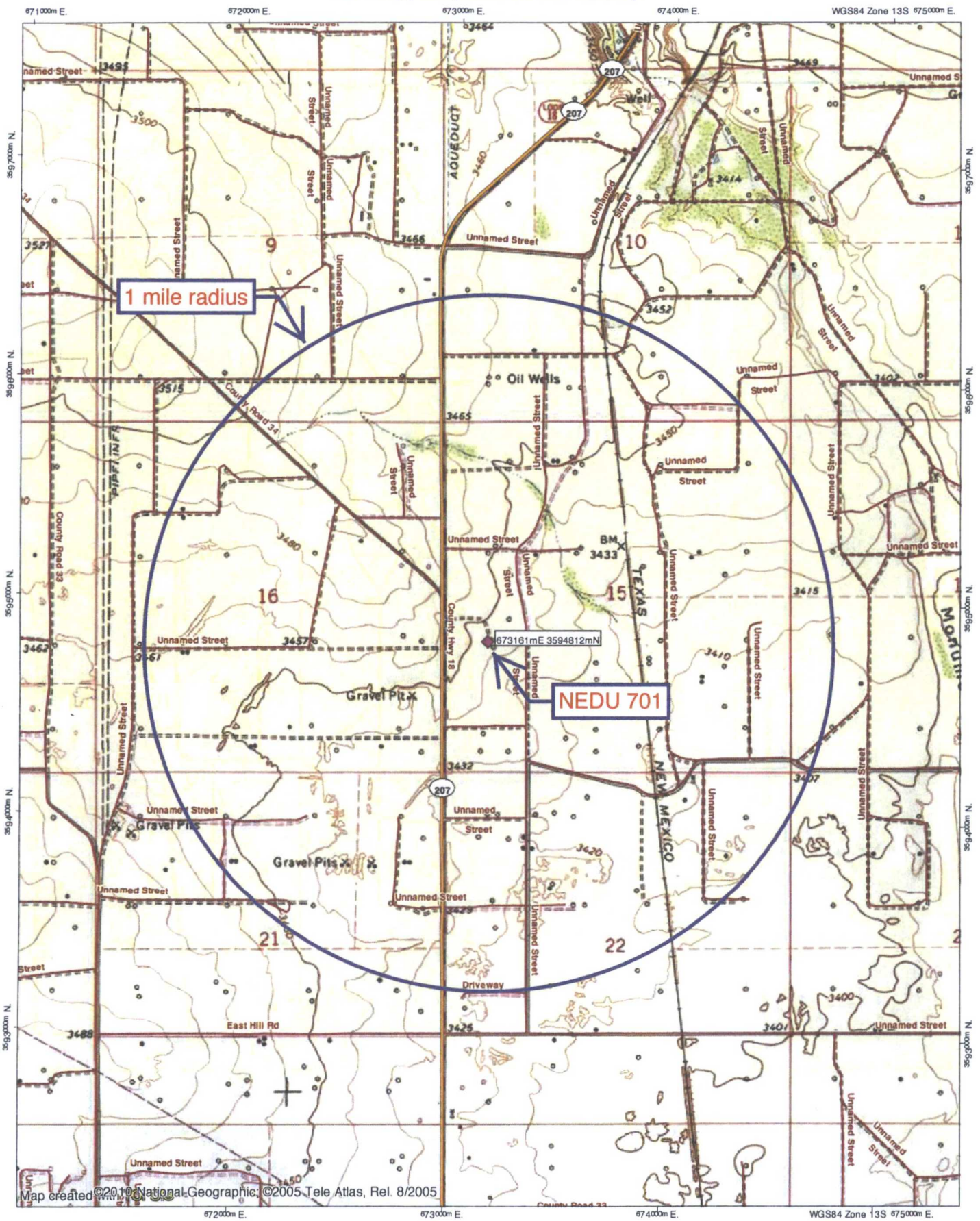
MAR 25 1999 15:26 915 563 0243

EXHIBIT H

APR-05-1999 15:15

3942740

96%





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q Q Q	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
CP00729 POD1		CP	LE	4 1 3	15	21S	37E	673259	3594711*	140	8015		
CP01141 POD3		CP	LE		15	21S	37E	673520	3594272	647	40		
CP01141 POD2		CP	LE		15	21S	37E	673543	3594250	679	40		
CP01141 POD4		CP	LE		15	21S	37E	673556	3594239	695	45		
CP01575 POD1		CP	LE	1 2 1	22	21S	37E	673544	3594204	718	40	35	5
CP01575 POD2		CP	LE	2 2 1	22	21S	37E	673615	3594181	777	35	35	0
CP00731 POD1		CP	LE	2 1	22	21S	37E	673577	3594015*	899	8130		
CP00554		CP	LE	2 2	16	21S	37E	672744	3595610*	900	80	70	10
CP00732 POD1		CP	LE	4 1	22	21S	37E	673584	3593613*	1271	6633		
CP01574 POD1		CP	LE	2 4 4	15	21S	37E	674559	3594598	1413	68	57	11
CP01110 POD1		CP	LE	1 3	14	21S	37E	674586	3594648	1433	70		
CP01110 POD2		CP	LE	1 3	14	21S	37E	674586	3594648	1433	70		
CP01110 POD3		CP	LE	1 3	14	21S	37E	674586	3594648	1433	70		
CP01110 POD4		CP	LE	1 3	14	21S	37E	674586	3594648	1433	20		
CP01110 POD5		CP	LE	1 3	14	21S	37E	674586	3594648	1433	20		
CP01185 POD1		CP	LE	1 3	14	21S	37E	674598	3594689	1442	70		
CP01185 POD3		CP	LE	1 3	14	21S	37E	674592	3594620	1444	70		
CP01185 POD2		CP	LE	1 3	14	21S	37E	674623	3594674	1468	70		
CP01185 POD4		CP	LE	1 3	14	21S	37E	674633	3594610	1485	70		
CP01574 POD2		CP	LE	1 3 3	14	21S	37E	674666	3594578	1523	68	57	11
CP00235 POD3		CP	LE	1 1 1	23	21S	37E	674681	3594137*	1663	90	61	29
CP00235 POD7		CP	LE	3 1 1	23	21S	37E	674681	3593937*	1753	85	65	20
CP00235 POD6		CP	LE	2 1 1	23	21S	37E	674881	3594137*	1847	85	65	20
CP00235 POD4		CP	LE	1 3 1	23	21S	37E	674688	3593735*	1868	100	80	20
CP00733 POD1		CP	LE	3 3	22	21S	37E	673196	3592801*	2011	7864		
CP00235 POD2		CP	LE	1 2 1	23	21S	37E	675083	3594144*	2034	96	65	31
CP00251 POD1		CP	LE	2 3 4	22	21S	37E	674099	3592915*	2116	103		
CP00252 POD1		CP	LE	4 2 4	22	21S	37E	674493	3593125*	2149	106	78	28

1 mile =
1610 m

CP 00235 POD5	CP	LE	1	4	1	23	21S	37E	675090	3593742*		2205	90	70	20
CP 00235 POD1	CP	LE	2	2	1	23	21S	37E	675283	3594144*		2224	81		
CP 00240 POD1	CP	LE	4	2	1	23	21S	37E	675283	3593944*		2292			
CP 00241 POD1	CP	LE	4	2	1	23	21S	37E	675283	3593944*		2292	79		
CP 00235 POD9	CP	LE	3	4	1	23	21S	37E	675090	3593542*		2309	94	58	36
CP 00881	CP	LE		4	4	22	21S	37E	674402	3592824*		2343	95	53	42
CP 00239 POD1	CP	LE	1	1	2	23	21S	37E	675485	3594152*		2415	89	61	28
CP 00235 POD8	CP	LE	3	1	2	23	21S	37E	675485	3593952*		2478	94	58	36
CP 00236 POD1	CP	LE	3	1	2	23	21S	37E	675485	3593952*		2478	83		
CP 00017 POD1	CP	LE	2	1	2	27	21S	37E	674106	3592513*		2485	101		
CP 00711	CP	LE	4	2	2	28	21S	37E	672900	3592291*		2534	100	65	35
CP 00235 POD10	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	92	60	32
CP 00235 POD11	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	97	60	37
CP 00237 POD1	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	84		
CP 00285 POD1	CP	LE	3	1	2	27	21S	37E	673906	3592313*		2607	80		
CP 00238 POD1	CP	LE	3	3	2	23	21S	37E	675492	3593549*		2651	81		
CP 00286 POD1	CP	LE	2	1	2	10	21S	37E	674019	3597338*		2667	70		
CP 00294 POD1	CP	LE	1	3	1	27	21S	37E	673110	3592096*		2716			
CP 00293 POD1	CP	LE	2	4	1	27	21S	37E	673711	3592104*		2763	80		
CP 00700	CP	LE		2		23	21S	37E	675794	3593851*		2802	75	65	10
CP 00562	CP	LE	1	2	2	23	21S	37E	675887	3594159*		2803	136	65	71
CP 00736	CP	LE		3	1	27	21S	37E	673211	3591997*		2815	120	76	44
CP 00249 POD1	CP	LE	2	3	2	27	21S	37E	674113	3592111*		2863	102		
CP 00250 POD1	CP	LE	2	3	2	27	21S	37E	674113	3592111*		2863	101		
CP 00242 POD1	CP	LE	3	4	2	28	21S	37E	672708	3591889*		2957			
CP 01096 POD2	CP	LE	2	2	4	28	21S	37E	672976	3591731		3085	98	48	50
CP 01095 POD2	CP	LE	2	2	4	28	21S	37E	672876	3591714		3110	109	48	61
CP 01095 POD1	CP	LE	2	2	4	28	21S	37E	672859	3591714		3111	108	48	60
CP 00253 POD1	CP	LE	3	4	2	27	21S	37E	674315	3591918*		3115	101		
CP 01096 POD1	CP	LE	2	2	4	28	21S	37E	672861	3591708		3118	108	48	60
CP 00134 POD1	CP	LE	1	1	1	24	21S	37E	676289	3594166*		3194	85		

Average Depth to Water: **59 feet**Minimum Depth: **35 feet**Maximum Depth: **80 feet**

Record Count: 59

UTMNAD83 Radius Search (in meters):**EXHIBIT I**

Easting (X): 673161

Northing (Y): 3594812

Radius: 3220

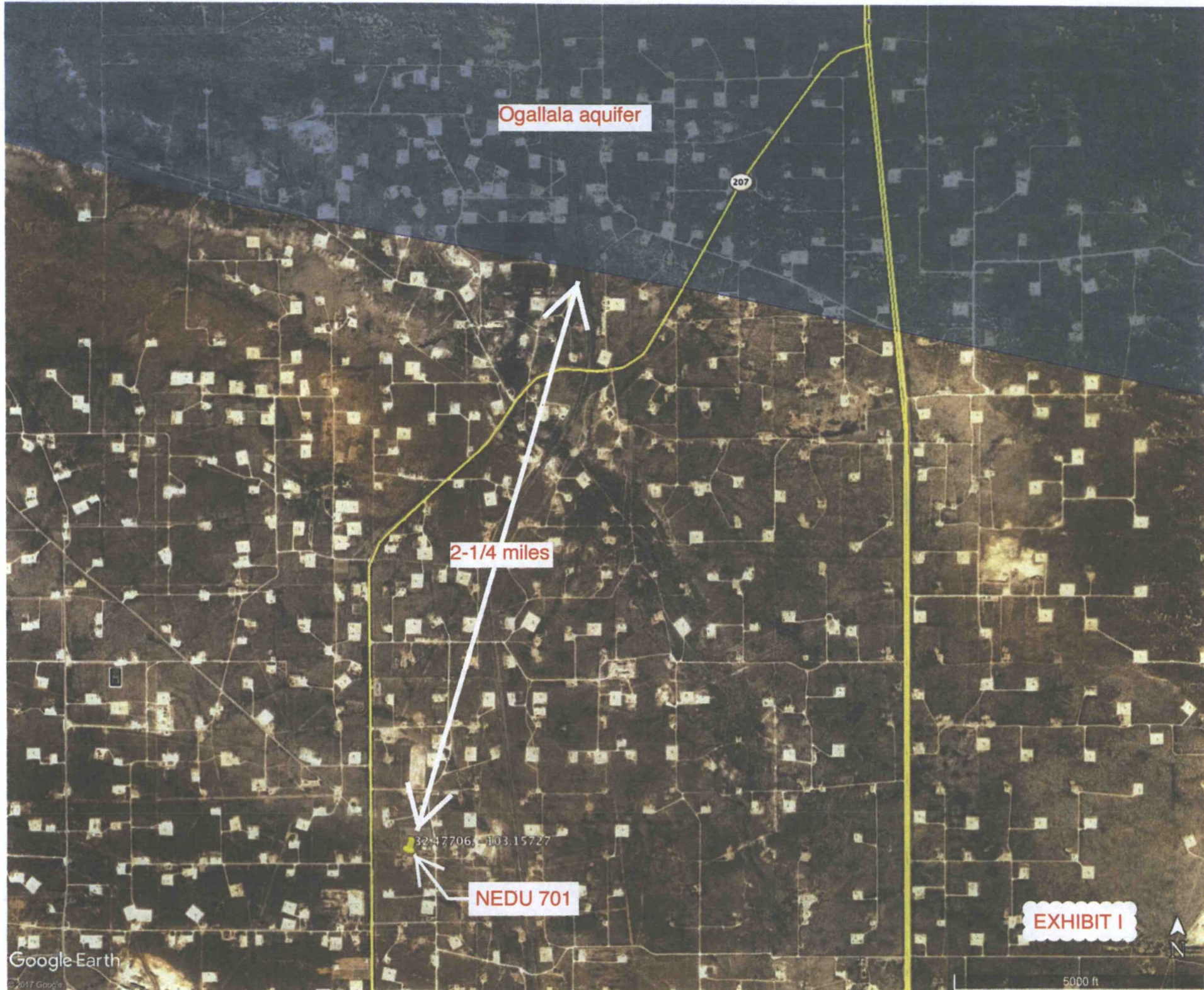
*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/25/17 11:57 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

EXHIBIT I



Ogallala aquifer

207

2-1/4 miles

32.47706, -103.15727

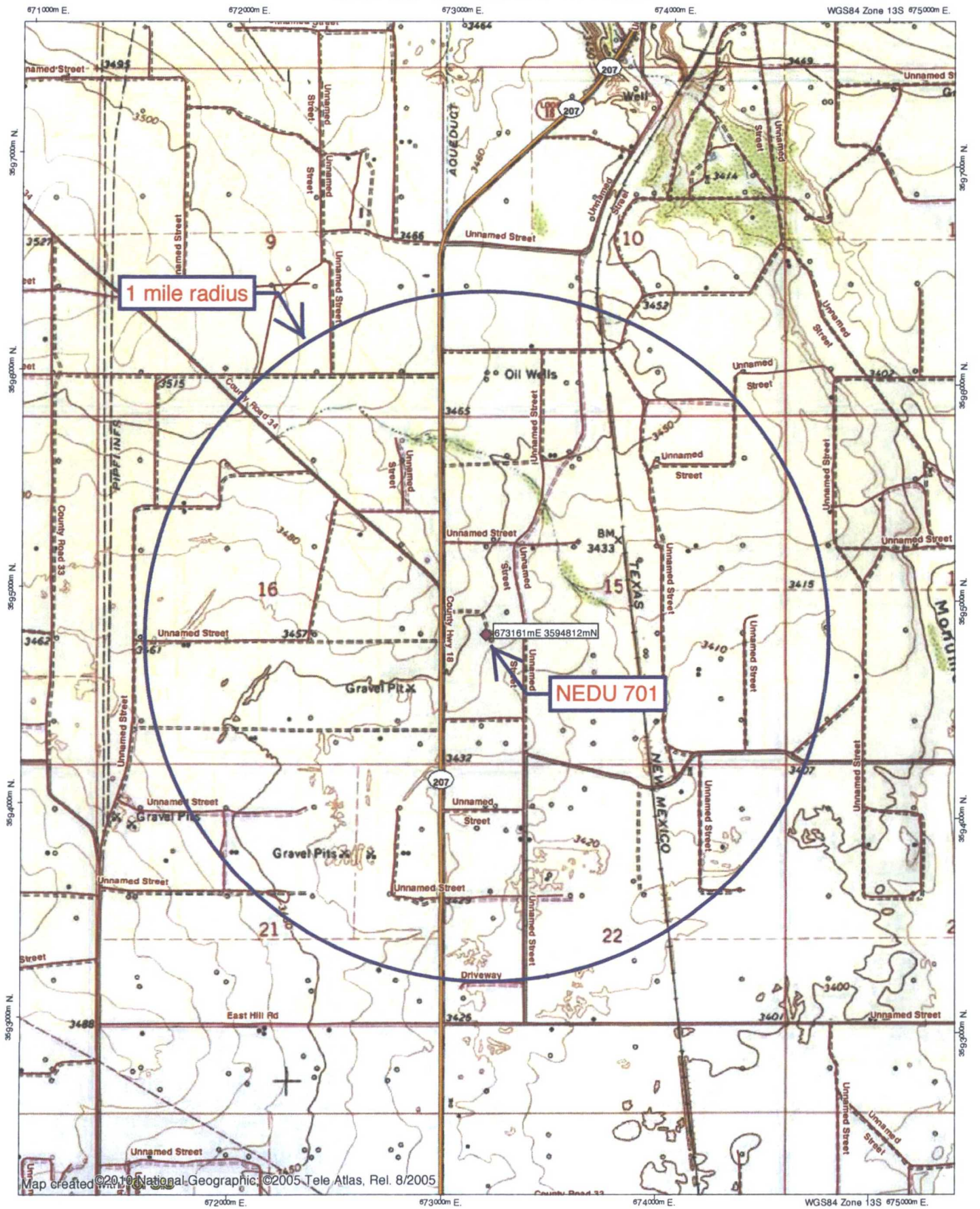
NEDU 701

EXHIBIT I

Google Earth

© 2017 Google

5000 ft





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW#### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced,
O=orphaned,
C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water	Column
CP00729 POD1		CP	LE	4	1	3	15	21S	37E	673259	3594711*	140	8015				
CP01141 POD3		CP	LE				15	21S	37E	673520	3594272	647	40				
CP01141 POD2		CP	LE				15	21S	37E	673543	3594250	679	40				
CP01141 POD4		CP	LE				15	21S	37E	673556	3594239	695	45				
CP01575 POD1		CP	LE	1	2	1	22	21S	37E	673544	3594204	718	40			35	5
CP01575 POD2		CP	LE	2	2	1	22	21S	37E	673615	3594181	777	35			35	0
CP00731 POD1		CP	LE		2	1	22	21S	37E	673577	3594015*	899	8130				
CP00554		CP	LE		2	2	16	21S	37E	672744	3595610*	900	80			70	10
CP00732 POD1		CP	LE		4	1	22	21S	37E	673584	3593613*	1271	6633				
CP01574 POD1		CP	LE	2	4	4	15	21S	37E	674559	3594598	1413	68			57	11
CP01110 POD1		CP	LE		1	3	14	21S	37E	674586	3594648	1433	70				
CP01110 POD2		CP	LE		1	3	14	21S	37E	674586	3594648	1433	70				
CP01110 POD3		CP	LE		1	3	14	21S	37E	674586	3594648	1433	70				
CP01110 POD4		CP	LE		1	3	14	21S	37E	674586	3594648	1433	20				
CP01110 POD5		CP	LE		1	3	14	21S	37E	674586	3594648	1433	20				
CP01185 POD1		CP	LE		1	3	14	21S	37E	674598	3594689	1442	70				
CP01185 POD3		CP	LE		1	3	14	21S	37E	674592	3594620	1444	70				
CP01185 POD2		CP	LE		1	3	14	21S	37E	674623	3594674	1468	70				
CP01185 POD4		CP	LE		1	3	14	21S	37E	674633	3594610	1485	70				
CP01574 POD2		CP	LE	1	3	3	14	21S	37E	674666	3594578	1523	68			57	11
CP00235 POD3		CP	LE	1	1	1	23	21S	37E	674681	3594137*	1663	90			61	29
CP00235 POD7		CP	LE	3	1	1	23	21S	37E	674681	3593937*	1753	85			65	20
CP00235 POD6		CP	LE	2	1	1	23	21S	37E	674881	3594137*	1847	85			65	20
CP00235 POD4		CP	LE	1	3	1	23	21S	37E	674688	3593735*	1868	100			80	20
CP00733 POD1		CP	LE		3	3	22	21S	37E	673196	3592801*	2011	7864				
CP00235 POD2		CP	LE	1	2	1	23	21S	37E	675083	3594144*	2034	96			65	31
CP00251 POD1		CP	LE	2	3	4	22	21S	37E	674099	3592915*	2116	103				
CP00252 POD1		CP	LE	4	2	4	22	21S	37E	674493	3593125*	2149	106			78	28

1 mile =
1610 m

CP 00235 POD5	CP	LE	1	4	1	23	21S	37E	675090	3593742*		2205	90	70	20
CP 00235 POD1	CP	LE	2	2	1	23	21S	37E	675283	3594144*		2224	81		
CP 00240 POD1	CP	LE	4	2	1	23	21S	37E	675283	3593944*		2292			
CP 00241 POD1	CP	LE	4	2	1	23	21S	37E	675283	3593944*		2292	79		
CP 00235 POD9	CP	LE	3	4	1	23	21S	37E	675090	3593542*		2309	94	58	36
CP 00881	CP	LE		4	4	22	21S	37E	674402	3592824*		2343	95	53	42
CP 00239 POD1	CP	LE	1	1	2	23	21S	37E	675485	3594152*		2415	89	61	28
CP 00235 POD8	CP	LE	3	1	2	23	21S	37E	675485	3593952*		2478	94	58	36
CP 00236 POD1	CP	LE	3	1	2	23	21S	37E	675485	3593952*		2478	83		
CP 00017 POD1	CP	LE	2	1	2	27	21S	37E	674106	3592513*		2485	101		
CP 00711	CP	LE	4	2	2	28	21S	37E	672900	3592291*		2534	100	65	35
CP 00235 POD10	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	92	60	32
CP 00235 POD11	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	97	60	37
CP 00237 POD1	CP	LE	1	3	2	23	21S	37E	675492	3593749*		2561	84		
CP 00285 POD1	CP	LE	3	1	2	27	21S	37E	673906	3592313*		2607	80		
CP 00238 POD1	CP	LE	3	3	2	23	21S	37E	675492	3593549*		2651	81		
CP 00286 POD1	CP	LE	2	1	2	10	21S	37E	674019	3597338*		2667	70		
CP 00294 POD1	CP	LE	1	3	1	27	21S	37E	673110	3592096*		2716			
CP 00293 POD1	CP	LE	2	4	1	27	21S	37E	673711	3592104*		2763	80		
CP 00700	CP	LE		2		23	21S	37E	675794	3593851*		2802	75	65	10
CP 00562	CP	LE	1	2	2	23	21S	37E	675887	3594159*		2803	136	65	71
CP 00736	CP	LE		3	1	27	21S	37E	673211	3591997*		2815	120	76	44
CP 00249 POD1	CP	LE	2	3	2	27	21S	37E	674113	3592111*		2863	102		
CP 00250 POD1	CP	LE	2	3	2	27	21S	37E	674113	3592111*		2863	101		
CP 00242 POD1	CP	LE	3	4	2	28	21S	37E	672708	3591889*		2957			
CP 01096 POD2	CP	LE	2	2	4	28	21S	37E	672976	3591731		3085	98	48	50
CP 01095 POD2	CP	LE	2	2	4	28	21S	37E	672876	3591714		3110	109	48	61
CP 01095 POD1	CP	LE	2	2	4	28	21S	37E	672859	3591714		3111	108	48	60
CP 00253 POD1	CP	LE	3	4	2	27	21S	37E	674315	3591918*		3115	101		
CP 01096 POD1	CP	LE	2	2	4	28	21S	37E	672861	3591708		3118	108	48	60
CP 00134 POD1	CP	LE	1	1	1	24	21S	37E	676289	3594166*		3194	85		

Average Depth to Water: **59 feet**Minimum Depth: **35 feet**Maximum Depth: **80 feet****Record Count:** 59**UTMNA83 Radius Search (in meters):****EXHIBIT I**

Easting (X): 673161

Northing (Y): 3594812

Radius: 3220

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

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

9/25/17 11:57 AM

WATER COLUMN/ AVERAGE DEPTH TO
WATER**EXHIBIT I**

Ogallala aquifer

207

2-1/4 miles

32.47706, -103.15727

NEDU 701

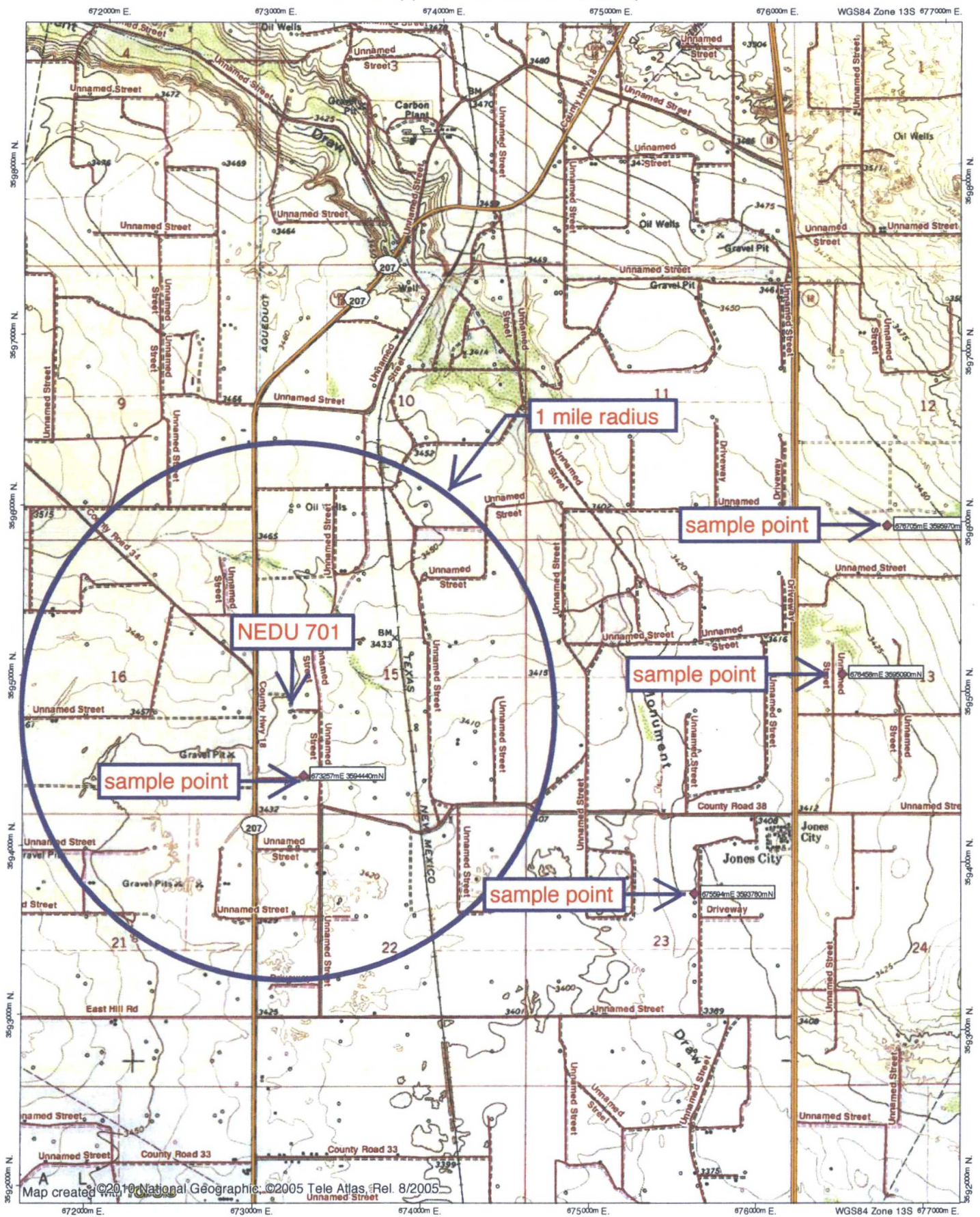
EXHIBIT I

Google Earth

© 2017 Google

5000 ft





Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order 1703D96
Date Reported: 4/6/2017

CLIENT: Permits West

Client Sample ID: EDBU Sec 15 Decky

Project: Apache EDBU

Collection Date: 3/23/2017 5:20:00 PM

Lab ID: 1703D96-001

Matrix: AQUEOUS

Received Date: 3/28/2017 2:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: LGT
Chloride	760	25	*	mg/L	50	4/4/2017 8:53:46 PM
EPA METHOD 1664B						Analyst: tnc
N-Hexane Extractable Material	ND	10.1		mg/L	1	3/29/2017
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1880	20.0	*	mg/L	1	3/31/2017 4:08:00 PM

EXHIBIT I

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

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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1703D96

Date Reported: 4/6/2017

CLIENT: Permits West

Client Sample ID: EDBU Sec 13 WM

Project: Apache EDBU

Collection Date: 3/24/2017 9:41:00 AM

Lab ID: 1703D96-002

Matrix: AQUEOUS

Received Date: 3/28/2017 2:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: MRA
Chloride	330	10	*	mg/L	20	3/30/2017 8:55:56 PM
EPA METHOD 1664B						Analyst: tnc
N-Hexane Extractable Material	ND	9.69		mg/L	1	3/29/2017
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1020	20.0	*	mg/L	1	3/31/2017 4:08:00 PM

EXHIBIT I

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

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

Analytical Report

Lab Order 1703D96

Date Reported: 4/6/2017

Hall Environmental Analysis Laboratory, Inc.**CLIENT:** Permits West**Client Sample ID:** EDBU Sec 23 Tank**Project:** Apache EDBU**Collection Date:** 3/24/2017 11:33:00 AM**Lab ID:** 1703D96-003**Matrix:** AQUEOUS**Received Date:** 3/28/2017 2:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: LGT
Chloride	490	25	*	mg/L	50	4/4/2017 9:06:11 PM
EPA METHOD 1664B						Analyst: tnc
N-Hexane Extractable Material	ND	10.9		mg/L	1	3/29/2017
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1300	20.0	*	mg/L	1	3/31/2017 4:08:00 PM

EXHIBIT I

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

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

Page 3 of 7

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1703D96

Date Reported: 4/6/2017

CLIENT: Permits West

Client Sample ID: EDBU Sec 12 Tank

Project: Apache EDBU

Collection Date: 3/24/2017 1:16:00 PM

Lab ID: 1703D96-004

Matrix: AQUEOUS

Received Date: 3/28/2017 2:48:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: LGT
Chloride	800	25	*	mg/L	50	4/4/2017 9:18:35 PM
EPA METHOD 1664B						Analyst: tnc
N-Hexane Extractable Material	ND	9.89		mg/L	1	3/29/2017
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	2070	20.0	*	mg/L	1	3/31/2017 4:08:00 PM

EXHIBIT I

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

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D96

06-Apr-17

Client: Permits West
Project: Apache EDBU

Sample ID	MB-30955	SampType:	MBLK	TestCode:	EPA Method 1664B					
Client ID:	PBW	Batch ID:	30955	RunNo:	41740					
Prep Date:	3/29/2017	Analysis Date:	3/29/2017	SeqNo:	1310477	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10.0								

Sample ID	LCS-30955	SampType:	LCS	TestCode:	EPA Method 1664B					
Client ID:	LCSW	Batch ID:	30955	RunNo:	41740					
Prep Date:	3/29/2017	Analysis Date:	3/29/2017	SeqNo:	1310478	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	38.6	10.0	40.00	0	96.5	78	114			

EXHIBIT I

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D96

06-Apr-17

Client: Permits West
Project: Apache EDBU

Sample ID	MB	SampType: MBLK		TestCode: EPA Method 300.0: Anions						
Client ID:	PBW	Batch ID: R41765		RunNo: 41765						
Prep Date:		Analysis Date: 3/30/2017		SeqNo: 1311558		Units: mg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R41765	RunNo:	41765					
Prep Date:		Analysis Date:	3/30/2017	SeqNo:	1311559	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.5	90	110			

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	A41898	RunNo:	41898					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315920	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	A41898	RunNo:	41898					
Prep Date:		Analysis Date:	4/4/2017	SeqNo:	1315921	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.1	90	110			

EXHIBIT I

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1703D96

06-Apr-17

Client: Permits West
Project: Apache EDBU

Sample ID	MB-30994	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids
Client ID:	PBW	Batch ID:	30994	RunNo:	41814
Prep Date:	3/30/2017	Analysis Date:	3/31/2017	SeqNo:	1312561 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Total Dissolved Solids	ND	20.0			

Sample ID	LCS-30994	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids
Client ID:	LCSW	Batch ID:	30994	RunNo:	41814
Prep Date:	3/30/2017	Analysis Date:	3/31/2017	SeqNo:	1312562 Units: mg/L
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit %RPD RPDLimit Qual
Total Dissolved Solids	1020	20.0	1000	0	102 80 120

EXHIBIT I

Qualifiers:

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



Form C-108
Affirmative Statement
Apache Corporation
Northeast Drinkard Unit
Section 15, T-21-S, R-37-E
Lea County, New Mexico

The extractions from the seismic data show no evidence of faulting at (or above) the Glorieta in this area and surface mapping from the USGS confirms that no faults are known at the surface. In addition, we have no empirical evidence that our injection operations at NEDU are affected by faulting at the Glorieta level, the evaporites, or the surface. Available geologic and engineering data has been examined and no evidence of open faults or hydrological connection between the injection zone and any underground sources of drinking water has been found.

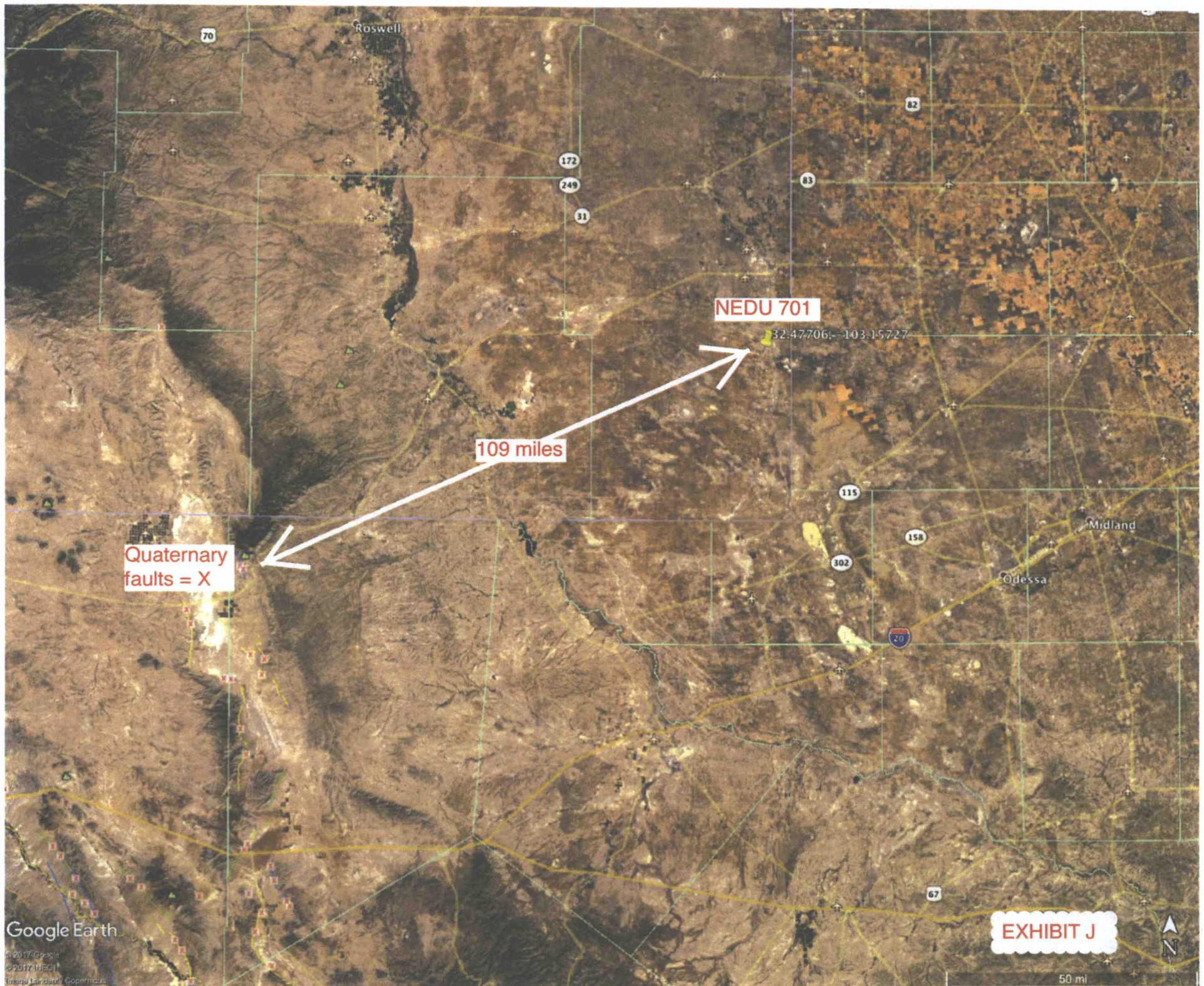
A handwritten signature in black ink, appearing to read "J. Wagner", is written over a horizontal line.

Justin Wagner
Geologist I

8/14/2017

Date

EXHIBIT J

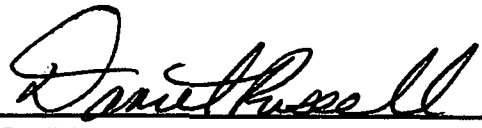


Affidavit of Publication

STATE OF NEW MEXICO
COUNTY OF LEA

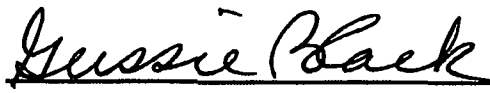
I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period of 1 issue(s).

Beginning with the issue dated
September 24, 2017
and ending with the issue dated
September 24, 2017.



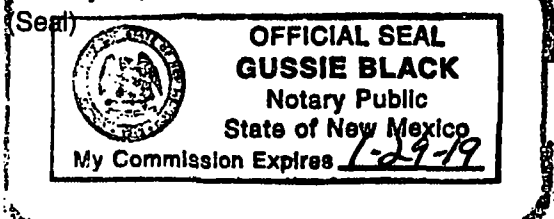
Publisher

Sworn and subscribed to before me this
24th day of September 2017.



Business Manager

My commission expires
January 29, 2019



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

LEGAL NOTICE
September 24, 2017

Apache Corporation is applying to convert the Northeast Drinkard Unit 701 well to a water injection well. The well is at 1980 FSL & 660 FWL, Sec. 15, T. 21 S., R. 37 E., Lea County, NM. This is 3 miles NNE of Eunice, NM. It will inject water into the Blinberry, Tubb, and Drinkard (maximum injection pressure = 1,375 psi) from 5,715' to 6,665'. Injection will be at a maximum rate of 2,000 bwpd. Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87506 within 15 days. Additional information can be obtained by contacting: Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120. #32097

02108485

00200011

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

EXHIBIT K

PERMITS WEST, INC.

PROVIDING PERMITS for LAND USERS

37 Verano Loop, Santa Fe, New Mexico 87508

(505) 466-8120

October 2, 2017

BLM
620 E. Greene
Carlsbad NM 88220

TYPICAL LETTER

Apache Corporation is planning (see attached application) to deepen and convert its Northeast Drinkard Unit 701 oil well to a water injection well. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following proposed water injection well. This letter is a notice only. No action is needed unless you have questions or objections.

Well Name: Northeast Drinkard Unit 701 (fee lease) TD: from 6654' to 6765

Proposed Injection Zones: Blinebry, Tubb, & Drinkard from 5715' to 6665'

Where: 1980' FSL & 660' FWL Sec. 15, T. 21 S., R. 37 E., Lea County, NM

Approximate Location: 3 air miles NNE of Eunice, NM

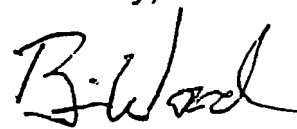
Applicant Name: Apache Corporation (432) 818-1167

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

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

Please call me if you have any questions.

Sincerely,



Brian Wood

7015 1660 0000 1583 1181

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☐ Adult Signature Restricted Delivery \$

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Sent To BLM
620 E. Greene
Carlsbad NM 88220
APC NEDU 701

Street and Apt. No., or PO Box No.
City, State, ZIP+4®

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

QUICK SEND - 03 OCT 03 2017

EXHIBIT L

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☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

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Midland, TX 79706
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

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PO Box 1835
Houston, TX 77251
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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☒ Return Receipt (hardcopy)	\$ <u>275</u>
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

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PO Box 1231
Ogden, UT 84402
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

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☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

Sent To **Elliott Industries LP**
PO Box 1328
Santa Fe, NM 87504
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7427 1660 0000 1583 1255

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CERTIFIED MAIL® RECEIPT
Domestic Mail Only

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OFFICIAL USE

Certified Mail Fee \$ 335

Extra Services & Fees (check box, add fee as appropriate)

☒ Return Receipt (hardcopy)	\$ <u>275</u>
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

Sent To **Key Energy Services, LLC**
1301 McKinney St., #1800
Houston, TX 77040
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

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OFFICIAL USE

Certified Mail Fee \$ 335

Extra Services & Fees (check box, add fee as appropriate)

☒ Return Receipt (hardcopy)	\$ <u>275</u>
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

Sent To **NM State Land Office**
PO Box 1148
Santa Fe, NM 87504
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

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☒ Return Receipt (hardcopy)	\$ <u>275</u>
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

Sent To **Occidental Petroleum Ltd.**
PO Box 4284
Houston, TX 77210
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Certified Mail Fee \$ 335

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☒ Return Receipt (hardcopy)	\$ <u>275</u>
☐ Return Receipt (electronic)	\$
☐ Certified Mail Restricted Delivery	\$
☐ Adult Signature Required	\$
☐ Adult Signature Restricted Delivery	\$

Postage \$ 224

Total Postage and Fees \$ 559

Sent To **Oxy USA WFLP**
PO Box 4284
Houston, TX 77210
APC NEDU 701

City, State, ZIP+4® **Santa Fe, NM 87508**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

ORDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Print your name and address on the reverse that we can return the card to you. Attach this card to the back of the mailpiece, on the front if space permits. Service Addressed to:		COMPLETE THIS SECTION ON DELIVERY A. Signature <i>Kathleen A. Elliott</i>	
		☐ Agent ☐ Addressee	
		B. Received by (Printed Name) <i>Kathleen A. Elliott</i>	C. Date of Delivery <i>10/10/07</i>
		D. Is delivery address different from item 1? ☐ Yes If YES, enter delivery address below: ☐ No	
Ellioo Industries LP PO Box 1328 Santa Fe NM 87504			
3. Service Type ☐ Adult Signature ☐ Adult Signature Restricted Delivery ☐ Certified Mail® ☐ Certified Mail Restricted Delivery ☐ Collect on Delivery ☐ Collect on Delivery Restricted Delivery ☐ Insured Mail ☐ Registered Mail Restricted Delivery (\$500)		☐ Priority Mail Express® ☐ Registered Mail™ ☐ Registered Mail Restricted Delivery ☐ Return Receipt for Merchandise ☐ Signature Confirmation™ ☐ Signature Confirmation Restricted Delivery	
Service Number (Transfer from service label) 015 1660 0000 1583 1242 Form 3811, July 2015 PSN 7530-02-000-9053			

EXHIBIT L

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3.
 2. Print your name and address on the reverse so that we can return the card to you.
 3. Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

2. Article Number (Transfer from service label)

7015 1660 0000 1583 1235

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☒ Agent ☐ Addressee
 X 
 B. Received by (Printed Name) J. Jackson C. Date of Delivery 10/12/17
 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

Elliott Hall Co. UT LP
 PO Box 1231
 Ogden UT 84402

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail Restricted Delivery (over \$500)

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3.
 2. Print your name and address on the reverse so that we can return the card to you.
 3. Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

Article Number (Transfer from service label)

7015 1660 0000 1583 1266

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☐ Agent ☐ Addressee
 X 
 B. Received by (Printed Name) UL - 6 2017 C. Date of Delivery 10/12/17
 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

NM State Land Office
 PO Box 1148
 Santa Fe NM 87504

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail Restricted Delivery (over \$500)

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3.
 2. Print your name and address on the reverse so that we can return the card to you.
 3. Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

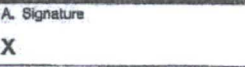
Article Number (Transfer from service label)

7015 1660 0000 1583 1273

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☐ Agent ☐ Addressee
 X 
 B. Received by (Printed Name) UL - 6 2017 C. Date of Delivery 10/12/17
 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

Occidental Permian Ltd.
 PO Box 4294
 Houston TX 77210

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail Restricted Delivery (over \$500)

SENDER: COMPLETE THIS SECTION

1. Complete items 1, 2, and 3.
 2. Print your name and address on the reverse so that we can return the card to you.
 3. Attach this card to the back of the mailpiece, or on the front if space permits.

Article Addressed to:

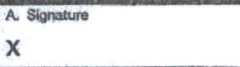
Article Number (Transfer from service label)

7015 1660 0000 1583 1280

PS Form 3811, July 2015 PSN 7530-02-000-9053

Domestic Return Receipt

COMPLETE THIS SECTION ON DELIVERY

A. Signature ☐ Agent ☐ Addressee
 X 
 B. Received by (Printed Name) UL - 6 2017 C. Date of Delivery 10/12/17
 D. Is delivery address different from item 1? ☐ Yes
 If YES, enter delivery address below: ☐ No

Oxy USA WTP LP
 PO Box 4294
 Houston TX 77210

3. Service Type
☐ Adult Signature ☐ Priority Mail Express®
☐ Adult Signature Restricted Delivery ☐ Registered Mail™
☐ Certified Mail® ☐ Registered Mail Restricted Delivery
☐ Certified Mail Restricted Delivery ☐ Return Receipt for Merchandise
☐ Collect on Delivery ☐ Signature Confirmation™
☐ Collect on Delivery Restricted Delivery ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail ☐ Signature Confirmation Restricted Delivery
☐ Insured Mail Restricted Delivery (over \$500)

EXHIBIT L



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON

Governor

Betty Rivera

Cabinet Secretary

Apache Corporation

6120 S. Yale, Suite 1500

Tulsa, Oklahoma 74136

August 13, 2002

Lori Wrotenbery

Director

Oil Conservation Division

Attn: Mr. Kevin Mayes

RE: Injection Pressure Increase, -185
Northeast Drinkard Unit
Waterflood Project
Lea County, New Mexico

Dear Mr. Mayes:

Reference is made to your request dated July 25, 2002, to increase the surface injection pressure on all injection wells within the above-referenced water flood project. This request is based on recent step rate tests conducted on twelve (12) injection wells during 2002. Test results have been reviewed, and we feel an increase in injection pressure is justified at this time.

You are therefore authorized to increase the surface injection pressure on all current injection wells within this water flood to a maximum surface injection pressure of 1375 psig. In addition, you are authorized to increase the surface injection pressures on the twelve (12) test wells to the pressures as shown on the attached Exhibit "A".

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,

Lori Wrotenbery (wvj)
Lori Wrotenbery
Director

LW/wvj

cc: Oil Conservation Division - Hobbs

Files: R-8541; IPI-2002; WFX-576, 579, 583, 624, 674, 722, 740, 752, 759, and 774

Attachment

Exhibit "A"
Apache Corporation
Northeast Drinkard Unit (NEDU)
Township 21 South, Range 37 East, NMPM, Lea County, New Mexico
Injection Pressure Increases

<i>Injection Well</i>	<i>Top Perf Depth Feet</i>	<i>Maximum Surface Injection Pressure PSIG</i>	<i>Order Number</i>
NEDU Well No. 111, API No. 30-025-26670	5807	2160	R-8541
NEDU Well No. 115, API No. 30-025-06340	5866	2240	R-8541
NEDU Well No. 210, API No. 30-025-06502	6576	2250	WFX-722
NEDU Well No. 215, API No. 30-025-06341	5767	1970	WFX-722
NEDU Well No. 303, API No. 30-025-06512	6528	1710	R-8541
NEDU Well No. 308, API No. 30-025-06494	6566	1920	WFX-674
NEDU Well No. 403, API No. 30-025-06449	5716	1900	R-8541
NEDU Well No. 605, API No. 30-025-06613	5698	1375	R-8541
NEDU Well No. 709, API No. 30-025-06595	5748	1790	R-8541
NEDU Well No. 806, API No. 30-025-06727	5578	1400	WFX-759
NEDU Well No. 911, API No. 30-025-06760	5469	1375	WFX-759
NEDU Well No. 913, API No. 30-025-09932	5557	1375	WFX-579



C-108 Review Checklist: Received 10/18/2017 Add. Request: _____ Reply Date: _____ Suspended: _____ [Ver 15]

ORDER TYPE: WFX / PMX / SWD Number: _____ Order Date: _____ Legacy Permits/Orders: 12-8548
FBI-185

Well No. 701 Well Name(s): WBD 4

API: 30-0 25-09 916 Spud Date: 10-10-1947 New or Old: Q (UIC Class II Primacy 03/07/1982)

Footages 1580 FSL 660 FUL Lot _____ or Unit L Sec 15 Tsp 21S Rge 37E County LEG

General Location: 2 miles W/Byniche Pool: Byniche's B1-Tu - DR, north Pool No.: 22900

BLM 100K Map: TAL Operator: Apache Corp OGRID: 873 Contact: Wood's Agent

COMPLIANCE RULE 5.9: Total Wells: 2943 Inactive: 2 Fincl Assur: OK Compl. Order? Y IS 5.9 OK? OK Date: 11-03-2017

WELL FILE REVIEWED ☐ Current Status: Active

WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: _____

Planned Rehab Work to Well: _____

Well Construction Details		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing <u>Surface</u>	<u>17 1/2" / 13 3/8"</u>	<u>224</u>	Stage Tool	<u>210</u>	<u>Surface/Visual</u>
Planned ___ or Existing <u>Interm/Prod</u>	<u>11 7/8"</u>	<u>285</u>		<u>8W</u>	<u>Surface/Visual</u>
Planned ___ or Existing <u>Interm/Prod</u>	<u>7 7/8" / 5 1/2"</u>	<u>6652</u>		<u>600</u>	<u>325' / Calculated</u>
Planned ___ or Existing <u>Prod/Liner</u>	<u>4 3/4" / 4 1/2"</u>	<u>6765</u>		<u>250</u>	<u>Surface</u>
Planned ___ or Existing <u>Liner</u>					
Planned ___ or Existing <u>OH / PERF</u>	<u>5715 / 6665</u>		Inj Length		

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.		<u>BL</u>	<u>5549</u>	Drilled TD <u>6654</u> PBTD _____
Confining Unit: Litho. Struc. Por.		<u>TL</u>	<u>645</u>	NEW TD <u>6765</u> NEW PBTD <u>6750</u>
Proposed Inj Interval TOP:		<u>DR</u>	<u>6442</u>	NEW Open Hole ☐ or NEW Perf ☒
Proposed Inj Interval BOTTOM:		<u>Abv</u>	<u>6678</u>	Tubing Size _____ in. Inter Coated? _____
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth _____ ft
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth _____ (100-ft limit)
				Proposed Max. Surface Press. _____ psi
				Admin. Inj. Press. _____ (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

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

FRESH WATER: Aquifer Quaternary Max Depth 80 HYDRO AFFIRM STATEMENT By Qualified Person ☐

NMOSE Basin: Capitan CAPITAN REEF: thru adj NA No. Wells within 1-Mile Radius? 4 FW Analysis Y

Disposal Fluid: Formation Source(s) Produced H₂O Analysis? Y On Lease ☒ Operator Only ☐ or Commercial ☐

Disposal Int: Inject Rate (Avg/Max BWPD): 1.5K/2.0K Protectable Waters? _____ Source: _____ System: Closed or Open

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

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

Penetrating Wells: No. Active Wells 47 Num Repairs? _____ on which well(s)? _____ Diagrams? _____

Penetrating Wells: No. P&A Wells 5 Num Repairs? _____ on which well(s)? _____ Diagrams? X

NOTICE: Newspaper Date Sept 24, 2017 Mineral Owner BLM Surface Owner Apache N. Date 10/16/2017

RULE 26.7(A): Identified Tracts? Y Affected Persons: Chevron, Elliot & Hill, Oxy N. Date _____

Order Conditions: Issues: NR ** Provide GR/CBL/CCL/CNL logs
Add Order Cond: Run C-B-L from base liner to
Surface