Revised March 23, 2017

RECEIVED:	REVIEWER:	TYPE:	APP NO:
7/17/2017	MAM	WFX	pMAM1715849184

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: East Blinebry Drinkard Unit 42 **API:** 30-025-28011
Pool: Eunice; BLI-TU-DR, North **Pool Code:** 22900

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW WFX-969

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

Letter dated July 13, 2017

FOR OCD ONLY
☐ Notice Complete
☐ Application Content Complete

2) **NOTIFICATION REQUIRED TO:** Check those which apply.
A. ■ Offset operators or lease holders
B. ☐ Royalty, overriding royalty owners, revenue owners
C. ■ Application requires published notice
D. ☐ Notification and/or concurrent approval by SLO
E. ■ Notification and/or concurrent approval by BLM
F. ■ Surface owner
G. ■ For all of the above, proof of notification or publication is attached, and/or,
H. ☐ No notice required

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

B Wood
Signature

7-15-17
Date

505 466-8120
Phone Number

brian@permitswest.com
e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: APACHE CORPORATION

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

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

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes XXX No
If yes, give the Division order number authorizing the project: R-12981

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

EAST BLINEBRY DRINKARD UNIT 42

VII. Attach data on the proposed operation, including:

30-025-28011

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).

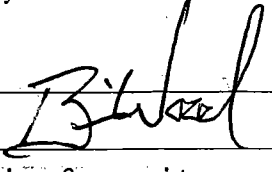
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: JUNE 27, 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

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

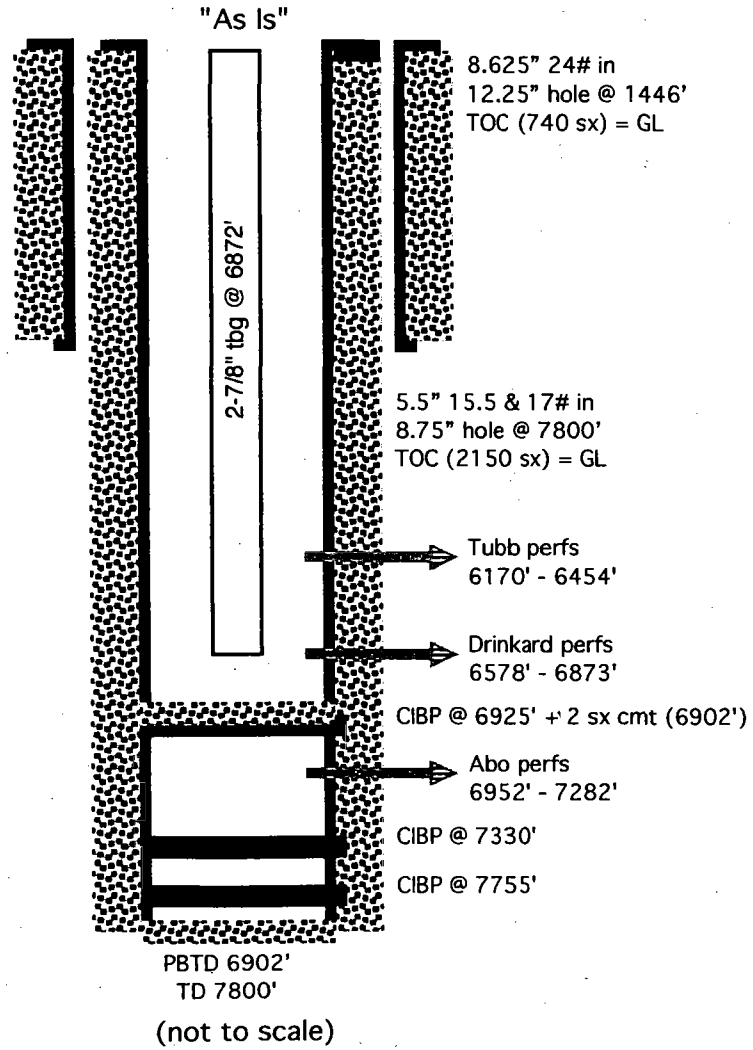
INJECTION WELL DATA SHEET

OPERATOR: APACHE CORPORATION

WELL NAME & NUMBER: EAST BLINEBRY DRINKARD UNIT 42

WELL LOCATION:	660' FSL & 2100' FWL	N	13	21 S	37 E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12.25" Casing Size: 8.625"

Cemented with: 740 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 150 SX

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 8.75" Casing Size: 5.5"

Cemented with: 2150 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 125 SX

Total Depth: 7800'

Injection Interval

5697' (5687') feet to 6150'

(Perforated or Open Hole; indicate which)

Side 1

INJECTION WELL DATA SHEET

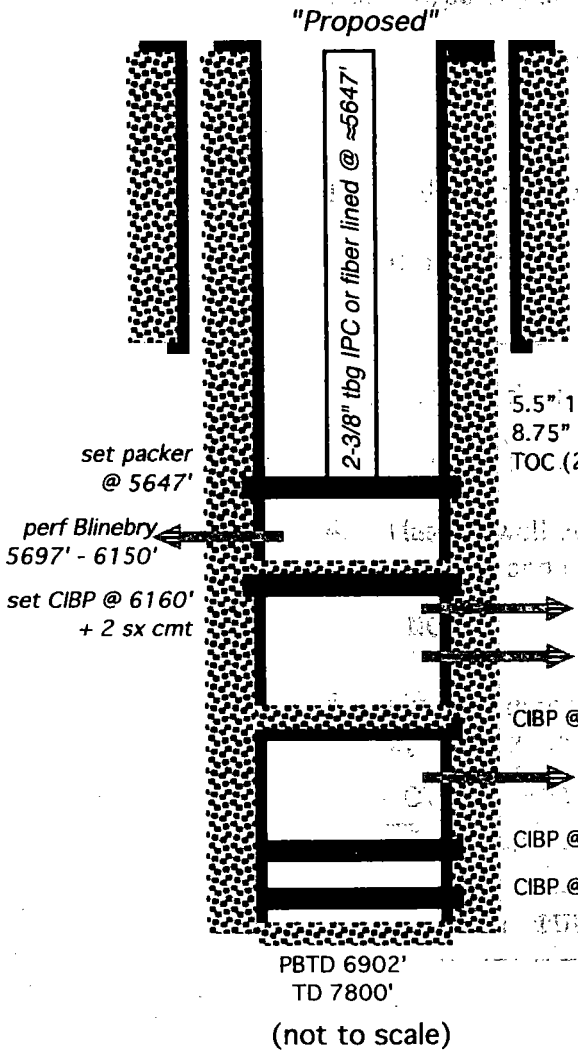
OPERATOR: APACHE CORPORATION

WELL NAME & NUMBER: EAST BLINEBRY DRINKARD UNIT 42

WELL LOCATION: 660' FSL & 2100' FWL | N | 13 | 21 S | 37 E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12.25" Casing Size: 8.625"

Cemented with: 740 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 150 SX

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. *or* _____ ft³

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 8.75" Casing Size: 5.5"

Cemented with: 2150 sx. *or* _____ ft³

Top of Cement: SURFACE Method Determined: CIRC. 125 SX

Total Depth: 7800'

Injection Interval

5697 feet to 6150'

(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: ≈5647'

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? BLINEBRY OIL WELL

2. Name of the Injection Formation: BLINEBRY

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: YATES (2678'), 7 RIVERS (2944'), QUEEN (3512'), GRAYBURG (≈3943'), SAN ANDRES (4070')

   UNDER: TUBB (6158'), DRINKARD (6410'), ABO (6880')

I. Purpose is to convert a 7800' deep (PBTD = 6902') oil well to a water injection well to increase oil recovery. The well will inject (5697' - 6150') into the Blinebry, which is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool (aka, Eunice; BLI-TU-DR, North and pool code = 22900).

The well and zone are in the East Blinebry Drinkard Unit (Case Numbers 13503 and 13504, Order Numbers R-12394 & -12395) that was established in 2005 by Apache. There have been 5 subsequent WFX approvals (WFX-819, -842, -904, -909, & -963). This is an active water flood. Twenty-three water injectors are in the Unit. Injection increase to 2100 psi was authorized (IPI-292) in 2008.

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: BLM (NMNM-125057)
Lease Size: 1200 acres (see Exhibit A for maps and C-102)
Closest Lease Line: 660'
Lease Area: SW4, S2NW4, NWSE Section 13, T. 21 S., R. 37 E. et al
Unit Size: 2080 acres BLM Unit #: NMNM-112723X
Closest Unit Line: 660'
Unit Area: T. 21 S., R. 37 E.
Section 1: Lots 11-15, W2SE4, & SW4
Section 11: E2 & NW4
Sections 12: W2 & W2E2
Section 13: W2, W2NW4, & NWSE
Section 14: NE4 & E2SE4

A. (2) Surface casing (8.625", 24#) is set at 1446' in a 12.25" hole and cemented to GL with 740 sacks (150 sacks circulated).

Production casing (5.5", 15.5# & 17#) is set at 7800' in an 8.75" hole and cemented to GL with 2150 sacks (125 sacks circulated).

A CIBP will be set at 6160' and topped with 2 sacks cement. Mechanical integrity of the casing will be assured by hydraulically pressure testing to 500 psi for 30 minutes.

A. (3) Tubing will be 2-3/8" J-55 (4.7# IPC or 5.3# fiber lined). Setting depth will be ≈5647'. (Disposal interval will be 5697' - 6150'.)

A. (4) A lock set injection packer will be set at ≈5647' (≈50' above the highest proposed perforation of 5697').

B. (1) Injection zone will be the Blinebry carbonate. It is part of the Eunice; Blinebry-Tubb-Drinkard, North Pool. Fracture gradient is ≈0.56 psi/ft.

B. (2) Injection interval will be from 5697' to 6150' in a cased hole. Well is currently perforated in Blinebry and Tubb from 6170' to 6454'.

B. (3) Well was originally drilled in 1983 as an Abo oil well.

B. (4) Well will be perforated from 5697' to 6150' with 2 shots per foot. Shot diameter = 0.40". Perforation and isolation history is below:

Depth	Zone	Action
5697 - 6150	*Blinebry*	*proposed injection interval*
6160	*Tubb*	*proposed CIBP + 2 sx cmt*
6170 - 6317	Tubb	open perfs
6349 - 6454	Tubb	open perfs
6578 - 6656	Drinkard	open perfs
6704 - 6873	Drinkard	open perfs
6902 - 6925	Abo	2 sx cmt atop CIBP at 6925
6952 - 7120	Abo	open perfs below CIBP
7152 - 7282	Abo	open perfs below CIBP
7330	Abo	CIBP
7755	Abo	CIBP
7800	Abo	TD

B. (5) Next higher oil or gas zone in the area of review is the San Andres. Its bottom is at 5340'. Injection will occur in the Blinebry. Highest perforation will be 5697'.

Next lower oil or gas zone in the area of review is the Tubb, part of the same Eunice; Blinebry-Tubb-Drinkard, North Pool. Tubb top is at 6258'. Deepest perforation will be 6150'.

IV. This is not a horizontal or vertical expansion of an existing injection project. Case files 13503 and 13504) describe the water flood.

V. Exhibit B shows and tabulates all 18 existing wells (16 oil wells + 1 P & A wells + 1 SWD well) within a half-mile radius, regardless of depth. Exhibit C shows all 381 existing wells (245 oil or gas wells + 51 P&A wells + 50 injection or disposal wells + 35 water supply wells) within a two-mile radius.

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

Aliquot Parts in Area of Review (T21S, R37E)	Lessor	Lease	Lessee(s) of Record	Blinebry operator
S2NW4, SWNE, NWSE, & SW4 Sec. 13	BLM	NMNM-125057	Apache, BP, & Chevron	Apache
E2SE4 & SWSE Sec. 13	BLM	NMLC-032096B	Apache, Chevron, & ConocoPhillips	none
E2SE4 Sec. 14	BLM	NMNM-125057	Apache, BP, & Chevron	Apache
NENE Sec. 23	fee	NEDU	Apache	Apache
NENE & SWNE Sec. 24	BLM	NMLC-032096B	Apache, Chevron, & ConocoPhillips	none
NWNE Sec. 24	BLM	NMLC-032096B	Apache, Chevron, & ConocoPhillips	Apache
N2NW4 Sec. 24	fee	Nancy Stephens	Oxy USA	none
S2NW4 Sec. 24	fee	Nancy Stephens	Oxy USA	Oxy USA

VI. Eighteen existing wells are within a half-mile radius. All 18 wells penetrated the Blinebry. The penetrators include 16 oil wells, 1 P&A well, and 1 SWD well. A table abstracting the well construction details and histories of the penetrators is in Exhibit F. Diagram of the P&A well is also in Exhibit F.

VII. 1. Average injection rate will be ≈400 bwpd.
Maximum injection rate will be 500 bwpd.

2. System is closed. Well will be tied into the existing unit pipeline system.

3. Average injection pressure will be ≈2000 psi. Maximum injection pressure will be 2100 psi (IPI-292).

4. Water source will be water pumped from an existing San Andres water supply well. A comparison of nearby analyses and San Andres follows. No compatibility problems have reported from the 15,962,112 barrels that have been injected in the Unit to date.

	NEDU Injection Pump Discharge	San Andres 919-S
Anion/Cation Ratio	1.0	N/A
Barium	0.1 mg/l	0.38 mg/l
Bicarbonate	671.0 mg/l	562.0 mg/l
Calcium	1,099.0 mg/l	608.0 mg/l
Carbon Dioxide	80.0 ppm	80.0 ppm
Chloride	10,086.0 mg/l	6,200.0 mg/l
Hydrogen Sulfide	90.0 ppm	408.0 ppm
Iron	0.3 mg/l	0.0 mg/l
Magnesium	439.0 mg/l	244.0 mg/l
Manganese	N/A	0.01 mg/l
pH	7.5	6.49
Potassium	115.0 mg/l	N/A
Sodium	5,799.5 mg/l	3,909.0 mg/l
Strontium	28.0 mg/	19.0 mg/l
Sulfate	2,465.0 mg/l	1,750.0 mg/l
Total Dissolved Solids	20,702.9 mg/l	13,273.0 mg/l

5. Ninety-one oil wells are active in the Unit. It is the goal of the project to increase production.

VIII. The Unit is on the north end of a north-northwest to south-southeast trending anticline. It is part of the Penrose Skelly trend and parallels the west edge of the Central Basin Platform. Dips are 1° to 2°. The injection interval is Leonardian in age, 550' thick, and consists of tan to dark gray shallow marine carbonates, many of which have been dolomitized. Core filling and replacement anhydrite are common in the limestone. Nodular anhydrite is common in the dolomite. Five per cent porosity cut off is used to determine pay zones. Impermeable shale and carbonates vertically confine the interval.

There are currently 108 Blinebry injection wells in the state. The East Blinebry Drinkard Unit shares its west border with Apache's Northeast Drinkard Unit. Three other similar water floods (West Blinebry Drinkard Unit, Northeast Drinkard Unit, and Warren Blinebry Unit) are within a mile of the East Blinebry Drinkard Unit. The slightly more distant (2 miles) Central Drinkard Unit has been under water flood since the 1960s.

Formation depths are:

Ogallala = 0'
Rustler = 1330'
Top salt = 1480'
Bottom salt = 2545'
Yates = 2678'
Seven Rivers = 2944'
Queen = 3512'
San Andres = 4070'
Glorieta = 5340'
Blinebry = 5697'
injection interval = 5697' - 6150'
Blinebry marker = 5772'
Tubb = 6158'
Tubb marker = 6258'
Drinkard = 6410'
Abo = 6880'
Devonian = 7635'
TD = 7800'

According to Office of the State Engineer records (Exhibit G), eight fresh water wells are within a mile radius. Deepest water well within 2 miles is 160'.

Three samples (Exhibit G) were collected January 8-9, 2017. One sample was collected from a windmill 0.4 mile northwest of EBDU 42. The windmill does not match State Engineer records. A second sample (Fabershern) was collected from a well 0.6 southwest of EBDU 42. The Fabershern well may be CP 00562. A third sample (Sec. 23 tank) was collected from a tank 0.9 mile southwest of EBDU 42. The Section 23 tank may be CP 00235 POD 109 No existing underground drinking water sources are below the injection interval within a mile radius.

There will be >4,000' of vertical separation and hundreds of feet of salt and anhydrite between the bottom of the only likely underground fresh water source (Ogallala) and the top of the injection interval.

There are 205 active or new injection wells and 8 active disposal wells in either the Blinebry-Tubb-Drinkard, San Andres, Grayburg, Queen, Seven Rivers, or Yates in T. 21 S., R. 37 E.

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

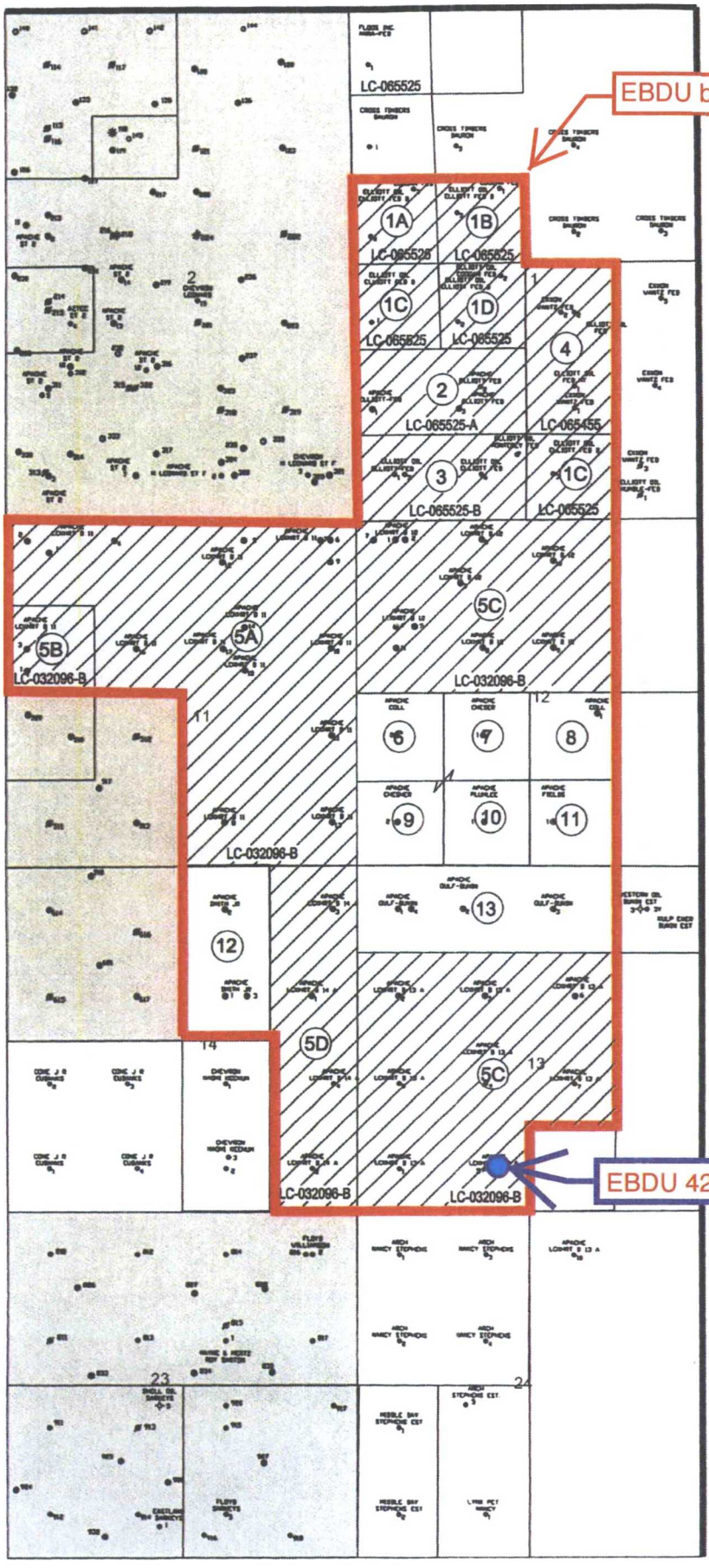
X. GR-DLL-Cal, CNL-GR-Cal, and CCL-CBL-GR logs are on file with NMOCD.

XI. Analyses from three fresh water wells within ≈4500' are in Exhibit G.

XII. Apache is not aware of any geologic or engineering data that may indicate the injection interval is in hydrologic connection with any underground sources of water. Closest Quaternary faults are ≈111 miles southwest (Exhibit H). There are 108 Blinebry injection wells in New Mexico. Previously approved water flood expansions in the Unit include WFX-819, -842, -904, -909, and -963.

XIII. A legal ad (see Exhibit I) was published on June 10, 2017. Notice (this application) has been sent (Exhibit J) to the surface owner (William Stephens), offset Blinebry operators (Oxy USA), lessees (BP, Chevron, ConocoPhillips, & Oxy USA), and other well operators (Chevron USA, Kinney Incorporated, Oxy USA).

TOWNSHIP 21S, RANGE 37E, N.M.P.M.



EAST BLINEBRY DRINKARD UNIT
LEA COUNTY, NEW MEXICO

LEGEND

(11) UNIT TRACT NUMBER

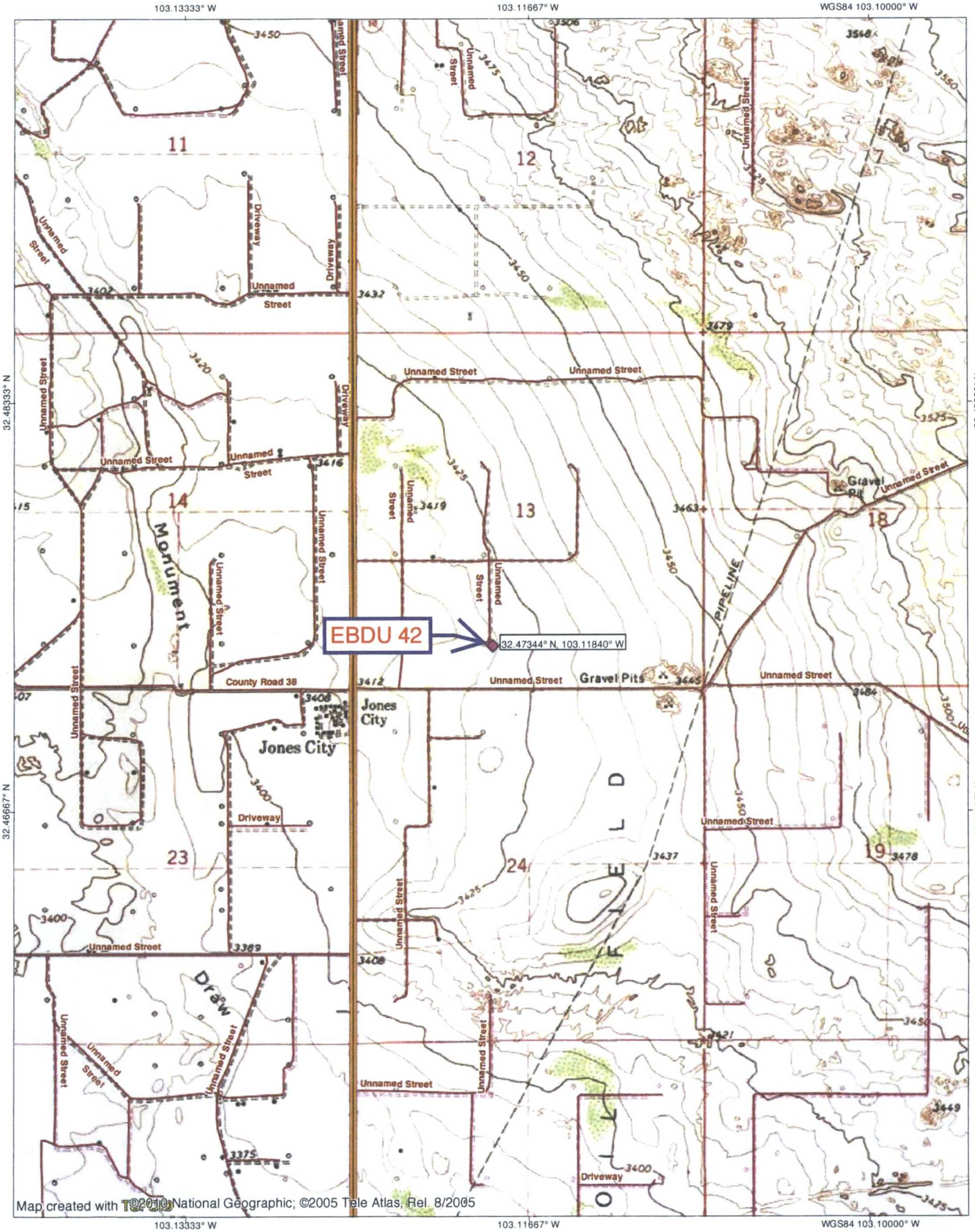
	ACREAGE	PERCENTAGE
FEDERAL LANDS	1640.00	78.85
PATENTED (FEE) LANDS	440.00	21.15
TOTALS	2080.00	100%

0 1000' 2000'

EXHIBIT A

EAST BLINEBRY (KEVIN)

TOPO! map printed on 06/10/17 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 6.5°

06/10/17

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 10-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
CONOCO , INC.	LOCKHART B13A	9

Unit Letter	Section	Township	Range	County
N	13	21 SOUTH	37 EAST	LEA

Actual Footage Location of Well:
660 feet from the SOUTH line and 2100 feet from the WEST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3419.0	Abo / Drinkard	Wantz Abo and Drinkard	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

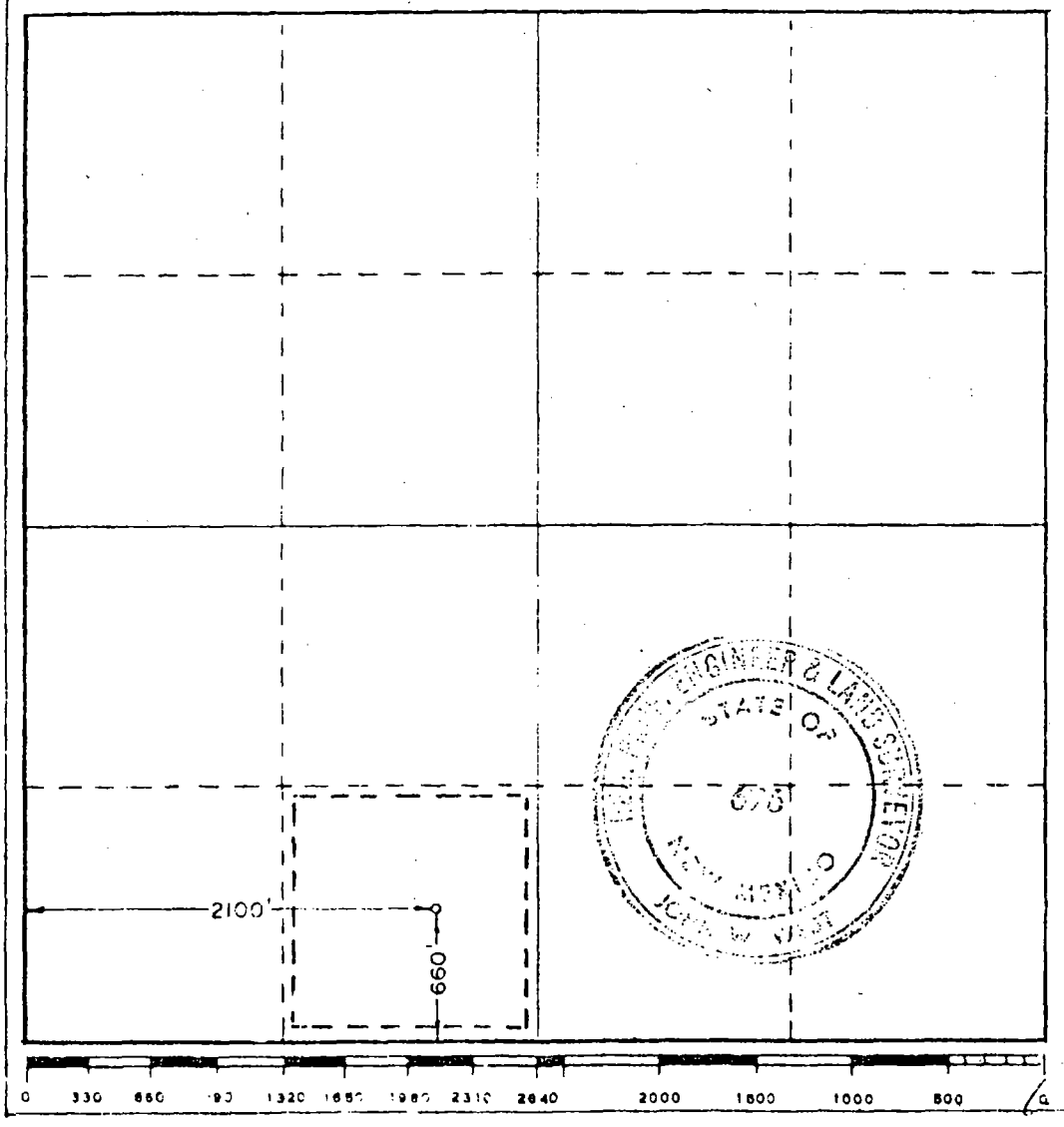
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Wm A Shuttleffield
Position: Administrative Supervisor
Company: Conoco Inc.
Date: October 15, 1982

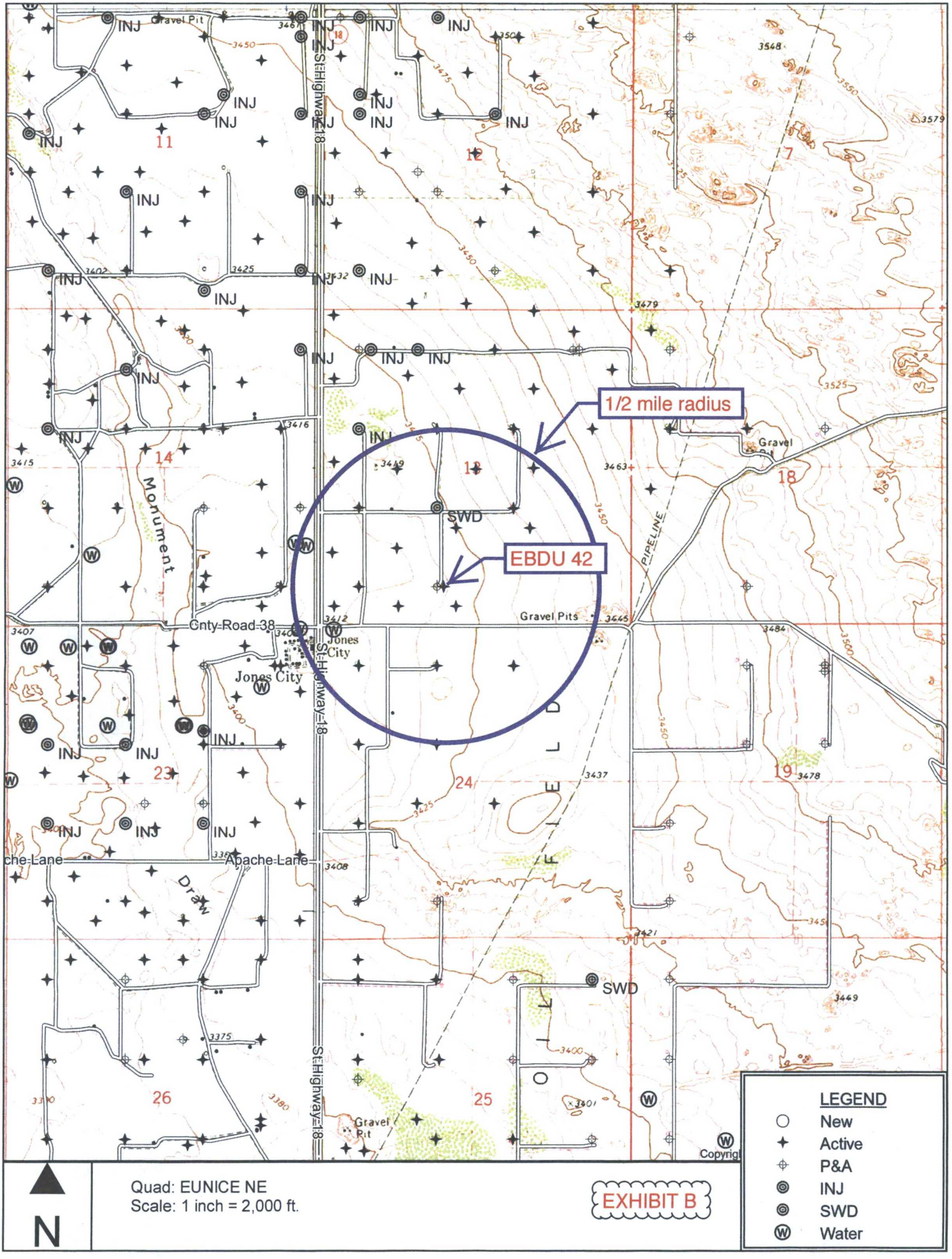
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: 9/30/82

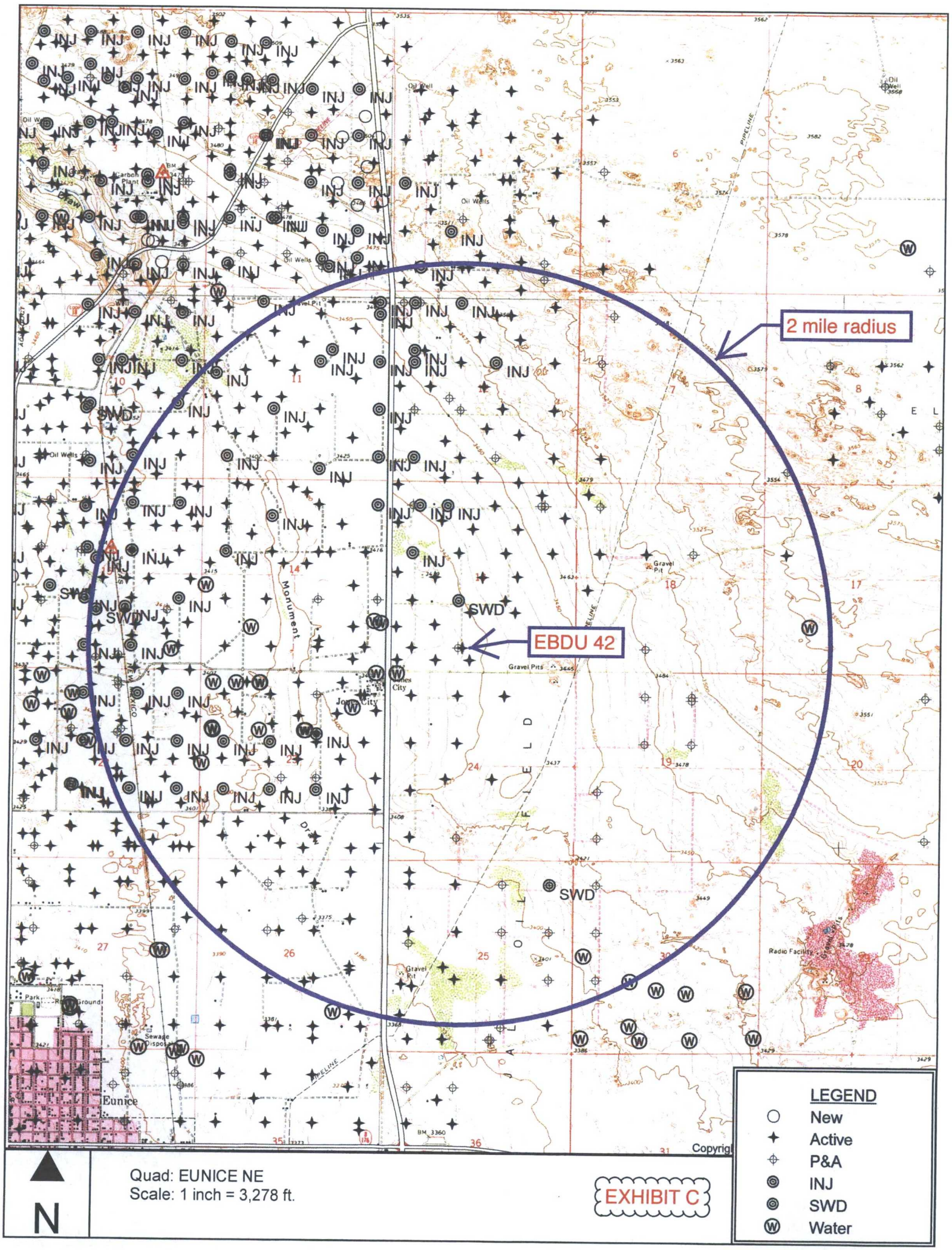
Registered Professional Engineer and/or Land Surveyor: John W. West

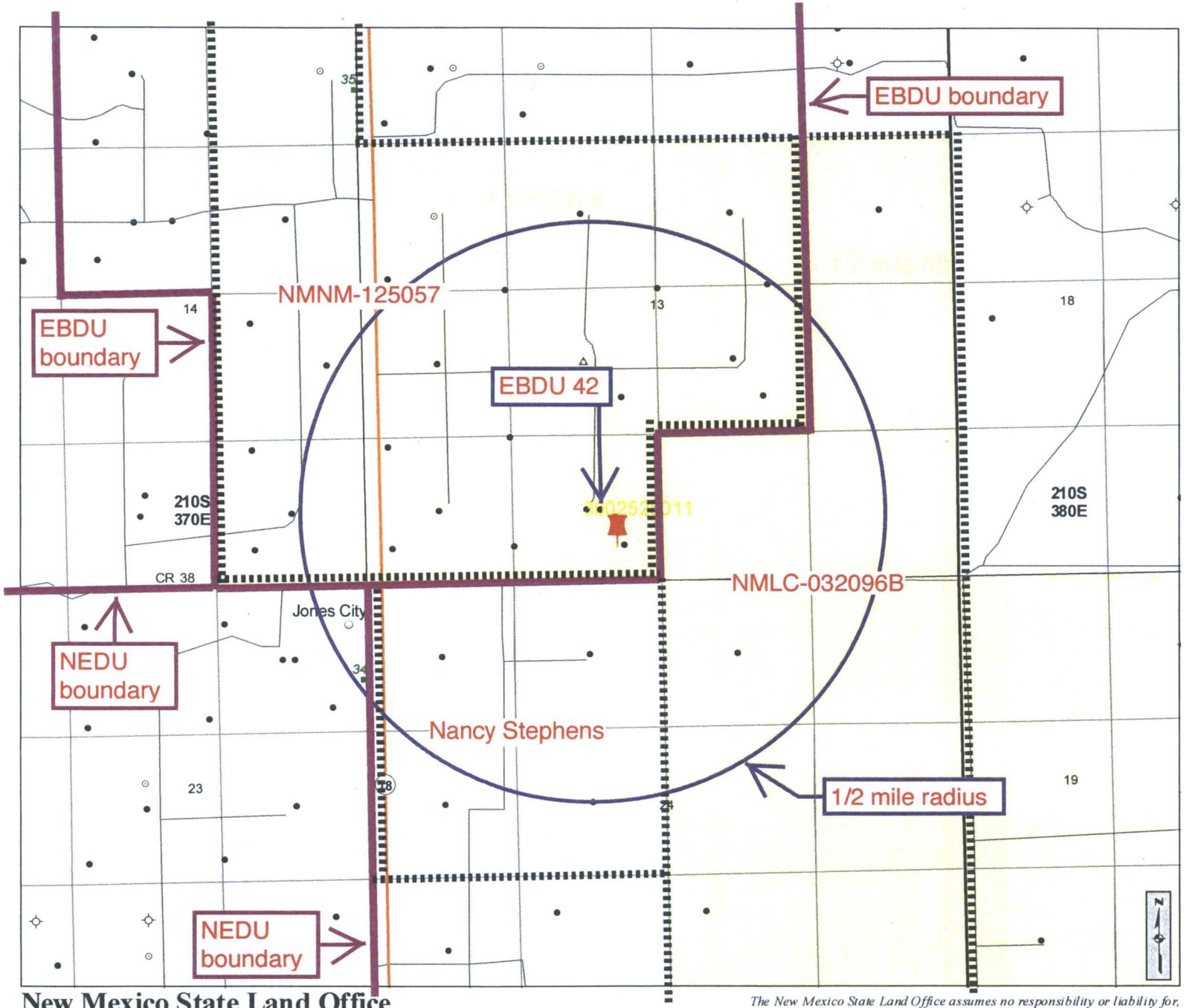
EXHIBIT A

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239


1/2 mile radius
EBDU 42
SWD
SWD
INJ
Gravel Pit
Gravel Pits
Jones City
Cnty-Road-38
Apache-Lane
Monument Draw
PIPELINE
OLD
St-Highway-18
11
12
7
14
13
18
19
23
24
25
26
LEGEND
New
Active
P&A
INJ
SWD
Water
N
Quad: EUNICE NE
Scale: 1 inch = 2,000 ft.
EXHIBIT B

API	WHO	WELL	TYPE WELL	UNIT-SECTION-T21S-R37E	TVD	ZONE	FEET FROM EBDU 42
3002506559	CONOCO	LOCKHART B 13 A 005	P&A	N-13	6050	EUNICE;BLI-TU-DR, NORTH	121
3002540267	APACHE	EAST BLINEBRY DRINKARD UNIT 115	O	N-13	7200	EUNICE;BLI-TU-DR, NORTH	362
3002539405	APACHE	EAST BLINEBRY DRINKARD UNIT 109	O	N-13	7005	EUNICE;BLI-TU-DR, NORTH	860
3002540265	APACHE	EAST BLINEBRY DRINKARD UNIT 110	O	K-13	7215	EUNICE;BLI-TU-DR, NORTH	1022
3002539842	APACHE	EAST BLINEBRY DRINKARD UNIT 102	O	M-13	7205	EUNICE;BLI-TU-DR, NORTH	1075
3002506776	OXY USA	NANCY STEPHENS 003	O	C-24	7200	WANTZ;ABO	1326
3002506558	APACHE	LOCKHART B-13 A 004	S	K-13	6050	EUNICE;BLI-TU-DR, NORTH	1326
3002506555	APACHE	LOCKHART B-13 A 001	O	M-13	7576	WANTZ;ABO	1447
3002539847	APACHE	EAST BLINEBRY DRINKARD UNIT 118	O	J-13	7201	EUNICE;BLI-TU-DR, NORTH	1767
3002506561	APACHE	EAST BLINEBRY DRINKARD UNIT 040	O	J-13	6000	EUNICE;BLI-TU-DR, NORTH	1769
3002528131	APACHE	LOCKHART B-13 A 010	O	B-24	7807	WANTZ;ABO	1770
3002539843	APACHE	EAST BLINEBRY DRINKARD UNIT 103	O	M-13	7201	EUNICE;BLI-TU-DR, NORTH	1923
3002506774	OXY USA	NANCY STEPHENS 001	O	D-24	7150	TUBB OIL AND GAS (OIL)	1958
3002506562	APACHE	EAST BLINEBRY DRINKARD UNIT 041	O	L-13	5985	EUNICE;BLI-TU-DR, NORTH	1960
3002539460	APACHE	EAST BLINEBRY DRINKARD UNIT 085	O	M-13	6950	EUNICE;BLI-TU-DR, NORTH	2029
3002539844	APACHE	EAST BLINEBRY DRINKARD UNIT 104	O	J-13	7209	EUNICE;BLI-TU-DR, NORTH	2056
3002539459	APACHE	EAST BLINEBRY DRINKARD UNIT 083	O	L-13	7000	EUNICE;BLI-TU-DR, NORTH	2169
3002539679	APACHE	EAST BLINEBRY DRINKARD UNIT 111	O	G-13	7208	EUNICE;BLI-TU-DR, NORTH	2512
3002527902	OXY USA	NANCY STEPHENS 004	O	F-24	7419	BLINEBRY OIL AND GAS (OIL)	2643
3002506557	APACHE	EAST BLINEBRY DRINKARD UNIT 038	O	F-13	6050	EUNICE;BLI-TU-DR, NORTH	2643


2 mile radius
EBDU 42
N
Quad: EUNICE NE
Scale: 1 inch = 3,278 ft.
EXHIBIT C
LEGEND
New
Active
P&A
INJ
SWD
Water



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

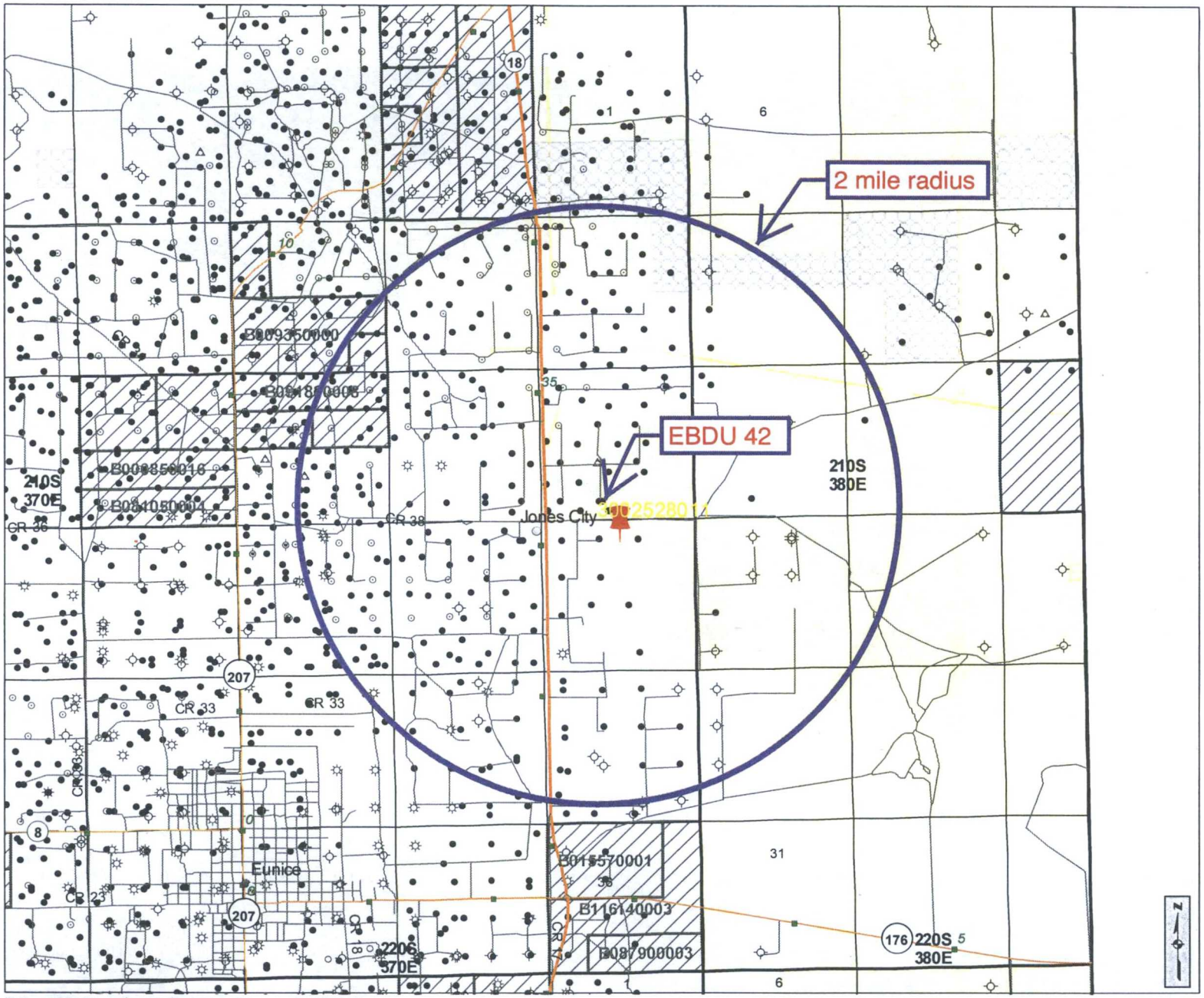
Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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

Created On: 6/10/2017 2:11:49 PM

EXHIBIT D

www.nmstatelands.org



Cartographic Features

- County Boundaries
- County Seats
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- SLO District Boundary
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NMOCD Oil and Gas Wells

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

New Mexico State Land Office

Oil, Gas and Minerals

0 0.2 0.4 0.8 1.2 1.6 Miles

Universal Transverse Mercator Projection, Zone 13
1983 North American Datum

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

Created On:6/10/2017 2:10:47 PM

EXHIBIT E

www.nmstatelands.org

SORTED BY DISTANCE FROM EBDU 42

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
Lockhart B-13 A 005	6/1/55	6050	Eunice; Bli-Tu-Dr, North	P&A	15.5	10.75	289	250 sx	GL	Circ
3002506559					9.875	7.625	3149	1335 sx	1475	Temp Survey
N-13-21S-37E					6.75	5.5	6049	520 sx	4250	Temp Survey
EBDU 115	1/1/12	7200	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1460	730 sx	GL	Circ 196 sx
3002540267					7.875	5.5	7200	1150 sx	100	CBL
N-13-21S-37E										
EBDU 109	9/29/09	7005	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1438	750 sx	GL	Circ
3002539405					7.875	5.5	7005	1135 sx	82	CBL
N-13-21S-37E										
EBDU 110	12/22/11	7215	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1460	730 sx	GL	Circ 224 sx
3002540265					7.875	5.5	7215	1150 sx	130	CBL
K-13-21S-37E										
EBDU 102	10/14/10	7205	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1413	700 sx	GL	Circ 215 sx
3002539842					7.875	5.5	7205	1100 sx	62	CBL
M-13-21S-37E										
Nancy Stephens 003	9/23/55	7200	Wantz; Abo	O	17.5	13.375	250	300 sx	GL	Circ 25 sx
3002506776					11	8.625	3000	1500 sx	49	Temp Survey
C-24-21S-37E					7.875	5.5	7200	600 sx	3957	Temp Survey
Lockhart B-13 A 004	3/5/55	6050	SWD; San Andres	S	13.5	10.75	256	250 sx	GL	Circ
3002506558					9.625	7.625	3149	1045 sx	585	Temp Survey
K-13-21S-37E					6.75	5.5	6049	520 sx	3038	Temp Survey
Lockhart B-13 A 001	1/31/53	7576	Wantz; Abo	O	no report	13.375	238	250 sx	GL	Circ
3002506555					12.25	9.625	3150	1596 sx	no report	no report
M-13-21S-37E					8.75	7	7576	730 sx	3692	no report

EXHIBIT F

SORTED BY DISTANCE FROM EBDU 42

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EBDU 118	9/28/10	7201	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1500	700 sx	GL	Circ 154 sx
3002539847					7.875	5.5	7201	1200 sx	98	CBL
J-13-21S-37E										
EBDU 040	6/22/55	6000	Eunice; Bli-Tu-Dr, North	O	15	10.75	258	275 sx	no report	no report
3002506561					9.875	7.625	3149	1360 sx	no report	no report
J-13-21S-37E					6.75	5.5	5999	520 sx	3599	no report
Lockhart B-13 A 010	11/2/83	7807	Wantz; Abo	O	12.25	9.625	1454	675 sx	GL	Circ
3002528131					8.75	7	7807	2825 sx	GL	Circ 180 sx
B-24-21S-37E										
EBDU 103	10/22/10	7201	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1383	650 sx	GL	Circ 144 sx
3002539843					7.875	5.5	7201	1225 sx	86	Circ 189 sx
M-13-21S-37E										
Nancy Stephens 001		7150	Eunice; Bli-Tu-Dr, North	O	17.5	12.75	223	275 sx	GL	Circ
3002506774					11	8.625	2999	1935 sx	237	Temp Survey
D-24-21S-37E					7.875	5.5	7149	550 sx	3982	Temp Survey

SORTED BY DISTANCE FROM EBDU 42

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
EBDU 041	7/26/55	5985	Eunice; Bli-Tu-Dr, North	O	15	10.75	258.5	200 sx	no report	no report
3002506562					9.875	7.625	3099	1295 sx	no report	no report
L-13-21S-37E					6.75	5.5	5984	460 sx	4068	no report
EBDU 085	8/22/09	6950	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1375	650 sx	GL	Circ
3002539460					7.875	5.5	6950	1650 sx	70	no report
M-13-21S-37E										
EBDU 104	10/31/10	7209	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1437	700 sx	GL	Circ 160 sx
3002539844					7.875	5.5	7209	1300 sx	50	CBL
J-13-21S-37E										
EBDU 083	9/3/09	7000	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1420	650 sx	GL	Circ
3002539459					7.875	5.5	7000	2350 sx	GL	Circ
L-13-21S-37E										
EBDU 111	7/7/10	7208	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1469	750 sx	GL	Circ 160 sx
3002539679					7.875	5.5	7208	1200 sx	90	CBL
G-13-21S-37E										
Nancy Stevens 004	8/15/82	7419	Eunice; Bli-Tu-Dr, North	O	12.25	8.625	1310	700 sx	GL	Circ
3002527902					7.875	5.5	7419	2100 sx	GL	Circ
F-24-21S-37E										
EBDU 038	1/27/55	6050	Eunice; Bli-Tu-Dr, North	O		10.75	253	250 sx	no report	no report
3002506557						7.625	3149	1155 sx	no report	no report
F-13-21S-37E						5.5	6048	646 sx	3066	no report

EXHIBIT F

WELLBORE DIAGRAM
LOCKHART B-13A NO.5
660' FSL,1980' FWL
SEC.13,T21S,R37E
LEA COUNTY, NEW MEXICO

30-025-06559
spud 6-1-55
P&A 9-27-94

SALT: TOP-1490'
BASE-2545'

SURFACE CASING

10-3/4", 32-3/4",H-40 @289'
W/250 SX (CIRC.)

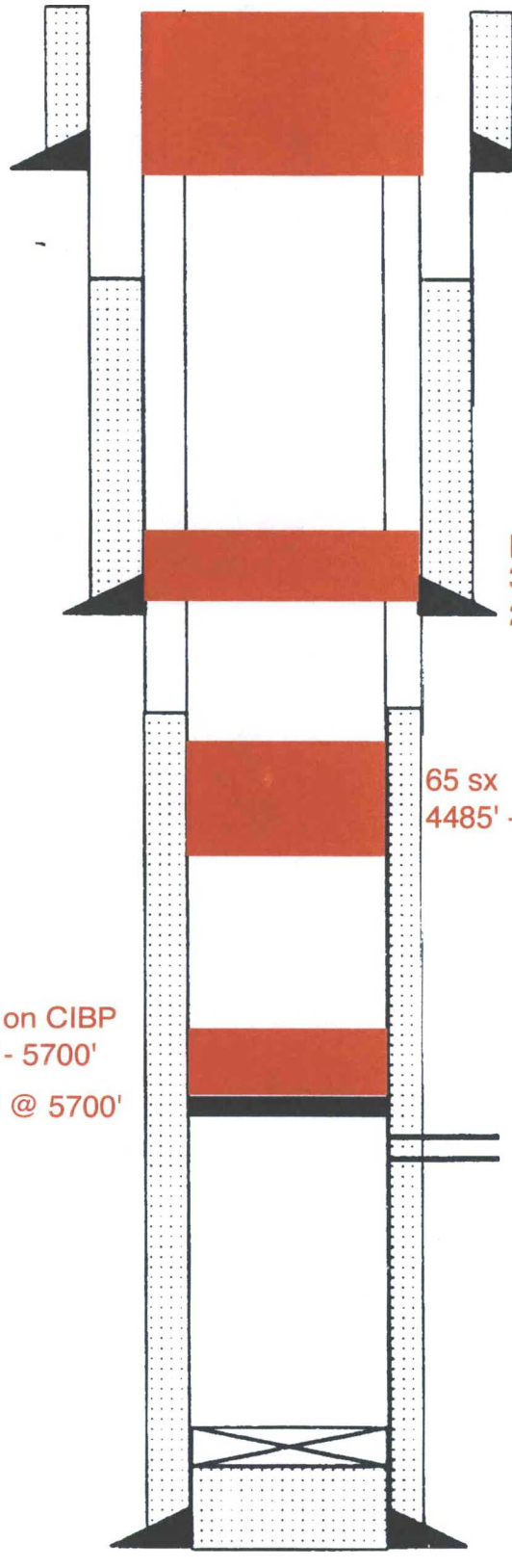
TOPS:
YATES 2678'
7R 2944'
QUEEN 3512'
PENROSE 3665'
GLORIETTA 5310'
BLINEBRY 5760'

INTERMIATE CASING

7-5/8" 24#, H-40 @3149'
IN 9-7/8" HOLE
W/1335 SX TOC @1475' (TS)

TUBING: 2-3/8",4.7#,J-55
W/MA @5762'

PUMPING EQUIP:
BETHLEHEM 228 D
W/25 HP MOTOR



PRODUCTION CASING

5-1/2",14# & 15.5#,J-55
@6049' IN 6-3/4" HOLE
W/620 SX TOC @4250' (TS)

PBTD: 6000' (CIBP PUSHED TO BOTTOM)

TD: 6050'

API#:30025-06559

EXHIBIT F

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	Water Column
CP 00134 POD1		CP	LE	1	1	1	24	21S	37E	676289	3594166*	614	85		
CP 00562		CP	LE	1	2	2	23	21S	37E	675887	3594159*	985	136	65	71
CP 00700		CP	LE			2	23	21S	37E	675794	3593851*	1201	75	65	10
CP 00137 POD1		CP	LE	2	2	1	13	21S	37E	676862	3595783*	1309	65		
CP 00239 POD1		CP	LE	1	1	2	23	21S	37E	675485	3594152*	1374	89	61	28
CP 00235 POD8		CP	LE	3	1	2	23	21S	37E	675485	3593952*	1434	94	58	36
CP 00236 POD1		CP	LE	3	1	2	23	21S	37E	675485	3593952*	1434	83		
CP 00235 POD10		CP	LE	1	3	2	23	21S	37E	675492	3593749*	1513	92	60	32
CP 00235 POD11		CP	LE	1	3	2	23	21S	37E	675492	3593749*	1513	97	60	37
CP 00237 POD1		CP	LE	1	3	2	23	21S	37E	675492	3593749*	1513	84		
CP 00235 POD1		CP	LE	2	2	1	23	21S	37E	675283	3594144*	1573	81		
CP 00238 POD1		CP	LE	3	3	2	23	21S	37E	675492	3593549*	1619	81		
CP 00240 POD1		CP	LE	4	2	1	23	21S	37E	675283	3593944*	1626			
CP 00241 POD1		CP	LE	4	2	1	23	21S	37E	675283	3593944*	1626	79		
CP 00235 POD2		CP	LE	1	2	1	23	21S	37E	675083	3594144*	1769	96	65	31
CP 01222 POD3		CP	LE	2	4	4	23	21S	37E	676036	3592871	1784	60	48	12
CP 00235 POD5		CP	LE	1	4	1	23	21S	37E	675090	3593742*	1879	90	70	20
CP 00235 POD9		CP	LE	3	4	1	23	21S	37E	675090	3593542*	1965	94	58	36
CP 00235 POD6		CP	LE	2	1	1	23	21S	37E	674881	3594137*	1969	85	65	20
CP 01574 POD2		CP	LE	1	3	3	14	21S	37E	674666	3594578	2157	68	57	11
CP 00235 POD3		CP	LE	1	1	1	23	21S	37E	674681	3594137*	2166	90	61	29
CP 01185 POD4		CP	LE		1	3	14	21S	37E	674633	3594610	2192	70		
CP 00235 POD7		CP	LE	3	1	1	23	21S	37E	674681	3593937*	2206	85	65	20
CP 01185 POD2		CP	LE		1	3	14	21S	37E	674623	3594674	2206	70		
CP 01185 POD1		CP	LE		1	3	14	21S	37E	674598	3594689	2232	70		
CP 01185 POD3		CP	LE		1	3	14	21S	37E	674592	3594620	2233	70		
CP 01110 POD1		CP	LE		1	3	14	21S	37E	674586	3594648	2242	70		
CP 01110 POD2		CP	LE		1	3	14	21S	37E	674586	3594648	2242	70		

1610 meters = 1 mile

EXHIBIT G

CP 01110 POD3	CP	LE		1	3	14	21S	37E	674586	3594648	2242	70		
CP 01110 POD4	CP	LE		1	3	14	21S	37E	674586	3594648	2242	20		
CP 01110 POD5	CP	LE		1	3	14	21S	37E	674586	3594648	2242	20		
CP 00235 POD4	CP	LE	1	3	1	23	21S	37E	674688	3593735*	2257	100	80	20
CP 01574 POD1	CP	LE	2	4	4	15	21S	37E	674559	3594598	2265	68	57	11
CP 00139 POD1	CP	LE	2	4	2	19	21S	38E	679312	3593818*	2575	75		
CP 00252 POD1	CP	LE	4	2	4	22	21S	37E	674493	3593125*	2690	106	78	28
CP 00220 POD1	CP	LE	1	1	3	25	21S	37E	676332	3591753*	2764	75		
CP 01019 POD1	CP	LE	3	3	1	30	21S	38E	677929	3591884	2816	150		
CP 00881	CP	LE		4	4	22	21S	37E	674402	3592824*	2928	95	53	42
CP 00678	CP	ED			3	17	21S	38E	679802	3594732*	2992	125	37	88
CP 00705 POD1	CP	ED	1	4	3	17	21S	38E	679903	3594637*	3086	160		
CP 01274 POD1	CP	LE		2	1	26	21S	37E	674992	3591934	3129	60		
CP 01274 POD2	CP	LE		2	1	26	21S	37E	674992	3591934	3129	60		
CP 00251 POD1	CP	LE	2	3	4	22	21S	37E	674099	3592915*	3136	103		
CP 01028 POD1	CP	LE	3	2	3	30	21S	38E	678334	3591682	3175	154		
CP 01575 POD2	CP	LE	2	2	1	22	21S	37E	673615	3594181	3219	35	35	0

Average Depth to Water: **59 feet**

Minimum Depth: **35 feet**

Maximum Depth: **80 feet**

Record Count: 45

UTMNAD83 Radius Search (in meters):

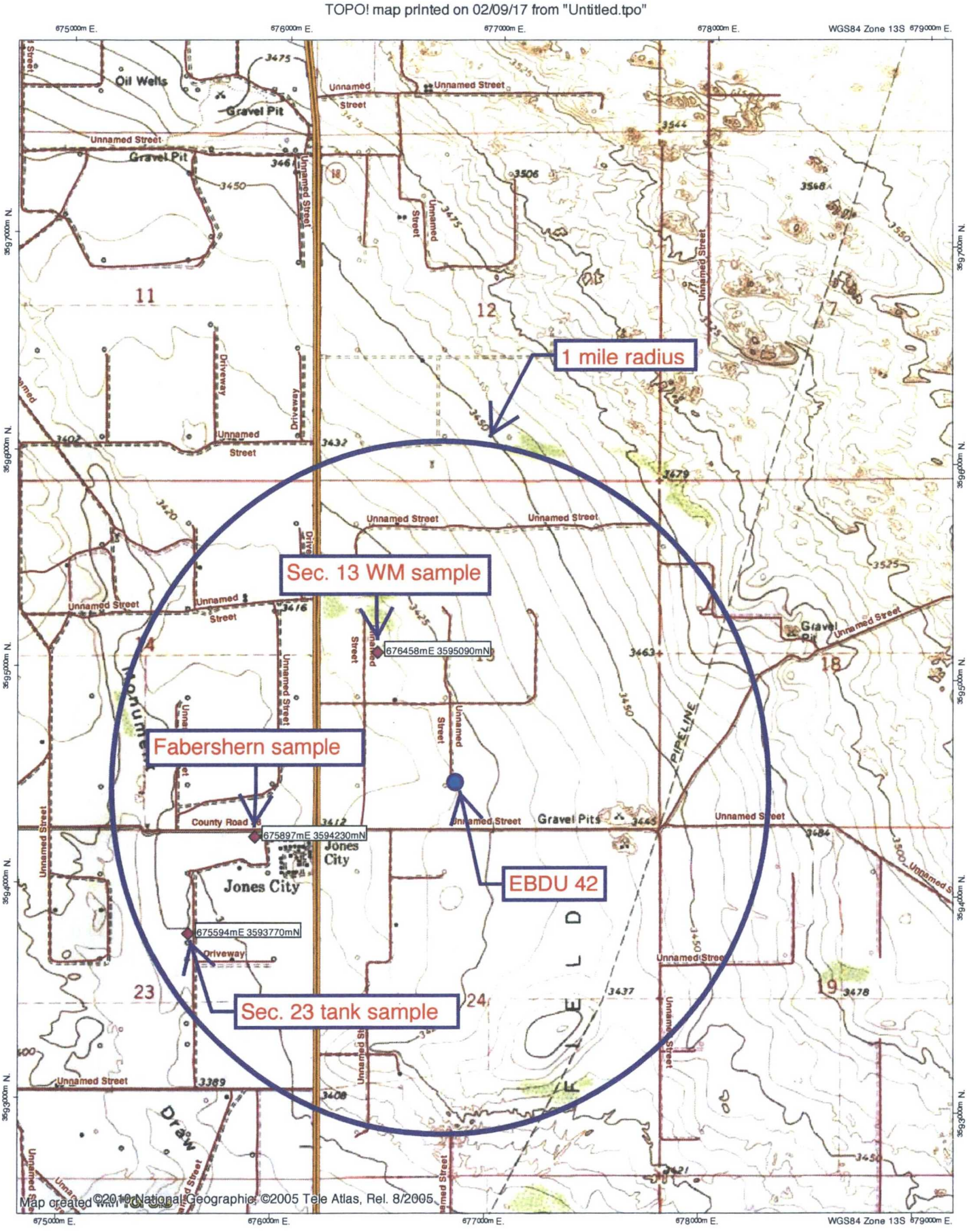
Easting (X): 676821 **Northing (Y):** 3594474 **Radius:** 3220

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

6/10/17 4:27 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

EXHIBIT G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675000m E.
676000m E.
677000m E.
678000m E.
WGS84 Zone 13S
679000m E.
1 mile radius
Sec. 13 WM sample
676458mE 3595090mN
Fabershern sample
675897mE 3594230mN
675594mE 3593770mN
EBDU 42
Sec. 23 tank sample
Oil Wells
Gravel Pit
Unnamed Street
Jones City
PIPELINE
Draw
Map created with TOPO!
©2010 National Geographic ©2005 Tele Atlas, Rel. 8/2005
NATIONAL GEOGRAPHIC
0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 miles
0.0 0.5 1.0 km
EXHIBIT G
TN
MN
6.5°
02/09/17

Analytical Report
Lab Order **1701429**
Date Reported: **1/18/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache EBDU
Lab ID: 1701429-001
Matrix: AQUEOUS
Client Sample ID: Section 23 Tank
Collection Date: 1/8/2017 3:17:00 PM
Received Date: 1/11/2017 2:02:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LGT**
Chloride	330	25	*	mg/L	50	1/17/2017 9:20:25 PM
EPA METHOD 1664A						Analyst: **tnc**
N-Hexane Extractable Material	ND	11.4		mg/L	1	1/11/2017 3:30:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1200	20.0	*	mg/L	1	1/13/2017 6:52:00 PM

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 l

EXHIBIT G

Analytical Report
Lab Order **1701429**
Date Reported: **1/18/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache EBDU
Lab ID: 1701429-002 **Matrix:** AQUEOUS

Client Sample ID: Fabershern Domestic
Collection Date: 1/9/2017 9:35:00 AM
Received Date: 1/11/2017 2:02:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LGT**
Chloride	1200	50	*	mg/L	100	1/17/2017 9:32:50 PM
EPA METHOD 1664A						Analyst: **tnc**
N-Hexane Extractable Material	ND	12.0		mg/L	1	1/11/2017 3:30:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	2840	20.0	*	mg/L	1	1/13/2017 6:52:00 PM

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 li

EXHIBIT G

Analytical Report
Lab Order **1701429**
Date Reported: **1/18/2017**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Permits West
Project: Apache EBDU
Lab ID: 1701429-003
Matrix: AQUEOUS

Client Sample ID: Section 13 WM
Collection Date: 1/9/2017 11:36:00 AM
Received Date: 1/11/2017 2:02:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **LGT**
Chloride	380	10	*	mg/L	20	1/11/2017 11:26:06 PM
EPA METHOD 1664A						Analyst: **tnc**
N-Hexane Extractable Material	ND	9.72		mg/L	1	1/11/2017 3:30:00 PM
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: **KS**
Total Dissolved Solids	1060	20.0	*	mg/L	1	1/13/2017 6:52:00 PM

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

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701429**

18-Jan-17

Client: Permits West

Project: Apache EBDU

Sample ID	MB-29634	SampType:	MBLK		TestCode:	EPA Method 1664A				
Client ID:	PBW	Batch ID:	29634		RunNo:	39981				
Prep Date:	1/11/2017	Analysis Date:	1/11/2017		SeqNo:	1252885	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10.0								
Silica Gel Treated N-Hexane Extrac	ND	10.0								

Sample ID	LCS-29634	SampType:	LCS		TestCode:	EPA Method 1664A				
Client ID:	LCSW	Batch ID:	29634		RunNo:	39981				
Prep Date:	1/11/2017	Analysis Date:	1/11/2017		SeqNo:	1252886	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	35.4	10.0	40.00	0	88.5	78	114			
Silica Gel Treated N-Hexane Extrac	18.0	10.0	20.00	0	90.0	64	132			

Qualifiers:

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

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701429**

18-Jan-17

Client: Permits West

Project: Apache EBDU

Sample ID **MB**	SampType: **MBLK**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R39975**	RunNo: **39975**
Prep Date:	Analysis Date: **1/11/2017**	SeqNo: **1252702** 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: **R39975**	RunNo: **39975**
Prep Date:	Analysis Date: **1/11/2017**	SeqNo: **1252703** 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	91.3	90	110			

Sample ID **MB**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBW**	Batch ID: **R40074**	RunNo: **40074**
Prep Date:	Analysis Date: **1/17/2017**	SeqNo: **1256674** 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: **R40074**	RunNo: **40074**
Prep Date:	Analysis Date: **1/17/2017**	SeqNo: **1256675** Units: **mg/L**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.2	90	110			

Qualifiers:

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

EXHIBIT G

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1701429**

18-Jan-17

Client: Permits West

Project: Apache EBDU

Sample ID	MB-29665	SampType:	MBLK		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	PBW	Batch ID:	29665		RunNo:	40008				
Prep Date:	1/12/2017	Analysis Date:	1/13/2017		SeqNo:	1253638	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-29665	SampType:	LCS		TestCode:	SM2540C MOD: Total Dissolved Solids				
Client ID:	LCSW	Batch ID:	29665		RunNo:	40008				
Prep Date:	1/12/2017	Analysis Date:	1/13/2017		SeqNo:	1253639	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

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

EXHIBIT G