

mm 4/16/2019  
 mw 4/15/2019

RECEIVED: 4/15/2019	REVIEWER:	TYPE: SWD	APP NO: DMMAM19105.58204
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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:** Delaware Energy, LLC **OGRID Number:** 371195  
**Well Name:** Red Bluff SWD #1 **API:** Pending  
**Pool:** SWD; Devonian **Pool Code:** 96101

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

APR 15 2019 PM 02:57

- 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 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

**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.**

Sarah Presley  
 \_\_\_\_\_  
 Print or Type Name

3/26/2019  
 \_\_\_\_\_  
 Date

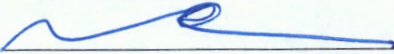
*Sarah Presley*  
 \_\_\_\_\_  
 Signature

432-685-7005  
 \_\_\_\_\_  
 Phone Number

s.presley@delawareenergy.com  
 \_\_\_\_\_  
 e-mail Address



**APPLICATION FOR AUTHORIZATION TO INJECT**

- I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance XXX Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval? XX Yes \_\_\_\_\_ No
- II. OPERATOR: Delaware Energy, LLC  
ADDRESS: 405 North Marienfeld, Suite 250, Midland TX 79701  
CONTACT PARTY: Mike McCurdy PHONE: 432-312-5251
- 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 XXXX No  
If yes, give the Division order number authorizing the project: \_\_\_\_\_
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- 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: Mike McCurdy TITLE: Vice-President  
SIGNATURE:  DATE: 3/26/2019  
E-MAIL ADDRESS: m.mccurdy@delawareenergy.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: \_\_\_\_\_

### 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.**

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**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

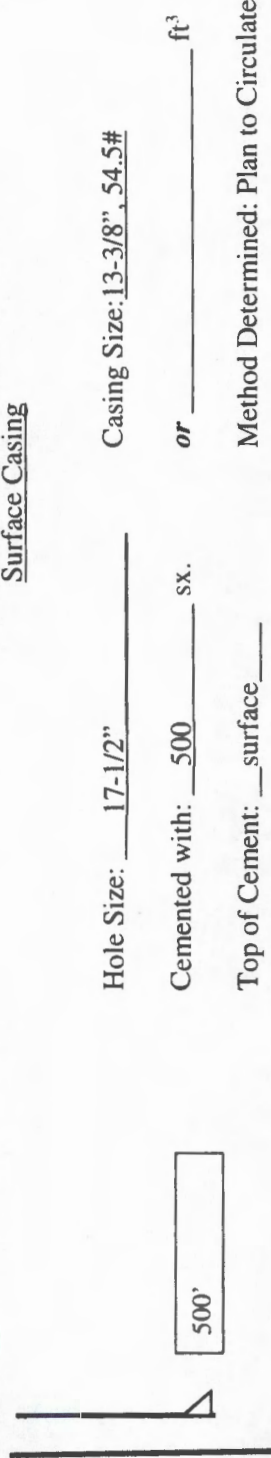
OPERATOR: Delaware Energy, LLC

WELL NAME & NUMBER: Red Bluff SWD # 1

WELL LOCATION: 433' FSL & 1,318' FWL      FOOTAGE LOCATION      UNIT LETTER M      SECTION 14      TOWNSHIP 26S      RANGE 28E

WELLBORE SCHEMATIC see attached wellbore sketch

WELL CONSTRUCTION DATA  
Surface Casing



Hole Size: 17-1/2"      Casing Size: 13-3/8", 54.5#  
Cemented with: 500 sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: surface      Method Determined: Plan to Circulate Intermediate Casing

Hole Size: 12-1/4"      Casing Size: 9-5/8", 47#, L-80  
Cemented with: 2,500' sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: surface      Method Determined: Plan to Circulate Production Casing

Hole Size: 8-1/2"      Casing Size: 7-5/8", 39#, P-110  
Cemented with: 650 sx.      or \_\_\_\_\_ ft<sup>3</sup>

Top of Cement: Top of Liner      Method Determined: Plan to Circulate to liner top

Total Depth: 14,775'      Injection Interval  
14,775' feet to 15,775'  
(OPEN HOLE)



INJECTION WELL DATA SHEET

Tubing Size: 5.5" BTC x 5.5" Flush Joint Lining Material: Fiber Glass

Type of Packer: Weatherford Arrow Set IX

Packer Setting Depth: 14,725'

Other Type of Tubing/Casing Seal (if applicable): none

Additional Data

- 1. Is this a new well drilled for injection? XXXXXX Yes      No       
 If no, for what purpose was the well originally drilled? N/A

2. Name of the Injection Formation: Devonian

3. Name of Field or Pool (if applicable): SWD; Devonian

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. N/A

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

Below: none

Next Higher: Delaware 2,575' - 6,275'; Bone Springs 6,275' - 9,275'; Wolfcamp 9,275' - 12,075'; Strawn 12,075' - 12,275'; Atoka 12,275' - 12,975'; Morrow 12,975' - 14,275'

**VII.**

**1. Proposed average and maximum daily rate and volume of fluids to be injected;**

Average 15,000-20,000 BWPD, Max 25,000 BWPD

**2. Whether the system is open or closed;**

Open System, Commercial SWD

**3. Proposed average and maximum injection pressure;**

Average 1,500-2,500 PSI, Max 2,955 PSI

**4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,**

Bone Spring, Delaware, and Wolfcamp produced water. No known incompatibility exists with these produced water types and the Devonian. Devonian formation is used as a disposal interval throughout the Delaware Basin for Wolfcamp, Bone Springs, and Delaware produced water. See attached water analysis from Bone Spring, Wolfcamp, and Delaware produced water.

**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.).**

Disposal zone produces water and no hydrocarbons, nearby Devonian test wells have only tested water in DST's. Nearby Top Gun SWD tested Sulphur water.

**\*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.**

The proposed disposal interval is in the Devonian formation 14,775'-15,775'. Devonian is an impermeable organic Shale at the very top (14,625 ft, Woodford Shale) 100ft thick followed by permeable lime, dolomite, and small amount of shale 1000ft thick. There are no fresh water zones underlying the proposed injection zone. Usable water depth is from surface to +/- 150', the water source is older alluvium (Quaternary). All the fresh water wells in the area have an average depth to water of 150ft per State Engineer.

**IX. Describe the proposed stimulation program, if any.**

60,000 gallons 20% HCL acid job with packer

**X. Attach appropriate logging and test data on the well**

Mud log will be filed after the well has been drilled. All cased hole and open hole Logs will be filed following drilling operations.

**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.**

Attached is a water sample taken from 32.047938, -104.052527



**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.**

Delaware Energy, L.L.C. has reviewed and examined available geologic and engineering data in the area of interest for the Red Bluff SWD #1 and have found no evidence of faults or other hydrologic connections between Devonian disposal zone and the underground sources of drinking water. Furthermore, there exist many impermeable intervals between the injection interval and the fresh ground water from the top of the Devonian Carbonate and the base of the ground water.

**Mike McCurdy** **Vice President** **3/26/2019**  
 \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_

**III. WELL DATA**

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

Red Bluff SWD #1, Sec. 14-T26S-R28E, 433' FSL & 1,318' FWL, UL M, Eddy County, New Mexico

**(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.**

Casing Size	Setting Depth	Sacks of Cement	Hole Size	Top of Cement	Determined
13-3/8"	500'	500	17-1/2"	Surface	CIRC
9-5/8"	9,275'	2500	12-1/4"	Surface	CIRC
7-5/8"	9,075'-14,775'	650	8-1/2"	Liner Top	CIRC & CBL

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

5-1/2" BTC X 5-1/2" Flush Joint, Internally Fiber Glass Coated Tubing set 50 to 100ft above open hole

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

Weatherford Arrow Set 1X injection packer, nickel plated with on/off tool

**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.**

Devonian Formation  
 Pool Name: SWD (Devonian)

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

14,775' to 15,775' (Open hole)

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

Well is a planned new drill for SWD

**(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.**

None, well is a planned new drill

**(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.**

Next Higher: Delaware 2,575' – 6,275'; Bone Springs 6,275' – 9,275'; Wolfcamp 9,275' – 12,075'; Strawn 12,075' – 12,275'; Atoka 12,275' – 12,975'; Morrow 12,975' – 14,275'

Next Lower: None



DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-6181 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code 96101	Pool Name SWD; DEVONIAN
Property Code	Property Name RED BLUFF SWD	Well Number 1
OGRID No. 371195	Operator Name DELAWARE ENERGY	Elevation 2975'

Surface Location

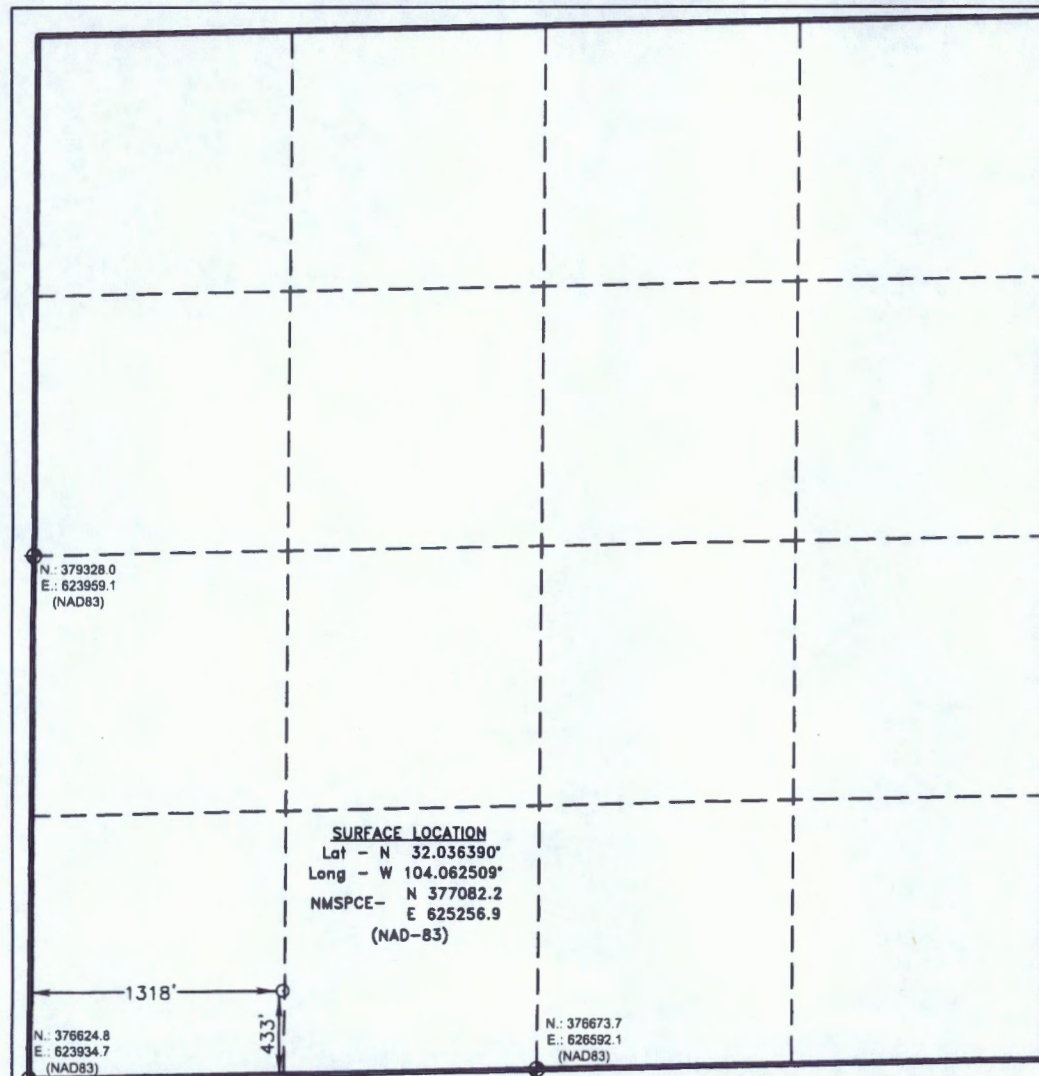
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	14	26 S	28 E		433	SOUTH	1318	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

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



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

*Sarah Presley* 3.26.19  
Signature Date

Sarah Presley  
Printed Name

s.presley@delawareenergy.com  
Email Address

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

MARCH 7, 2019  
Date Surveyed

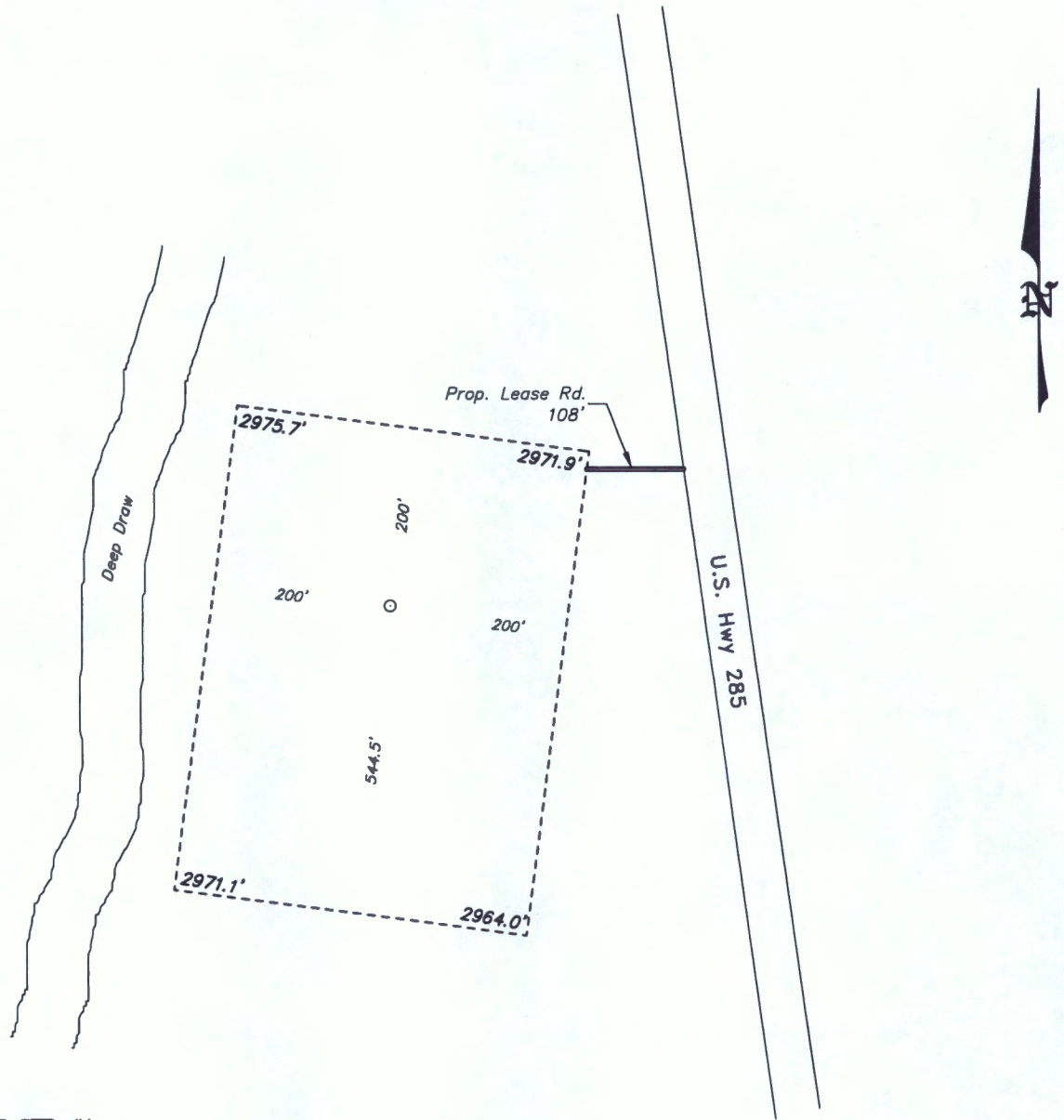
*[Signature]*  
Signature & Seal of Professional Surveyor

Certificate No. 7977  
BASIC SURVEYING

0' 1000' 2000' 3000' 4000'  
SCALE: 1" = 2000'  
WO Num.: 34420



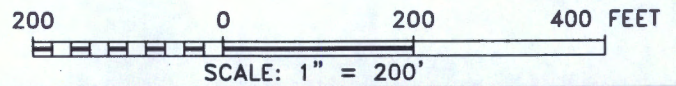
**SECTION 14, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.**



**RED BLUFF SWD #1**  
**ELEV. - 2975'**

Lat - N 32.036390°  
Long - W 104.062509°  
NMSPCE- N 377082.2  
E 625256.9  
(NAD-83)

WHITE CITY, NM IS ±11 MILES TO THE NORTHWEST OF LOCATION.



**DELAWARE ENERGY**

REF: RED BLUFF SWD #1 / WELL PAD TOPO

THE RED BLUFF SWD #1 LOCATED 433' FROM  
THE SOUTH LINE AND 1318' FROM THE WEST LINE OF  
SECTION 14, TOWNSHIP 26 SOUTH, RANGE 28 EAST.

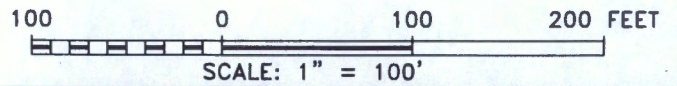
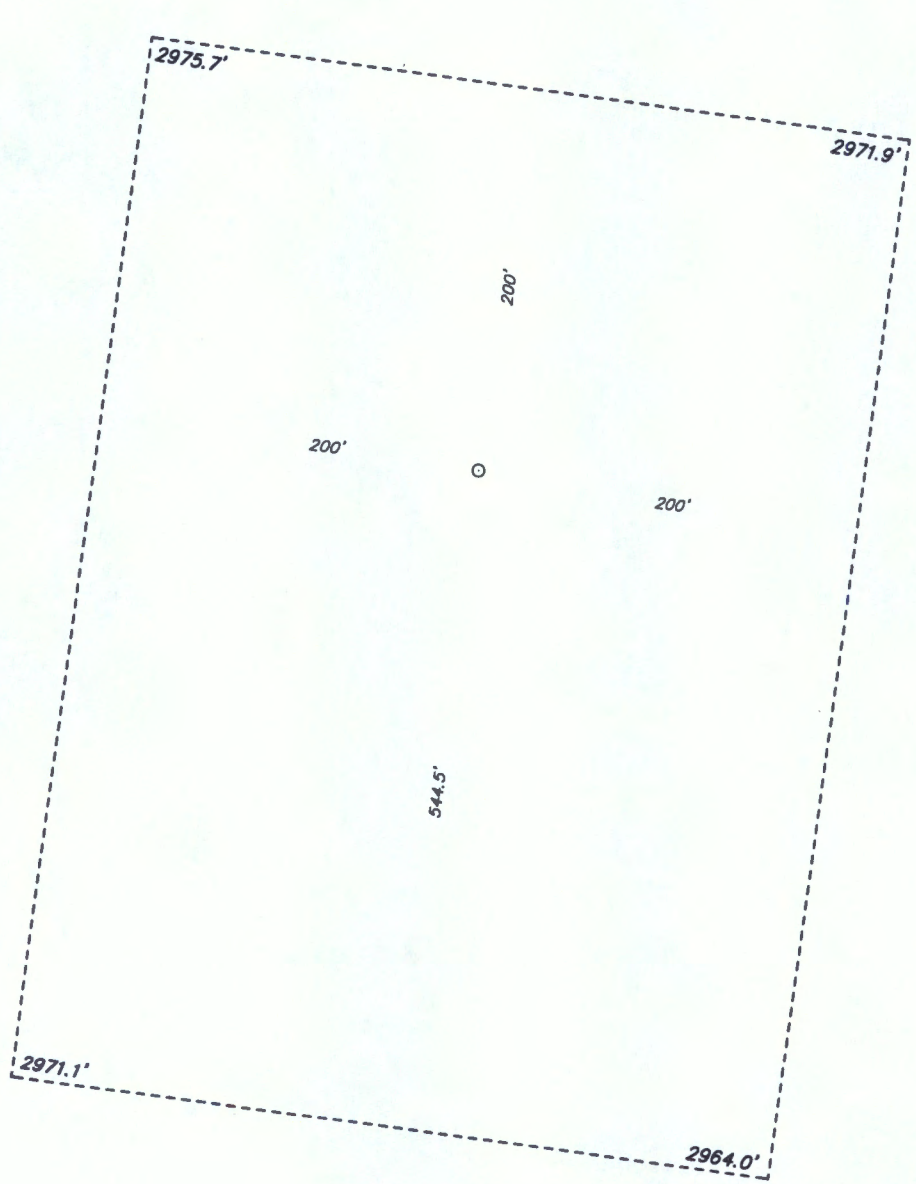
N.M.P.M., EDDY COUNTY, NEW MEXICO.



P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basinsurveys.com



SECTION 14, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.



**DELAWARE ENERGY**

REF: RED BLUFF SWD #1 / WELL PAD TOPO

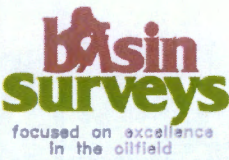
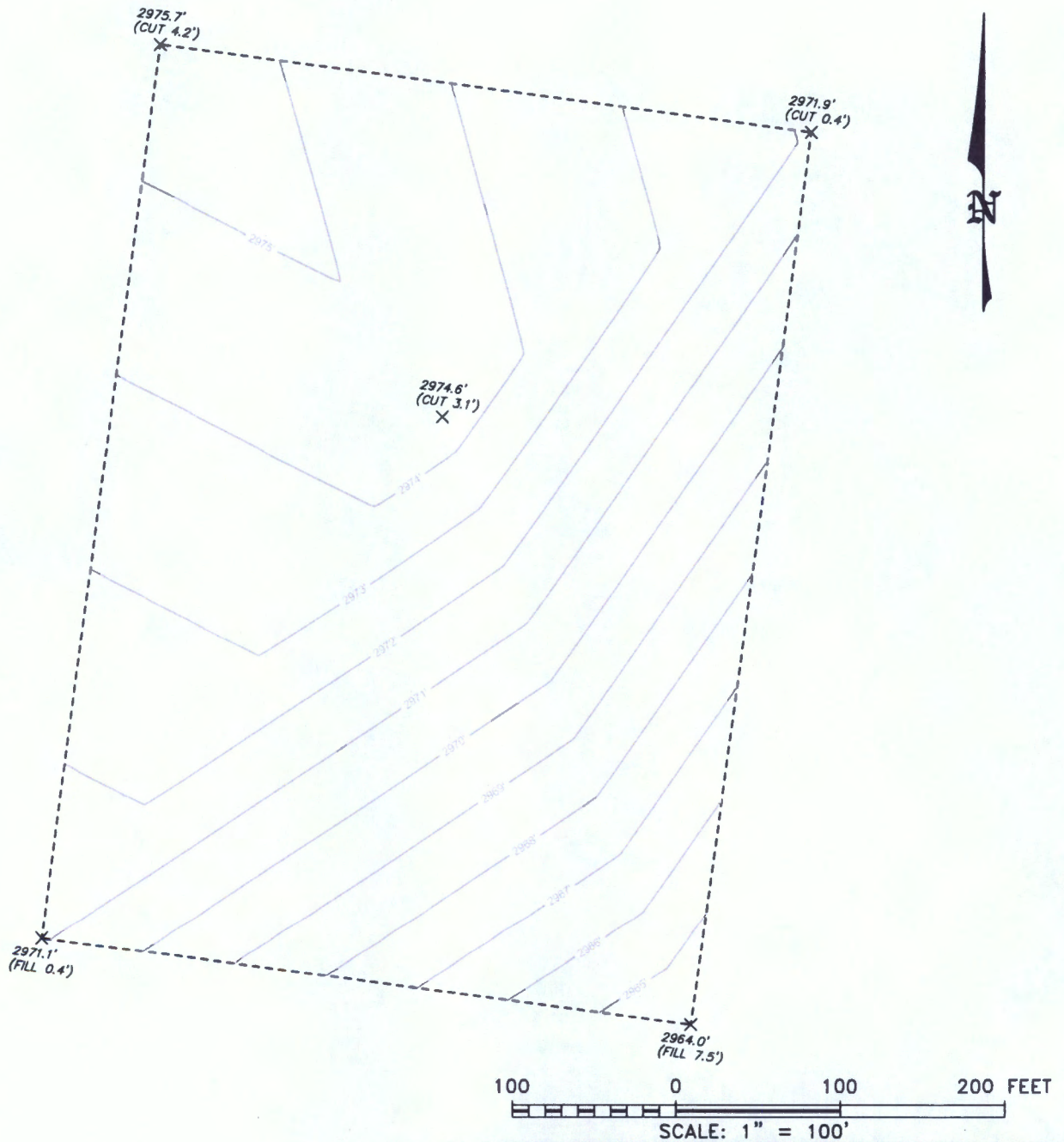
THE RED BLUFF SWD #1 LOCATED 433' FROM  
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 N.M.P.M., EDDY COUNTY, NEW MEXICO.



focused on excellence in the oilfield  
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 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
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 basinsurveys.com



SECTION 14, TOWNSHIP 26 SOUTH, RANGE 28 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.



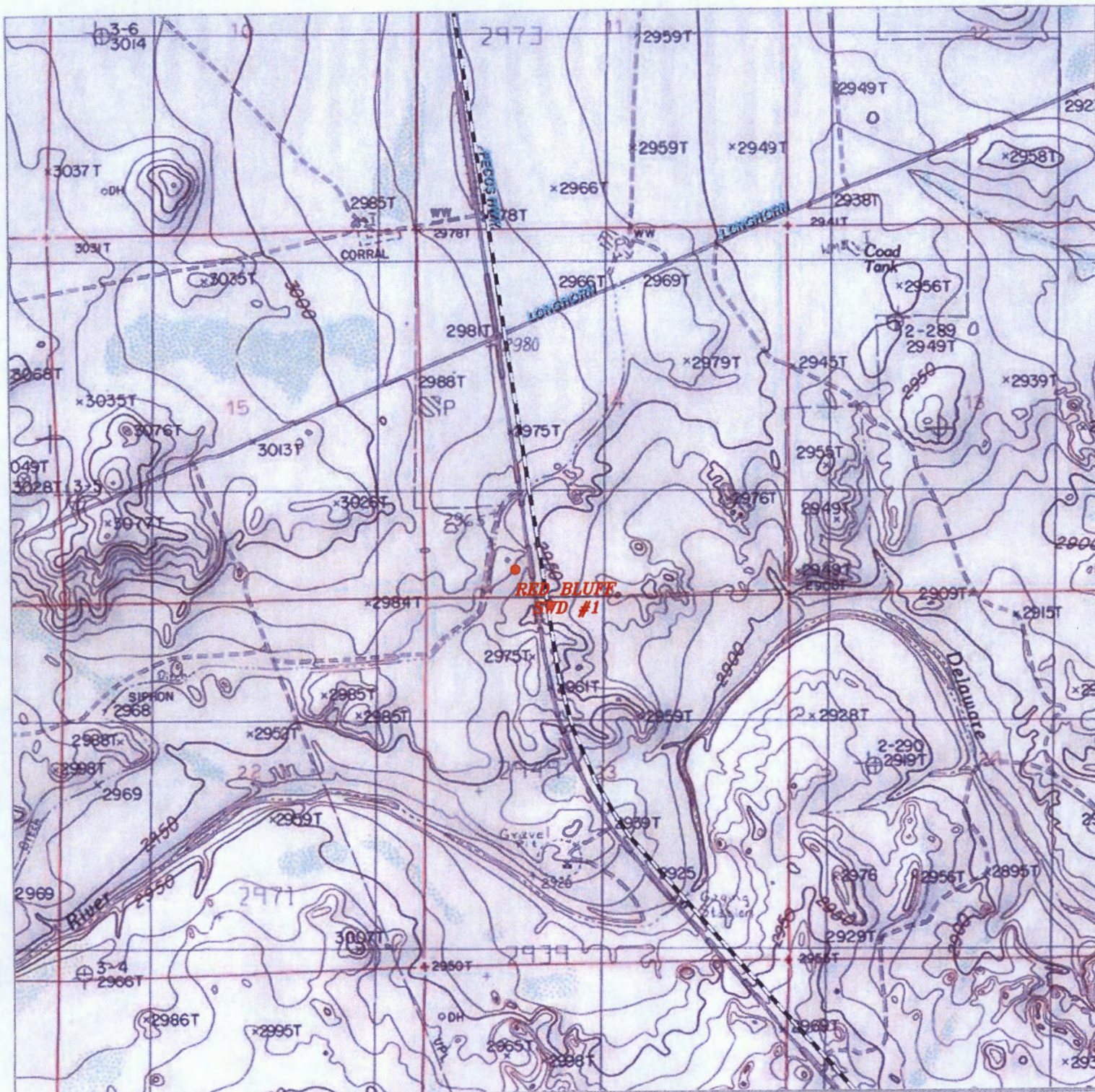
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 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
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 basin-surveys.com

**DELRWARE ENERGY**

REF: RED BLUFF SWD #1 / CUT & FILL

THE RED BLUFF SWD #1 LOCATED 433' FROM  
 THE SOUTH LINE AND 1318' FROM THE WEST LINE OF  
 SECTION 14, TOWNSHIP 26 SOUTH, RANGE 28 EAST.  
 N.M.P.M., EDDY COUNTY, NEW MEXICO.





### RED BLUFF SWD #1

Located 433' FSL and 1318' FWL  
 Section 14, Township 26 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence  
 in the oilfield

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 (575) 392-2206 - Fax  
 basinsurveys.com

0' 1000' 2000' 3000' 4000'

SCALE: 1" = 2000'

W.O. Number: KJG 34420

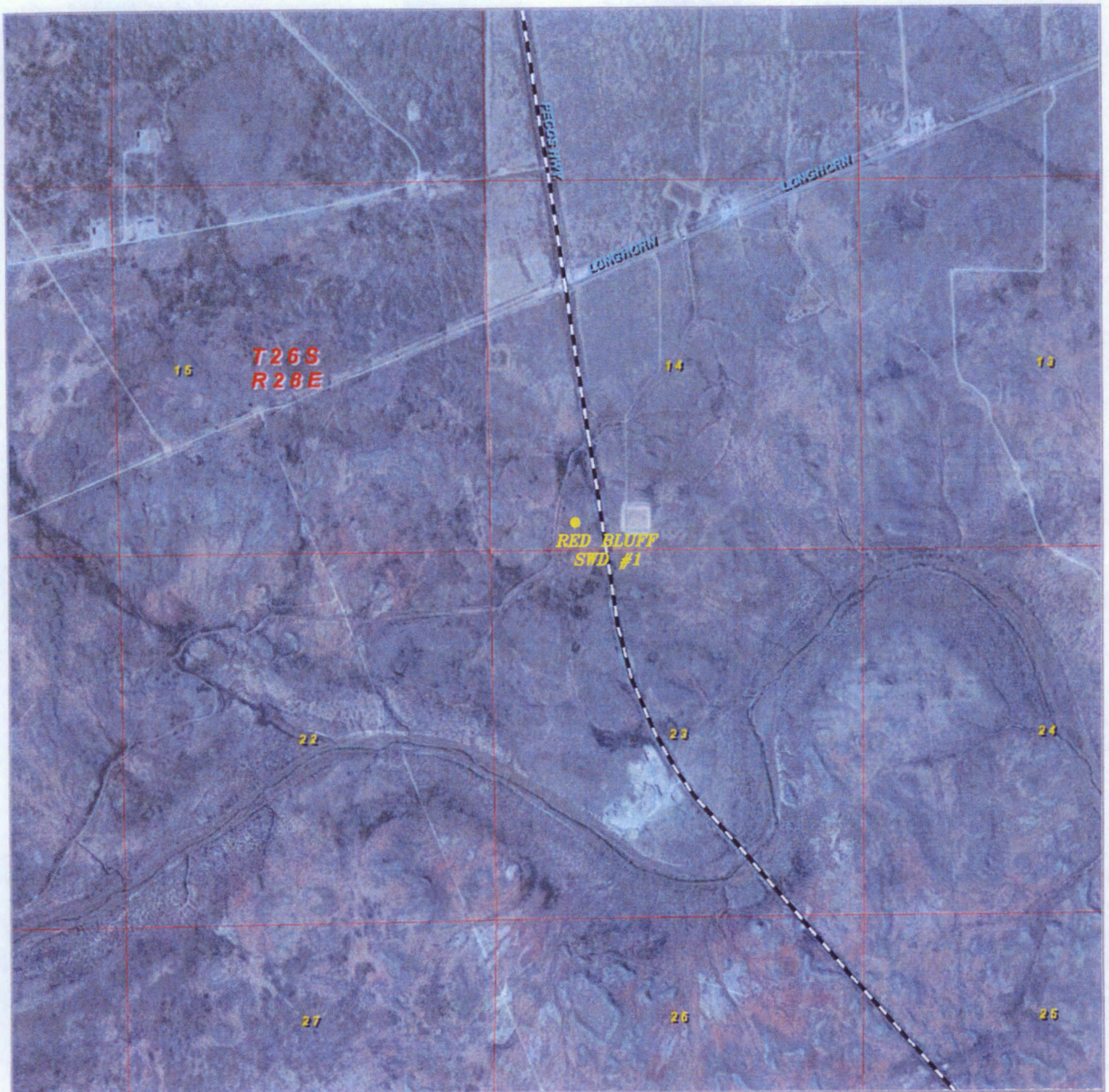
Survey Date: 03-05-2019

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



**DELAWARE**  
**ENERGY**



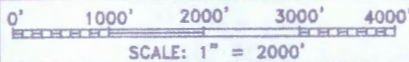


**RED BLUFF SWD #1**

Located 433' FSL and 1318' FWL  
 Section 14, Township 26 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.



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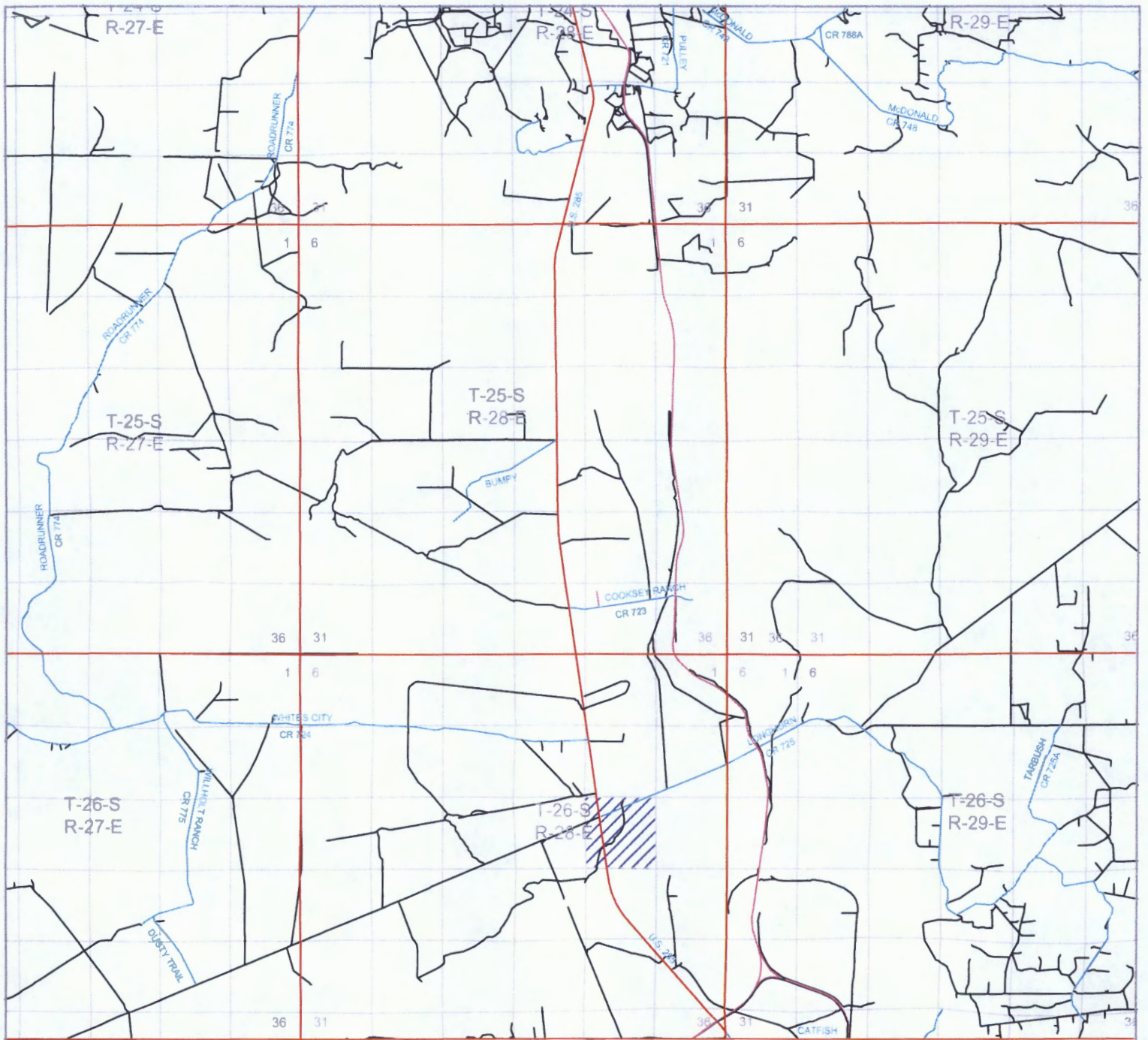
W.O. Number: KJG 34420  
 Survey Date: 03-05-2019

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



**DELMWARE  
 ENERGY**



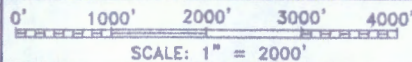


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Located 433' FSL and 1318' FWL  
 Section 14, Township 26 South, Range 28 East,  
 N.M.P.M., Eddy County, New Mexico.



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 basinsurveys.com



W.O. Number: KJG 34420  
 Survey Date: 03-05-2019

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND



## DELAWARE ENERGY



Sec 22, T25S, R28E

North Permian Basin Region  
 P.O. Box 740  
 Sundown, TX 79372-0740  
 (806) 229-8121  
 Lab Team Leader - Sheila Hernandez  
 (432) 495-7240

Bone Spring

Water Analysis Report by Baker Petrolite

Company:		Sales RDT:	33514.1
Region:	PERMIAN BASIN	Account Manager:	TONY HERNANDEZ (575) 910-7135
Area:	ARTESIA, NM	Sample #:	534665
Lease/Platform:	PINOCHLE 'BPN' STATE COM	Analysis ID #:	106795
Entity (or well #):	2 H	Analysis Cost:	\$90.00
Formation:	UNKNOWN		
Sample Point:	WELLHEAD		

Summary		Analysis of Sample 534665 @ 75 F					
Sampling Date:	03/10/11	Anions	mg/l	meq/l	Cations	mg/l	meq/l
Analysis Date:	03/18/11	Chloride:	109618.0	3091.92	Sodium:	70275.7	3058.82
Analyst:	SANDRA GOMEZ	Bicarbonate:	2135.0	34.99	Magnesium:	195.0	16.04
TDS (mg/l or g/m3):	184911.1	Carbonate:	0.0	0.	Calcium:	844.0	42.12
Density (g/cm3, tonne/m3):	1.113	Sulfate:	747.0	15.55	Strontium:	220.0	5.02
Anion/Cation Ratio:	1	Phosphate:			Barium:	0.8	0.01
Carbon Dioxide:	0.50 PPM	Borate:			Iron:	6.5	0.23
Oxygen:		Silicate:			Potassium:	869.0	22.22
Comments:		Hydrogen Sulfide:		0 PPM	Aluminum:		
		pH at time of sampling:		7	Chromium:		
		pH at time of analysis:			Copper:		
		pH used in Calculation:		7	Lead:		
					Manganese:	0.100	0.
					Nickel:		

Conditions		Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl										
Temp	Gauge Press.	Calcite CaCO <sub>3</sub>		Gypsum CaSO <sub>4</sub> ·2H <sub>2</sub> O		Anhydrite CaSO <sub>4</sub>		Celestite SrSO <sub>4</sub>		Barite BaSO <sub>4</sub>		CO <sub>2</sub> Press
		Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount	
80	0	1.08	188.52	-1.20	0.00	-1.18	0.00	-0.11	0.00	0.58	0.29	1.72
100	0	1.10	208.05	-1.29	0.00	-1.20	0.00	-0.15	0.00	0.35	0.29	2.35
120	0	1.12	224.17	-1.36	0.00	-1.19	0.00	-0.17	0.00	0.16	0.00	3.17
140	0	1.13	243.17	-1.42	0.00	-1.16	0.00	-0.18	0.00	0.00	0.00	4.21

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 CO<sub>2</sub> pressure is actually the calculated CO<sub>2</sub> fugacity. It is usually nearly the same as the CO<sub>2</sub> partial pressure.

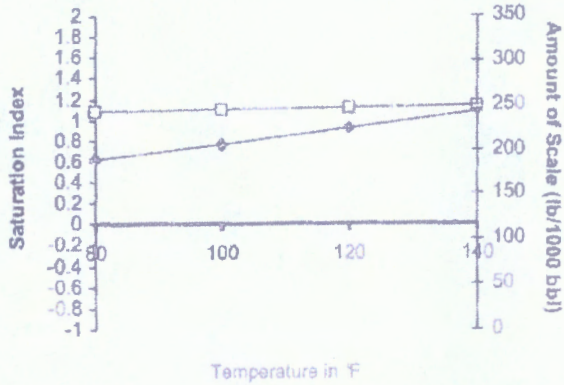


# Scale Predictions from Baker Petrolite

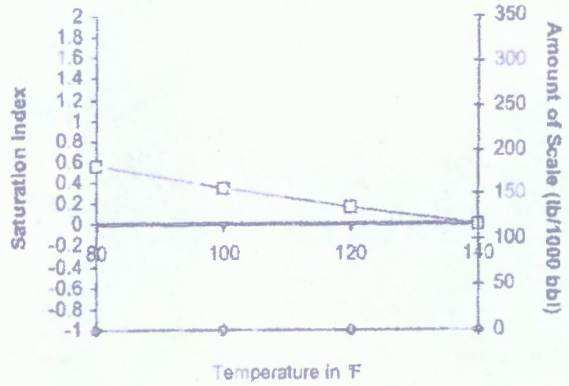
Analysis of Sample 534665 @ 75 °F for

03/18/11

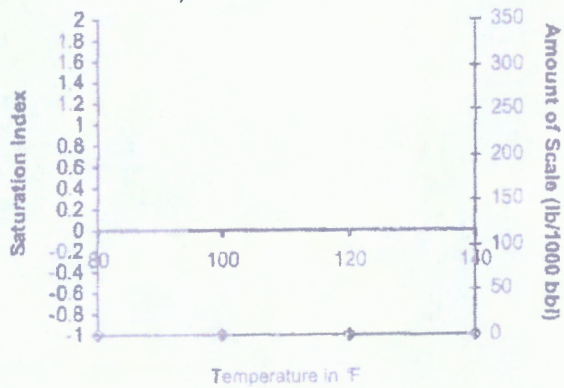
**Calcite - CaCO<sub>3</sub>**



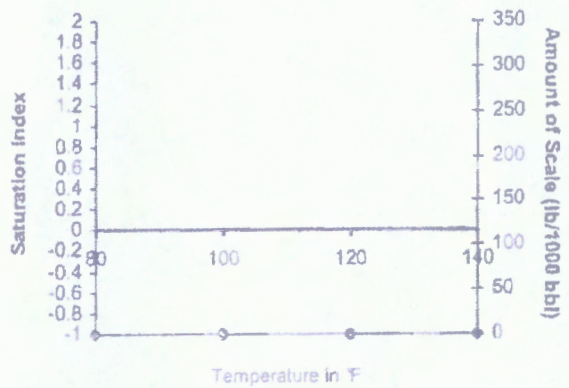
**Barite - BaSO<sub>4</sub>**



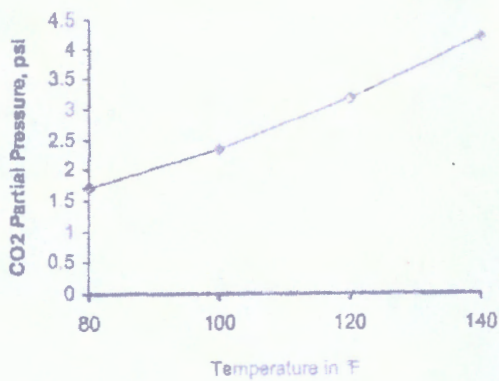
**Gypsum - CaSO<sub>4</sub>·2H<sub>2</sub>O**



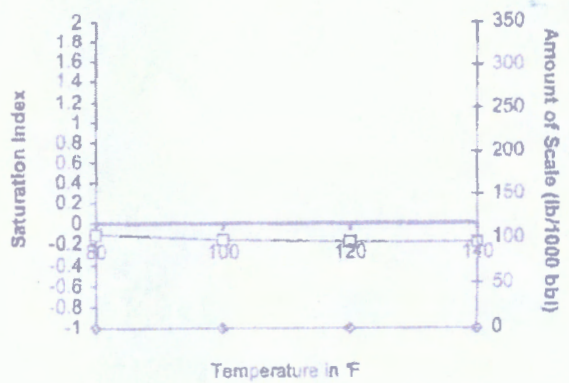
**Anhydrite - CaSO<sub>4</sub>**



**Carbon Dioxide Partial Pressure**



**Celestite - SrSO<sub>4</sub>**



Wolfcamp



Water Analysis

Date: 23-Aug-11

2708 West County Road, Hobbs NM 88240  
Phone (575) 392-5556 Fax (575) 392-7307

Analyzed For

Brushy Draw 1#1

Company	Well Name	County	State
	BD	Lee	New Mexico

Sample Source Swab Sample Sample # 1-265-29E  
1

Formation Depth

Specific Gravity	1.170	SG @ 60 °F	1.172
pH	6.30	Sulfides	Absent
Temperature (°F)	70	Reducing Agents	

Cations

Sodium (Calc)	in Mg/L	77,962	in PPM	66,520
Calcium	in Mg/L	4,000	in PPM	3,413
Magnesium	in Mg/L	1,200	in PPM	1,024
Soluble Iron (FE2)	in Mg/L	10.0	in PPM	9

Anions

Chlorides	in Mg/L	130,000	in PPM	110,922
Sulfates	in Mg/L	250	in PPM	213
Bicarbonates	in Mg/L	127	in PPM	108
Total Hardness (as CaCO3)	in Mg/L	15,000	in PPM	12,799
Total Dissolved Solids (Calc)	in Mg/L	213,549	in PPM	182,209
Equivalent NaCl Concentration	in Mg/L	182,868	in PPM	156,031

Scaling Tendencies

\*Calcium Carbonate Index 507,520

Below 500,000 Remote / 500,000 - 1,000,000 Possible / Above 1,000,000 Probable

\*Calcium Sulfate (Gyp) Index 1,000,000

Below 500,000 Remote / 500,000 - 10,000,000 Possible / Above 10,000,000 Probable

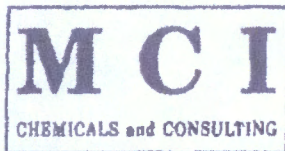
\*This Calculation is only an approximation and is only valid before treatment of a well or several weeks after treatment.

Remarks RW=.048@70F

Report # 3188



see 16, T23S R28E



PRODUCTION DEPARTMENT

MILLER CHEMICALS, INC.

Post Office Box 298  
 Artesia, N.M. 88211-0298  
 (505) 746-1919 Artesia Office  
 (505) 392-2893 Hobbs Office  
 (505) 746-1918 Fax  
 mci@plateautel.net

Delaware Brushy Canyon

WATER ANALYSIS REPORT

Company :  
 Address :  
 Lease : LOVING "AIB"  
 Well : #15  
 Sample Pt. : WELLHEAD  
 Date : MARCH 17, 2008  
 Date Sampled : MARCH 17, 2008  
 Analysis No. :

ANALYSIS	mg/L	* meq/L
1. pH	6.0	
2. H2S	0	
3. Specific Gravity	1.070	
4. Total Dissolved Solids	304684.9	
5. Suspended Solids	NR	
6. Dissolved Oxygen	NR	
7. Dissolved CO2	NR	
8. Oil In Water	NR	
9. Phenolphthalein Alkalinity (CaCO3)		
10. Methyl Orange Alkalinity (CaCO3)		
11. Bicarbonate	HCO3 927.0	HCO3 15.2
12. Chloride	Cl 187440.0	Cl 5287.4
13. Sulfate	SO4 500.0	SO4 10.4
14. Calcium	Ca 37200.0	Ca 1856.3
15. Magnesium	Mg 996.3	Mg 82.0
16. Sodium (calculated)	Na 77586.6	Na 3374.8
17. Iron	Fe 35.0	
18. Barium	Ba NR	
19. Strontium	Sr NR	
20. Total Hardness (CaCO3)	97000.0	

PROBABLE MINERAL COMPOSITION

*milli equivalents per Liter	Compound	Equiv wt X meq/L	mg/L
1856   *Ca <----- *HCO3   15	Ca(HCO3)2	81.0	1231
-----  /----->  -----	CaSO4	68.1	709
82   *Mg -----> *SO4   10	CaCl2	55.5	1830.7
-----  <-----/  -----	Mg(HCO3)2	73.2	
3375   *Na -----> *Cl   5287	MgSO4	60.2	
+-----+	MgCl2	47.6	82.0
	NaHCO3	84.0	3902
Saturation Values Dist. Water 20 C	Na2SO4	71.0	
CaCO3 13 mg/L	NaCl	58.4	3374.8
CaSO4 * 2H2O 2090 mg/L			19723
BaSO4 2.4 mg/L			

REMARKS:





P.O. Box 3394, Midland, Texas 79702  
 Phone (432) 684-4233 Fax (432) 684-4277

**Water Analysis**

Code 214537		Sample Information	
Client Information		Lease/Well: Red Bluff/SWD #1	
Delaware Energy County:	Eddy	Sample Point:	Stock Tank
Rep:	Derrick Boutwell	Date Sampled:	03/29/2019
		Date Reported:	04/05/2019

**Results**

**Cations**

Ion	Concentration(mg/L)
Barium (as Ba)	0
Calcium (as Ca)	587
Iron (as Fe)	0
Sodium (as Na)	732
Magnesium (as Mg)	207

**Other Measurements**

Measurement	Value
pH	6.37
SG	1.000
Turbidity	3
CO <sub>2</sub>	
Total Dissolved Solids	19387.000

**Anions**

Ion	Concentration(mg/L)
Chlorides (as Cl)	16900
Sulfate (as SO <sub>4</sub> )	912
Carbonate (as CO <sub>3</sub> )	0
Bicarbonates (as HCO <sub>3</sub> )	49
Sulfide (as S <sup>2-</sup> )	0

**Scaling Indices**

Temp(F)	CaCO <sub>3</sub>	CaSO <sub>4</sub> *2H <sub>2</sub> O	CaSO <sub>4</sub>	BaSO <sub>4</sub>
80	-1.5411	0.0000	0.0000	-28.4183
120	-1.0636	0.0000	0.0000	-28.6415
160	-0.4464	0.0000	0.0000	-28.7978
200	0.1309	0.0000	0.0000	-28.8867
250	0.6418	0.0000	0.0000	-28.8558

Low = < 0.200, Moderate = 0.200-0.999, High = > 1.00

**Comments**

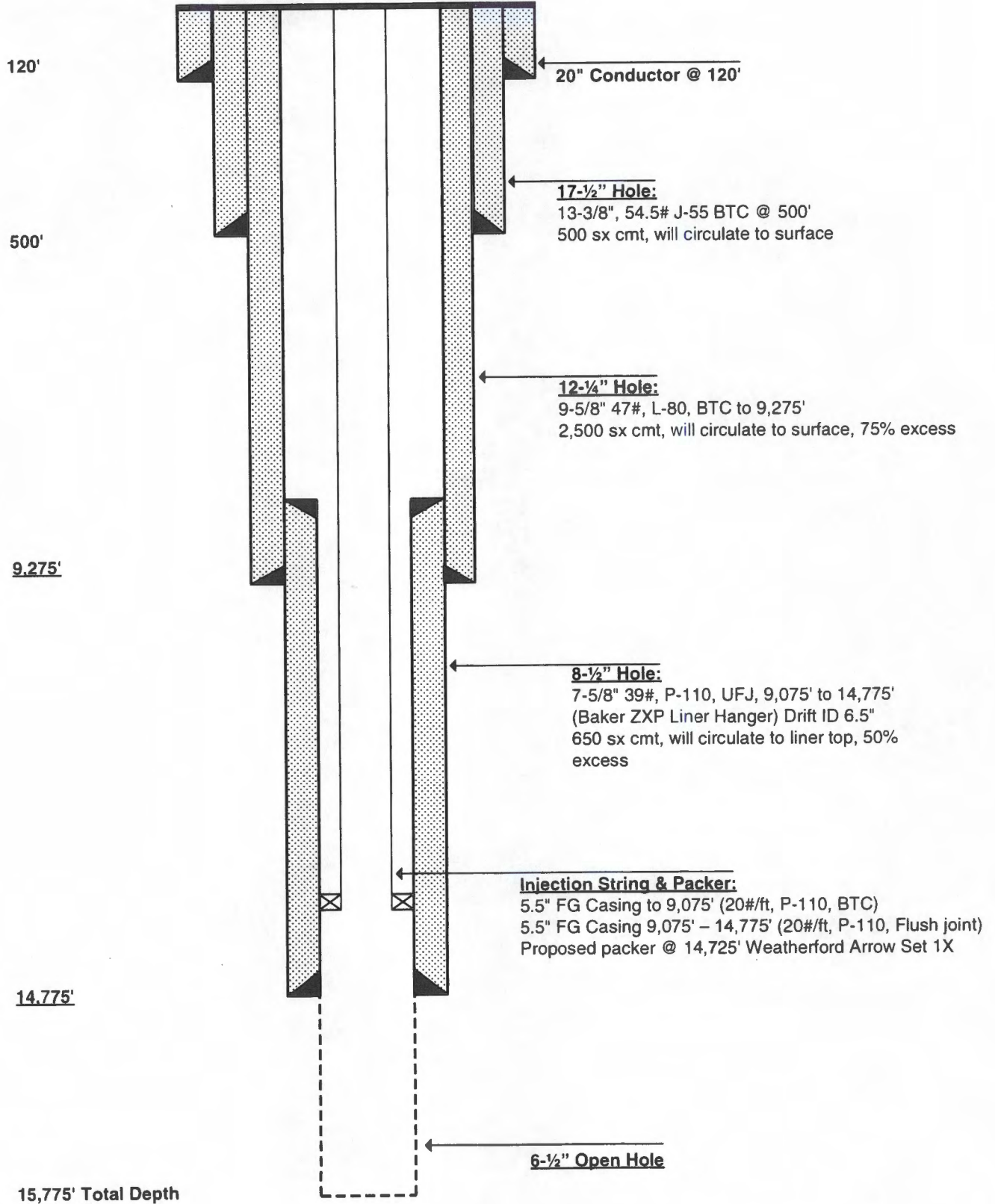
32.047938, -104.052527

**Red Bluff SWD # 1**

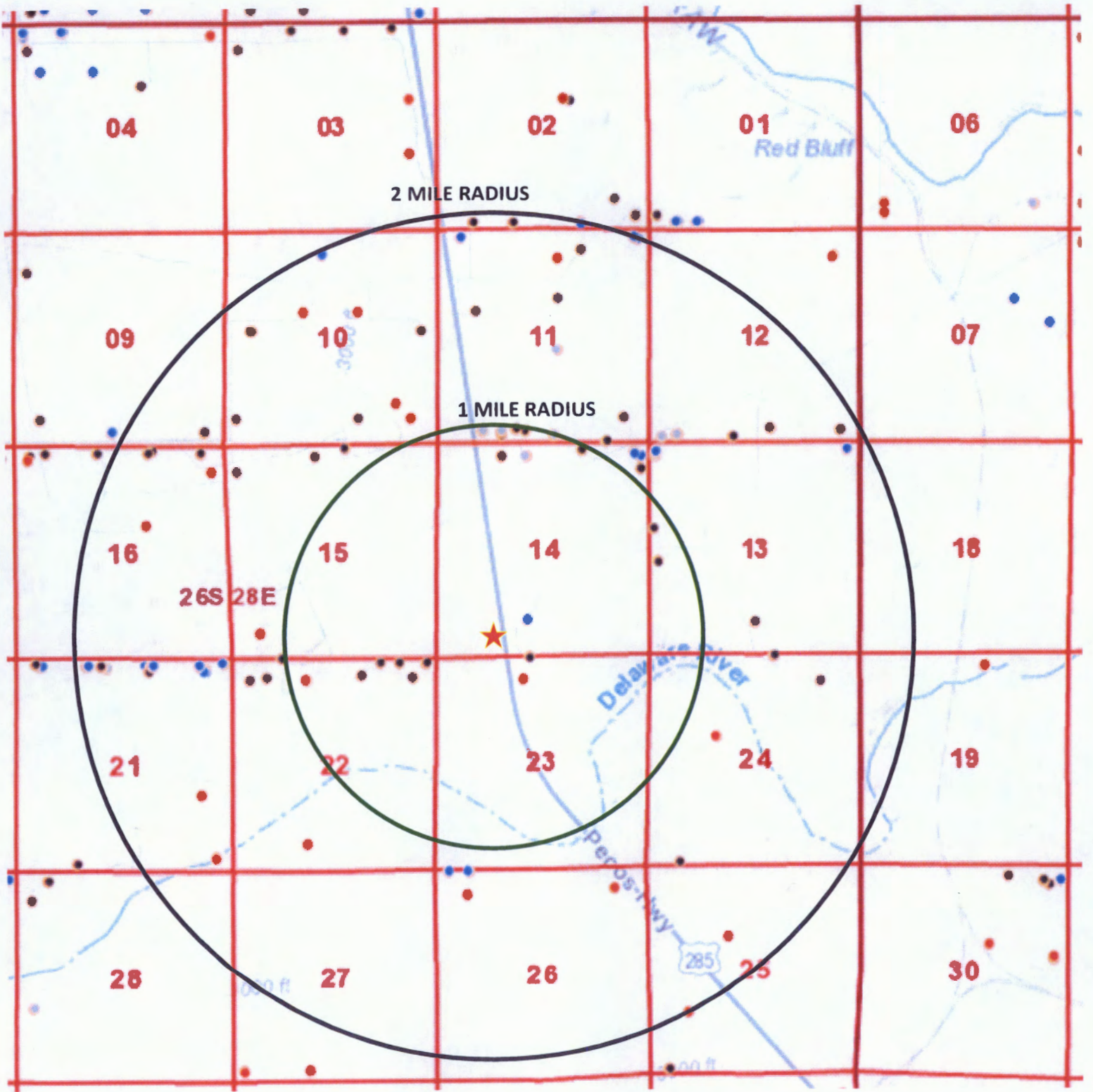
API # PENDING  
433' FSL & 1,318' FWL, Sec. 14, T26S, R28E, UL "M"  
EDDY COUNTY, NEW MEXICO

**ELEVATION:**  
GL: 2,975'

**PROPOSED WELLBORE**







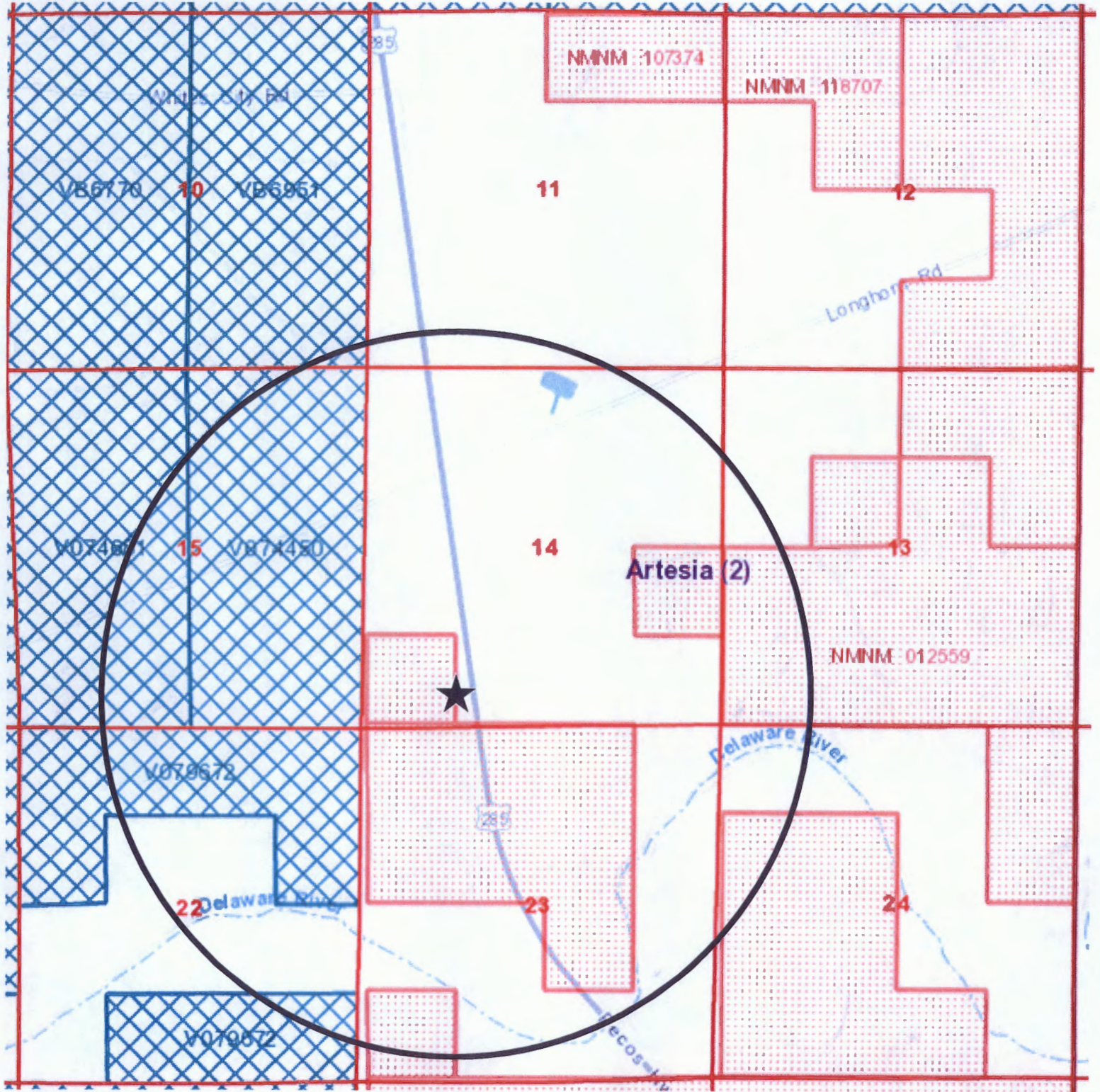
WELLS – ONE MILE RADIUS

NO WELLS PENETRATE THE DEVONIAN FORMATION IN THE AOR

SECTION 14-T26S-R28E

★ Red Bluff SWD #1  
 (Proposed Location)  
 Delaware Energy, LLC





**LEASES – ONE MILE RADIUS**

★ Red Bluff SWD #1  
 Sec. 14-T26S-R28E  
 Eddy Co. NM



**Red Bluff SWD #1**  
**LEASES – ONE MILE RADIUS**

**Section 10, T26S-R28E**

State Lease (VB691)

- **COG Operating, LLC**  
600 W. Illinois  
Midland, TX 79701

**Section 11, T26S-R28E**

Fee

- **Mewbourne Oil Co.**  
P.O. Box 7698  
Tyler, TX 75711

**Section 13, T26S-R28E**

- **Mewbourne Oil Co.**  
P.O. Box 7698  
Tyler, TX 75711
  
- **COG Production, LLC**  
600 W. Illinois  
Midland, TX 79701

Federal Lease (NMNM 012559)

- **Oxy USA, Inc. (Lessee)**  
PO Box 27570  
Houston, TX 77227-7570

**Section 14, T26S-R28E**

Fee

- **Mewbourne Oil Co.**  
P.O. Box 7698  
Tyler, TX 75711

Federal Lease (NMNM 107374)

- **Chevron USA, Inc. (Lessee)**  
6301 Deauville Blvd.  
Midland, Texas 79706-2964

### **Section 15, T26S-R28E**

State Lease (V074681)

- **EOG Resources, Inc (Lessee)**  
5509 Champions Dr.  
Midland, TX 79706

State Lease (VO74450)

- **The Allar Company (Lessee)**  
735 Elm St.  
Graham, TX 76450

- **COG Operating, LLC**  
600 W. Illinois  
Midland, TX 79701

### **Section 22, T26S-R28E**

- **COG Production, LLC**  
600 W. Illinois  
Midland, TX 79701

### **Section 23, T26S-R28E**

Federal Lease (NMNM 012559)

- **Oxy USA, Inc. (Lessee)**  
PO Box 27570  
Houston, TX 77227-7570
- **COG Production, LLC**  
600 W. Illinois  
Midland, TX 79701

### **Section 24, T26S-R28E**

Federal Lease (NMNM 012559)

- **Oxy USA, Inc. (Lessee)**  
PO Box 27570  
Houston, TX 77227-7570



**Red Bluff SWD #1**

**Location: 433' FSL & 1,318' FWL**

**Sec. 14, T-26-S, R-28-E**

**Estimated Pre-Drill Formation Tops**

Top of Salt	675'
Base Salt	2,125'
Lamar	2,525'
Delaware – Bell Canyon	2,575'
Cherry Canyon	3,475'
Brushy Canyon	4,575'
Bone Spring	6,275'
Dean	9,025'
Wolfcamp	9,275'
Strawn	12,075'
Atoka	12,275'
Morrow	12,975'
Mississippian	14,275'
Woodford	14,625'
Devonian	14,775'

## Statement Regarding Seismicity and Well Location (Red Bluff SWD #1)

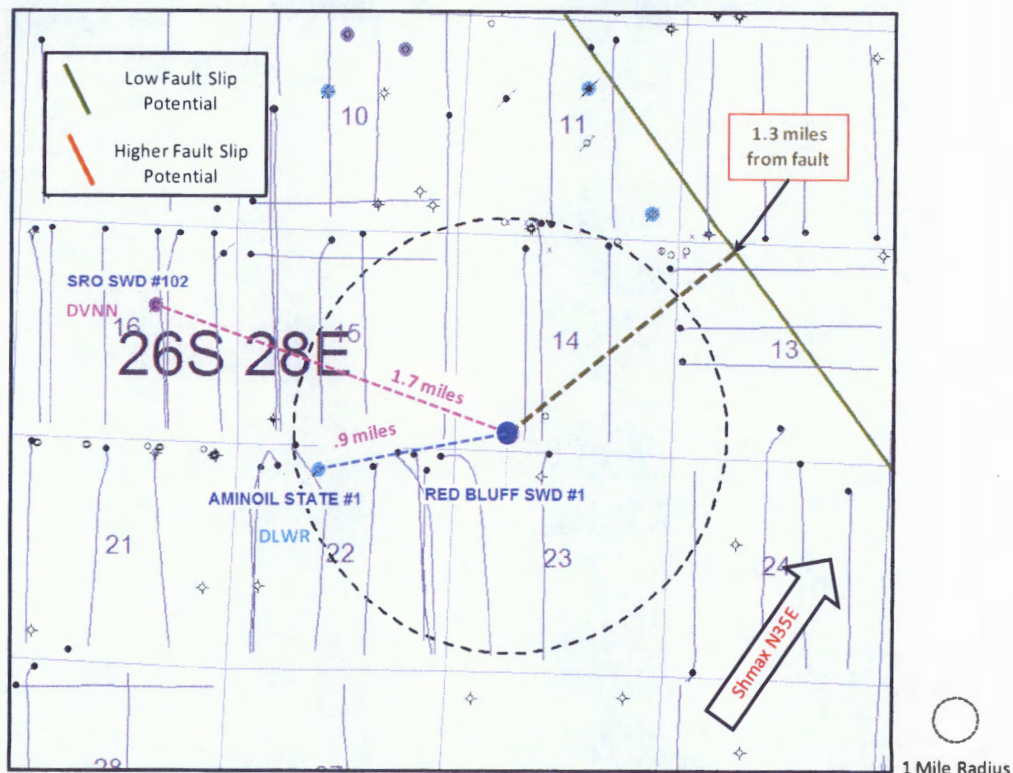
Historically, the area near the proposed Red Bluff SWD #1 has not seen any major seismic activity. There have been two seismic events (as per public data available on the USGS database) in the area. All events are over 19 miles from the proposed SWD location. The most recent event (March 18, 2012) is 19.6 miles NE, measuring 3.1, and the other is 20.2 miles to the NNW which measured 3.9 on November 24, 1978

Delaware Energy does not own 2D or 3D seismic data near the proposed SWD location therefore the fault interpretations are based on data obtained from the USGS New Mexico Faults Database (2005) and other published data. Based on these sources the closest fault would be approximately 1.3 miles northeast of the location. A recent technical paper written by Snee and Zoback, "State of Stress in the Permian Basin, Texas and New Mexico: Implications for induced seismicity", was published in the February 2018 edition of The Leading Edge. The study evaluates the strike-slip probability of known faults using FSP analysis. The study predicts that the NW-SE trending fault NE of the location (green) should have a very low probability of being critically stressed resulting, resulting in potential slip, due to the relationship of the strike of the fault and the regional  $S_{hmax}$  orientation (approx. N 35 deg E) in the area. The exact position of this fault relative to the proposed location, and depth of the target formation, is unknown. No documented seismicity associated with this fault has been found in the public domain.

The proposed Red Bluff SWD #1 is located 1.7 miles away from the nearest active Devonian SWD well and .90 miles from the nearest active Delaware SWD well (see map below). The Red Bluff SWD #1 is targeted for the Devonian and should not affect the Delaware activity. The well should meet current OCD and Industry recommended practices.

Kevin J. Schepel  
Petrophysical Advisor  
[kevin.schepel@att.net](mailto:kevin.schepel@att.net)  
214-212-6540

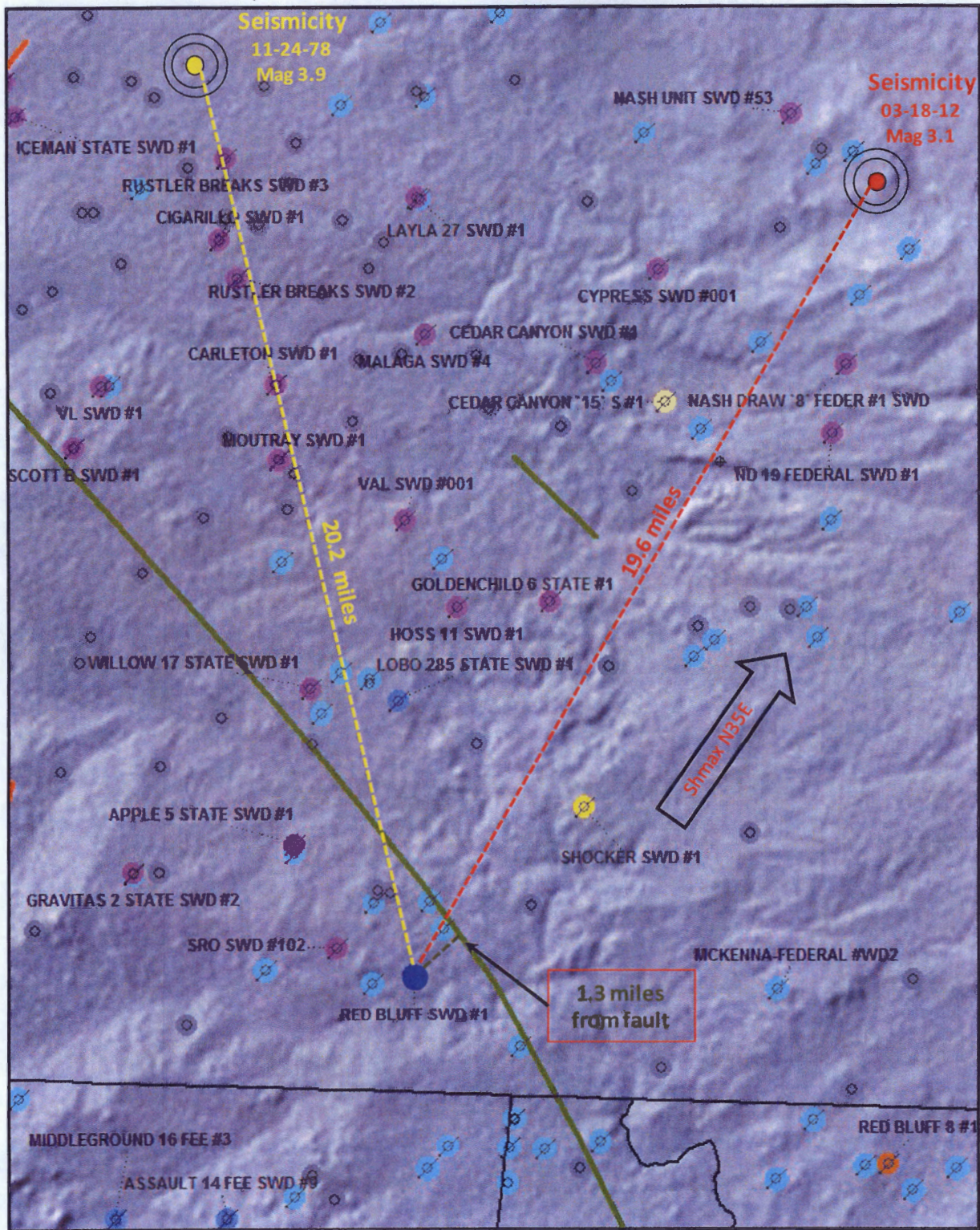
Well Activity, Faulting, and Closest SWD



Modeled After Snee and Zoback (February 2018)



# Proximity to Historic Earthquake Activity and Faults



Modeled After Snee and Zoback (February 2018)

- MRRW/MSSP SWD
- Sularian SWD
- Devonian SWD
- Delaware SWD
- Proposed Location
- USGS Earthquake
- Low Fault Slip Potential
- Higher Fault Slip Potential

Data and Interpretation Disclosure - Although care has been taken to ensure that these data are up to date and accurate, this information and data is being providing as is. The data are what is believed to be the best public data available based on published documents, reports, and information available through the USGS. The user assumes all responsibility and risk for use of the data and interpretations. Users of the data agree not to misuse, add to without permission, or misrepresent the data provided in any way. In no event will the provider of this document be liable to any party for any direct, indirect, incidental, consequential, special or exemplary damages, or lost profit resulting from any use or misuse of this data. Additionally, provider is not liable for any inaccurate data. No person, entity, or user shall use the information in a manner that is in violation of any federal, state, or local law or regulation.



CARLSBAD  
**CURRENT-ARGUS**

**AFFIDAVIT OF PUBLICATION**

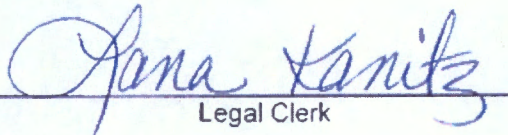
Ad No.  
0001280167

DELAWARE ENERGY  
405 N. MARIENFELD, STE 200

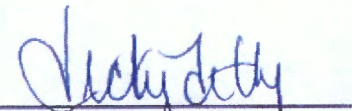
MIDLAND TX 79701

I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

03/15/19

  
Legal Clerk

Subscribed and sworn before me this  
15th of March 2019.

  
State of WI, County of Brown  
NOTARY PUBLIC

9-19-21  
My Commission Expires

Ad# 0001280167  
P O : Red bluff Drill notice  
# of Affidavits : 0 00

**LEGAL NOTICE**

Delaware Energy, L.L.C., 405 N. Marienfeld St. Suite 200, Midland, TX 79701, has filed a form C-108 (Application for Authorization to Inject) with the Oil Conservation Division seeking administrative approval to drill the Red Bluff SWD #1 as a Commercial Salt Water Disposal well. The Red Bluff SWD #1 is located at 433' FSL and 1,318' FWL, Unit Letter M, Section 14, Township 26 South, Range 28 East, Eddy County, New Mexico. The well will dispose of water produced from oil and gas wells into the Devonian Formation from 14,775' to 15,775' at a maximum rate of 25,000 barrels of water per day at a maximum pressure of 2,955 psi. 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. Additional information can be obtained by contacting Delaware Energy, L.L.C., at (432) 685-7005. Pub: March 15, 2019





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Total Postage and Fees	\$8.20

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Street and Apt. No., or PO Box No.  
**602 Park Point Dr., Ste 200**  
City, State, ZIP+4®  
**Golden, CO 80401**

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

Red Bluff SWD#1  
APR 11 2019  
DOWNTOWN STATION MIDLAND TX 79701-USPS

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<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
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Street and Apt. No., or PO Box No.  
**735 Elm Street**  
City, State, ZIP+4®  
**Graham, TX 76450**

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

Red Bluff SWD#1  
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<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.90
Total Postage and Fees	\$8.20

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**Oxy USA, Inc.**  
Street and Apt. No., or PO Box No.  
**P.O. Box 27570**  
City, State, ZIP+4®  
**Houston, TX 77027-7570**

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

Red Bluff SWD#1  
APR 11 2019  
DOWNTOWN STATION MIDLAND TX 79701-USPS

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<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
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<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.90
Total Postage and Fees	\$8.20

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**The Ailar Company**  
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**735 Elm Street**  
City, State, ZIP+4®  
**Graham, TX 76450**

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

Red Bluff SWD#1  
APR 11 2019  
DOWNTOWN STATION MIDLAND TX 79701-USPS

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MIDLAND, TX 79706

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Extra Services & Fees (check box, add fee as appropriate)	\$2.80
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<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.90
Total Postage and Fees	\$8.20

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**EG3 Resources, Inc.**  
Street and Apt. No., or PO Box No.  
**5509 Champions Dr.**  
City, State, ZIP+4®  
**Midland, TX 79706**

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

Red Bluff SWD#1  
APR 11 2019  
DOWNTOWN STATION MIDLAND TX 79701-USPS

7018 0680 0000 0582 5336

**U.S. Postal Service™**  
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MIDLAND, TX 79706

**OFFICIAL USE**

Certified Mail Fee	\$3.50
Extra Services & Fees (check box, add fee as appropriate)	\$2.80
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Postage	\$1.90
Total Postage and Fees	\$8.20

Sent To  
**Chevron USA, Inc.**  
Street and Apt. No., or PO Box No.  
**6301 Deauville Blvd.**  
City, State, ZIP+4®  
**Midland, TX 79706-2964**

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

Red Bluff SWD#1  
APR 11 2019  
DOWNTOWN STATION MIDLAND TX 79701-USPS



7018 0680 0000 0582 5361

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MIDLAND TX 79701

OFFICIAL USE

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\$  
Extra Services & Fees (check box, add fee as appropriate)  
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 Return Receipt (electronic) \$0.00  
 Certified Mail Restricted Delivery \$0.00  
 Adult Signature Required \$0.00  
 Adult Signature Restricted Delivery \$0.00

Red Bluff  
DOWNTOWN STATION  
MIDLAND TX  
APR 11 2019  
610211869

Postage \$1.90

Total Postage and Fees \$8.20

Sent To  
COG Operating, LLC  
Street and Apt. No., or PO Box No.  
600 W. Illinois  
City, State, ZIP+4®  
Midland, TX 79701

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

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TYLER TX 75711

OFFICIAL USE

Certified Mail Fee \$3.50  
\$  
Extra Services & Fees (check box, add fee as appropriate)  
 Return Receipt (hardcopy) \$2.80  
 Return Receipt (electronic) \$0.00  
 Certified Mail Restricted Delivery \$0.00  
 Adult Signature Required \$0.00  
 Adult Signature Restricted Delivery \$0.00

Red Bluff  
DOWNTOWN STATION  
MIDLAND TX  
APR 11 2019  
610211869

Postage \$1.90

Total Postage and Fees \$8.20

Sent To  
Newbourne Oil Co.  
Street and Apt. No., or PO Box No.  
P.O. Box 7698  
City, State, ZIP+4®  
Tyler, TX 75711

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

7018 0680 0000 0582 5385

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ARTEZIA NM 88210

OFFICIAL USE

Certified Mail Fee \$3.50  
\$  
Extra Services & Fees (check box, add fee as appropriate)  
 Return Receipt (hardcopy) \$2.80  
 Return Receipt (electronic) \$0.00  
 Certified Mail Restricted Delivery \$0.00  
 Adult Signature Required \$0.00  
 Adult Signature Restricted Delivery \$0.00

Red Bluff  
DOWNTOWN STATION  
MIDLAND TX  
APR 11 2019  
610211869

Postage \$1.90

Total Postage and Fees \$8.20

Sent To  
New Mexico OCP District II  
Street and Apt. No., or PO Box No.  
811 S. First Street  
City, State, ZIP+4®  
Artesia, NM 88210

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

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SANTA FE NM 87501

OFFICIAL USE

Certified Mail Fee \$3.50  
\$  
Extra Services & Fees (check box, add fee as appropriate)  
 Return Receipt (hardcopy) \$2.80  
 Return Receipt (electronic) \$0.00  
 Certified Mail Restricted Delivery \$0.00  
 Adult Signature Required \$0.00  
 Adult Signature Restricted Delivery \$0.00

Red Bluff  
DOWNTOWN STATION  
MIDLAND TX  
APR 11 2019  
610211869

Postage \$1.90

Total Postage and Fees \$8.20

Sent To  
New Mexico State Land Office  
Street and Apt. No., or PO Box No.  
310 Old Santa Fe Trail  
City, State, ZIP+4®  
Santa Fe, NM 87501

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



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Certified Mail Fee \$3.50  
 Return Receipt (hardcopy) \$2.80  
 Return Receipt (electronic) \$0.00  
 Certified Mail Restricted Delivery \$0.00  
 Adult Signature Required \$0.00  
 Adult Signature Restricted Delivery \$0.00  
 Postage \$1.90  
 Total Postage and Fees \$5.20

Extra Services & Fees (check box, add fee if applicable)  
 Payment Here  
 MIDLAND, TX  
 APR 1  
 08/16/2019

Sent To  
**Physician of Land Management**  
 Street and Apt No. or PO Box No.  
**620 E. Green Street**  
 City, State, ZIP+4®  
**Corvado, NM 88220**

9662 2950 0000 0890 8102

**Delaware Energy, LLC**  
**Application for Injection/SWD**  
**Red Bluff SWD #1**

UL M, Sec. 14, T-26-S, R-28-E, 433' FSL & 1,318' FWL, Eddy Co., NM

March 26, 2019

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**Contents:**

1. Administrative Application Checklist
2. Form C-108: Application for Authority to Inject
3. Form C-108 Additional Questions Answered
4. Form C-102
5. Chemical Analysis of Bone Spring Formation Water Sample
6. Chemical Analysis of Wolfcamp Formation Water Sample
7. Chemical Analysis of Delaware Formation Water Sample
8. Planned wellbore diagram for the Red Bluff SWD #1
9. ~~Tabular Data on All Wells of Public Record within the Area of Review which Penetrate the Proposed Injection Zone~~ (No applicable wells)
10. Map Identifying all Wells and Leases within Two Miles of Any Proposed Injection Well with a One Mile Radius Circle Drawn Around the Proposed Injection Well
11. Sample of Letter Sent with This Application Packet to Owner of Surface of the Land on Which the Well is to be Located and to each Leasehold Operator within One Mile of the Well Location
12. Formation Tops
13. Certified Mailers
14. Seismicity Assessment
15. Carlsbad Current-ARGUS Affidavit of publication



**Delaware Energy, L.L.C.**  
405 N. Marienfeld, Suite 200  
Midland, TX 79701  
Office: (432) 685-7005

March 26, 2019

**Surface Owner / Offset Operators**

Re: Notification of Application for Authorization to Inject  
Red Bluff SWD #1 Well

Ladies and Gentlemen:

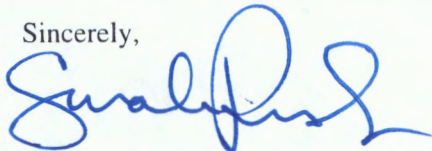
Delaware Energy, LLC is seeking administrative approval to utilize the proposed Red Bluff SWD #1 as a commercial Salt Water Disposal well. As required by the New Mexico Oil Conservation Division Rules, we are notifying you of the following proposed salt water disposal well. This letter is a notice only. No action is required unless you have questions or objections.

<u>Well:</u>	Red Bluff SWD #1
<u>Proposed Disposal Zone:</u>	Devonian Formation (from 14,775' - 15,775')
<u>Location:</u>	433' FSL & 1,318' FWL, UL M, Sec. 14, T26S, R28E, Eddy Co., NM
<u>Applicants Name:</u>	Delaware Energy, L.L.C.
<u>Applicants Address:</u>	405 N. Marienfeld, Suite 200, Midland, TX 79701

This application for water disposal well will be filed with the New Mexico Oil Conservation Division. If they determine the application complies with the applicable regulations, then it will be approved. The New Mexico Conservation Division address is 1220 South St. Francis Dr., Santa Fe, NM 87505. And their phone number is 505-476-3460.

Please call Sarah Presley with Delaware Energy, LLC if you have any questions at 432-685-7005.

Sincerely,



Sarah Presley

DISTRIBUTION LIST

Surface Owner:

State of New Mexico  
310 Old Santa Fe Trail  
Santa Fe NM 87501

Offset Operators/Leasehold Owners:

COG Operating, LLC  
600 W. Illinois  
Midland, TX 79701

Mewbourne Oil Co.  
P.O. Box 7698  
Tyler, TX 75711

EOG Resources, Inc  
5509 Champions Dr.  
Midland, TX 79706

Chevron USA, Inc.  
6301 Deauville Blvd.  
Midland, Texas 79706-2964

Oxy USA, Inc.  
PO Box 27570  
Houston, TX 77227-7570

The Allar Company  
735 Elm St.  
Graham, TX 76450

Tap Rock Resources, LLC  
602 Park Point Dr., Ste. 200  
Golden, CO 80401

EG3 Development, LLC  
735 Elm Street  
Graham, TX 76450

State of New Mexico Oil Conservation Division  
District II  
811 S. First St.  
Artesia, NM 88210



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

**McMillan, Michael, EMNRD**

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**From:** McMillan, Michael, EMNRD  
**Sent:** Monday, April 15, 2019 4:15 PM  
**To:** 'Sarah Presley'  
**Subject:** Red Bluff SWD Well No. 1

Sarah:  
The well is on BLM acreage. I did not see that you notified them.  
As a result your application is suspended.

Mike

Michael McMillan  
1220 South St. Francis  
Santa Fe, New Mexico  
505-476-3448  
Michael.mcmillan@state.nm.us



**McMillan, Michael, EMNRD**

---

**From:** McMillan, Michael, EMNRD  
**Sent:** Tuesday, April 16, 2019 3:17 PM  
**To:** 'Sarah Presley'  
**Subject:** RE: Red Bluff SWD Well No. 1

Thank You  
The 15-day clock starts April 16. 2019

Mike

---

**From:** Sarah Presley <s.presley@delawareenergy.com>  
**Sent:** Tuesday, April 16, 2019 3:13 PM  
**To:** McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>  
**Subject:** [EXT] RE: Red Bluff SWD Well No. 1

Hi Mike,

Here is the certified mail receipt for the BLM for the Red Bluff. Please let me know if you need anything else.

Thank You!!

Sarah Presley | Operations Manager  
405 N. Marienfeld, Suite 200  
Midland, TX 79701  
O: (432) 685-7005  
C: (432) 269-3789



---

**From:** McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>  
**Sent:** Monday, April 15, 2019 5:15 PM  
**To:** Sarah Presley <s.presley@delawareenergy.com>  
**Subject:** Red Bluff SWD Well No. 1

Sarah:  
The well is on BLM acreage. I did not see that you notified them.  
As a result your application is suspended.

Mike

Michael McMillan  
1220 South St. Francis  
Santa Fe, New Mexico  
505-476-3448  
[Michael.mcmillan@state.nm.us](mailto:Michael.mcmillan@state.nm.us)