

2/28/2014 DATE IN	SUSPENSE	PG ENGINEER	2/28/2014 LOGGED IN	SWD TYPE	PMAM1405454/49 APP NO.
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ABOVE THIS LINE FOR DIVISION USE ONLY

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Application Acronyms:

[NSL-Non-Standard Location] **[NSP-Non-Standard Proration Unit]** **[SD-Simultaneous Dedication]** - SWD
[DHC-Downhole Commingling] **[CTB-Lease Commingling]** **[PLC-Pool/Lease Commingling]** - XTO Energy
[PC-Pool Commingling] **[OLS - Off-Lease Storage]** **[OLM-Off-Lease Measurement]** 5380
[WFX-Waterflood Expansion] **[PMX-Pressure Maintenance Expansion]** well
[SWD-Salt Water Disposal] **[IPI-Injection Pressure Increase]**
[EOR-Qualified Enhanced Oil Recovery Certification] **[PPR-Positive Production Response]**

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- [D] Other: Specify _____

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☒ Offset Operators, Leaseholders or Surface Owner
- [C] ☒ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☒ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

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

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

DeeAnn Kemp
Print or Type Name

Signature

Regulatory Manager
Title

02/19/2014
Date

Deeann Kemp@xtoenergy.com
e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance X Disposal _____ Storage
Application qualifies for administrative approval? X Yes _____ No
- II. OPERATOR: XTO ENERGY, INC
ADDRESS: 200 N. LORAIN ST STE 800 MIDLAND, TX 79701
CONTACT PARTY: STEPHANIE RABADUE PHONE: 432-620-6714
- 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 X 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. Exhibit A
- 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. Exhibit B: No wells w/in 1/2 mile penetrate the inj/disp zone
- VII. Attach data on the proposed operation, including: Exhibit C
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, Exhibit D
 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. Exhibit C
- IX. Describe the proposed stimulation program, if any. Exhibit C
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted). Exhibit C
- *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. Exhibit C
- 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. Exhibit E
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form. Exhibit H
- 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: STEPHANIE RABADUE TITLE: REGULATORY ANALYST
SIGNATURE: Stephanie Rabadue DATE: 02/26/2014
E-MAIL ADDRESS: STEPHANIE_RABADUE@XTOENERGY.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: See Attached Proposed WBD (Exhibit G) & NMOCD Forms

- (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. See Attached Current PxA'd WBD (Exhibit F)
- (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 Exhibit H

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.

Exhibit A

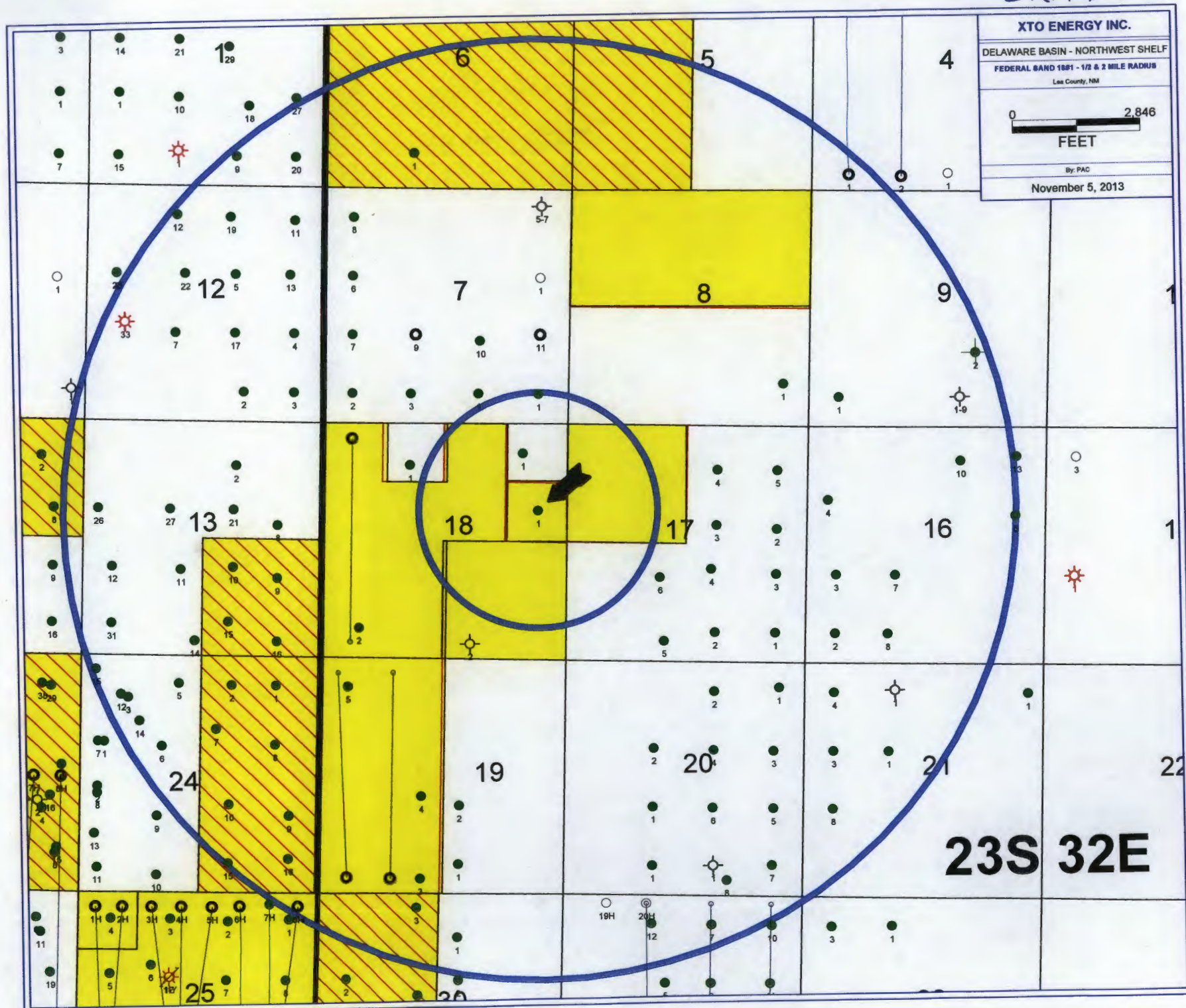


Exhibit B**Project Area:** Sand 18 Federal SWD #1 (API: 30-025-25017)**½ Mile Radius Well Table**

<u>Well Name</u>	<u>Well #</u>	<u>API #</u>	<u>TD</u>	<u>TOC/Method</u>	<u>Spud</u>	<u>Comp Date</u>	<u>Pool</u>	<u>Status</u>	<u>Operator</u>	<u>N/S</u>	<u>E/W</u>	<u>Unit</u>	<u>Sec</u>	<u>Township</u>	<u>Range</u>
Sharbro Federal	1	30-025-33054	10630	TOC: 0'/CBL	8/30/1995	11/2/1995	Sand Dunes; Bone Spring	Active-Oil	Enervest Oper L L C	660 FSL	660 FEL	P	7	23S	32E
Tomcat 18 Federal	1	30-025-33364	9349	TOC: Unknown	5/9/1996	6/8/1996	Sand Dunes; Bone Spring	Active-Oil	Devon Energy	660 FNL	990 FEL	A	18	23S	32E

No Wells Within 1/2 Mile Penetrate the Injection/Disposal Zone

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 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 Road, 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-25017	Pool Code 96101	Pool Name SWD, Devonian
Property Code	Property Name SAND 18 FEDERAL SWD	Well Number 1
OGRID No. 005380	Operator Name XTO ENERGY	Elevation 3602'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	18	23-S	32-E		1991	NORTH	657	EAST	LEA

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

1		<p>DETAIL</p> <p>3592.6' 3603.9'</p> <p>600'</p> <p>600'</p> <p>3600.1' 3603.5'</p>		<p>1991'</p> <p>S.L. SEE DETAIL 657'</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><u>Stephanie Rabardue</u> 2-20-11 Signature Date</p> <p><u>Stephanie Rabardue</u> Printed Name</p> <p><u>Stephanie.rabardue@xtoenergy.com</u> E-mail Address</p>
46.02 AC.	2				
46.05 AC.	3	<p>GEODETIC COORDINATES NAD 27 NME</p> <p>SURFACE LOCATION Y=475667.2 N X=693558.5 E</p> <p>LAT.=32.306171° N LONG.=103.706855° W</p>			
46.09 AC.	4				
46.12 AC.					<p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>NOVEMBER 20, 2013</p> <p>Date of Survey</p> <p>Signature & Seal of Professional Surveyor:</p> <p><u>Ronald F. Eidson</u> 12/03/2013</p> <p>Certificate Number Gary G. Eidson 12641 Ronald F. Eidson 3239</p> <p>ACK JWSC W.O. 13.11.1134</p>

XTO Energy Inc.

Sand 18 Federal SWD #1

API #: 30-025-25017

1991 FNL & 657 FEL, H-18-T23S-R32E

Lea County, New Mexico

Re: C-108 (Application for Authorization to Inject)

Exhibit C**VII. Data for Proposed Operation**

1. Proposed average & maximum daily rate & volume: 15,000 maximum, 5000 average
2. System is closed
3. Proposed Injection Pressure: 3500 maximum, 1500 average
4. The source of disposal fluids will be reinjected produced water from the Brushy Canyon and Bone Spring formations.

VII. Geologic Data

1. Proposed zone is: Devonian
2. Geologic formation is the Devonian. The lithologic detail is cherty fractured limestone and dolomite with a thickness of 1325' and depth of 16,700-18,000'.
3. The Rustler is a known source of fresh water throughout this area. The average depth to the Rustler is 200-400'. There are no known sources of fresh water below the proposed disposal zone.

IX. Proposed Stimulation Program

The OH will be stimulated with 5000 gals 15% HCL to clean up near wellbore damage. No further stimulation is planned.

X. Well Test Information

No well test information is available.

XI. Chemical Analysis

Not aware of any fresh water wells within one mile of subject well.

XII. Geological Statement

XTO has examined all available geologic and engineering data in this area and finds no evidence of open faults or other hydrologic connections between the disposal zone and any potable aquifers. See Exhibit E.

XII. Proof of Notice

Proof of notice is on attached page. See Exhibit H.

XIV. Surface Owner

The land is the Bureau of Land Management and has been notified via certified mail. See Exhibit F for more details.

Multi-Chem Analytical Laboratory

1122 S. FM1788

Midland, TX 76706

Units of Measurement: **Standard**

Water Analysis Report

Production Company: **XTO ENERGY**
 Well Name: **MIS AMIGOS 1**
 Sample Point: **WH**
 Sample Date: **2/7/2013**
 Sample ID: **WA-234093**

Sales Rep: **Bruce Kelly**
 Lab Tech: **Bea Rodriguez**

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
Test Date:	2/12/2013	Cations	mg/L	Anions	mg/L
System Temperature 1 (°F):	130.00	Sodium (Na):	50007.89	Chloride (Cl):	88000.00
System Pressure 1 (psig):	132.6000	Potassium (K):	836.84	Sulfate (SO ₄):	452.00
System Temperature 2 (°F):	98.00	Magnesium (Mg):	583.29	Bicarbonate (HCO ₃):	195.20
System Pressure 2 (psig):	50.0000	Calcium (Ca):	4848.46	Carbonate (CO ₃):	
Calculated Density (g/ml):	1.092	Strontium (Sr):	298.39	Acetic Acid (CH ₃ COO)	
pH:	6.61	Barium (Ba):	1.55	Propionic Acid (C ₂ H ₅ COO)	
Calculated TDS (mg/L):	145261.68	Iron (Fe):	36.97	Butanoic Acid (C ₃ H ₇ COO)	
CO ₂ in Gas (%):		Zinc (Zn):	0.23	Isobutyric Acid ((CH ₃) ₂ CHCOO)	
Dissolved CO ₂ (mg/L):	430.00	Lead (Pb):	0.00	Fluoride (F):	
H ₂ S in Gas (%):		Ammonia NH ₃ :		Bromine (Br):	
H ₂ S in Water (mg/L):	0.00	Manganese (Mn):	0.86	Silica (SiO ₂):	

Notes:

(PTB = Pounds per Thousand Barrels)

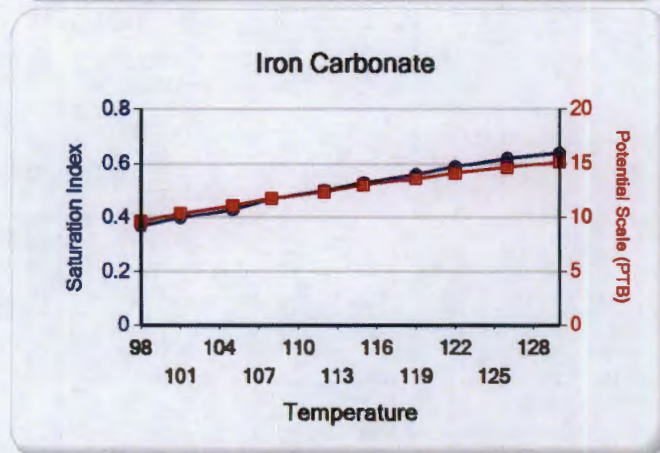
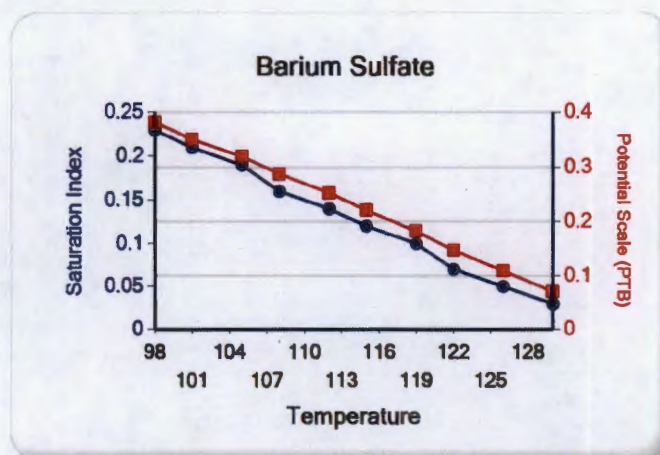
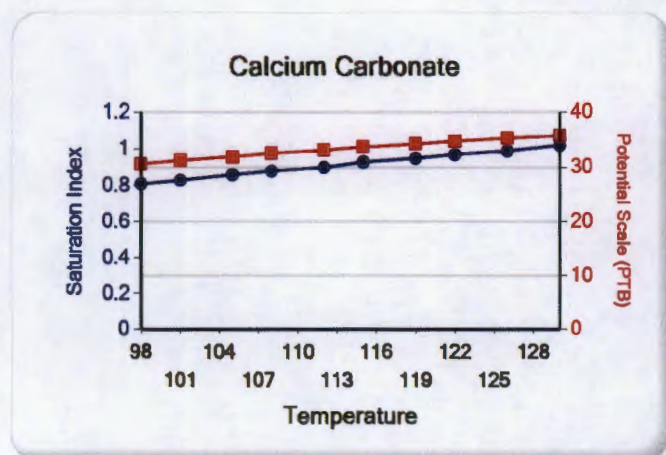
		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
98.00	50.00	0.81	30.55	0.23	0.38	0.00	0.00	0.37	9.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101.00	59.00	0.83	31.21	0.21	0.35	0.00	0.00	0.40	10.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	68.00	0.86	31.85	0.19	0.32	0.00	0.00	0.43	11.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108.00	77.00	0.88	32.46	0.16	0.29	0.00	0.00	0.47	11.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.00	86.00	0.90	33.06	0.14	0.25	0.00	0.00	0.50	12.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.00	95.00	0.93	33.62	0.12	0.22	0.00	0.00	0.53	13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119.00	105.00	0.95	34.17	0.10	0.18	0.00	0.00	0.56	13.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
122.00	114.00	0.97	34.70	0.07	0.15	0.00	0.00	0.59	14.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	123.00	0.99	35.21	0.05	0.11	0.00	0.00	0.62	14.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	132.00	1.02	35.71	0.03	0.07	0.00	0.00	0.64	15.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
98.00	50.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
101.00	59.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.00	68.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108.00	77.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.00	86.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115.00	95.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
119.00	105.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
122.00	114.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
126.00	123.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
130.00	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water Analysis Report

These scales have positive scaling potential under initial temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate

These scales have positive scaling potential under final temperature and pressure: Calcium Carbonate Barium Sulfate Iron Carbonate



Water Analysis Report

Production Company: **XTO ENERGY**
 Well Name: **SDE 19 FEDERAL 4**
 Sample Point: **Well Head**
 Sample Date: **11/26/2013**
 Sample ID: **WA-261082**

Sales Rep: **Bruce Kelly**
 Lab Tech: **LaTasha Cornish**

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations	mg/L	Anions	mg/L
Test Date:	11/26/2013	Sodium (Na):	95674.33	Chloride (Cl):	199000.00
System Temperature 1 (°F):	130.00	Potassium (K):	1122.79	Sulfate (SO ₄):	146.00
System Pressure 1 (psig):	132.60	Magnesium (Mg):	4339.76	Bicarbonate (HCO ₃):	2806.00
System Temperature 2 (°F):	75.70	Calcium (Ca):	21583.70	Carbonate (CO ₃):	
System Pressure 2 (psig):	50.00	Strontium (Sr):	1593.24	Acetic Acid (CH ₃ COO)	
Calculated Density (g/ml):	1.21	Barium (Ba):	2.28	Propionic Acid (C ₂ H ₅ COO)	
Hardness (°dH):	5.40	Iron (Fe):	28.26	Butanoic Acid (C ₃ H ₇ COO)	
Calculated TDS (mg/L):	326301.50	Zinc (Zn):	0.33	Isobutyric Acid ((CH ₃) ₂ CHCOO)	
O ₂ in Gas (%):		Lead (Pb):	0.54	Fluoride (F):	
Dissolved CO ₂ (mg/L):	720.00	Ammonia NH ₃ :		Bromine (Br):	
SO ₂ in Gas (%):		Manganese (Mn):	4.27	Silica (SiO ₂):	
SO ₂ in Water (mg/L):	17.10				

Notes:

(PTB = Pounds per Thousand Barrels)

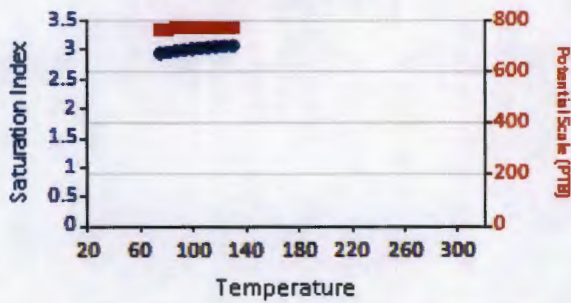
Temp (°F)	PSI	Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO ₄ ·2H ₂ O		Celestite SrSO ₄		Halite NaCl		Zinc Sulfide	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
75	50	2.95	767.71	0.14	0.38	2.51	15.20	1.59	19.98	0.00	0.00	0.43	59.34	0.03	3296.59	7.53	0.17
81	59	2.97	767.97	0.10	0.28	2.47	15.18	1.63	20.03	0.00	0.00	0.43	59.42	0.02	2617.57	7.42	0.17
87	68	2.99	768.80	0.06	0.18	2.44	15.15	1.67	20.08	0.00	0.00	0.43	59.38	0.02	1897.17	7.31	0.17
93	77	3.01	769.52	0.02	0.07	2.40	15.11	1.70	20.12	0.00	0.00	0.43	59.25	0.01	1146.89	7.21	0.17
99	86	3.02	770.15	0.00	0.00	2.37	15.08	1.74	20.15	0.00	0.00	0.42	59.02	0.00	374.64	7.10	0.17
105	95	3.04	770.71	0.00	0.00	2.34	15.05	1.77	20.18	0.00	0.00	0.42	58.74	0.00	0.00	7.00	0.17
111	105	3.05	771.23	0.00	0.00	2.31	15.02	1.80	20.20	0.00	0.00	0.42	58.41	0.00	0.00	6.91	0.17
117	114	3.06	771.71	0.00	0.00	2.28	14.99	1.83	20.22	0.00	0.00	0.41	58.03	0.00	0.00	6.81	0.17
123	123	3.07	772.17	0.00	0.00	2.25	14.96	1.86	20.24	0.00	0.00	0.41	57.63	0.00	0.00	6.72	0.17
130	132	3.08	772.59	0.00	0.00	2.23	14.93	1.88	20.26	0.00	0.00	0.40	57.21	0.00	0.00	6.63	0.17

Temp (°F)	PSI	Hemihydrate CaSO ₄ ·0.5H ₂ O		Anhydrate CaSO ₄		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		Fe Silicate	
		SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB
75	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.07	0.22	0.00	0.00	0.00	0.00	0.00	0.0
81	59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.89	0.22	0.00	0.00	0.00	0.00	0.00	0.0
87	68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.70	0.22	0.00	0.00	0.00	0.00	0.00	0.0
93	77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.52	0.22	0.00	0.00	0.00	0.00	0.00	0.0

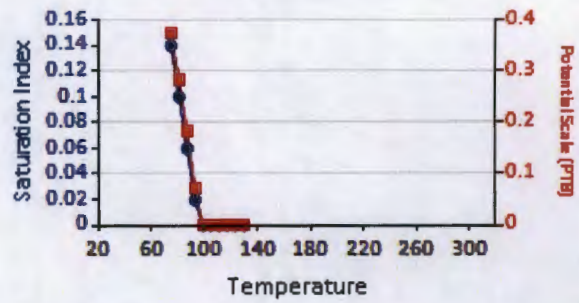
Water Analysis Report

99	86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.35	0.22	0.00	0.00	0.00	0.00	0.00
105	95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.18	0.22	0.00	0.00	0.00	0.00	0.00
111	105	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.02	0.22	0.00	0.00	0.00	0.00	0.00
117	114	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.86	0.22	0.00	0.00	0.00	0.00	0.00
123	123	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.70	0.22	0.00	0.00	0.00	0.00	0.00
130	132	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.55	0.22	0.00	0.00	0.00	0.00	0.00

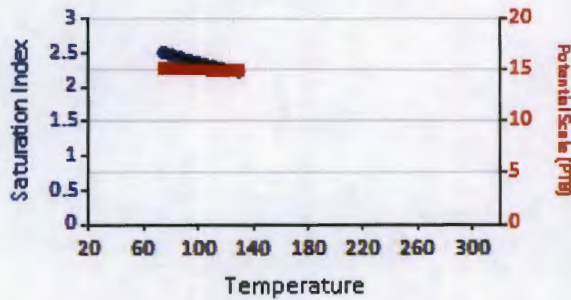
Calcium Carbonate



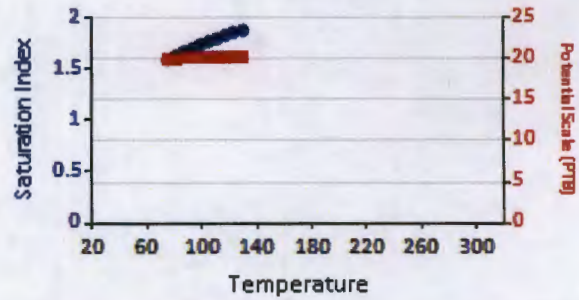
Barium Sulfate



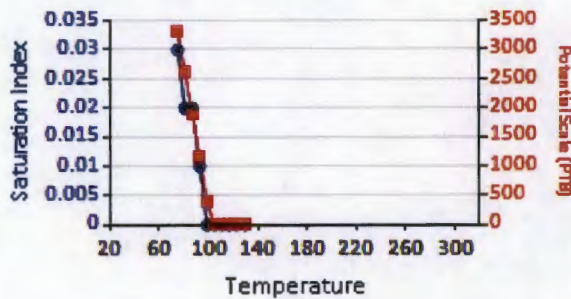
Iron Sulfide



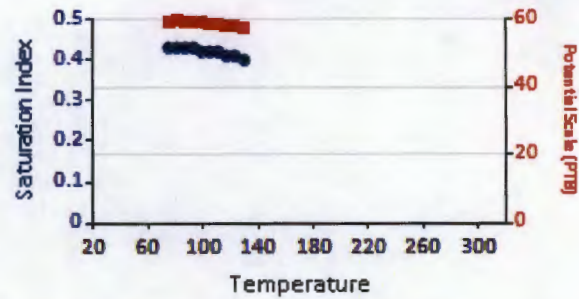
Iron Carbonate



Halite

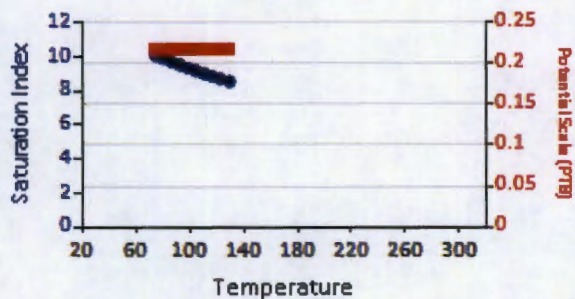


Celestite

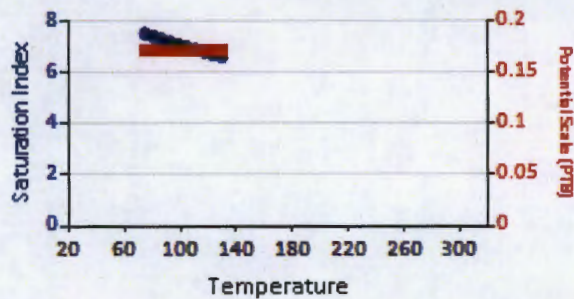


Water Analysis Report

Lead Sulfide



Zinc Sulfide



Water Analysis Report

Production Company: **XTO ENERGY**
 Well Name: **NASH UNIT 034**
 Sample Point: **WH**
 Sample Date: **2/17/2012**
 Sample ID: **WA-207485**

Sales Rep: **Tyler Ogden**
 Lab Tech: **Courtney Cline**

Scaling potential predicted using ScaleSoftPitzer from
 Brine Chemistry Consortium (Rice University)

Sample Specifics		Analysis @ Properties in Sample Specifics			
		Cations	mg/L	Anions	mg/L
Test Date:	2/17/2012	Sodium (Na):	92171.29	Chloride (Cl):	195000
System Temperature 1 (°F):	120	Potassium (K):	1270.7	Sulfate (SO4):	135
System Pressure 1 (psig):	122.6	Magnesium (Mg):	3657.75	Bicarbonate (HCO3):	1464
System Temperature 2 (°F):	100	Calcium (Ca):	23662.2	Carbonate (CO3):	0
System Pressure 2 (psig):	50	Strontium (Sr):	118.54	Acetic Acid (CH3COO)	0
Calculated Density (g/ml):	1.2	Barium (Ba):	2.8	Propionic Acid (C2H5COO)	0
pH:	5.5	Iron (Fe):	12.75	Butanoic Acid (C3H7COO)	0
Calculated TDS (mg/L):	317503.84	Zinc (Zn):	0.11	Isobutyric Acid ((CH3)2CHCOO)	0
CO2 in Gas (%):	144.46	Lead (Pb):	0	Fluoride (F):	0
Dissolved CO2 (mg/L):	1000	Ammonia NH3:		Bromine (Br):	0
H2S in Gas (%):	0	Manganese (Mn):	8.7	Silica (SiO2):	0
H2S in Water (mg/L):	0				

Notes:

Formation: Brushy Canyon (6800' TVD). Eddy County, New Mexico Sec 12,13,14 T23S-R29E, XTO Engineer: David Luna David_Luna@xtoenergy.com

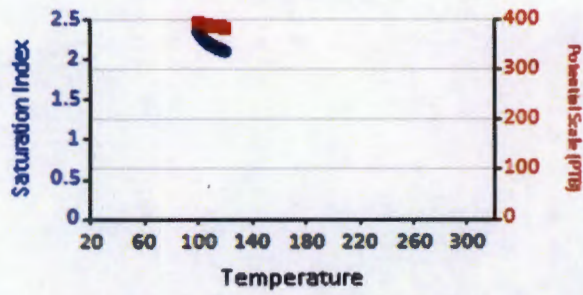
(PTB = Pounds per Thousand Barrels)

		Calcium Carbonate		Barium Sulfate		Iron Sulfide		Iron Carbonate		Gypsum CaSO4·2H2O		Celestite SrSO4		Halite NaCl		Zn Sul
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI
100	50	2.35	392.58	0.02	0.08	0.00	0.00	0.68	7.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
102	58	2.30	391.04	0.01	0.03	0.00	0.00	0.64	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00
104	66	2.26	389.70	0.00	0.00	0.00	0.00	0.61	6.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00
106	74	2.23	388.53	0.00	0.00	0.00	0.00	0.59	6.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00
108	82	2.20	387.49	0.00	0.00	0.00	0.00	0.57	6.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111	90	2.18	386.58	0.00	0.00	0.00	0.00	0.55	6.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
113	98	2.16	385.77	0.00	0.00	0.00	0.00	0.54	6.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
115	106	2.14	385.05	0.00	0.00	0.00	0.00	0.52	6.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
117	114	2.13	384.40	0.00	0.00	0.00	0.00	0.51	6.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120	122	2.11	383.83	0.00	0.00	0.00	0.00	0.51	6.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00

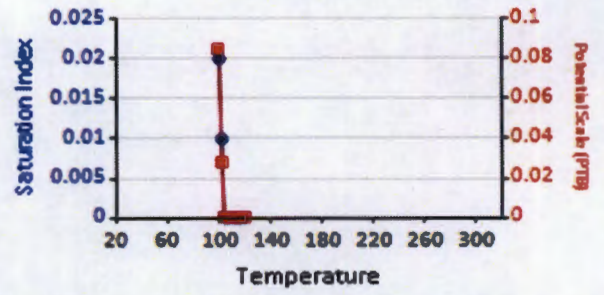
		Hemihydrate CaSO4·0.5H2O		Anhydrate CaSO4		Calcium Fluoride		Zinc Carbonate		Lead Sulfide		Mg Silicate		Ca Mg Silicate		SI
Temp (°F)	PSI	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI	PTB	SI
100	50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
102	58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
104	66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
106	74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
108	82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
111	90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

113	98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
115	106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
117	114	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
120	122	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

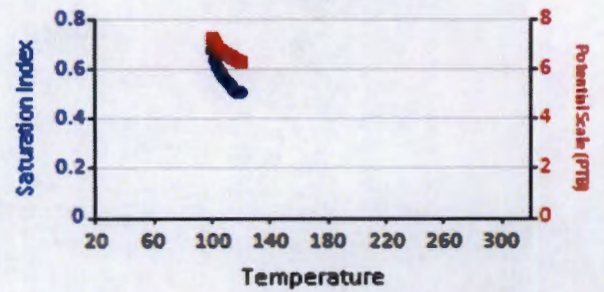
Calcium Carbonate



Barium Sulfate



Iron Carbonate





2/2/2014

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

Re: C-108 Application for Authorization to Inject

To Whom it May Concern:

XTO Energy, Inc has examined the geologic data in connection with Sand 18 Federal SWD #1 (a well to be located 1991 FNL & 657 FEL, Unit H, Sec 18, T23S, R32E, Lea County NM) and has determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/potable aquifers.

Sincerely,

A handwritten signature in black ink, appearing to read 'B. Henthorn'.

Brian Henthorn
Geologist
XTO Energy, an ExxonMobil Subsidiary
810 Houston St.
Fort Worth, TX 76102



Sand 18 Federal #1 Lea, NM

LOCATION: 1991 FNL & 657 FEL, SEC 18, T23S, R32E

FORMATION:

SPUD/COMPL DATE: 1975/1975

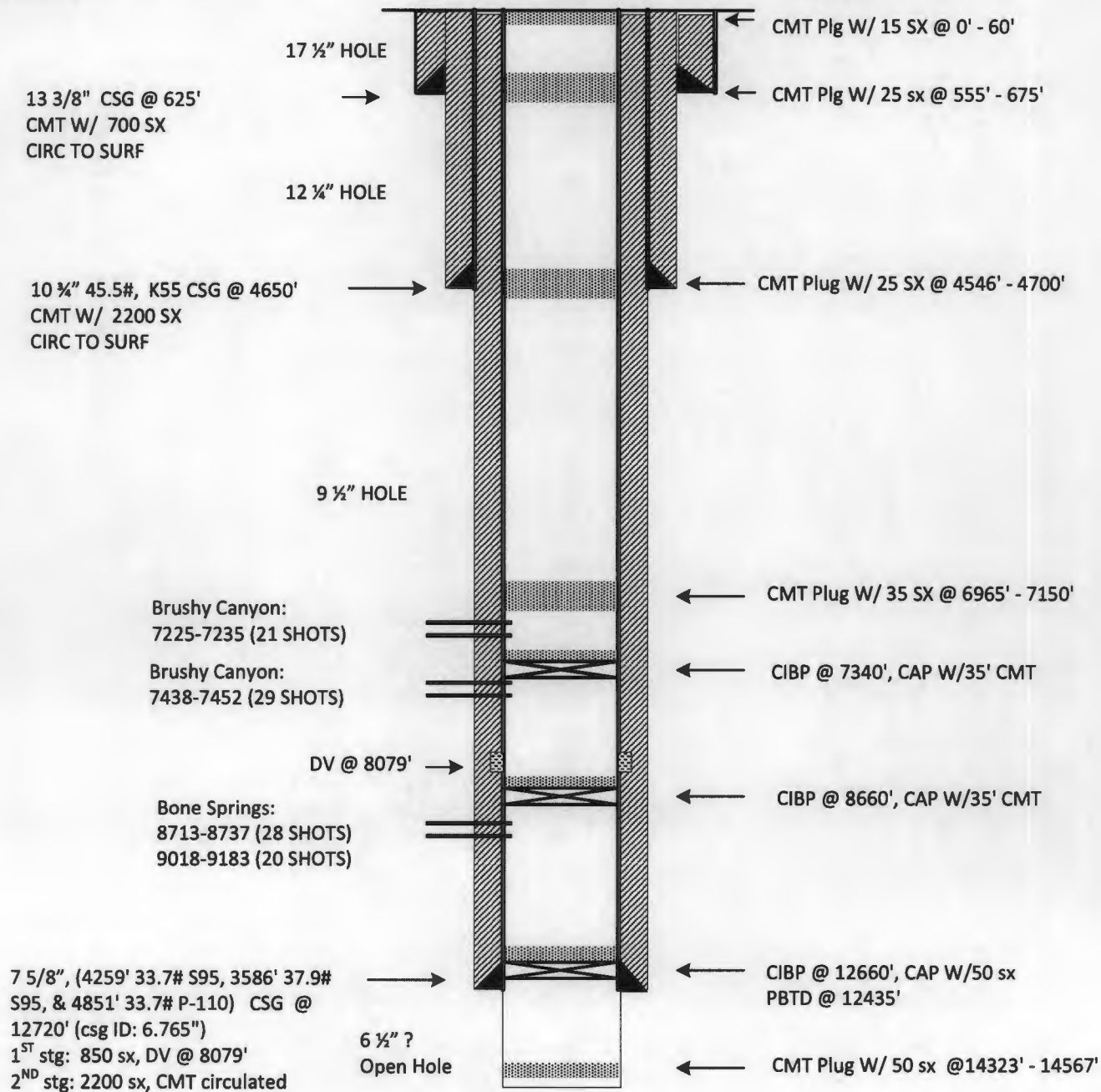
API No: 30-025-25017

ELEV

GL: 3601'

KB: 3622'

Current Status: PA'D





Sand 18 Federal SWD #1 Lea, NM

LOCATION: 1991 FNL & 657 FEL, SEC 18, T23S, R32E

FORMATION:

SPUD/COMPL DATE: 1975/1975

API No: 30-025-25017

ELEV

GL: 3601'

KB: 3622'

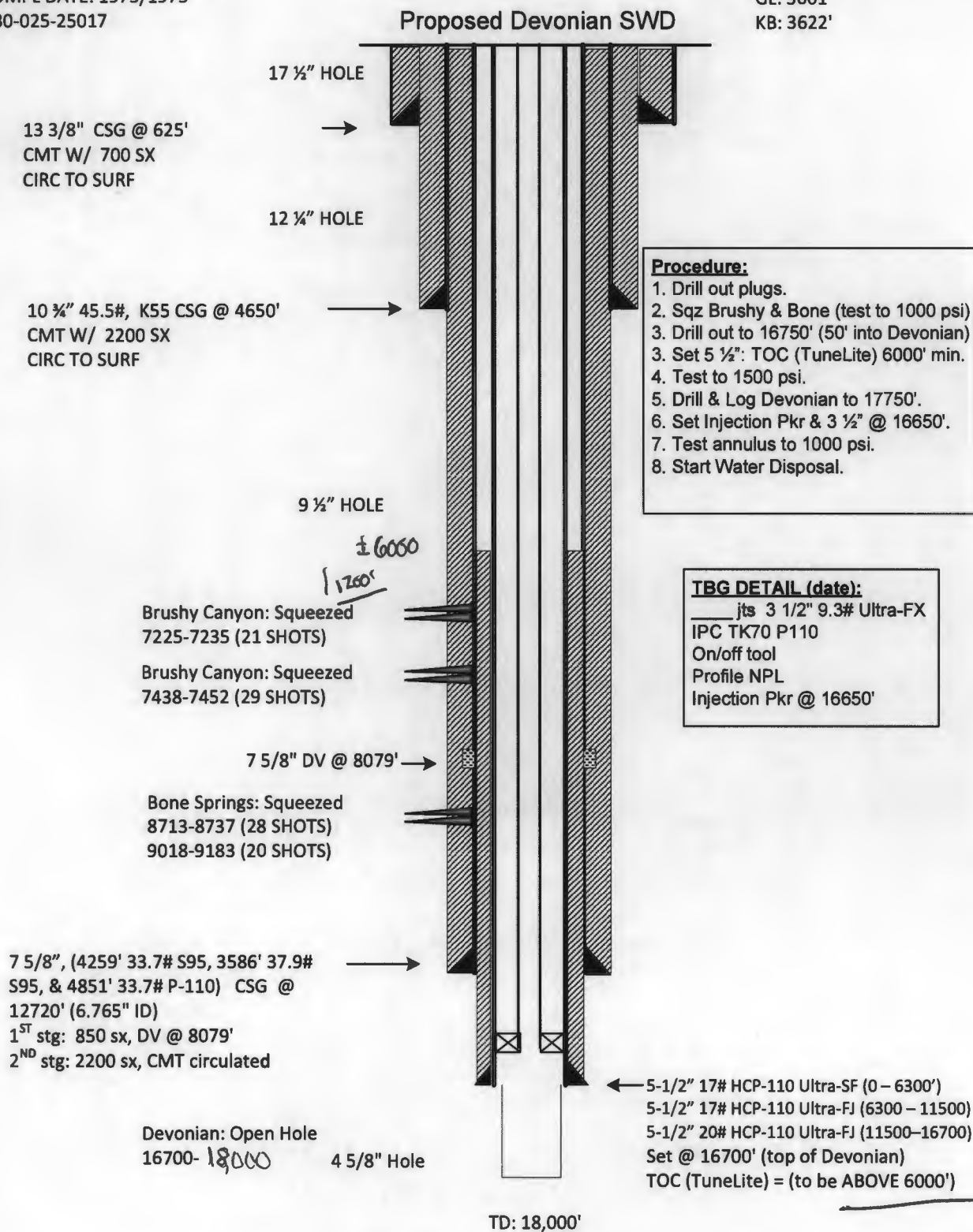


Exhibit H

Surface Owner:

Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220-6292
Certified Mail No: 7011 3500 0001 7373 8121

Grazing Lessee:

Brininstool XL Ranch, LLC
P.O. Box 940
Jal, NM 88252
Certified Mail No: 7011 3500 0001 7373 8138

Christine Brininstool
Brininstool Road
Jal, NM 88252
Certified Mail No: 7011 3500 0001 7373 8145

Offset Operators within ½ mile radius (active wells):

1. Devon Energy Production Company, LP. (OGRID: 6137)
Attn: Randy Bolles
333 W. Sheridan Avenue
Oklahoma City, OK 73102
Certified Mail No: 7011 3500 0001 7373 8169
2. EnerVest Operating LLC. (OGRID: 143199)
Attn: Brian Hatt
1001 Fannin Street, Suite 800
Houston, TX 77002
Certified Mail No: 7011 3500 0001 7373 8152

Mineral Ownership:

1. Record Title – Occidental Permian Limited Partnership
Attn: Rochelle Fitch
5 E Greenway Plaza, Suite 110
Houston, TX 77046
Certified Mail No: 7011 3500 0001 7373 8176
2. Operating Rights (100%) – Occidental Permian Limited Partnership
Attn: Rochelle Fitch
5 E Greenway Plaza, Suite 110
Houston, TX 77046
Certified Mail No: 7011 3500 0001 7373 8176

I, Stephanie Rabadue, do hereby certify that on February 26, 2014, the above and attached listed interest parties were mailed copies of the application to dispose of water in the Sand 18 Federal SWD #1 well.

Stephanie Rabadue

Stephanie Rabadue
Regulatory Analyst

February 26, 2014



Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: Bureau of Land Management
620 E. Greene Street
Carlsbad, NM 88220-6292

To Whom It May Concern:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that you are the surface owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in black ink that reads 'Stephanie Rabadue'.

Stephanie Rabadue
Regulatory Analyst



February 26, 2014

Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: Brininstool XL Ranch, LLC
P.O. Box 940
Jal, NM 88252

To Whom it May Concern,

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that you are the grazing lessee. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in black ink that reads 'Stephanie Rabadue'.

Stephanie Rabadue
Regulatory Analyst



February 26, 2014

Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: Christine Brininstool
Brininstool Road
Jal, NM 88252

Ms. Brininstool:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that you are the grazing lessee. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in cursive script that reads 'Stephanie Rabadue'.

Stephanie Rabadue
Regulatory Analyst

February 26, 2014



Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: Devon Energy Production Company, LP. (OGRID: 6137)
Attn: Randy Bolles
333 W. Sheridan Avenue
Oklahoma City, OK 73102

Mr. Bolles:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that you are an operator within ½ mile of our proposed location. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in black ink that reads 'Stephanie Rabadue'.

Stephanie Rabadue
Regulatory Analyst



February 26, 2014

Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: EnerVest Operating LLC. (OGRID: 143199)
Attn: Brian Hatt
1001 Fannin Street, Suite 800
Houston, TX 77002

Mr. Hatt:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that EnerVest Operating LLC is an operator within ½ mile of our proposed location. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in black ink that reads "Stephanie Rabadue".

Stephanie Rabadue
Regulatory Analyst



February 26, 2014

Re: Form C-108, Application for Authorization to Inject
Sand 18 Federal SWD #1
Lea County, NM
1991 FNL & 657 FEL
Unit H, Section 18, T23S, R32E

To: Occidental Permian Limited Partnership
Attn: Rochelle Fitch
5 E Greenway Plaza, Suite 110
Houston, TX 77046

Ms. Fitch:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division a salt water disposal well which will then be submitted to the Bureau of Land Management with a 3160-3 Application to Re-Enter a well. Our records indicate that you are the mineral owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, NM 87505, within 15 days.

If you have questions please contact me at:

Phone: 432-620-6714

E-mail: stephanie_rabadue@xtoenergy.com.

Sincerely,

A handwritten signature in black ink that reads 'Stephanie Rabadue'.

Stephanie Rabadue
Regulatory Analyst

Affidavit of Publication

State of New Mexico,
County of Lea.

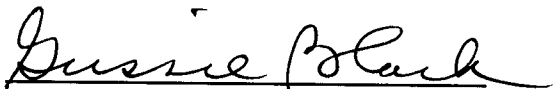
I, DANIEL RUSSELL
PUBLISHER
of the Hobbs News-Sun, a
newspaper published at Hobbs, New
Mexico, do solemnly swear that the
clipping attached hereto was
published in the regular and entire
issue of said newspaper, and not a
supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
February 16, 2014
and ending with the issue dated
February 16, 2014



PUBLISHER

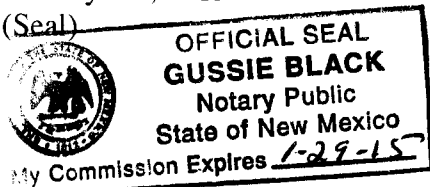
Sworn and subscribed to before me
this 18th day of
February, 2014



Notary Public

My commission expires
January 29, 2015

(Seal)



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

LEGAL

LEGAL NOTICE
February 16, 2014

NOTICE OF APPLICATION
FOR FLUID DISPOSAL
WELL PERMIT

XTO Energy, Inc., OGRID
No. 005380, 200 N. Loraine
Street, Suite 800, Midland,
Texas 79701 is applying to
the New Mexico Oil and Gas
Conservation Division to
permit a salt water disposal
well into a formation that is
not productive of oil and
gas.

The applicant proposes to
permit a salt water disposal
well into a non-productive
zone (Devonian) in the SDE
18 lease. The proposed well
is located 1991 FNL and
657 FEL, Unit Ltr. H,

Section 18, Township 23S,
Range 32E, Lea County,
New Mexico. Fluid will be
disposed into strata in the
subsurface depth interval
from 16,700 to 18,000' with
a maximum injection rate of
15,000 BWPD and a
maximum injection pressure
of 3500psi. Please find
attached C-108, Application
for Authorization to Inject.

All interested parties must
file objections or requests
for hearing with the Oil
Conservation Division, 1220
South St. Francis Dr., Santa
Fe, NM 87505, within 15
days.

#28772

01102696

00130940

XTO ENERGY INC.
200 LORAIN, STE 800
MIDLAND, TX 79701



C-108 Review Checklist: Received 02/28/14 Add. Request: — Reply Date: — Suspended: — [Ver 13]

PERMIT TYPE: WFX / PMX / (SWD) Number: 1481 Permit Date: 05/13/14 Legacy Permits/Orders: None

Well No. 1 Well Name(s): Sand 18 Federal

API: 30-0 25-25017 Spud Date: 04/16/1975 New or Old: (Old) (UIC Class II Primacy 03/07/1982)

Footages 1991 FNL / 657 FEL Lot — or Unit H Sec 18 Tsp 23S Rge 32E County Lea

General Location: Between Antelope Ridge / San Simon Swale Sand Dunes Pool: Bone Spring / SWD; Devonian Pool No.: —

BLM 100K Map: Jol Operator: XTO Energy OGRID: 5380 Contact: Stephanie Rabadue

COMPLIANCE RULE 5.9: Total Wells: 2589 Inactive: 6 Fincl Assur: Yes Compl. Order? No IS 5.9 OK? Yes Date: 05/13/14

WELL FILE REVIEWED ☒ Current Status: P&A Delaware test / Bone Spring Producer

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

Planned Rehab Work to Well: Deepen borehole; drill out plugs
Run liner (5 1/2) - squeeze perfs (BS and Delaware) - TOC ± 6000

Well Construction Details:	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Surface	17 1/2 / 13 3/8	0 to 625	700	Circ. to surface
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Intern/Prod	12 1/4 / 10 3/4	0 to 4630	2200	Cir to surface
Planned <input type="checkbox"/> or Existing <input checked="" type="checkbox"/> Intern/Prod	9 1/2 / 7 5/8	0 to 12720	8079	Cir to surface
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Prod/Liner	Inside	0 to 16700	None	<3000(?) - Request CBL - to 6000
Planned <input type="checkbox"/> or Existing <input type="checkbox"/> Liner	—	—	—	—
Planned <input checked="" type="checkbox"/> or Existing <input checked="" type="checkbox"/> OH / PERF	Deepen OH 45/8 - open hole	16700 to 18000	Inj Length 1325	—

Injection Stratigraphic Units:	Depths (ft)	Injection or Confining Units	Completion/Operation Details:
Adjacent Unit: Litho. Struc. Por.	—	Mississippian	Drilled TD <u>15500</u> PBTD <u>12435 (CIBP)</u>
Confining Unit: Litho. Struc. Por.	—	Woodford Shale	NEW TD <u>18000</u> NEW PBTD <u>NA</u>
Proposed Inj Interval TOP:	16700	Devonian fm	NEW Open Hole <input checked="" type="checkbox"/> or NEW Perfs <input type="checkbox"/>
Proposed Inj Interval BOTTOM:	18000	—	Tubing Size <u>3 1/2</u> in. Inter Coated? <u>Yes</u>
Confining Unit: Litho. Struc. Por.	—	Ellenburger	Proposed Packer Depth <u>16700</u> ft
Adjacent Unit: Litho. Struc. Por.	—	Devonian	Min. Packer Depth <u>16600</u> (100-ft limit)
			Proposed Max. Surface Press. <u>3500</u> psi
			Admin. Inj. Press. <u>3340</u> (0.2 psi per ft)

AOR: Hydrologic and Geologic Information

POTASH: R-111-P/19 Noticed? ☒ BLM Sec Ord NA WIPP NA Noticed? NA SALT/SALADO T: — B: — CLIFF HOUSE NA

FRESH WATER: Aquifer Devonian Max Depth <500ft HYDRO AFFIRM STATEMENT By Qualified Person ☒

NMOSE Basin: Carlsbad CAPITAN REEF: thru ☐ adj ☐ NA No. Wells within 1-Mile Radius? 0 FW Analysis ☒

Disposal Fluid: Formation Source(s) Brushy Canyon / Bone Spring Analysis? Yes On Lease ☐ Operator Only ☒ or Commercial ☐

Disposal Int: Inject Rate (Avg/Max BWPD): 5000/15000 Protectable Waters? Unknown Source: request System: Closed ☐ or Open ☐

HC Potential: Producing Interval? Unknown Formerly Producing? No Method: Logs/DST/P&A/Other Request 2-Mile Radius Pool Map ☐

AOR Wells: 1/2-M Radius Map? Yes Well List? Yes Total No. Wells Penetrating Interval: 0 Horizontals? 0 (2-shallow BS)

Penetrating Wells: No. Active Wells 0 Num Repairs? — on which well(s)? — Diagrams? NA

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

NOTICE: Newspaper Date 02/16/2014 Mineral Owner BLM Surface Owner BLM N. Date Feb 26, 2014

RULE 26.7(A): Identified Tracts? Yes Affected Persons: Confidential Person; Grazing Lessee: Brimstool; Down; Enercot N. Date Feb 26, 2014

Permit Conditions: Issues: Unknown Salinity / New hole - hydrocarbon pot. & strat / TOC determination

Add Permit Cond: CBL for 5 1/2 casing; salinity calc; mudlog; tops picks - possible

Goetze, Phillip, EMNRD

From: Rabadue, Stephanie <Stephanie_Rabadue@xtoenergy.com>
Sent: Wednesday, May 07, 2014 11:48 AM
To: Goetze, Phillip, EMNRD
Subject: FW: Additional Information for SWD Application

Good afternoon, Mr. Goetz!

Please see the response below from our geologist, Brian Henthorn, and let me know if any additional information is required.

Thank you much!

Take care and have a beautiful day!

Stephanie Rabadue
Regulatory Analyst – Permian Division
432-620-6714
stephanie_rabadue@xtoenergy.com

From: Henthorn, Brian
Sent: Wednesday, May 07, 2014 11:23 AM
To: Rabadue, Stephanie
Subject: FW: Additional Information for SWD Application

Stephanie,

At this time we are confident about the estimated depths of our tops. Offsets for this well which penetrate the Devonian are within 3 miles. We will remain in the Devonian with no anticipation of entering the Ellenburger in this area. Logs to verify tops will be provided to the NMOCD post drilling of the well.

Thanks,

Brian Henthorn
Geologist
XTO Energy Inc.
810 Houston Street
Fort Worth, Texas 76102
Phone: 817.885.3454 | Fax: 817.885.1873 | Mobile: 817.716.3894
brian_henthorn@xtoenergy.com

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From: Rabadue, Stephanie
Sent: Friday, May 02, 2014 6:38 AM
To: Henthorn, Brian
Subject: FW: Additional Information for SWD Application

Good morning, Brian!

Please see the note below from Mr. Goetze from the NMOCD pertaining to our disposal application. If you could assist, I'd greatly appreciate it!

Thanks so much!

Stephanie Rabadue
Regulatory Analyst – Permian Division
432-620-6714
stephanie_rabadue@xtoenergy.com

From: Goetze, Phillip, EMNRD [<mailto:Phillip.Goetze@state.nm.us>]
Sent: Thursday, May 01, 2014 3:31 PM
To: Rabadue, Stephanie
Subject: Additional Information for SWD Application

RE: C-108 Application for the Sand 18 Federal No. 1 (API 30-025-25017)

Stephanie:

I need some additional information regarding the injection interval. The application states the injection interval is from 16,700 ft to 18,000 ft (1,300 ft total) all in Devonian. Would you please have the geologic staff provide some more information – i.e. is this interval all Devonian or is Silurian also being lumped into the description? Estimated tops for the injection interval would be suggested. Also, based on my information, the interval does not include Ellenburger. I would like confirmation of this assessment. Thanks. PRG

Phillip R. Goetze, P.G.
Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
O: 505.476.3466 F: 505.476.3462
phillip.goetze@state.nm.us

Goetze, Phillip, EMNRD

From: Rabadue, Stephanie <Stephanie_Rabadue@xtoenergy.com>
Sent: Friday, May 16, 2014 11:14 AM
To: Goetze, Phillip, EMNRD
Cc: McMillan, Michael, EMNRD
Subject: RE: Sand 18 Federal SWD No. 1 (API 30-025-25017)
Attachments: Sand 18 Fed SWD #1_Stucture Maps.pdf

Good afternoon, Mr. Goetz and Mr. McMillan:

Please see the attached contour map provided by the geologist over this area. One contour map demonstrates the Devonian, the other the Ellenburger.

We have no intention to encounter, drill or dispose into the Ellenburger formation. Given the lack of offset data, while we are confident of the tops provided, we also built a 'buffer' into the interval we requested to provide for encountering the Devonian differently than anticipated. Overall, we do not believe we will be drilling to 18,000' but would stop +/- 17,700' depending on where we encounter the top of the Devonian and the results of the mud logs. A mud log will be provided to the NMOCD for verification that we have not encountered the Ellenburger and all discrepancies with the permit will be amended appropriately before this well is put on active disposal. At this time, we do not anticipate being ready for active disposal on this well for 9 months to 1 year as we still need to obtain a drilling permit from the BLM. If any further data becomes available as to the tops during this time frame, the disposal permit will be properly amended.

Please let me know if there's anything more needed!

Take care and have a beautiful weekend!

Stephanie Rabadue
Regulatory Analyst – Permian Division
432-620-6714
stephanie_rabadue@xtoenergy.com

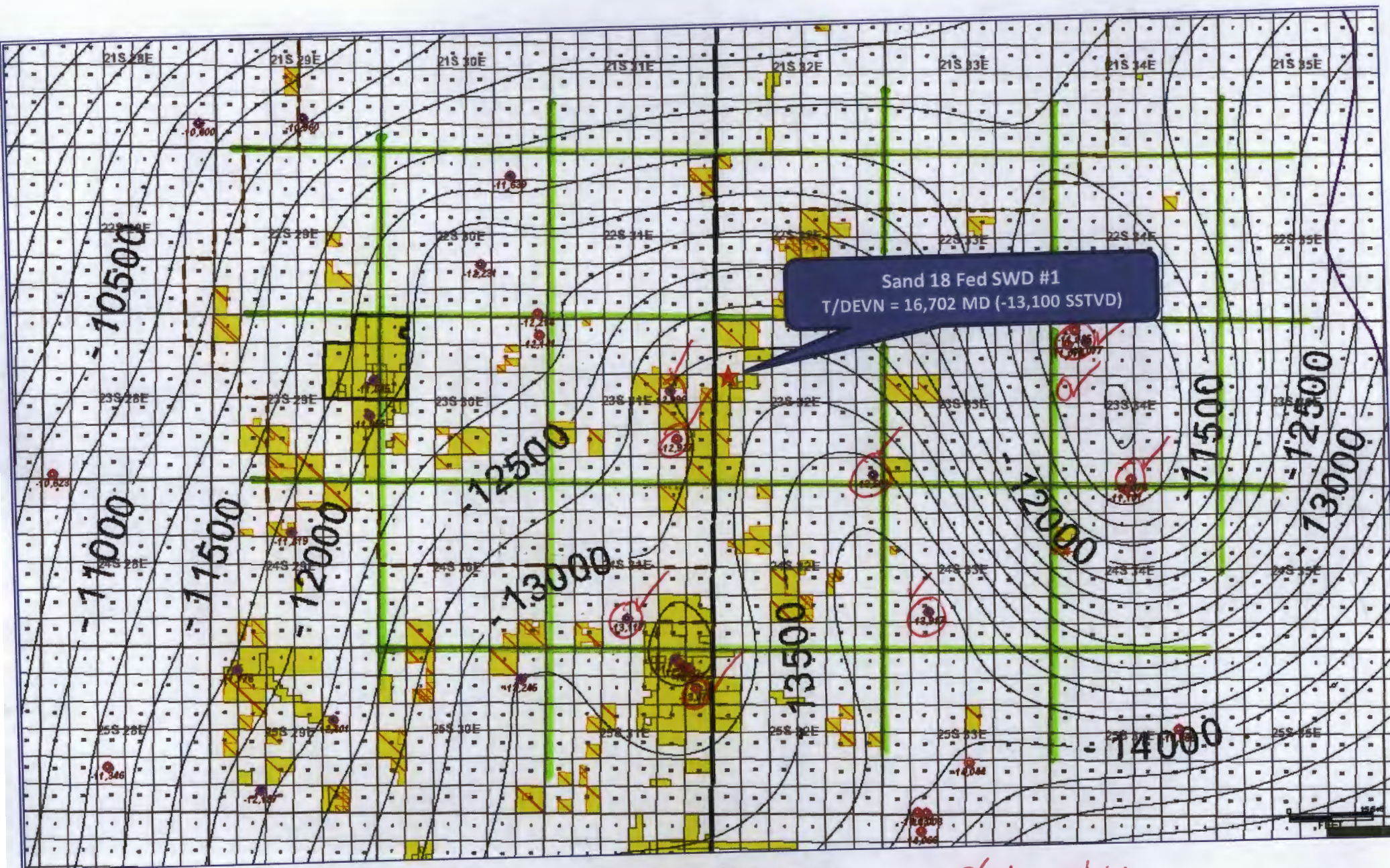
From: Goetze, Phillip, EMNRD [<mailto:Phillip.Goetze@state.nm.us>]
Sent: Tuesday, May 13, 2014 2:35 PM
To: Rabadue, Stephanie
Cc: McMillan, Michael, EMNRD
Subject: Sand 18 Federal SWD No. 1 (API 30-025-25017)

Stephanie:

The Director has reviewed the Order for the Sand 18 Federal SWD No. 1 application and has requested that I obtain additional data regarding the project tops selected for the injection interval. Consequently, I am requesting information that is more substantive to support the proposed interval (e.g. cross-sections, gravity survey map, seismic interpretation or structure contour map). The Director has expressed concerns that the proposed interval will result in a completion in the Ellenburger. If you have questions, please contact me at your convenience. Thanks. PRG

Phillip R. Goetze, P.G.
Engineering and Geological Services Bureau, Oil Conservation Division
1220 South St. Francis Drive, Santa Fe, NM 87505
O: 505.476.3466 F: 505.476.3462
phillip.goetze@state.nm.us

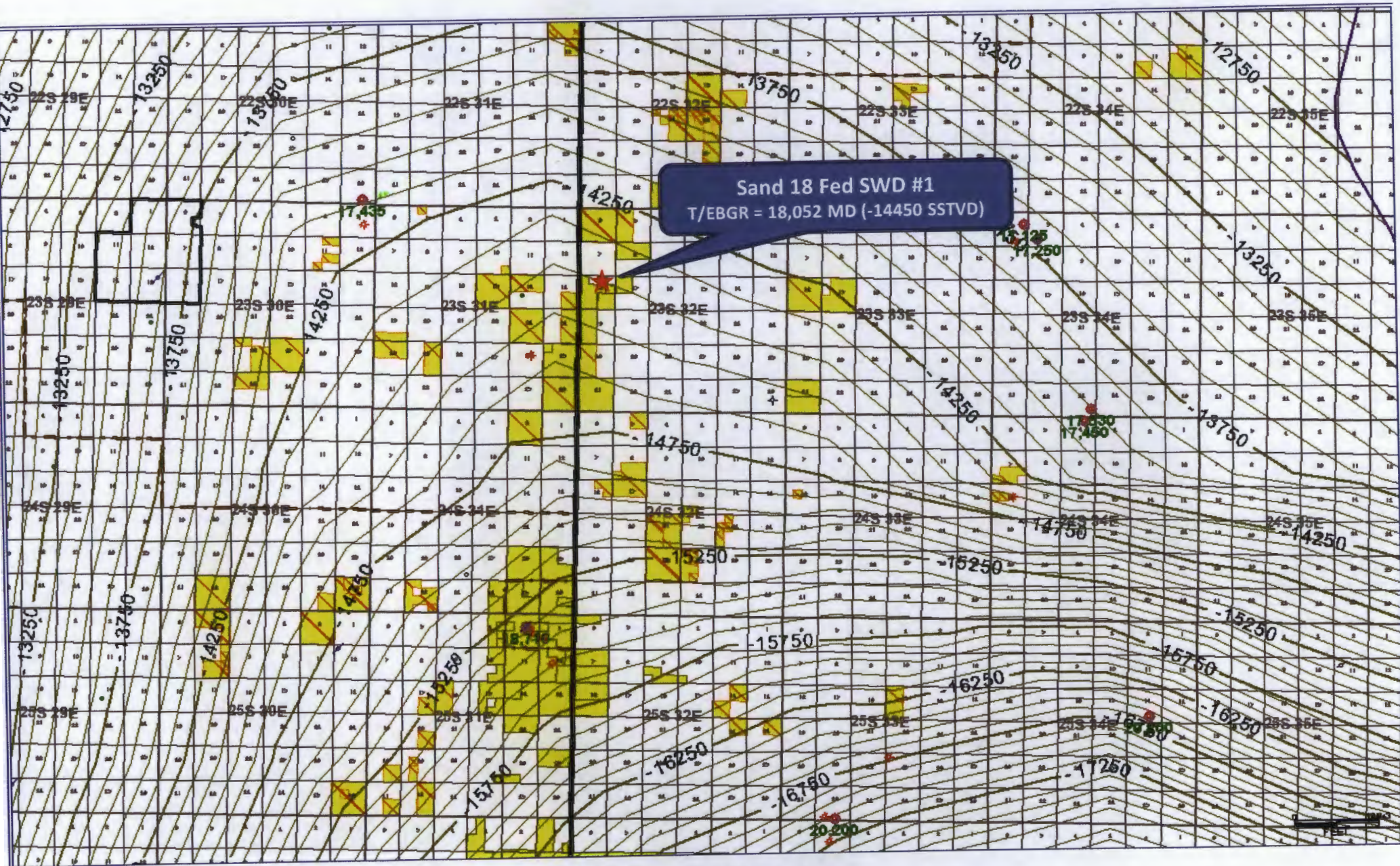
Sand 18 Fed SWD #1



Devonian Structure
Contour Interval = 250 ft.

05/16/14
Some variation in selection of Devonian Top: Woodford Vs. Devonian Carbonate

Sand 18 Fed SWD #1



Ellenburger Structure

Contour Interval = 100 ft.