

RECEIVED: 7/11/2018	REVIEWER: [Signature]	TYPE: SWD	APP NO: DMA 1801229628
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

RECEIVED OCD

2018 JAN 11 P 3:20

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: XTO ENERGY INC.**OGRID Number:** 5380**Well Name:** REMUA BASIN SWD # 1**API:** 30-015-44388**Pool:** SWD; DEVONIAN**Pool Code:** 96101

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

SWD-

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

Re-advised 4/25/18

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

Notice Complete

Application
Content
Complete

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

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

DEEANN KEMP

Print or Type Name

Signature

Date

1/3/17


432-571-8220

Phone Number

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? Yes No
- II. OPERATOR: XTO ENERGY INC.
ADDRESS: 500. W. ILLINOIS SUITE 100 MIDLAND, TEXAS 79701
CONTACT PARTY: PATRICIA DONALD PHONE: 432-571-8220
- 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.
- 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: PATRICIA DONALD TITLE: REGULATORY ANALYST
SIGNATURE:  DATE: 1/8/18
E-MAIL ADDRESS: PATRICIA_DONALD@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:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

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

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

05/31/2018 - Modified Well Construction *9/1*

Remuda Basin SWD #1

Proposed SWD Schematic (Nov 6, 2017)

County: Eddy
SHL: 1320' FSL, 1980' FEL
Sec 25, T 23S, R 29E

BHL: 1320' FSL, 1980' FEL
Sec 25, T 23S, R 29E



AFE # 1702847
XTO ID # 736200
API # 30-015-44388
Elevation 3061'
Rig: TBD (RKB ~25')

Geology	Casing & Cement	Wellhead	Hole Size	General Notes
TVD			24"	
192' Rustler	<u>Lead (100% OH excess)</u> 140 sx 13.5ppg Poz/Class C Top of Lead @ 0' <u>Tail (100% OH excess)</u> 515 sx 14.8ppg class C Top of Tail @ 100'			
	18-5/8" 87.5# J-55 BTC		350' MD	
385' Top Salt	<u>Lead (100% OH excess)</u> 1700 sx 12.8ppg Poz/Class C Top of Lead @ 0' <u>Tail (100% OH excess)</u> 320 sx 14.8ppg Class C Top of Tail @ 2600'		17-1/2"	
3,063' Base Salt	13-3/8" 68# J-55 BTC		3100' MD	
3,288' Delaware	<u>Lead (200% OH excess)</u> 3500 sx 12.9ppg Poz/Class C Top of Lead @ 0		12-1/4"	
6,962' Bone Spring	<u>Tail (100% OH excess)</u> 140 sx 14.4ppg Class C Top of Tail @ 10550'			
10,307' Wolfcamp	9-5/8" 47# P-110 LTC		10800' MD	
11,769' Cisco	<u>Lead (100% OH excess)</u> 450 sx 11ppg Poz/Class C Top of Lead @ 10700'		8-3/4"	
12,238' Strawn	<u>Tail (100% OH excess)</u> 60 sx 13.2ppg Poz/Class C Top of Tail @ 14900'			
12,534' Atoka	7" 32# P-110 BTC		15150' MD	
13,133' Morrow			6"	
14,018' Barnett				
14,518' Mississippian				
14,952' Woodford				
15,099' Devonian				
	Open Hole to TD	16650' MD		

Approvals (not required for planning schematics)

Prepared by: _____ Date _____

Reviewed by: _____ Date _____

Reviewed by: _____ Date _____

Approved by: _____ Date _____

INJECTION WELL DATA SHEET

OPERATOR: XTO ENERGY INC.WELL NAME & NUMBER: REMUDA BASIN SWD #1WELL LOCATION: 1320 SOUTH 1980 EAST
FOOTAGE LOCATIONUNIT LETTER OSECTION 25TOWNSHIP 25SRANGE 29EWELLBORE SCHEMATICWELL CONSTRUCTION DATASurface Casing

Hole Size: 24 Casing Size: 20
 Cemented with: 450 sx. or ft³
 Top of Cement: 0 Method Determined: CIRC

Intermediate Casing

Hole Size: 17.5 Casing Size: 20 13 3/8"
 Cemented with: 1613 sx. or ft³
 Top of Cement: 0 Method Determined: CIRC

Production Casing

Hole Size: 12.25 Casing Size: 9.625
 Cemented with: 2756 sx. or ft³
 Top of Cement: 0 Method Determined: CIRC
 Total Depth: 16'650

Injection Interval15150 feet to 16'650 OPEN HOLE

Requested
mod. to
smaller
casing -
denied C-103
by District
file

Well Bore Schematic Modified

Shows liner & 9 5/8 casing
combination:
9 5/8 in casing set at 10,800' MD

[11/6/2017]
7 in liner 10,700' MD to 15,150' MD
(only 100' tie)

INJECTION WELL DATA SHEET

Tubing Size: 4" Diagram shows 4 1/2" in Lining Material: IPC

Type of Packer: 4" RATCH LATCH PERM PACKER

Packer Setting Depth: 15'000

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

Additional Data

1. Is this a new well drilled for injection? X Yes No
 If no, for what purpose was the well originally drilled? _____

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. NO

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: OVERLYING- MORROW UNDERLYING- NONE

SEE GEOPROG FOR DEPTHS. _____

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

11/2/2017

Re: C-108 Application for Authorization to Inject

To Whom it May Concern:

XTO Energy, Inc has examined the geologic data in connection with Remuda Basin SWD #1 (a well to be located 1320 FSL & 1980 FWL, Unit O, Section 25, T23S, R29E in Eddy 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.



Brian Henthorn
Regional Geologist
XTO Energy Inc.
810 Houston St.
Fort Worth, TX 76102

Well Name	Well #	API#	TD	Spud date	Completion Date	Pool	Status	Operator	N/S	E/W	UNIT	SE C	TOWNSHIP	RANGE
REMUDA SOUTH 25 STATE	124H	30-015-44390	(P)18380	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	1935W	F	25	23S	29E
REMUDA SOUTH 25 STATE	103H	30-015-44359	(P)18127	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	1935W	F	25	23S	29E
REMUDA SOUTH 25 STATE	904H	30-015-44252	(P)18026	PENDING	PENDING	NASH DRAW, DELAWARE BEES (AVALON)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2310N	1980W	F	25	23S	29E
REMUDA SOUTH 25 STATE	123H	30-015-44389	(P)18028	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	1965W	F	25	23S	29E
REMUDA SOUTH 25 STATE	126H	30-015-44392	(P)19155	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	1965E	G	25	23S	29E
REMUDA SOUTH 25 STATE	125H	30-015-44391	(P)19154	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	1965E	G	25	23S	29E
REMUDA SOUTH 25 STATE	105H	30-015-44356	(P)18136	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	20280N	2025E	G	25	23S	29E
REMUDA SOUTH 25 STATE	906H	30-015-44243	(P)18780	PENDING	PENDING	NASH DRAW, DELAWARE BEES (AVALON)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2310N	1980E	G	25	23S	29E
REMUDA SOUTH 25 STATE	128H	30-015-44394	(P)19182	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	645E	H	25	23S	29E
REMUDA SOUTH 25 STATE	127H	30-015-44357	(P)19222	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	705E	H	25	23S	29E
REMUDA SOUTH 25 STATE	908H	30-015-44393	(P)18862	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280N	675E	H	25	23S	29E
REMUDA SOUTH 25 STATE	103H	30-015-44253	(P)18862	PENDING	PENDING	NASH DRAW, DELAWARE BEES (AVALON)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2310N	660E	H	25	23S	29E
REMUDA NORTH 25 STATE	123H	30-015-44314	(P)18118	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	1935W	K	25	23S	29E
REMUDA NORTH 25 STATE	124H	30-015-44308	(P)18367	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	1965W	K	25	23S	29E
REMUDA NORTH 25 STATE	105H	30-015-44310	(P)18366	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	1935W	K	25	23S	29E
REMUDA NORTH 25 STATE	125H	30-015-44315	(P)18894	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	2025E	J	25	23S	29E
REMUDA NORTH 25 STATE	126H	30-015-44311	(P)19141	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	1995E	J	25	23S	29E
REMUDA NORTH 25 STATE	128H	30-015-44312	(P)19135	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2280S	1965E	J	25	23S	29E
REMUDA NORTH 25 STATE	127H	30-015-44309	(P)19065	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2380S	645E	I	25	23S	29E
REMUDA NORTH 25 STATE	107H	30-015-44304	(P)19067	PENDING	PENDING	PURPLE SAGE, WOLF CAMP (GAS)	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2380S	675E	I	25	23S	29E
REMUDA BASIN 25 STATE	3	30-015-32010	0	N/A	N/A	REMUDA WOLF CAMP GAS	NEW, NOT DRILLED	XTO ENERGY INC. (5380)	2380S	705E	I	25	23S	29E
REMUDA BASIN 25 STATE	1	30-015-35121	14, 128	10/2/2006	4/9/2007	NASH DRAW, MORROW	CANCELED APD	CHEVRON USA INC.	1980S	1200E	I	25	23S	29E
REMUDA 25 STATE	1E	30-015-28581	0	N/A	N/A	NASH DRAW, MORROW	ACTIVE	BOPCO, L.P	1980S	660E	I	25	23S	29E
REMUDA SOUTH 25 STATE	001E	30-015-31325	0	N/A	N/A	NASH DRAW, MORROW	CANCELED APD	BASS ENTERPRISE PROD	1980S	660E	I	25	23S	29E
REMUDA BASIN 25 STATE	2	30-015-31496	0	N/A	N/A	N/A	CANCELED APD	BASS ENTERPRISE PROD	1980S	660E	I	25	23S	29E
REMUDA BASIN 36 STATE	1	30-015-31495	0	N/A	N/A	LAGUNA GRANDE, WOLF CAMP	CANCELED APD	CHEVRON USA INC.	1300S	1860W	N	25	23S	29E
							CANCELED APD	CHEVRON USA INC.	900N	1310E	A	36	23S	29E

(P)= PROJECTED

φ wells to Devonian in AOR

EXHIBIT C

XTO ENERGY INC.

Remuda Basin SWD #1

1320FSL & 1980 FEL, SEC 25, T23S, R29E

Eddy County, New Mexico

RE: C: 108 (Application for Authorization to Inject)

VII. Data for Proposed Operation

1. Proposed average & maximum daily rate & volume: 40,000bwpd maximum, 20,000bwpd average.
2. System is closed.
3. Proposed injection Pressure: 2,000psi average, 5,000psi maximum
4. This is a permit for multi-lease SWD. The sources of disposal fluids will be reinjected produced water from the Bone Spring, and the Wolfcamp formation (water sample results attached).
5. Upon drilling the well, a chemical analysis of the disposal formation water will be provided. ✓

VII. Geologic Data:

1. Proposed Zone: Devonian
2. Geologic formation is Devonian. The lithologic detail is cherty fractures limestone and dolomite with a thickness of 1580' and depth of 14,950-16,500'.
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 an Acid frac using acid and rock salt for diversion with 5,000 gals of 15% HCL. No further stimulation is planned.

X. Well Test Information

No well test is available Log will be provided to Division once well is drilled.

XI. Chemical Analysis

Not aware of Fresh water well within one mile of subject well. ✓

XII. Geological Statement

Please see signed geological statement enclosed. ✓

XII. Proof of Notice

Proof of notice is enclosed.

XIV. Surface owners

Please see exhibit D & F

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 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 & Natural Resources
Oil Conservation Division
1220 S. St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

ARTESIA DISTRICT

☐ AMENDED REPORT

AUG 14 2017

RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address XTO Energy, Inc 500 W. Illinois St Ste 100 Midland, Texas 79701		² OGRID Number 005380
⁴ Property Code 319404	⁵ Property Name Remuda Basin SWD	³ API Number 30-015-44388
		⁶ Well No. 1

⁷ Surface Location

UL- lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet from	E/W Line	County
O	25	25S	29E		1320	South	1980	East	Eddy

⁸ Proposed Bottom Hole Location

UL- lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet from	E/W Line	County

⁹ Pool Information

SWD; Devonian	Pool Name	Pool Code 96101
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Additional Well Information

¹¹ Work Type NW	¹² Well Type D	¹⁴ Cable/Rotary R	¹⁴ Lease Type State	¹⁵ Ground Level Elevation 3061
¹⁶ Multiple	¹⁷ Proposed Depth 18650	¹⁸ Formation Devonian	¹⁹ Contractor	²⁰ Spud Date ASAP
Depth to Groundwater		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

²¹ Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	24	20	J-55 94# BTC	350	458	0
Inter	17.5	13.375	J-55 68# BTC	3100	1613	0
Prod	12.25	9.625	P-110 LTC	10800	2756	0

Casing/Cement Program: Additional Comments

Prod Liner: 6" Hole, 7" P-110 32# BTC Csg @ 10,500'-14,910' w/561sx cmt. TOC: 10,500'
--

²² Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Maintenance
Cameron Double Ram	5000psi	5000psi	

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable		OIL CONSERVATION DIVISION	
Signature: <i>Stephanie Rabadue</i>		Approved by: <i>Raymond M. Rodary</i>	
Printed name: Stephanie Rabadue		Title: Geologist	
Title: Regulatory Analyst		Approval Date: 8-15-17 Expiration Date: 8-15-19	
E-mail Address: stephanie_rabadue@xtoenergy.com			
Date: 08/07/2017	Phone: 432-620-6714	Conditions of Approval Attached CO APPROVED C-108	



PATRICIA DONALD
Regulatory Analyst
XTO Energy Inc.
500 W. Illinois Suite 100
Midland, TX 79707
432-571-8220

November 13, 2017

Re: Notice of Application to Inject Fluid

Remuda Basin SWD #1

Eddy County, New Mexico

Carlsbad Current Argus

P. O. Box 1629

Carlsbad, New Mexico 88220

To whom this may concern:

Enclosed for publication is one legal advertisement, please contact me for payment. XTO Energy Inc. requests that this be published for one day. XTO Energy Inc. is required by the New Mexico Oil Conservation Division to furnish them with a copy of this advertisement, from your newspaper, giving the date of publication.

Please send the ad, the affidavit of publication and the invoice to Patricia Donald at the above letterhead address.

Sincerely,

A handwritten signature in black ink that reads 'Patricia Donald' in a cursive, flowing script.

Patricia Donald
Regulatory Analyst

Enclosure

PATRICIA DONALD
Regulatory Analyst
Patricia_Donald@xtoenergy.com
XTO Energy Inc.
500 W. Illinois Suite 100
Midland, TX 79707
432-571-8220



January 5, 2018

Re: Notice of Application to Inject Fluid
Remuda Basin SWD#1
Eddy County, New Mexico

DEVON ENERGY PRODUCTION COMPANY L.P.
620 E Greene St,
Carlsbad, NM 88220

To whom this may concern:

This letter is to notify you XTO Energy Inc. has submitted to the Oil Conservation Division an application to drill a salt water disposal well. Our records indicate that you are the offset operator, surface tenant and/ or offset owner. Attached please find a copy of the application sent to the Oil Conservation Division for your review.

If you have any questions please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Patricia Donald', written in a cursive style.

Patricia Donald
Regulatory Analyst

Enclosure

Exhibit D

Surface Owner:

State of New Mexico
C/O Faith Crosby
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504
505-827-5849
Certified Mail Receipt # 7016 1970 0000 4404 1387

Mineral Owner:

State of New Mexico
C/O Faith Crosby
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504
505-827-5849
Certified Mail Receipt # SAME AS ABOVE

Surface Tenant:

VICKIE CONNALLY
4301 Brantley Rd.
Carlsbad, NM 88220
Certified Mail Receipt # 7016 1970 0000 4404 1370

Offset Owners:

BUREAU OF LAND MANAGEMENT
620 E Greene St,
Carlsbad, NM 88220
575) 234-5972
Certified Mail Receipt # 7016 1970 0000 4404 1363

Offset Operators with ½ Mille:

OCCIDENTAL PERMIAN LTD
P.O Box 4294
Houston, TX 77210
Certified Mail Receipt # 7016 1970 0000 4404 1356

COG OPERATING LLC
One Concho Center
600 W. Illinois Ave
Midland, Texas 79701
Certified Mail Receipt # 7013 1710 0001 7901 9445

Exhibit D

DEVON ENERGY PRODUCTION COMPANY L.P.
620 E Greene St,
Carlsbad, NM 88220 ·
575) 234-5972
Certified Mail Receipt # 7013 1710 0001 7901 9452

I, Patricia Donald, do hereby certify that on January 8, 2018 the above and attached listed parties were given copies of the application to dispose water in the Remuda Basin SWD#1 via certified mail.

A handwritten signature in black ink, appearing to read "Patricia Donald". The signature is fluid and cursive, with the first name "Patricia" and last name "Donald" clearly distinguishable.

Patricia Donald
Regulatory Analyst

NOTICE OF APPLICATION FOR FLUID DISPOSAL WELL PERMIT

XTO Energy Inc. OGRID#005380, 500 W. Illinois suite 100, Midland, Texas 79701 is applying to the New Mexico Oil 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 Remuda Basin SWD #1. The proposed well is located 1320 FSL & 1980 FEL, Unit Letter O, Section 25, Township 25S, Range 29E, Eddy County, New Mexico. Fluid will be disposed into strata in the subsurface depth interval from 15,150'-16,650' MD with a maximum injection rate of 40,000BWPD and a maximum injection pressure of 5,000psi. All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South t. Francis Dr., Santa Fe, NM 87505, within 15 days.

McMillan, Michael, EMNRD

From: Donald, Patricia <Patricia_Donald@xtoenergy.com>
Sent: Wednesday, April 25, 2018 10:05 AM
To: McMillan, Michael, EMNRD
Subject: RE: REMUDA SWD 30-015-44388
Attachments: 0001244629 XTO Energy, INC..pdf

Mike please see attached affidavit.
Thanks,

Patricia Donald
Regulatory Analyst



An **ExxonMobil** Subsidiary
6401 Holiday Hill Road, Building #5
Midland, TX 79707
Phone: 432.571.8220
Fax: 817-900-7311
Patricia_Donald@xtoenergy.com

This message and any attachments are intended for the use of the individual or entity to which it is addressed and may contain information that is confidential and protected from disclosure under applicable law. If the reader of this message is not the intended recipient and is not capable of delivering this message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you received this communication in error, please notify us immediately by telephone at (432) 571-8220 and/or e-mail and delete the original message. Thank you.

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Tuesday, April 24, 2018 3:30 PM
To: Donald, Patricia <Patricia_Donald@xtoenergy.com>
Subject: RE: REMUDA SWD 30-015-44388

Thanks
Mike

From: Donald, Patricia <Patricia_Donald@xtoenergy.com>
Sent: Tuesday, April 24, 2018 2:29 PM
To: McMillan, Michael, EMNRD <Michael.McMillan@state.nm.us>
Subject: RE: REMUDA SWD 30-015-44388

Yes, and I am waiting for Carlsbad Current Argus to send me the affidavit.

From: McMillan, Michael, EMNRD [<mailto:Michael.McMillan@state.nm.us>]
Sent: Tuesday, April 24, 2018 3:25 PM

CARLSBAD CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

Ad No.
0001244629

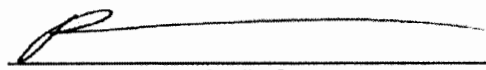
XTO ENERGY, INC.
500 W. ILLINOIS
SUITE 100
MIDLAND TX 79701

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:

04/25/18


Legal Clerk

Subscribed and sworn before me this
25th of April 2018.


State of WI, County of Brown
NOTARY PUBLIC

12-14-2021
My Commission Expires

NOTICE OF APPLICATION FOR FLUID DISPOSAL W PERMIT

XTO Energy Inc. OGRID#005380, 500 W. Illinois suite 100, Midland, Texas 79701 is applying to the New Mexico Oil 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 Remuda Basin SWD #1. The proposed well is located 1320 FSL & 1980 FEL, Unit Letter O, Section 25, Township 23S, Range 29E, Eddy County, New Mexico. Fluid will be disposed into strata in the subsurface depth interval from 15,150'-16,650' MD with a maximum injection rate of 40,000BWPD and a maximum injection pressure of 5,000psi. All interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South t. Francis Dr., Santa Fe, NM 87505, within 15 days.

BERGEN GORNOWICH
Notary Public
State of Wisconsin

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

Danny Fletcher, being first duly
sworn, on oath says:

That he is the Publisher 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:

November 29 2017

That the cost of publication is **\$68.09**
and that payment thereof has been
made and will be assessed as court
costs.

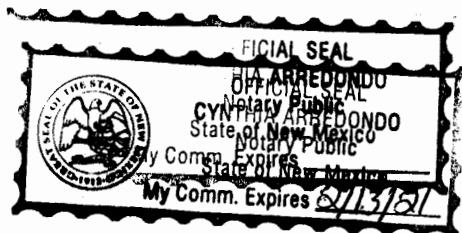


Subscribed and sworn to before me
this 29 day of November, 2017

Cynthia Arredondo

My commission Expires 2/13/21

Notary Public



November 29, 2017

NOTICE OF APPLICATION FOR FLUID DISPOSAL WELL PERMIT

XTO Energy Inc.
OGRID#005380, 500
W. Illinois suite 100,
Midland, Texas 79701
is applying to the
New Mexico Oil Con-
servation Division to
permit a salt water
disposal well into a
formation that is not
productive of oil and
gas.

The applicant propos-
es to permit a salt wa-
ter disposal well into a
non-productive zone
(Devonian) in the
Remuda Basin SWD #1.
The proposed well is
located 1320 FSL &
1980 FEL, Unit Letter O,
Section 25, Township
25S, Range 29E, Eddy
County, New Mexico.
Fluid will be disposed
into strata in the sub-
surface depth interval
from 15,150'-16,650' MD
with a maximum in-
jection rate of
40,000BWPD and a
maximum injection
pressure of 5,000psi.
All interested parties
must file objections or
requests for hearing
with the Oil Conserva-
tion Division, 1220
South St. Francis Dr.,
Santa Fe, NM 87505,
within 15 days.

- 235



FORM C-108 Technical Review Summary [Prepared by reviewer and included with application; V16.2]

DATE RECORD: First Rec: 01/11/2018 Admin Complete: 04/25/18 (re-advertise) Requested add. notice and IS assess. Add. Request/Reply: _____
 ORDER TYPE: WFX / PMX / SWD Number: 1735 Order Date: 05/31/18 Legacy Permits/Orders: _____

Well No. 1 Well Name(s): Remuda Basin SWD
 API: 30-015-44388 Spud Date: TBD New or Old (EPA): New (UIC Class II Primacy 03/07/1982)
 Footages 1320' FSL/1980' FEL Lot — or Unit 0 Sec 25 Tsp 23S Rge 29E County Eddy
 General Location: 9.3 mi east of Loving Pool: SWD; Devonian Pool No.: 96106
 BLM 100K Map: Jal Operator: XTO Energy, Inc. OGRID: 5380 Contact: Dee Ann Kemp
 COMPLIANCE RULE 5.9: Total Wells: 2666 Inactive: 9 Fincl Assur: OK Compl. Order? Yes IS 5.9 OK? Yes Date: 5/31/18
 WELL FILE REVIEWED ☒ Current Status: APD approved ACOI No. 2017-002; terms met as of review date
 WELL DIAGRAMS: NEW: Proposed ☒ or RE-ENTER: Before Conv. ☐ After Conv. ☐ Logs in Imaging: _____
 Planned Rehab Work to Well: * Revised well construction

Well Construction Details *		Sizes (in)	Setting	Cement	Cement Top and
		Borehole / Pipe	Depths (ft)	Sx of Cf	Determination Method
Planned <input checked="" type="checkbox"/> or Existing <u>Surface</u>		<u>24 1/8 5/8</u>	<u>0 to 350</u>	<u>655</u>	<u>Circulate to surface</u>
Planned <input type="checkbox"/> or Existing <u>Interm Prod</u>		<u>17 1/2 13 9/8</u>	<u>0 to 3100</u>	<u>None</u>	<u>Circulate to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <u>Interm Prod</u>		<u>12 1/4 9 5/8</u>	<u>0 to 10800</u>	<u>None</u>	<u>Circulate to surface</u>
Planned <input checked="" type="checkbox"/> or Existing <u>Prod/Liner</u>		<u>8 3/4 7</u>	<u>10700 to 15150</u>	<u>None</u>	<u>Circulate to TOL/calc.</u>
Planned <input type="checkbox"/> or Existing <u>Liner</u>					
Planned <input checked="" type="checkbox"/> or Existing <u>OH/PERF</u>		<u>6</u>	<u>15150 to 16650</u>	<u>Inj Length 1500</u>	

Injection Lithostratigraphic Units:	Depths (ft)	Injection or Confining Units	Tops
Adjacent Unit: Litho. Struc. Por.		<u>Mississippian</u>	<u>14518</u>
Confining Unit: <u>Litho.</u> Struc. <u>Por.</u>	<u>±50</u>	<u>Woodford</u>	<u>14952</u>
Proposed Inj Interval TOP:	<u>15150</u>	<u>Devonian</u>	<u>15099</u>
Proposed Inj Interval BOTTOM:	<u>16650</u>		
Confining Unit: <u>Litho.</u> Struc. <u>Por.</u>	<u>16650</u>	<u>Silurian</u>	<u>16650</u>
Adjacent Unit: Litho. Struc. Por.			

Completion/Operation Details:	
Drilled TD <u>—</u>	PBTD <u>—</u>
NEW TD <u>16650</u>	NEW PBTD <u>—</u>
NEW Open Hole <input checked="" type="checkbox"/> or NEW Perfs <input type="checkbox"/>	
Tubing Size <u>4 1/2</u> in. Inter Coated? <u>Yes</u>	
Proposed Packer Depth <u>15000</u> ft	
Min. Packer Depth <u>15050</u> (100-ft limit)	
Proposed Max. Surface Press. <u>2000-5000</u> psi	
Admin. Inj. Press. <u>3030</u> (0.2 psi per ft)	

AOR: Hydrologic and Geologic Information

POTASH: R-111-P No Noticed? NA BLM Sec Ord No WIPP No Noticed? No Salt/Salado T: 385 B: 3063 NW: Cliff House fm NA

FRESH WATER: Aquifer Alluvial / Rustler Max Depth < 385 HYDRO AFFIRM STATEMENT By Qualified Person ☒

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

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

Disposal Interval: Inject Rate (Avg/Max BWPD): 20000/40000 Protectable Waters? No Source: Historical System: Closed or Open

HC Potential: Producing Interval? No Formerly Producing? No Method: Logs/DST/P&A/Other Required 2-Mi Radius Pool Map ☒

AOR Wells: 1/2-M Radius Map and Well List? Yes No. Penetrating Wells: 0 [AOR Horizontals: — AOR SWDs: —]

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

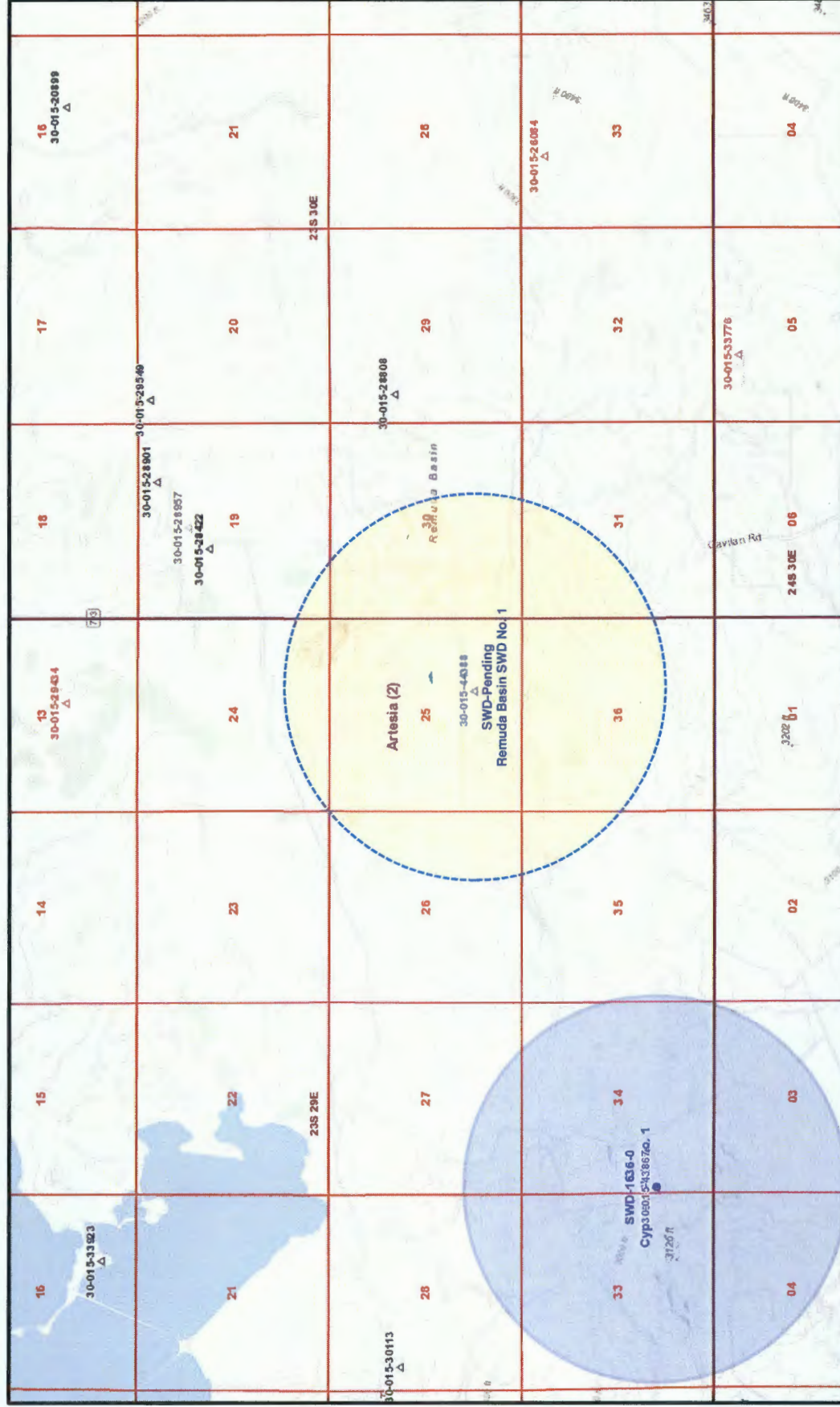
Penetrating Wells: No. P&A Wells 0 Num Repairs? — on which well(s)? — Diagrams? —

NOTICE: Newspaper Date 04/25/2018 Mineral Owner NMSLO Surface Owner NMSLO/Vickie Connolly N. Date 1/8/18

RULE 26.7(A): Identified Tracts? Yes Affected Persons: BLM / Devon / COG / Occidental N. Date 1/8/18

Order Conditions: Issues: Tie in of liner; HC potential; CBL of cmt; cmt not circ.; Chain of casing*
 Additional COAs: CBL; cement circulation strip; mudlog with formation picks; 200' tie for

Pending Application for High-Volume Devonian Disposal Well C-108 Application for Remuda Basin SWD No. 1 – XTO Energy Inc.



Remuda Basin SWD No. 1; XTO Energy Inc.
API 30-015-44388; Application No. pMAM1801229628
Proposed interval: 15,150' to 16,650'

Closest Devonian Wells with Large-Volume Potential: Approved: Cypress SWD No. 1 (30-025-43867) Mesquite SWD Inc. permit; no pending applications identified. Remaining SWD locations (to the northeast) are shallower disposal intervals (mostly DMG).



Statements Regarding Seismicity

XTO has assessed the possibility of seismicity associated with the Ramuda SWD by investigating historic seismicity, the presence of deep faulting (length, azimuth dip), orientation of faults to the current stress regime and potential for pore pressure build up. In addition, as a precautionary measure, XTO has developed a monitoring plan to address risk elements that are not currently discernable. A summary follows:

Historic Seismicity

The USGS website reflects a single seismic event in the vicinity of the proposed Ramuda SWD well in the past 20 years. The New Mexico Tech Seismological Observatory determined that the March 18, 2012 event was linked to the collapse of a potash mine.

Deep Faulting

After licensing 3D seismic data in the area of the proposed SWD well, XTO has not found any interpretable faulting. There are small steeply dipping seismic discontinuities associated with karsting in the Devonian section but these do not appear to have any lateral continuity.

Stress Regime

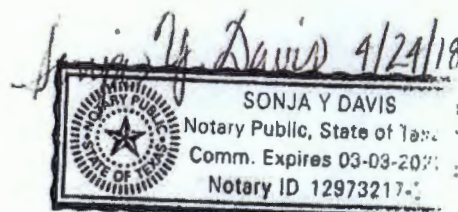
Stanford's Fault Slip Potential Tool was used in conjunction with Snee and Zoback, 'State of Stress in the Permian Basin, Texas and New Mexico: Implications for Induced Seismicity' (Feb 2018, The Leading Edge) to evaluate fault orientations as dip most likely to be critically stressed.

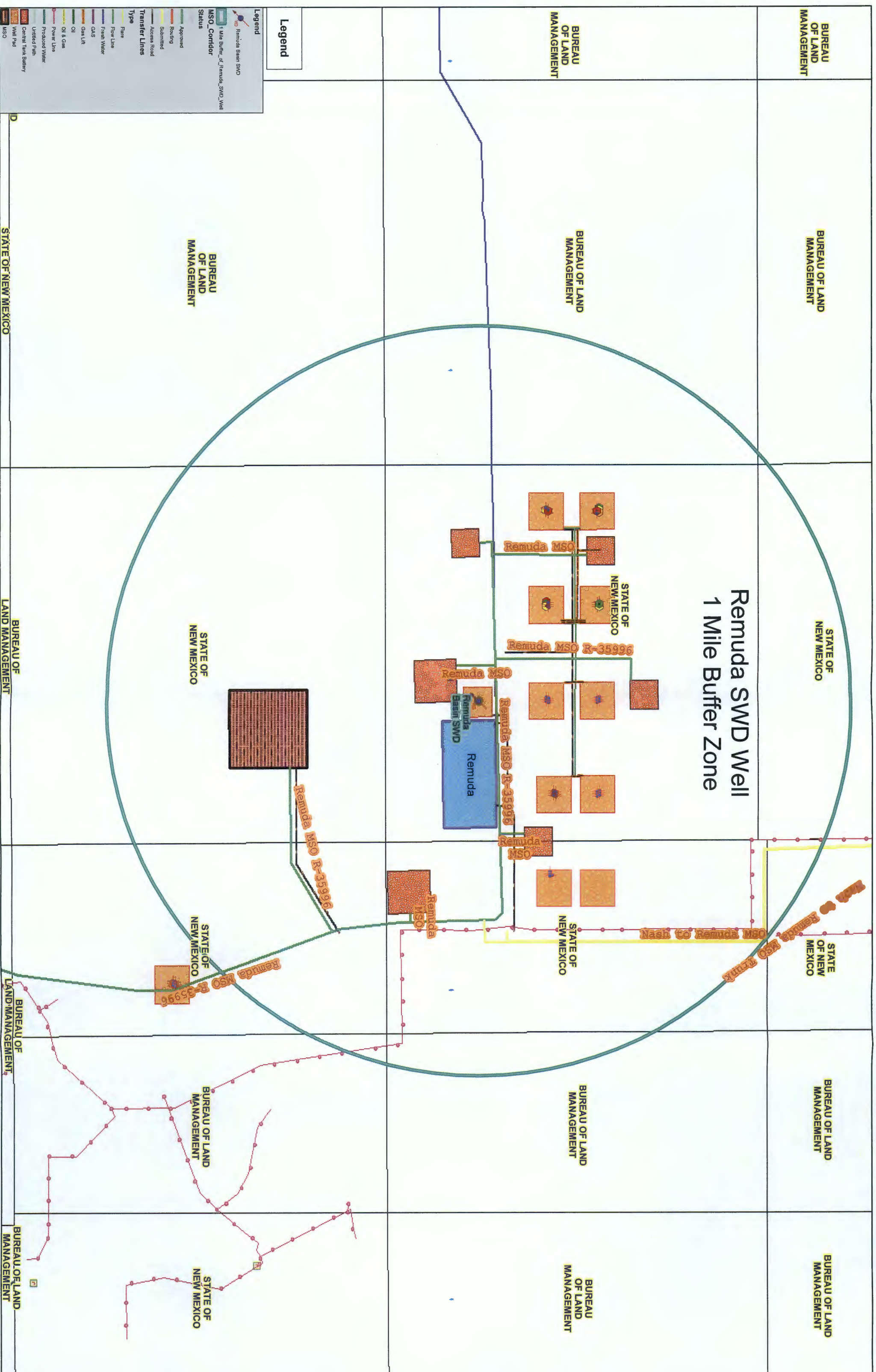
Monitoring Plan

XTO has contracted with a third party service to provide seismicity monitoring using public seismometers augmented by a private array in the area of the proposed well.

A handwritten signature in blue ink, appearing to read 'Tim Tyrrell'.

Tim Tyrrell
XTO Geoscience Technical Manager





Goetze, Phillip, EMNRD

From: Kardos, Kelly <Kelly_Kardos@xtoenergy.com>
Sent: Thursday, May 31, 2018 6:17 AM
To: Goetze, Phillip, EMNRD
Subject: RE: Change Order for Remuda Basin SWD No. 1
Attachments: Remuda Basin SWD #1 Schematic.pdf

Good morning Phillip,
Attached is the updated WBD that you requested. Please let me know if you need anything else. Once the order is approved, I will re-submit the C103.

Kelly K. Kardos
Regulatory Coordinator
Direct: 432-620-4374 | Cell: 505-787-7784
XTO ENERGY a subsidiary of ExxonMobil
6401 Holiday Hill Rd, Midland TX 79701

From: Goetze, Phillip, EMNRD [mailto:Phillip.Goetze@state.nm.us]
Sent: Tuesday, May 29, 2018 12:22 PM
To: Kardos, Kelly <Kelly_Kardos@xtoenergy.com>; Kemp, Deeann <Deeann_Kemp@xtoenergy.com>
Cc: Klein, Ranell, EMNRD <Ranell.Klein@state.nm.us>
Subject: Change Order for Remuda Basin SWD No. 1

RE: Remuda Basin SWD No. 1; API 30-015-44388; SWD-pending

Folks:

The District denied the change order for the surface casing since the order has not been issued. If XTO wishes to change the well construction, please provide me an updated proposed well diagram (via e-mail) to be included in the SWD application. XTO will still have to resubmit a C-103 once the order is signed by the Director who will be retuning next week. PRG

Phillip Goetze, PG
Engineering Bureau, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive, Santa Fe, NM 87505
Direct: 505.476.3466
E-mail: phillip.goetze@state.nm.us

