

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) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 308240

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

1. Operator Name and Address XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707		2. OGRID Number 5380
		3. API Number 30-015-49285
4. Property Code 317790	5. Property Name REMUDA NORTH 25 STATE	6. Well No. 701H

7. Surface Location

UL - Lot K	Section 25	Township 23S	Range 29E	Lot Idn	Feet From 2369	N/S Line S	Feet From 1919	E/W Line W	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot D	Section 24	Township 23S	Range 29E	Lot Idn D	Feet From 200	N/S Line N	Feet From 350	E/W Line W	County Eddy
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9. Pool Information

FORTY NINER RIDGE BONE SPRING, WEST	96526
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3070
16. Multiple N	17. Proposed Depth 16876	18. Formation Bone Spring	19. Contractor	20. Spud Date 4/8/2022
Depth to Ground water		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
Surf	14.75	11.75	54	395	320	0
Int1	8.75	7.625	29.7	3178	320	0
Prod	6.75	5.5	20	16876	880	2678

Casing/Cement Program: Additional Comments

Once the permanent WH is installed on the "&F54&" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum "&MASP & BOP Calcs!\$C\$15&" Hydril and a 13-5/8" minimum "&MASP & BOP Calcs!\$C\$15&" Double Ram BOP. MASP should not exceed "&ROUND(MASP & BOP Calcs!C13.0)&" psi. In any instance where 10M BOP is required by NMOCD, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M)." XTO requests the option to offline cement and remediate (if needed) surface, intermediate, and production casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be mon

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	2045	3000	Camron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed Name: Electronically filed by Tiffany Yancey

Title: Production Analyst

Email Address: tiffany.yancey@exxonmobil.com

Date: 2/15/2022

Phone: 432-215-8939

OIL CONSERVATION DIVISION

Approved By: Katherine Pickford

Title: Geoscientist

Approved Date: 2/18/2022

Expiration Date: 2/18/2024

Conditions of Approval Attached

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015- 49285	² Pool Code 96526	³ Pool Name Forty-Niner Ridge; Bone Spring West
⁴ Property Code 317790	⁵ Property Name REMUDA NORTH 25 STATE	⁶ Well Number 701H
⁷ OGRID No. 005380	⁸ Operator Name XTO ENERGY, INC.	⁹ Elevation 3,070'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	25	23 S	29 E		2,369	SOUTH	1,919	WEST	EDDY

¹¹ 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
D	24	23 S	29 E		200	NORTH	350	WEST	EDDY

¹² Dedicated Acres 240	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

	¹⁶	¹⁷ 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. <u>Cassie Evans</u> 02/07/2022 Signature Date Printed Name cassie.evans@exxonmobil.com E-mail Address
	¹⁸ 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. 1-31-2022 Date of Survey Signature and Seal of Professional Surveyor: 	SHL (NAD83 NME) Y = 464,035.9 X = 662,735.9 LAT. = 32.275098 °N LONG. = 103.940535 °W FTP (NAD83 NME) Y = 464,698.4 X = 661,166.8 LAT. = 32.276935 °N LONG. = 103.945604 °W CORNER COORDINATES (NAD83 NME) A - Y = 464,320.4 N , X = 660,816.8 E B - Y = 466,978.2 N , X = 660,817.0 E C - Y = 469,636.2 N , X = 660,790.3 E D - Y = 472,292.9 N , X = 660,764.6 E E - Y = 464,319.7 N , X = 662,143.0 E F - Y = 466,978.8 N , X = 662,140.6 E G - Y = 469,634.0 N , X = 662,115.2 E H - Y = 472,291.0 N , X = 662,090.3 E SHL (NAD27 NME) Y = 463,976.0 X = 621,553.1 LAT. = 32.274975 °N LONG. = 103.940043 °W FTP (NAD27 NME) Y = 464,638.5 X = 619,984.1 LAT. = 32.276811 °N LONG. = 103.945112 °W CORNER COORDINATES (NAD27 NME) A - Y = 464,260.5 N , X = 619,634.0 E B - Y = 466,918.3 N , X = 619,634.3 E C - Y = 469,576.1 N , X = 619,607.7 E D - Y = 472,232.8 N , X = 619,582.1 E E - Y = 464,259.9 N , X = 620,960.2 E F - Y = 466,918.8 N , X = 620,957.9 E G - Y = 469,574.0 N , X = 620,932.6 E H - Y = 472,230.9 N , X = 620,907.7 E

MARK DILLON HARP 23786
Certificate Number

AW

2021101473

Intent ☒ As Drilled ☐

API #		
Operator Name: XTO ENERGY INC	Property Name: REMUDA NORTH 25 STATE	Well Number 701H

Kick Off Point (KOP)

UL K	Section 25	Township 23S	Range 29E	Lot	Feet 2369	From N/S South	Feet 1919	From E/W WEST	County EDDY
Latitude 32.275098					Longitude -103.940535			NAD NAD83	

First Take Point (FTP)

UL E	Section 24	Township 23S	Range 29E	Lot	Feet 2280	From N/S SOUTH	Feet 350	From E/W WEST	County EDDY
Latitude 32.276935					Longitude -103.945604			NAD NAD83	

Last Take Point (LTP)

UL D	Section 24	Township 23S	Range 29E	Lot	Feet 330	From N/S North	Feet 350	From E/W WEST	County EDDY
Latitude 32.254871					Longitude -103.944599			NAD NAD83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ N

Is this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name: XTO ENERGY INC	Property Name:	Well Number

KZ 06/29/2018

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

Form APD Comments

Permit 308240

PERMIT COMMENTS

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49285
	Well: REMUDA NORTH 25 STATE #701H

Created By	Comment	Comment Date
cevans	A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors. XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the NMOCD to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.	2/14/2022

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Form APD Conditions

Permit 308240

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49285
	Well: REMUDA NORTH 25 STATE #701H

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Onshore Oil and Gas Order (OOGO) No. 2, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. OOGO No. 2, Section I.D.2 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per OOGO No. 2, Section IV., XTO Energy submits this request for the variance.

Supporting Documentation

OOGO No. 2 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since OOGO No. 2 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. OOGO No. 2 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

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API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Pressure Test—High Pressure ^{ac}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^b	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers ^{bd}	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

^a Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

^b Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

^c For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

^d For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

^e Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

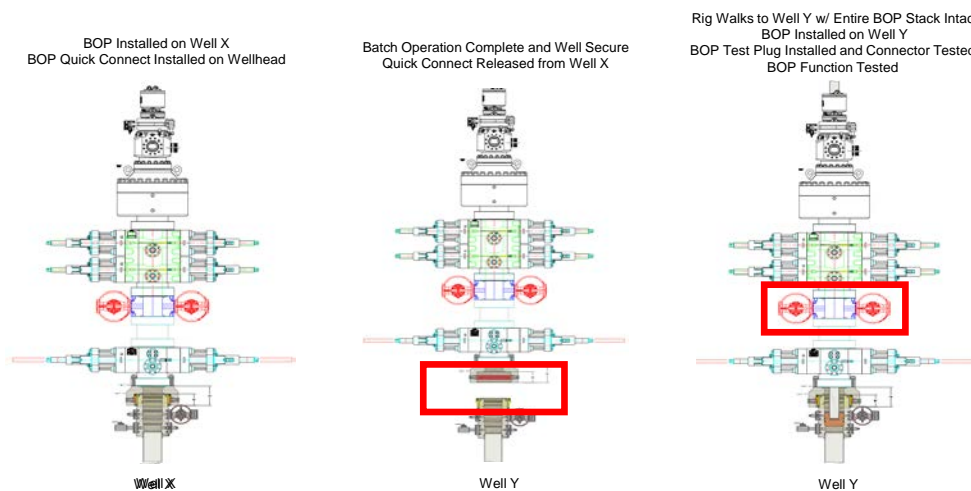
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of OOGO No. 2 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the OOGO No.2.

Procedures

1. XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
 - a. A full BOP test will be conducted on the first well on the pad.
 - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
 - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
 - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
 - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
 - d. A full BOP test will be required prior to drilling any production hole.
3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
 - a. Between the HCV valve and choke line connection
 - b. Between the BOP quick connect and the wellhead
4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6. The connections mentioned in 3a and 3b will then be reconnected.
7. Install test plug into the wellhead using test joint or drill pipe.
8. A shell test is performed against the upper pipe rams testing the two breaks.
9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



Summary

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

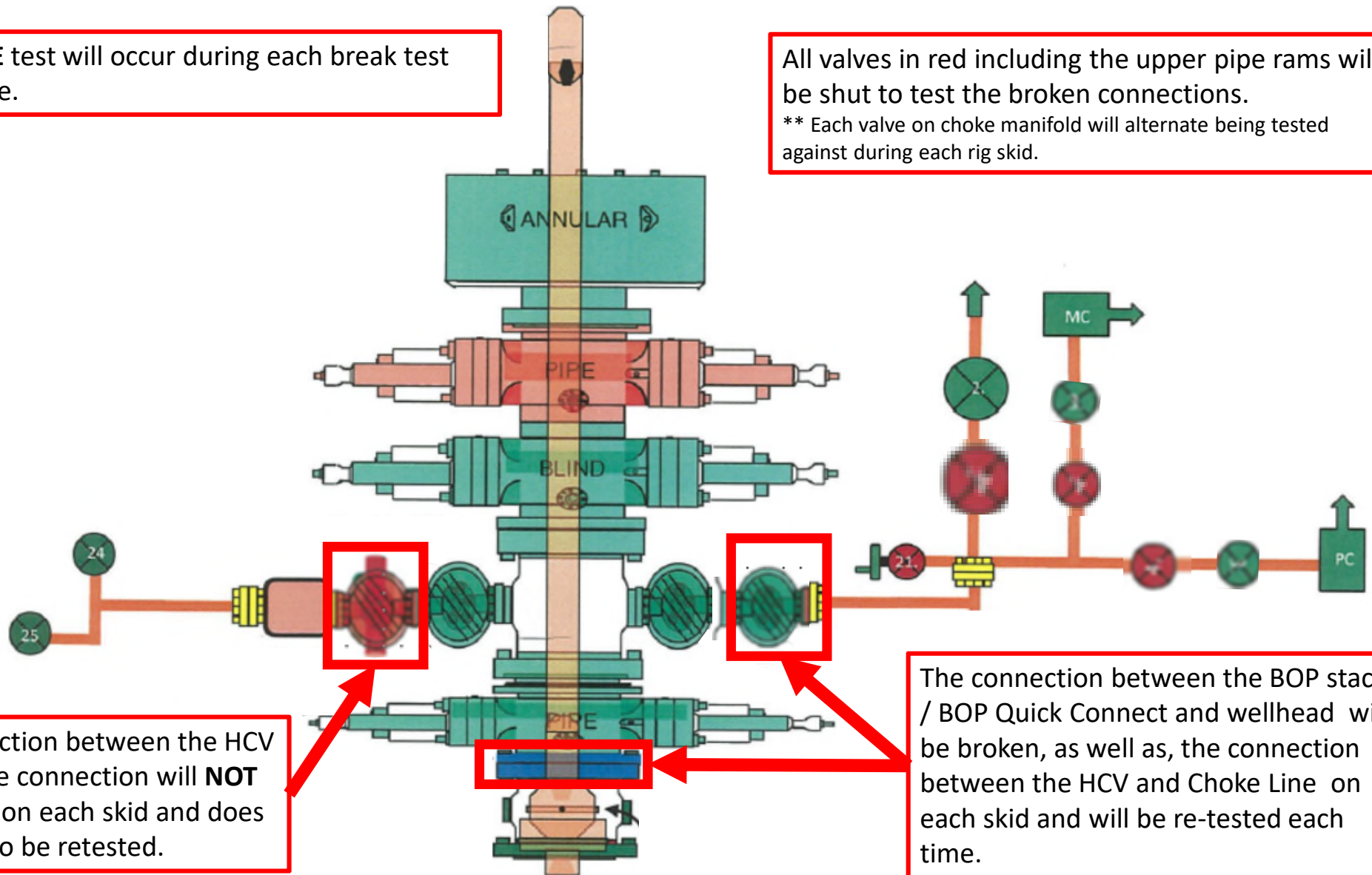
Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met:

1. After a full BOP test is conducted on the first well on the pad.
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4. Full BOP test will be required prior to drilling the production hole.

Only **ONE** test will occur during each break test procedure.

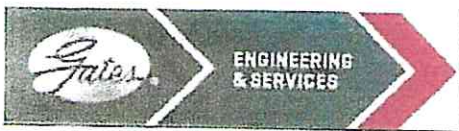
All valves in red including the upper pipe rams will be shut to test the broken connections.

** Each valve on choke manifold will alternate being tested against during each rig skid.



The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.



GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe@s@gates.com
WEB: www.gates.com

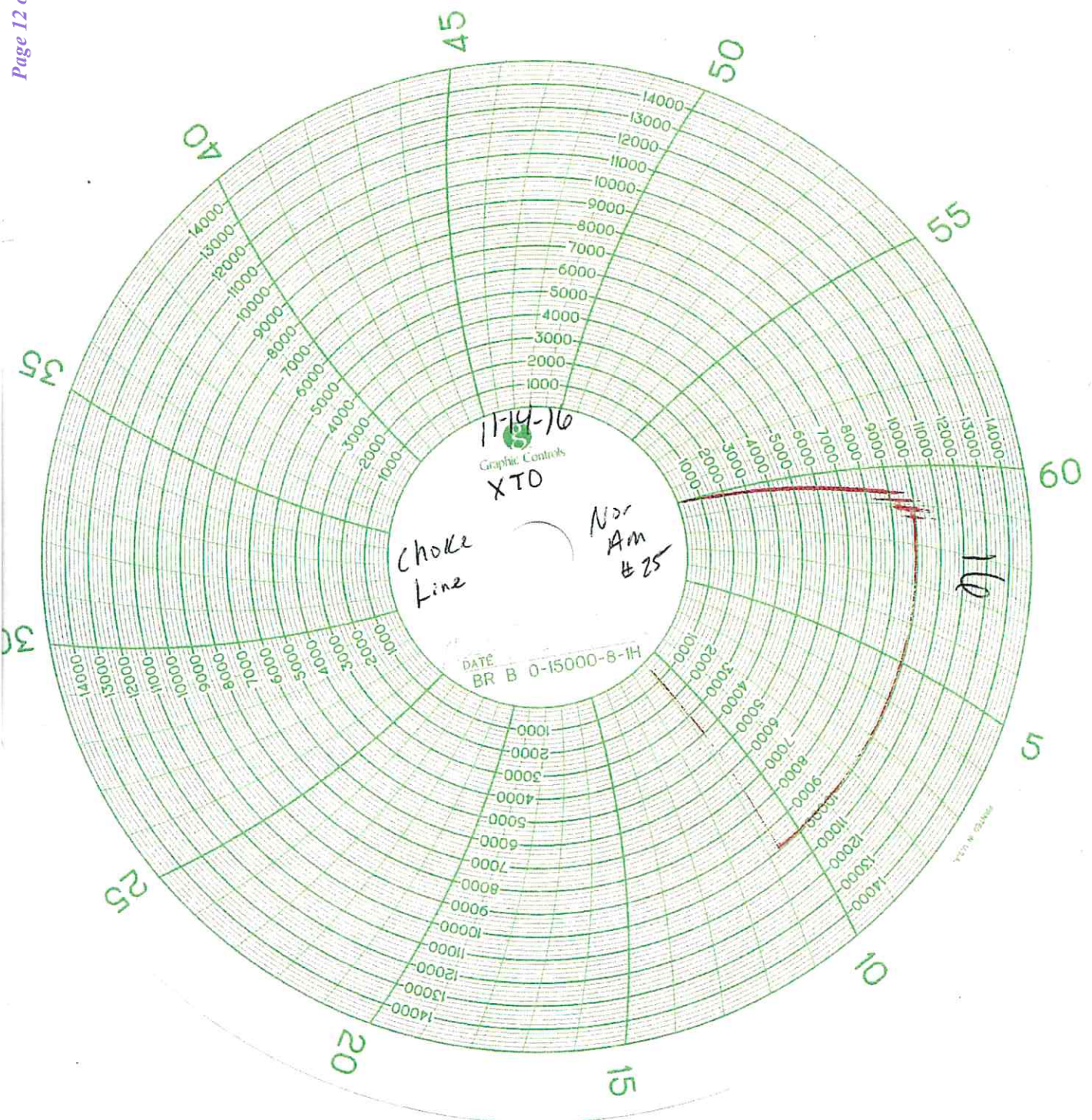
GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA
Product Description:	FD3.042.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:	QUALITY	Technical Supervisor :	PRODUCTION
Date :	6/8/2014	Date :	6/8/2014
Signature :		Signature :	

Form PTC - 01 Rev.0 2





State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: XTO Energy, Inc. **OGRID:** 05380 **Date:** 02 / 18 / 2022

II. Type: ☐ Original ☒ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Remuda South 25 State 801H		K-25-23S-29E	2369'FSL & 1949'FWL	1500	2600	1000
Remuda North 25 State 701H		K-25-23S-29E	2369'FSL & 1949'FWL	1500	2600	1000
Remuda North 25 State 702H		K-25-23S-29E	2369'FSL & 2009'FWL	1500	2600	1000
Remuda North 25 State 703H		K-25-23S-29E	2370'FSL & 2090'FWL	1500	2600	1000
Remuda North 25 State 708H		K-25-23S-29E	2369'FSL & 1979' FWL	1500	2600	1000
Remuda North 25 State 705H		E-30-23S-29E	2370'FNL & 600'FWL	1500	2600	1000
Remuda North 25 State 706H		E-30-23S-29E	2370'FNL & 630'FWL	1500	2600	1000
Remuda North 25 State 707H		E-30-23S-29E	2370'FNL & 660'FWL	1500	2600	1000
Remuda North 25 State 708H		E-30-23S-29E	2370'FNL & 690'FWL	1500	2600	1000
Remuda North 25 State 704H		E-30-23S-29E	2370'FNL & 570'FWL	1500	2600	1000

IV. Central Delivery Point Name: Remuda 500 TB _____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Remuda South 25 State 801H		04/09/2022	04/21/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 701H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 702H		04/11/2022	05/01/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 703H		04/12/2022	05/02/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 708H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 705H		04/05/2022	04/17/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 706H		04/06/2022	04/18/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 707H		04/07/2022	04/19/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 708H		04/08/2022	04/20/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled
Remuda North 25 State 704H		04/04/2022	04/16/22	Not yet Scheduled	Not yet Scheduled	Not yet Scheduled

VI. Separation Equipment:

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

VII. Operational Practices:**1. Subsection B.**

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

2. Subsection C.

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

3. Subsection D.

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- 4. Subsection E.
 - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
 - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
 - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- 5. Subsection F.
 - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
 - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

VIII. Best Management Practices:

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☐ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☒ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☒ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☒ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:

Printed Name: Cassie Evans

Title: Regulatory Analyst

E-mail Address: cassie.evans@exxonmobil.com

Date: 02/18/2022

Phone: 432-218-3671

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:

Title:

Approval Date:

Conditions of Approval:

Cement Variance Request

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (5733') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per GE procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Well Plan Report - Remuda North 25 State 701H

Measured Depth: 16876.00 ft

TVD RKB: 9000.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 463937.00 ft

Easting: 621553.10 ft

RKB: 3095.00 ft

Ground Level: 3065.00 ft

North Reference: Grid

Convergence Angle: 0.21 Deg

Site: South Pad 2

Slot: 1

Plan Sections Remuda North 25 State 701H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)
0	0	0	0	0	0	0
1500	0	0	1500	0	0	0
2300	16	275	2289.64	9.67	-110.55	2
6200	16	275	6038.56	103.36	-1181.45	0
7000	0	0	6828.21	113.04	-1292	-2
8392.79	0	0	8221	113.04	-1292	0
8905.29	41	320	8690.87	247.62	-1404.92	8
9651.34	90	359.7	9000.95	864.97	-1580.34	6.57

16876.48

90

359.7

9000

8089.95

-1627.99

0

Position Uncertainty

Remuda North 25 State 701H

Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD RKB (ft)	Highside Error (ft)	Bias (ft)	Lateral Error (ft)
0	0	0	0	0	0	0
100	0	0	100	0.468	0	0.468
200	0	0	200	0.983	0	0.983
300	0	0	300	1.403	0	1.403
400	0	0	400	1.797	0	1.797
500	0	0	500	2.179	0	2.179
600	0	0	600	2.554	0	2.554
700	0	0	700	2.925	0	2.925
800	0	0	800	3.292	0	3.292
900	0	0	900	3.659	0	3.659
1000	0	0	1000	4.024	0	4.024
1100	0	0	1100	4.387	0	4.387
1200	0	0	1200	4.751	0	4.751
1300	0	0	1300	5.113	0	5.113
1400	0	0	1400	5.474	0	5.474
1500	0	0	1500	5.836	0	5.836
1600	1.999	275	1599.98	6.149	0	6.264
1700	4	275	1699.838	6.868	0	6.606
1800	6	275	1799.452	7.527	0	6.949
1900	7.999	275	1898.702	8.139	0	7.293
2000	10	275	1997.465	8.714	0	7.639
2100	11.99	275	2095.623	9.256	0	7.985

2200	14	275	2193.055	9.769	0	8.333
2300	16	275	2289.643	10.258	0	8.684
2400	16	275	2385.769	10.639	0	9.037
2500	16	275	2481.895	10.945	0	9.392
2600	16	275	2578.022	11.253	0	9.752
2700	16	275	2674.148	11.57	0	10.112
2800	16	275	2770.274	11.892	0	10.473
2900	16	275	2866.4	12.219	0	10.842
3000	16	275	2962.526	12.551	0	11.211
3100	16	275	3058.652	12.89	0	11.577
3200	16	275	3154.779	13.229	0	11.949
3300	16	275	3250.905	13.575	0	12.322
3400	16	275	3347.031	13.92	0	12.696
3500	16	275	3443.157	14.272	0	13.07
3600	16	275	3539.283	14.626	0	13.445
3700	16	275	3635.409	14.982	0	13.821
3800	16	275	3731.536	15.341	0	14.201
3900	16	275	3827.662	15.705	0	14.579
4000	16	275	3923.788	16.068	0	14.959
4100	16	275	4019.914	16.435	0	15.337
4200	16	275	4116.04	16.801	0	15.719
4300	16	275	4212.166	17.171	0	16.101
4400	16	275	4308.293	17.542	0	16.48
4500	16	275	4404.419	17.915	0	16.863
4600	16	275	4500.545	18.291	0	17.245
4700	16	275	4596.671	18.666	0	17.628
4800	16	275	4692.797	19.045	0	18.014
4900	16	275	4788.923	19.422	0	18.397
5000	16	275	4885.05	19.802	0	18.781

5100	16	275	4981.176	20.183	0	19.167
5200	16	275	5077.302	20.564	0	19.551
5300	16	275	5173.428	20.949	0	19.937
5400	16	275	5269.554	21.331	0	20.324
5500	16	275	5365.68	21.717	0	20.708
5600	16	275	5461.807	22.103	0	21.094
5700	16	275	5557.933	22.49	0	21.481
5800	16	275	5654.059	22.876	0	21.867
5900	16	275	5750.185	23.264	0	22.254
6000	16	275	5846.311	23.653	0	22.643
6100	16	275	5942.437	24.041	0	23.03
6200	16	275	6038.563	24.431	0	23.416
6300	14	275	6135.151	24.9	0	23.801
6400	12	275	6232.583	25.398	0	24.181
6500	10	275	6330.74	25.856	0	24.556
6600	8	275	6429.504	26.277	0	24.922
6700	6	275	6528.754	26.661	0	25.283
6800	4	275	6628.368	27.005	0	25.638
6900	2	275	6728.226	27.311	0	25.985
7000	0	0	6828.206	26.45	0	27.401
7100	0	0	6928.206	26.809	0	27.709
7200	0	0	7028.206	27.135	0	28.018
7300	0	0	7128.206	27.461	0	28.33
7400	0	0	7228.206	27.787	0	28.641
7500	0	0	7328.206	28.116	0	28.955
7600	0	0	7428.206	28.443	0	29.268
7700	0	0	7528.206	28.773	0	29.584
7800	0	0	7628.206	29.103	0	29.9
7900	0	0	7728.206	29.433	0	30.218

8000	0	0	7828.206	29.764	0	30.535
8100	0	0	7928.206	30.097	0	30.853
8200	0	0	8028.206	30.429	0	31.174
8300	0	0	8128.206	30.762	0	31.494
8392.7	0	0	8221	31.071	0	31.78
8400	0.576	320	8228.206	31.814	0	31.125
8500	8.576	320	8327.806	32.707	0	31.466
8600	16.57	320	8425.327	34.016	0	31.818
8700	24.57	320	8518.872	34.788	0	32.189
8800	32.57	320	8606.618	35.036	0	32.557
8905.2	41	320	8690.868	34.929	0	32.95
9000	46.37	327.7	8759.376	34.335	0	33.512
9100	52.51	334.5	8824.403	33.167	0	34.571
9200	58.98	340.2	8880.679	31.925	0	35.509
9300	65.67	345.1	8927.109	30.653	0	36.298
9400	72.5	349.6	8962.789	29.457	0	36.969
9500	79.43	353.7	8987.024	28.466	0	37.546
9600	86.4	357.7	8999.344	27.81	0	38.059
9651.2	90	359.7	9000.952	27.201	0	38.204
9700	90	359.7	9000.952	27.335	0	38.257
9800	90	359.7	9000.952	27.584	0	38.375
9900	90	359.7	9000.952	27.857	0	38.519
10000	90	359.7	9000.952	28.148	0	38.663
10100	90	359.7	9000.952	28.459	0	38.818
10200	90	359.7	9000.952	28.787	0	38.986
10300	90	359.7	9000.952	29.132	0	39.153
10400	90	359.7	9000.952	29.494	0	39.345
10500	90	359.7	9000.952	29.873	0	39.549
10600	90	359.7	9000.952	30.267	0	39.752

10700	90	359.7	9000.952	30.677	0	39.978
10800	90	359.7	9000.952	31.1	0	40.204
10900	90	359.7	9000.952	31.539	0	40.44
11000	90	359.7	9000.952	31.984	0	40.687
11100	90	359.7	9000.952	32.45	0	40.945
11200	90	359.7	9000.952	32.924	0	41.214
11300	90	359.7	9000.952	33.407	0	41.493
11400	90	359.7	9000.952	33.912	0	41.77
11500	90	359.7	9000.952	34.424	0	42.069
11600	90	359.7	9000.952	34.943	0	42.366
11700	90	359.7	9000.952	35.468	0	42.672
11800	90	359.7	9000.952	36	0	42.988
11900	90	359.7	9000.952	36.551	0	43.325
12000	90	359.7	9000.952	37.108	0	43.648
12100	90	359.7	9000.952	37.67	0	43.991
12200	90	359.7	9000.952	38.249	0	44.342
12300	90	359.7	9000.952	38.82	0	44.703
12400	90	359.7	9000.952	39.408	0	45.06
12500	90	359.7	9000.952	40	0	45.436
12600	90	359.7	9000.952	40.608	0	45.81
12700	90	359.7	9000.952	41.207	0	46.191
12800	90	359.7	9000.952	41.821	0	46.58
12900	90	359.7	9000.952	42.438	0	46.976
13000	90	359.7	9000.952	43.058	0	47.379
13100	90	359.7	9000.952	43.692	0	47.79
13200	90	359.7	9000.952	44.328	0	48.197
13300	90	359.7	9000.952	44.967	0	48.621
13400	90	359.7	9000.952	45.607	0	49.041
13500	90	359.7	9000.952	46.249	0	49.468

13600	90	359.7	9000.952	46.904	0	49.912
13700	90	359.7	9000.952	47.56	0	50.351
13800	90	359.7	9000.952	48.218	0	50.797
13900	90	359.7	9000.952	48.877	0	51.239
14000	90	359.7	9000.952	49.548	0	51.696
14100	90	359.7	9000.952	50.22	0	52.159
14200	90	359.7	9000.952	50.892	0	52.617
14300	90	359.7	9000.952	51.565	0	53.091
14400	90	359.7	9000.952	52.249	0	53.561
14500	90	359.7	9000.952	52.924	0	54.035
14600	90	359.7	9000.952	53.61	0	54.515
14700	90	359.7	9000.952	54.295	0	54.999
14800	90	359.7	9000.952	54.991	0	55.489
14900	90	359.7	9000.952	55.687	0	55.983
15000	90	359.7	9000.952	56.383	0	56.481
15100	90	359.7	9000.952	57.079	0	56.975
15200	90	359.7	9000.952	57.775	0	57.483
15300	90	359.7	9000.952	58.481	0	57.986
15400	90	359.7	9000.952	59.186	0	58.493
15500	90	359.7	9000.952	59.892	0	59.004
15600	90	359.7	9000.952	60.597	0	59.519
15700	90	359.7	9000.952	61.303	0	60.038
15800	90	359.7	9000.952	62.016	0	60.561
15900	90	359.7	9000.952	62.73	0	61.08
16000	90	359.7	9000.952	63.443	0	61.61
16100	90	359.7	9000.952	64.164	0	62.136
16200	90	359.7	9000.952	64.885	0	62.673
16300	90	359.7	9000.952	65.597	0	63.206
16400	90	359.7	9000.952	66.325	0	63.742

16500	90	359.7	9000.952	67.045	0	64.282
16600	90	359.7	9000.952	67.772	0	64.825
16700	90	359.7	9000.952	68.498	0	65.37
16800	90	359.7	9000.952	69.224	0	65.912
16876	90	359.7	9000	69.778	0	66.336

Plan Targets

Remuda North 25 State 701H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 6	9489.26	464634.37	619974.73	5905	CIRCLE
LTP 1	16747.5	471897.09	619926.51	5905	CIRCLE
BHL 6	16877.11	472026.95	619925.11	5905	CIRCLE

Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0	0	
0	0	
0	2	
0	0	
0	2	
0	0	
0	8	
5.32	8	

0

0 BHL 6

Bias (ft)	Vertical Error (ft)	Bias (ft)	Magnitude of Bias (ft)	Semi-major Error (ft)	Semi-minor Error (ft)	Semi-minor Tool Azimuth Used (°)	
0	2.297	0	0	0	0	0	MWD+IFR1+ MS
0	2.299	0	0	0.556	0.358	135	MWD+IFR1+ MS
0	2.307	0	0	1.191	0.717	135	MWD+IFR1+ MS
0	2.321	0	0	1.668	1.075	135	MWD+IFR1+ MS
0	2.34	0	0	2.099	1.434	135	MWD+IFR1+ MS
0	2.364	0	0	2.507	1.792	135	MWD+IFR1+ MS
0	2.393	0	0	2.902	2.151	135	MWD+IFR1+ MS
0	2.428	0	0	3.288	2.509	135	MWD+IFR1+ MS
0	2.467	0	0	3.669	2.867	135	MWD+IFR1+ MS
0	2.511	0	0	4.046	3.226	135	MWD+IFR1+ MS
0	2.559	0	0	4.42	3.584	135	MWD+IFR1+ MS
0	2.613	0	0	4.791	3.943	135	MWD+IFR1+ MS
0	2.67	0	0	5.161	4.302	135	MWD+IFR1+ MS
0	2.731	0	0	5.529	4.66	135	MWD+IFR1+ MS
0	2.797	0	0	5.896	5.018	135	MWD+IFR1+ MS
0	2.866	0	0	6.262	5.377	135	MWD+IFR1+ MS
0	2.939	0	0	6.566	5.829	-44.373	MWD+IFR1+ MS
0	3.015	0	0	7.007	6.47	-24.667	MWD+IFR1+ MS
0	3.098	0	0	7.575	6.925	-5.728	MWD+IFR1+ MS
0	3.187	0	0	8.184	7.293	3.609	MWD+IFR1+ MS
0	3.288	0	0	8.784	7.635	8.169	MWD+IFR1+ MS
0	3.399	0	0	9.362	7.97	10.753	MWD+IFR1+ MS

0	3.524	0	0	9.919	8.304	12.4	MWD+IFR1+ MS
0	3.662	0	0	10.455	8.639	13.547	MWD+IFR1+ MS
0	3.783	0	0	10.829	8.982	14.441	MWD+IFR1+ MS
0	3.896	0	0	11.128	9.334	14.937	MWD+IFR1+ MS
0	4.015	0	0	11.429	9.689	15.477	MWD+IFR1+ MS
0	4.138	0	0	11.738	10.046	15.956	MWD+IFR1+ MS
0	4.265	0	0	12.052	10.404	16.424	MWD+IFR1+ MS
0	4.397	0	0	12.371	10.768	16.926	MWD+IFR1+ MS
0	4.531	0	0	12.694	11.134	17.439	MWD+IFR1+ MS
0	4.67	0	0	13.024	11.497	17.847	MWD+IFR1+ MS
0	4.812	0	0	13.353	11.865	18.328	MWD+IFR1+ MS
0	4.958	0	0	13.69	12.235	18.772	MWD+IFR1+ MS
0	5.106	0	0	14.025	12.605	19.247	MWD+IFR1+ MS
0	5.258	0	0	14.367	12.977	19.671	MWD+IFR1+ MS
0	5.413	0	0	14.711	13.349	20.091	MWD+IFR1+ MS
0	5.57	0	0	15.057	13.722	20.506	MWD+IFR1+ MS
0	5.731	0	0	15.406	14.098	20.955	MWD+IFR1+ MS
0	5.895	0	0	15.758	14.473	21.301	MWD+IFR1+ MS
0	6.061	0	0	16.111	14.851	21.742	MWD+IFR1+ MS
0	6.229	0	0	16.467	15.227	22.077	MWD+IFR1+ MS
0	6.4	0	0	16.822	15.605	22.5	MWD+IFR1+ MS
0	6.573	0	0	17.181	15.984	22.878	MWD+IFR1+ MS
0	6.75	0	0	17.541	16.361	23.189	MWD+IFR1+ MS
0	6.928	0	0	17.903	16.742	23.537	MWD+IFR1+ MS
0	7.109	0	0	18.268	17.122	23.839	MWD+IFR1+ MS
0	7.292	0	0	18.632	17.503	24.18	MWD+IFR1+ MS
0	7.478	0	0	18.999	17.887	24.525	MWD+IFR1+ MS
0	7.666	0	0	19.365	18.268	24.857	MWD+IFR1+ MS
0	7.856	0	0	19.733	18.649	25.124	MWD+IFR1+ MS

0	8.049	0	0	20.103	19.033	25.448	MWD+IFR1+ MS
0	8.243	0	0	20.473	19.416	25.706	MWD+IFR1+ MS
0	8.44	0	0	20.846	19.8	25.961	MWD+IFR1+ MS
0	8.639	0	0	21.217	20.185	26.265	MWD+IFR1+ MS
0	8.841	0	0	21.591	20.568	26.459	MWD+IFR1+ MS
0	9.045	0	0	21.965	20.953	26.694	MWD+IFR1+ MS
0	9.251	0	0	22.34	21.338	26.934	MWD+IFR1+ MS
0	9.459	0	0	22.715	21.724	27.163	MWD+IFR1+ MS
0	9.67	0	0	23.091	22.109	27.389	MWD+IFR1+ MS
0	9.882	0	0	23.469	22.497	27.611	MWD+IFR1+ MS
0	10.095	0	0	23.845	22.882	27.823	MWD+IFR1+ MS
0	10.31	0	0	24.224	23.268	27.987	MWD+IFR1+ MS
0	10.536	0	0	24.637	23.65	27.818	MWD+IFR1+ MS
0	10.766	0	0	25.104	24.029	26.91	MWD+IFR1+ MS
0	10.986	0	0	25.564	24.401	26.177	MWD+IFR1+ MS
0	11.198	0	0	26.017	24.765	25.507	MWD+IFR1+ MS
0	11.406	0	0	26.463	25.124	24.954	MWD+IFR1+ MS
0	11.61	0	0	26.899	25.475	24.517	MWD+IFR1+ MS
0	11.811	0	0	27.324	25.818	24.167	MWD+IFR1+ MS
0	12.008	0	0	27.668	26.171	25.284	MWD+IFR1+ MS
0	12.202	0	0	27.967	26.539	25.451	MWD+IFR1+ MS
0	12.406	0	0	28.269	26.873	25.374	MWD+IFR1+ MS
0	12.61	0	0	28.574	27.207	25.237	MWD+IFR1+ MS
0	12.814	0	0	28.877	27.541	25.126	MWD+IFR1+ MS
0	13.027	0	0	29.185	27.878	25.019	MWD+IFR1+ MS
0	13.24	0	0	29.49	28.212	24.903	MWD+IFR1+ MS
0	13.457	0	0	29.8	28.55	24.785	MWD+IFR1+ MS
0	13.678	0	0	30.109	28.887	24.665	MWD+IFR1+ MS
0	13.9	0	0	30.42	29.223	24.517	MWD+IFR1+ MS

0	14.128	0	0	30.732	29.561	24.39	MWD+IFR1+ MS
0	14.36	0	0	31.043	29.9	24.292	MWD+IFR1+ MS
0	14.591	0	0	31.358	30.239	24.129	MWD+IFR1+ MS
0	14.829	0	0	31.673	30.578	23.993	MWD+IFR1+ MS
0	15.053	0	0	31.956	30.89	24.122	MWD+IFR1+ MS
0	15.07	0	0	31.986	30.916	23.963	MWD+IFR1+ MS
0	15.333	0	0	32.625	31.331	31.33	MWD+IFR1+ MS
0	15.719	0	0	34.106	31.777	42.569	MWD+IFR1+ MS
0	16.306	0	0	35.508	32.174	46.27	MWD+IFR1+ MS
0	17.146	0	0	36.735	32.551	47.871	MWD+IFR1+ MS
0	18.423	0	0	37.9	32.949	49.097	MWD+IFR1+ MS
0	19.357	0	0	38.477	33.46	52.057	MWD+IFR1+ MS
0	20.246	0	0	38.842	34.472	56.097	MWD+IFR1+ MS
0	21.359	0	0	39.139	35.385	60.015	MWD+IFR1+ MS
0	22.627	0	0	39.338	36.159	63.285	MWD+IFR1+ MS
0	24.006	0	0	39.443	36.814	65.785	MWD+IFR1+ MS
0	25.448	0	0	39.488	37.373	67.271	MWD+IFR1+ MS
0	26.902	0	0	39.491	37.848	66.916	MWD+IFR1+ MS
0	27.201	0	0	39.483	37.975	66.952	MWD+IFR1+ MS
0	27.335	0	0	39.462	38.05	67.352	MWD+IFR1+ MS
0	27.584	0	0	39.433	38.211	68.333	MWD+IFR1+ MS
0	27.857	0	0	39.408	38.393	69.195	MWD+IFR1+ MS
0	28.148	0	0	39.383	38.574	70.5	MWD+IFR1+ MS
0	28.459	0	0	39.361	38.765	72.323	MWD+IFR1+ MS
0	28.787	0	0	39.342	38.964	75.64	MWD+IFR1+ MS
0	29.132	0	0	39.332	39.153	86.924	MWD+IFR1+ MS
0	29.494	0	0	39.416	39.273	135	MWD+IFR1+ MS
0	29.873	0	0	39.631	39.273	-28.987	MWD+IFR1+ MS
0	30.267	0	0	39.859	39.259	-25.383	MWD+IFR1+ MS

0	30.677	0	0	40.11	39.258	-23.555	MWD+IFR1+ MS
0	31.1	0	0	40.358	39.245	-22.34	MWD+IFR1+ MS
0	31.539	0	0	40.619	39.245	-21.595	MWD+IFR1+ MS
0	31.984	0	0	40.886	39.234	-20.801	MWD+IFR1+ MS
0	32.45	0	0	41.165	39.236	-20.239	MWD+IFR1+ MS
0	32.924	0	0	41.453	39.238	-19.721	MWD+IFR1+ MS
0	33.407	0	0	41.748	39.231	-19.148	MWD+IFR1+ MS
0	33.912	0	0	42.044	39.234	-18.779	MWD+IFR1+ MS
0	34.424	0	0	42.358	39.24	-18.347	MWD+IFR1+ MS
0	34.943	0	0	42.671	39.246	-17.995	MWD+IFR1+ MS
0	35.468	0	0	42.992	39.252	-17.65	MWD+IFR1+ MS
0	36	0	0	43.321	39.259	-17.314	MWD+IFR1+ MS
0	36.551	0	0	43.669	39.269	-16.936	MWD+IFR1+ MS
0	37.108	0	0	44.004	39.277	-16.655	MWD+IFR1+ MS
0	37.67	0	0	44.359	39.298	-16.387	MWD+IFR1+ MS
0	38.249	0	0	44.72	39.308	-16.076	MWD+IFR1+ MS
0	38.82	0	0	45.089	39.319	-15.784	MWD+IFR1+ MS
0	39.408	0	0	45.456	39.341	-15.548	MWD+IFR1+ MS
0	40	0	0	45.84	39.353	-15.269	MWD+IFR1+ MS
0	40.608	0	0	46.222	39.377	-15.046	MWD+IFR1+ MS
0	41.207	0	0	46.61	39.389	-14.801	MWD+IFR1+ MS
0	41.821	0	0	47.006	39.414	-14.576	MWD+IFR1+ MS
0	42.438	0	0	47.409	39.439	-14.36	MWD+IFR1+ MS
0	43.058	0	0	47.818	39.464	-14.147	MWD+IFR1+ MS
0	43.692	0	0	48.233	39.479	-13.92	MWD+IFR1+ MS
0	44.328	0	0	48.646	39.504	-13.731	MWD+IFR1+ MS
0	44.967	0	0	49.074	39.531	-13.528	MWD+IFR1+ MS
0	45.607	0	0	49.499	39.558	-13.343	MWD+IFR1+ MS
0	46.249	0	0	49.931	39.597	-13.175	MWD+IFR1+ MS

0	46.904	0	0	50.377	39.625	-12.981	MWD+IFR1+ MS
0	47.56	0	0	50.819	39.653	-12.803	MWD+IFR1+ MS
0	48.218	0	0	51.268	39.682	-12.628	MWD+IFR1+ MS
0	48.877	0	0	51.713	39.721	-12.483	MWD+IFR1+ MS
0	49.548	0	0	52.172	39.75	-12.313	MWD+IFR1+ MS
0	50.22	0	0	52.637	39.791	-12.156	MWD+IFR1+ MS
0	50.892	0	0	53.098	39.82	-12.005	MWD+IFR1+ MS
0	51.565	0	0	53.573	39.862	-11.852	MWD+IFR1+ MS
0	52.249	0	0	54.044	39.891	-11.705	MWD+IFR1+ MS
0	52.924	0	0	54.519	39.933	-11.565	MWD+IFR1+ MS
0	53.61	0	0	55	39.974	-11.43	MWD+IFR1+ MS
0	54.295	0	0	55.486	40.017	-11.293	MWD+IFR1+ MS
0	54.991	0	0	55.976	40.059	-11.162	MWD+IFR1+ MS
0	55.687	0	0	56.47	40.101	-11.032	MWD+IFR1+ MS
0	56.383	0	0	56.969	40.144	-10.901	MWD+IFR1+ MS
0	57.079	0	0	57.463	40.187	-10.781	MWD+IFR1+ MS
0	57.775	0	0	57.97	40.23	-10.656	MWD+IFR1+ MS
0	58.481	0	0	58.473	40.272	-10.54	MWD+IFR1+ MS
0	59.186	0	0	58.981	40.327	-10.43	MWD+IFR1+ MS
0	59.892	0	0	59.491	40.37	-10.316	MWD+IFR1+ MS
0	60.597	0	0	60.006	40.426	-10.208	MWD+IFR1+ MS
0	61.303	0	0	60.525	40.469	-10.097	MWD+IFR1+ MS
0	62.016	0	0	61.047	40.525	-9.992	MWD+IFR1+ MS
0	62.73	0	0	61.565	40.568	-9.888	MWD+IFR1+ MS
0	63.443	0	0	62.094	40.624	-9.786	MWD+IFR1+ MS
0	64.164	0	0	62.619	40.679	-9.689	MWD+IFR1+ MS
0	64.885	0	0	63.155	40.723	-9.585	MWD+IFR1+ MS
0	65.597	0	0	63.688	40.779	-9.493	MWD+IFR1+ MS
0	66.325	0	0	64.223	40.835	-9.4	MWD+IFR1+ MS

0	67.045	0	0	64.761	40.891	-9.307	MWD+IFR1+ MS
0	67.772	0	0	65.302	40.946	-9.218	MWD+IFR1+ MS
0	68.498	0	0	65.847	41.014	-9.131	MWD+IFR1+ MS
0	69.224	0	0	66.387	41.07	-9.048	MWD+IFR1+ MS
0	69.778	0	0	66.81	41.115	-8.981	MWD+IFR1+ MS

**DRILLING PLAN: NMOCD COMPLIANCE
(Supplement to NMOCD 3160-3)**

XTO Energy Inc.
Remuda North 25 State 701H
Projected TD: 16876' MD / 9000' TVD
SHL: 2369' FSL & 1919' FWL , Section 25, T23S, R29E
BHL: 200' FNL & 350' FWL , Section 24, T23S, R29E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	72'	Water
Top of Salt	420'	Water
Base of Salt	3078'	Water
Delaware	3288'	Water
Brushy Canyon	5733'	Water/Oil/Gas
Bone Spring	6995'	Water
1st Bone Spring Ss	8077'	Water/Oil/Gas
2nd Bone Spring Ss	8858'	Water/Oil/Gas
Target/Land Curve	9000'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 11.75 inch casing @ 395' (25' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 3178' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 16876 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to the Brushy Canyon (estimated TOC 6233 feet) with a secondary bradenhead squeeze after frac operations are complete to 500' inside the intermediate casing shoe (estimated TOC 2678) feet.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
14.75	0' – 395'	11.75	54	J-55	BTC	New	3.74	11.86	39.85
8.75	0' – 3178'	7.625	29.7	RY P-110	Flush Joint	New	4.63	3.24	5.91
6.75	0' – 3078'	5.5	20	RY P-110	Semi-Premium	New	1.05	8.06	2.63
6.75	3078' - 16876'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.76	2.63

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 7.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 11-3/4" bottom

B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 7-5/8" casing per NMOCD Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 11.75, 54 New BTC, J-55 casing to be set at +/- 395'

Tail: 320 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Intermediate Casing: 7.625, 29.7 New Flush Joint, RY P-110 casing to be set at +/- 3178'

Lead: 320 sxs Class C (mixed at 12.9 ppg, 1.65 ft³/sx, 10.13 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 16876'

1st Stage

Optional Lead: 60 sxs Class C (mixed at 10.5 ppg, 2 ft³/sx, 15.59 gal/sx water)

Top of Cement: 7,393

Tail: 650 sxs Class C (mixed at 14.8 ppg, 1.39 ft³/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6233

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2 ft³/sx, 9.61 gal/sx water)

Tail: 170 sxs Class C (mixed at 14.8 ppg, 2 ft³/sx, 6.39 gal/sx water)

Top of Cement: 2678

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 5-1/2" production casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6233') and the second stage performed after frac operations are complete as a bradenhead squeeze with planned cement from the Brushy Canyon to 500' inside the previous casing shoe (2678').

XTO will report the volume of fluid (limited to 5 bbls) used to flush production casing valves following backside cementing procedures.

XTO requests the option to conduct the bradenhead squeeze offline as per standard approval when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

XTO requests the option to offline cement and remediate (if needed) surface, intermediate, and production casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

5. Pressure Control Equipment

Once the permanent WH is installed on the 11.75 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 2045 psi. In any instance where 10M BOP is required by NMOCD, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 11.75, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per NMOCD regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the NMOCD to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production

hole on each of the wells.

A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the NMOCD on February 27th 2020, we will request permission to ONLY retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 395'	14.75	FW/Native	8.5-9	35-40	NC
395' - 3178'	8.75	Brine	10-10.5	30-32	NC
3178' - 16876'	6.75	OBM	8.6-9.6	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 11-3/4" surface casing with brine solution. A 10.0 ppg - 10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 11.75 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

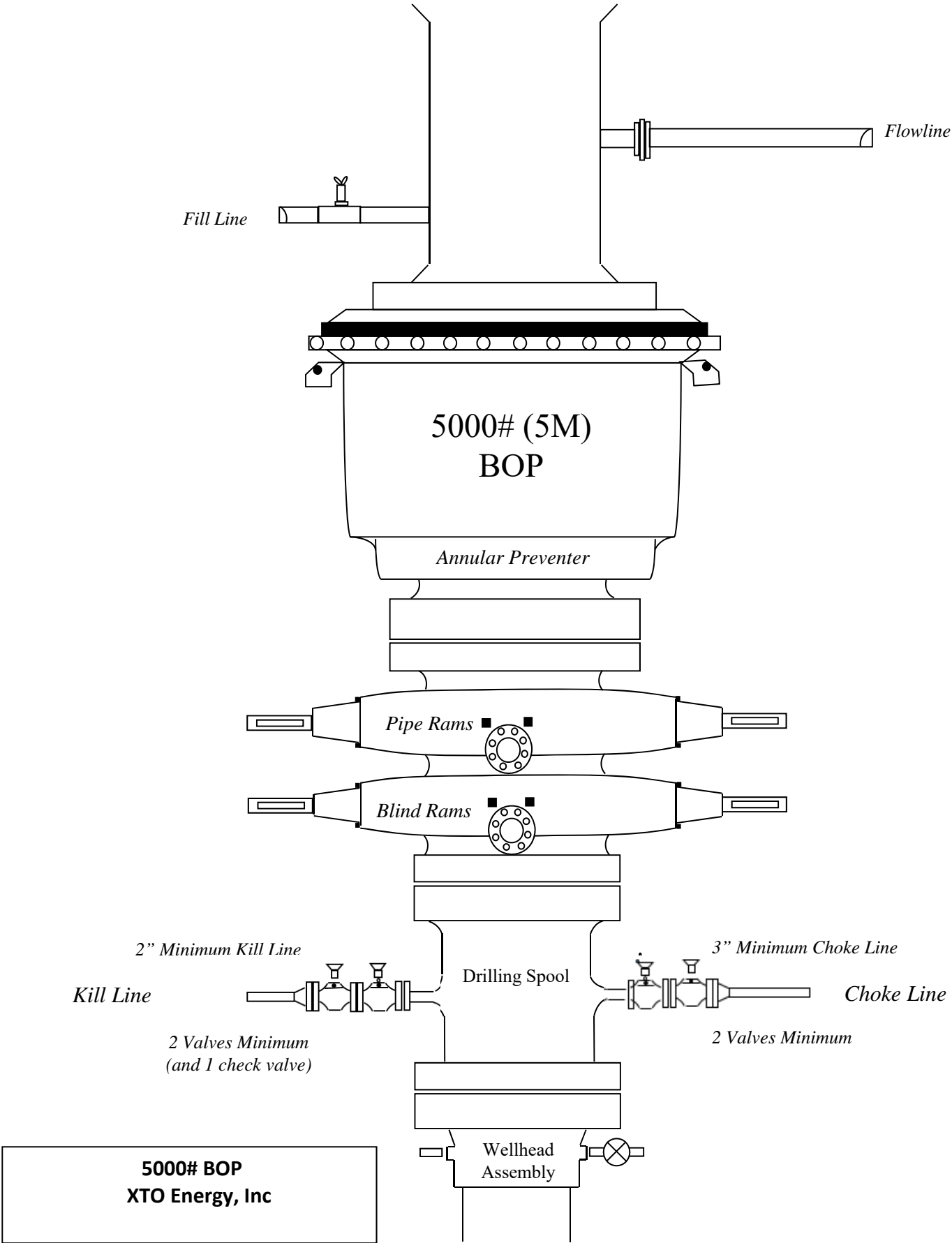
Open hole logging will not be done on this well.

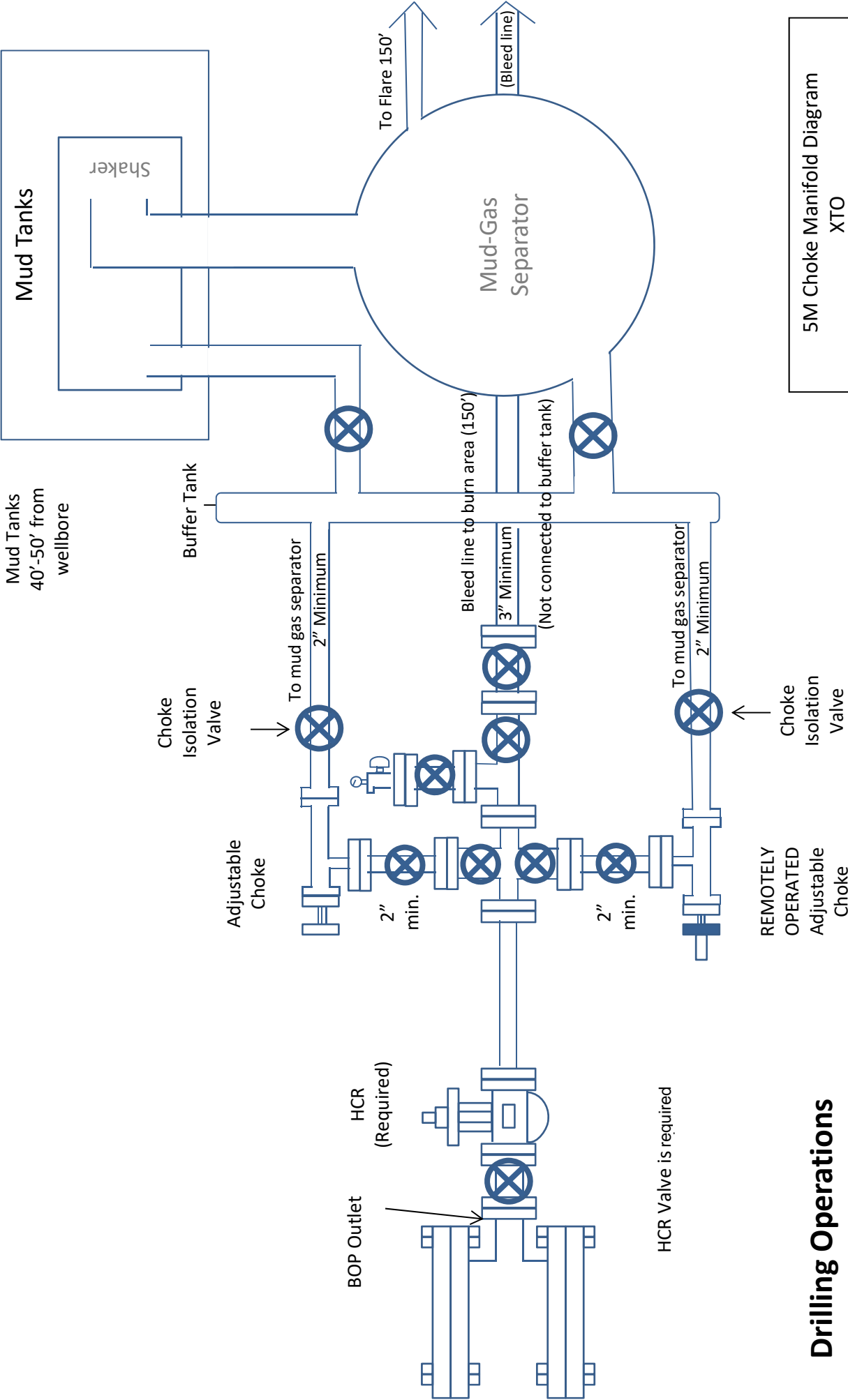
9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 155 to 175 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 4025 psi.

10. Anticipated Starting Date and Duration of Operations

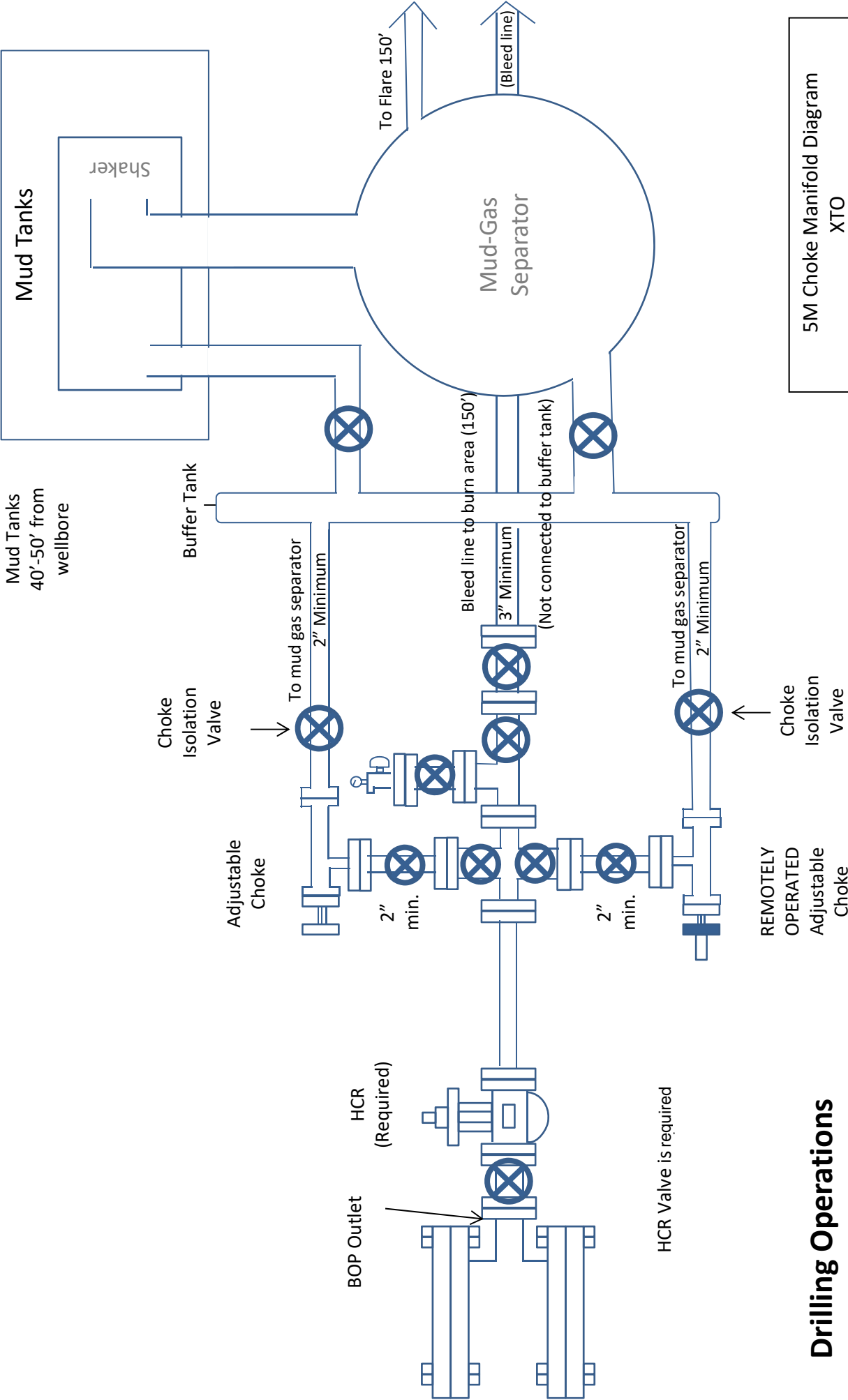
Anticipated spud date will be after NMOCD approval. Move in operations and drilling is expected to take 40 days.





5M Choke Manifold Diagram
XTO

**Drilling Operations
Choke Manifold
5M Service**



5M Choke Manifold Diagram
XTO

**Drilling Operations
Choke Manifold
5M Service**



HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

CARLSBAD OFFICE – EDDY & LEA COUNTIES

3104 E. Greene St., Carlsbad, NM 88220
Carlsbad, NM

575-887-7329

XTO PERSONNEL:

Kendall Decker, Drilling Manager
Milton Turman, Drilling Superintendent
Jeff Raines, Construction Foreman
Toady Sanders, EH & S Manager
Wes McSpadden, Production Foreman

903-521-6477
817-524-5107
432-557-3159
903-520-1601
575-441-1147

SHERIFF DEPARTMENTS:

Eddy County
Lea County

575-887-7551
575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

Carlsbad
Eunice
Hobbs
Jal
Lovington

911
575-885-2111
575-394-2111
575-397-9308
575-395-2221
575-396-2359

HOSPITALS:

Carlsbad Medical Emergency
Eunice Medical Emergency
Hobbs Medical Emergency
Jal Medical Emergency
Lovington Medical Emergency

911
575-885-2111
575-394-2112
575-397-9308
575-395-2221
575-396-2359

AGENT NOTIFICATIONS:**For Lea County:**

Bureau of Land Management – Hobbs
New Mexico Oil Conservation Division – Hobbs

575-393-3612
575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad
New Mexico Oil Conservation Division - Artesia

575-234-5972
575-748-1283

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 180 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.