

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 308202

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 30-015-49284
4. Property Code 317788	5. Property Name REMUDA SOUTH 25 STATE	6. Well No. 801H

7. Surface Location

UL - Lot K	Section 25	Township 23S	Range 29E	Lot Idn	Feet From 2369	N/S Line S	Feet From 1949	E/W Line W	County Eddy
---------------	---------------	-----------------	--------------	---------	-------------------	---------------	-------------------	---------------	----------------

8. Proposed Bottom Hole Location

UL - Lot M	Section 36	Township 23S	Range 29E	Lot Idn M	Feet From 200	N/S Line N	Feet From 660	E/W Line W	County Eddy
---------------	---------------	-----------------	--------------	--------------	------------------	---------------	------------------	---------------	----------------

9. Pool Information

FORTY NINER RIDGE BONE SPRING, WEST	96526
-------------------------------------	-------

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 16763	18. Formation Bone Spring	19. Contractor	20. Spud Date 4/9/2022
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	17.5	13.375	54.5	273	280	0
Int1	12.25	9.625	40	3178	1420	0
Int2	8.75	7.625	29.7	8826	300	0
Int2	8.75	7.625	29.7	3278	440	5733
Prod	6.75	0	20	16763	570	8326

Casing/Cement Program: Additional Comments

XTO requests the option to offline cement and remediate (if needed) all 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. XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring", "cement inside the first intermediate casing. If cement reaches the desired height, the NMOCD will be notified and the second stage bradenhead squeeze and subsequent TOC", "verification will be negated.", " XTO requests the option to conduct the bradenhead squeeze

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	2880	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	Approved By: Katherine Pickford	
Title: Production Analyst	Title: Geoscientist	
Email Address: tiffany.yancey@exxonmobil.com	Approved Date: 2/18/2022	Expiration Date: 2/18/2024
Date: 2/15/2022	Phone: 432-215-8939	Conditions of Approval Attached

OIL CONSERVATION DIVISION

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, 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- 49284	² Pool Code 96526	³ Pool Name Forty-Niner Ridge; Bone Spring West
⁴ Property Code 317788	⁵ Property Name REMUDA SOUTH 25 STATE	⁶ Well Number 801H
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	1,949	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
M	36	23 S	29 E		200	NORTH	660	WEST	EDDY

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

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	<p>SHL (NAD83 NME) Y = 464,036.1 X = 662,765.8 LAT. = 32.275099 °N LONG. = 103.940438 °W</p> <p>FTP (NAD83 NME) Y = 463,991.2 X = 661,476.8 LAT. = 32.274988 °N LONG. = 103.944609 °W</p> <p>CORNER COORDINATES (NAD83 NME) A - Y = 464,320.4 N , X = 660,816.8 E B - Y = 461,665.9 N , X = 660,817.1 E C - Y = 459,002.1 N , X = 660,832.0 E D - Y = 456,341.5 N , X = 660,848.3 E E - Y = 464,319.7 N , X = 662,143.0 E F - Y = 461,666.6 N , X = 662,145.6 E G - Y = 459,004.0 N , X = 662,159.8 E H - Y = 456,344.3 N , X = 662,174.7 E</p> <p>SHL (NAD27 NME) Y = 463,976.2 X = 621,583.0 LAT. = 32.274975 °N LONG. = 103.939946 °W</p> <p>FTP (NAD27 NME) Y = 463,931.3 X = 620,294.0 LAT. = 32.274864 °N LONG. = 103.944117 °W</p> <p>CORNER COORDINATES (NAD27 NME) A - Y = 464,260.5 N , X = 619,634.0 E B - Y = 461,606.0 N , X = 619,634.3 E C - Y = 458,942.4 N , X = 619,649.0 E D - Y = 456,281.8 N , X = 619,665.2 E E - Y = 464,259.9 N , X = 620,960.2 E F - Y = 461,606.7 N , X = 620,962.7 E G - Y = 458,944.3 N , X = 620,976.8 E H - Y = 456,284.6 N , X = 620,991.6 E</p> <p>LTP (NAD83 NME) Y = 456,672.9 X = 661,506.2 LAT. = 32.254871 °N LONG. = 103.944599 °W</p> <p>BHL (NAD83 NME) Y = 456,542.9 X = 661,507.0 LAT. = 32.254514 °N LONG. = 103.944598 °W</p> <p>LTP (NAD27 NME) Y = 456,613.2 X = 620,323.2 LAT. = 32.254747 °N LONG. = 103.944109 °W</p> <p>BHL (NAD27 NME) Y = 456,483.2 X = 620,324.0 LAT. = 32.254390 °N LONG. = 103.944108 °W</p>	<p>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.</p> <p><i>Cassie Evans</i> 02/07/2022 Signature Date Cassie Evans Printed Name cassie.evans@exxonmobil.com E-mail Address</p> <p>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.</p> <p>1-31-2022 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number LM 2021101478</p>
--	---	--

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 APD Comments

Permit 308202

PERMIT COMMENTS

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49284
	Well: REMUDA SOUTH 25 STATE #801H

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.	2/13/2022

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 APD Conditions

Permit 308202

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-49284
	Well: REMUDA SOUTH 25 STATE #801H

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	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing

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.

62

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.

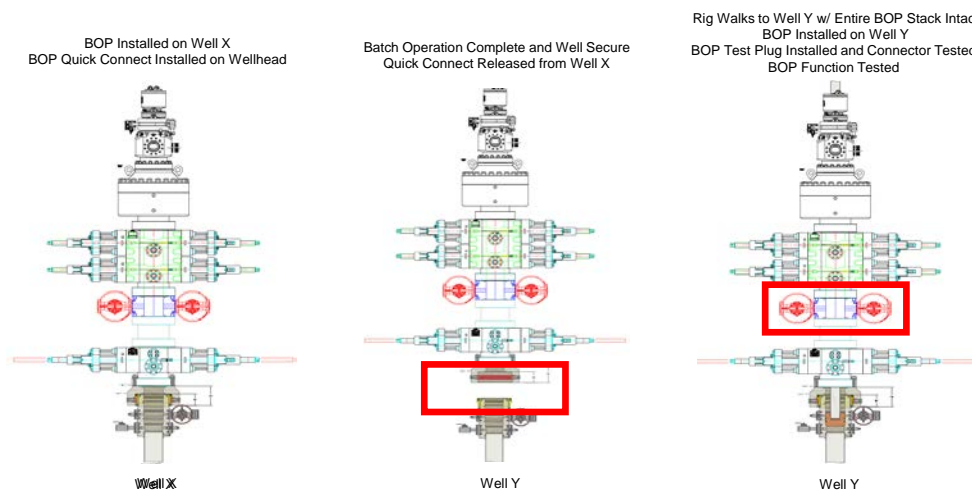
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that 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.

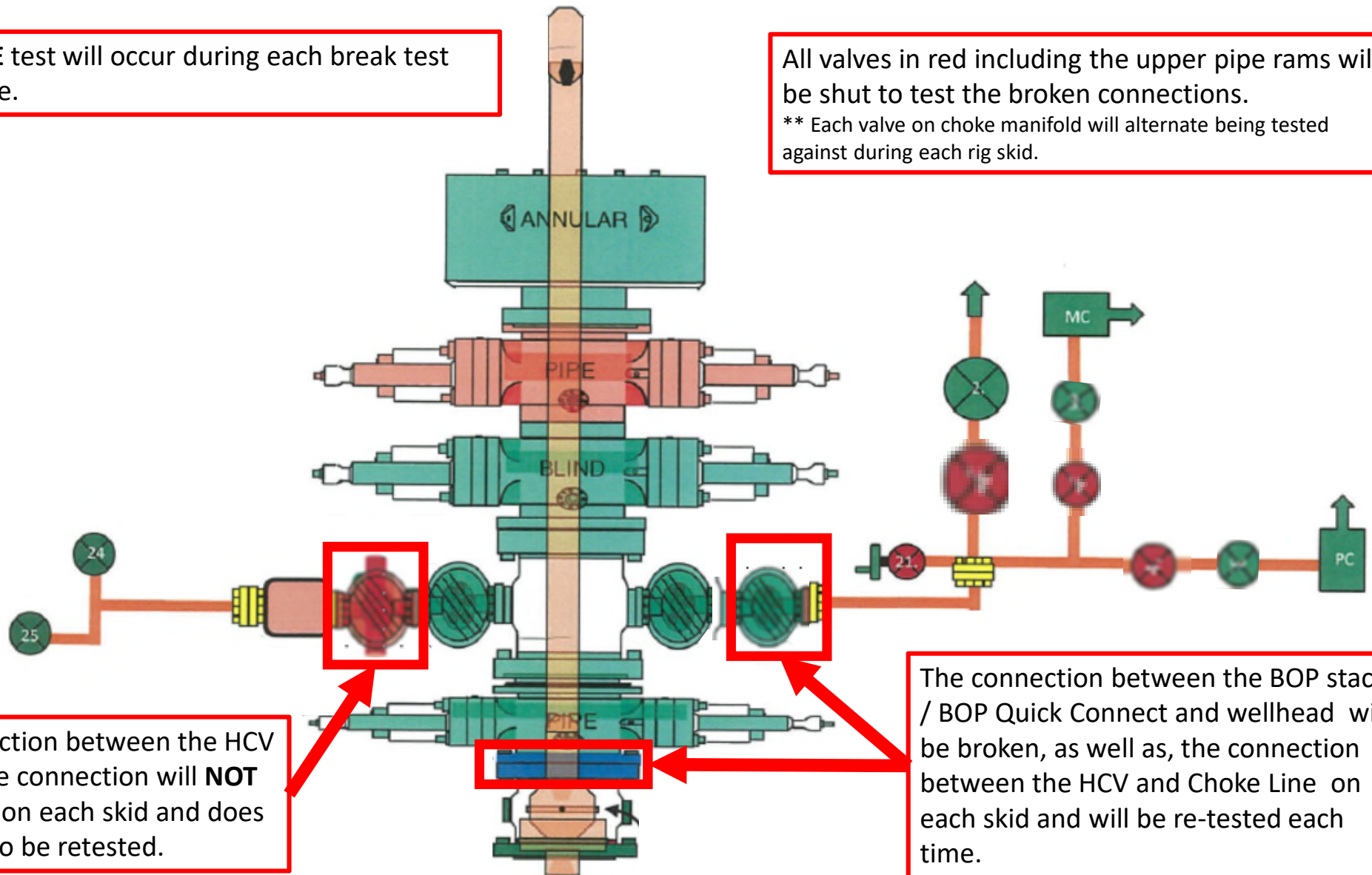
Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met:

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.





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

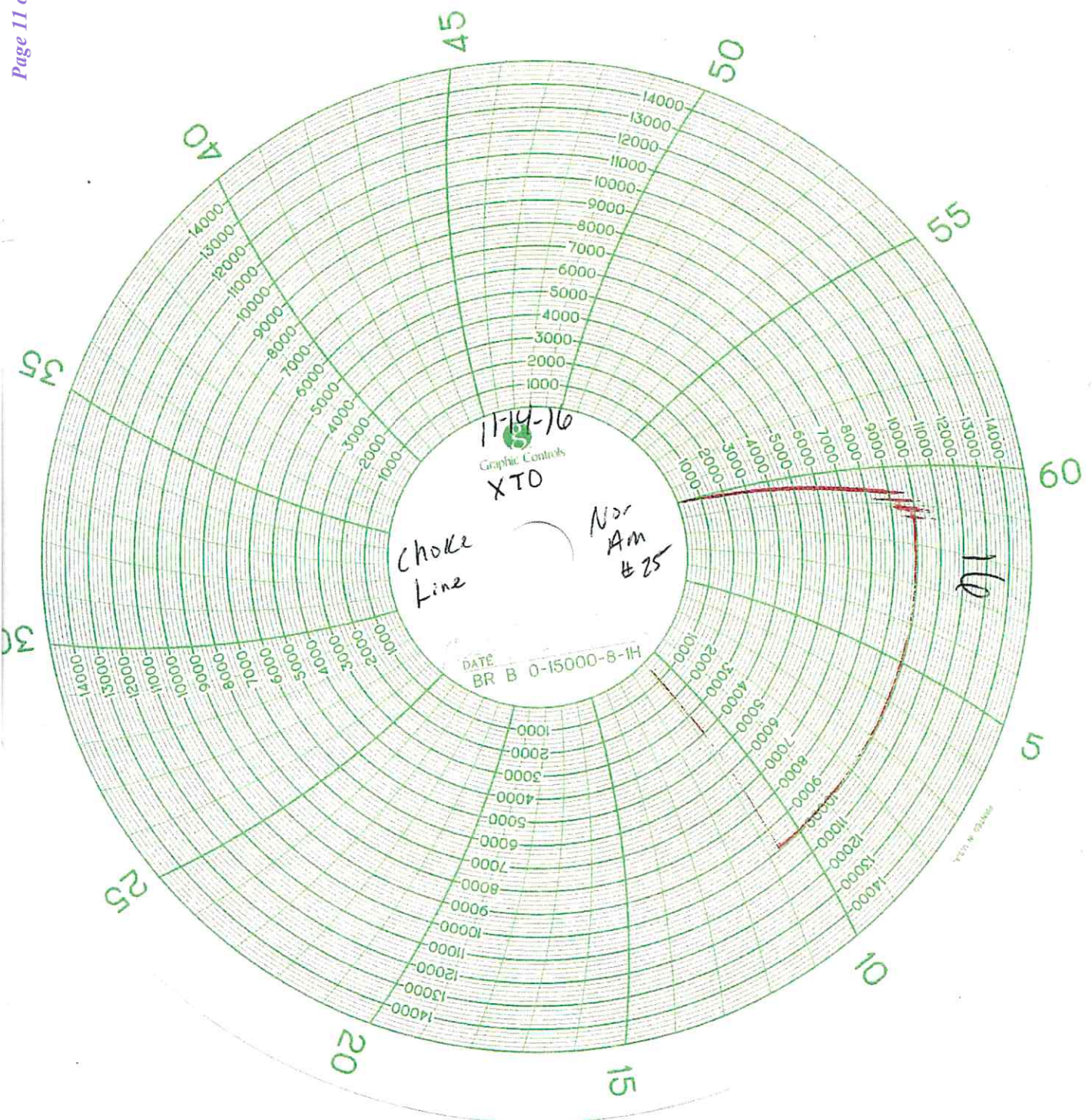
GRADE D PRESSURE TEST CERTIFICATE

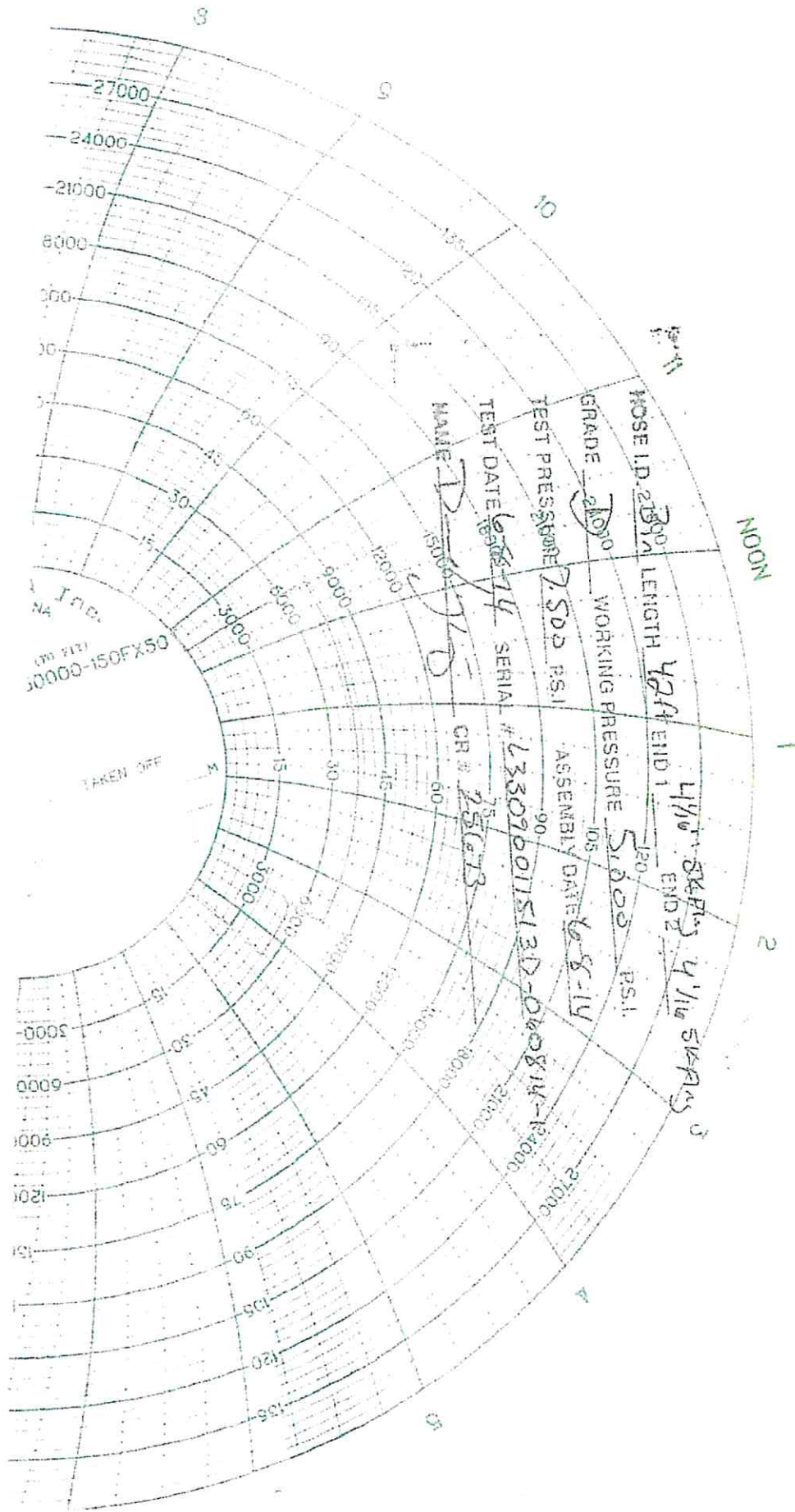
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA
Product Description:	FD3.042.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :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





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

XTO Energy Inc.
Remuda South 25 State 801H
Projected TD: 16763' MD / 9600' TVD
SHL: 2369' FSL & 1949' FWL , Section 25, T23S, R29E
BHL: 200' FNL & 660' FWL , Section 36, 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
Salado	223'	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	8884'	Water/Oil/Gas
3rd Bone Spring Sh	9507'	Water/Oil/Gas
Target/Land Curve	9600'	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 13.375 inch casing @ 273' (50 below the top of the Salado) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 3178' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 7.625 inch casing at 8826' and cemented to 200' inside the previous casing string. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 16763 MD/TD and 5.5 x 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 8326 feet) per Potash regulations.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 273'	13.375	54.5	J-55	BTC	New	2.87	9.48	57.33
12.25	0' – 3178'	9.625	40	J-55	BTC	New	1.66	2.66	4.96
8.75	0' – 3278'	7.625	29.7	RY P-110	Flush Joint	New	3.28	3.34	2.13
8.75	3278' – 8826'	7.625	29.7	HC L-80	Flush Joint	New	2.39	2.40	2.46
6.75	0' – 8726'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.45	2.57
6.75	8726' - 16763'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.22	2.00

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 9.625 Collapse analyzed using 50% evacuation based on regional experience.
- 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 2M annular & 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 13-3/8" bottom flange

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: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 273'

Tail: 280 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 250 psi 24 hr = 500 psi

1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3178'

Lead: 1290 sxs Class C (mixed at 12.9 ppg, 1.39 ft3/sx, 10.13 gal/sx water)
 Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 8826'

1st Stage

Optional Lead: 160 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
 TOC: 2678
 Tail: 280 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
 TOC: Brushy Canyon @ 5733
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)
 Tail: 300 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
 Top of Cement: 0
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

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 Brush 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 NMOCD 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 inside the first intermediate casing. If cement reaches the desired height, the NMOCD will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from NMOCD 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.

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 16763'

Lead: 20 sxs Class C (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 8326 feet
 Tail: 550 sxs Class C (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9026 feet
 Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests the option to offline cement and remediate (if needed) all 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 13.375 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 2880 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 13.375, 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.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 273'	17.5	FW/Native	8.4-8.9	35-40	NC
273' - 3178'	12.25	Brine	10-10.5	30-32	NC
3178' to 8826'	8.75	BDE/OBM or FW/Brine	9.4-9.9	30-32	NC
8826' to 16763'	6.75	OBM	10-10.5	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 13-3/8" surface casing with brine solution. A 9.8 ppg - 10.2 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 13.375 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 160 to 180 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 4992 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 20 days.

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:

Well Plan Report - Remuda South 25 State 801H (Corrected)

Measured Depth: 16763.00 ft

TVD RKB: 9600.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 463937.00 ft

Easting: 621613.10 ft

RKB: 3095.00 ft

Ground Level: 3065.00 ft

North Reference: Grid

Convergence Angle: 0.21 Deg

Site: South Pad 2

Slot: 3

Plan Sections

Remuda South 25 State 801H
(Corrected)

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
2400	0	0	2400	0	0	0
2900	10	275	2897.47	3.79	-43.36	2
3231.93	16	262	3220.81	-0.07	-117.45	1.81
6731.93	16	262	6585.22	-134.33	-1072.79	0
7531.93	0	0	7374.86	-149.78	-1182.69	-2

9026.07	0	0	8869	-149.78	-1182.69	0
9463.57	35	200	9279.79	-271.49	-1226.99	8
10180.88	90	180	9600.89	-874.76	-1303.89	7.67
16763.11	90.02	179.53	9600	-7456.91	-1276.86	0

Position Uncertainty

Remuda South 25 State 801H
(Corrected)

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	0.358	0	0.358
200	0	0	200	0.717	0	0.717
300	0	0	300	1.075	0	1.075
400	0	0	400	1.434	0	1.434
500	0	0	500	1.792	0	1.792
600	0	0	600	2.151	0	2.151
700	0	0	700	2.509	0	2.509
800	0	0	800	2.868	0	2.868
900	0	0	900	3.225	0	3.225
1000	0	0	1000	3.585	0	3.585
1100	0	0	1100	3.942	0	3.942
1200	0	0	1200	4.301	0	4.301

1300	0	0	1300	4.659	0	4.659
1400	0	0	1400	5.018	0	5.018
1500	0	0	1500	5.377	0	5.377
1600	0	0	1600	5.735	0	5.735
1700	0	0	1700	6.093	0	6.093
1800	0	0	1800	6.452	0	6.452
1900	0	0	1900	6.81	0	6.81
2000	0	0	2000	7.169	0	7.169
2100	0	0	2100	7.527	0	7.527
2200	0	0	2200	7.886	0	7.886
2300	0	0	2300	8.244	0	8.244
2400	0	0	2400	8.603	0	8.603
2500	1.999	275	2499.98	8.949	0	8.953
2600	4	275	2599.838	9.277	0	9.295
2700	6	275	2699.452	9.596	0	9.637
2800	7.999	275	2798.702	9.905	0	9.98
2900	10	275	2897.465	10.202	0	10.32
3000	11.73	269.7	2995.67	10.5	0	10.663
3100	13.54	265.8	3093.244	10.787	0	11.004

3200	15.4	262.8	3190.068	11.059	0	11.348
3231.9	16	262	3220.806	11.145	0	11.453
3300	16	262	3286.24	11.387	0	11.691
3400	16	262	3382.366	11.738	0	12.036
3500	16	262	3478.492	12.096	0	12.384
3600	16	262	3574.619	12.453	0	12.735
3700	16	262	3670.745	12.816	0	13.091
3800	16	262	3766.871	13.181	0	13.445
3900	16	262	3862.997	13.549	0	13.804
4000	16	262	3959.123	13.918	0	14.162
4100	16	262	4055.249	14.289	0	14.524
4200	16	262	4151.376	14.665	0	14.888
4300	16	262	4247.502	15.039	0	15.252
4400	16	262	4343.628	15.417	0	15.618
4500	16	262	4439.754	15.794	0	15.985
4600	16	262	4535.88	16.175	0	16.353
4700	16	262	4632.006	16.556	0	16.721
4800	16	262	4728.133	16.939	0	17.094
4900	16	262	4824.259	17.325	0	17.464

5000	16	262	4920.385	17.709	0	17.837
5100	16	262	5016.511	18.094	0	18.209
5200	16	262	5112.637	18.482	0	18.583
5300	16	262	5208.763	18.87	0	18.958
5400	16	262	5304.89	19.259	0	19.334
5500	16	262	5401.016	19.648	0	19.71
5600	16	262	5497.142	20.038	0	20.086
5700	16	262	5593.268	20.431	0	20.463
5800	16	262	5689.394	20.821	0	20.841
5900	16	262	5785.52	21.214	0	21.218
6000	16	262	5881.647	21.607	0	21.598
6100	16	262	5977.773	22.001	0	21.976
6200	16	262	6073.899	22.394	0	22.357
6300	16	262	6170.025	22.788	0	22.738
6400	16	262	6266.151	23.184	0	23.117
6500	16	262	6362.277	23.578	0	23.498
6600	16	262	6458.404	23.975	0	23.88
6700	16	262	6554.53	24.371	0	24.261
6731.9	16	262	6585.222	24.499	0	24.382

6800	14.63	262	6650.873	24.814	0	24.643
6900	12.63	262	6748.048	25.252	0	25.019
7000	10.63	262	6845.987	25.655	0	25.393
7100	8.638	262	6944.57	26.027	0	25.761
7200	6.638	262	7043.678	26.364	0	26.122
7300	4.638	262	7143.189	26.668	0	26.48
7400	2.638	261.9	7242.982	26.936	0	26.832
7500	0.638	261.9	7342.937	27.169	0	27.176
7531.9	0	0	7374.864	27.297	0	27.221
7600	0	0	7442.935	27.523	0	27.446
7700	0	0	7542.935	27.855	0	27.774
7800	0	0	7642.935	28.189	0	28.105
7900	0	0	7742.935	28.524	0	28.434
8000	0	0	7842.935	28.858	0	28.766
8100	0	0	7942.935	29.192	0	29.098
8200	0	0	8042.935	29.53	0	29.43
8300	0	0	8142.935	29.865	0	29.762
8400	0	0	8242.935	30.203	0	30.097
8500	0	0	8342.935	30.539	0	30.43

8600	0	0	8442.935	30.71	0	30.601
8700	0	0	8542.935	30.72	0	30.61
8800	0	0	8642.935	30.734	0	30.625
8900	0	0	8742.935	30.752	0	30.643
9000	0	0	8842.935	30.775	0	30.666
9026	0	0	8869	30.78	0	30.671
9100	5.914	200	8942.804	30.976	0	30.667
9200	13.91	200	9041.23	31.741	0	30.702
9300	21.91	200	9136.304	32.413	0	30.752
9400	29.91	200	9226.176	32.664	0	30.813
9463.5	35	200	9279.794	32.144	0	30.856
9500	37.67	198	9309.141	31.593	0	30.902
9600	45.16	193.7	9384.089	30.314	0	31.152
9700	52.77	190.4	9449.7	29.549	0	31.529
9800	60.45	187.8	9504.697	28.805	0	31.879
9900	68.17	185.5	9548.01	28.196	0	32.208
10000	75.93	183.4	9578.796	27.838	0	32.541
10100	83.7	181.5	9596.455	27.828	0	32.874
10180	90	180	9600.892	27.706	0	33.106
10200	90	180	9600.892	27.74	0	33.121
10300	90	179.9	9600.891	27.887	0	33.264
10400	90	179.9	9600.891	28.059	0	33.398
10500	90	179.9	9600.889	28.252	0	33.548
10600	90	179.9	9600.888	28.464	0	33.711
10700	90	179.9	9600.886	28.697	0	33.888
10800	90	179.9	9600.884	28.95	0	34.079
10900	90	179.9	9600.881	29.222	0	34.284
11000	90	179.9	9600.878	29.511	0	34.487
11100	90	179.9	9600.874	29.818	0	34.718

11200	90	179.9	9600.87	30.143	0	34.948
11300	90	179.9	9600.866	30.484	0	35.19
11400	90	179.9	9600.861	30.842	0	35.459
11500	90	179.9	9600.856	31.215	0	35.726
11600	90	179.8	9600.85	31.604	0	36.008
11700	90	179.8	9600.844	32	0	36.299
11800	90	179.8	9600.838	32.419	0	36.586
11900	90	179.8	9600.831	32.848	0	36.899
12000	90	179.8	9600.823	33.287	0	37.209
12100	90	179.8	9600.816	33.749	0	37.543
12200	90	179.8	9600.808	34.22	0	37.874
12300	90	179.8	9600.799	34.699	0	38.216
12400	90	179.8	9600.79	35.185	0	38.58
12500	90	179.8	9600.781	35.679	0	38.928
12600	90	179.8	9600.771	36.194	0	39.298
12700	90	179.8	9600.761	36.715	0	39.678
12800	90	179.8	9600.75	37.242	0	40.066
12900	90	179.8	9600.739	37.789	0	40.451
13000	90	179.7	9600.728	38.328	0	40.858
13100	90	179.7	9600.716	38.884	0	41.259
13200	90	179.7	9600.704	39.446	0	41.669
13300	90	179.7	9600.691	40.025	0	42.086
13400	90	179.7	9600.678	40.596	0	42.511
13500	90	179.7	9600.665	41.183	0	42.944
13600	90	179.7	9600.651	41.773	0	43.384
13700	90	179.7	9600.637	42.367	0	43.83
13800	90	179.7	9600.622	42.977	0	44.273
13900	90	179.7	9600.607	43.578	0	44.733
14000	90	179.7	9600.591	44.193	0	45.188

14100	90	179.7	9600.575	44.822	0	45.65
14200	90	179.7	9600.559	45.442	0	46.119
14300	90	179.7	9600.542	46.076	0	46.593
14400	90	179.6	9600.525	46.712	0	47.072
14500	90.01	179.6	9600.508	47.349	0	47.558
14600	90.01	179.6	9600.49	47.989	0	48.049
14700	90.01	179.6	9600.471	48.641	0	48.535
14800	90.01	179.6	9600.452	49.284	0	49.037
14900	90.01	179.6	9600.433	49.949	0	49.533
15000	90.01	179.6	9600.414	50.606	0	50.035
15100	90.01	179.6	9600.394	51.263	0	50.541
15200	90.01	179.6	9600.373	51.932	0	51.053
15300	90.01	179.6	9600.352	52.602	0	51.569
15400	90.01	179.6	9600.331	53.272	0	52.089
15500	90.01	179.6	9600.309	53.953	0	52.614
15600	90.01	179.6	9600.287	54.625	0	53.134
15700	90.01	179.6	9600.265	55.308	0	53.667
15800	90.01	179.5	9600.242	55.991	0	54.193
15900	90.01	179.5	9600.218	56.683	0	54.724
16000	90.01	179.5	9600.195	57.367	0	55.26
16100	90.01	179.5	9600.171	58.06	0	55.8
16200	90.01	179.5	9600.146	58.753	0	56.343
16300	90.01	179.5	9600.121	59.455	0	56.89
16400	90.01	179.5	9600.096	60.149	0	57.441
16500	90.01	179.5	9600.07	60.852	0	57.986
16600	90.01	179.5	9600.044	61.554	0	58.543
16700	90.01	179.5	9600.017	62.257	0	59.095
16763	90.01	179.5	9600	62.705	0	59.441

Remuda South 25 State 801H
(Corrected)

	Measured Depth	Grid Northing	Grid Easting	TVD MSL	Target Shape
Target Name	(ft)	(ft)	(ft)	(ft)	
FTP 15	10012.13	463928.01	620304.9	6505	CIRCLE
LTP 10	16632.88	456610.32	620335.46	6505	CIRCLE
BHL 15	16763.11	456480.09	620336.24	6505	CIRCLE

Turn	Dogleg	
Rate	Rate	
(Deg/100ft)	(Deg/100ft)	Target
0	0	
0	0	
0	2	
-3.92	2	
0	0	
0	2	

0	0
0	8
-2.79	8
-0.01	0.01 BHL 15

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	OWSG 0 MWD+IFR1+ MS
0	2.299	0	0	0.358	0.358	OWSG 0 MWD+IFR1+ MS
0	2.307	0	0	0.717	0.717	OWSG 0 MWD+IFR1+ MS
0	2.321	0	0	1.075	1.075	OWSG 0 MWD+IFR1+ MS
0	2.34	0	0	1.434	1.434	OWSG 0 MWD+IFR1+ MS
0	2.364	0	0	1.792	1.792	OWSG 0 MWD+IFR1+ MS
0	2.393	0	0	2.151	2.151	OWSG 0 MWD+IFR1+ MS
0	2.428	0	0	2.509	2.509	OWSG 0 MWD+IFR1+ MS
0	2.467	0	0	2.868	2.868	OWSG 0 MWD+IFR1+ MS
0	2.511	0	0	3.225	3.225	OWSG 0 MWD+IFR1+ MS
0	2.559	0	0	3.585	3.585	OWSG 0 MWD+IFR1+ MS
0	2.613	0	0	3.942	3.942	OWSG 0 MWD+IFR1+ MS
0	2.67	0	0	4.301	4.301	OWSG 0 MWD+IFR1+ MS

						OWSG
0	2.731	0	0	4.659	4.659	0 MWD+IFR1+ MS
						OWSG
0	2.797	0	0	5.018	5.018	0 MWD+IFR1+ MS
						OWSG
0	2.866	0	0	5.377	5.377	0 MWD+IFR1+ MS
						OWSG
0	2.939	0	0	5.735	5.735	0 MWD+IFR1+ MS
						OWSG
0	3.015	0	0	6.093	6.093	0 MWD+IFR1+ MS
						OWSG
0	3.095	0	0	6.452	6.452	0 MWD+IFR1+ MS
						OWSG
0	3.178	0	0	6.81	6.81	0 MWD+IFR1+ MS
						OWSG
0	3.265	0	0	7.169	7.169	0 MWD+IFR1+ MS
						OWSG
0	3.354	0	0	7.527	7.527	0 MWD+IFR1+ MS
						OWSG
0	3.447	0	0	7.886	7.886	0 MWD+IFR1+ MS
						OWSG
0	3.544	0	0	8.244	8.244	0 MWD+IFR1+ MS
						OWSG
0	3.643	0	0	8.603	8.603	0 MWD+IFR1+ MS
						OWSG
0	3.743	0	0	8.953	8.953	0 MWD+IFR1+ MS
						OWSG
0	3.846	0	0	9.296	9.295	0 MWD+IFR1+ MS
						OWSG
0	3.95	0	0	9.64	9.637	0 MWD+IFR1+ MS
						OWSG
0	4.056	0	0	9.984	9.979	-3.384 MWD+IFR1+ MS
						OWSG
0	4.163	0	0	10.325	10.32	-7.024 MWD+IFR1+ MS
						OWSG
0	4.273	0	0	10.668	10.663	-15.6 MWD+IFR1+ MS
						OWSG
0	4.386	0	0	11.01	11.003	-23.928 MWD+IFR1+ MS

							OWSG
0	4.502	0	0	11.351	11.343	118.162	MWD+IFR1+ MS
							OWSG
0	4.537	0	0	11.458	11.45	135	MWD+IFR1+ MS
							OWSG
0	4.624	0	0	11.694	11.686	119.783	MWD+IFR1+ MS
							OWSG
0	4.758	0	0	12.038	12.024	102.998	MWD+IFR1+ MS
							OWSG
0	4.896	0	0	12.386	12.369	98.904	MWD+IFR1+ MS
							OWSG
0	5.038	0	0	12.736	12.712	95.508	MWD+IFR1+ MS
							OWSG
0	5.185	0	0	13.092	13.061	93.96	MWD+IFR1+ MS
							OWSG
0	5.335	0	0	13.446	13.413	93.546	MWD+IFR1+ MS
							OWSG
0	5.488	0	0	13.806	13.766	93.085	MWD+IFR1+ MS
							OWSG
0	5.644	0	0	14.163	14.121	93.141	MWD+IFR1+ MS
							OWSG
0	5.805	0	0	14.526	14.477	93.092	MWD+IFR1+ MS
							OWSG
0	5.968	0	0	14.89	14.839	93.377	MWD+IFR1+ MS
							OWSG
0	6.135	0	0	15.255	15.198	93.518	MWD+IFR1+ MS
							OWSG
0	6.305	0	0	15.621	15.563	93.935	MWD+IFR1+ MS
							OWSG
0	6.478	0	0	15.988	15.924	94.181	MWD+IFR1+ MS
							OWSG
0	6.653	0	0	16.356	16.291	94.678	MWD+IFR1+ MS
							OWSG
0	6.832	0	0	16.725	16.658	95.21	MWD+IFR1+ MS
							OWSG
0	7.013	0	0	17.097	17.026	95.538	MWD+IFR1+ MS
							OWSG
0	7.197	0	0	17.468	17.397	96.358	MWD+IFR1+ MS

						OWSG
0	7.383	0	0	17.842	17.767	96.71 MWD+IFR1+ MS
						OWSG
0	7.572	0	0	18.214	18.137	97.325 MWD+IFR1+ MS
						OWSG
0	7.764	0	0	18.589	18.511	97.956 MWD+IFR1+ MS
						OWSG
0	7.959	0	0	18.965	18.885	98.599 MWD+IFR1+ MS
						OWSG
0	8.156	0	0	19.341	19.259	99.25 MWD+IFR1+ MS
						OWSG
0	8.355	0	0	19.718	19.634	99.909 MWD+IFR1+ MS
						OWSG
0	8.557	0	0	20.095	20.01	100.574 MWD+IFR1+ MS
						OWSG
0	8.762	0	0	20.473	20.388	101.554 MWD+IFR1+ MS
						OWSG
0	8.969	0	0	20.851	20.764	102.225 MWD+IFR1+ MS
						OWSG
0	9.178	0	0	21.23	21.143	103.231 MWD+IFR1+ MS
						OWSG
0	9.39	0	0	21.611	21.522	103.896 MWD+IFR1+ MS
						OWSG
0	9.604	0	0	21.99	21.901	104.911 MWD+IFR1+ MS
						OWSG
0	9.821	0	0	22.372	22.28	105.554 MWD+IFR1+ MS
						OWSG
0	10.04	0	0	22.754	22.66	106.196 MWD+IFR1+ MS
						OWSG
0	10.257	0	0	23.134	23.041	107.573 MWD+IFR1+ MS
						OWSG
0	10.483	0	0	23.517	23.421	108.189 MWD+IFR1+ MS
						OWSG
0	10.71	0	0	23.9	23.803	109.164 MWD+IFR1+ MS
						OWSG
0	10.936	0	0	24.283	24.186	110.136 MWD+IFR1+ MS
						OWSG
0	11.014	0	0	24.405	24.309	110.848 MWD+IFR1+ MS

							OWSG
0	11.171	0	0	24.666	24.568	111.055	MWD+IFR1+ MS
							OWSG
0	11.402	0	0	25.044	24.946	112.294	MWD+IFR1+ MS
							OWSG
0	11.632	0	0	25.42	25.319	112.666	MWD+IFR1+ MS
							OWSG
0	11.857	0	0	25.788	25.688	113.752	MWD+IFR1+ MS
							OWSG
0	12.083	0	0	26.151	26.05	114.336	MWD+IFR1+ MS
							OWSG
0	12.304	0	0	26.509	26.407	114.785	MWD+IFR1+ MS
							OWSG
0	12.526	0	0	26.862	26.757	114.297	MWD+IFR1+ MS
							OWSG
0	12.748	0	0	27.205	27.099	113.682	MWD+IFR1+ MS
							OWSG
0	12.818	0	0	27.313	27.205	112.934	MWD+IFR1+ MS
							OWSG
0	12.965	0	0	27.538	27.431	112.411	MWD+IFR1+ MS
							OWSG
0	13.187	0	0	27.869	27.76	111.155	MWD+IFR1+ MS
							OWSG
0	13.413	0	0	28.202	28.092	110.271	MWD+IFR1+ MS
							OWSG
0	13.642	0	0	28.535	28.422	108.858	MWD+IFR1+ MS
							OWSG
0	13.874	0	0	28.869	28.755	108.061	MWD+IFR1+ MS
							OWSG
0	14.107	0	0	29.203	29.088	107.292	MWD+IFR1+ MS
							OWSG
0	14.346	0	0	29.539	29.42	106.102	MWD+IFR1+ MS
							OWSG
0	14.588	0	0	29.873	29.754	105.413	MWD+IFR1+ MS
							OWSG
0	14.832	0	0	30.21	30.089	104.556	MWD+IFR1+ MS
							OWSG
0	15.08	0	0	30.546	30.423	103.921	MWD+IFR1+ MS

0	15.44	0	0	30.717	30.593	104.224	MWD+IFR1+ MS
0	15.694	0	0	30.73	30.6	106.503	MWD+IFR1+ MS
0	15.953	0	0	30.748	30.611	108.574	MWD+IFR1+ MS
0	16.211	0	0	30.77	30.625	110.436	MWD+IFR1+ MS
0	16.474	0	0	30.796	30.644	112.11	MWD+IFR1+ MS
0	16.544	0	0	30.801	30.649	112.154	MWD+IFR1+ MS
0	16.742	0	0	30.916	30.666	112.115	MWD+IFR1+ MS
0	17.065	0	0	31.941	30.698	113.363	MWD+IFR1+ MS
0	17.544	0	0	33.188	30.744	113.288	MWD+IFR1+ MS
0	18.229	0	0	34.267	30.801	113.278	MWD+IFR1+ MS
0	18.531	0	0	34.545	30.844	113.13	MWD+IFR1+ MS
0	18.625	0	0	34.588	30.872	113.066	MWD+IFR1+ MS
0	19.241	0	0	34.938	31.005	114.524	MWD+IFR1+ MS
0	20.506	0	0	35.551	31.163	116.639	MWD+IFR1+ MS
0	21.95	0	0	36.006	31.298	117.694	MWD+IFR1+ MS
0	23.518	0	0	36.308	31.428	118.299	MWD+IFR1+ MS
0	25.154	0	0	36.492	31.58	118.816	MWD+IFR1+ MS
0	26.801	0	0	36.585	31.757	119.393	MWD+IFR1+ MS
0	27.706	0	0	36.593	31.89	119.695	MWD+IFR1+ MS
0	27.74	0	0	36.587	31.912	119.699	MWD+IFR1+ MS
0	27.887	0	0	36.585	32.071	119.997	MWD+IFR1+ MS
0	28.059	0	0	36.584	32.228	120.315	MWD+IFR1+ MS
0	28.252	0	0	36.575	32.393	120.82	MWD+IFR1+ MS
0	28.464	0	0	36.581	32.57	121.376	MWD+IFR1+ MS
0	28.697	0	0	36.593	32.757	122.074	MWD+IFR1+ MS
0	28.95	0	0	36.608	32.953	122.927	MWD+IFR1+ MS
0	29.222	0	0	36.639	33.159	123.872	MWD+IFR1+ MS
0	29.511	0	0	36.664	33.358	125.023	MWD+IFR1+ MS
0	29.818	0	0	36.701	33.571	126.541	MWD+IFR1+ MS

0	30.143	0	0	36.741	33.78	128.215	MWD+IFR1+ MS
0	30.484	0	0	36.803	33.994	130.078	MWD+IFR1+ MS
0	30.842	0	0	36.874	34.21	132.577	MWD+IFR1+ MS
0	31.215	0	0	36.963	34.42	-44.842	MWD+IFR1+ MS
0	31.604	0	0	37.069	34.624	-41.889	MWD+IFR1+ MS
0	32	0	0	37.192	34.81	-38.429	MWD+IFR1+ MS
0	32.419	0	0	37.336	34.986	-35.027	MWD+IFR1+ MS
0	32.848	0	0	37.516	35.151	-31.315	MWD+IFR1+ MS
0	33.287	0	0	37.713	35.295	-27.741	MWD+IFR1+ MS
0	33.749	0	0	37.947	35.426	-24.163	MWD+IFR1+ MS
0	34.22	0	0	38.198	35.538	-20.952	MWD+IFR1+ MS
0	34.699	0	0	38.473	35.635	-18.036	MWD+IFR1+ MS
0	35.185	0	0	38.782	35.721	-15.381	MWD+IFR1+ MS
0	35.679	0	0	39.087	35.794	-13.179	MWD+IFR1+ MS
0	36.194	0	0	39.423	35.859	-11.212	MWD+IFR1+ MS
0	36.715	0	0	39.774	35.93	-9.546	MWD+IFR1+ MS
0	37.242	0	0	40.14	35.983	-8.076	MWD+IFR1+ MS
0	37.789	0	0	40.507	36.044	-6.847	MWD+IFR1+ MS
0	38.328	0	0	40.899	36.087	-5.744	MWD+IFR1+ MS
0	38.884	0	0	41.289	36.141	-4.813	MWD+IFR1+ MS
0	39.446	0	0	41.69	36.193	-3.998	MWD+IFR1+ MS
0	40.025	0	0	42.101	36.228	-3.274	MWD+IFR1+ MS
0	40.596	0	0	42.521	36.276	-2.646	MWD+IFR1+ MS
0	41.183	0	0	42.95	36.322	-2.091	MWD+IFR1+ MS
0	41.773	0	0	43.387	36.367	-1.599	MWD+IFR1+ MS
0	42.367	0	0	43.832	36.411	-1.165	MWD+IFR1+ MS
0	42.977	0	0	44.273	36.454	-0.779	MWD+IFR1+ MS
0	43.578	0	0	44.733	36.496	-0.434	MWD+IFR1+ MS
0	44.193	0	0	45.189	36.551	-0.127	MWD+IFR1+ MS

0	44.822	0	0	45.651	36.592	0.149	MWD+IFR1+ MS
0	45.442	0	0	46.12	36.633	0.396	MWD+IFR1+ MS
0	46.076	0	0	46.595	36.687	0.619	MWD+IFR1+ MS
0	46.712	0	0	47.076	36.726	0.819	MWD+IFR1+ MS
0	47.35	0	0	47.563	36.779	1	MWD+IFR1+ MS
0	47.99	0	0	48.056	36.819	1.162	MWD+IFR1+ MS
0	48.642	0	0	48.544	36.871	1.31	MWD+IFR1+ MS
0	49.285	0	0	49.048	36.923	1.443	MWD+IFR1+ MS
0	49.95	0	0	49.546	36.976	1.565	MWD+IFR1+ MS
0	50.606	0	0	50.05	37.027	1.674	MWD+IFR1+ MS
0	51.264	0	0	50.558	37.079	1.774	MWD+IFR1+ MS
0	51.933	0	0	51.072	37.131	1.864	MWD+IFR1+ MS
0	52.602	0	0	51.589	37.182	1.945	MWD+IFR1+ MS
0	53.273	0	0	52.112	37.234	2.018	MWD+IFR1+ MS
0	53.954	0	0	52.639	37.285	2.084	MWD+IFR1+ MS
0	54.626	0	0	53.16	37.336	2.145	MWD+IFR1+ MS
0	55.308	0	0	53.695	37.401	2.2	MWD+IFR1+ MS
0	55.991	0	0	54.225	37.452	2.25	MWD+IFR1+ MS
0	56.683	0	0	54.759	37.516	2.296	MWD+IFR1+ MS
0	57.367	0	0	55.297	37.567	2.335	MWD+IFR1+ MS
0	58.06	0	0	55.838	37.631	2.372	MWD+IFR1+ MS
0	58.754	0	0	56.383	37.695	2.405	MWD+IFR1+ MS
0	59.456	0	0	56.932	37.746	2.432	MWD+IFR1+ MS
0	60.15	0	0	57.484	37.809	2.458	MWD+IFR1+ MS
0	60.852	0	0	58.031	37.873	2.482	MWD+IFR1+ MS
0	61.555	0	0	58.59	37.937	2.502	MWD+IFR1+ MS
0	62.258	0	0	59.144	38	2.519	MWD+IFR1+ MS
0	62.706	0	0	59.49	38.038	2.53	MWD+IFR1+ MS

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-9720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, 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-	² Pool Code 96526	³ Pool Name Forty-Niner Ridge; Bone Spring
⁴ Property Code	⁵ Property Name REMUDA SOUTH 25 STATE	⁶ Well Number 801H
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	1,949	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
M	36	23 S	29 E		200	NORTH	660	WEST	EDDY

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

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<p>SEC. 26</p> <p>SEC. 25 T23S R29E</p> <p>GRID AZ.=268°00'19" HORIZ. DIST.=1,289.75'</p> <p>1,949'</p> <p>660'</p> <p>A</p> <p>E</p> <p>F.T.P.</p> <p>S.H.L.</p> <p>2,325'</p> <p>2,369'</p> <p>B</p> <p>F</p> <p>SEC. 35</p> <p>330'</p> <p>C</p> <p>G</p> <p>SEC. 36</p> <p>GRID AZ.=179°46'04" HORIZ. DIST.=7,448.39'</p> <p>L.T.P.</p> <p>660'</p> <p>660'</p> <p>D</p> <p>H</p> <p>SEC. 1 T24S R29E</p> <p>200'</p> <p>330'</p> <p>B.H.L.</p>	<p>SHL (NAD83 NME)</p> <p>Y = 464,036.1 X = 662,765.8 LAT. = 32.275099 °N LONG. = 103.940438 °W</p> <p>FTP (NAD83 NME)</p> <p>Y = 463,991.2 X = 661,476.8 LAT. = 32.274988 °N LONG. = 103.944609 °W</p> <p>LTP (NAD83 NME)</p> <p>Y = 456,672.9 X = 661,506.2 LAT. = 32.254871 °N LONG. = 103.944599 °W</p> <p>BHL (NAD83 NME)</p> <p>Y = 456,542.9 X = 661,507.0 LAT. = 32.254514 °N LONG. = 103.944598 °W</p> <p>CORNER COORDINATES (NAD83 NME)</p> <p>A - Y = 464,320.4 N , X = 660,816.8 E B - Y = 461,665.9 N , X = 660,817.1 E C - Y = 459,002.1 N , X = 660,832.0 E D - Y = 456,341.5 N , X = 660,848.3 E E - Y = 464,319.7 N , X = 662,143.0 E F - Y = 461,666.6 N , X = 662,145.6 E G - Y = 459,004.0 N , X = 662,159.8 E H - Y = 456,344.3 N , X = 662,174.7 E</p> <p>SHL (NAD27 NME)</p> <p>Y = 463,976.2 X = 621,583.0 LAT. = 32.274975 °N LONG. = 103.939946 °W</p> <p>FTP (NAD27 NME)</p> <p>Y = 463,931.3 X = 620,294.0 LAT. = 32.274864 °N LONG. = 103.944117 °W</p> <p>LTP (NAD27 NME)</p> <p>Y = 456,613.2 X = 620,323.2 LAT. = 32.254747 °N LONG. = 103.944109 °W</p> <p>BHL (NAD27 NME)</p> <p>Y = 456,483.2 X = 620,324.0 LAT. = 32.254390 °N LONG. = 103.944108 °W</p> <p>CORNER COORDINATES (NAD27 NME)</p> <p>A - Y = 464,260.5 N , X = 619,634.0 E B - Y = 461,606.0 N , X = 619,634.3 E C - Y = 458,942.4 N , X = 619,649.0 E D - Y = 456,281.8 N , X = 619,665.2 E E - Y = 464,259.9 N , X = 620,960.2 E F - Y = 461,606.7 N , X = 620,962.7 E G - Y = 458,944.3 N , X = 620,976.8 E H - Y = 456,284.6 N , X = 620,991.6 E</p>	<p>¹⁷ OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Cassie Evans</i> 02/07/2022 Signature Date</p> <p>Cassie Evans Printed Name</p> <p>cassie.evans@exxonmobil.com E-mail Address</p> <p>¹⁸ SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>1-31-2022 Date of Survey</p> <p>Signature and Seal of Professional Surveyor:</p> <p><i>Mark Dillon Harp</i></p> <p>MARK DILLON HARP 23786 Certificate Number LM 2021101478</p>
--	---	---

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.

Cement Variance Request

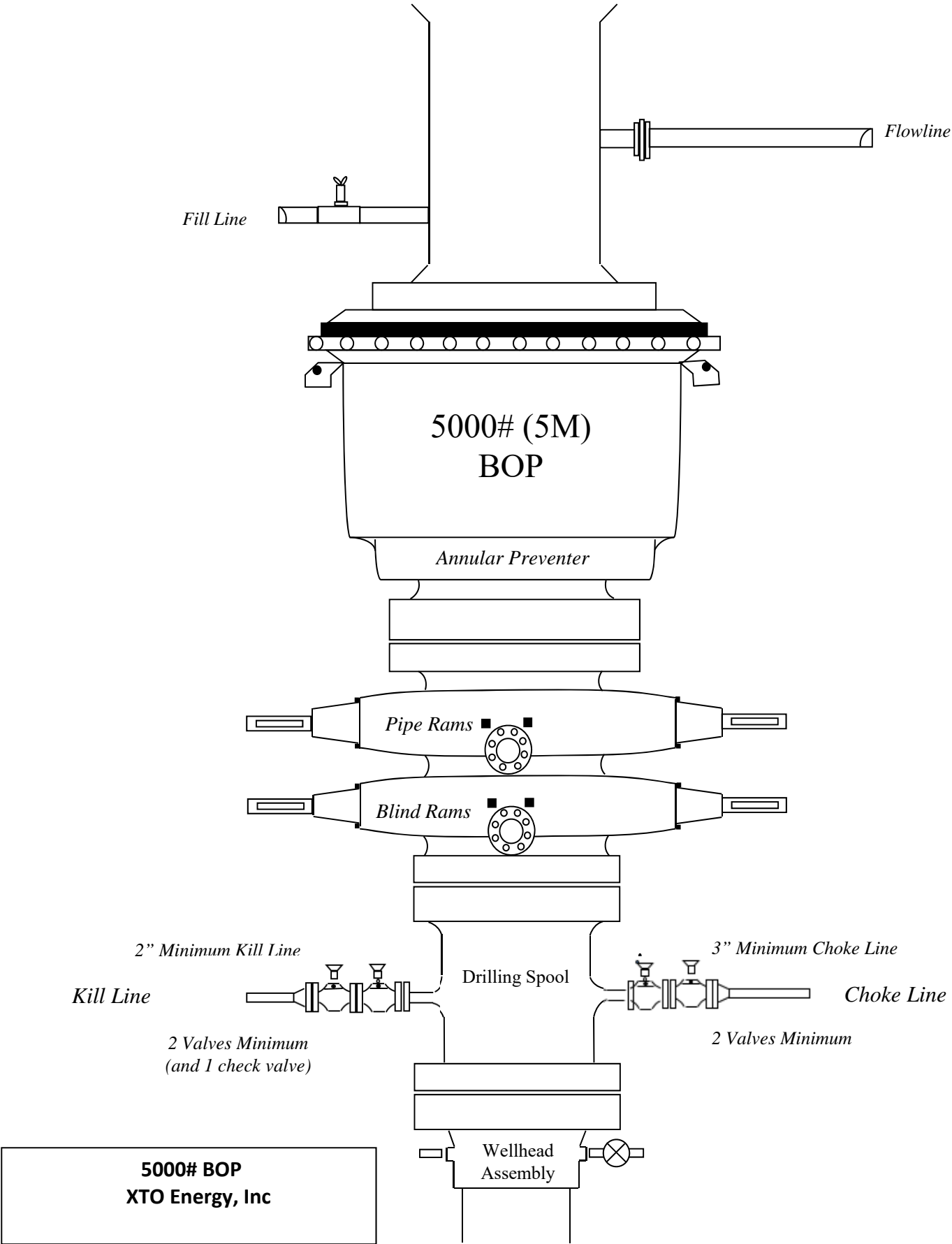
XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (5733') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. 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.

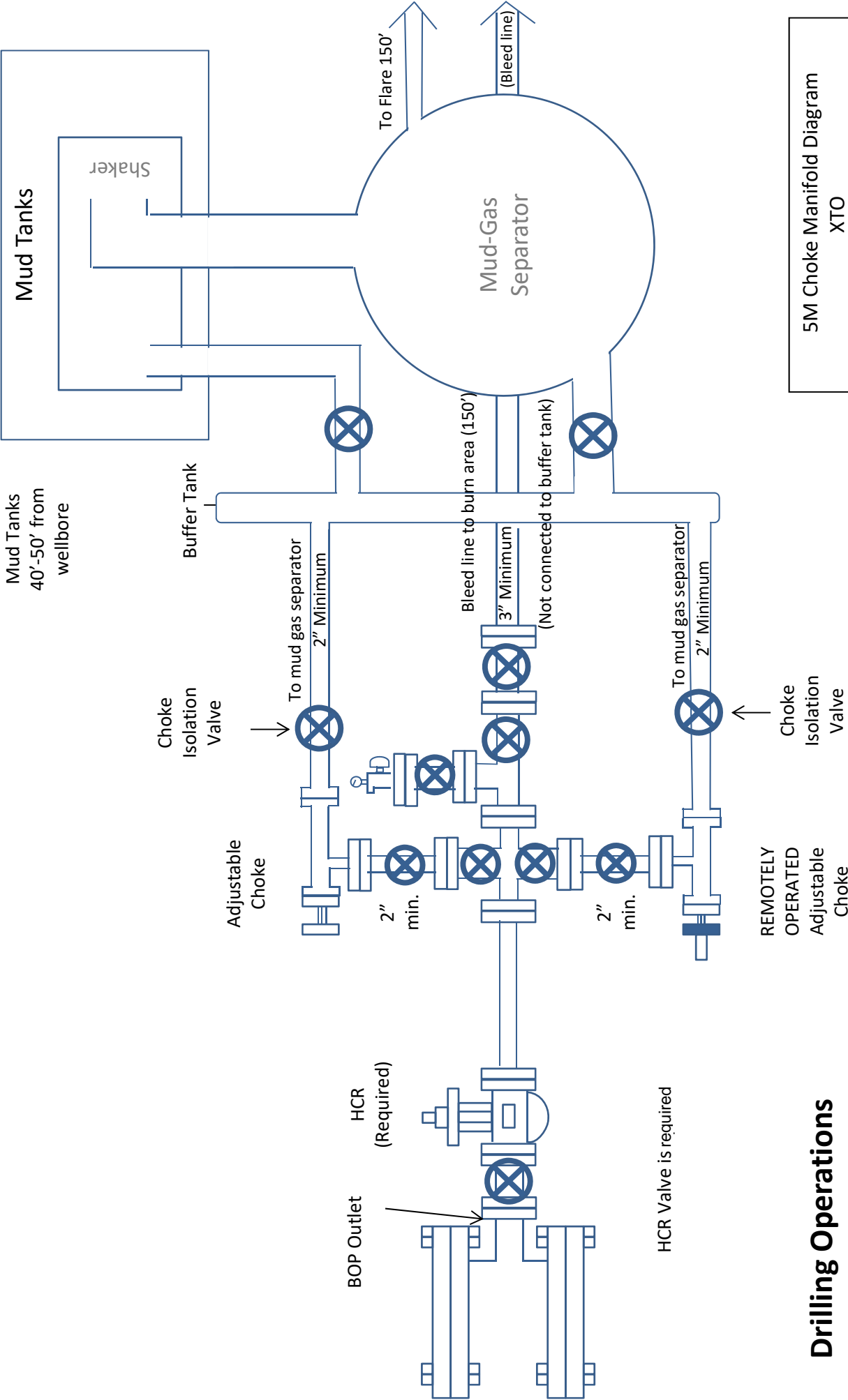
XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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.





**Drilling Operations
Choke Manifold
5M Service**

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.



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	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

HOSPITALS:

	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

AGENT NOTIFICATIONS:**For Lea County:**

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283