

**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 296989

**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 30-015-48539
4. Property Code 317788	5. Property Name REMUDA SOUTH 25 STATE	6. Well No. 705H

**7. Surface Location**

UL - Lot H	Section 25	Township 23S	Range 29E	Lot Idn H	Feet From 2385	N/S Line N	Feet From 750	E/W Line E	County Eddy
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**8. Proposed Bottom Hole Location**

UL - Lot O	Section 36	Township 23S	Range 29E	Lot Idn O	Feet From 200	N/S Line S	Feet From 1970	E/W Line E	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 3096
16. Multiple N	17. Proposed Depth 16646	18. Formation Bone Spring	19. Contractor	20. Spud Date 9/23/2021
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	319	320	0
Int1	12.25	9.625	40	3219	1440	0
Int2	8.75	7.625	29.7	7700	630	0
Prod	6.75	5	18	16646	820	7200

**Casing/Cement Program: Additional Comments**

The well will include a tapered string. See attached drilling program for additional casing/cmt information associated with the well.

**22. Proposed Blowout Prevention Program**

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	Cameron

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. <b>I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable.</b>  Signature:	<b>OIL CONSERVATION DIVISION</b>
Printed Name: Electronically filed by Tiffany Yancey	Approved By: Kurt Simmons
Title: Production Analyst	Title: Petroleum Specialist - A
Email Address: tiffany.yancey@exxonmobil.com	Approved Date: 6/21/2021
Date: 6/15/2021	Expiration Date: 6/21/2023
Phone: 432-215-8939	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

<sup>1</sup> API Number 30-015-	<sup>2</sup> Pool Code 96526	<sup>3</sup> Pool Name Forty-Niner Ridge; Bone Spring, West
<sup>4</sup> Property Code	<sup>5</sup> Property Name REMUDA SOUTH 25 STATE	
<sup>7</sup> OGRID No. 005380	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>6</sup> Well Number 705H
		<sup>9</sup> Elevation 3,096'

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	25	23 S	29 E		2,385	NORTH	750	EAST	EDDY

<sup>11</sup> 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
O	36	23 S	29 E		200	SOUTH	1,970	EAST	EDDY

<sup>12</sup> Dedicated Acres 240	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.

**SHL (NAD83 NME)**  
Y = 464,594.3  
X = 665,368.3  
LAT. = 32.276607 °N  
LONG. = 103.932010 °W

**FTP (NAD83 NME)**  
Y = 463,992.9  
X = 664,150.7  
LAT. = 32.274966 °N  
LONG. = 103.935957 °W

**CORNER COORDINATES (NAD83 NME)**

A - Y = 464,319.1 N	X = 663,469.2 E
B - Y = 461,667.3 N	X = 663,474.1 E
C - Y = 459,005.9 N	X = 663,487.6 E
D - Y = 456,347.1 N	X = 663,501.0 E
E - Y = 464,318.4 N	X = 664,794.2 E
F - Y = 461,668.6 N	X = 664,802.5 E
G - Y = 459,007.8 N	X = 664,815.8 E
H - Y = 456,350.0 N	X = 664,827.9 E

**SHL (NAD27 NME)**  
Y = 464,534.4  
X = 624,185.5  
LAT. = 32.276483 °N  
LONG. = 103.931519 °W

**FTP (NAD27 NME)**  
Y = 463,933.1  
X = 622,967.8  
LAT. = 32.274842 °N  
LONG. = 103.935466 °W

**CORNER COORDINATES (NAD27 NME)**

A - Y = 464,259.2 N	X = 622,286.4 E
B - Y = 461,607.4 N	X = 622,291.2 E
C - Y = 458,946.2 N	X = 622,304.6 E
D - Y = 456,287.4 N	X = 622,318.0 E
E - Y = 464,258.5 N	X = 623,611.4 E
F - Y = 461,608.8 N	X = 623,619.6 E
G - Y = 458,948.0 N	X = 623,632.8 E
H - Y = 456,290.3 N	X = 623,644.8 E

**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.*

*Cassie Evans*      06/05/21  
Signature      Date

Cassie Evans  
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.*

05-20-2021  
Date of Survey

Signature and Seal of Professional Surveyor:  
*[Signature]*

MARK DILLON HARP 23786  
Certificate Number

LM      2020010068

Intent  As Drilled

API #

Operator Name:	Property Name:	Well Number
<input type="text"/>	<input type="text"/>	<input type="text"/>

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

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

Is this well an infill well?

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

API #

Operator Name:	Property Name:	Well Number
<input type="text"/>	<input type="text"/>	<input type="text"/>

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Form APD Comments

Permit 296989

**PERMIT COMMENTS**

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-48539
	Well: REMUDA SOUTH 25 STATE #705H

Created By	Comment	Comment Date
cevans	The well will include a tapered string. See attached drilling program for additional casing/cmt information associated with the well.	6/7/2021
kpickford	This APD has been rejected due to being an incomplete submission. The submission is missing the "Natural Gas Management Plan" which has replaced the "Gas Capture Plan". See OCD Notice "Waste Rule C129 NGMP Final Forms" dated May 21, 2021 for further details.	6/10/2021
kpickford	This APD has been rejected due to being an incomplete submission. The submission is missing the "Natural Gas Management Plan" which has replaced the "Gas Capture Plan". See OCD Notice "Waste Rule C129 NGMP Final Forms" dated May 21, 2021 for further details.	6/10/2021

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Form APD Conditions

Permit 296989

**PERMIT CONDITIONS OF APPROVAL**

Operator Name and Address: XTO ENERGY, INC [5380] 6401 Holiday Hill Road Midland, TX 79707	API Number: 30-015-48539
	Well: REMUDA SOUTH 25 STATE #705H

OCD Reviewer	Condition
ksimmons	Notify OCD 24 hours prior to casing & cement
ksimmons	Will require a File As Drilled C-102 and a Directional Survey with the C-104
ksimmons	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
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

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

XTO Energy Inc.  
Remuda South 25 State 705H  
Projected TD: 16646' MD / 8971' TVD  
SHL: 2385' FNL & 750' FEL , Section 25, T23S, R29E  
BHL: 200' FSL & 1970' FEL , 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	69'	Water
Salado	269'	Water
Top of Salt	550'	Water
Base of Salt	3119'	Water
Delaware	3336'	Water
Brushy Canyon	5778'	Water/Oil/Gas
Bone Spring	7048'	Water
1st Bone Spring Ss	8095'	Water/Oil/Gas
2nd Bone Spring Ss	8936'	Water/Oil/Gas
Target/Land Curve	8976'	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 @ 319' (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 3219' 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 7700' and cemented to 200' inside the previous casing string. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 16646 MD/TD and 5.5 x 5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 7200 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' – 319'	13.375	54.5	J-55	BTC	New	2.84	8.11	49.06
12.25	0' – 3219'	9.625	40	J-55	BTC	New	1.91	2.62	4.89
8.75	0' – 3319'	7.625	29.7	RY P-110	Flush Joint	New	3.51	3.30	2.44
8.75	3319' – 7700'	7.625	29.7	HC L-80	Flush Joint	New	2.55	2.75	3.12
6.75	0' – 7600'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.81	2.71
6.75	7600' - 8800'	5.5	23	RY P-110	Semi-Flush	New	1.21	3.18	7.16
6.75	8800' - 16646'	5	18	RY P-110	Semi-Premium	New	1.16	2.89	10.17

· 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" SOW 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 BLM 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 +/- 319'**

Tail: 320 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 Top of Cement: Surface  
 Compressives: 12-hr = 250 psi 24 hr = 500 psi

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.

##### **1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3219'**

Lead: 1310 sxs Class C (mixed at 12.9 ppg, 1.39 ft<sup>3</sup>/sx, 10.13 gal/sx water)  
 Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/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 +/- 7700'**

###### 1st Stage

Optional Lead: 160 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)  
 TOC: 2719  
 Tail: 170 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 TOC: Brushy Canyon @ 5778  
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

###### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft<sup>3</sup>/sx, 9.61 gal/sx water)  
 Tail: 300 sxs Class C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/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 (5778') 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 inside the first intermediate casing. If cement reaches the desired height, the BLM 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 BLM 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, 18 New Semi-Premium, RY P-110 casing to be set at +/- 16646'**

Lead: 50 sxs Class C (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 7200 feet  
 Tail: 770 sxs Class C (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 8584 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 2693 psi. In any instance where 10M BOP is required by BLM, 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 BLM 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 BLM 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 BLM 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' - 319'	17.5	FW/Native	8.4-8.9	35-40	NC
319' - 3219'	12.25	Brine	10-10.5	30-32	NC
3219' to 7700'	8.75	FW / Cut Brine	9.4-9.9	30-32	NC
7700' to 16646'	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 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 4668 psi.

## 10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 20 days.

**Well Plan Report - Remuda 705H**

Measured Depth: 16645.68 ft

TVD RKB: 8971.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 464534.40 ft

Easting: 624185.50 ft

RKB: 3126.00 ft

Ground Level: 3096.00 ft

Reference: Grid

Convergence Angle: 0.21 Deg

Site: Remuda S-25 State 705H-709H

Slot: Remuda 705H

Plan Sections									
Remuda 705H									
Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0	0	0	0	0	0	0	0	0	0
3500	0	0	3500	0	0	0	0	0	0
4189.44	13.79	255.74	4182.8	-20.34	-80.02	2	0	2	
8584.06	13.79	255.74	8450.78	-278.34	-1095.17	0	0	0	
9451.4	90.04	179.74	8976	-851.3	-1217.7	8.79	-8.76	10	FTP 1
16645.68	90.04	179.74	8971	-8045.5	-1184.6	0	0	0	BHL 1

Position Uncertainty													
Remuda 705H													
Measured Depth (ft)	Inclination (°)	Azimuth (°)	TVD RKB (ft)	Highside Error (ft)	Lateral Bias (ft)	Lateral Error (ft)	Vertical Bias (ft)	Vertical Error (ft)	Magnitude of Bias (ft)	Semi-major Error (ft)	Semi-minor Error (ft)	Semi-minor Azimuth (°)	Tool Used
0	0	0	0	0	0	0	0	2.297	0	0	0	0	0 MWD+IFR1+MS
100	0	0	100	0.468	0	0.468	0	2.299	0	0.556	0.358	135	135 MWD+IFR1+MS
200	0	0	200	0.983	0	0.983	0	2.307	0	1.191	0.717	135	135 MWD+IFR1+MS
300	0	0	300	1.403	0	1.403	0	2.321	0	1.668	1.075	135	135 MWD+IFR1+MS
400	0	0	400	1.797	0	1.797	0	2.34	0	2.099	1.434	135	135 MWD+IFR1+MS
500	0	0	500	2.179	0	2.179	0	2.364	0	2.507	1.792	135	135 MWD+IFR1+MS
600	0	0	600	2.554	0	2.554	0	2.394	0	2.902	2.151	135	135 MWD+IFR1+MS
700	0	0	700	2.925	0	2.925	0	2.428	0	3.289	2.509	135	135 MWD+IFR1+MS
800	0	0	800	3.293	0	3.293	0	2.467	0	3.669	2.868	135	135 MWD+IFR1+MS
900	0	0	900	3.659	0	3.659	0	2.511	0	4.046	3.226	135	135 MWD+IFR1+MS
1000	0	0	1000	4.024	0	4.024	0	2.56	0	4.42	3.585	135	135 MWD+IFR1+MS
1100	0	0	1100	4.388	0	4.388	0	2.613	0	4.791	3.943	135	135 MWD+IFR1+MS
1200	0	0	1200	4.751	0	4.751	0	2.67	0	5.161	4.302	135	135 MWD+IFR1+MS
1300	0	0	1300	5.113	0	5.113	0	2.731	0	5.529	4.66	135	135 MWD+IFR1+MS
1400	0	0	1400	5.475	0	5.475	0	2.797	0	5.896	5.019	135	135 MWD+IFR1+MS

1500	0	0	1500	5.836	0	5.836	0	2.866	0	0	6.262	5.377	135	MWD+IFR1+MS
1600	0	0	1600	6.197	0	6.197	0	2.939	0	0	6.627	5.736	135	MWD+IFR1+MS
1700	0	0	1700	6.558	0	6.558	0	3.016	0	0	6.992	6.094	135	MWD+IFR1+MS
1800	0	0	1800	6.919	0	6.919	0	3.096	0	0	7.356	6.452	135	MWD+IFR1+MS
1900	0	0	1900	7.279	0	7.279	0	3.179	0	0	7.719	6.811	135	MWD+IFR1+MS
2000	0	0	2000	7.639	0	7.639	0	3.266	0	0	8.082	7.169	135	MWD+IFR1+MS
2100	0	0	2100	7.999	0	7.999	0	3.355	0	0	8.444	7.528	135	MWD+IFR1+MS
2200	0	0	2200	8.359	0	8.359	0	3.448	0	0	8.807	7.886	135	MWD+IFR1+MS
2300	0	0	2300	8.719	0	8.719	0	3.544	0	0	9.169	8.245	135	MWD+IFR1+MS
2400	0	0	2400	9.079	0	9.079	0	3.643	0	0	9.53	8.603	135	MWD+IFR1+MS
2500	0	0	2500	9.438	0	9.438	0	3.745	0	0	9.892	8.962	135	MWD+IFR1+MS
2600	0	0	2600	9.798	0	9.798	0	3.849	0	0	10.253	9.32	135	MWD+IFR1+MS
2700	0	0	2700	10.157	0	10.157	0	3.956	0	0	10.614	9.679	135	MWD+IFR1+MS
2800	0	0	2800	10.516	0	10.516	0	4.066	0	0	10.975	10.037	135	MWD+IFR1+MS
2900	0	0	2900	10.876	0	10.876	0	4.179	0	0	11.335	10.396	135	MWD+IFR1+MS
3000	0	0	3000	11.235	0	11.235	0	4.295	0	0	11.696	10.754	135	MWD+IFR1+MS
3100	0	0	3100	11.594	0	11.594	0	4.413	0	0	12.056	11.113	135	MWD+IFR1+MS
3200	0	0	3200	11.953	0	11.953	0	4.534	0	0	12.417	11.471	135	MWD+IFR1+MS
3300	0	0	3300	12.312	0	12.312	0	4.657	0	0	12.777	11.83	135	MWD+IFR1+MS
3400	0	0	3400	12.671	0	12.671	0	4.783	0	0	13.137	12.188	135	MWD+IFR1+MS
3500	0	0	3500	13.031	0	13.031	0	4.912	0	0	13.497	12.547	135	MWD+IFR1+MS
3600	2	255.74	3599.98	13.601	0	13.152	0	5.043	0	0	13.827	12.921	-44.139	MWD+IFR1+MS
3700	4	255.74	3699.838	14.092	0	13.495	0	5.177	0	0	14.257	13.35	-37.441	MWD+IFR1+MS
3800	6	255.74	3799.452	14.559	0	13.837	0	5.314	0	0	14.703	13.751	-31.484	MWD+IFR1+MS
3900	8	255.74	3898.702	15.002	0	14.179	0	5.456	0	0	15.158	14.131	-26.569	MWD+IFR1+MS
4000	10	255.74	3997.465	15.423	0	14.521	0	5.604	0	0	15.616	14.496	-22.664	MWD+IFR1+MS
4100	12	255.74	4095.623	15.821	0	14.863	0	5.759	0	0	16.073	14.852	-19.594	MWD+IFR1+MS
4189.44	13.789	255.74	4182.804	16.129	0	15.166	0	5.9	0	0	16.452	15.161	-17.798	MWD+IFR1+MS
4200	13.789	255.74	4193.06	16.161	0	15.201	0	5.912	0	0	16.485	15.196	-17.79	MWD+IFR1+MS
4300	13.789	255.74	4290.178	16.473	0	15.535	0	6.061	0	0	16.788	15.531	-17.657	MWD+IFR1+MS
4400	13.789	255.74	4387.296	16.795	0	15.88	0	6.215	0	0	17.101	15.877	-17.183	MWD+IFR1+MS
4500	13.789	255.74	4484.414	17.121	0	16.226	0	6.373	0	0	17.417	16.224	-16.705	MWD+IFR1+MS
4600	13.789	255.74	4581.532	17.449	0	16.574	0	6.533	0	0	17.736	16.573	-16.224	MWD+IFR1+MS
4700	13.789	255.74	4678.65	17.781	0	16.924	0	6.697	0	0	18.058	16.923	-15.741	MWD+IFR1+MS
4800	13.789	255.74	4775.768	18.115	0	17.275	0	6.865	0	0	18.382	17.274	-15.256	MWD+IFR1+MS
4900	13.789	255.74	4872.886	18.451	0	17.627	0	7.035	0	0	18.709	17.627	-14.769	MWD+IFR1+MS
5000	13.789	255.74	4970.005	18.79	0	17.981	0	7.209	0	0	19.039	17.981	-14.282	MWD+IFR1+MS
5100	13.789	255.74	5067.123	19.131	0	18.336	0	7.385	0	0	19.371	18.335	-13.793	MWD+IFR1+MS
5200	13.789	255.74	5164.241	19.474	0	18.691	0	7.565	0	0	19.705	18.691	-13.305	MWD+IFR1+MS
5300	13.789	255.74	5261.359	19.819	0	19.048	0	7.747	0	0	20.041	19.048	-12.817	MWD+IFR1+MS
5400	13.789	255.74	5358.477	20.166	0	19.406	0	7.933	0	0	20.379	19.405	-12.331	MWD+IFR1+MS
5500	13.789	255.74	5455.595	20.515	0	19.765	0	8.121	0	0	20.719	19.764	-11.846	MWD+IFR1+MS
5600	13.789	255.74	5552.713	20.865	0	20.125	0	8.312	0	0	21.061	20.123	-11.364	MWD+IFR1+MS
5700	13.789	255.74	5649.831	21.217	0	20.486	0	8.507	0	0	21.404	20.483	-10.884	MWD+IFR1+MS
5800	13.789	255.74	5746.949	21.571	0	20.847	0	8.703	0	0	21.749	20.843	-10.408	MWD+IFR1+MS
5900	13.789	255.74	5844.067	21.926	0	21.21	0	8.903	0	0	22.096	21.205	-9.935	MWD+IFR1+MS
6000	13.789	255.74	5941.186	22.282	0	21.573	0	9.105	0	0	22.444	21.567	-9.468	MWD+IFR1+MS
6100	13.789	255.74	6038.304	22.64	0	21.937	0	9.311	0	0	22.794	21.929	-9.005	MWD+IFR1+MS
6200	13.789	255.74	6135.422	22.999	0	22.301	0	9.518	0	0	23.145	22.292	-8.548	MWD+IFR1+MS

6300	13.789	255.74	6232.54	23.359	0	22.666	0	9.729	0	0	23.497	22.656	-8.097	MWD+IFR1+MS
6400	13.789	255.74	6329.658	23.721	0	23.031	0	9.942	0	0	23.85	23.02	-7.652	MWD+IFR1+MS
6500	13.789	255.74	6426.776	24.083	0	23.398	0	10.158	0	0	24.205	23.385	-7.215	MWD+IFR1+MS
6600	13.789	255.74	6523.894	24.447	0	23.764	0	10.377	0	0	24.561	23.75	-6.785	MWD+IFR1+MS
6700	13.789	255.74	6621.012	24.811	0	24.132	0	10.598	0	0	24.918	24.116	-6.363	MWD+IFR1+MS
6800	13.789	255.74	6718.13	25.177	0	24.499	0	10.822	0	0	25.276	24.483	-5.95	MWD+IFR1+MS
6900	13.789	255.74	6815.248	25.543	0	24.868	0	11.049	0	0	25.635	24.849	-5.545	MWD+IFR1+MS
7000	13.789	255.74	6912.366	25.911	0	25.236	0	11.278	0	0	25.995	25.216	-5.149	MWD+IFR1+MS
7100	13.789	255.74	7009.485	26.279	0	25.605	0	11.51	0	0	26.355	25.584	-4.763	MWD+IFR1+MS
7200	13.789	255.74	7106.603	26.648	0	25.975	0	11.744	0	0	26.717	25.952	-4.386	MWD+IFR1+MS
7300	13.789	255.74	7203.721	27.018	0	26.345	0	11.981	0	0	27.08	26.32	-4.019	MWD+IFR1+MS
7400	13.789	255.74	7300.839	27.388	0	26.715	0	12.221	0	0	27.443	26.689	-3.662	MWD+IFR1+MS
7500	13.789	255.74	7397.957	27.759	0	27.086	0	12.463	0	0	27.807	27.058	-3.315	MWD+IFR1+MS
7600	13.789	255.74	7495.075	28.131	0	27.457	0	12.708	0	0	28.172	27.428	-2.979	MWD+IFR1+MS
7700	13.789	255.74	7592.193	28.504	0	27.828	0	12.955	0	0	28.537	27.798	-2.654	MWD+IFR1+MS
7800	13.789	255.74	7689.311	28.877	0	28.2	0	13.205	0	0	28.904	28.168	-2.34	MWD+IFR1+MS
7900	13.789	255.74	7786.429	29.251	0	28.572	0	13.458	0	0	29.271	28.538	-2.036	MWD+IFR1+MS
8000	13.789	255.74	7883.547	29.625	0	28.944	0	13.713	0	0	29.638	28.909	-1.743	MWD+IFR1+MS
8100	13.789	255.74	7980.665	30	0	29.316	0	13.971	0	0	30.006	29.28	-1.462	MWD+IFR1+MS
8200	13.789	255.74	8077.784	30.376	0	29.689	0	14.232	0	0	30.375	29.652	-1.191	MWD+IFR1+MS
8300	13.789	255.74	8174.902	30.752	0	30.062	0	14.495	0	0	30.745	30.024	-0.932	MWD+IFR1+MS
8400	13.789	255.74	8272.02	31.128	0	30.436	0	14.76	0	0	31.114	30.396	-0.684	MWD+IFR1+MS
8500	13.789	255.74	8369.138	31.505	0	30.809	0	15.029	0	0	31.485	30.768	-0.446	MWD+IFR1+MS
8584.062	13.789	255.74	8450.778	31.821	0	31.122	0	15.256	0	0	31.795	31.08	-0.353	MWD+IFR1+MS
8600	14.247	249.434	8466.242	31.807	0	31.226	0	15.299	0	0	31.853	31.14	-0.376	MWD+IFR1+MS
8700	19.934	220.787	8561.951	31.417	0	32.581	0	15.613	0	0	32.976	31.54	8.854	MWD+IFR1+MS
8800	28.071	206.266	8653.306	30.935	0	34.74	0	16.223	0	0	35.304	31.926	1.629	MWD+IFR1+MS
8900	37.076	198.114	8737.53	30.544	0	36.111	0	17.327	0	0	36.913	32.552	-7.962	MWD+IFR1+MS
9000	46.444	192.832	8812.065	30.076	0	37.069	0	18.939	0	0	38.056	33.164	-14.646	MWD+IFR1+MS
9100	55.989	188.992	8874.645	29.553	0	37.803	0	20.971	0	0	38.882	33.647	-18.835	MWD+IFR1+MS
9200	65.628	185.939	8923.369	29.104	0	38.396	0	23.287	0	0	39.459	33.977	-21.025	MWD+IFR1+MS
9300	75.321	183.322	8956.757	28.897	0	38.887	0	25.738	0	0	39.839	34.172	-21.69	MWD+IFR1+MS
9400	85.04	180.93	8973.794	29.097	0	39.297	0	28.186	0	0	40.073	34.276	-21.284	MWD+IFR1+MS
9451.403	90.04	179.736	8976	28.601	0	39.444	0	28.608	0	0	40.116	34.317	-20.875	MWD+IFR1+MS
9500	90.04	179.736	8975.966	28.719	0	39.494	0	28.726	0	0	40.142	34.349	-20.494	MWD+IFR1+MS
9600	90.04	179.736	8975.897	28.901	0	39.605	0	28.908	0	0	40.204	34.415	-19.696	MWD+IFR1+MS
9700	90.04	179.736	8975.827	29.105	0	39.729	0	29.112	0	0	40.28	34.48	-18.86	MWD+IFR1+MS
9800	90.04	179.736	8975.758	29.33	0	39.863	0	29.336	0	0	40.368	34.545	-17.999	MWD+IFR1+MS
9900	90.04	179.736	8975.688	29.573	0	40.008	0	29.579	0	0	40.468	34.609	-17.12	MWD+IFR1+MS
10000	90.04	179.736	8975.619	29.835	0	40.164	0	29.841	0	0	40.581	34.671	-16.227	MWD+IFR1+MS
10100	90.04	179.736	8975.549	30.115	0	40.33	0	30.121	0	0	40.706	34.732	-15.329	MWD+IFR1+MS
10200	90.04	179.736	8975.48	30.413	0	40.507	0	30.419	0	0	40.844	34.791	-14.43	MWD+IFR1+MS
10300	90.04	179.736	8975.41	30.728	0	40.694	0	30.734	0	0	40.994	34.849	-13.536	MWD+IFR1+MS
10400	90.04	179.736	8975.341	31.059	0	40.89	0	31.065	0	0	41.157	34.905	-12.654	MWD+IFR1+MS
10500	90.04	179.736	8975.271	31.407	0	41.097	0	31.413	0	0	41.333	34.959	-11.788	MWD+IFR1+MS
10600	90.04	179.736	8975.202	31.77	0	41.313	0	31.776	0	0	41.52	35.011	-10.942	MWD+IFR1+MS
10700	90.04	179.736	8975.132	32.148	0	41.539	0	32.155	0	0	41.719	35.061	-10.121	MWD+IFR1+MS
10800	90.04	179.736	8975.063	32.541	0	41.775	0	32.547	0	0	41.931	35.11	-9.327	MWD+IFR1+MS
10900	90.04	179.736	8974.993	32.948	0	42.019	0	32.954	0	0	42.153	35.157	-8.564	MWD+IFR1+MS

11000	90.04	179.736	8974.924	33.369	0	42.273	0	33.375	0	0	42.387	35.202	-7.832	MWD+IFR1+MS
11100	90.04	179.736	8974.854	33.802	0	42.536	0	33.808	0	0	42.633	35.246	-7.133	MWD+IFR1+MS
11200	90.04	179.736	8974.785	34.248	0	42.807	0	34.254	0	0	42.888	35.289	-6.467	MWD+IFR1+MS
11300	90.04	179.736	8974.715	34.706	0	43.088	0	34.711	0	0	43.155	35.331	-5.835	MWD+IFR1+MS
11400	90.04	179.736	8974.646	35.175	0	43.376	0	35.181	0	0	43.431	35.371	-5.237	MWD+IFR1+MS
11500	90.04	179.736	8974.576	35.656	0	43.673	0	35.661	0	0	43.717	35.411	-4.672	MWD+IFR1+MS
11600	90.04	179.736	8974.507	36.147	0	43.978	0	36.152	0	0	44.013	35.449	-4.14	MWD+IFR1+MS
11700	90.04	179.736	8974.437	36.648	0	44.291	0	36.654	0	0	44.318	35.487	-3.638	MWD+IFR1+MS
11800	90.04	179.736	8974.368	37.16	0	44.612	0	37.165	0	0	44.633	35.525	-3.167	MWD+IFR1+MS
11900	90.04	179.736	8974.298	37.68	0	44.94	0	37.686	0	0	44.955	35.562	-2.725	MWD+IFR1+MS
12000	90.04	179.736	8974.229	38.21	0	45.276	0	38.215	0	0	45.287	35.599	-2.311	MWD+IFR1+MS
12100	90.04	179.736	8974.159	38.748	0	45.619	0	38.753	0	0	45.626	35.635	-1.922	MWD+IFR1+MS
12200	90.04	179.736	8974.09	39.295	0	45.969	0	39.3	0	0	45.974	35.672	-1.559	MWD+IFR1+MS
12300	90.04	179.736	8974.02	39.849	0	46.326	0	39.854	0	0	46.329	35.708	-1.219	MWD+IFR1+MS
12400	90.04	179.736	8973.951	40.412	0	46.69	0	40.417	0	0	46.691	35.744	-0.902	MWD+IFR1+MS
12500	90.04	179.736	8973.881	40.981	0	47.06	0	40.986	0	0	47.061	35.781	-0.605	MWD+IFR1+MS
12600	90.04	179.736	8973.812	41.558	0	47.438	0	41.563	0	0	47.438	35.818	-0.328	MWD+IFR1+MS
12700	90.04	179.736	8973.742	42.141	0	47.821	0	42.146	0	0	47.821	35.855	-0.069	MWD+IFR1+MS
12800	90.04	179.736	8973.673	42.731	0	48.21	0	42.735	0	0	48.211	35.892	0.172	MWD+IFR1+MS
12900	90.04	179.736	8973.603	43.326	0	48.606	0	43.331	0	0	48.608	35.929	0.397	MWD+IFR1+MS
13000	90.04	179.736	8973.534	43.928	0	49.008	0	43.933	0	0	49.01	35.967	0.607	MWD+IFR1+MS
13100	90.04	179.736	8973.464	44.536	0	49.415	0	44.541	0	0	49.419	36.006	0.803	MWD+IFR1+MS
13200	90.04	179.736	8973.395	45.149	0	49.828	0	45.153	0	0	49.833	36.045	0.985	MWD+IFR1+MS
13300	90.04	179.736	8973.325	45.767	0	50.246	0	45.772	0	0	50.253	36.084	1.155	MWD+IFR1+MS
13400	90.04	179.736	8973.256	46.39	0	50.67	0	46.395	0	0	50.679	36.124	1.314	MWD+IFR1+MS
13500	90.04	179.736	8973.186	47.019	0	51.098	0	47.023	0	0	51.11	36.165	1.461	MWD+IFR1+MS
13600	90.04	179.736	8973.117	47.651	0	51.532	0	47.656	0	0	51.546	36.206	1.599	MWD+IFR1+MS
13700	90.04	179.736	8973.047	48.289	0	51.971	0	48.293	0	0	51.987	36.248	1.727	MWD+IFR1+MS
13800	90.04	179.736	8972.978	48.93	0	52.415	0	48.934	0	0	52.433	36.29	1.846	MWD+IFR1+MS
13900	90.04	179.736	8972.908	49.576	0	52.863	0	49.58	0	0	52.884	36.333	1.957	MWD+IFR1+MS
14000	90.04	179.736	8972.839	50.225	0	53.316	0	50.23	0	0	53.339	36.377	2.06	MWD+IFR1+MS
14100	90.04	179.736	8972.769	50.879	0	53.773	0	50.883	0	0	53.799	36.421	2.156	MWD+IFR1+MS
14200	90.04	179.736	8972.7	51.536	0	54.235	0	51.54	0	0	54.264	36.467	2.245	MWD+IFR1+MS
14300	90.04	179.736	8972.63	52.196	0	54.701	0	52.201	0	0	54.732	36.513	2.328	MWD+IFR1+MS
14400	90.04	179.736	8972.561	52.86	0	55.171	0	52.864	0	0	55.205	36.559	2.405	MWD+IFR1+MS
14500	90.04	179.736	8972.491	53.528	0	55.645	0	53.532	0	0	55.681	36.607	2.476	MWD+IFR1+MS
14600	90.04	179.736	8972.422	54.198	0	56.123	0	54.202	0	0	56.162	36.655	2.543	MWD+IFR1+MS
14700	90.04	179.736	8972.352	54.872	0	56.605	0	54.876	0	0	56.646	36.704	2.604	MWD+IFR1+MS
14800	90.04	179.736	8972.283	55.548	0	57.091	0	55.552	0	0	57.134	36.753	2.661	MWD+IFR1+MS
14900	90.04	179.736	8972.213	56.227	0	57.58	0	56.231	0	0	57.626	36.804	2.713	MWD+IFR1+MS
15000	90.04	179.736	8972.144	56.909	0	58.073	0	56.913	0	0	58.121	36.855	2.762	MWD+IFR1+MS
15100	90.04	179.736	8972.074	57.594	0	58.569	0	57.597	0	0	58.62	36.907	2.807	MWD+IFR1+MS
15200	90.04	179.736	8972.005	58.281	0	59.069	0	58.284	0	0	59.122	36.959	2.848	MWD+IFR1+MS
15300	90.04	179.736	8971.935	58.97	0	59.571	0	58.974	0	0	59.627	37.013	2.886	MWD+IFR1+MS
15400	90.04	179.736	8971.866	59.662	0	60.078	0	59.666	0	0	60.135	37.067	2.921	MWD+IFR1+MS
15500	90.04	179.736	8971.796	60.356	0	60.587	0	60.36	0	0	60.646	37.122	2.954	MWD+IFR1+MS
15600	90.04	179.736	8971.727	61.053	0	61.099	0	61.056	0	0	61.161	37.178	2.983	MWD+IFR1+MS
15700	90.04	179.736	8971.657	61.751	0	61.614	0	61.754	0	0	61.678	37.234	3.01	MWD+IFR1+MS
15800	90.04	179.736	8971.588	62.451	0	62.132	0	62.455	0	0	62.198	37.292	3.034	MWD+IFR1+MS





## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

### Assumed 100 ppm ROE = 3000'

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

#### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, 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 H<sub>2</sub>S 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 H<sub>2</sub>S, 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 (SO<sub>2</sub>). 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 H<sub>2</sub>S and SO<sub>2</sub>

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

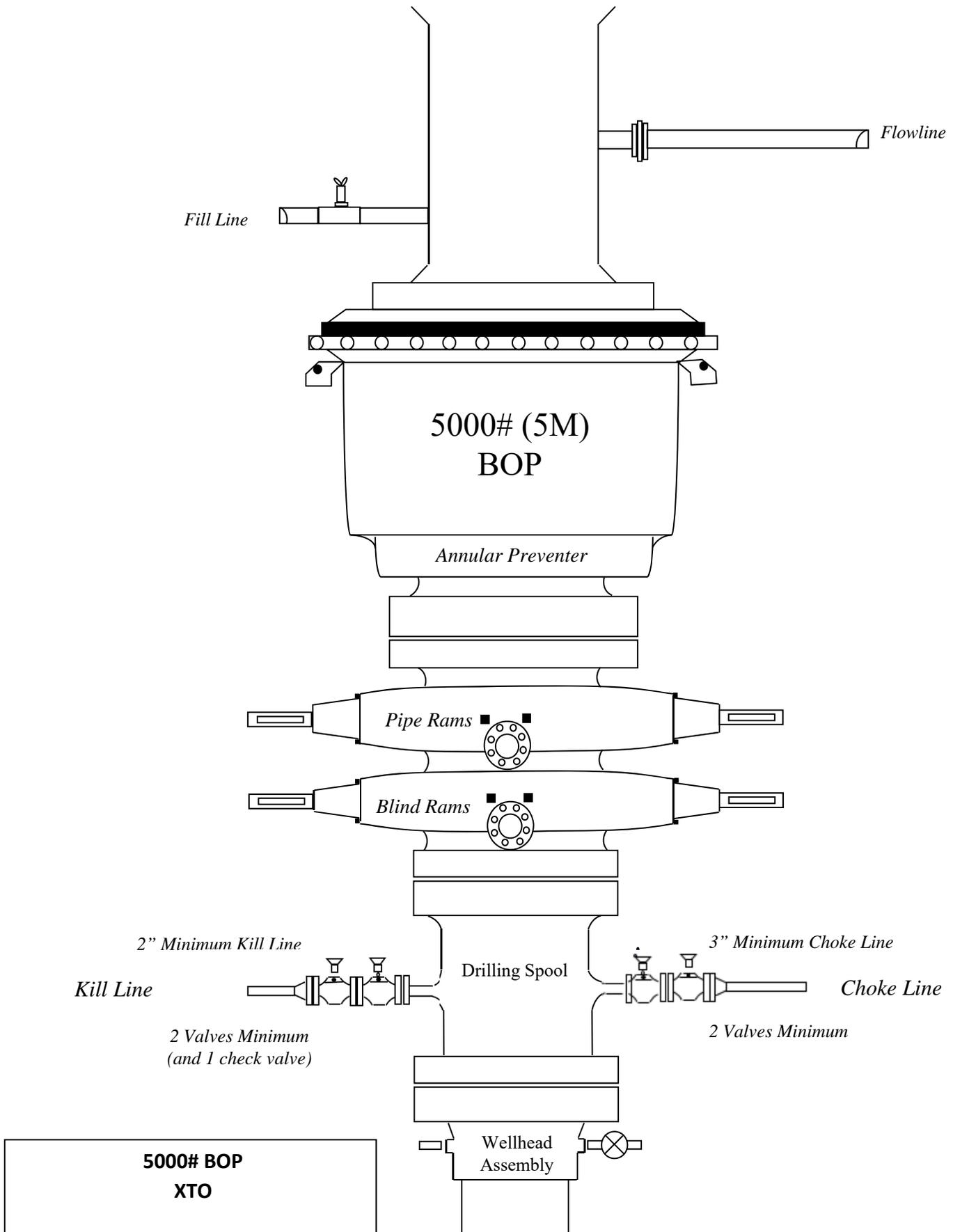
**AGENT NOTIFICATIONS:**

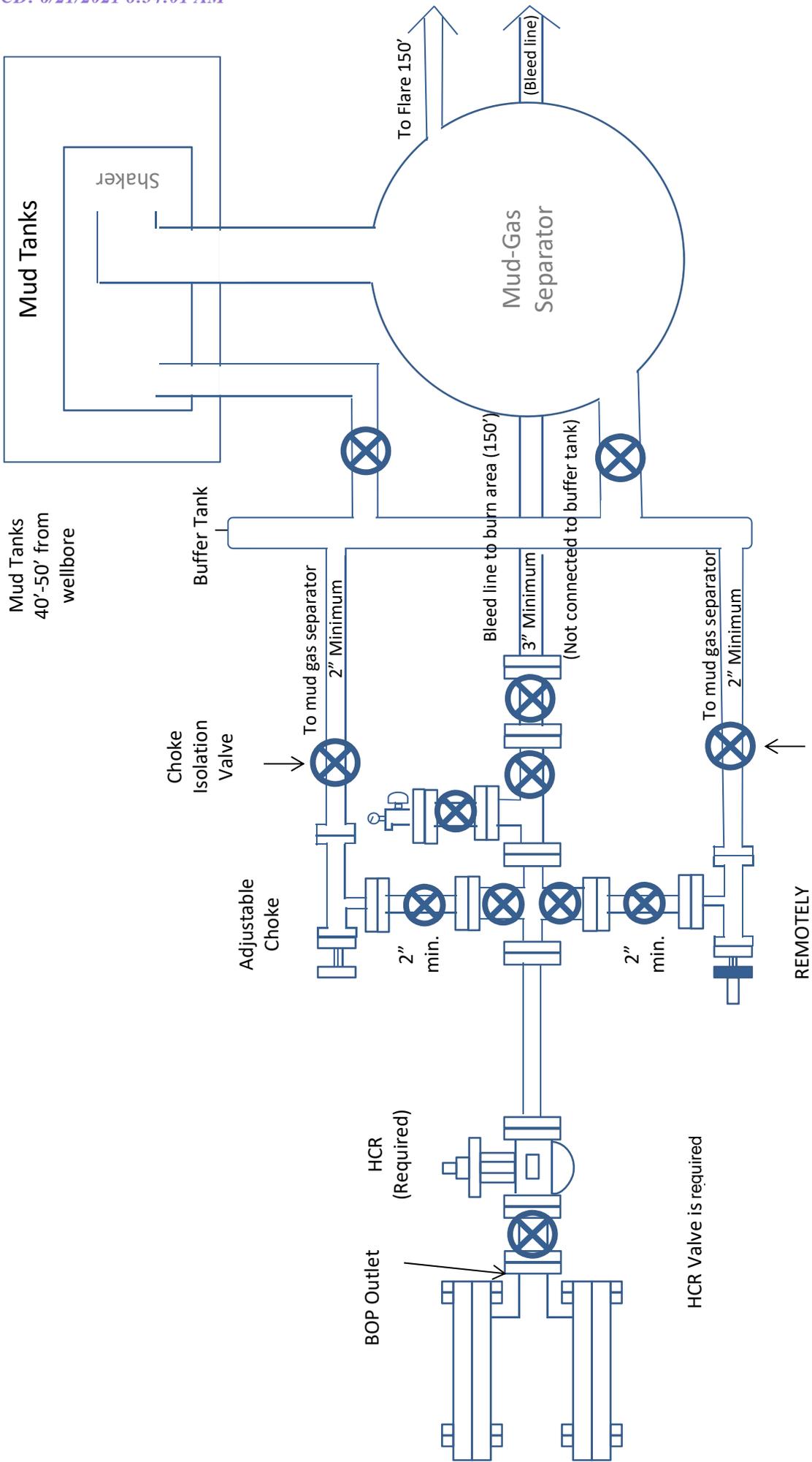
**For Lea County:**

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





5M Choke Manifold Diagram XTO

# Drilling Operations Choke Manifold 5M Service



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:** 005380 **Date:** 06 / 04 / 2021

**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 705H		H-25-23S-29E	2385' FNL & 750' FEL	1500	2600	1000
Remuda South 25 State 706H		H-25-23S-29E	2385' FNL & 720' FEL	1500	2600	1000
Remuda South 25 State 707H		H-25-23S-29E	2385' FNL & 690' FEL	1500	2600	1000
Remuda South 25 State 708H		H-25-23S-29E	2385' FNL & 660' FEL	1500	2600	1000
Remuda South 25 State 709H		H-25-23S-29E	2385' FNL & 630' FEL	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 705H		08/09/2021	08/24/2021	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Remuda South 25 State 706H		08/24/2021	09/08/2021	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Remuda South 25 State 707H		09/08/2021	09/23/2021	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Remuda South 25 State 708H		09/23/2021	10/08/2021	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled
Remuda South 25 State 709H		10/08/2021	10/23/2021	Not Yet Scheduled	Not Yet Scheduled	Not Yet Scheduled

**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: 06/04/2021
Phone: 432.218.3671
<b>OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

## 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.