

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Lease Number: NMNM99147

Sundry Print Reports
07/10/2024

**Unit or CA Number:** 

Well Name: CORRAL CANYON 17-8 Well Location: T25S / R29E / SEC 17 / County or Parish/State: EDDY /

FEDERAL SWSW / 32.12418 / -104.011948 NM

Well Number: 102H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

US Well Number: Operator: XTO ENERGY

INCORPORATED

**Unit or CA Name:** 

#### **Notice of Intent**

**Sundry ID: 2791257** 

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/20/2024 Time Sundry Submitted: 09:26

Date proposed operation will begin: 06/03/2024

**Procedure Description:** XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include LTP, Casing sizes, Cement, Proposed total Depth, and formation (Pool). FROM: TO: LTP: 2447' FSL & 1590' FWL OF SECTION 8-T25S-R29E 2547' FSL & 1590' FWL OF SECTION 8-T25S-R29E The proposed total depth is changing from 17870' MD; 9915' TVD (Purple Sage/Wolfcamp) to 18041' MD; 9915' TVD (Wolfcamp X/Y). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance and Well Control Plan.

#### **NOI Attachments**

#### **Procedure Description**

Corral\_17\_8\_Fed\_Com\_102H\_\_\_BLM\_APD\_Change\_Sundry\_Attachments\_20240520092602.pdf

Page 1 of 2

Well Name: CORRAL CANYON 17-8

FEDERAL

**Well Location:** T25S / R29E / SEC 17 / SWSW / 32.12418 / -104.011948

// COL

County or Parish/State: Page 2 of

NM

Well Number: 102H

Type of Well: CONVENTIONAL GAS

WELL

Lease Number: NMNM99147

**Unit or CA Name:** 

Unit or CA Number:

**Allottee or Tribe Name:** 

**US Well Number:** 

Operator: XTO ENERGY INCORPORATED

### **Operator**

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: MANISH SAINA Signed on: MAY 20, 2024 09:26 AM

Name: XTO ENERGY INCORPORATED

Title: Regulatory Analyst

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING State: TX

Phone: (720) 539-1673

Email address: MANISH.SAINI@EXXONMOBIL.COM

## **Field**

**Representative Name:** 

**Street Address:** 

City:

State:

Zip:

Phone:

Email address:

### **BLM Point of Contact**

**BLM POC Name:** CHRISTOPHER WALLS

**BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 07/09/2024

Signature: Chris Walls

Page 2 of 2

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED	
OMB No. 1004-0137	
Expires: October 31, 202	1

5.	Lease	Serial	No

SUNDRY NOTICES AND REPORTS ON V Do not use this form for proposals to drill or to abandoned well. Use Form 3160-3 (APD) for su	o re-enter an	6. If Indian, Allottee or Tribe Name				
SUBMIT IN TRIPLICATE - Other instructions on pag	ne 2	7. If Unit of CA/Agreeme	ent, Name and/or No.			
1. Type of Well						
Oil Well Gas Well Other		8. Well Name and No.				
2. Name of Operator		9. API Well No.				
3a. Address 3b. Phone No.	(include area code)	10. Field and Pool or Exp	ploratory Area			
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, State				
12. CHECK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF NOT	ICE, REPORT OR OTHE	R DATA			
TYPE OF SUBMISSION	TYPE OF AC	CTION				
Notice of Intent  Acidize  Deep  Alter Casing  Hyd:		duction (Start/Resume)	Water Shut-Off Well Integrity			
Subsequent Report Casing Repair New	Construction Rec	omplete porarily Abandon	Other			
	=	er Disposal				
14. I hereby certify that the foregoing is true and correct. Name ( <i>Printed/Typed</i> )						
14. I hereby certify that the foregoing is true and correct. Ivalite (17thtea/1ypea)	Title					
Signature	Date					
THE SPACE FOR FED	ERAL OR STATE OI	FICE USE				
Approved by						
	Title	Dat	te			
Conditions of approval, if any, are attached. Approval of this notice does not warrar certify that the applicant holds legal or equitable title to those rights in the subject lewhich would entitle the applicant to conduct operations thereon.	nt or	J= **				
Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for a any false, fictitious or fraudulent statements or representations as to any matter with		llfully to make to any depar	rtment or agency of the United States			

(Instructions on page 2)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

#### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

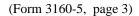
#### **Additional Information**

#### **Additional Remarks**

Attachments: C-102, Drilling Plan, Directional Plan, MBS, BOP Variance and Well Control Plan.

#### **Location of Well**

0. SHL: SWSW / 464 FSL / 990 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.12418 / LONG: -104.011948 ( TVD: 0 feet, MD: 0 feet ) PPP: SESW / 330 FSL / 1590 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.123788 / LONG: -104.010009 ( TVD: 9915 feet, MD: 10301 feet ) PPP: SENW / 2549 FSL / 1593 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.130163 / LONG: -104.010037 ( TVD: 9915 feet, MD: 13000 feet ) BHL: NESW / 2597 FSL / 1590 FWL / TWSP: 25S / RANGE: 29E / SECTION: 8 / LAT: 32.144597 / LONG: -104.010099 ( TVD: 9915 feet, MD: 17870 feet )



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 B azos 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

102H/DWG/102H.dwg

FEDERAL

17-8

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Eddy/Wells/-02

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17

Canyon

Corral

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Eddy

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Energy

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Released to Imaging: 7/16/2024 1:55:34 PM

## 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



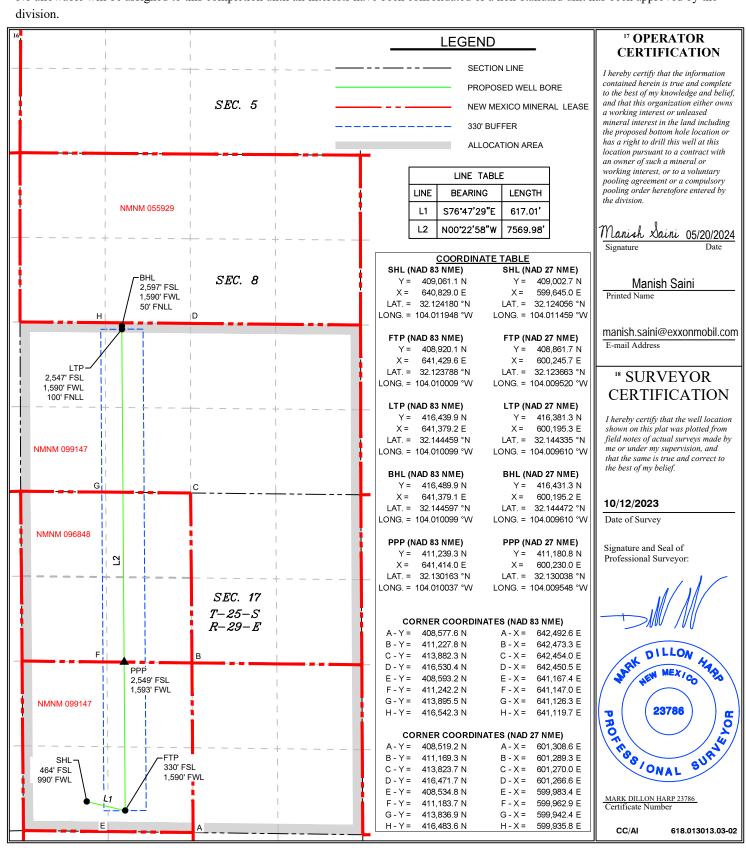
WELL LOCATION AND ACREAGE DEDICATION PLAT

THE ENGINEER OF THE CONTROL OF THE C											
<sup>1</sup> API Number		<sup>2</sup> Pool Code									
30-015-		98220	PURPLE SAGE, WOLFCAM	1P (GAS)							
<sup>4</sup> Property Code		<sup>5</sup> P	roperty Name	<sup>6</sup> Well Number							
		CORRAL 17-8 FED COM									
<sup>7</sup> OGRID No.		<sup>8</sup> O	perator Name	<sup>9</sup> Elevation							
005380		XTO ENERGY, INC									

Surface Location UL or lot no. Section Township North/South line Feet from the East/West lin 25 S 29 E SOUTH **WEST EDDY** М 17 990 "Bottom Hole Location If Different From Surface

UL or lot no.	Section	Section Township Range Lo		Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	K 8 25 S 29 E			2,597	SOUTH	1,590	WEST	EDDY	
12 Dedicated Acres	<sup>13</sup> Joint or	Infill 14C	Consolidation (	Code 15 Ore	der No.				
960									

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



Inten	t X	As Dril	led											
API #														
	rator Nai DENER	<sup>me:</sup> GY, INC	1			Property CORRA	Name L 17-	:: 8 FE[	O COM			Well Number 102H		
Kick (	Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet	From	N/S	Feet	Fro	m E/W	County			
Latit	ude		ı		Longitu	ide			1		NAD			
First <sup>-</sup>	Take Poir	nt (FTP)												
UL <b>N</b>	Section 17	Township 25S	Range 29E	Lot	Feet 330							County Eddy		
Latit					Longitu	ongitude 04.010009								
Last 1	Гake Poin	t (LTP)												
UL <b>K</b>	Section 8	Township 25S	Range 29E	Lot	Feet 2,547	From N/S South	Fee 1,5		From E/W West	Coun				
Latitu 32.	ude 144459	9	ı		Longitu 104.0	ode 010099		1		NAD 83				
Is this	s well the	defining v	vell for th	e Horiz	zontal Sp	pacing Unit	:? [							
Is this	s well an	infill well?												
	ll is yes p ng Unit.	lease prov	ide API if	availab	ole, Opei	rator Name	e and	well nu	ımber for	Defini	ng well fo	or Horizontal		
API#	ŧ													
Ope	rator Nai		Property Name:					Well Number						
												KZ 06/29/2018		

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

XTO Energy Inc.

CORRAL 17 - 8 FED COM 102H

Projected TD: 18041.97' MD / 9915' TVD

SHL: 464' FSL & 990' FWL , Section 17, T25S, R29E

BHL: 2597' FSL & 1590' FWL , Section 8, T25S, R29E

Eddy County, NM

#### 1. Geologic Name of Surface Formation

Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	0'	Water
Top of Salt	584'	Water
Base of Salt	2672'	Water
Delaware	2872'	Water
Brushy Canyon	5364'	Water/Oil/Gas
Bone Spring	6580'	Water
1st Bone Spring	7357'	Water/Oil/Gas
2nd Bone Spring	7807'	Water/Oil/Gas
3rd Bone Spring	8635'	Water/Oil/Gas
Wolfcamp	9790'	Water/Oil/Gas
Wolfcamp X	9813'	Water/Oil/Gas
Wolfcamp Y	9890'	Water/Oil/Gas
Target/Land Curve	9915'	Water/Oil/Gas

<sup>\*\*\*</sup> Hydrocarbons @ Brushy Canyon

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 9.625 inch casing @ 549' (35' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9147.08' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 18041.97 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 8847.08 feet).

#### 3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 549'	9.625	40	J-55	втс	New	1.74	11.33	28.69
8.75	0' - 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.71	2.86	2.05
8.75	4000' – 9147.08'	7.625	29.7	HC L-80	Flush Joint	New	1.97	2.51	2.66
6.75	0' - 9047.08'	5.5	20	RY P-110	Semi-Premium	New	1.26	2.14	2.44
6.75	9047.08' - 18041.97'	5.5	20	RY P-110	Semi-Flush	New	1.26	1.96	2.44

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

<sup>\*\*\*</sup> Groundwater depth 40' (per NM State Engineers Office).

#### Wellhead:

- Permanent Wellhead Multibowl System

  A. Starting Head: 11" 10M top flange x 9-5/8" bottom

  B. Tubing Head: 11" 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: 9.625, 40 New BTC, J-55 casing to be set at +/- 549'

Lead: 80 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 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 +/- 9147.08'

#### st Stage

Optional Lead: 290 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 350 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 5364

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: 600 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 (5364') 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 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: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 18041.97'

Lead: 20 sxs NeoCem (mixed at 12.8 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 8847.08 feet
Tail: 620 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9347.08 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 psi

XTO requests the option to offline cement and remediate (if needed) surface and intermediate 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 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 3490 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 rated working pressure. When nippling up on the 9.625, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each week.

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	Viscosity	Fluid Loss
INTERVAL	Fiole Size	ivida i ype	(ppg)	(sec/qt)	(cc)
0' - 549'	12.25	FW/Native	8.5-9	35-40	NC
549' - 9147.08'	8.75	FW / Cut Brine / Direct Emulsion	9-9.5	30-32	NC
9147.08' - 18041.97'	6.75	ОВМ	11-11.5	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 9-5/8" surface casing with brine solution. Cut 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 9.625 casing.

#### 8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 165 to 185 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 5671 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 40 days.

## Well Plan Report - Corral 17-8 Fed Com 102H

 Measured Depth:
 18041.87 ft

 TVD RKB:
 9915.00 ft

Location

New Mexico East -Cartographic **Reference System: NAD 27** Northing: 409002.70 ft Easting: 599645.00 ft RKB: 2984.00 ft **Ground Level:** 2951.00 ft North Reference: Grid Convergence Angle: 0.17 Deg

Plan Sections Corr

Corral 17-8 Fed Com 102H

Measured			TVD			Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1978.44	17.57	144.76	1964.74	-109.14	77.10	2.00	0.00	2.00
4569.84	17.57	144.76	4435.26	<b>-</b> 748.04	528.40	0.00	0.00	0.00
5448.28	0.00	0.00	5300.00	<b>-</b> 857.18	605.50	-2.00	0.00	2.00
9347.08	0.00	0.00	9198.80	<b>-</b> 857.18	605.50	0.00	0.00	0.00
10472.08	90.00	359.62	9915.00	-141.00	600.70	8.00	0.00	8.00 102H FTP
17991.85	90.00	359.62	9915.00	7378.60	550.30	0.00	0.00	0.00 102H LTP
18041.87	90.00	359.62	9915.00	7428.62	549.96	0.00	0.00	0.00 102H BHL

Position Uncertainty

Corral 17-8 Fed Com 102H

Measured	TVD Highside	Lateral	Vertical	Magnitude	Semi-	Semi-	Semi- Tool
Measureu	TVD Tilgliside	Lateral	vertical	Magintude	major	minor	minor

Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	XOM_R2OWSG MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.000	0.358	0.179	90.000	XOM_R2OWSG MWD+IFR1+MS
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.309	0.000	0.000	0.717	0.538	90.000	XOM_R2OWSG MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2.324	0.000	0.000	1.075	0.896	90.000	XOM_R2OWSG MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.345	0.000	0.000	1.434	1.255	90.000	XOM_R2OWSG MWD+IFR1+MS
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.371	0.000	0.000	1.792	1.613	90.000	XOM_R2OWSG MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.403	0.000	0.000	2.151	1.972	90.000	XOM_R2OWSG MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.439	0.000	0.000	2.509	2.330	90.000	XOM_R2OWSG MWD+IFR1+MS
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.480	0.000	0.000	2.868	2.689	90.000	XOM_R2OWSG MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.524	0.000	0.000	3.226	3.047	90.000	XOM_R2OWSG MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.573	0.000	0.000	3.585	3.405	90.000	XOM_R2OWSG MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.625	0.000	0.000	3.943	3.764	90.000	XOM_R2OWSG MWD+IFR1+MS
1200.000	2.000	144.763	1199.980	4.225	0.000	4.167	-0.000	2.680	0.000	0.000	4.286	4.106	90.000	XOM_R2OWSG MWD+IFR1+MS
1300.000	4.000	144.763	1299.838	4.548	0.000	4.496	-0.000	2.737	0.000	0.000	4.617	4.435	89.889	XOM_R2OWSG MWD+IFR1+MS
1400.000	6.000	144.763	1399.452	4.870	0.000	4.830	-0.000	2.794	0.000	0.000	4.953	4.768	89.855	XOM_R2OWSG MWD+IFR1+MS
1500.000	8.000	144.763	1498.702	5.191	0.000	5.169	-0.000	2.853	0.000	0.000	5.293	5.106	90.039	XOM_R2OWSG MWD+IFR1+MS
1600.000	10.000	144.763	1597.465	5.510	0.000	5.514	-0.000	2.913	0.000	0.000	5.637	5.449	90.574	XOM_R2OWSG MWD+IFR1+MS
1700.000	12.000	144.763	1695.623	5.827	0.000	5.865	-0.000	2.975	0.000	0.000	5.985	5.796	91.599	XOM_R2OWSG MWD+IFR1+MS
1800.000	14.000	144.763	1793.055	6.143	0.000	6.222	-0.000	3.041	0.000	0.000	6.337	6.149	93.280	XOM_R2OWSG MWD+IFR1+MS

1900	0.000	16.000	144.763	1889.643	6.457	0.000	6.588	-0.000	3.111	0.000	0.000	6.694	6.508	95.817	XOM_R2OWSG MWD+IFR1+MS
1978	3.441	17.569	144.763	1964.740	6.704	0.000	6.882	-0.000	3.168	0.000	0.000	6.978	6.793	98.350	XOM_R2OWSG MWD+IFR1+MS
2000	0.000	17.569	144.763	1985.293	6.782	0.000	6.963	-0.000	3.182	0.000	0.000	7.057	6.873	98.920	XOM_R2OWSG MWD+IFR1+MS
2100	0.000	17.569	144.763	2080.629	7.150	0.000	7.346	-0.000	3.279	0.000	0.000	7.424	7.238	104.286	XOM_R2OWSG MWD+IFR1+MS
2200	0.000	17.569	144.763	2175.964	7.522	0.000	7.736	-0.000	3.382	0.000	0.000	7.800	7.606	109.638	XOM_R2OWSG MWD+IFR1+MS
2300	0.000	17.569	144.763	2271.300	7.900	0.000	8.131	-0.000	3.489	0.000	0.000	8.183	7.976	114.641	XOM_R2OWSG MWD+IFR1+MS
2400	0.000	17.569	144.763	2366.635	8.281	0.000	8.531	-0.000	3.600	0.000	0.000	8.573	8.347	119.074	XOM_R2OWSG MWD+IFR1+MS
2500	0.000	17.569	144.763	2461.971	8.665	0.000	8.935	-0.000	3.715	0.000	0.000	8.970	8.720	122.861	XOM_R2OWSG MWD+IFR1+MS
2600	0.000	17.569	144.763	2557.306	9.053	0.000	9.343	-0.000	3.834	0.000	0.000	9.371	9.094	126.033	XOM_R2OWSG MWD+IFR1+MS
2700	0.000	17.569	144.763	2652.642	9.443	0.000	9.754	-0.000	3.957	0.000	0.000	9.777	9.470	128.671	XOM_R2OWSG MWD+IFR1+MS
2800	0.000	17.569	144.763	2747.977	9.835	0.000	10.168	-0.000	4.083	0.000	0.000	10.187	9.847	130.865	XOM_R2OWSG MWD+IFR1+MS
2900	0.000	17.569	144.763	2843.313	10.229	0.000	10.584	-0.000	4.211	0.000	0.000	10.600	10.225	132.700	XOM_R2OWSG MWD+IFR1+MS
3000	0.000	17.569	144.763	2938.648	10.625	0.000	11.002	-0.000	4.342	0.000	0.000	11.015	10.604	134.246	XOM_R2OWSG MWD+IFR1+MS
3100	0.000	17.569	144.763	3033.984	11.023	0.000	11.422	-0.000	4.476	0.000	0.000	11.433	10.985	-44.441	XOM_R2OWSG MWD+IFR1+MS
3200	0.000	17.569	144.763	3129.319	11.422	0.000	11.844	-0.000	4.613	0.000	0.000	11.853	11.366	-43.315	XOM_R2OWSG MWD+IFR1+MS
3300	0.000	17.569	144.763	3224.655	11.822	0.000	12.267	-0.000	4.752	0.000	0.000	12.275	11.749	-42.341	XOM_R2OWSG MWD+IFR1+MS
3400	0.000	17.569	144.763	3319.990	12.223	0.000	12.691	-0.000	4.892	0.000	0.000	12.698	12.133	-41.493	XOM_R2OWSG MWD+IFR1+MS
3500	0.000	17.569	144.763	3415.326	12.626	0.000	13.117	-0.000	5.035	0.000	0.000	13.123	12.517	-40.748	XOM_R2OWSG MWD+IFR1+MS
3600	0.000	17.569	144.763	3510.661	13.029	0.000	13.544	-0.000	5.180	0.000	0.000	13.549	12.903	-40.090	XOM_R2OWSG MWD+IFR1+MS
3700	0.000	17.569	144.763	3605.997	13.434	0.000	13.972	-0.000	5.327	0.000	0.000	13.976	13.289	-39.504	XOM_R2OWSG MWD+IFR1+MS

3800.000	17.569	144.763	3701.332	13.839	0.000	14.401	-0.000	5.476	0.000	0.000	14.404	13.676	-38.980	XOM_R2OWSG MWD+IFR1+MS
3900.000	17.569	144.763	3796.668	14.245	0.000	14.831	-0.000	5.627	0.000	0.000	14.834	14.063	-38.509	XOM_R2OWSG MWD+IFR1+MS
4000.000	17.569	144.763	3892.003	14.651	0.000	15.262	-0.000	5.779	0.000	0.000	15.264	14.452	-38.082	XOM_R2OWSG MWD+IFR1+MS
4100.000	17.569	144.763	3987.339	15.058	0.000	15.693	-0.000	5.933	0.000	0.000	15.695	14.840	-37.695	XOM_R2OWSG MWD+IFR1+MS
4200.000	17.569	144.763	4082.674	15.466	0.000	16.125	-0.000	6.089	0.000	0.000	16.126	15.230	-37.342	XOM_R2OWSG MWD+IFR1+MS
4300.000	17.569	144.763	4178.010	15.874	0.000	16.558	-0.000	6.247	0.000	0.000	16.558	15.620	-37.019	XOM_R2OWSG MWD+IFR1+MS
4400.000	17.569	144.763	4273.345	16.283	0.000	16.991	-0.000	6.406	0.000	0.000	16.991	16.010	-36.722	XOM_R2OWSG MWD+IFR1+MS
4500.000	17.569	144.763	4368.681	16.692	0.000	17.424	-0.000	6.566	0.000	0.000	17.425	16.401	-36.448	XOM_R2OWSG MWD+IFR1+MS
4569.837	17.569	144.763	4435.260	16.978	0.000	17.727	-0.000	6.679	0.000	0.000	17.728	16.674	-36.269	XOM_R2OWSG MWD+IFR1+MS
4600.000	16.966	144.763	4464.064	17.114	0.000	17.857	-0.000	6.729	0.000	0.000	17.858	16.792	-36.195	XOM_R2OWSG MWD+IFR1+MS
4700.000	14.966	144.763	4560.202	17.548	0.000	18.282	-0.000	6.891	0.000	0.000	18.282	17.178	-35.976	XOM_R2OWSG MWD+IFR1+MS
4800.000	12.966	144.763	4657.241	17.955	0.000	18.694	-0.000	7.047	0.000	0.000	18.695	17.560	-35.790	XOM_R2OWSG MWD+IFR1+MS
4900.000	10.966	144.763	4755.063	18.332	0.000	19.094	-0.000	7.196	0.000	0.000	19.094	17.936	-35.631	XOM_R2OWSG MWD+IFR1+MS
5000.000	8.966	144.763	4853.549	18.680	0.000	19.481	-0.000	7.336	0.000	0.000	19.481	18.305	-35.496	XOM_R2OWSG MWD+IFR1+MS
5100.000	6.966	144.763	4952.579	18.997	0.000	19.855	-0.000	7.470	0.000	0.000	19.855	18.668	-35.381	XOM_R2OWSG MWD+IFR1+MS
5200.000	4.966	144.763	5052.033	19.284	0.000	20.215	-0.000	7.598	0.000	0.000	20.215	19.021	-35.283	XOM_R2OWSG MWD+IFR1+MS
5300.000	2.966	144.763	5151.788	19.539	0.000	20.563	-0.000	7.720	0.000	0.000	20.563	19.366	-35.201	XOM_R2OWSG MWD+IFR1+MS
5400.000	0.966	144.763	5251.724	19.763	0.000	20.898	-0.000	7.837	0.000	0.000	20.898	19.702	-35.134	XOM_R2OWSG MWD+IFR1+MS
5448.278	0.000	0.000	5300.000	20.259	0.000	20.660	0.000	7.892	0.000	0.000	21.048	19.856	-35.189	XOM_R2OWSG MWD+IFR1+MS
5500.000	0.000	0.000	5351.722	20.420	0.000	20.812	0.000	7.950	0.000	0.000	21.200	20.016	-35.335	XOM_R2OWSG MWD+IFR1+MS

5600	0.000	0.000	0.000	5451.722	20.730	0.000	21.107	0.000	8.064	0.000	0.000	21.497	20.326	-35.617	XOM_R2OWSG MWD+IFR1+MS
5700	0.000	0.000	0.000	5551.722	21.043	0.000	21.404	0.000	8.181	0.000	0.000	21.795	20.637	-35.898	XOM_R2OWSG MWD+IFR1+MS
5800	0.000	0.000	0.000	5651.722	21.356	0.000	21.703	0.000	8.301	0.000	0.000	22.095	20.950	-36.176	XOM_R2OWSG MWD+IFR1+MS
5900	0.000	0.000	0.000	5751.722	21.671	0.000	22.004	0.000	8.423	0.000	0.000	22.397	21.265	-36.453	XOM_R2OWSG MWD+IFR1+MS
6000	0.000	0.000	0.000	5851.722	21.988	0.000	22.307	0.000	8.548	0.000	0.000	22.701	21.580	-36.728	XOM_R2OWSG MWD+IFR1+MS
6100	0.000	0.000	0.000	5951.722	22.305	0.000	22.611	0.000	8.675	0.000	0.000	23.006	21.897	-37.001	XOM_R2OWSG MWD+IFR1+MS
6200	0.000	0.000	0.000	6051.722	22.624	0.000	22.917	0.000	8.806	0.000	0.000	23.313	22.216	-37.272	XOM_R2OWSG MWD+IFR1+MS
6300	0.000	0.000	0.000	6151.722	22.944	0.000	23.224	0.000	8.938	0.000	0.000	23.622	22.535	-37.541	XOM_R2OWSG MWD+IFR1+MS
6400	0.000	0.000	0.000	6251.722	23.266	0.000	23.533	0.000	9.074	0.000	0.000	23.931	22.855	-37.808	XOM_R2OWSG MWD+IFR1+MS
6500	0.000	0.000	0.000	6351.722	23.588	0.000	23.843	0.000	9.212	0.000	0.000	24.243	23.177	-38.074	XOM_R2OWSG MWD+IFR1+MS
6600	0.000	0.000	0.000	6451.722	23.911	0.000	24.154	0.000	9.353	0.000	0.000	24.555	23.500	-38.337	XOM_R2OWSG MWD+IFR1+MS
6700	0.000	0.000	0.000	6551.722	24.235	0.000	24.467	0.000	9.497	0.000	0.000	24.869	23.823	-38.598	XOM_R2OWSG MWD+IFR1+MS
6800	0.000	0.000	0.000	6651.722	24.561	0.000	24.781	0.000	9.644	0.000	0.000	25.184	24.148	<b>-</b> 38.857	XOM_R2OWSG MWD+IFR1+MS
6900	0.000	0.000	0.000	6751.722	24.887	0.000	25.096	0.000	9.794	0.000	0.000	25.500	24.473	-39.115	XOM_R2OWSG MWD+IFR1+MS
7000	0.000	0.000	0.000	6851.722	25.214	0.000	25.413	0.000	9.946	0.000	0.000	25.817	24.799	-39.370	XOM_R2OWSG MWD+IFR1+MS
7100	0.000	0.000	0.000	6951.722	25.542	0.000	25.730	0.000	10.101	0.000	0.000	26.136	25.126	-39.623	XOM_R2OWSG MWD+IFR1+MS
7200	0.000	0.000	0.000	7051.722	25.870	0.000	26.049	0.000	10.259	0.000	0.000	26.455	25.454	-39.874	XOM_R2OWSG MWD+IFR1+MS
7300	0.000	0.000	0.000	7151.722	26.200	0.000	26.368	0.000	10.421	0.000	0.000	26.776	25.783	-40.122	XOM_R2OWSG MWD+IFR1+MS
7400	0.000	0.000	0.000	7251.722	26.530	0.000	26.689	0.000	10.585	0.000	0.000	27.097	26.112	-40.369	XOM_R2OWSG MWD+IFR1+MS
7500	0.000	0.000	0.000	7351.722	26.861	0.000	27.010	0.000	10.752	0.000	0.000	27.420	26.443	-40.614	XOM_R2OWSG MWD+IFR1+MS

7600.000	0.000	0.000 7451.722	27.193 0.000 27	7.333 0.000	10.922 0.000	0.000	27.743	26.773	-40.856 XOM_R2OWSG MWD+IFR1+MS
7700.000	0.000	0.000 7551.722	27.525 0.000 27	7.656 0.000	11.095 0.000	0.000	28.068	27.105	-41.096 XOM_R2OWSG MWD+IFR1+MS
7800.000	0.000	0.000 7651.722	27.858 0.000 27	7.980 0.000	11.270 0.000	0.000	28.393	27.437	-41.334 XOM_R2OWSG MWD+IFR1+MS
7900.000	0.000	0.000 7751.722	28.192 0.000 28	3.305 0.000	11.449 0.000	0.000	28.719	27.770	-41.570 XOM_R2OWSG MWD+IFR1+MS
8000.000	0.000	0.000 7851.722	28.526 0.000 28	3.631 0.000	11.631 0.000	0.000	29.046	28.103	-41.804 XOM_R2OWSG MWD+IFR1+MS
8100.000	0.000	0.000 7951.722	28.861 0.000 28	3.957 0.000	11.816 0.000	0.000	29.373	28.437	-42.036 XOM_R2OWSG MWD+IFR1+MS
8200.000	0.000	0.000 8051.722	29.196 0.000 29	9.285 0.000	12.004 0.000	0.000	29.701	28.772	-42.265 XOM_R2OWSG MWD+IFR1+MS
8300.000	0.000	0.000 8151.722	29.532 0.000 29	9.613 0.000	12.195 0.000	0.000	30.030	29.107	-42.493 XOM_R2OWSG MWD+IFR1+MS
8400.000	0.000	0.000 8251.722	29.868 0.000 29	9.941 0.000	12.389 0.000	0.000	30.360	29.442	-42.718 XOM_R2OWSG MWD+IFR1+MS
8500.000	0.000	0.000 8351.722	30.205 0.000 30	0.271 0.000	12.587 0.000	0.000	30.690	29.779	-42.941 XOM_R2OWSG MWD+IFR1+MS
8600.000	0.000	0.000 8451.722	30.543 0.000 30	0.601 0.000	12.787 0.000	0.000	31.021	30.115	-43.162 XOM_R2OWSG MWD+IFR1+MS
8700.000	0.000	0.000 8551.722	30.880 0.000 30	0.000	12.990 0.000	0.000	31.353	30.452	-43.380 XOM_R2OWSG MWD+IFR1+MS
8800.000	0.000	0.000 8651.722	31.219 0.000 31	1.263 0.000	13.197 0.000	0.000	31.685	30.790	-43.597 XOM_R2OWSG MWD+IFR1+MS
8900.000	0.000	0.000 8751.722	31.558 0.000 31	1.594 0.000	13.406 0.000	0.000	32.018	31.128	-43.811 XOM_R2OWSG MWD+IFR1+MS
9000.000	0.000	0.000 8851.722	31.897 0.000 31	1.927 0.000	13.619 0.000	0.000	32.352	31.466	-44.024 XOM_R2OWSG MWD+IFR1+MS
9100.000	0.000	0.000 8951.722	32.236 0.000 32	2.260 0.000	13.835 0.000	0.000	32.686	31.805	-44.234 XOM_R2OWSG MWD+IFR1+MS
9200.000	0.000	0.000 9051.722	32.576 0.000 32	2.593 0.000	14.053 0.000	0.000	33.020	32.144	-44.442 XOM_R2OWSG MWD+IFR1+MS
9300.000	0.000	0.000 9151.722	32.917 0.000 32	2.928 0.000	14.275 0.000	0.000	33.355	32.484	-44.648 XOM_R2OWSG MWD+IFR1+MS
9347.081	0.000	0.000 9198.803	33.077 0.000 33	3.085 0.000	14.381 0.000	0.000	33.513	32.644	-44.744 XOM_R2OWSG MWD+IFR1+MS
9400.000	4.234	359.616 9251.674	32.972 0.000 33	3.266 0.000	14.499 0.000	0.000	33.689	32.820	-44.807 XOM_R2OWSG MWD+IFR1+MS

9500.000	12.234	359.616	9350.563	32.370	0.000	33.584	0.000	14.713	0.000	0.000	34.007	33.132	-44.634	XOM_R2OWSG MWD+IFR1+MS
9600.000	20.234	359.616	9446.498	31.247	0.000	33.883	0.000	14.916	0.000	0.000	34.304	33.413	-44.014	XOM_R2OWSG MWD+IFR1+MS
9700.000	28.234	359.616	9537.612	29.646	0.000	34.158	0.000	15.107	0.000	0.000	34.572	33.658	-42.859	XOM_R2OWSG MWD+IFR1+MS
9800.000	36.234	359.616	9622.131	27.638	0.000	34.410	0.000	15.292	0.000	0.000	34.811	33.865	-41.192	XOM_R2OWSG MWD+IFR1+MS
9900.000	44.234	359.616	9698.411	25.323	0.000	34.636	0.000	15.475	0.000	0.000	35.018	34.033	-39.097	XOM_R2OWSG MWD+IFR1+MS
10000.000	52.234	359.616	9764.967	22.844	0.000	34.837	0.000	15.664	0.000	0.000	35.195	34.164	-36.698	XOM_R2OWSG MWD+IFR1+MS
10100.000	60.234	359.616	9820.502	20.402	0.000	35.013	0.000	15.866	0.000	0.000	35.344	34.261	-34.137	XOM_R2OWSG MWD+IFR1+MS
10200.000	68.234	359.616	9863.937	18.280	0.000	35.165	0.000	16.091	0.000	0.000	35.466	34.330	-31.557	XOM_R2OWSG MWD+IFR1+MS
10300.000	76.234	359.616	9894.426	16.836	0.000	35.294	0.000	16.342	0.000	0.000	35.565	34.376	-29.092	XOM_R2OWSG MWD+IFR1+MS
10400.000	84.234	359.616	9911.376	16.414	0.000	35.400	0.000	16.622	0.000	0.000	35.642	34.410	-26.870	XOM_R2OWSG MWD+IFR1+MS
10472.081	90.000	359.616	9915.000	16.840	0.000	35.461	0.000	16.840	0.000	0.000	35.683	34.431	-25.507	XOM_R2OWSG MWD+IFR1+MS
10500.000	90.000	359.616	9915.000	16.928	0.000	35.482	0.000	16.928	0.000	0.000	35.697	34.439	-25.018	XOM_R2OWSG MWD+IFR1+MS
10600.000	90.000	359.616	9915.000	17.264	0.000	35.575	0.000	17.264	0.000	0.000	35.764	34.469	-22.986	XOM_R2OWSG MWD+IFR1+MS
10700.000	90.000	359.616	9915.000	17.628	0.000	35.691	0.000	17.628	0.000	0.000	35.852	34.500	-20.780	XOM_R2OWSG MWD+IFR1+MS
10800.000	90.000	359.616	9915.000	18.018	0.000	35.827	0.000	18.018	0.000	0.000	35.964	34.529	-18.520	XOM_R2OWSG MWD+IFR1+MS
10900.000	90.000	359.616	9915.000	18.434	0.000	35.985	0.000	18.434	0.000	0.000	36.099	34.557	-16.312	XOM_R2OWSG MWD+IFR1+MS
11000.000	90.000	359.616	9915.000	18.874	0.000	36.164	0.000	18.874	0.000	0.000	36.258	34.582	-14.238	XOM_R2OWSG MWD+IFR1+MS
11100.000	90.000	359.616	9915.000	19.335	0.000	36.363	0.000	19.335	0.000	0.000	36.439	34.606	-12.350	XOM_R2OWSG MWD+IFR1+MS
11200.000	90.000	359.616	9915.000	19.817	0.000	36.582	0.000	19.817	0.000	0.000	36.644	34.627	-10.670	XOM_R2OWSG MWD+IFR1+MS
11300.000	90.000	359.616	9915.000	20.317	0.000	36.820	0.000	20.317	0.000	0.000	36.871	34.647	-9.200	XOM_R2OWSG MWD+IFR1+MS

11400.000	90.000	359.616	9915.000	20.835	0.000	37.079	0.000	20.835	0.000	0.000	37.119	34.665	-7.926	XOM_R2OWSG MWD+IFR1+MS
11500.000	90.000	359.616	9915.000	21.370	0.000	37.356	0.000	21.370	0.000	0.000	37.389	34.682	-6.830	XOM_R2OWSG MWD+IFR1+MS
11600.000	90.000	359.616	9915.000	21.919	0.000	37.651	0.000	21.919	0.000	0.000	37.678	34.698	-5.890	XOM_R2OWSG MWD+IFR1+MS
11700.000	90.000	359.616	9915.000	22.482	0.000	37.965	0.000	22.482	0.000	0.000	37.986	34.714	-5.084	XOM_R2OWSG MWD+IFR1+MS
11800.000	90.000	359.616	9915.000	23.059	0.000	38.297	0.000	23.059	0.000	0.000	38.314	34.729	-4.394	XOM_R2OWSG MWD+IFR1+MS
11900.000	90.000	359.616	9915.000	23.647	0.000	38.646	0.000	23.647	0.000	0.000	38.659	34.744	-3.801	XOM_R2OWSG MWD+IFR1+MS
12000.000	90.000	359.616	9915.000	24.247	0.000	39.011	0.000	24.247	0.000	0.000	39.021	34.759	-3.292	XOM_R2OWSG MWD+IFR1+MS
12100.000	90.000	359.616	9915.000	24.856	0.000	39.393	0.000	24.856	0.000	0.000	39.401	34.775	-2.853	XOM_R2OWSG MWD+IFR1+MS
12200.000	90.000	359.616	9915.000	25.476	0.000	39.790	0.000	25.476	0.000	0.000	39.797	34.790	-2.473	XOM_R2OWSG MWD+IFR1+MS
12300.000	90.000	359.616	9915.000	26.104	0.000	40.203	0.000	26.104	0.000	0.000	40.208	34.806	-2.143	XOM_R2OWSG MWD+IFR1+MS
12400.000	90.000	359.616	9915.000	26.741	0.000	40.631	0.000	26.741	0.000	0.000	40.635	34.822	-1.857	XOM_R2OWSG MWD+IFR1+MS
12500.000	90.000	359.616	9915.000	27.385	0.000	41.074	0.000	27.385	0.000	0.000	41.076	34.839	-1.607	XOM_R2OWSG MWD+IFR1+MS
12600.000	90.000	359.616	9915.000	28.036	0.000	41.530	0.000	28.036	0.000	0.000	41.532	34.856	-1.388	XOM_R2OWSG MWD+IFR1+MS
12700.000	90.000	359.616	9915.000	28.694	0.000	42.000	0.000	28.694	0.000	0.000	42.001	34.873	-1.197	XOM_R2OWSG MWD+IFR1+MS
12800.000	90.000	359.616	9915.000	29.359	0.000	42.482	0.000	29.359	0.000	0.000	42.483	34.891	-1.028	XOM_R2OWSG MWD+IFR1+MS
12900.000	90.000	359.616	9915.000	30.029	0.000	42.978	0.000	30.029	0.000	0.000	42.978	34.910	-0.880	XOM_R2OWSG MWD+IFR1+MS
13000.000	90.000	359.616	9915.000	30.704	0.000	43.486	0.000	30.704	0.000	0.000	43.486	34.929	-0.749	XOM_R2OWSG MWD+IFR1+MS
13100.000	90.000	359.616	9915.000	31.385	0.000	44.005	0.000	31.385	0.000	0.000	44.005	34.948	-0.633	XOM_R2OWSG MWD+IFR1+MS
13200.000	90.000	359.616	9915.000	32.070	0.000	44.536	0.000	32.070	0.000	0.000	44.536	34.969	-0.530	XOM_R2OWSG MWD+IFR1+MS
13300.000	90.000	359.616	9915.000	32.760	0.000	45.077	0.000	32.760	0.000	0.000	45.077	34.990	-0.439	XOM_R2OWSG MWD+IFR1+MS

13400.000	90.000	359.616	9915.000	33.454	0.000	45.630	0.000	33.454	0.000	0.000	45.630	35.011	-0.358	XOM_R2OWSG MWD+IFR1+MS
13500.000	90.000	359.616	9915.000	34.152	0.000	46.192	0.000	34.152	0.000	0.000	46.192	35.033	<b>-</b> 0.286	XOM_R2OWSG MWD+IFR1+MS
13600.000	90.000	359.616	9915.000	34.854	0.000	46.764	0.000	34.854	0.000	0.000	46.764	35.056	-0.221	XOM_R2OWSG MWD+IFR1+MS
13700.000	90.000	359.616	9915.000	35.559	0.000	47.346	0.000	35.559	0.000	0.000	47.346	35.079	-0.164	XOM_R2OWSG MWD+IFR1+MS
13800.000	90.000	359.616	9915.000	36.268	0.000	47.937	0.000	36.268	0.000	0.000	47.937	35.103	-0.112	XOM_R2OWSG MWD+IFR1+MS
13900.000	90.000	359.616	9915.000	36.979	0.000	48.537	0.000	36.979	0.000	0.000	48.537	35.128	-0.067	XOM_R2OWSG MWD+IFR1+MS
14000.000	90.000	359.616	9915.000	37.693	0.000	49.145	0.000	37.693	0.000	0.000	49.145	35.153	-0.025	XOM_R2OWSG MWD+IFR1+MS
14100.000	90.000	359.616	9915.000	38.411	0.000	49.761	0.000	38.411	0.000	0.000	49.762	35.179	0.011	XOM_R2OWSG MWD+IFR1+MS
14200.000	90.000	359.616	9915.000	39.130	0.000	50.385	0.000	39.130	0.000	0.000	50.386	35.206	0.044	XOM_R2OWSG MWD+IFR1+MS
14300.000	90.000	359.616	9915.000	39.853	0.000	51.017	0.000	39.853	0.000	0.000	51.018	35.233	0.074	XOM_R2OWSG MWD+IFR1+MS
14400.000	90.000	359.616	9915.000	40.577	0.000	51.656	0.000	40.577	0.000	0.000	51.657	35.261	0.100	XOM_R2OWSG MWD+IFR1+MS
14500.000	90.000	359.616	9915.000	41.304	0.000	52.302	0.000	41.304	0.000	0.000	52.303	35.289	0.124	XOM_R2OWSG MWD+IFR1+MS
14600.000	90.000	359.616	9915.000	42.033	0.000	52.954	0.000	42.033	0.000	0.000	52.956	35.319	0.145	XOM_R2OWSG MWD+IFR1+MS
14700.000	90.000	359.616	9915.000	42.763	0.000	53.614	0.000	42.763	0.000	0.000	53.615	35.348	0.164	XOM_R2OWSG MWD+IFR1+MS
14800.000	90.000	359.616	9915.000	43.496	0.000	54.279	0.000	43.496	0.000	0.000	54.281	35.379	0.181	XOM_R2OWSG MWD+IFR1+MS
14900.000	90.000	359.616	9915.000	44.231	0.000	54.951	0.000	44.231	0.000	0.000	54.952	35.410	0.196	XOM_R2OWSG MWD+IFR1+MS
15000.000	90.000	359.616	9915.000	44.967	0.000	55.628	0.000	44.967	0.000	0.000	55.630	35.442	0.209	XOM_R2OWSG MWD+IFR1+MS
15100.000	90.000	359.616	9915.000	45.705	0.000	56.311	0.000	45.705	0.000	0.000	56.313	35.474	0.221	XOM_R2OWSG MWD+IFR1+MS
15200.000	90.000	359.616	9915.000	46.444	0.000	57.000	0.000	46.444	0.000	0.000	57.002	35.507	0.232	XOM_R2OWSG MWD+IFR1+MS
15300.000	90.000	359.616	9915.000	47.185	0.000	57.693	0.000	47.185	0.000	0.000	57.695	35.541	0.241	XOM_R2OWSG MWD+IFR1+MS

15400.000	90.000	359.616	9915.000	47.927	0.000	58.392	0.000	47.927	0.000	0.000	58.394	35.575	0.249	XOM_R2OWSG MWD+IFR1+MS
15500.000	90.000	359.616	9915.000	48.670	0.000	59.096	0.000	48.670	0.000	0.000	59.098	35.610	0.257	XOM_R2OWSG MWD+IFR1+MS
15600.000	90.000	359.616	9915.000	49.415	0.000	59.804	0.000	49.415	0.000	0.000	59.806	35.645	0.263	XOM_R2OWSG MWD+IFR1+MS
15700.000	90.000	359.616	9915.000	50.161	0.000	60.517	0.000	50.161	0.000	0.000	60.519	35.681	0.268	XOM_R2OWSG MWD+IFR1+MS
15800.000	90.000	359.616	9915.000	50.908	0.000	61.234	0.000	50.908	0.000	0.000	61.237	35.718	0.273	XOM_R2OWSG MWD+IFR1+MS
15900.000	90.000	359.616	9915.000	51.657	0.000	61.955	0.000	51.657	0.000	0.000	61.958	35.756	0.277	XOM_R2OWSG MWD+IFR1+MS
16000.000	90.000	359.616	9915.000	52.406	0.000	62.681	0.000	52.406	0.000	0.000	62.684	35.794	0.280	XOM_R2OWSG MWD+IFR1+MS
16100.000	90.000	359.616	9915.000	53.157	0.000	63.410	0.000	53.157	0.000	0.000	63.413	35.832	0.283	XOM_R2OWSG MWD+IFR1+MS
16200.000	90.000	359.616	9915.000	53.908	0.000	64.143	0.000	53.908	0.000	0.000	64.146	35.872	0.285	XOM_R2OWSG MWD+IFR1+MS
16300.000	90.000	359.616	9915.000	54.660	0.000	64.880	0.000	54.660	0.000	0.000	64.883	35.911	0.287	XOM_R2OWSG MWD+IFR1+MS
16400.000	90.000	359.616	9915.000	55.413	0.000	65.620	0.000	55.413	0.000	0.000	65.624	35.952	0.288	XOM_R2OWSG MWD+IFR1+MS
16500.000	90.000	359.616	9915.000	56.168	0.000	66.364	0.000	56.168	0.000	0.000	66.367	35.993	0.289	XOM_R2OWSG MWD+IFR1+MS
16600.000	90.000	359.616	9915.000	56.922	0.000	67.111	0.000	56.922	0.000	0.000	67.115	36.035	0.290	XOM_R2OWSG MWD+IFR1+MS
16700.000	90.000	359.616	9915.000	57.678	0.000	67.862	0.000	57.678	0.000	0.000	67.865	36.077	0.290	XOM_R2OWSG MWD+IFR1+MS
16800.000	90.000	359.616	9915.000	58.435	0.000	68.615	0.000	58.435	0.000	0.000	68.618	36.120	0.290	XOM_R2OWSG MWD+IFR1+MS
16900.000	90.000	359.616	9915.000	59.192	0.000	69.371	0.000	59.192	0.000	0.000	69.375	36.164	0.289	XOM_R2OWSG MWD+IFR1+MS
17000.000	90.000	359.616	9915.000	59.950	0.000	70.131	0.000	59.950	0.000	0.000	70.134	36.208	0.289	XOM_R2OWSG MWD+IFR1+MS
17100.000	90.000	359.616	9915.000	60.708	0.000	70.893	0.000	60.708	0.000	0.000	70.896	36.253	0.288	XOM_R2OWSG MWD+IFR1+MS
17200.000	90.000	359.616	9915.000	61.468	0.000	71.658	0.000	61.468	0.000	0.000	71.661	36.298	0.287	XOM_R2OWSG MWD+IFR1+MS
17300.000	90.000	359.616	9915.000	62.228	0.000	72.425	0.000	62.228	0.000	0.000	72.429	36.344	0.285	XOM_R2OWSG MWD+IFR1+MS

17400.000	90.000	359.616	9915.000	62.988	0.000	73.195	0.000	62.988	0.000	0.000	73.199	36.391	0.284	XOM_R2OWSG MWD+IFR1+MS
17500.000	90.000	359.616	9915.000	63.749	0.000	73.968	0.000	63.749	0.000	0.000	73.971	36.438	0.282	XOM_R2OWSG MWD+IFR1+MS
17600.000	90.000	359.616	9915.000	64.511	0.000	74.742	0.000	64.511	0.000	0.000	74.746	36.486	0.280	XOM_R2OWSG MWD+IFR1+MS
17700.000	90.000	359.616	9915.000	65.273	0.000	75.520	0.000	65.273	0.000	0.000	75.523	36.534	0.278	XOM_R2OWSG MWD+IFR1+MS
17800.000	90.000	359.616	9915.000	66.036	0.000	76.299	0.000	66.036	0.000	0.000	76.303	36.583	0.276	XOM_R2OWSG MWD+IFR1+MS
17900.000	90.000	359.616	9915.000	66.799	0.000	77.081	0.000	66.799	0.000	0.000	77.085	36.633	0.274	XOM_R2OWSG MWD+IFR1+MS
17991.850	90.000	359.616	9915.000	67.501	0.000	77.800	0.000	67.501	0.000	0.000	77.804	36.679	0.272	XOM_R2OWSG MWD+IFR1+MS
18000.000	90.000	359.616	9915.000	67.563	0.000	77.864	0.000	67.563	0.000	0.000	77.868	36.683	0.272	XOM_R2OWSG MWD+IFR1+MS
18041.868	90.000	359.616	9915.000	67.883	0.000	78.192	0.000	67.883	0.000	0.000	78.196	36.704	0.271	XOM_R2OWSG MWD+IFR1+MS

Plan Targets	Corral 17-8 Fed Com 102H			
	Measured Depth	<b>Grid Northing</b>	<b>Grid Easting</b>	TVD MSL Target Shape
Target Name	(ft)	(ft)	(ft)	(ft)
102H FTP	10472.05	408861.70	600245.70	6931.00 CIRCLE
102H LTP	17991.85	416381.30	600195.30	6931.00 CIRCLE
102H BHL	18041.85	416431.30	600195.20	6931.00 CIRCLE

ALL DIMENSIONS APPROXIMATE

## CACTUS WELLHEAD LLC

20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head

	XTO ENERGY INDELAWARE BASI	•
DRAWN	VJK	31MAF
APPRV		

And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers

HBE0000479 DRAWING NO.

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**<u>Subject:</u>** 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 CFR Title 43 Part 3170, 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. CFR Title 43 Part 3170 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 CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

#### **Supporting Documentation**

CFR Title 43 Part 3170 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 CFR Title 43 Part 3170 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. CFR Title 43 Part 3170recognizes 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.

9.788177	5	Pressure Test-	-High Pressureac
Component to be Pressure Tested	Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	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 <sup>bd</sup>	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 <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokese	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or N whichever is lower	MASP for the well program,
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	
Annular(s) and VBR(s) shall be pre For pad drilling operations, moving	during the evaluation period. The passure tested on the largest and sm	oressure shall not decrease below the allest OD drill pipe to be used in well n the 21 days, pressure testing is req	program.

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 CFR Title 43 Part 317 Oand 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 CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

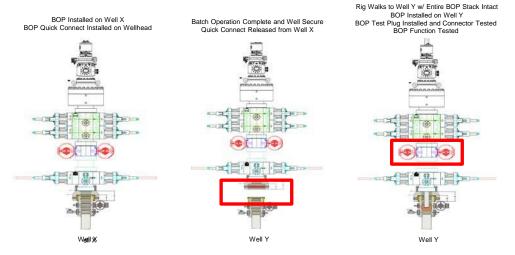
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

#### **Procedures**

- 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



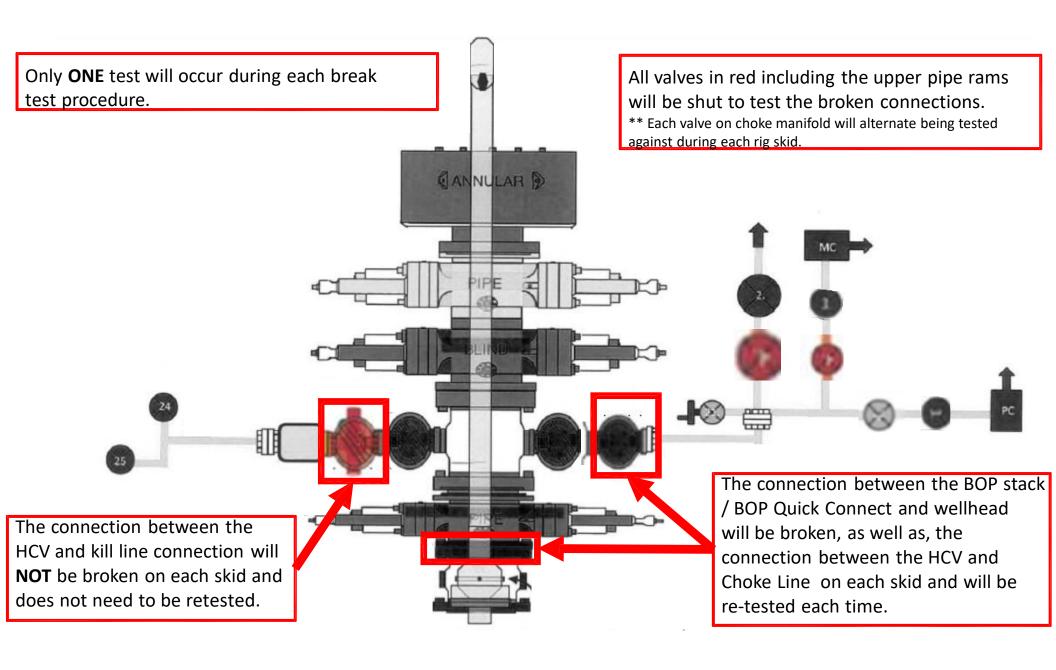
#### **Summary**

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.



## 10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

#### 1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement							
Component	OD	<b>Primary Preventer</b>	RWP	Alternate Preventer(s)	RWP		
Drillpipe	5.000" or	Annular	5M	Upper 3.5"-5.5" VBR	10M		
	4.500"			Lower 3.5"-5.5" VBR	10M		
HWDP	5.000" or	Annular	5M	Upper 3.5"-5.5" VBR	10M		
	4.500"			Lower 3.5"-5.5" VBR	10M		
Jars	6.500"	Annular	5M	-	-		
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-		
Mud Motor	6.750"-8.000"	Annular	5M	-	-		
Production Casing	5-1/2"	Annular	5M	-	-		
Open-Hole	-	Blind Rams	10M	-	-		

#### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

#### **General Procedure While Drilling**

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP & SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### **General Procedure While Tripping**

- 1. Sound alarm (alert crew)
- 2. Stab full-opening safety valve & close
- 3. Space out drill string
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP & SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### **General Procedure While Running Production Casing**

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full-opening safety valve and close
- 3. Space out string
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP & SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams (HCR & choke will already be in the closed position)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

#### General Procedures While Pulling BHA Through Stack

- 1. PRIOR to pulling last joint of drillpipe through stack:
  - a. Perform flow check. If flowing, continue to (b).
  - b. Sound alarm (alert crew)
  - c. Stab full-opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper variable bore rams
  - e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP & SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full-opening safety valve and close
  - c. Space out drill string with upset just beneath the upper variable bore rams
  - d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP & SICP

- ii. Pit gain
- iii. Time
- h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
  - a. Sound alarm (alert crew)
  - b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
  - c. If impossible to pull string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper variable bore ram
  - f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP & SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan

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

CONDITIONS

Action 362878

#### **CONDITIONS**

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	362878
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created E		Condition Date
ward.ri	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	7/16/2024