

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

Sundry Print Report

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

SESW / 32.123636 / -104.008121

NM

Well Number: 163H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

Lease Number: NMNM99147 Unit or CA Name: Unit or CA Number:

INCORPORATED

Notice of Intent

Sundry ID: 2797707

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 06/27/2024 Time Sundry Submitted: 02:33

Date proposed operation will begin: 07/25/2024

Procedure Description: XTO Energy Incorporated respectfully requests approval to make the following changes to the approved APD. Changes to include FTP, LTP, BHL, & Proposed total Depth. FROM: TO: FTP: 330' FSL & 2150' FWL OF SECTION 17-T25S-R29E 330' FSL & 2220' FWL OF SECTION 17-T25S-R29E LTP: 2317' FSL & 2150' FWL OF SECTION 8-T25S-R29E 2547' FSL & 2220' FWL OF SECTION 8-T25S-R29E BHL: 2447' FSL & 2150' FWL OF SECTION 8-T25S-R29E BHL: 2447' FSL & 2150' FWL OF SECTION 8-T25S-R29E The proposed total depth is changing from 18471' MD; 10705' TVD (Wolfcamp) to 18810' MD; 10774' TVD (Wolfcamp D/E). The API number for this well is 30-015-55145. A saturated salt brine will be utilized while drilling through the salt formations. See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Plan, MBS, Well Control Plan, Semi premium, Semi flush, and Flex hose.

NOI Attachments

Procedure Description

Corral_17_8_Fed_163H_Sundry_Documents_20240723113900.pdf

Page 1 of 2

eceived by OCD: 8/12/2024 2:38:14 PM Well Name: CORRAL 17-8 FED COM

Well Location: T25S / R29E / SEC 17 / SESW / 32.123636 / -104.008121

County or Parish/State: Page 2 of

NM

Well Number: 163H

Type of Well: CONVENTIONAL GAS

Allottee or Tribe Name:

Lease Number: NMNM99147

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001555145

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

Signed on: JUL 23, 2024 11:39 AM **Operator Electronic Signature: JENA AUSTIN**

Name: XTO ENERGY INCORPORATED

Title: Regulatory Analyst

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING State: TX

Phone: (346) 335-5295

Email address: JENA.N.AUSTIN@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: 08/12/2024

Signature: Chris Walls

Page 2 of 2

UNITED STATES

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

une 2019)	DEPA	RTMENT OF THE I	NTERIOR			Expi	Expires: October 31, 2021				
		AU OF LAND MAN				5. Lease Serial No.					
	ot use this fo	OTICES AND REPO rm for proposals to se Form 3160-3 (A	to drill or to re-e	enter an		6. If Indian, Allottee or	Tribe N	Name			
	SUBMIT IN TR	RIPLICATE - Other instr	uctions on page 2			7. If Unit of CA/Agreen	ment, N	lame and/or No.			
. Type of Well											
Oil We	ell Gas Wel	Il Other				8. Well Name and No.					
. Name of Operator						9. API Well No.					
a. Address			3b. Phone No. (include	de area code)		10. Field and Pool or E	xplorat	ory Area			
. Location of Well (F	Cootage, Sec., T.,R.,I	M., or Survey Description,				11. Country or Parish, S	State				
	12. CHECI	K THE APPROPRIATE B	OX(ES) TO INDICAT	E NATURE O	F NOTIO	CE, REPORT OR OTH	ER DA	ТА			
TYPE OF SUB	MISSION			TYPE	OF ACT	TION					
Notice of Inten	t	Acidize	Deepen		_	action (Start/Resume)	=	Water Shut-Off			
		Alter Casing	Hydraulic F	_		mation	_	Well Integrity			
Subsequent Rep	port	Clasing Repair	New Consti			mplete	Ш'	Other			
Final Abandoni	ment Notice	Change Plans Convert to Injection	Plug and Al Plug Back	oandon L		orarily Abandon Disposal					
is ready for final in		es must be filed only after	all requirements, incit	iding reciamat	ion, nave	been completed and th	e opera	tor has determined that ti	ne site		
I. I hereby certify tha	t the foregoing is tr	ue and correct. Name (Pr	inted/Typed) Title								
			Title								
Signature			Date								
		THE SPACE	FOR FEDERA	L OR STAT	ΓE OF	ICE USE					
pproved by				Title		T.	ota				
	l : 6	1 A 1 Cd.	J	Title		D	ate				
onditions of approval	l if any are affache	d Approval of this notice	anes not warrant or								

certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Office

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.

(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, 3162.3-4.

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

(Form 3160-5, page 2)

Additional Information

Additional Remarks

The API number for this well is 30-015-55145.

A saturated salt brine will be utilized while drilling through the salt formations.

See attached Drilling Plan for updated cement and casing program.

Attachments: C-102, Drilling Plan, Directional Plan, MBS, Well Control Plan, Semi premium, Semi flush, and Flex hose.

Location of Well

0. SHL: SESW / 284 FSL / 2174 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.123636 / LONG: -104.008121 (TVD: 0 feet, MD: 0 feet) PPP: SESW / 330 FSL / 2150 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.123765 / LONG: -104.0082 (TVD: 10705 feet, MD: 11100 feet) PPP: SENW / 330 FSL / 2150 FWL / TWSP: 25S / RANGE: 29E / SECTION: 17 / LAT: 32.13562 / LONG: -104.00878 (TVD: 10705 feet, MD: 13800 feet) BHL: NESW / 2447 FSL / 2150 FWL / TWSP: 25S / RANGE: 29E / SECTION: 8 / LAT: 32.144166 / LONG: -104.008289 (TVD: 10705 feet, MD: 18471 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

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

163H\DWG\163H C-102.dwg

17-8 FEDERAL

Eddy/Wells/-14

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Can

Corral

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Eddy\.03

Unit

Canyon

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NM\013

Energy

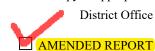
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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate

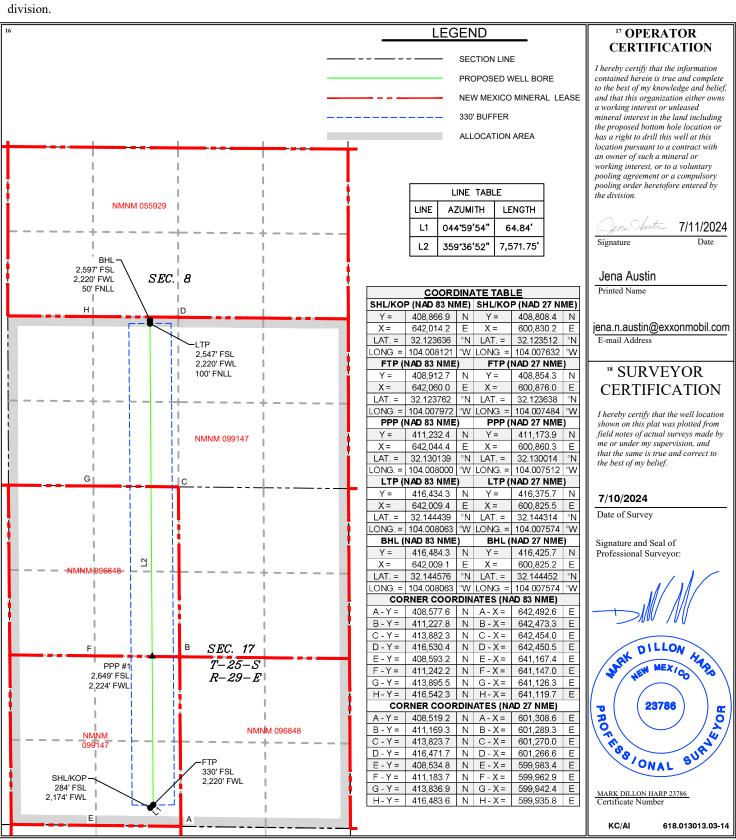


WELL LOCATION AND ACREAGE DEDICATION PLAT

WEEL ECONTROL RECEIVE DEDICATION EN												
API Number	r	² Pool Code	³ Pool Name									
30-015-5514	1 5	98220	(GAS)									
⁴ Property Code		⁵ P	⁵ Property Name ⁶ Well Number									
		CORRA	AL 17-8 FED COM 163H									
⁷ OGRID No.		⁸ O	Operator Name	⁹ Elevation								
005380		ХТО	ENERGY, INC	2,955'								

¹⁰ Surface Location UL or lot no. Section Township Range Lot Idn North/South lin Feet from the East/West line 25 S 29 E SOUTH **WEST EDDY** Ν 17 284 2.174 "Bottom Hole Location If Different From Surface UL or lot no. East/West line Section Feet from the County Township Range Lot Idn Feet from the North/South line 25 S 29 E 2,597 SOUTH 2,220 WEST **EDDY** ²Dedicated Acres Joint or Infill Consolidation Code Order No.

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



Inten	t X	As Dril	led											
API #														
	rator Nai DENER	^{ne:} GY, INC				Property I Coral 17-			n			Well Number 163H		
Kick (Off Point		,								,			
UL	Section	Township	Range	Lot	Feet	From	N/S	Feet	Froi	m E/W	County			
Latit	ude				Longitu	ide					NAD			
First '	Take Poir	nt (FTP)			1									
UL N	Section 17	Township 25S	Range 29E	Lot	Feet 330	From Sout		Feet 2,220		n E/W St	County Eddy			
Latite	ude 123762	2			_	Longitude NAD 83								
Last T	Гake Poin	t (LTP)												
UL K	Section 8	Township 25S	Range 29E	Lot	Feet 2,547	From N/S South	Feet 2,2 :		From E/W Vest	Coun				
Latite	ude 14443	9		•	Longitu 104.0	ode 008063	1	'		NAD 83				
		_	vell for th	e Hori:	zontal Տր	pacing Unit	? [
Is this	s well an	infill well?			_									
	ll is yes p ng Unit.	lease prov	ide API if	availak	ole, Opei	rator Name	and v	well nur	mber for	Defini	ng well fo	r Horizontal		
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DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

XTO Energy Inc.

CORRAL 17 - 8 FED COM 163H

Projected TD: 18810.84' MD / 10774' TVD

SHL: 284' FSL & 2174' FWL , Section 17, T25S, R29E

BHL: 2597' FSL & 2220' 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
Top of Salt	588'	Water
Base of Salt	2688'	Water
Delaware	2888'	Water
Brushy Canyon	5382'	Water/Oil/Gas
Bone Spring	6610'	Water
1st Bone Spring	7384'	Water/Oil/Gas
2nd Bone Spring	7831'	Water/Oil/Gas
3rd Bone Spring	8654'	Water/Oil/Gas
Wolfcamp	9810'	Water/Oil/Gas
Wolfcamp X	9833'	Water/Oil/Gas
Wolfcamp Y	9911'	Water/Oil/Gas
Wolfcamp A	9952'	Water/Oil/Gas
Wolfcamp B	10291'	Water/Oil/Gas
Wolfcamp D	10674'	Water/Oil/Gas
Target/Land Curve	10774'	Water/Oil/Gas

^{***} 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 @ 553' (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 9914.27' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 18810.84 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9614.27 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 553'	9.625	40	J-55	втс	New	1.61	11.25	28.48
8.75	0' - 4000'	7.625	29.7	RY P-110	Flush Joint	New	1.93	2.86	1.90
8.75	4000' – 9914.27'	7.625	29.7	HC L-80	Flush Joint	New	1.40	2.31	2.31
6.75	0' - 9814.27'	5.5	20	RY P-110	Semi-Premium	New	1.26	1.67	2.31
6.75	9814.27' - 18810.84'	5.5	20	RY P-110	Semi-Flush	New	1.26	1.52	2.31

- · 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
- \cdot 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

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

- \cdot Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- \cdot XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 20" 10M top flange x 9-5/8" bottom

B. Tubing Head: 11" 10M bottom flange x 7-1/16" 15M top

· 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 +/- 553'

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 +/- 9914.27'

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

TOC: Brushy Canyon @ 5382

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 (5382') 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 +/- 18810.84'

Lead: 20 sxs NeoCem (mixed at 13.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 9614.27 feet
Tail: 620 sxs VersaCem (mixed at 14.8 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10114.27 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 surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril and a 10M Double Ram BOP.

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. 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	Additional Comments
	. 10.0 0.20		(ppg)	(sec/qt)	(cc)	
0' - 553'	12.25	FW/Native	8.5-9	35-40	NC	Fresh water or native water
553' - 9914.27'	8.75 i	Saturated orine for salt nterval / Direct mulsion	10-10.5	30-32	NC	Fully saturated salt across salado / salt
9914.27' - 18810.84'	6.75	ОВМ	13-13.5	50-60	NC - 20	N/A

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 surface casing with Saturated Salt solution. Saturated Salt 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 170 to 190 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 7283 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 163H

 Measured Depth:
 18810.84 ft

 TVD RKB:
 10774.00 ft

Location

New Mexico East -Cartographic Reference System: NAD 27 Northing: 408808.40 ft Easting: 600830.20 ft RKB: 2988.00 ft **Ground Level:** 2955.00 ft North Reference: Grid Convergence Angle: 0.17 Deg

Plan Sections Corral 17-8 Fed Com 163H

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) Ta	arget
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	
1601.99	10.04	175.68	1599.43	- 43.75	3.30	2.00	0.00	2.00	
4954.47	10.04	175.68	4900.57	-626.54	47.31	0.00	0.00	0.00	
5456.47	0.00	0.00	5400.00	- 670.28	50.61	- 2.00	0.00	2.00	
10114.27	0.00	0.00	10057.80	- 670.28	50.61	0.00	0.00	0.00	
11239.27	90.00	359.62	10774.00	45.90	45.80	8.00	0.00	8.00 10	6H FTP
18760.84	90.00	359.62	10774.00	7567.30	- 4.70	0.00	0.00	0.00 10	63H LTP
18810.84	90.00	359.62	10774.00	7617,30	-5.04	0.00	0.00	0.00 10	63H BHL

Position Uncertainty Corral 17-8 Fed Com 163H

Measured TVD Highside Lateral Vertical Magnitude Semi- Semi- Semi- Tool 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	175.682	1199.980	4.281	0.000	4.105	-0.000	2.680	0.000	0.000	4.284	4.104	89.996	XOM_R2OWSG MWD+IFR1+MS
1300.000	4.000	175.682	1299.838	4.601	0.000	4.430	-0.000	2.737	0.000	0.000	4.612	4.429	89.968	XOM_R2OWSG MWD+IFR1+MS
1400.000	6.000	175.682	1399.452	4.921	0.000	4.760	-0.000	2.794	0.000	0.000	4.945	4.759	89.949	XOM_R2OWSG MWD+IFR1+MS
1500.000	8.000	175.682	1498.702	5.239	0.000	5.094	-0.000	2.853	0.000	0.000	5.282	5.093		XOM_R2OWSG MWD+IFR1+MS
1601.994	10.040	175.682	1599.429	5.562	0.000	5.441	-0.000	2.914	0.000	0.000	5.628	5.440	90.034	XOM_R2OWSG MWD+IFR1+MS
1700.000	10.040	175.682	1695.934	5.899	0.000	5.780	-0.000	2.981	0.000	0.000	5.962	5.779	90.213	XOM_R2OWSG MWD+IFR1+MS
1800.000	10.040	175.682	1794.403	6.247	0.000	6.132	-0.000	3.057	0.000	0.000	6.304	6.131	90.504	XOM_R2OWSG MWD+IFR1+MS

1	900.000	10.040	175.682	1892.872	6.598	0.000	6.488	-0.000	3.136	0.000	0.000	6.650	6.487	90.847	XOM_R2OWSG MWD+IFR1+MS
2	2000.000	10.040	175.682	1991.340	6.952	0.000	6.848	-0.000	3.219	0.000	0.000	6.998	6.846	91.256	XOM_R2OWSG MWD+IFR1+MS
2	2100.000	10.040	175.682	2089.809	7.309	0.000	7.211	-0.000	3.304	0.000	0.000	7.349	7.209	91.749	XOM_R2OWSG MWD+IFR1+MS
2	2200.000	10.040	175.682	2188.278	7.668	0.000	7.577	-0.000	3.392	0.000	0.000	7.702	7.575	92.355	XOM_R2OWSG MWD+IFR1+MS
2	2300.000	10.040	175.682	2286.746	8.029	0.000	7.945	-0.000	3.482	0.000	0.000	8.057	7.943	93.117	XOM_R2OWSG MWD+IFR1+MS
2	2400.000	10.040	175.682	2385.215	8.391	0.000	8.315	-0.000	3.574	0.000	0.000	8.414	8.313	94.099	XOM_R2OWSG MWD+IFR1+MS
2	2500.000	10.040	175.682	2483.684	8.755	0.000	8.688	-0.000	3.669	0.000	0.000	8.772	8.685	95.410	XOM_R2OWSG MWD+IFR1+MS
2	2600.000	10.040	175.682	2582.152	9.120	0.000	9.061	-0.000	3.765	0.000	0.000	9.132	9.058	97.236	XOM_R2OWSG MWD+IFR1+MS
2	2700.000	10.040	175.682	2680.621	9.486	0.000	9.437	-0.000	3.864	0.000	0.000	9.493	9.433	99.926	XOM_R2OWSG MWD+IFR1+MS
2	2800.000	10.040	175.682	2779.090	9.853	0.000	9.813	-0.000	3.965	0.000	0.000	9.855	9.808	104.173	XOM_R2OWSG MWD+IFR1+MS
2	2900.000	10.040	175.682	2877.558	10.221	0.000	10.191	-0.000	4.067	0.000	0.000	10.220	10.184	111.371	XOM_R2OWSG MWD+IFR1+MS
3	3000.000	10.040	175.682	2976.027	10.590	0.000	10.569	-0.000	4.171	0.000	0.000	10.587	10.558	123.527	XOM_R2OWSG MWD+IFR1+MS
3	3100.000	10.040	175.682	3074.496	10.959	0.000	10.948	-0.000	4.277	0.000	0.000	10.959	10.930	-40.864	XOM_R2OWSG MWD+IFR1+MS
3	3200.000	10.040	175.682	3172.965	11.330	0.000	11.329	-0.000	4.385	0.000	0.000	11.335	11.298	-28.662	XOM_R2OWSG MWD+IFR1+MS
3	3300.000	10.040	175.682	3271.433	11.700	0.000	11.710	-0.000	4.495	0.000	0.000	11.714	11.666	-21.430	XOM_R2OWSG MWD+IFR1+MS
3	3400.000	10.040	175.682	3369.902	12.072	0.000	12.091	-0.000	4.606	0.000	0.000	12.094	12.032	-17.165	XOM_R2OWSG MWD+IFR1+MS
3	3500.000	10.040	175.682	3468.371	12.443	0.000	12.473	-0.000	4.719	0.000	0.000	12.476	12.399	-14.464	XOM_R2OWSG MWD+IFR1+MS
3	8600.000	10.040	175.682	3566.839	12.816	0.000	12.856	-0.000	4.833	0.000	0.000	12.858	12.766	-12.631	XOM_R2OWSG MWD+IFR1+MS
3	3700.000	10.040	175.682	3665.308	13.188	0.000	13.239	-0.000	4.950	0.000	0.000	13.241	13.134	-11.315	XOM_R2OWSG MWD+IFR1+MS
3	800.000	10.040	175.682	3763.777	13.561	0.000	13.623	-0.000	5.067	0.000	0.000	13.624	13.502	-10.329	XOM_R2OWSG MWD+IFR1+MS

3900.000	10.040	175.682	3862.245	13.934 0.000	14.007 -0.00	0 5.187 0.000	0.000	14.008	13.870	-9.564 XOM_R2OWSG MWD+IFR1+MS
4000.000	10.040	175.682	3960.714	14.308 0.000	14.391 -0.00	0 5.308 0.000	0.000	14.392	14.238	-8.953 XOM_R2OWSG MWD+IFR1+MS
4100.000	10.040	175.682	4059.183	14.682 0.000	14.776 -0.00	0 5.431 0.000	0.000	14.777	14.607	-8.456 XOM_R2OWSG MWD+IFR1+MS
4200.000	10.040	175.682	4157.651	15.056 0.000	15.161 -0.00	0 5.555 0.000	0.000	15.162	14.975	-8.043 XOM_R2OWSG MWD+IFR1+MS
4300.000	10.040	175.682	4256.120	15.431 0.000	15.547 -0.00	0 5.681 0.000	0.000	15.547	15.345	-7.695 XOM_R2OWSG MWD+IFR1+MS
4400.000	10.040	175.682	4354.589	15.805 0.000	15.932 -0.00	0 5.809 0.000	0.000	15.933	15.714	-7.397 XOM_R2OWSG MWD+IFR1+MS
4500.000	10.040	175.682	4453.058	16.180 0.000	16.318 -0.00	0 5.939 0.000	0.000	16.319	16.084	-7.140 XOM_R2OWSG MWD+IFR1+MS
4600.000	10.040	175.682	4551.526	16.555 0.000	16.704 -0.00	0 6.070 0.000	0.000	16.705	16.453	-6.915 XOM_R2OWSG MWD+IFR1+MS
4700.000	10.040	175.682	4649.995	16.930 0.000	17.091 -0.00	0 6.203 0.000	0.000	17.091	16.823	-6.718 XOM_R2OWSG MWD+IFR1+MS
4800.000	10.040	175.682	4748.464	17.306 0.000	17.477 -0.00	0 6.338 0.000	0.000	17.478	17.194	-6.543 XOM_R2OWSG MWD+IFR1+MS
4900.000	10.040	175.682	4846.932	17.681 0.000	17.864 -0.00	0 6.474 0.000	0.000	17.864	17.564	-6.386 XOM_R2OWSG MWD+IFR1+MS
4954.473	10.040	175.682	4900.571	17.886 0.000	18.075 -0.00	0 6.550 0.000	0.000	18.075	17.766	-6.309 XOM_R2OWSG MWD+IFR1+MS
5000.000	9.129	175.682	4945.462	18.066 0.000	18.250 -0.00	0 6.613 0.000	0.000	18.250	17.934	-6.248 XOM_R2OWSG MWD+IFR1+MS
5100.000	7.129	175.682	5044.452	18.441 0.000	18.629 -0.00	0 6.752 0.000	0.000	18.630	18.300	-6.140 XOM_R2OWSG MWD+IFR1+MS
5200.000	5.129	175.682	5143.875	18.791 0.000	19.001 -0.00	0 6.889 0.000	0.000	19.001	18.661	-6.061 XOM_R2OWSG MWD+IFR1+MS
5300.000	3.129	175.682	5243.611	19.113 0.000	19.363 -0.00	0 7.022 0.000	0.000	19.363	19.017	-6.007 XOM_R2OWSG MWD+IFR1+MS
5400.000	1.129	175.682	5343.537	19.408 0.000	19.717 -0.00	0 7.152 0.000	0.000	19.717	19.367	-5.972 XOM_R2OWSG MWD+IFR1+MS
5456.467	0.000	0.000	5400.000	19.560 0.000	19.900 0.00	0 7.224 0.000	0.000	19.903	19.556	-6.002 XOM_R2OWSG MWD+IFR1+MS
5500.000	0.000	0.000	5443.533	19.701 0.000	20.035 0.00	0 7.280 0.000	0.000	20.039	19.697	-6.060 XOM_R2OWSG MWD+IFR1+MS
5600.000	0.000	0.000	5543.533	20.025 0.000	20.348 0.00	0 7.409 0.000	0.000	20.352	20.021	-6.198 XOM_R2OWSG MWD+IFR1+MS

5700.000	0.000	0.000	5643.533	20.350 0.000	20.662	0.000	7.540 0.000	0.000	20.666	20.346	-6.340	XOM_R2OWSG MWD+IFR1+MS
5800.000	0.000	0.000	5743.533	20.676 0.000	20.977	0.000	7.673 0.000	0.000	20.981	20.672	-6.488	XOM_R2OWSG MWD+IFR1+MS
5900.000	0.000	0.000	5843.533	21.003 0.000	21.294	0.000	7.809 0.000	0.000	21.298	20.999	-6.641	XOM_R2OWSG MWD+IFR1+MS
6000.000	0.000	0.000	5943.533	21.331 0.000	21.612	0.000	7.948 0.000	0.000	21.616	21.327	-6.801	XOM_R2OWSG MWD+IFR1+MS
6100.000	0.000	0.000	6043.533	21.661 0.000	21.932	0.000	8.089 0.000	0.000	21.936	21.656	-6.966	XOM_R2OWSG MWD+IFR1+MS
6200.000	0.000	0.000	6143.533	21.991 0.000	22.252	0.000	8.232 0.000	0.000	22.256	21.987	-7.138	XOM_R2OWSG MWD+IFR1+MS
6300.000	0.000	0.000	6243.533	22.322 0.000	22.574	0.000	8.378 0.000	0.000	22.578	22.318	-7.317	XOM_R2OWSG MWD+IFR1+MS
6400.000	0.000	0.000	6343.533	22.654 0.000	22.897	0.000	8.527 0.000	0.000	22.901	22.649	-7.504	XOM_R2OWSG MWD+IFR1+MS
6500.000	0.000	0.000	6443.533	22.986 0.000	23.221	0.000	8.678 0.000	0.000	23.225	22.982	-7.698	XOM_R2OWSG MWD+IFR1+MS
6600.000	0.000	0.000	6543.533	23.320 0.000	23.545	0.000	8.832 0.000	0.000	23.550	23.315	-7.901	XOM_R2OWSG MWD+IFR1+MS
6700.000	0.000	0.000	6643.533	23.654 0.000	23.871	0.000	8.988 0.000	0.000	23.876	23.649	-8.112	XOM_R2OWSG MWD+IFR1+MS
6800.000	0.000	0.000	6743.533	23.989 0.000	24.198	0.000	9.147 0.000	0.000	24.202	23.984	-8.333	XOM_R2OWSG MWD+IFR1+MS
6900.000	0.000	0.000	6843.533	24.324 0.000	24.526	0.000	9.309 0.000	0.000	24.530	24.320	-8.564	XOM_R2OWSG MWD+IFR1+MS
7000.000	0.000	0.000	6943.533	24.660 0.000	24.854	0.000	9.473 0.000	0.000	24.859	24.656	-8.805	XOM_R2OWSG MWD+IFR1+MS
7100.000	0.000	0.000	7043.533	24.997 0.000	25.183	0.000	9.640 0.000	0.000	25.188	24.992	-9.058	XOM_R2OWSG MWD+IFR1+MS
7200.000	0.000	0.000	7143.533	25.335 0.000	25.513	0.000	9.810 0.000	0.000	25.518	25.330	-9.323	XOM_R2OWSG MWD+IFR1+MS
7300.000	0.000	0.000	7243.533	25.673 0.000	25.844	0.000	9.983 0.000	0.000	25.849	25.668	-9.601	XOM_R2OWSG MWD+IFR1+MS
7400.000	0.000	0.000	7343.533	26.011 0.000	26.176	0.000	10.158 0.000	0.000	26.181	26.006	-9.893	XOM_R2OWSG MWD+IFR1+MS
7500.000	0.000	0.000	7443.533	26.350 0.000	26.508	0.000	10.336 0.000	0.000	26.513	26.345	-10.200	XOM_R2OWSG MWD+IFR1+MS
7600.000	0.000	0.000	7543.533	26.690 0.000	26.841	0.000	10.517 0.000	0.000	26.846	26.684	-10.523	XOM_R2OWSG MWD+IFR1+MS

-	7700.000	0.000	0.000	7643.533	27.030 0.000	27.175	0.000	10.701	0.000	0.000	27.180	27.024	-10.864	XOM_R2OWSG MWD+IFR1+MS
-	7800.000	0.000	0.000	7743.533	27.370 0.000	27.509	0.000	10.888	0.000	0.000	27.514	27.365	-11.223	XOM_R2OWSG MWD+IFR1+MS
•	7900.000	0.000	0.000	7843.533	27.711 0.000	27.844	0.000	11.077	0.000	0.000	27.849	27.705	-11.602	XOM_R2OWSG MWD+IFR1+MS
	8000.000	0.000	0.000	7943.533	28.053 0.000	28.179	0.000	11.270	0.000	0.000	28.185	28.047	-12.003	XOM_R2OWSG MWD+IFR1+MS
	3100.000	0.000	0.000	8043.533	28.394 0.000	28.515	0.000	11.465	0.000	0.000	28.521	28.388	-12.427	XOM_R2OWSG MWD+IFR1+MS
	3200.000	0.000	0.000	8143.533	28.737 0.000	28.852	0.000	11.663	0.000	0.000	28.858	28.730	-12.877	XOM_R2OWSG MWD+IFR1+MS
8	8300.000	0.000	0.000	8243.533	29.079 0.000	29.189	0.000	11.864	0.000	0.000	29.195	29.073	-13.354	XOM_R2OWSG MWD+IFR1+MS
	8400.000	0.000	0.000	8343.533	29.422 0.000	29.526	0.000	12.068	0.000	0.000	29.533	29.415	-13.860	XOM_R2OWSG MWD+IFR1+MS
	8500.000	0.000	0.000	8443.533	29.766 0.000	29.864	0.000	12.274	0.000	0.000	29.871	29.759	-14.399	XOM_R2OWSG MWD+IFR1+MS
	3600.000	0.000	0.000	8543.533	30.109 0.000	30.203	0.000	12.484	0.000	0.000	30.210	30.102	-14.973	XOM_R2OWSG MWD+IFR1+MS
	8700.000	0.000	0.000	8643.533	30.453 0.000	30.542	0.000	12.697	0.000	0.000	30.549	30.446	-15.584	XOM_R2OWSG MWD+IFR1+MS
8	8800.000	0.000	0.000	8743.533	30.798 0.000	30.881	0.000	12.912	0.000	0.000	30.889	30.790	-16.237	XOM_R2OWSG MWD+IFR1+MS
8	8900.000	0.000	0.000	8843.533	31.142 0.000	31.221	0.000	13.131	0.000	0.000	31.229	31.134	-16.935	XOM_R2OWSG MWD+IFR1+MS
9	9000.000	0.000	0.000	8943.533	31.487 0.000	31.561	0.000	13.352	0.000	0.000	31.569	31.479	-17.682	XOM_R2OWSG MWD+IFR1+MS
9	9100.000	0.000	0.000	9043.533	31.833 0.000	31.902	0.000	13.577	0.000	0.000	31.910	31.824	-18.481	XOM_R2OWSG MWD+IFR1+MS
9	9200.000	0.000	0.000	9143.533	32.178 0.000	32.243	0.000	13.804	0.000	0.000	32.252	32.169	-19.337	XOM_R2OWSG MWD+IFR1+MS
9	9300.000	0.000	0.000	9243.533	32.524 0.000	32.584	0.000	14.034	0.000	0.000	32.593	32.515	-20.256	XOM_R2OWSG MWD+IFR1+MS
9	9400.000	0.000	0.000	9343.533	32.870 0.000	32.926	0.000	14.268	0.000	0.000	32.936	32.860	-21.241	XOM_R2OWSG MWD+IFR1+MS
9	9500.000	0.000	0.000	9443.533	33.217 0.000	33.268	0.000	14.504	0.000	0.000	33.278	33.206	-22.298	XOM_R2OWSG MWD+IFR1+MS
,	9600.000	0.000	0.000	9543.533	33.563 0.000	33.610	0.000	14.744	0.000	0.000	33.621	33.552	-23.431	XOM_R2OWSG MWD+IFR1+MS

9700.000	0.000	0.000	9643.533	33.910	0.000	33.953	0.000	14.986	0.000	0.000	33.965	33.899	-24.646	XOM_R2OWSG MWD+IFR1+MS
9800.000	0.000	0.000	9743.533	34.257	0.000	34.296	0.000	15.231	0.000	0.000	34.308	34.245	- 25.947	XOM_R2OWSG MWD+IFR1+MS
9900.000	0.000	0.000	9843.533	34.605	0.000	34.640	0.000	15.480	0.000	0.000	34.652	34.592	-27.336	XOM_R2OWSG MWD+IFR1+MS
10000.000	0.000	0.000	9943.533	34.952	0.000	34.983	0.000	15.731	0.000	0.000	34.997	34.939	-28.817	XOM_R2OWSG MWD+IFR1+MS
10100.000	0.000	0.000	10043.533	35.300	0.000	35.327	0.000	15.985	0.000	0.000	35.342	35.286	-30.389	XOM_R2OWSG MWD+IFR1+MS
10114.270	0.000	0.000	10057.803	35.350	0.000	35.376	0.000	16.022	0.000	0.000	35.391	35.335	-30.621	XOM_R2OWSG MWD+IFR1+MS
10200.000	6.858	359.615	10143.328	35.195	0.000	35.668	0.000	16.239	0.000	0.000	35.682	35.626	-30.448	XOM_R2OWSG MWD+IFR1+MS
10300.000	14.858	359.615	10241.458	34.494	0.000	35.995	0.000	16.480	0.000	0.000	36.007	35.944	-26.347	XOM_R2OWSG MWD+IFR1+MS
10400.000	22.858	359.615	10336.013	33.261	0.000	36.304	0.000	16.705	0.000	0.000	36.313	36.230	-19.389	XOM_R2OWSG MWD+IFR1+MS
10500.000	30.858	359.615	10425.154	31.544	0.000	36.593	0.000	16.912	0.000	0.000	36.599	36.476	-13.180	XOM_R2OWSG MWD+IFR1+MS
10600.000	38.858	359.615	10507.144	29.419	0.000	36.859	0.000	17.101	0.000	0.000	36.864	36.678	-9.102	XOM_R2OWSG MWD+IFR1+MS
10700.000	46.858	359.615	10580.388	26.997	0.000	37.102	0.000	17.277	0.000	0.000	37.105	36.835	-6.618	XOM_R2OWSG MWD+IFR1+MS
10800.000	54.858	359.615	10643.460	24.433	0.000	37.319	0.000	17.446	0.000	0.000	37.322	36.950	-5.072	XOM_R2OWSG MWD+IFR1+MS
10900.000	62.858	359.615	10695.134	21.943	0.000	37.512	0.000	17.615	0.000	0.000	37.514	37.026	- 4.065	XOM_R2OWSG MWD+IFR1+MS
11000.000	70.858	359.615	10734.402	19.822	0.000	37.681	0.000	17.792	0.000	0.000	37.683	37.070	-3.382	XOM_R2OWSG MWD+IFR1+MS
11100.000	78.858	359.615	10760.502	18.429	0.000	37.825	0.000	17.984	0.000	0.000	37.826	37.091	- 2.902	XOM_R2OWSG MWD+IFR1+MS
11200.000	86.858	359.615	10772.924	18.090	0.000	37.943	0.000	18.194	0.000	0.000	37.945	37.099	-2.562	XOM_R2OWSG MWD+IFR1+MS
11239.270	90.000	359.615	10774.000	18.282	0.000	37.981	0.000	18.282	0.000	0.000	37.982	37.102	- 2.462	XOM_R2OWSG MWD+IFR1+MS
11300.000	90.000	359.615	10774.000	18.426	0.000	38.041	0.000	18.426	0.000	0.000	38.042	37.104	-2.314	XOM_R2OWSG MWD+IFR1+MS
11400.000	90.000	359.615	10774.000	18.686	0.000	38.158	0.000	18.686	0.000	0.000	38.159	37.109	-2.075	XOM_R2OWSG MWD+IFR1+MS

11500.000	90.000	359.615	10774.000	18.976	0.000	38.296	0.000	18.976	0.000	0.000	38.296	37.114	-1.858	XOM_R2OWSG MWD+IFR1+MS
11600.000	90.000	359.615	10774.000	19.293	0.000	38.453	0.000	19.293	0.000	0.000	38.453	37.120	-1.666	XOM_R2OWSG MWD+IFR1+MS
11700.000	90.000	359.615	10774.000	19.637	0.000	38.629	0.000	19.637	0.000	0.000	38.629	37.126	-1.499	XOM_R2OWSG MWD+IFR1+MS
11800.000	90.000	359.615	10774.000	20.005	0.000	38.824	0.000	20.005	0.000	0.000	38.825	37.134	-1.355	XOM_R2OWSG MWD+IFR1+MS
11900.000	90.000	359.615	10774.000	20.397	0.000	39.039	0.000	20.397	0.000	0.000	39.039	37.142	-1.231	XOM_R2OWSG MWD+IFR1+MS
12000.000	90.000	359.615	10774.000	20.811	0.000	39.272	0.000	20.811	0.000	0.000	39.272	37.150	-1.125	XOM_R2OWSG MWD+IFR1+MS
12100.000	90.000	359.615	10774.000	21.246	0.000	39.523	0.000	21.246	0.000	0.000	39.523	37.160	-1.035	XOM_R2OWSG MWD+IFR1+MS
12200.000	90.000	359.615	10774.000	21.701	0.000	39.792	0.000	21.701	0.000	0.000	39.792	37.170	-0.957	XOM_R2OWSG MWD+IFR1+MS
12300.000	90.000	359.615	10774.000	22.174	0.000	40.079	0.000	22.174	0.000	0.000	40.079	37.181	-0.891	XOM_R2OWSG MWD+IFR1+MS
12400.000	90.000	359.615	10774.000	22.665	0.000	40.383	0.000	22.665	0.000	0.000	40.383	37.192	-0.833	XOM_R2OWSG MWD+IFR1+MS
12500.000	90.000	359.615	10774.000	23.171	0.000	40.703	0.000	23.171	0.000	0.000	40.704	37.204	-0.784	XOM_R2OWSG MWD+IFR1+MS
12600.000	90.000	359.615	10774.000	23.693	0.000	41.040	0.000	23.693	0.000	0.000	41.041	37.217	-0.741	XOM_R2OWSG MWD+IFR1+MS
12700.000	90.000	359.615	10774.000	24.229	0.000	41.393	0.000	24.229	0.000	0.000	41.394	37.231	-0.703	XOM_R2OWSG MWD+IFR1+MS
12800.000	90.000	359.615	10774.000	24.779	0.000	41.762	0.000	24.779	0.000	0.000	41.762	37.245	-0.671	XOM_R2OWSG MWD+IFR1+MS
12900.000	90.000	359.615	10774.000	25.340	0.000	42.146	0.000	25.340	0.000	0.000	42.146	37.260	-0.642	XOM_R2OWSG MWD+IFR1+MS
13000.000	90.000	359.615	10774.000	25.914	0.000	42.544	0.000	25.914	0.000	0.000	42.545	37.276	-0.617	XOM_R2OWSG MWD+IFR1+MS
13100.000	90.000	359.615	10774.000	26.498	0.000	42.957	0.000	26.498	0.000	0.000	42.957	37.293	-0.594	XOM_R2OWSG MWD+IFR1+MS
13200.000	90.000	359.615	10774.000	27.092	0.000	43.384	0.000	27.092	0.000	0.000	43.384	37.310	-0.574	XOM_R2OWSG MWD+IFR1+MS
13300.000	90.000	359.615	10774.000	27.696	0.000	43.825	0.000	27.696	0.000	0.000	43.825	37.328	-0.557	XOM_R2OWSG MWD+IFR1+MS
13400.000	90.000	359.615	10774.000	28.309	0.000	44.278	0.000	28.309	0.000	0.000	44.278	37.346	-0.541	XOM_R2OWSG MWD+IFR1+MS

13500.000	90.000	359.615	10774.000	28.930	0.000	44.744	0.000	28.930	0.000	0.000	44.744	37.365	-0.527	XOM_R2OWSG MWD+IFR1+MS
13600.000	90.000	359.615	10774.000	29.558	0.000	45.223	0.000	29.558	0.000	0.000	45.223	37.385	-0.514	XOM_R2OWSG MWD+IFR1+MS
13700.000	90.000	359.615	10774.000	30.194	0.000	45.714	0.000	30.194	0.000	0.000	45.714	37.406	-0.503	XOM_R2OWSG MWD+IFR1+MS
13800.000	90.000	359.615	10774.000	30.837	0.000	46.216	0.000	30.837	0.000	0.000	46.216	37.427	-0.493	XOM_R2OWSG MWD+IFR1+MS
13900.000	90.000	359.615	10774.000	31.487	0.000	46.729	0.000	31.487	0.000	0.000	46.729	37.450	-0.484	XOM_R2OWSG MWD+IFR1+MS
14000.000	90.000	359.615	10774.000	32.142	0.000	47.253	0.000	32.142	0.000	0.000	47.253	37.472	-0.475	XOM_R2OWSG MWD+IFR1+MS
14100.000	90.000	359.615	10774.000	32.803	0.000	47.788	0.000	32.803	0.000	0.000	47.788	37.496	-0.468	XOM_R2OWSG MWD+IFR1+MS
14200.000	90.000	359.615	10774.000	33.470	0.000	48.333	0.000	33.470	0.000	0.000	48.333	37.520	-0.461	XOM_R2OWSG MWD+IFR1+MS
14300.000	90.000	359.615	10774.000	34.141	0.000	48.887	0.000	34.141	0.000	0.000	48.887	37.545	-0.454	XOM_R2OWSG MWD+IFR1+MS
14400.000	90.000	359.615	10774.000	34.817	0.000	49.451	0.000	34.817	0.000	0.000	49.451	37.570	-0.449	XOM_R2OWSG MWD+IFR1+MS
14500.000	90.000	359.615	10774.000	35.498	0.000	50.024	0.000	35.498	0.000	0.000	50.024	37.597	-0.443	XOM_R2OWSG MWD+IFR1+MS
14600.000	90.000	359.615	10774.000	36.183	0.000	50.606	0.000	36.183	0.000	0.000	50.606	37.623	-0.438	XOM_R2OWSG MWD+IFR1+MS
14700.000	90.000	359.615	10774.000	36.872	0.000	51.197	0.000	36.872	0.000	0.000	51.197	37.651	-0.434	XOM_R2OWSG MWD+IFR1+MS
14800.000	90.000	359.615	10774.000	37.564	0.000	51.796	0.000	37.564	0.000	0.000	51.796	37.679	-0.430	XOM_R2OWSG MWD+IFR1+MS
14900.000	90.000	359.615	10774.000	38.261	0.000	52.402	0.000	38.261	0.000	0.000	52.402	37.708	-0.426	XOM_R2OWSG MWD+IFR1+MS
15000.000	90.000	359.615	10774.000	38.960	0.000	53.017	0.000	38.960	0.000	0.000	53.017	37.738	-0.423	XOM_R2OWSG MWD+IFR1+MS
15100.000	90.000	359.615	10774.000	39.663	0.000	53.639	0.000	39.663	0.000	0.000	53.639	37.768	-0.419	XOM_R2OWSG MWD+IFR1+MS
15200.000	90.000	359.615	10774.000	40.369	0.000	54.268	0.000	40.369	0.000	0.000	54.268	37.799	-0.416	XOM_R2OWSG MWD+IFR1+MS
15300.000	90.000	359.615	10774.000	41.077	0.000	54.903	0.000	41.077	0.000	0.000	54.903	37.831	-0.414	XOM_R2OWSG MWD+IFR1+MS
15400.000	90.000	359.615	10774.000	41.789	0.000	55.546	0.000	41.789	0.000	0.000	55.546	37.863	-0.411	XOM_R2OWSG MWD+IFR1+MS

15500.000	90.000	359.615	10774.000	42.503	0.000	56.195	0.000	42.503	0.000	0.000	56.195	37.897	-0.409	XOM_R2OWSG MWD+IFR1+MS
15600.000	90.000	359.615	10774.000	43.219	0.000	56.850	0.000	43.219	0.000	0.000	56.850	37.930	-0.407	XOM_R2OWSG MWD+IFR1+MS
15700.000	90.000	359.615	10774.000	43.938	0.000	57.512	0.000	43.938	0.000	0.000	57.512	37.965	-0.404	XOM_R2OWSG MWD+IFR1+MS
15800.000	90.000	359.615	10774.000	44.659	0.000	58.179	0.000	44.659	0.000	0.000	58.179	38.000	-0.403	XOM_R2OWSG MWD+IFR1+MS
15900.000	90.000	359.615	10774.000	45.382	0.000	58.851	0.000	45.382	0.000	0.000	58.851	38.035	-0.401	XOM_R2OWSG MWD+IFR1+MS
16000.000	90.000	359.615	10774.000	46.107	0.000	59.530	0.000	46.107	0.000	0.000	59.530	38.072	-0.399	XOM_R2OWSG MWD+IFR1+MS
16100.000	90.000	359.615	10774.000	46.834	0.000	60.213	0.000	46.834	0.000	0.000	60.213	38.109	-0.398	XOM_R2OWSG MWD+IFR1+MS
16200.000	90.000	359.615	10774.000	47.563	0.000	60.901	0.000	47.563	0.000	0.000	60.901	38.147	-0.396	XOM_R2OWSG MWD+IFR1+MS
16300.000	90.000	359.615	10774.000	48.293	0.000	61.595	0.000	48.293	0.000	0.000	61.595	38.185	-0.395	XOM_R2OWSG MWD+IFR1+MS
16400.000	90.000	359.615	10774.000	49.026	0.000	62.293	0.000	49.026	0.000	0.000	62.293	38.224	-0.393	XOM_R2OWSG MWD+IFR1+MS
16500.000	90.000	359.615	10774.000	49.759	0.000	62.995	0.000	49.759	0.000	0.000	62.995	38.264	-0.392	XOM_R2OWSG MWD+IFR1+MS
16600.000	90.000	359.615	10774.000	50.495	0.000	63.702	0.000	50.495	0.000	0.000	63.702	38.304	-0.391	XOM_R2OWSG MWD+IFR1+MS
16700.000	90.000	359.615	10774.000	51.232	0.000	64.414	0.000	51.232	0.000	0.000	64.414	38.345	-0.390	XOM_R2OWSG MWD+IFR1+MS
16800.000	90.000	359.615	10774.000	51.970	0.000	65.129	0.000	51.970	0.000	0.000	65.129	38.387	-0.389	XOM_R2OWSG MWD+IFR1+MS
16900.000	90.000	359.615	10774.000	52.710	0.000	65.849	0.000	52.710	0.000	0.000	65.849	38.429	-0.388	XOM_R2OWSG MWD+IFR1+MS
17000.000	90.000	359.615	10774.000	53.451	0.000	66.572	0.000	53.451	0.000	0.000	66.572	38.472	-0.387	XOM_R2OWSG MWD+IFR1+MS
17100.000	90.000	359.615	10774.000	54.193	0.000	67.299	0.000	54.193	0.000	0.000	67.299	38.516	-0.387	XOM_R2OWSG MWD+IFR1+MS
17200.000	90.000	359.615	10774.000	54.936	0.000	68.030	0.000	54.936	0.000	0.000	68.030	38.560	-0.386	XOM_R2OWSG MWD+IFR1+MS
17300.000	90.000	359.615	10774.000	55.681	0.000	68.764	0.000	55.681	0.000	0.000	68.764	38.605	-0.385	XOM_R2OWSG MWD+IFR1+MS
17400.000	90.000	359.615	10774.000	56.426	0.000	69.502	0.000	56.426	0.000	0.000	69.502	38.650	-0.384	XOM_R2OWSG MWD+IFR1+MS

17500.000	90.000	359.615	10774.000	57.173 0.000	70.243	0.000	57.173	0.000	0.000	70.243	38.696	-0.384 XOM_R2OWSG MWD+IFR1+MS	
17600.000	90.000	359.615	10774.000	57.920 0.000	70.987	0.000	57.920	0.000	0.000	70.987	38.743	-0.383 XOM_R2OWSG MWD+IFR1+MS	;
17700.000	90.000	359.615	10774.000	58.669 0.000	71.734	0.000	58.669	0.000	0.000	71.734	38.791	-0.383 XOM_R2OWSG MWD+IFR1+MS	
17800.000	90.000	359.615	10774.000	59.419 0.000	72.484	0.000	59.419	0.000	0.000	72.484	38.839	-0.382 XOM_R2OWSG MWD+IFR1+MS	;
17900.000	90.000	359.615	10774.000	60.169 0.000	73.237	0.000	60.169	0.000	0.000	73.237	38.887	-0.382 XOM_R2OWSG MWD+IFR1+MS	· •
18000.000	90.000	359.615	10774.000	60.920 0.000	73.993	0.000	60.920	0.000	0.000	73.993	38.937	-0.381 XOM_R2OWSG MWD+IFR1+MS	
18100.000	90.000	359.615	10774.000	61.672 0.000	74.752	0.000	61.672	0.000	0.000	74.752	38.986	-0.381 XOM_R2OWSG MWD+IFR1+MS	· •
18200.000	90.000	359.615	10774.000	62.425 0.000	75.513	0.000	62.425	0.000	0.000	75.513	39.037	-0.380 XOM_R2OWSG MWD+IFR1+MS	; ;
18300.000	90.000	359.615	10774.000	63.179 0.000	76.277	0.000	63.179	0.000	0.000	76.277	39.088	-0.380 XOM_R2OWSG MWD+IFR1+MS	
18400.000	90.000	359.615	10774.000	63.933 0.000	77.043	0.000	63.933	0.000	0.000	77.043	39.140	-0.379 XOM_R2OWSG MWD+IFR1+MS	; ;
18500.000	90.000	359.615	10774.000	64.689 0.000	77.812	0.000	64.689	0.000	0.000	77.812	39.192	-0.379 XOM_R2OWSG MWD+IFR1+MS	; ;
18600.000	90.000	359.615	10774.000	65.445 0.000	78.583	0.000	65.445	0.000	0.000	78.583	39.245	-0.379 XOM_R2OWSG MWD+IFR1+MS	; ;
18700.000	90.000	359.615	10774.000	66.201 0.000	79.357	0.000	66.201	0.000	0.000	79.357	39.299	-0.378 XOM_R2OWSG MWD+IFR1+MS	; ;
18760.840	90.000	359.615	10774.000	66.662 0.000	79.828	0.000	66.662	0.000	0.000	79.828	39.332	-0.378 XOM_R2OWSG MWD+IFR1+MS	; ;
18800.000	90.000	359.615	10774.000	66.958 0.000	80.131	0.000	66.958	0.000	0.000	80.131	39.353	-0.378 XOM_R2OWSG MWD+IFR1+MS	
18810.840	90.000	359.615	10774.000	67.040 0.000	80.215	0.000	67.040	0.000	0.000	80.215	39.359	-0.378 XOM_R2OWSG MWD+IFR1+MS	

Plan Targets	Corral 17-8 Fed Com 163H			
	Measured Depth	Grid Northing	Grid Easting	TVD MSL Target Shape
Target Name	(ft)	(ft)	(ft)	(ft)
16H FTP	11239.26	408854.30	600876.00	7786.00 CIRCLE
163H LTP	18760.84	416375.70	600825.50	7786.00 CIRCLE

Well Plan Report

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163H BHL 18810.84 416425.70 600825.20 7786.00 CIRCLE

ALL DIMENSIONS APPROXIMA

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

	XTO ENERGY IN	С
	DELAWARE BASI	Ν
DRAWN	VJK	31M <i>A</i>
APPRV		

ngers DRAWING NO.

HBE0000479

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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 Se 10M psi Requiremen			
Component	OD	Primary Preventer	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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U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall)

P110 RY USS-FREEDOM HTQ®

MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ [®]		
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
DIMENSIONS	Pipe	USS-FREEDOM HTQ [®]		
Outside Diameter	5.500	6.300	in.	
Wall Thickness	0.361		in.	
Inside Diameter	4.778	4.778	in.	
Standard Drift	4.653	4.653	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	20.00		lb/ft	
Plain End Weight	19.83		lb/ft	
SECTION AREA	Pipe	USS-FREEDOM HTQ®		
Critical Area	5.828	5.828	sq. in.	
Joint Efficiency		100.0	%	
PERFORMANCE	Pipe	USS-FREEDOM HTQ [®]		
Minimum Collapse Pressure	11,100	11,100	psi	
Minimum Internal Yield Pressure	12,640	12,640	psi	
Minimum Pipe Body Yield Strength	641,000		lb	
Joint Strength		641,000	lb	
Compression Rating		641,000	lb	
Reference Length [4]		21,370	ft	
Maximum Uniaxial Bend Rating [2]		91.7	deg/100 ft	
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ [®]		
Make-Up Loss		4.13	in.	
Minimum Make-Up Torque [3]		15,000	ft-lb	
Maximum Make-Up Torque [3]		21,000	ft-lb	
Maximum Operating Torque[3]		29,500	ft-lb	

Notes

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall)

P110 RY USS-TALON HTQ™ RD

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MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		
Outside Diameter	5.500	5.900	in.	
Wall Thickness	0.361		in.	
Inside Diameter	4.778	4.778	in.	
Standard Drift	4.653	4.653	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	20.00		lb/ft	
Plain End Weight	19.83		lb/ft	
SECTION AREA	Pipe	USS-TALON HTQ™ RD		
Critical Area	5.828	5.828	sq. in.	
Joint Efficiency		100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		
Minimum Collapse Pressure	11,100	11,100	psi	
Minimum Internal Yield Pressure	12,640	12,640	psi	
Minimum Pipe Body Yield Strength	641,000		lb	
Joint Strength		641,000	lb	
Compression Rating		641,000	lb	
Reference Length		21,370	ft	[5]
Maximum Uniaxial Bend Rating		91.7	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		
Make-Up Loss		5.58	in.	
Minimum Make-Up Torque		17,000	ft-lb	[4]
Maximum Make-Up Torque		20,000	ft-lb	[4]
Maximum Operating Torque		39,500	ft-lb	[4]

Notes

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bend rating shown is structural only.
- 4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

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NEW CHOKE HOSE

INSTAUED 02-10-2024

CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

	CUST	OMER:	
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NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA

CUSTOMER P.O.#:

15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)

CUSTOMER P/N:

IMR RETEST SN 74621 ASSET #66-1531

PART DESCRIPTION:

RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K

FLANGES

SALES ORDER #:

529480

QUANTITY:

1

SERIAL #:

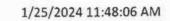
74621 H3-012524-1

SIGNATURE: 7. CUSTUS G

TITLE: QUALITY ASSURANCE

DATE: 1/25/2024

H3-15/16





TEST REPORT

CUSTOMER

Company: Nabors Industries Inc. **TEST OBJECT**

Serial number: H3-012524-1

Lot number:

Production description: 74621/66-1531 Description:

74621/66-1531

Sales order #: Customer reference: 529480 FG1213

Hose ID:

3" 16C CK

Part number:

TEST INFORMATION

Test procedure:

GTS-04-053

Fitting 1:

Test pressure:

15000.00 psi sec Part number:

3.0 x 4-1/16 10K

Test pressure hold: Work pressure:

3600.00

Description:

10000.00 psi

Work pressure hold:

900.00 0.00

sec %

Fitting 2: Part number: 3.0 x 4-1/16 10K

Length difference: Length difference:

0.00

inch

Description:

Length:

45

feet

n /n

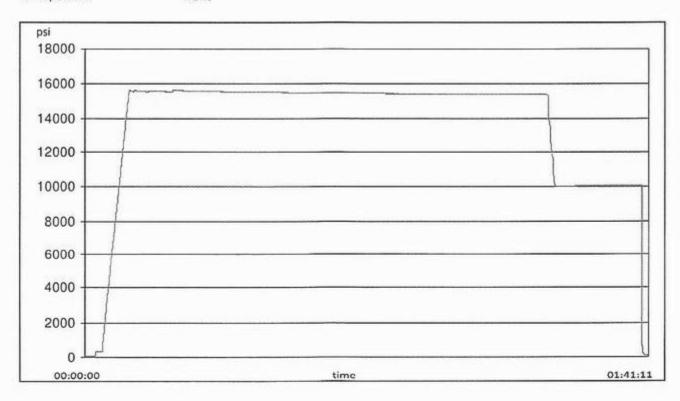
Visual check: Pressure test result:

PASS

Length measurement result:

Test operator:

Travis





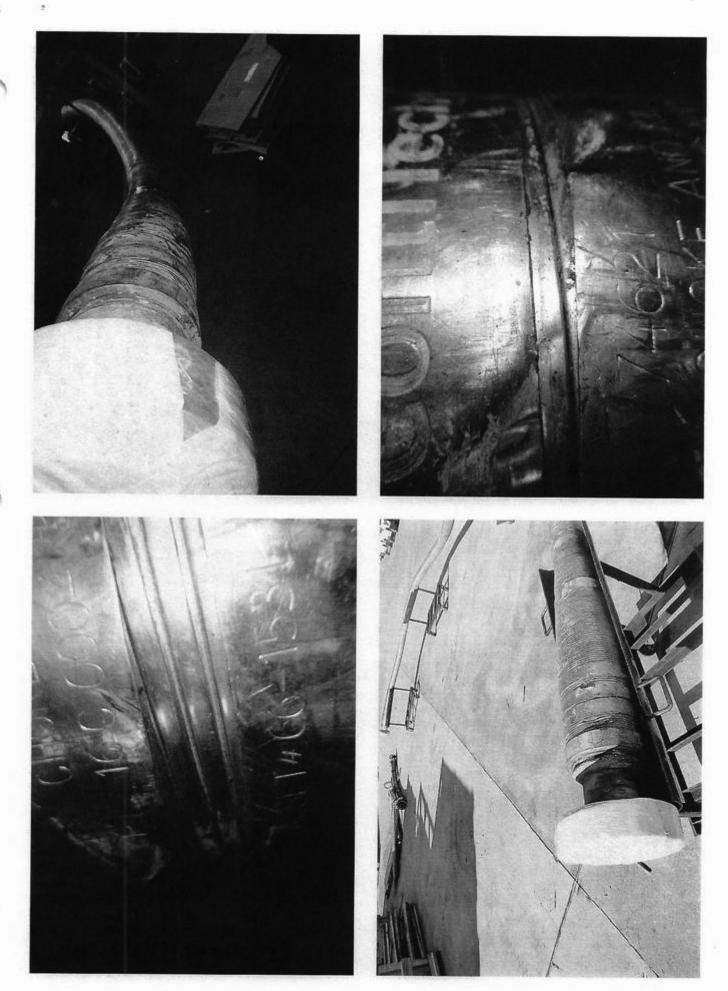
H3-15/16

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TEST REPORT

GAUGE TRACEABILITY

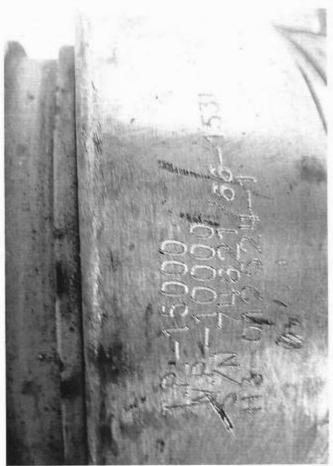
Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16
Comment			

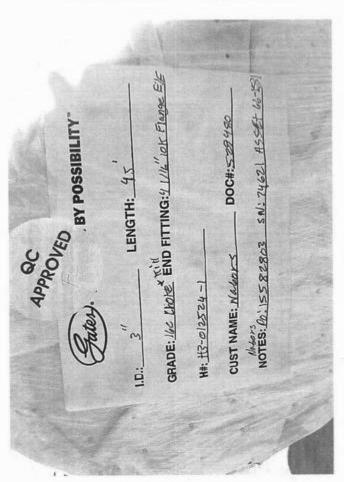


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1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

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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**

CONDITIONS

Action 372917

CONDITIONS

Operator:	OGRID:
XTO ENERGY, INC	5380
6401 Holiday Hill Road	Action Number:
Midland, TX 79707	372917
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL will be required.	8/20/2024