

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No.	
6. If Indian, Allottee or Tribe Name	
7. If Unit of CA/Agreement, Name and/or No.	
8. Well Name and No.	
9. API Well No. 30-015-54945	
10. Field and Pool or Exploratory Area	
11. Country or Parish, State	

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does 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, 3162.3-3, 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

Location of Well

0. SHL: SWSW / 386 FSL / 711 FWL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.211731 / LONG: -103.857975 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 1130 FWL / TWSP: 24S / RANGE: 30E / SECTION: 14 / LAT: 32.210892 / LONG: -103.857076 (TVD: 11590 feet, MD: 12000 feet)

BHL: LOT 4 / 50 FNL / 1130 FWL / TWSP: 24S / RANGE: 30E / SECTION: 2 / LAT: 32.253564 / LONG: -103.857046 (TVD: 11590 feet, MD: 27487 feet)

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	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 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

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

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

Background

Onshore Oil and Gas Order 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.

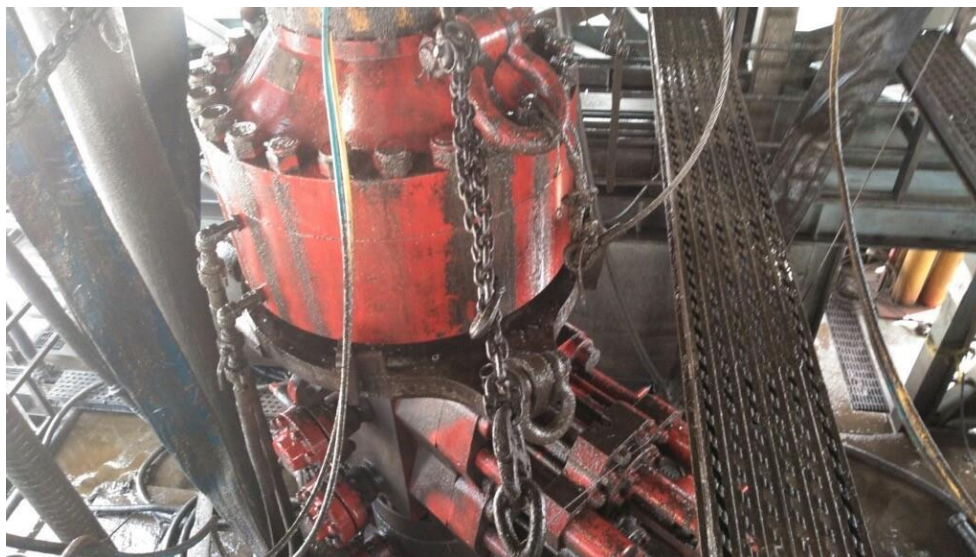


Figure 1: Winch System attached to BOP Stack

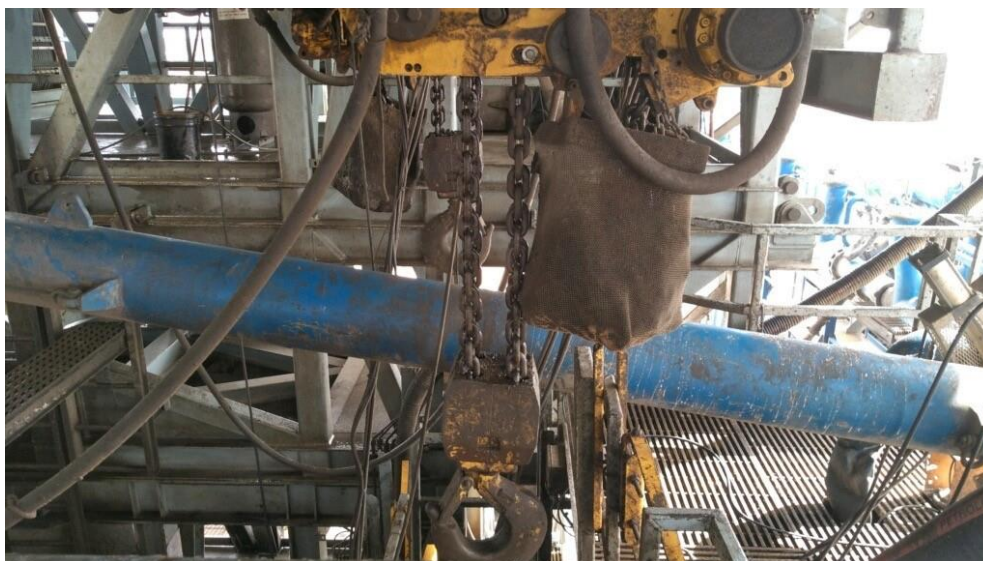


Figure 2: BOP Winch System

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 3170 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

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API STANDARD 53

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

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

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

No visible leaks.

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

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

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

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

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

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

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

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and 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

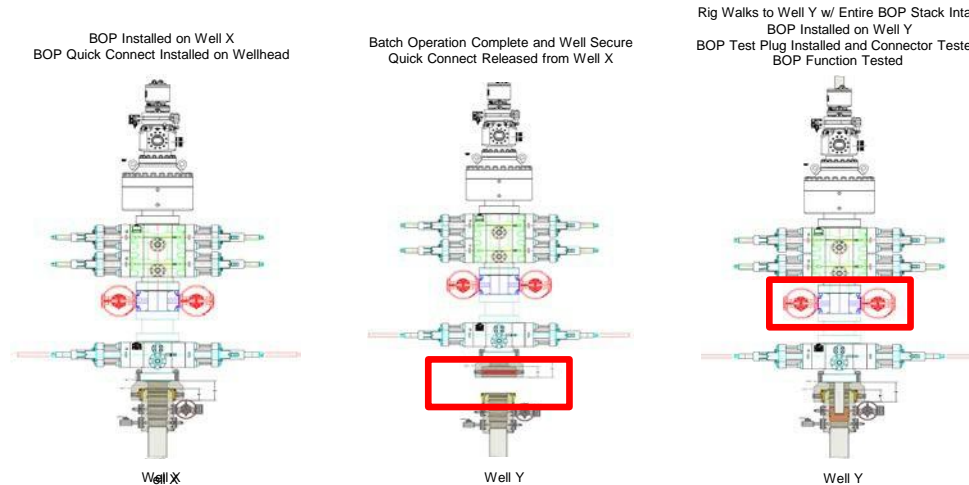
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

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

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

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



Summary

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

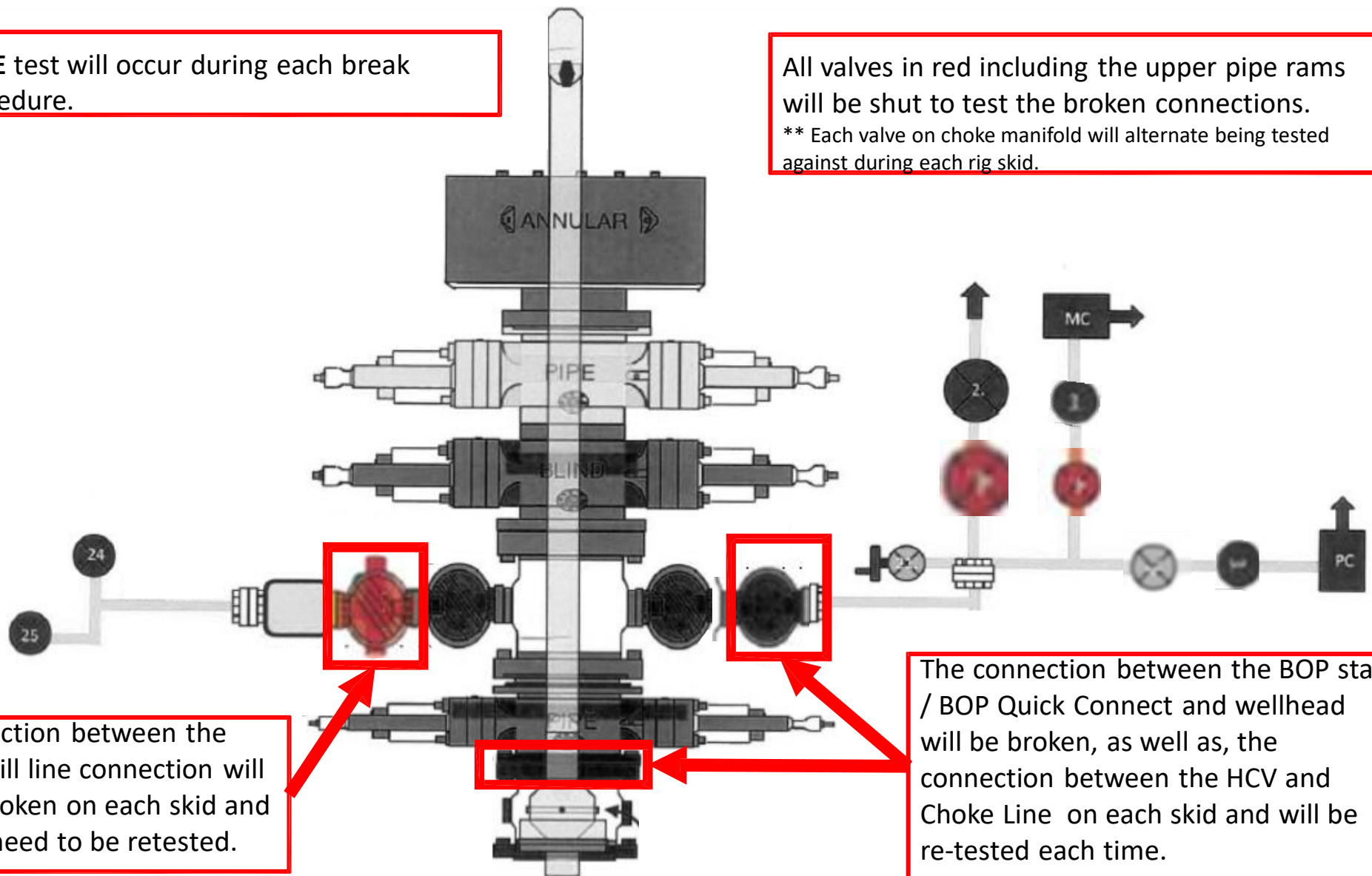
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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

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

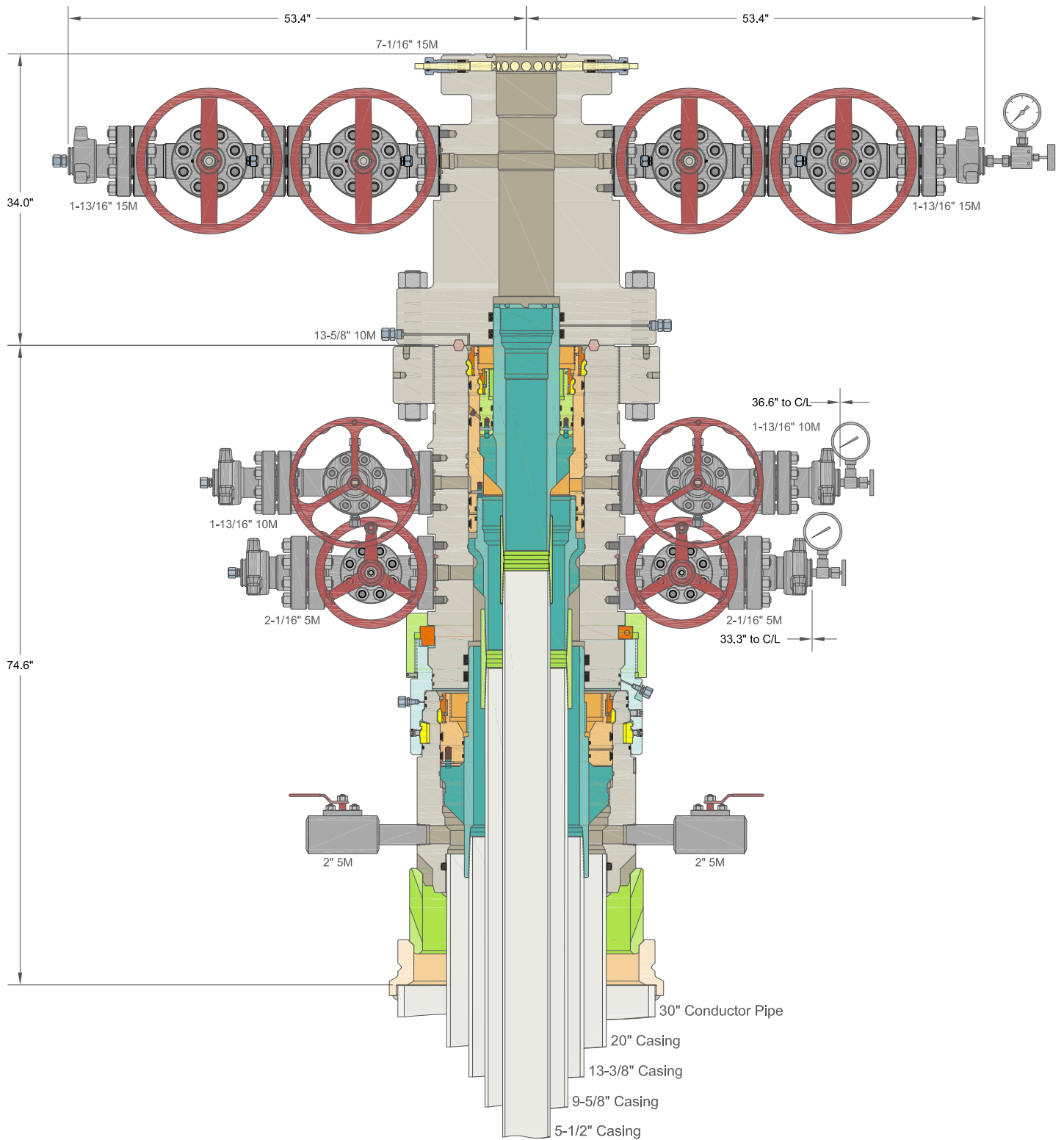
Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



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

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



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC DELAWARE BASIN

30" x 20" x 13-3/8" x 9-5/8" x 5-1/2" CRC / MBU-3T-CFL Wellhead
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And 13-3/8", 9-5/8" & 5-1/2" Pin Bottom Casing Hangers

DRAWN	VJK	12AUG22
APPRV		
DRAWING NO.	HBE0000801	

ROC

PLU 23 DTD - X20/HP547/549/552, Eddy County, NM
(508 & 547) PLU 23 DTD Pad A - PLANS
PLU 23 DTD 171H Redrill

OH

Plan: 3 pt plan

Standard Planning Report

25 March, 2024

ExxonMobil
Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Project	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM, pod4 ROC POD 2		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	(508 & 547) PLU 23 DTD Pad A - PLANS				
Site Position:		Northing:	440,987.30 usft	Latitude:	32° 12' 41.39 N
From:	Map	Easting:	647,110.60 usft	Longitude:	103° 51' 27.66 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in		

Well	PLU 23 DTD 171H Redrill					
Well Position	+N/-S	0.00 usft	Northing:	440,986.90 usft	Latitude:	32° 12' 41.39 N
	+E/-W	0.00 usft	Easting:	647,050.60 usft	Longitude:	103° 51' 28.35 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,448.00 usft
Grid Convergence:		0.25 °				

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.88	60.18	48,753.57962483

Design	3 pt plan			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.78

Plan Survey Tool Program	Date	3/25/2024		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,800.00	3 pt plan (OH)	GYD_OmegaX Gyrodata Stationary Drop Ti
2	10,307.00	26,590.62	3 pt plan (OH)	XOMR2_OWSG MWD+IFF OWSG MWD + IFR1 + Mult

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,499.95	14.00	159.27	2,493.00	-79.58	30.11	2.00	2.00	0.00	159.27	
8,138.45	14.00	159.27	7,964.04	-1,355.28	512.85	0.00	0.00	0.00	0.00	
8,838.39	0.00	0.00	8,657.04	-1,434.85	542.96	2.00	-2.00	0.00	180.00	
9,418.39	0.00	0.00	9,237.04	-1,434.85	542.96	0.00	0.00	0.00	0.00	
10,318.39	90.00	359.78	9,810.00	-861.90	540.80	10.00	0.00	0.00	359.78	FTP v2 - PLU 23 D'
26,541.51	90.00	359.78	9,810.00	15,361.10	479.70	0.00	0.00	0.00	0.00	LTP v2 - PLU 23 D1
26,591.51	90.00	359.78	9,810.00	15,411.10	479.51	0.00	0.00	0.00	0.00	BHL v2 - PLU 23 D'

ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
641.00	0.00	0.00	641.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
996.00	0.00	0.00	996.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	2.00	159.27	1,899.98	-1.63	0.62	-1.63	2.00	2.00	0.00
2,000.00	4.00	159.27	1,999.84	-6.53	2.47	-6.54	2.00	2.00	0.00
2,100.00	6.00	159.27	2,099.45	-14.68	5.55	-14.70	2.00	2.00	0.00
2,200.00	8.00	159.27	2,198.70	-26.08	9.87	-26.11	2.00	2.00	0.00
2,300.00	10.00	159.27	2,297.47	-40.71	15.40	-40.76	2.00	2.00	0.00
2,400.00	12.00	159.27	2,395.62	-58.55	22.16	-58.64	2.00	2.00	0.00
2,499.95	14.00	159.27	2,493.00	-79.58	30.11	-79.69	2.00	2.00	0.00
2,600.00	14.00	159.27	2,590.09	-102.21	38.68	-102.36	0.00	0.00	0.00
2,700.00	14.00	159.27	2,687.12	-124.84	47.24	-125.02	0.00	0.00	0.00
2,800.00	14.00	159.27	2,784.15	-147.46	55.80	-147.68	0.00	0.00	0.00
2,900.00	14.00	159.27	2,881.18	-170.09	64.36	-170.33	0.00	0.00	0.00
3,000.00	14.00	159.27	2,978.21	-192.71	72.92	-192.99	0.00	0.00	0.00
3,100.00	14.00	159.27	3,075.24	-215.34	81.49	-215.65	0.00	0.00	0.00
3,200.00	14.00	159.27	3,172.27	-237.96	90.05	-238.31	0.00	0.00	0.00
3,300.00	14.00	159.27	3,269.30	-260.59	98.61	-260.96	0.00	0.00	0.00
3,400.00	14.00	159.27	3,366.33	-283.21	107.17	-283.62	0.00	0.00	0.00
3,500.00	14.00	159.27	3,463.36	-305.84	115.73	-306.28	0.00	0.00	0.00
3,600.00	14.00	159.27	3,560.39	-328.46	124.29	-328.94	0.00	0.00	0.00
3,700.00	14.00	159.27	3,657.42	-351.09	132.85	-351.59	0.00	0.00	0.00
3,800.00	14.00	159.27	3,754.45	-373.71	141.41	-374.25	0.00	0.00	0.00
3,887.14	14.00	159.27	3,839.00	-393.43	148.88	-394.00	0.00	0.00	0.00
Base of Salt									
3,900.00	14.00	159.27	3,851.48	-396.34	149.98	-396.91	0.00	0.00	0.00
4,000.00	14.00	159.27	3,948.51	-418.96	158.54	-419.57	0.00	0.00	0.00
4,100.00	14.00	159.27	4,045.54	-441.59	167.10	-442.22	0.00	0.00	0.00
4,101.51	14.00	159.27	4,047.00	-441.93	167.23	-442.57	0.00	0.00	0.00
Delaware									
4,200.00	14.00	159.27	4,142.57	-464.21	175.66	-464.88	0.00	0.00	0.00
4,300.00	14.00	159.27	4,239.60	-486.84	184.22	-487.54	0.00	0.00	0.00
4,400.00	14.00	159.27	4,336.63	-509.46	192.78	-510.20	0.00	0.00	0.00

ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.00	14.00	159.27	4,433.66	-532.08	201.34	-532.85	0.00	0.00	0.00
4,600.00	14.00	159.27	4,530.69	-554.71	209.91	-555.51	0.00	0.00	0.00
4,700.00	14.00	159.27	4,627.72	-577.33	218.47	-578.17	0.00	0.00	0.00
4,800.00	14.00	159.27	4,724.75	-599.96	227.03	-600.83	0.00	0.00	0.00
4,900.00	14.00	159.27	4,821.78	-622.58	235.59	-623.48	0.00	0.00	0.00
5,000.00	14.00	159.27	4,918.81	-645.21	244.15	-646.14	0.00	0.00	0.00
5,075.44	14.00	159.27	4,992.00	-662.28	250.61	-663.23	0.00	0.00	0.00
Cherry Canyon									
5,100.00	14.00	159.27	5,015.84	-667.83	252.71	-668.80	0.00	0.00	0.00
5,200.00	14.00	159.27	5,112.87	-690.46	261.27	-691.46	0.00	0.00	0.00
5,300.00	14.00	159.27	5,209.90	-713.08	269.84	-714.11	0.00	0.00	0.00
5,400.00	14.00	159.27	5,306.93	-735.71	278.40	-736.77	0.00	0.00	0.00
5,500.00	14.00	159.27	5,403.96	-758.33	286.96	-759.43	0.00	0.00	0.00
5,600.00	14.00	159.27	5,500.99	-780.96	295.52	-782.09	0.00	0.00	0.00
5,700.00	14.00	159.27	5,598.02	-803.58	304.08	-804.74	0.00	0.00	0.00
5,800.00	14.00	159.27	5,695.05	-826.21	312.64	-827.40	0.00	0.00	0.00
5,900.00	14.00	159.27	5,792.08	-848.83	321.20	-850.06	0.00	0.00	0.00
6,000.00	14.00	159.27	5,889.11	-871.46	329.77	-872.72	0.00	0.00	0.00
6,100.00	14.00	159.27	5,986.14	-894.08	338.33	-895.37	0.00	0.00	0.00
6,200.00	14.00	159.27	6,083.17	-916.71	346.89	-918.03	0.00	0.00	0.00
6,300.00	14.00	159.27	6,180.20	-939.33	355.45	-940.69	0.00	0.00	0.00
6,379.16	14.00	159.27	6,257.00	-957.24	362.23	-958.62	0.00	0.00	0.00
Brushy Canyon									
6,400.00	14.00	159.27	6,277.23	-961.96	364.01	-963.35	0.00	0.00	0.00
6,500.00	14.00	159.27	6,374.26	-984.58	372.57	-986.00	0.00	0.00	0.00
6,600.00	14.00	159.27	6,471.29	-1,007.21	381.13	-1,008.66	0.00	0.00	0.00
6,700.00	14.00	159.27	6,568.32	-1,029.83	389.69	-1,031.32	0.00	0.00	0.00
6,800.00	14.00	159.27	6,665.35	-1,052.46	398.26	-1,053.98	0.00	0.00	0.00
6,900.00	14.00	159.27	6,762.38	-1,075.08	406.82	-1,076.63	0.00	0.00	0.00
7,000.00	14.00	159.27	6,859.41	-1,097.70	415.38	-1,099.29	0.00	0.00	0.00
7,100.00	14.00	159.27	6,956.44	-1,120.33	423.94	-1,121.95	0.00	0.00	0.00
7,200.00	14.00	159.27	7,053.47	-1,142.95	432.50	-1,144.60	0.00	0.00	0.00
7,300.00	14.00	159.27	7,150.50	-1,165.58	441.06	-1,167.26	0.00	0.00	0.00
7,400.00	14.00	159.27	7,247.53	-1,188.20	449.62	-1,189.92	0.00	0.00	0.00
7,500.00	14.00	159.27	7,344.56	-1,210.83	458.19	-1,212.58	0.00	0.00	0.00
7,600.00	14.00	159.27	7,441.59	-1,233.45	466.75	-1,235.23	0.00	0.00	0.00
7,700.00	14.00	159.27	7,538.62	-1,256.08	475.31	-1,257.89	0.00	0.00	0.00
7,758.11	14.00	159.27	7,595.00	-1,269.23	480.28	-1,271.06	0.00	0.00	0.00
Basal Brushy Canyon									
7,800.00	14.00	159.27	7,635.65	-1,278.70	483.87	-1,280.55	0.00	0.00	0.00
7,900.00	14.00	159.27	7,732.68	-1,301.33	492.43	-1,303.21	0.00	0.00	0.00
8,000.00	14.00	159.27	7,829.71	-1,323.95	500.99	-1,325.86	0.00	0.00	0.00
8,084.81	14.00	159.27	7,912.00	-1,343.14	508.25	-1,345.08	0.00	0.00	0.00
Bone Spring Lm.									
8,100.00	14.00	159.27	7,926.74	-1,346.58	509.55	-1,348.52	0.00	0.00	0.00
8,138.45	14.00	159.27	7,964.04	-1,355.28	512.85	-1,357.23	0.00	0.00	0.00
8,200.00	12.77	159.27	8,023.92	-1,368.60	517.89	-1,370.58	2.00	-2.00	0.00
8,210.33	12.56	159.27	8,034.00	-1,370.72	518.69	-1,372.70	2.00	-2.00	0.00
Avalon Shale									
8,300.00	10.77	159.27	8,121.81	-1,387.67	525.11	-1,389.68	2.00	-2.00	0.00
8,400.00	8.77	159.27	8,220.36	-1,403.54	531.11	-1,405.57	2.00	-2.00	0.00
8,500.00	6.77	159.27	8,319.44	-1,416.18	535.89	-1,418.23	2.00	-2.00	0.00

ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,600.00	4.77	159.27	8,418.93	-1,425.58	539.45	-1,427.64	2.00	-2.00	0.00
8,648.21	3.80	159.27	8,467.00	-1,428.95	540.72	-1,431.01	2.00	-2.00	0.00
Lower Avalon Shale									
8,700.00	2.77	159.27	8,518.70	-1,431.73	541.78	-1,433.79	2.00	-2.00	0.00
8,800.00	0.77	159.27	8,618.65	-1,434.61	542.87	-1,436.68	2.00	-2.00	0.00
8,838.39	0.00	0.00	8,657.04	-1,434.85	542.96	-1,436.92	2.00	-2.00	0.00
8,872.35	0.00	0.00	8,691.00	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
1st Bone Spring Lime									
8,900.00	0.00	0.00	8,718.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,000.00	0.00	0.00	8,818.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,033.35	0.00	0.00	8,852.00	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
1st Bone Spring Sand									
9,100.00	0.00	0.00	8,918.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,200.00	0.00	0.00	9,018.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,300.00	0.00	0.00	9,118.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,400.00	0.00	0.00	9,218.65	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,418.39	0.00	0.00	9,237.04	-1,434.85	542.96	-1,436.92	0.00	0.00	0.00
9,450.00	3.16	359.78	9,268.63	-1,433.98	542.95	-1,436.05	10.00	10.00	0.00
9,473.43	5.50	359.78	9,292.00	-1,432.21	542.95	-1,434.28	10.00	10.00	0.00
2nd Bone Spring Lime									
9,500.00	8.16	359.78	9,318.37	-1,429.05	542.94	-1,431.12	10.00	10.00	0.00
9,550.00	13.16	359.78	9,367.50	-1,419.80	542.90	-1,421.88	10.00	10.00	0.00
9,600.00	18.16	359.78	9,415.62	-1,406.31	542.85	-1,408.38	10.00	10.00	0.00
9,650.00	23.16	359.78	9,462.39	-1,388.68	542.78	-1,390.75	10.00	10.00	0.00
9,700.00	28.16	359.78	9,507.45	-1,367.03	542.70	-1,369.10	10.00	10.00	0.00
9,750.00	33.16	359.78	9,550.45	-1,341.54	542.61	-1,343.61	10.00	10.00	0.00
9,800.00	38.16	359.78	9,591.06	-1,312.40	542.50	-1,314.47	10.00	10.00	0.00
9,850.00	43.16	359.78	9,628.97	-1,279.83	542.37	-1,281.90	10.00	10.00	0.00
9,900.00	48.16	359.78	9,663.91	-1,244.08	542.24	-1,246.15	10.00	10.00	0.00
9,950.00	53.16	359.78	9,695.59	-1,205.43	542.09	-1,207.50	10.00	10.00	0.00
9,994.75	57.64	359.78	9,721.00	-1,168.60	541.96	-1,170.67	10.00	10.00	0.00
2nd Bone Spring Sand									
10,000.00	58.16	359.78	9,723.79	-1,164.15	541.94	-1,166.22	10.00	10.00	0.00
10,050.00	63.16	359.78	9,748.28	-1,120.58	541.77	-1,122.65	10.00	10.00	0.00
10,100.00	68.16	359.78	9,768.88	-1,075.04	541.60	-1,077.11	10.00	10.00	0.00
10,117.09	69.87	359.78	9,775.00	-1,059.08	541.54	-1,061.15	10.00	10.00	0.00
2nd Bone Spring A Sand (Landing)									
10,150.00	73.16	359.78	9,785.43	-1,027.88	541.43	-1,029.95	10.00	10.00	0.00
10,200.00	78.16	359.78	9,797.81	-979.45	541.24	-981.52	10.00	10.00	0.00
10,250.00	83.16	359.78	9,805.92	-930.13	541.06	-932.20	10.00	10.00	0.00
10,300.00	88.16	359.78	9,809.71	-880.29	540.87	-882.36	10.00	10.00	0.00
10,318.39	90.00	359.78	9,810.00	-861.90	540.80	-863.97	10.00	10.00	0.00
10,400.00	90.00	359.78	9,810.00	-780.29	540.49	-782.36	0.00	0.00	0.00
10,500.00	90.00	359.78	9,810.00	-680.29	540.12	-682.36	0.00	0.00	0.00
10,600.00	90.00	359.78	9,810.00	-580.29	539.74	-582.36	0.00	0.00	0.00
10,700.00	90.00	359.78	9,810.00	-480.29	539.36	-482.36	0.00	0.00	0.00
10,800.00	90.00	359.78	9,810.00	-380.29	538.99	-382.36	0.00	0.00	0.00
10,900.00	90.00	359.78	9,810.00	-280.30	538.61	-282.36	0.00	0.00	0.00
11,000.00	90.00	359.78	9,810.00	-180.30	538.23	-182.36	0.00	0.00	0.00
11,100.00	90.00	359.78	9,810.00	-80.30	537.86	-82.36	0.00	0.00	0.00
11,200.00	90.00	359.78	9,810.00	19.70	537.48	17.64	0.00	0.00	0.00
11,300.00	90.00	359.78	9,810.00	119.70	537.10	117.64	0.00	0.00	0.00

ExxonMobil

Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,400.00	90.00	359.78	9,810.00	219.70	536.73	217.64	0.00	0.00	0.00
11,500.00	90.00	359.78	9,810.00	319.70	536.35	317.64	0.00	0.00	0.00
11,600.00	90.00	359.78	9,810.00	419.70	535.97	417.64	0.00	0.00	0.00
11,700.00	90.00	359.78	9,810.00	519.70	535.60	517.64	0.00	0.00	0.00
11,800.00	90.00	359.78	9,810.00	619.70	535.22	617.64	0.00	0.00	0.00
11,900.00	90.00	359.78	9,810.00	719.70	534.84	717.64	0.00	0.00	0.00
12,000.00	90.00	359.78	9,810.00	819.70	534.47	817.64	0.00	0.00	0.00
12,100.00	90.00	359.78	9,810.00	919.70	534.09	917.64	0.00	0.00	0.00
12,200.00	90.00	359.78	9,810.00	1,019.70	533.71	1,017.64	0.00	0.00	0.00
12,300.00	90.00	359.78	9,810.00	1,119.69	533.34	1,117.64	0.00	0.00	0.00
12,400.00	90.00	359.78	9,810.00	1,219.69	532.96	1,217.64	0.00	0.00	0.00
12,500.00	90.00	359.78	9,810.00	1,319.69	532.58	1,317.64	0.00	0.00	0.00
12,600.00	90.00	359.78	9,810.00	1,419.69	532.21	1,417.64	0.00	0.00	0.00
12,700.00	90.00	359.78	9,810.00	1,519.69	531.83	1,517.64	0.00	0.00	0.00
12,800.00	90.00	359.78	9,810.00	1,619.69	531.45	1,617.64	0.00	0.00	0.00
12,900.00	90.00	359.78	9,810.00	1,719.69	531.08	1,717.64	0.00	0.00	0.00
13,000.00	90.00	359.78	9,810.00	1,819.69	530.70	1,817.64	0.00	0.00	0.00
13,100.00	90.00	359.78	9,810.00	1,919.69	530.32	1,917.64	0.00	0.00	0.00
13,200.00	90.00	359.78	9,810.00	2,019.69	529.95	2,017.64	0.00	0.00	0.00
13,300.00	90.00	359.78	9,810.00	2,119.69	529.57	2,117.64	0.00	0.00	0.00
13,400.00	90.00	359.78	9,810.00	2,219.69	529.19	2,217.64	0.00	0.00	0.00
13,500.00	90.00	359.78	9,810.00	2,319.69	528.82	2,317.64	0.00	0.00	0.00
13,600.00	90.00	359.78	9,810.00	2,419.69	528.44	2,417.64	0.00	0.00	0.00
13,700.00	90.00	359.78	9,810.00	2,519.68	528.06	2,517.64	0.00	0.00	0.00
13,800.00	90.00	359.78	9,810.00	2,619.68	527.69	2,617.64	0.00	0.00	0.00
13,900.00	90.00	359.78	9,810.00	2,719.68	527.31	2,717.64	0.00	0.00	0.00
14,000.00	90.00	359.78	9,810.00	2,819.68	526.93	2,817.64	0.00	0.00	0.00
14,100.00	90.00	359.78	9,810.00	2,919.68	526.56	2,917.64	0.00	0.00	0.00
14,200.00	90.00	359.78	9,810.00	3,019.68	526.18	3,017.64	0.00	0.00	0.00
14,300.00	90.00	359.78	9,810.00	3,119.68	525.80	3,117.64	0.00	0.00	0.00
14,400.00	90.00	359.78	9,810.00	3,219.68	525.43	3,217.64	0.00	0.00	0.00
14,500.00	90.00	359.78	9,810.00	3,319.68	525.05	3,317.64	0.00	0.00	0.00
14,600.00	90.00	359.78	9,810.00	3,419.68	524.67	3,417.64	0.00	0.00	0.00
14,700.00	90.00	359.78	9,810.00	3,519.68	524.30	3,517.64	0.00	0.00	0.00
14,800.00	90.00	359.78	9,810.00	3,619.68	523.92	3,617.64	0.00	0.00	0.00
14,900.00	90.00	359.78	9,810.00	3,719.68	523.54	3,717.64	0.00	0.00	0.00
15,000.00	90.00	359.78	9,810.00	3,819.68	523.17	3,817.64	0.00	0.00	0.00
15,100.00	90.00	359.78	9,810.00	3,919.67	522.79	3,917.64	0.00	0.00	0.00
15,200.00	90.00	359.78	9,810.00	4,019.67	522.41	4,017.64	0.00	0.00	0.00
15,300.00	90.00	359.78	9,810.00	4,119.67	522.04	4,117.64	0.00	0.00	0.00
15,400.00	90.00	359.78	9,810.00	4,219.67	521.66	4,217.64	0.00	0.00	0.00
15,500.00	90.00	359.78	9,810.00	4,319.67	521.28	4,317.64	0.00	0.00	0.00
15,600.00	90.00	359.78	9,810.00	4,419.67	520.91	4,417.64	0.00	0.00	0.00
15,700.00	90.00	359.78	9,810.00	4,519.67	520.53	4,517.64	0.00	0.00	0.00
15,800.00	90.00	359.78	9,810.00	4,619.67	520.16	4,617.64	0.00	0.00	0.00
15,900.00	90.00	359.78	9,810.00	4,719.67	519.78	4,717.64	0.00	0.00	0.00
16,000.00	90.00	359.78	9,810.00	4,819.67	519.40	4,817.64	0.00	0.00	0.00
16,100.00	90.00	359.78	9,810.00	4,919.67	519.03	4,917.64	0.00	0.00	0.00
16,200.00	90.00	359.78	9,810.00	5,019.67	518.65	5,017.64	0.00	0.00	0.00
16,300.00	90.00	359.78	9,810.00	5,119.67	518.27	5,117.64	0.00	0.00	0.00
16,400.00	90.00	359.78	9,810.00	5,219.67	517.90	5,217.64	0.00	0.00	0.00
16,500.00	90.00	359.78	9,810.00	5,319.66	517.52	5,317.64	0.00	0.00	0.00
16,600.00	90.00	359.78	9,810.00	5,419.66	517.14	5,417.64	0.00	0.00	0.00

ExxonMobil

Planning Report

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Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,700.00	90.00	359.78	9,810.00	5,519.66	516.77	5,517.64	0.00	0.00	0.00
16,800.00	90.00	359.78	9,810.00	5,619.66	516.39	5,617.64	0.00	0.00	0.00
16,900.00	90.00	359.78	9,810.00	5,719.66	516.01	5,717.64	0.00	0.00	0.00
17,000.00	90.00	359.78	9,810.00	5,819.66	515.64	5,817.64	0.00	0.00	0.00
17,100.00	90.00	359.78	9,810.00	5,919.66	515.26	5,917.64	0.00	0.00	0.00
17,200.00	90.00	359.78	9,810.00	6,019.66	514.88	6,017.64	0.00	0.00	0.00
17,300.00	90.00	359.78	9,810.00	6,119.66	514.51	6,117.64	0.00	0.00	0.00
17,400.00	90.00	359.78	9,810.00	6,219.66	514.13	6,217.64	0.00	0.00	0.00
17,500.00	90.00	359.78	9,810.00	6,319.66	513.75	6,317.64	0.00	0.00	0.00
17,600.00	90.00	359.78	9,810.00	6,419.66	513.38	6,417.64	0.00	0.00	0.00
17,700.00	90.00	359.78	9,810.00	6,519.66	513.00	6,517.64	0.00	0.00	0.00
17,800.00	90.00	359.78	9,810.00	6,619.66	512.62	6,617.64	0.00	0.00	0.00
17,900.00	90.00	359.78	9,810.00	6,719.66	512.25	6,717.64	0.00	0.00	0.00
18,000.00	90.00	359.78	9,810.00	6,819.65	511.87	6,817.64	0.00	0.00	0.00
18,100.00	90.00	359.78	9,810.00	6,919.65	511.49	6,917.64	0.00	0.00	0.00
18,200.00	90.00	359.78	9,810.00	7,019.65	511.12	7,017.64	0.00	0.00	0.00
18,300.00	90.00	359.78	9,810.00	7,119.65	510.74	7,117.64	0.00	0.00	0.00
18,400.00	90.00	359.78	9,810.00	7,219.65	510.36	7,217.64	0.00	0.00	0.00
18,500.00	90.00	359.78	9,810.00	7,319.65	509.99	7,317.64	0.00	0.00	0.00
18,600.00	90.00	359.78	9,810.00	7,419.65	509.61	7,417.64	0.00	0.00	0.00
18,700.00	90.00	359.78	9,810.00	7,519.65	509.23	7,517.64	0.00	0.00	0.00
18,800.00	90.00	359.78	9,810.00	7,619.65	508.86	7,617.64	0.00	0.00	0.00
18,900.00	90.00	359.78	9,810.00	7,719.65	508.48	7,717.64	0.00	0.00	0.00
19,000.00	90.00	359.78	9,810.00	7,819.65	508.10	7,817.64	0.00	0.00	0.00
19,100.00	90.00	359.78	9,810.00	7,919.65	507.73	7,917.64	0.00	0.00	0.00
19,200.00	90.00	359.78	9,810.00	8,019.65	507.35	8,017.64	0.00	0.00	0.00
19,300.00	90.00	359.78	9,810.00	8,119.65	506.97	8,117.64	0.00	0.00	0.00
19,400.00	90.00	359.78	9,810.00	8,219.64	506.60	8,217.64	0.00	0.00	0.00
19,500.00	90.00	359.78	9,810.00	8,319.64	506.22	8,317.64	0.00	0.00	0.00
19,600.00	90.00	359.78	9,810.00	8,419.64	505.84	8,417.64	0.00	0.00	0.00
19,700.00	90.00	359.78	9,810.00	8,519.64	505.47	8,517.64	0.00	0.00	0.00
19,800.00	90.00	359.78	9,810.00	8,619.64	505.09	8,617.64	0.00	0.00	0.00
19,900.00	90.00	359.78	9,810.00	8,719.64	504.71	8,717.64	0.00	0.00	0.00
20,000.00	90.00	359.78	9,810.00	8,819.64	504.34	8,817.64	0.00	0.00	0.00
20,100.00	90.00	359.78	9,810.00	8,919.64	503.96	8,917.64	0.00	0.00	0.00
20,200.00	90.00	359.78	9,810.00	9,019.64	503.58	9,017.64	0.00	0.00	0.00
20,300.00	90.00	359.78	9,810.00	9,119.64	503.21	9,117.64	0.00	0.00	0.00
20,400.00	90.00	359.78	9,810.00	9,219.64	502.83	9,217.64	0.00	0.00	0.00
20,500.00	90.00	359.78	9,810.00	9,319.64	502.45	9,317.64	0.00	0.00	0.00
20,600.00	90.00	359.78	9,810.00	9,419.64	502.08	9,417.64	0.00	0.00	0.00
20,700.00	90.00	359.78	9,810.00	9,519.64	501.70	9,517.64	0.00	0.00	0.00
20,800.00	90.00	359.78	9,810.00	9,619.63	501.32	9,617.64	0.00	0.00	0.00
20,900.00	90.00	359.78	9,810.00	9,719.63	500.95	9,717.64	0.00	0.00	0.00
21,000.00	90.00	359.78	9,810.00	9,819.63	500.57	9,817.64	0.00	0.00	0.00
21,100.00	90.00	359.78	9,810.00	9,919.63	500.19	9,917.64	0.00	0.00	0.00
21,200.00	90.00	359.78	9,810.00	10,019.63	499.82	10,017.64	0.00	0.00	0.00
21,300.00	90.00	359.78	9,810.00	10,119.63	499.44	10,117.64	0.00	0.00	0.00
21,400.00	90.00	359.78	9,810.00	10,219.63	499.06	10,217.64	0.00	0.00	0.00
21,500.00	90.00	359.78	9,810.00	10,319.63	498.69	10,317.64	0.00	0.00	0.00
21,600.00	90.00	359.78	9,810.00	10,419.63	498.31	10,417.64	0.00	0.00	0.00
21,700.00	90.00	359.78	9,810.00	10,519.63	497.93	10,517.64	0.00	0.00	0.00
21,800.00	90.00	359.78	9,810.00	10,619.63	497.56	10,617.64	0.00	0.00	0.00
21,900.00	90.00	359.78	9,810.00	10,719.63	497.18	10,717.64	0.00	0.00	0.00

ExxonMobil

Planning Report

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Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
22,000.00	90.00	359.78	9,810.00	10,819.63	496.80	10,817.64	0.00	0.00	0.00
22,100.00	90.00	359.78	9,810.00	10,919.63	496.43	10,917.64	0.00	0.00	0.00
22,200.00	90.00	359.78	9,810.00	11,019.62	496.05	11,017.64	0.00	0.00	0.00
22,300.00	90.00	359.78	9,810.00	11,119.62	495.67	11,117.64	0.00	0.00	0.00
22,400.00	90.00	359.78	9,810.00	11,219.62	495.30	11,217.64	0.00	0.00	0.00
22,500.00	90.00	359.78	9,810.00	11,319.62	494.92	11,317.64	0.00	0.00	0.00
22,600.00	90.00	359.78	9,810.00	11,419.62	494.54	11,417.64	0.00	0.00	0.00
22,700.00	90.00	359.78	9,810.00	11,519.62	494.17	11,517.64	0.00	0.00	0.00
22,800.00	90.00	359.78	9,810.00	11,619.62	493.79	11,617.64	0.00	0.00	0.00
22,900.00	90.00	359.78	9,810.00	11,719.62	493.41	11,717.64	0.00	0.00	0.00
23,000.00	90.00	359.78	9,810.00	11,819.62	493.04	11,817.64	0.00	0.00	0.00
23,100.00	90.00	359.78	9,810.00	11,919.62	492.66	11,917.64	0.00	0.00	0.00
23,200.00	90.00	359.78	9,810.00	12,019.62	492.28	12,017.64	0.00	0.00	0.00
23,300.00	90.00	359.78	9,810.00	12,119.62	491.91	12,117.64	0.00	0.00	0.00
23,400.00	90.00	359.78	9,810.00	12,219.62	491.53	12,217.64	0.00	0.00	0.00
23,500.00	90.00	359.78	9,810.00	12,319.62	491.16	12,317.64	0.00	0.00	0.00
23,600.00	90.00	359.78	9,810.00	12,419.61	490.78	12,417.64	0.00	0.00	0.00
23,700.00	90.00	359.78	9,810.00	12,519.61	490.40	12,517.64	0.00	0.00	0.00
23,800.00	90.00	359.78	9,810.00	12,619.61	490.03	12,617.64	0.00	0.00	0.00
23,900.00	90.00	359.78	9,810.00	12,719.61	489.65	12,717.64	0.00	0.00	0.00
24,000.00	90.00	359.78	9,810.00	12,819.61	489.27	12,817.64	0.00	0.00	0.00
24,100.00	90.00	359.78	9,810.00	12,919.61	488.90	12,917.64	0.00	0.00	0.00
24,200.00	90.00	359.78	9,810.00	13,019.61	488.52	13,017.64	0.00	0.00	0.00
24,300.00	90.00	359.78	9,810.00	13,119.61	488.14	13,117.64	0.00	0.00	0.00
24,400.00	90.00	359.78	9,810.00	13,219.61	487.77	13,217.64	0.00	0.00	0.00
24,500.00	90.00	359.78	9,810.00	13,319.61	487.39	13,317.64	0.00	0.00	0.00
24,600.00	90.00	359.78	9,810.00	13,419.61	487.01	13,417.64	0.00	0.00	0.00
24,700.00	90.00	359.78	9,810.00	13,519.61	486.64	13,517.64	0.00	0.00	0.00
24,800.00	90.00	359.78	9,810.00	13,619.61	486.26	13,617.64	0.00	0.00	0.00
24,900.00	90.00	359.78	9,810.00	13,719.61	485.88	13,717.64	0.00	0.00	0.00
25,000.00	90.00	359.78	9,810.00	13,819.60	485.51	13,817.64	0.00	0.00	0.00
25,100.00	90.00	359.78	9,810.00	13,919.60	485.13	13,917.64	0.00	0.00	0.00
25,200.00	90.00	359.78	9,810.00	14,019.60	484.75	14,017.64	0.00	0.00	0.00
25,300.00	90.00	359.78	9,810.00	14,119.60	484.38	14,117.64	0.00	0.00	0.00
25,400.00	90.00	359.78	9,810.00	14,219.60	484.00	14,217.64	0.00	0.00	0.00
25,500.00	90.00	359.78	9,810.00	14,319.60	483.62	14,317.64	0.00	0.00	0.00
25,600.00	90.00	359.78	9,810.00	14,419.60	483.25	14,417.64	0.00	0.00	0.00
25,700.00	90.00	359.78	9,810.00	14,519.60	482.87	14,517.64	0.00	0.00	0.00
25,800.00	90.00	359.78	9,810.00	14,619.60	482.49	14,617.64	0.00	0.00	0.00
25,900.00	90.00	359.78	9,810.00	14,719.60	482.12	14,717.64	0.00	0.00	0.00
26,000.00	90.00	359.78	9,810.00	14,819.60	481.74	14,817.64	0.00	0.00	0.00
26,100.00	90.00	359.78	9,810.00	14,919.60	481.36	14,917.64	0.00	0.00	0.00
26,200.00	90.00	359.78	9,810.00	15,019.60	480.99	15,017.64	0.00	0.00	0.00
26,300.00	90.00	359.78	9,810.00	15,119.60	480.61	15,117.64	0.00	0.00	0.00
26,400.00	90.00	359.78	9,810.00	15,219.59	480.23	15,217.64	0.00	0.00	0.00
26,500.00	90.00	359.78	9,810.00	15,319.59	479.86	15,317.64	0.00	0.00	0.00
26,541.51	90.00	359.78	9,810.00	15,361.10	479.70	15,359.15	0.00	0.00	0.00
26,591.51	90.00	359.78	9,810.00	15,411.10	479.51	15,409.15	0.00	0.00	0.00

ExxonMobil
Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well PLU 23 DTD 171H Redrill
Company:	ROC	TVD Reference:	RKB 30 @ 3478.00usft (HP 508)
Project:	PLU 23 DTD - X20/HP547/549/552, Eddy County, NM	MD Reference:	RKB 30 @ 3478.00usft (HP 508)
Site:	(508 & 547) PLU 23 DTD Pad A - PLANS	North Reference:	Grid
Well:	PLU 23 DTD 171H Redrill	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	3 pt plan		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Tgt Box to 1200' - PLI	0.00	0.00	1,800.00	0.00	0.00	440,986.90	647,050.60	32° 12' 41.39 N	103° 51' 28.35 W
- plan hits target center									
- Rectangle (sides W20.00 H30.00 D1,800.00)									
BHL v2 - PLU 23 DTD	0.00	0.00	9,810.00	15,411.10	479.40	456,398.00	647,530.00	32° 15' 13.87 N	103° 51' 21.98 W
- plan misses target center by 0.11usft at 26591.51usft MD (9810.00 TVD, 15411.10 N, 479.51 E)									
- Point									
LTP v2 - PLU 23 DTD	0.00	0.00	9,810.00	15,361.10	479.70	456,348.00	647,530.30	32° 15' 13.38 N	103° 51' 21.98 W
- plan hits target center									
- Point									
FTP v2 - PLU 23 DTD	0.00	0.00	9,810.00	-861.90	540.80	440,125.00	647,591.40	32° 12' 32.83 N	103° 51' 22.10 W
- plan hits target center									
- Point									

Formations						
	Measured Depth	Vertical Depth				
	(usft)	(usft)	Name	Lithology	Dip	Dip Direction
					(°)	(°)
	641.00	641.00	Rustler			
	996.00	996.00	Salado			
	3,887.14	3,839.00	Base of Salt			
	4,101.51	4,047.00	Delaware			
	5,075.44	4,992.00	Cherry Canyon			
	6,379.16	6,257.00	Brushy Canyon			
	7,758.11	7,595.00	Basal Brushy Canyon			
	8,084.81	7,912.00	Bone Spring Lm.			
	8,210.33	8,034.00	Avalon Shale			
	8,648.21	8,467.00	Lower Avalon Shale			
	8,872.35	8,691.00	1st Bone Spring Lime			
	9,033.35	8,852.00	1st Bone Spring Sand			
	9,473.43	9,292.00	2nd Bone Spring Lime			
	9,994.75	9,721.00	2nd Bone Spring Sand			
	10,117.09	9,775.00	2nd Bone Spring A Sand (Landing)			

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

XTO Energy Inc.
POKER LAKE UNIT 23 DTD 171H
Projected TD: 26591.51' MD / 9810' TVD
SHL: 366' FSL & 591' FWL , Section 14, T24S, R30E
BHL: 50' FNL & 1130' FWL , Section 2, T24S, R30E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	643'	Water
Top of Salt	998'	Water
Base of Salt	3841'	Water
Delaware	4049'	Water
Brushy Canyon	6259'	Water/Oil/Gas
Bone Spring	7914'	Water
1st Bone Spring Ss	8854'	Water/Oil/Gas
2nd Bone Spring Ss	9723'	Water/Oil/Gas
Target/Land Curve	9777'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 20 inch casing @ 973' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13.375 inch casing at 3941' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 9.625 inch casing at 9037.04' and cementing to surface. A 8.5 / 8.75 inch curve and 8.5 inch lateral hole will be drilled to 26591.51 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 8737.04 feet) per Potash regulations.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
26	0' – 973'	20	94	J-55	BTC	New	2.41	1.27	11.78
17.5	0' – 3941'	13.375	54.5	J-55	BTC	New	1.22	1.27	4.23
12.25	0' – 4041'	9.625	40	HC P-110	BTC	New	2.29	2.24	3.50
12.25	4041' – 9037.04'	9.625	40	HC L-80	BTC	New	1.67	2.60	4.58
8.5 / 8.75	0' – 8937.04'	5.5	23	RY P-110	Semi-Premium	New	1.21	2.84	1.98
8.5	8937.04' - 26591.51'	5.5	23	RY P-110	Semi-Flush	New	1.21	2.59	4.34

· Production casing meets the clearance requirements as tapered string crosses over before encountering the intermediate shoe, per Onshore Order 2.3.B.1

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry

· XTO requests to not utilize centralizers in the curve and lateral

· 13.375 Collapse analyzed using 50% evacuation based on regional experience.

· 9.625 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

· XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 24" 5M QC x 13-3/8" bottom

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

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

4. Cement Program

Surface Casing: 20, 94 New BTC, J-55 casing to be set at +/- 973'

Optional Lead: 1520 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.33 ft3/sx, 10.13 gal/sx water)
Tail: 670 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 250 psi 24 hr = 500 psi

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

1st Intermediate Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 3941'

Lead: 1840 sxs Class C (mixed at 14.8 ppg, 2.06 ft3/sx, 10.13 gal/sx water)
Tail: 150 sxs Class C + 2% CaCl (mixed at 15.6 ppg, 2.06 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 9037.04'

1st Stage

Optional Lead: 390 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: 3641
Tail: 920 sxs Class C (mixed at 14.8 ppg, 1.27 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6259
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage - bradenhead contingency

Tail: 420 sxs Class C (mixed at 14.8 ppg, 2.77 ft3/sx, 6.39 gal/sx water)
Top of Cement: 3641
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 (6259') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface. 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 wellhead provider 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, 23 New Semi-Flush, RY P-110 casing to be set at +/- 26591.51'

#VALUE!			8737.04 feet
#VALUE!			9418.39 feet
Compressives:	12-hr =	1375 psi	24 hr = 2285 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

The blow out preventer equipment (BOP) for surf casing / temp. wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 873 psi.

Once the permanent WH is installed on the 13-3/8 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M 3-Ram BOP. MASP should not exceed 3442 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 conducted to at least 50% of the rated working pressure. When nipping up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

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

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 973'	26	FW/Native	8.1-8.6	35-40	NC
973' - 3941'	17.5	Brine	8.5-9	30-32	NC
3941' to 9037.04'	12.25	BDE/OBM or FW/Brine	9-9.5	30-32	NC
9037.04' to 26591.51'	8.5	OBM	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 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 20 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing where necessary. Otherwise, gamma ray will be utilized while actively drilling.

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 5611 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.

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

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

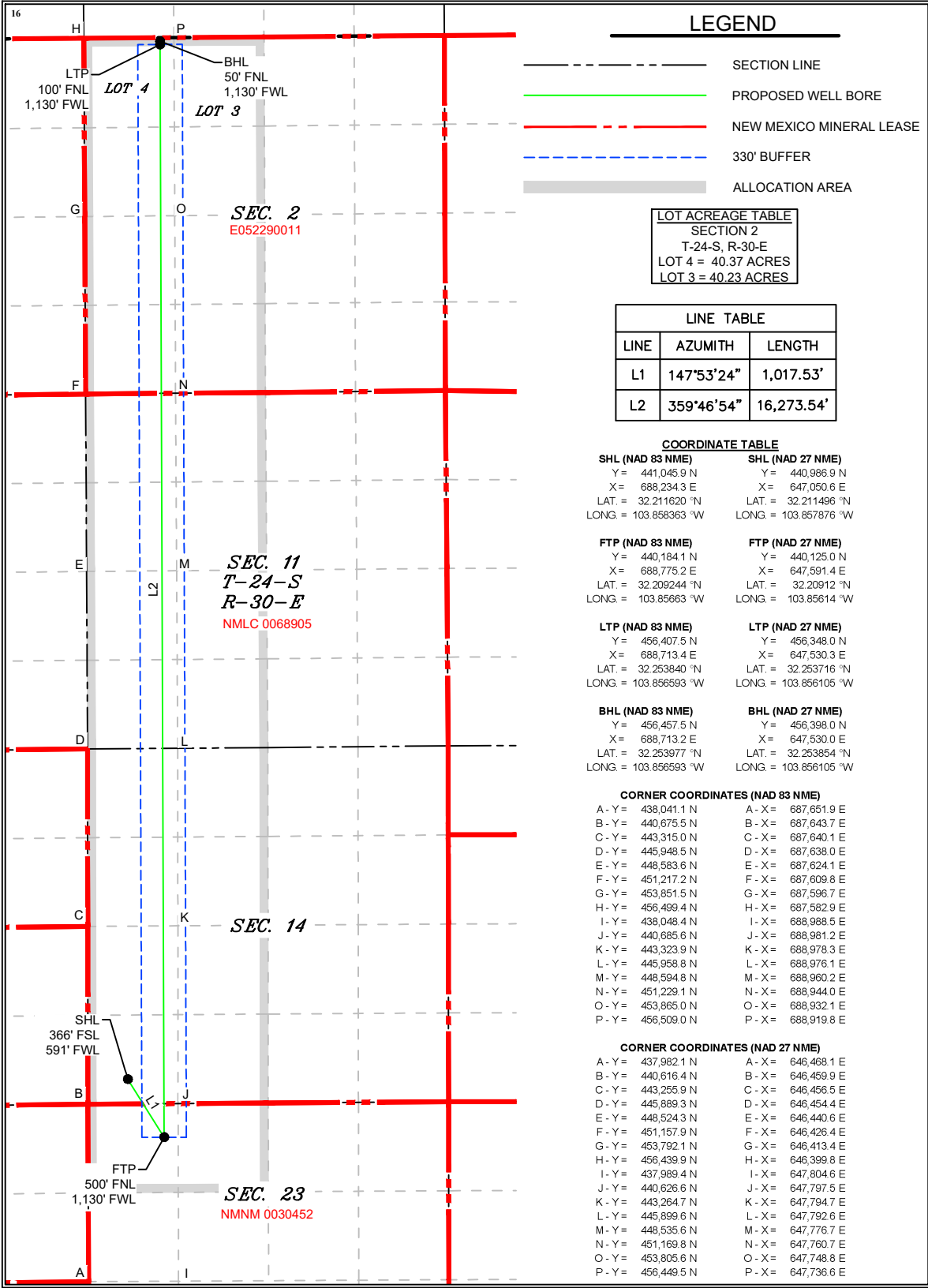
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-54945	² Pool Code 97753	³ Pool Name Undesignated; Bone Spring
⁴ Property Code 325598	⁵ Property Name POKER LAKE UNIT 23 DTD	⁶ Well Number 171H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁹ Elevation 3,448'

¹⁰ Surface Location									
UL or lot no. M	Section 14	Township 24S	Range 30E	Lot Idn	Feet from the 366	North/South line SOUTH	Feet from the 591	East/West line WEST	County EDDY

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no. 4	Section 2	Township 24S	Range 30E	Lot Idn	Feet from the 50	North/South line NORTH	Feet from the 1,130	East/West line WEST	County EDDY
¹² Dedicated Acres 960 1040.6	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Rusty Klein 3-28-24
Signature Date

RUSTY KLEIN
Printed Name

ranell.klein@exxonmobil.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

3/26/2024
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP
NEW MEXICO
23786
PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

DB/RP/AI 618.013003.09-11

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

Form 3160-3
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address		9. API Well No.
3b. Phone No. (include area code)		10. Field and Pool, or Exploratory
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		11. Sec., T. R. M. or Blk. and Survey or Area
14. Distance in miles and direction from nearest town or post office*		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature <i>Rusty Klein</i>	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does 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.

Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, when applicable by 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Form 3160-3
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	12. County or Parish
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	13. State
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	17. Spacing Unit dedicated to this well
20. BLM/BIA Bond No. in file		23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature <i>Rusty Klein</i>	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed) Chris Walls	Date 4/8/2024
Title Sup. PE	Office CFO	

Application approval does 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.

Conditions of approval, if any, are attached.

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.

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, when applicable by 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 23 DTD Federal Com 171H
LOCATION:	Sec 14-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2764696** on 12/26/2023. Any previous COAs not addressed within the updated COAs still apply.*

NOTE: The attached drill plan had an error in Section 5. The replacement language for **Section 5: Pressure Control Equipment** is as follows,

The blow out preventer equipment (BOP) for surf casing / temp. wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 873 psi.

Once the permanent WH is installed on the 13-3/8 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M 3-Ram BOP. MASP should not exceed 3442 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).

COA

H₂S	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
Potash / WIPP	<input type="radio"/> None	<input checked="" type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Variance	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
Variance	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> Batch APD / Sundry				

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **20** inch surface casing shall be set at approximately 832 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required. If these quantities are exceeded / procedure needs to be changed, contact the PE on-call line to discuss further remediation options.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.
3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 6259'**
- b. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to tie back at least **500 feet** into previous casing string. Operator should provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

- ❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the 9-5/8" casing to surface after the second stage BH to verify TOC. Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated

date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)

- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

- **Eddy County (API No. / US Well No. contains 30-015-#####)**
Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, **BLM_NM_CFO_DrillingNotifications@BLM.GOV**
(575) 361-2822
- **Lea County (API No. / US Well No. contains 30-025-#####)**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e.

changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 332956

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 332956
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	4/18/2024