

Well Name: POKER LAKE UNIT 19 DTD	Well Location: T24S / R30E / SEC 19 / SENW /	County or Parish/State:
Well Number: 222H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM002860	Unit or CA Name:	Unit or CA Number: NMNM71016X
US Well Number: 3001553947	Well Status: Approved Application for Permit to Drill	Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2781301

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/22/2024

Time Sundry Submitted: 03:27

Date proposed operation will begin: 04/12/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, and proposed total depth. FROM: TO: SHL: 1332' FNL & 1883' FWL of Section 19-T24S-R30E 1372' FNL & 1883' FWL of Section 19-T24S-R30E FTP: 100' FSL & 1650' FEL of Section 18-T24S-R30E 100' FNL & 2242' FWL of Section 19-T24S-R30E LTP: 2310' FSL & 1650' FEL of Section 31-T23S-R30E 330' FSL & 2242' FWL of Section 31-T24S-R30E BHL: 2440' FSL & 1650' FEL of Section 31-T23S-R30E 230' FSL & 2242' FWL of Section 31-T24S-R30E Proposed total depth will change from 30454' MD; 11688' TVD (Wolfcamp) to 25927' MD; TVD 10532' (Wolfcamp X). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

POKER_LAKE_UNIT_19_DTD_222H_C_102_Sundry_Attachments_20240322152708.pdf

Received by OCD: 4/5/2024 12:54:12 PM

Well Name: POKER LAKE UNIT 19
DTD

Well Location: T24S / R30E / SEC 19 /
SENW /

County or Parish/State:

Well Number: 222H

Type of Well: CONVENTIONAL GAS
WELL

Allottee or Tribe Name:

Lease Number: NMNM002860

Unit or CA Name:

Unit or CA Number:
NMNM71016X

US Well Number: 3001553947

Well Status: Approved Application for
Permit to Drill

Operator: XTO PERMIAN
OPERATING LLC

Page 2 of 42

Conditions of Approval

Additional

Sec19_24S_30E_NMP_Sundry_2781301_Poker_Lake_Unit_19_DTD_222H_COAs_20240404113503.pdf

Operator

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

Operator Electronic Signature: TERRA SEBASTIAN

Signed on: MAR 22, 2024 03:27 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Advisor

Street Address: 6401 HOLIDAY HILL ROAD SUITE 200

City: MIDLAND

State: TX

Phone: (432) 999-3107

Email address: TERRA.B.SEBASTIAN@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 04/05/2024

Signature: Chris Walls

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.	
10. Field and Pool or Exploratory Area	11. Country or Parish, State

SUBMIT IN TRIPLICATE - Other instructions on page 2	
1. Type of Well	
<input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	
2. Name of Operator	
3a. Address	3b. Phone No. (include area code)
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)	

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 recompleation 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

Additional Remarks

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

Location of Well

0. SHL: SENW / 1332 FNL / 1883 FWL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.206577 / LONG: -103.923415 (TVD: 0 feet, MD: 0 feet)

PPP: SWSE / 330 FSL / 1650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22569 / LONG: -103.91766 (TVD: 11688 feet, MD: 17600 feet)

PPP: SWSE / 100 FSL / 1650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210578 / LONG: -103.917546 (TVD: 11688 feet, MD: 12300 feet)

BHL: NWSE / 2440 FSL / 1650 FEL / TWSP: 23S / RANGE: 30E / SECTION: 31 / LAT: 32.260675 / LONG: -103.917524 (TVD: 11688 feet, MD: 30454 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 19 DTD 222H
LOCATION:	Sec 19-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781301** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H₂S	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
Cave / Karst	<input type="radio"/> Low	<input checked="" 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 type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Variance	<input checked="" type="checkbox"/> Flex Hose	<input checked="" 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 **9-5/8** inch surface casing shall be set at approximately 430 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. ***Set depth adjusted per BLM geologist.***
 - 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 **8 hours** 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.

2. The minimum required fill of cement behind the **7-5/8** 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.**
- ❖ In Medium Cave/Karst 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 9-5/8" X 7-5/8" 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 7-5/8" 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.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

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

- Cement should tie-back at least **300 feet** into previous casing string (tieback increased due to not meeting 0.422" clearance requirement.) 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)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

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](mailto: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.

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

DB 618.013003.05-46

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

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

XTO Energy Inc.

Poker Lake Unit 19 DTD South 222H
Projected TD: 25927.5' MD / 10532' TVD
SHL: 1372' FNL & 1883' FWL , Section 19, T24S, R30E
BHL: 230' FSL & 2242' FWL , Section 31, 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	608'	Water
Top of Salt	1011'	Water
Base of Salt	3204'	Water
Delaware	3398'	Water
Brushy Canyon	5896'	Water/Oil/Gas
Bone Spring	7192'	Water
Avalon	7362'	Water/Oil/Gas
1st Bone Spring	8178'	Water/Oil/Gas
2nd Bone Spring	8996'	Water/Oil/Gas
3rd Bone Spring	10090'	Water/Oil/Gas
Wolfcamp	10481'	Water/Oil/Gas
Wolfcamp X	10502'	Water/Oil/Gas
Target/Land Curve	10532'	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 9.625 inch casing @ 708' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9785.21' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 25927.5 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9485.21 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 708'	9.625	40	J-55	BTC	New	1.70	8.89	22.25
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.28	2.92	1.92
8.75	4000' – 9785.21'	7.625	29.7	CY P-110	Flush Joint	New	2.28	2.26	5.59
6.75	0' – 9685.21'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.87	1.97
6.75	9685.21' - 25927.5'	5.5	20	RY P-110	Semi-Flush	New	1.05	1.72	1.97

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

Wellhead:

Permanent Wellhead – Multibowl System

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

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

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

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 708'

Lead: 130 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft3/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9785.21'

1st Stage

Optional Lead: 320 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 360 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 5896

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)

Tail: 660 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

Top of Cement: 0

Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5896') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 25927.5'

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 9485.21 feet

Tail: 1140 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 9985.21 feet

Compressives: 12-hr = 800 psi 24 hr = 1500 psi

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

5. Pressure Control Equipment

Once the permanent WH is installed on the 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4145 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 9.625, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 7.625, 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' - 708'	12.25	FW/Native	8.4-8.9	35-40	NC
708' - 9785.21'	8.75	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
9785.21' - 25927.5'	6.75	OBM	11.8-12.3	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 9.625 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6462 psi.

10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

Well Plan Report - Poker Lake Unit 19 DTD South 222H

Measured Depth:	25927.51 ft
TVD RKB:	10532.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	439029.40 ft
Easting:	626938.80 ft
RKB:	3196.00 ft
Ground Level:	3164.00 ft
North Reference:	Grid
Convergence Angle:	0.22 Deg

Plan SectionsPoker Lake Unit 19 DTD South 222H

Measured		TVD		Build		Turn		Dogleg	
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1867.66	15.35	15.34	1858.51	98.60	27.05	2.00	0.00	2.00	
6101.75	15.35	15.34	5941.49	1179.70	323.65	0.00	0.00	0.00	
6869.41	0.00	0.00	6700.00	1278.30	350.70	-2.00	0.00	2.00	
9985.21	0.00	0.00	9815.80	1278.30	350.70	0.00	0.00	0.00	
11110.21	90.00	179.72	10532.00	562.11	354.17	8.00	0.00	8.00	
11774.60	90.00	179.72	10532.00	-102.27	357.40	0.00	0.00	0.00	LTP 14
25927.51	90.00	179.72	10532.00	-14255.01	426.07	0.00	0.00	0.00	BHL 14

Position UncertaintyPoker Lake Unit 19 DTD South 222H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
----------	-----	----------	---------	----------	-----------	------------	------------	------------	------

Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.346	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.373	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.405	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.441	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.482	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.528	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.577	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.630	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	15.342	1199.980	5.160	0.000	4.375	0.000	2.686	0.000	0.000	5.300	4.207	127.219	MWD+IFR1+MS
1300.000	4.000	15.342	1299.838	5.930	0.000	4.751	0.000	2.745	0.000	0.000	6.081	4.568	124.329	MWD+IFR1+MS
1400.000	6.000	15.342	1399.452	6.624	0.000	5.124	0.000	2.810	0.000	0.000	6.793	4.924	122.958	MWD+IFR1+MS
1500.000	8.000	15.342	1498.702	7.261	0.000	5.494	0.000	2.883	0.000	0.000	7.453	5.278	122.164	MWD+IFR1+MS
1600.000	10.000	15.342	1597.465	7.854	0.000	5.862	0.000	2.965	0.000	0.000	8.072	5.632	121.653	MWD+IFR1+MS
1700.000	12.000	15.342	1695.623	8.412	0.000	6.229	0.000	3.060	0.000	0.000	8.658	5.986	121.304	MWD+IFR1+MS
1800.000	14.000	15.342	1793.055	8.940	0.000	6.596	0.000	3.168	0.000	0.000	9.218	6.342	121.057	MWD+IFR1+MS
1867.661	15.353	15.342	1858.507	9.178	0.000	6.835	0.000	3.228	0.000	0.000	9.482	6.584	120.952	MWD+IFR1+MS
1900.000	15.353	15.342	1889.692	9.267	0.000	6.947	0.000	3.251	0.000	0.000	9.569	6.700	120.925	MWD+IFR1+MS
2000.000	15.353	15.342	1986.123	9.546	0.000	7.304	0.000	3.338	0.000	0.000	9.836	7.066	121.018	MWD+IFR1+MS
2100.000	15.353	15.342	2082.554	9.844	0.000	7.678	0.000	3.431	0.000	0.000	10.126	7.441	121.317	MWD+IFR1+MS
2200.000	15.353	15.342	2178.985	10.149	0.000	8.053	0.000	3.529	0.000	0.000	10.423	7.818	121.609	MWD+IFR1+MS
2300.000	15.353	15.342	2275.417	10.461	0.000	8.430	0.000	3.629	0.000	0.000	10.726	8.196	121.896	MWD+IFR1+MS
2400.000	15.353	15.342	2371.848	10.779	0.000	8.808	0.000	3.734	0.000	0.000	11.034	8.575	122.178	MWD+IFR1+MS
2500.000	15.353	15.342	2468.279	11.102	0.000	9.187	0.000	3.841	0.000	0.000	11.348	8.955	122.453	MWD+IFR1+MS
2600.000	15.353	15.342	2564.710	11.431	0.000	9.567	0.000	3.951	0.000	0.000	11.666	9.336	122.723	MWD+IFR1+MS
2700.000	15.353	15.342	2661.141	11.765	0.000	9.948	0.000	4.064	0.000	0.000	11.989	9.718	122.988	MWD+IFR1+MS
2800.000	15.353	15.342	2757.573	12.103	0.000	10.329	0.000	4.180	0.000	0.000	12.316	10.100	123.247	MWD+IFR1+MS
2900.000	15.353	15.342	2854.004	12.445	0.000	10.712	0.000	4.298	0.000	0.000	12.646	10.482	123.501	MWD+IFR1+MS

3000.000	15.353	15.342	2950.435	12.790	0.000	11.095	0.000	4.418	0.000	0.000	12.980	10.866	123.750	MWD+IFR1+MS
3100.000	15.353	15.342	3046.866	13.139	0.000	11.478	0.000	4.540	0.000	0.000	13.317	11.249	123.993	MWD+IFR1+MS
3200.000	15.353	15.342	3143.297	13.491	0.000	11.862	0.000	4.665	0.000	0.000	13.657	11.633	124.231	MWD+IFR1+MS
3300.000	15.353	15.342	3239.728	13.846	0.000	12.246	0.000	4.791	0.000	0.000	14.000	12.018	124.464	MWD+IFR1+MS
3400.000	15.353	15.342	3336.160	14.204	0.000	12.631	0.000	4.919	0.000	0.000	14.346	12.403	124.692	MWD+IFR1+MS
3500.000	15.353	15.342	3432.591	14.564	0.000	13.016	0.000	5.050	0.000	0.000	14.693	12.788	124.916	MWD+IFR1+MS
3600.000	15.353	15.342	3529.022	14.926	0.000	13.401	0.000	5.182	0.000	0.000	15.043	13.173	125.134	MWD+IFR1+MS
3700.000	15.353	15.342	3625.453	15.291	0.000	13.787	0.000	5.315	0.000	0.000	15.395	13.559	125.347	MWD+IFR1+MS
3800.000	15.353	15.342	3721.884	15.657	0.000	14.172	0.000	5.451	0.000	0.000	15.749	13.945	125.556	MWD+IFR1+MS
3900.000	15.353	15.342	3818.316	16.025	0.000	14.559	0.000	5.588	0.000	0.000	16.105	14.331	125.760	MWD+IFR1+MS
4000.000	15.353	15.342	3914.747	16.395	0.000	14.945	0.000	5.727	0.000	0.000	16.462	14.718	125.959	MWD+IFR1+MS
4100.000	15.353	15.342	4011.178	16.767	0.000	15.332	0.000	5.867	0.000	0.000	16.821	15.104	126.154	MWD+IFR1+MS
4200.000	15.353	15.342	4107.609	17.140	0.000	15.718	0.000	6.009	0.000	0.000	17.181	15.491	126.344	MWD+IFR1+MS
4300.000	15.353	15.342	4204.040	17.515	0.000	16.105	0.000	6.153	0.000	0.000	17.543	15.878	126.529	MWD+IFR1+MS
4400.000	15.353	15.342	4300.472	17.891	0.000	16.493	0.000	6.298	0.000	0.000	17.906	16.265	126.711	MWD+IFR1+MS
4500.000	15.353	15.342	4396.903	18.268	0.000	16.880	0.000	6.445	0.000	0.000	18.270	16.653	126.887	MWD+IFR1+MS
4600.000	15.353	15.342	4493.334	18.646	0.000	17.267	0.000	6.593	0.000	0.000	18.635	17.040	127.060	MWD+IFR1+MS
4700.000	15.353	15.342	4589.765	19.025	0.000	17.655	0.000	6.743	0.000	0.000	19.002	17.428	127.228	MWD+IFR1+MS
4800.000	15.353	15.342	4686.196	19.406	0.000	18.043	0.000	6.895	0.000	0.000	19.369	17.816	127.392	MWD+IFR1+MS
4900.000	15.353	15.342	4782.627	19.787	0.000	18.431	0.000	7.048	0.000	0.000	19.738	18.204	127.551	MWD+IFR1+MS
5000.000	15.353	15.342	4879.059	20.169	0.000	18.819	0.000	7.203	0.000	0.000	20.107	18.592	127.707	MWD+IFR1+MS
5100.000	15.353	15.342	4975.490	20.552	0.000	19.207	0.000	7.359	0.000	0.000	20.477	18.980	127.858	MWD+IFR1+MS
5200.000	15.353	15.342	5071.921	20.936	0.000	19.595	0.000	7.517	0.000	0.000	20.848	19.368	128.005	MWD+IFR1+MS
5300.000	15.353	15.342	5168.352	21.321	0.000	19.983	0.000	7.677	0.000	0.000	21.220	19.756	128.148	MWD+IFR1+MS
5400.000	15.353	15.342	5264.783	21.706	0.000	20.372	0.000	7.838	0.000	0.000	21.592	20.145	128.287	MWD+IFR1+MS
5500.000	15.353	15.342	5361.215	22.092	0.000	20.760	0.000	8.001	0.000	0.000	21.965	20.534	128.422	MWD+IFR1+MS
5600.000	15.353	15.342	5457.646	22.479	0.000	21.149	0.000	8.165	0.000	0.000	22.339	20.922	128.553	MWD+IFR1+MS
5700.000	15.353	15.342	5554.077	22.867	0.000	21.537	0.000	8.332	0.000	0.000	22.714	21.311	128.680	MWD+IFR1+MS
5800.000	15.353	15.342	5650.508	23.255	0.000	21.926	0.000	8.500	0.000	0.000	23.089	21.700	128.803	MWD+IFR1+MS
5900.000	15.353	15.342	5746.939	23.643	0.000	22.315	0.000	8.669	0.000	0.000	23.465	22.089	128.922	MWD+IFR1+MS
6000.000	15.353	15.342	5843.370	24.032	0.000	22.703	0.000	8.841	0.000	0.000	23.841	22.478	129.037	MWD+IFR1+MS
6101.754	15.353	15.342	5941.493	24.429	0.000	23.100	0.000	9.017	0.000	0.000	24.225	22.874	129.158	MWD+IFR1+MS
6200.000	13.388	15.342	6036.660	24.876	0.000	23.478	0.000	9.192	0.000	0.000	24.626	23.251	129.032	MWD+IFR1+MS

6300.000	11.388	15.342	6134.327	25.360	0.000	23.858	0.000	9.374	0.000	0.000	25.089	23.631	128.260	MWD+IFR1+MS
6400.000	9.388	15.342	6232.683	25.805	0.000	24.230	0.000	9.545	0.000	0.000	25.547	24.003	127.561	MWD+IFR1+MS
6500.000	7.388	15.342	6331.608	26.211	0.000	24.595	0.000	9.707	0.000	0.000	25.997	24.368	126.945	MWD+IFR1+MS
6600.000	5.388	15.342	6430.982	26.576	0.000	24.952	0.000	9.861	0.000	0.000	26.438	24.724	126.405	MWD+IFR1+MS
6700.000	3.388	15.342	6530.684	26.901	0.000	25.302	0.000	10.009	0.000	0.000	26.870	25.072	125.936	MWD+IFR1+MS
6800.000	1.388	15.342	6630.592	27.185	0.000	25.643	0.000	10.151	0.000	0.000	27.291	25.412	125.534	MWD+IFR1+MS
6869.415	0.000	0.000	6700.000	26.921	0.000	26.291	0.000	10.247	0.000	0.000	27.538	25.643	125.282	MWD+IFR1+MS
6900.000	0.000	0.000	6730.585	27.018	0.000	26.388	0.000	10.289	0.000	0.000	27.632	25.744	125.258	MWD+IFR1+MS
7000.000	0.000	0.000	6830.585	27.334	0.000	26.710	0.000	10.428	0.000	0.000	27.942	26.073	125.253	MWD+IFR1+MS
7100.000	0.000	0.000	6930.585	27.654	0.000	27.037	0.000	10.570	0.000	0.000	28.260	26.404	125.288	MWD+IFR1+MS
7200.000	0.000	0.000	7030.585	27.976	0.000	27.365	0.000	10.715	0.000	0.000	28.579	26.735	125.322	MWD+IFR1+MS
7300.000	0.000	0.000	7130.585	28.299	0.000	27.694	0.000	10.863	0.000	0.000	28.899	27.067	125.356	MWD+IFR1+MS
7400.000	0.000	0.000	7230.585	28.622	0.000	28.023	0.000	11.014	0.000	0.000	29.220	27.399	125.389	MWD+IFR1+MS
7500.000	0.000	0.000	7330.585	28.946	0.000	28.353	0.000	11.168	0.000	0.000	29.541	27.732	125.422	MWD+IFR1+MS
7600.000	0.000	0.000	7430.585	29.271	0.000	28.684	0.000	11.325	0.000	0.000	29.864	28.066	125.455	MWD+IFR1+MS
7700.000	0.000	0.000	7530.585	29.597	0.000	29.015	0.000	11.485	0.000	0.000	30.187	28.400	125.487	MWD+IFR1+MS
7800.000	0.000	0.000	7630.585	29.924	0.000	29.347	0.000	11.648	0.000	0.000	30.512	28.735	125.519	MWD+IFR1+MS
7900.000	0.000	0.000	7730.585	30.251	0.000	29.679	0.000	11.815	0.000	0.000	30.836	29.071	125.551	MWD+IFR1+MS
8000.000	0.000	0.000	7830.585	30.579	0.000	30.013	0.000	11.984	0.000	0.000	31.162	29.407	125.582	MWD+IFR1+MS
8100.000	0.000	0.000	7930.585	30.908	0.000	30.346	0.000	12.156	0.000	0.000	31.488	29.743	125.613	MWD+IFR1+MS
8200.000	0.000	0.000	8030.585	31.237	0.000	30.681	0.000	12.332	0.000	0.000	31.815	30.080	125.644	MWD+IFR1+MS
8300.000	0.000	0.000	8130.585	31.567	0.000	31.015	0.000	12.511	0.000	0.000	32.143	30.418	125.674	MWD+IFR1+MS
8400.000	0.000	0.000	8230.585	31.898	0.000	31.351	0.000	12.692	0.000	0.000	32.471	30.756	125.704	MWD+IFR1+MS
8500.000	0.000	0.000	8330.585	32.229	0.000	31.687	0.000	12.877	0.000	0.000	32.800	31.094	125.734	MWD+IFR1+MS
8600.000	0.000	0.000	8430.585	32.560	0.000	32.023	0.000	13.066	0.000	0.000	33.130	31.433	125.763	MWD+IFR1+MS
8700.000	0.000	0.000	8530.585	32.893	0.000	32.360	0.000	13.257	0.000	0.000	33.460	31.773	125.793	MWD+IFR1+MS
8800.000	0.000	0.000	8630.585	33.226	0.000	32.697	0.000	13.451	0.000	0.000	33.791	32.112	125.822	MWD+IFR1+MS
8900.000	0.000	0.000	8730.585	33.559	0.000	33.035	0.000	13.649	0.000	0.000	34.122	32.453	125.850	MWD+IFR1+MS
9000.000	0.000	0.000	8830.585	33.893	0.000	33.373	0.000	13.850	0.000	0.000	34.454	32.793	125.879	MWD+IFR1+MS
9100.000	0.000	0.000	8930.585	34.227	0.000	33.712	0.000	14.054	0.000	0.000	34.787	33.134	125.907	MWD+IFR1+MS
9200.000	0.000	0.000	9030.585	34.562	0.000	34.051	0.000	14.262	0.000	0.000	35.120	33.475	125.935	MWD+IFR1+MS
9300.000	0.000	0.000	9130.585	34.897	0.000	34.390	0.000	14.472	0.000	0.000	35.453	33.817	125.962	MWD+IFR1+MS
9400.000	0.000	0.000	9230.585	35.233	0.000	34.730	0.000	14.686	0.000	0.000	35.787	34.159	125.989	MWD+IFR1+MS

9500.000	0.000	0.000	9330.585	35.570	0.000	35.070	0.000	14.903	0.000	0.000	36.121	34.501	126.016	MWD+IFR1+MS
9600.000	0.000	0.000	9430.585	35.906	0.000	35.410	0.000	15.123	0.000	0.000	36.456	34.844	126.043	MWD+IFR1+MS
9700.000	0.000	0.000	9530.585	36.243	0.000	35.751	0.000	15.347	0.000	0.000	36.791	35.187	126.070	MWD+IFR1+MS
9800.000	0.000	0.000	9630.585	36.581	0.000	36.092	0.000	15.574	0.000	0.000	37.127	35.530	126.096	MWD+IFR1+MS
9900.000	0.000	0.000	9730.585	36.919	0.000	36.434	0.000	15.804	0.000	0.000	37.463	35.874	126.122	MWD+IFR1+MS
9985.215	0.000	0.000	9815.800	37.206	0.000	36.724	0.000	16.002	0.000	0.000	37.748	36.167	126.132	MWD+IFR1+MS
10000.000	1.183	179.722	9830.584	37.146	0.000	36.779	-0.000	16.037	0.000	0.000	37.794	36.215	126.138	MWD+IFR1+MS
10100.000	9.183	179.722	9930.094	36.808	0.000	37.076	-0.000	16.281	0.000	0.000	38.346	36.608	120.676	MWD+IFR1+MS
10200.000	17.183	179.722	10027.380	36.677	0.000	37.351	-0.000	16.629	0.000	0.000	39.497	37.031	110.521	MWD+IFR1+MS
10300.000	25.183	179.722	10120.547	36.025	0.000	37.598	-0.000	17.158	0.000	0.000	40.574	37.336	105.915	MWD+IFR1+MS
10400.000	33.183	179.722	10207.783	34.937	0.000	37.813	-0.000	17.923	0.000	0.000	41.499	37.577	103.582	MWD+IFR1+MS
10500.000	41.183	179.722	10287.390	33.529	0.000	37.996	-0.000	18.948	0.000	0.000	42.249	37.771	102.334	MWD+IFR1+MS
10600.000	49.183	179.722	10357.817	31.952	0.000	38.146	-0.000	20.219	0.000	0.000	42.819	37.923	101.691	MWD+IFR1+MS
10700.000	57.183	179.722	10417.695	30.394	0.000	38.264	-0.000	21.700	0.000	0.000	43.219	38.037	101.424	MWD+IFR1+MS
10800.000	65.183	179.722	10465.858	29.074	0.000	38.350	-0.000	23.337	0.000	0.000	43.469	38.115	101.407	MWD+IFR1+MS
10900.000	73.183	179.722	10501.367	28.224	0.000	38.404	-0.000	25.068	0.000	0.000	43.600	38.160	101.546	MWD+IFR1+MS
11000.000	81.183	179.722	10523.534	28.043	0.000	38.427	-0.000	26.833	0.000	0.000	43.649	38.173	101.752	MWD+IFR1+MS
11100.000	89.183	179.722	10531.924	28.640	0.000	38.420	-0.000	28.571	0.000	0.000	43.658	38.157	101.926	MWD+IFR1+MS
11110.215	90.000	179.722	10531.997	28.596	0.000	38.417	-0.000	28.596	0.000	0.000	43.659	38.153	101.934	MWD+IFR1+MS
11200.000	90.000	179.722	10531.997	28.785	0.000	38.397	-0.000	28.785	0.000	0.000	43.664	38.127	102.035	MWD+IFR1+MS
11300.000	90.000	179.722	10531.997	29.011	0.000	38.392	-0.000	29.011	0.000	0.000	43.671	38.116	102.182	MWD+IFR1+MS
11400.000	90.000	179.722	10531.997	29.258	0.000	38.404	-0.000	29.258	0.000	0.000	43.679	38.119	102.358	MWD+IFR1+MS
11500.000	90.000	179.722	10531.997	29.523	0.000	38.430	-0.000	29.523	0.000	0.000	43.688	38.137	102.565	MWD+IFR1+MS
11600.000	90.000	179.722	10531.997	29.806	0.000	38.472	-0.000	29.806	0.000	0.000	43.699	38.170	102.804	MWD+IFR1+MS
11700.000	90.000	179.722	10531.997	30.107	0.000	38.529	-0.000	30.107	0.000	0.000	43.711	38.216	103.076	MWD+IFR1+MS
11774.601	90.000	179.722	10531.997	30.341	0.000	38.579	-0.000	30.341	0.000	0.000	43.721	38.258	103.297	MWD+IFR1+MS
11800.000	90.000	179.722	10531.997	30.422	0.000	38.597	-0.000	30.422	0.000	0.000	43.724	38.273	103.374	MWD+IFR1+MS
11900.000	90.000	179.722	10531.997	30.754	0.000	38.682	-0.000	30.754	0.000	0.000	43.739	38.346	103.715	MWD+IFR1+MS
12000.000	90.000	179.722	10531.997	31.105	0.000	38.784	-0.000	31.105	0.000	0.000	43.756	38.434	104.103	MWD+IFR1+MS
12100.000	90.000	179.722	10531.997	31.473	0.000	38.901	-0.000	31.473	0.000	0.000	43.775	38.536	104.538	MWD+IFR1+MS
12200.000	90.000	179.722	10531.997	31.855	0.000	39.032	-0.000	31.855	0.000	0.000	43.796	38.652	105.024	MWD+IFR1+MS
12300.000	90.000	179.722	10531.997	32.251	0.000	39.178	-0.000	32.251	0.000	0.000	43.819	38.780	105.567	MWD+IFR1+MS
12400.000	90.000	179.722	10531.997	32.662	0.000	39.339	-0.000	32.662	0.000	0.000	43.845	38.921	106.174	MWD+IFR1+MS

12500.000	90.000	179.722	10531.997	33.087	0.000	39.513	-0.000	33.087	0.000	0.000	43.873	39.074	106.852	MWD+IFR1+MS
12600.000	90.000	179.722	10531.997	33.524	0.000	39.702	-0.000	33.524	0.000	0.000	43.905	39.238	107.611	MWD+IFR1+MS
12700.000	90.000	179.722	10531.997	33.974	0.000	39.904	-0.000	33.974	0.000	0.000	43.939	39.413	108.461	MWD+IFR1+MS
12800.000	90.000	179.722	10531.997	34.436	0.000	40.120	-0.000	34.436	0.000	0.000	43.978	39.599	109.416	MWD+IFR1+MS
12900.000	90.000	179.722	10531.997	34.909	0.000	40.350	-0.000	34.909	0.000	0.000	44.022	39.794	110.491	MWD+IFR1+MS
13000.000	90.000	179.722	10531.997	35.393	0.000	40.592	-0.000	35.393	0.000	0.000	44.071	39.997	111.701	MWD+IFR1+MS
13100.000	90.000	179.722	10531.997	35.889	0.000	40.848	-0.000	35.889	0.000	0.000	44.126	40.207	113.067	MWD+IFR1+MS
13200.000	90.000	179.722	10531.997	36.394	0.000	41.116	-0.000	36.394	0.000	0.000	44.188	40.424	114.610	MWD+IFR1+MS
13300.000	90.000	179.722	10531.997	36.909	0.000	41.396	-0.000	36.909	0.000	0.000	44.259	40.645	116.351	MWD+IFR1+MS
13400.000	90.000	179.722	10531.997	37.433	0.000	41.689	-0.000	37.433	0.000	0.000	44.340	40.868	118.313	MWD+IFR1+MS
13500.000	90.000	179.722	10531.997	37.967	0.000	41.994	-0.000	37.967	0.000	0.000	44.433	41.092	120.515	MWD+IFR1+MS
13600.000	90.000	179.722	10531.997	38.509	0.000	42.310	-0.000	38.509	0.000	0.000	44.541	41.314	122.969	MWD+IFR1+MS
13700.000	90.000	179.722	10531.997	39.059	0.000	42.637	-0.000	39.059	0.000	0.000	44.665	41.531	125.675	MWD+IFR1+MS
13800.000	90.000	179.722	10531.997	39.617	0.000	42.976	-0.000	39.617	0.000	0.000	44.809	41.741	128.614	MWD+IFR1+MS
13900.000	90.000	179.722	10531.997	40.183	0.000	43.326	-0.000	40.183	0.000	0.000	44.974	41.940	131.746	MWD+IFR1+MS
14000.000	90.000	179.722	10531.997	40.756	0.000	43.686	-0.000	40.756	0.000	0.000	45.163	42.127	-44.994	MWD+IFR1+MS
14100.000	90.000	179.722	10531.997	41.336	0.000	44.057	-0.000	41.336	0.000	0.000	45.377	42.300	-41.689	MWD+IFR1+MS
14200.000	90.000	179.722	10531.997	41.922	0.000	44.438	-0.000	41.922	0.000	0.000	45.617	42.457	-38.428	MWD+IFR1+MS
14300.000	90.000	179.722	10531.997	42.515	0.000	44.828	-0.000	42.515	0.000	0.000	45.883	42.599	-35.293	MWD+IFR1+MS
14400.000	90.000	179.722	10531.997	43.114	0.000	45.228	-0.000	43.114	0.000	0.000	46.174	42.726	-32.349	MWD+IFR1+MS
14500.000	90.000	179.722	10531.997	43.719	0.000	45.638	-0.000	43.719	0.000	0.000	46.488	42.839	-29.636	MWD+IFR1+MS
14600.000	90.000	179.722	10531.997	44.330	0.000	46.056	-0.000	44.330	0.000	0.000	46.824	42.941	-27.172	MWD+IFR1+MS
14700.000	90.000	179.722	10531.997	44.946	0.000	46.484	-0.000	44.946	0.000	0.000	47.181	43.032	-24.957	MWD+IFR1+MS
14800.000	90.000	179.722	10531.997	45.567	0.000	46.920	-0.000	45.567	0.000	0.000	47.555	43.114	-22.980	MWD+IFR1+MS
14900.000	90.000	179.722	10531.997	46.193	0.000	47.364	-0.000	46.193	0.000	0.000	47.945	43.188	-21.220	MWD+IFR1+MS
15000.000	90.000	179.722	10531.997	46.824	0.000	47.817	-0.000	46.824	0.000	0.000	48.351	43.256	-19.656	MWD+IFR1+MS
15100.000	90.000	179.722	10531.997	47.460	0.000	48.277	-0.000	47.460	0.000	0.000	48.771	43.319	-18.265	MWD+IFR1+MS
15200.000	90.000	179.722	10531.997	48.100	0.000	48.745	-0.000	48.100	0.000	0.000	49.203	43.378	-17.027	MWD+IFR1+MS
15300.000	90.000	179.722	10531.997	48.744	0.000	49.221	-0.000	48.744	0.000	0.000	49.646	43.433	-15.921	MWD+IFR1+MS
15400.000	90.000	179.722	10531.997	49.393	0.000	49.704	-0.000	49.393	0.000	0.000	50.101	43.485	-14.931	MWD+IFR1+MS
15500.000	90.000	179.722	10531.997	50.045	0.000	50.193	-0.000	50.045	0.000	0.000	50.565	43.534	-14.042	MWD+IFR1+MS
15600.000	90.000	179.722	10531.997	50.701	0.000	50.690	-0.000	50.701	0.000	0.000	51.039	43.582	-13.241	MWD+IFR1+MS
15700.000	90.000	179.722	10531.997	51.360	0.000	51.193	-0.000	51.360	0.000	0.000	51.522	43.627	-12.517	MWD+IFR1+MS

15800.000	90.000	179.722	10531.997	52.023	0.000	51.703	-0.000	52.023	0.000	0.000	52.013	43.672	-11.860	MWD+IFR1+MS
15900.000	90.000	179.722	10531.997	52.690	0.000	52.219	-0.000	52.690	0.000	0.000	52.512	43.715	-11.262	MWD+IFR1+MS
16000.000	90.000	179.722	10531.997	53.359	0.000	52.741	-0.000	53.359	0.000	0.000	53.019	43.757	-10.716	MWD+IFR1+MS
16100.000	90.000	179.722	10531.997	54.032	0.000	53.269	-0.000	54.032	0.000	0.000	53.533	43.799	-10.216	MWD+IFR1+MS
16200.000	90.000	179.722	10531.997	54.708	0.000	53.803	-0.000	54.708	0.000	0.000	54.054	43.840	-9.757	MWD+IFR1+MS
16300.000	90.000	179.722	10531.997	55.386	0.000	54.342	-0.000	55.386	0.000	0.000	54.581	43.880	-9.335	MWD+IFR1+MS
16400.000	90.000	179.722	10531.997	56.068	0.000	54.886	-0.000	56.068	0.000	0.000	55.115	43.920	-8.944	MWD+IFR1+MS
16500.000	90.000	179.722	10531.997	56.752	0.000	55.436	-0.000	56.752	0.000	0.000	55.655	43.960	-8.583	MWD+IFR1+MS
16600.000	90.000	179.722	10531.997	57.438	0.000	55.991	-0.000	57.438	0.000	0.000	56.200	44.000	-8.248	MWD+IFR1+MS
16700.000	90.000	179.722	10531.997	58.127	0.000	56.551	-0.000	58.127	0.000	0.000	56.751	44.040	-7.937	MWD+IFR1+MS
16800.000	90.000	179.722	10531.997	58.819	0.000	57.115	-0.000	58.819	0.000	0.000	57.308	44.079	-7.647	MWD+IFR1+MS
16900.000	90.000	179.722	10531.997	59.513	0.000	57.684	-0.000	59.513	0.000	0.000	57.870	44.119	-7.376	MWD+IFR1+MS
17000.000	90.000	179.722	10531.997	60.209	0.000	58.258	-0.000	60.209	0.000	0.000	58.436	44.158	-7.122	MWD+IFR1+MS
17100.000	90.000	179.722	10531.997	60.907	0.000	58.836	-0.000	60.907	0.000	0.000	59.008	44.198	-6.885	MWD+IFR1+MS
17200.000	90.000	179.722	10531.997	61.607	0.000	59.418	-0.000	61.607	0.000	0.000	59.584	44.238	-6.661	MWD+IFR1+MS
17300.000	90.000	179.722	10531.997	62.309	0.000	60.005	-0.000	62.309	0.000	0.000	60.164	44.278	-6.452	MWD+IFR1+MS
17400.000	90.000	179.722	10531.997	63.014	0.000	60.595	-0.000	63.014	0.000	0.000	60.749	44.318	-6.254	MWD+IFR1+MS
17500.000	90.000	179.722	10531.997	63.720	0.000	61.189	-0.000	63.720	0.000	0.000	61.338	44.359	-6.068	MWD+IFR1+MS
17600.000	90.000	179.722	10531.997	64.428	0.000	61.787	-0.000	64.428	0.000	0.000	61.931	44.399	-5.892	MWD+IFR1+MS
17700.000	90.000	179.722	10531.997	65.137	0.000	62.389	-0.000	65.137	0.000	0.000	62.529	44.440	-5.725	MWD+IFR1+MS
17800.000	90.000	179.722	10531.997	65.849	0.000	62.994	-0.000	65.849	0.000	0.000	63.129	44.482	-5.568	MWD+IFR1+MS
17900.000	90.000	179.722	10531.997	66.562	0.000	63.603	-0.000	66.562	0.000	0.000	63.734	44.523	-5.418	MWD+IFR1+MS
18000.000	90.000	179.722	10531.997	67.276	0.000	64.215	-0.000	67.276	0.000	0.000	64.342	44.565	-5.276	MWD+IFR1+MS
18100.000	90.000	179.722	10531.997	67.993	0.000	64.830	-0.000	67.993	0.000	0.000	64.954	44.608	-5.141	MWD+IFR1+MS
18200.000	90.000	179.722	10531.997	68.710	0.000	65.449	-0.000	68.710	0.000	0.000	65.569	44.650	-5.013	MWD+IFR1+MS
18300.000	90.000	179.722	10531.997	69.429	0.000	66.070	-0.000	69.429	0.000	0.000	66.187	44.693	-4.890	MWD+IFR1+MS
18400.000	90.000	179.722	10531.997	70.150	0.000	66.695	-0.000	70.150	0.000	0.000	66.808	44.736	-4.773	MWD+IFR1+MS
18500.000	90.000	179.722	10531.997	70.872	0.000	67.322	-0.000	70.872	0.000	0.000	67.433	44.780	-4.662	MWD+IFR1+MS
18600.000	90.000	179.722	10531.997	71.595	0.000	67.953	-0.000	71.595	0.000	0.000	68.060	44.824	-4.556	MWD+IFR1+MS
18700.000	90.000	179.722	10531.997	72.320	0.000	68.586	-0.000	72.320	0.000	0.000	68.690	44.869	-4.454	MWD+IFR1+MS
18800.000	90.000	179.722	10531.997	73.045	0.000	69.221	-0.000	73.045	0.000	0.000	69.323	44.914	-4.357	MWD+IFR1+MS
18900.000	90.000	179.722	10531.997	73.772	0.000	69.860	-0.000	73.772	0.000	0.000	69.959	44.959	-4.263	MWD+IFR1+MS
19000.000	90.000	179.722	10531.997	74.501	0.000	70.501	-0.000	74.501	0.000	0.000	70.597	45.005	-4.174	MWD+IFR1+MS

19100.000	90.000	179.722	10531.997	75.230	0.000	71.144	-0.000	75.230	0.000	0.000	71.238	45.051	-4.088	MWD+IFR1+MS
19200.000	90.000	179.722	10531.997	75.960	0.000	71.790	-0.000	75.960	0.000	0.000	71.882	45.097	-4.006	MWD+IFR1+MS
19300.000	90.000	179.722	10531.997	76.692	0.000	72.438	-0.000	76.692	0.000	0.000	72.528	45.144	-3.926	MWD+IFR1+MS
19400.000	90.000	179.722	10531.997	77.424	0.000	73.088	-0.000	77.424	0.000	0.000	73.176	45.192	-3.850	MWD+IFR1+MS
19500.000	90.000	179.722	10531.997	78.158	0.000	73.741	-0.000	78.158	0.000	0.000	73.827	45.239	-3.777	MWD+IFR1+MS
19600.000	90.000	179.722	10531.997	78.892	0.000	74.395	-0.000	78.892	0.000	0.000	74.479	45.288	-3.707	MWD+IFR1+MS
19700.000	90.000	179.722	10531.997	79.628	0.000	75.052	-0.000	79.628	0.000	0.000	75.134	45.336	-3.639	MWD+IFR1+MS
19800.000	90.000	179.722	10531.997	80.364	0.000	75.711	-0.000	80.364	0.000	0.000	75.791	45.385	-3.573	MWD+IFR1+MS
19900.000	90.000	179.722	10531.997	81.101	0.000	76.372	-0.000	81.101	0.000	0.000	76.450	45.435	-3.510	MWD+IFR1+MS
20000.000	90.000	179.722	10531.997	81.840	0.000	77.035	-0.000	81.840	0.000	0.000	77.112	45.485	-3.449	MWD+IFR1+MS
20100.000	90.000	179.722	10531.997	82.579	0.000	77.699	-0.000	82.579	0.000	0.000	77.775	45.535	-3.390	MWD+IFR1+MS
20200.000	90.000	179.722	10531.997	83.319	0.000	78.366	-0.000	83.319	0.000	0.000	78.440	45.586	-3.333	MWD+IFR1+MS
20300.000	90.000	179.722	10531.997	84.059	0.000	79.034	-0.000	84.059	0.000	0.000	79.106	45.637	-3.279	MWD+IFR1+MS
20400.000	90.000	179.722	10531.997	84.801	0.000	79.704	-0.000	84.801	0.000	0.000	79.775	45.689	-3.225	MWD+IFR1+MS
20500.000	90.000	179.722	10531.997	85.543	0.000	80.376	-0.000	85.543	0.000	0.000	80.445	45.741	-3.174	MWD+IFR1+MS
20600.000	90.000	179.722	10531.997	86.286	0.000	81.049	-0.000	86.286	0.000	0.000	81.117	45.794	-3.124	MWD+IFR1+MS
20700.000	90.000	179.722	10531.997	87.030	0.000	81.724	-0.000	87.030	0.000	0.000	81.791	45.847	-3.076	MWD+IFR1+MS
20800.000	90.000	179.722	10531.997	87.774	0.000	82.401	-0.000	87.774	0.000	0.000	82.466	45.901	-3.029	MWD+IFR1+MS
20900.000	90.000	179.722	10531.997	88.519	0.000	83.079	-0.000	88.519	0.000	0.000	83.143	45.955	-2.984	MWD+IFR1+MS
21000.000	90.000	179.722	10531.997	89.265	0.000	83.759	-0.000	89.265	0.000	0.000	83.822	46.009	-2.940	MWD+IFR1+MS
21100.000	90.000	179.722	10531.997	90.012	0.000	84.440	-0.000	90.012	0.000	0.000	84.502	46.064	-2.898	MWD+IFR1+MS
21200.000	90.000	179.722	10531.997	90.759	0.000	85.122	-0.000	90.759	0.000	0.000	85.183	46.119	-2.856	MWD+IFR1+MS
21300.000	90.000	179.722	10531.997	91.507	0.000	85.806	-0.000	91.507	0.000	0.000	85.866	46.175	-2.816	MWD+IFR1+MS
21400.000	90.000	179.722	10531.997	92.255	0.000	86.492	-0.000	92.255	0.000	0.000	86.550	46.231	-2.777	MWD+IFR1+MS
21500.000	90.000	179.722	10531.997	93.004	0.000	87.178	-0.000	93.004	0.000	0.000	87.236	46.288	-2.739	MWD+IFR1+MS
21600.000	90.000	179.722	10531.997	93.754	0.000	87.866	-0.000	93.754	0.000	0.000	87.923	46.345	-2.702	MWD+IFR1+MS
21700.000	90.000	179.722	10531.997	94.504	0.000	88.555	-0.000	94.504	0.000	0.000	88.611	46.402	-2.667	MWD+IFR1+MS
21800.000	90.000	179.722	10531.997	95.255	0.000	89.246	-0.000	95.255	0.000	0.000	89.301	46.460	-2.632	MWD+IFR1+MS
21900.000	90.000	179.722	10531.997	96.006	0.000	89.938	-0.000	96.006	0.000	0.000	89.992	46.519	-2.598	MWD+IFR1+MS
22000.000	90.000	179.722	10531.997	96.758	0.000	90.631	-0.000	96.758	0.000	0.000	90.684	46.577	-2.565	MWD+IFR1+MS
22100.000	90.000	179.722	10531.997	97.510	0.000	91.325	-0.000	97.510	0.000	0.000	91.377	46.637	-2.533	MWD+IFR1+MS
22200.000	90.000	179.722	10531.997	98.263	0.000	92.020	-0.000	98.263	0.000	0.000	92.071	46.696	-2.502	MWD+IFR1+MS
22300.000	90.000	179.722	10531.997	99.016	0.000	92.716	-0.000	99.016	0.000	0.000	92.767	46.757	-2.471	MWD+IFR1+MS

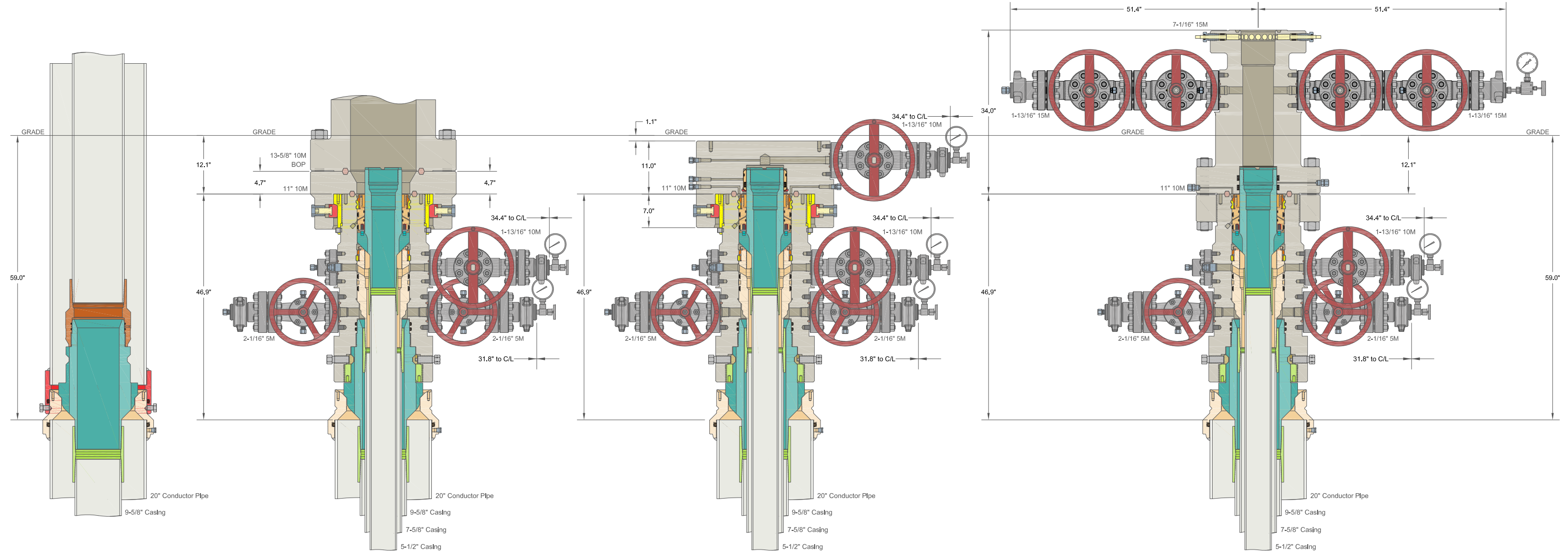
22400.000	90.000	179.722	10531.997	99.770	0.000	93.413	-0.000	99.770	0.000	0.000	93.463	46.817	-2.441	MWD+IFR1+MS
22500.000	90.000	179.722	10531.997	100.524	0.000	94.112	-0.000	100.524	0.000	0.000	94.161	46.878	-2.412	MWD+IFR1+MS
22600.000	90.000	179.722	10531.997	101.279	0.000	94.811	-0.000	101.279	0.000	0.000	94.860	46.940	-2.384	MWD+IFR1+MS
22700.000	90.000	179.722	10531.997	102.034	0.000	95.512	-0.000	102.034	0.000	0.000	95.560	47.002	-2.357	MWD+IFR1+MS
22800.000	90.000	179.722	10531.997	102.790	0.000	96.213	-0.000	102.790	0.000	0.000	96.260	47.064	-2.330	MWD+IFR1+MS
22900.000	90.000	179.722	10531.997	103.546	0.000	96.916	-0.000	103.546	0.000	0.000	96.962	47.127	-2.304	MWD+IFR1+MS
23000.000	90.000	179.722	10531.997	104.302	0.000	97.619	-0.000	104.302	0.000	0.000	97.665	47.190	-2.278	MWD+IFR1+MS
23100.000	90.000	179.722	10531.997	105.059	0.000	98.323	-0.000	105.059	0.000	0.000	98.368	47.254	-2.253	MWD+IFR1+MS
23200.000	90.000	179.722	10531.997	105.817	0.000	99.029	-0.000	105.817	0.000	0.000	99.073	47.318	-2.229	MWD+IFR1+MS
23300.000	90.000	179.722	10531.997	106.574	0.000	99.735	-0.000	106.574	0.000	0.000	99.778	47.382	-2.205	MWD+IFR1+MS
23400.000	90.000	179.722	10531.997	107.332	0.000	100.442	-0.000	107.332	0.000	0.000	100.485	47.447	-2.181	MWD+IFR1+MS
23500.000	90.000	179.722	10531.997	108.091	0.000	101.150	-0.000	108.091	0.000	0.000	101.192	47.512	-2.159	MWD+IFR1+MS
23600.000	90.000	179.722	10531.997	108.850	0.000	101.858	-0.000	108.850	0.000	0.000	101.900	47.578	-2.136	MWD+IFR1+MS
23700.000	90.000	179.722	10531.997	109.609	0.000	102.568	-0.000	109.609	0.000	0.000	102.609	47.644	-2.115	MWD+IFR1+MS
23800.000	90.000	179.722	10531.997	110.369	0.000	103.278	-0.000	110.369	0.000	0.000	103.319	47.711	-2.093	MWD+IFR1+MS
23900.000	90.000	179.722	10531.997	111.128	0.000	103.989	-0.000	111.128	0.000	0.000	104.029	47.778	-2.072	MWD+IFR1+MS
24000.000	90.000	179.722	10531.997	111.889	0.000	104.701	-0.000	111.889	0.000	0.000	104.741	47.845	-2.052	MWD+IFR1+MS
24100.000	90.000	179.722	10531.997	112.649	0.000	105.414	-0.000	112.649	0.000	0.000	105.453	47.913	-2.032	MWD+IFR1+MS
24200.000	90.000	179.722	10531.997	113.410	0.000	106.127	-0.000	113.410	0.000	0.000	106.166	47.981	-2.012	MWD+IFR1+MS
24300.000	90.000	179.722	10531.997	114.172	0.000	106.841	-0.000	114.172	0.000	0.000	106.879	48.050	-1.993	MWD+IFR1+MS
24400.000	90.000	179.722	10531.997	114.933	0.000	107.556	-0.000	114.933	0.000	0.000	107.593	48.119	-1.975	MWD+IFR1+MS
24500.000	90.000	179.722	10531.997	115.695	0.000	108.271	-0.000	115.695	0.000	0.000	108.308	48.189	-1.956	MWD+IFR1+MS
24600.000	90.000	179.722	10531.997	116.457	0.000	108.987	-0.000	116.457	0.000	0.000	109.024	48.259	-1.938	MWD+IFR1+MS
24700.000	90.000	179.722	10531.997	117.220	0.000	109.704	-0.000	117.220	0.000	0.000	109.740	48.329	-1.921	MWD+IFR1+MS
24800.000	90.000	179.722	10531.997	117.982	0.000	110.422	-0.000	117.982	0.000	0.000	110.457	48.400	-1.903	MWD+IFR1+MS
24900.000	90.000	179.722	10531.997	118.746	0.000	111.140	-0.000	118.746	0.000	0.000	111.175	48.471	-1.886	MWD+IFR1+MS
25000.000	90.000	179.722	10531.997	119.509	0.000	111.858	-0.000	119.509	0.000	0.000	111.893	48.542	-1.870	MWD+IFR1+MS
25100.000	90.000	179.722	10531.997	120.273	0.000	112.578	-0.000	120.273	0.000	0.000	112.612	48.614	-1.854	MWD+IFR1+MS
25200.000	90.000	179.722	10531.997	121.036	0.000	113.298	-0.000	121.036	0.000	0.000	113.332	48.687	-1.838	MWD+IFR1+MS
25300.000	90.000	179.722	10531.997	121.801	0.000	114.018	-0.000	121.801	0.000	0.000	114.052	48.759	-1.822	MWD+IFR1+MS
25400.000	90.000	179.722	10531.997	122.565	0.000	114.739	-0.000	122.565	0.000	0.000	114.773	48.832	-1.807	MWD+IFR1+MS
25500.000	90.000	179.722	10531.997	123.330	0.000	115.461	-0.000	123.330	0.000	0.000	115.494	48.906	-1.792	MWD+IFR1+MS
25600.000	90.000	179.722	10531.997	124.095	0.000	116.183	-0.000	124.095	0.000	0.000	116.216	48.980	-1.777	MWD+IFR1+MS

25700.000	90.000	179.722	10531.997	124.860	0.000	116.906	-0.000	124.860	0.000	0.000	116.938	49.054	-1.762	MWD+IFR1+MS
25800.000	90.000	179.722	10531.997	125.625	0.000	117.629	-0.000	125.625	0.000	0.000	117.661	49.129	-1.748	MWD+IFR1+MS
25900.000	90.000	179.722	10531.997	126.391	0.000	118.353	-0.000	126.391	0.000	0.000	118.385	49.204	-1.734	MWD+IFR1+MS
25927.513	90.000	179.722	10531.997	126.601	0.000	118.552	-0.000	126.601	0.000	0.000	118.583	49.225	-1.730	MWD+IFR1+MS

Plan Targets

Poker Lake Unit 19 DTD South 222H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 14	10802.04	440307.70	627289.50	7336.00	RECTANGLE
SHL 22	4252.09	439289.26	627995.03	0.00	RECTANGLE
LTP 14	25828.80	424873.10	627364.30	7336.00	RECTANGLE
BHL 14	25928.85	424773.10	627364.50	7336.00	RECTANGLE



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC			
20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8", 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers			
XTO ENERGY INC DELAWARE BASIN		DRAWN VJK 31MAR22	
DRAWING NO. HBE0000479		APPRV	

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

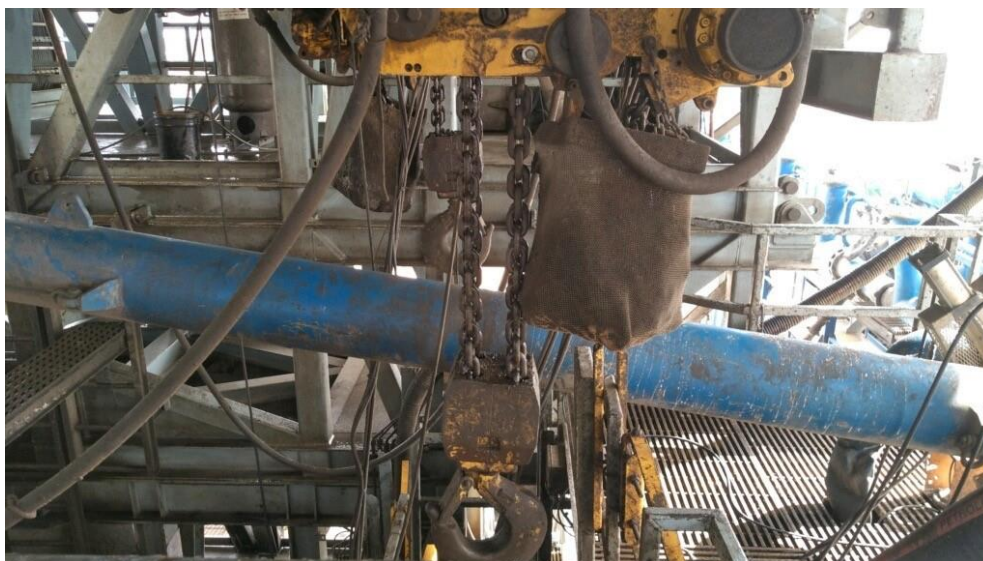


Figure 2: BOP Winch System

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.

62

API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Pressure Test—High Pressure ^{ac}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^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

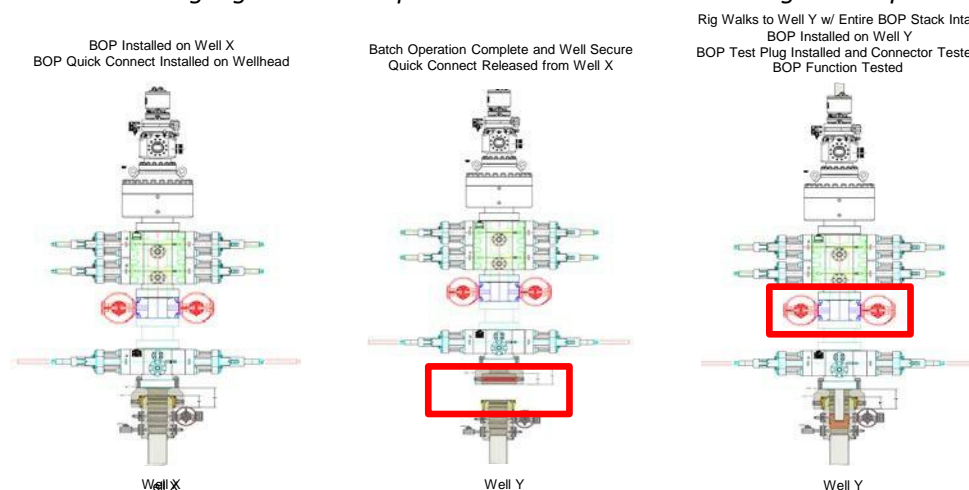
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

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.

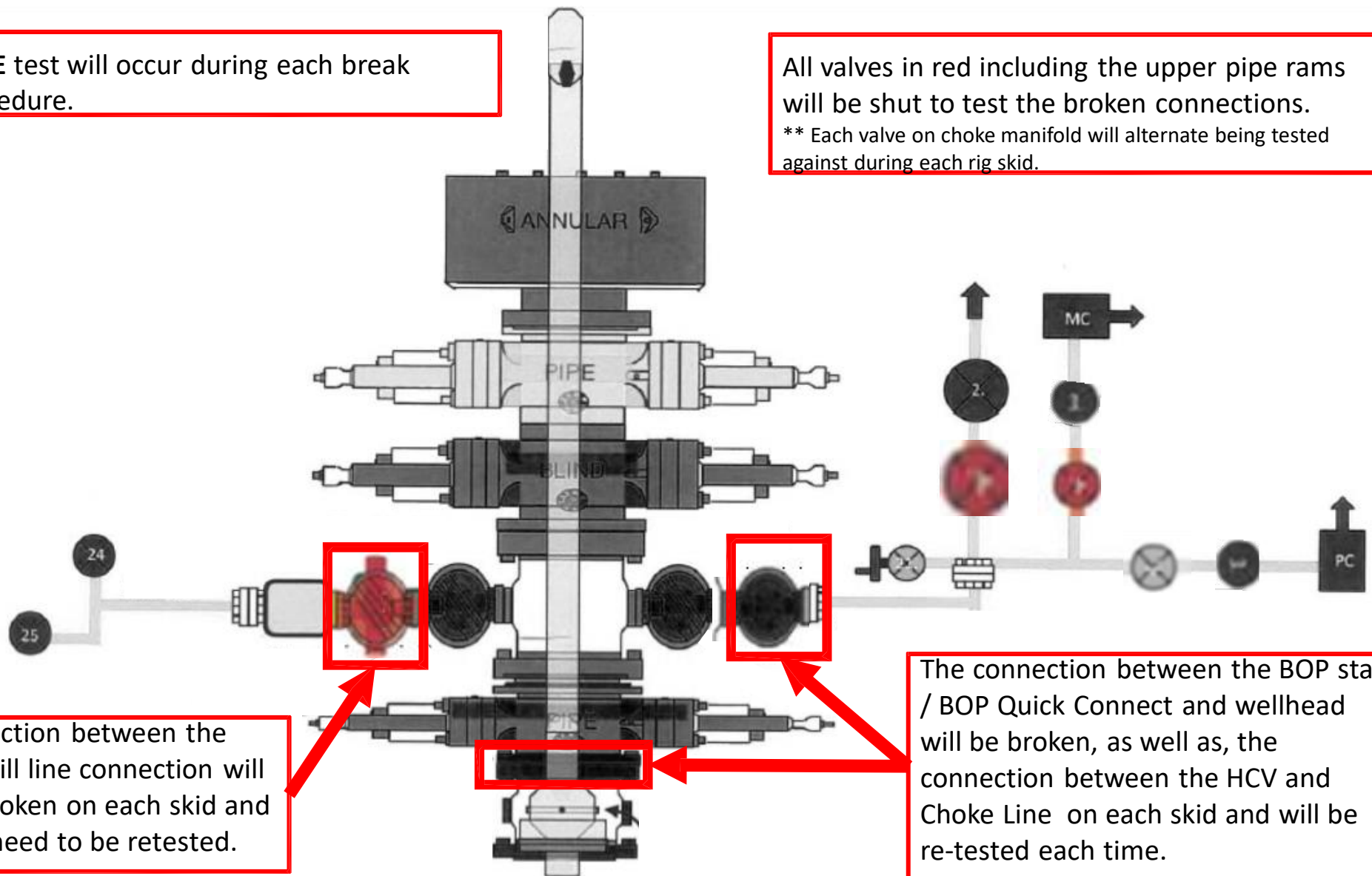
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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.

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 43.CFR.3172 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

- a. Sound alarm (alert crew)
- b. Stab crossover and full-opening safety valve and close
- c. Space out string
- d. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- e. Confirm shut-in
- f. Notify toolpusher/company representative
- g. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- h. Regroup and identify forward plan
- i. 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

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 330578

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 330578
	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.	4/24/2024