

<b>Well Name:</b> POKER LAKE UNIT 19 DTD	<b>Well Location:</b> T24S / R30E / SEC 19 / NENW / 32.207173 / -103.92142	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 312H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM002860	<b>Unit or CA Name:</b> POKER LAKE UNIT	<b>Unit or CA Number:</b> NMNM71016X
<b>US Well Number:</b>	<b>Operator:</b> XTO PERMIAN OPERATING LLC	

**Notice of Intent**

**Sundry ID:** 2781307

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 03/22/2024

**Time Sundry Submitted:** 03:39

**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: 1123' FNL & 2501' FWL of Section 19-T24S-R30E 1051' FNL & 2365' FEL of Section 19-T24S-R30E FTP: 100' FSL & 2090' FEL of Section 18-T24S-R30E 100' FNL & 1580' FEL of Section 19-T24S-R30E LTP: 2310' FSL & 2090' FEL of Section 31-T23S-R30E 330' FSL & 1593' FEL of Section 31-T24S-R30E BHL: 2440' FSL & 2090' FEL of Section 31-T23S-R30E 230' FSL & 1593' FEL of Section 31-T24S-R30E Proposed total depth will change from 30099' MD; 11488' TVD (Wolfcamp) to 25944' MD; TVD 10566' (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\_312H\_Sundry\_Attachments\_20240322153838.pdf

**Well Name:** POKER LAKE UNIT 19  
DTD

**Well Location:** T24S / R30E / SEC 19 /  
NENW / 32.207173 / -103.92142

**County or Parish/State:** EDDY /  
NM

**Well Number:** 312H

**Type of Well:** CONVENTIONAL GAS  
WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM002860

**Unit or CA Name:** POKER LAKE UNIT

**Unit or CA Number:**  
NMNM71016X

**US Well Number:**

**Operator:** XTO PERMIAN OPERATING  
LLC

### Conditions of Approval

#### Additional

Sec19\_24S\_30E\_NMP\_Sundry\_2781307\_Poker\_Lake\_Unit\_19\_DTD\_312H\_COAs\_20240404100749.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 03:38 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:** 06/20/2024

**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

**SUBMIT IN TRIPLICATE - Other instructions on page 2**

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

Oil Well     Gas Well     Other

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. (include area code)

10. Field and Pool or Exploratory Area

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

11. Country or Parish, State

**12. CHECK THE APPROPRIATE BOX(ES) TO 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 recomplete 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 performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined 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: NENW / 1123 FNL / 2501 FEL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.207173 / LONG: -103.92142 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSE / 330 FSL / 2090 FEL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22529 / LONG: -103.91899 ( TVD: 11488 feet, MD: 17200 feet )

PPP: SWSE / 100 FSL / 2090 FEL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210563 / LONG: -103.918969 ( TVD: 11488 feet, MD: 11900 feet )

BHL: NWSE / 2440 FSL / 2090 FEL / TWSP: 23S / RANGE: 30E / SECTION: 31 / LAT: 32.260672 / LONG: -103.918947 ( TVD: 11488 feet, MD: 30099 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 19 DTD 312H
<b>LOCATION:</b>	Sec 19-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781307** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
<b>Variance</b>	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> <b>Batch APD / Sundry</b>				

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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 (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 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

**A. CASING**

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80,

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

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

## **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of

API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

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

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

D. **WASTE MATERIAL AND FLUIDS:** All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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

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

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

**AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-53827</b>		<sup>2</sup> Pool Code <b>98220</b>		<sup>3</sup> Pool Name <b>Purple Sage Wolfcamp</b>	
<sup>4</sup> Property Code <b>333976</b>		<sup>5</sup> Property Name <b>POKER LAKE UNIT 19 DTD</b>			<sup>6</sup> Well Number <b>312H</b>
<sup>7</sup> OGRID No. <b>373075</b>		<sup>8</sup> Operator Name <b>XTO PERMIAN OPERATING, LLC</b>			<sup>9</sup> Elevation <b>3,173'</b>

<sup>10</sup> Surface Location

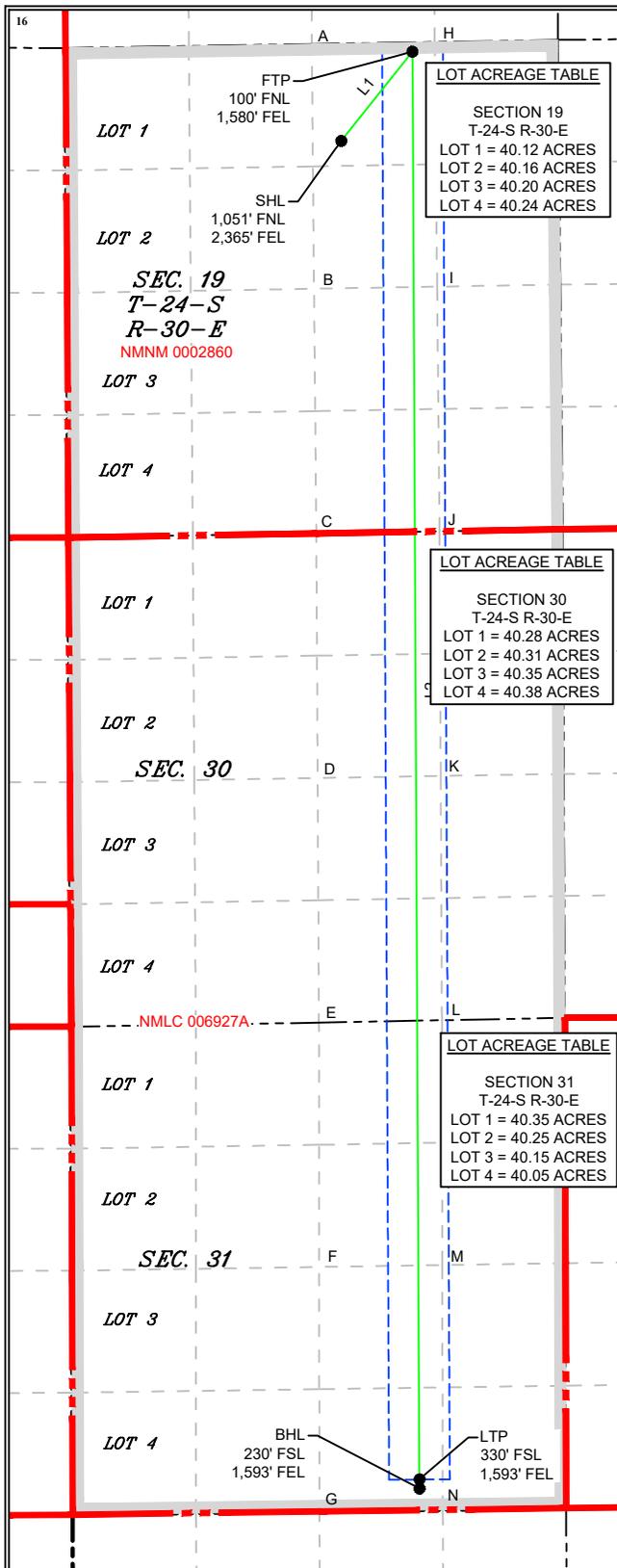
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>B</b>	<b>19</b>	<b>24S</b>	<b>30E</b>		<b>1,051</b>	<b>NORTH</b>	<b>2,365</b>	<b>EAST</b>	<b>EDDY</b>

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>O</b>	<b>31</b>	<b>24S</b>	<b>30E</b>		<b>230</b>	<b>SOUTH</b>	<b>1,593</b>	<b>EAST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>1,922.84</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



LEGEND

- SECTION LINE
- PROPOSED WELL BORE
- NEW MEXICO MINERAL LEASE
- 330' BUFFER
- ALLOCATION AREA

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	038°48'54"	1,237.64'
L2	179°43'17"	15,540.02'

COORDINATE TABLE

SHL (NAD 83 NME)		SHL (NAD 27 NME)	
Y =	439,427.9 N	Y =	439,368.6 N
X =	669,227.2 E	X =	628,043.6 E
LAT. =	32.207388 °N	LAT. =	32.207264 °N
LONG. =	103.919838 °W	LONG. =	103.919350 °W
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	440,392.2 N	Y =	440,332.9 N
X =	670,003.0 E	X =	628,819.4 E
LAT. =	32.210031 °N	LAT. =	32.209906 °N
LONG. =	103.917318 °W	LONG. =	103.916830 °W
LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	424,952.4 N	Y =	424,893.5 N
X =	670,078.3 E	X =	628,894.2 E
LAT. =	32.167588 °N	LAT. =	32.167463 °N
LONG. =	103.917267 °W	LONG. =	103.916781 °W
BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	424,852.4 N	Y =	424,793.5 N
X =	670,078.6 E	X =	628,894.4 E
LAT. =	32.167313 °N	LAT. =	32.167188 °N
LONG. =	103.917268 °W	LONG. =	103.916782 °W

CORNER COORDINATES (NAD 83 NME)

A - Y =	440,474.2 N	A - X =	668,907.4 E
B - Y =	437,827.7 N	B - X =	668,932.1 E
C - Y =	435,182.2 N	C - X =	668,956.9 E
D - Y =	432,537.8 N	D - X =	668,971.2 E
E - Y =	429,892.6 N	E - X =	668,985.5 E
F - Y =	427,251.3 N	F - X =	668,987.7 E
G - Y =	424,607.8 N	G - X =	668,989.9 E
H - Y =	440,496.2 N	H - X =	670,244.6 E
I - Y =	437,850.2 N	I - X =	670,270.4 E
J - Y =	435,204.8 N	J - X =	670,296.6 E
K - Y =	432,560.0 N	K - X =	670,309.1 E
L - Y =	429,918.6 N	L - X =	670,321.8 E
M - Y =	427,271.5 N	M - X =	670,326.5 E
N - Y =	424,625.7 N	N - X =	670,331.2 E

CORNER COORDINATES (NAD 27 NME)

A - Y =	440,414.9 N	A - X =	627,723.8 E
B - Y =	437,768.5 N	B - X =	627,748.4 E
C - Y =	435,123.0 N	C - X =	627,773.1 E
D - Y =	432,478.7 N	D - X =	627,787.3 E
E - Y =	429,833.6 N	E - X =	627,801.5 E
F - Y =	427,192.4 N	F - X =	627,803.6 E
G - Y =	424,548.9 N	G - X =	627,805.8 E
H - Y =	440,436.9 N	H - X =	629,060.9 E
I - Y =	437,791.0 N	I - X =	629,086.7 E
J - Y =	435,145.6 N	J - X =	629,112.8 E
K - Y =	432,500.9 N	K - X =	629,125.2 E
L - Y =	429,859.6 N	L - X =	629,137.8 E
M - Y =	427,212.6 N	M - X =	629,142.4 E
N - Y =	424,568.8 N	N - X =	629,147.0 E

<sup>17</sup> OPERATOR CERTIFICATION

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

Manish Saini 03/20/2024  
Signature Date

Manish Saini  
Printed Name

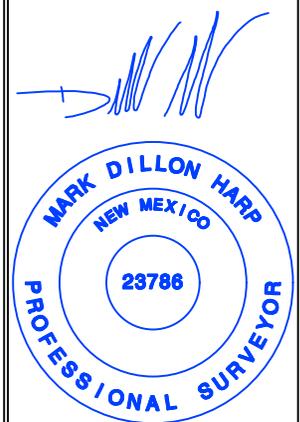
manish.saini@exxonmobil.com  
E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

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

02/09/2024  
Date of Survey

Signature and Seal of Professional Surveyor:



MARK DILLON HARP 23786  
Certificate Number

RP 618.013003.05-52

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.  
 PLU 19 Dog Town Draw 312H  
 Projected TD: 25944.63' MD / 10566' TVD  
 SHL: 1051' FNL & 2365' FEL , Section 19, T24S, R30E  
 BHL: 230' FSL & 1593' FEL , 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	642'	Water
Top of Salt	1045'	Water
Base of Salt	3238'	Water
Delaware	3432'	Water
Brushy Canyon	5930'	Water/Oil/Gas
Bone Spring	7226'	Water
Avalon	7396'	Water/Oil/Gas
1st Bone Spring	8212'	Water/Oil/Gas
2nd Bone Spring	9030'	Water/Oil/Gas
3rd Bone Spring	10124'	Water/Oil/Gas
Wolfcamp	10515'	Water/Oil/Gas
Wolfcamp X	10536'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>10566'</b>	<b>Water/Oil/Gas</b>

\*\*\* 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 @ 742' (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 9796.79' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 25944.63 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9496.79 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 742'	9.625	40	J-55	BTC	New	1.70	8.48	21.23
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.27	2.92	1.92
8.75	4000' – 9796.79'	7.625	29.7	HC L-80	Flush Joint	New	1.65	2.44	2.36
6.75	0' – 9696.79'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.87	1.97
6.75	9696.79' - 25944.63'	5.5	20	RY P-110	Semi-Flush	New	1.05	1.71	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 +/- 742'**

Lead: 140 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

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

##### **2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9796.79'**

###### 1st Stage

Optional Lead: 320 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 350 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 5930

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

###### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft<sup>3</sup>/sx, 9.61 gal/sx water)

Tail: 670 sxs Class C (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: 0

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

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5930') 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 +/- 25944.63'**

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement:           9496.79 feet

Tail: 1140 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement:           9996.79 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 4159 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' - 742'	12.25	FW/Native	8.4-8.9	35-40	NC
742' - 9796.79'	8.75	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
9796.79' - 25944.63'	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 6483 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 312H

**Measured Depth:** 25944.63 ft

**TVD RKB:** 10566.00 ft

**Location**

**Cartographic Reference System:** New Mexico East - NAD 27

**Northing:** 439368.60 ft

**Easting:** 628043.60 ft

**RKB:** 3205.00 ft

**Ground Level:** 3173.00 ft

**North Reference:** Grid

**Convergence Angle:** 0.22 Deg

**Plan Sections** Poker Lake Unit 19 DTD South 312H

Measured			TVD			Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1810.77	14.22	38.82	1803.50	68.35	54.99	2.00	0.00	2.00
6136.22	14.22	38.82	5996.50	895.95	720.81	0.00	0.00	0.00
6846.99	0.00	0.00	6700.00	964.30	775.80	-2.00	0.00	2.00
9996.79	0.00	0.00	9849.80	964.30	775.80	0.00	0.00	0.00
11121.79	90.00	179.72	10566.00	248.11	779.27	8.00	0.00	8.00
11939.61	90.00	179.72	10566.00	-569.70	783.24	0.00	0.00	0.00 LTP 23
25944.63	90.00	179.72	10566.00	-14574.56	851.20	0.00	0.00	0.00 BHL 23

**Position Uncertainty** Poker Lake Unit 19 DTD South 312H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
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	2.483	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	38.817	1199.980	5.289	0.000	4.218	0.000	2.686	0.000	0.000	5.293	4.215	131.568	MWD+IFR1+MS
1300.000	4.000	38.817	1299.838	6.037	0.000	4.609	0.000	2.745	0.000	0.000	6.064	4.586	-44.487	MWD+IFR1+MS
1400.000	6.000	38.817	1399.452	6.714	0.000	4.995	0.000	2.810	0.000	0.000	6.770	4.947	-42.615	MWD+IFR1+MS
1500.000	8.000	38.817	1498.702	7.338	0.000	5.377	0.000	2.883	0.000	0.000	7.425	5.306	-41.534	MWD+IFR1+MS
1600.000	10.000	38.817	1597.465	7.920	0.000	5.756	0.000	2.966	0.000	0.000	8.041	5.664	-40.832	MWD+IFR1+MS
1700.000	12.000	38.817	1695.623	8.469	0.000	6.133	0.000	3.060	0.000	0.000	8.624	6.022	-40.338	MWD+IFR1+MS
1800.000	14.000	38.817	1793.055	8.989	0.000	6.510	0.000	3.168	0.000	0.000	9.180	6.382	-39.967	MWD+IFR1+MS
1810.770	14.215	38.817	1803.501	9.012	0.000	6.548	0.000	3.170	0.000	0.000	9.210	6.421	-39.990	MWD+IFR1+MS
1900.000	14.215	38.817	1889.998	9.250	0.000	6.866	0.000	3.242	0.000	0.000	9.440	6.746	-39.993	MWD+IFR1+MS
2000.000	14.215	38.817	1986.936	9.535	0.000	7.244	0.000	3.329	0.000	0.000	9.718	7.124	-39.725	MWD+IFR1+MS
2100.000	14.215	38.817	2083.874	9.829	0.000	7.624	0.000	3.421	0.000	0.000	10.006	7.504	-39.417	MWD+IFR1+MS
2200.000	14.215	38.817	2180.812	10.131	0.000	8.006	0.000	3.516	0.000	0.000	10.301	7.885	-39.115	MWD+IFR1+MS
2300.000	14.215	38.817	2277.750	10.439	0.000	8.388	0.000	3.614	0.000	0.000	10.601	8.267	-38.818	MWD+IFR1+MS
2400.000	14.215	38.817	2374.688	10.754	0.000	8.770	0.000	3.715	0.000	0.000	10.907	8.649	-38.526	MWD+IFR1+MS
2500.000	14.215	38.817	2471.626	11.073	0.000	9.154	0.000	3.819	0.000	0.000	11.219	9.031	-38.240	MWD+IFR1+MS
2600.000	14.215	38.817	2568.564	11.398	0.000	9.537	0.000	3.926	0.000	0.000	11.535	9.414	-37.959	MWD+IFR1+MS
2700.000	14.215	38.817	2665.502	11.727	0.000	9.921	0.000	4.035	0.000	0.000	11.855	9.798	-37.683	MWD+IFR1+MS
2800.000	14.215	38.817	2762.439	12.061	0.000	10.305	0.000	4.146	0.000	0.000	12.179	10.181	-37.412	MWD+IFR1+MS
2900.000	14.215	38.817	2859.377	12.398	0.000	10.689	0.000	4.260	0.000	0.000	12.507	10.565	-37.147	MWD+IFR1+MS

3000.000	14.215	38.817	2956.315	12.739	0.000	11.074	0.000	4.376	0.000	0.000	12.838	10.950	-36.886	MWD+IFR1+MS
3100.000	14.215	38.817	3053.253	13.083	0.000	11.459	0.000	4.494	0.000	0.000	13.172	11.334	-36.630	MWD+IFR1+MS
3200.000	14.215	38.817	3150.191	13.430	0.000	11.844	0.000	4.614	0.000	0.000	13.509	11.719	-36.380	MWD+IFR1+MS
3300.000	14.215	38.817	3247.129	13.780	0.000	12.229	0.000	4.735	0.000	0.000	13.849	12.104	-36.134	MWD+IFR1+MS
3400.000	14.215	38.817	3344.067	14.132	0.000	12.615	0.000	4.859	0.000	0.000	14.191	12.489	-35.893	MWD+IFR1+MS
3500.000	14.215	38.817	3441.005	14.487	0.000	13.000	0.000	4.984	0.000	0.000	14.535	12.874	-35.657	MWD+IFR1+MS
3600.000	14.215	38.817	3537.943	14.844	0.000	13.386	0.000	5.111	0.000	0.000	14.882	13.260	-35.425	MWD+IFR1+MS
3700.000	14.215	38.817	3634.881	15.203	0.000	13.772	0.000	5.240	0.000	0.000	15.230	13.645	-35.198	MWD+IFR1+MS
3800.000	14.215	38.817	3731.819	15.564	0.000	14.158	0.000	5.371	0.000	0.000	15.580	14.031	-34.976	MWD+IFR1+MS
3900.000	14.215	38.817	3828.757	15.927	0.000	14.544	0.000	5.503	0.000	0.000	15.933	14.417	-34.758	MWD+IFR1+MS
4000.000	14.215	38.817	3925.695	16.292	0.000	14.930	0.000	5.636	0.000	0.000	16.286	14.803	-34.545	MWD+IFR1+MS
4100.000	14.215	38.817	4022.633	16.658	0.000	15.316	0.000	5.772	0.000	0.000	16.642	15.189	-34.337	MWD+IFR1+MS
4200.000	14.215	38.817	4119.571	17.025	0.000	15.703	0.000	5.909	0.000	0.000	16.998	15.575	-34.133	MWD+IFR1+MS
4300.000	14.215	38.817	4216.509	17.394	0.000	16.089	0.000	6.047	0.000	0.000	17.356	15.962	-33.933	MWD+IFR1+MS
4400.000	14.215	38.817	4313.446	17.765	0.000	16.476	0.000	6.187	0.000	0.000	17.715	16.348	-33.738	MWD+IFR1+MS
4500.000	14.215	38.817	4410.384	18.136	0.000	16.862	0.000	6.329	0.000	0.000	18.076	16.735	-33.547	MWD+IFR1+MS
4600.000	14.215	38.817	4507.322	18.508	0.000	17.249	0.000	6.472	0.000	0.000	18.437	17.121	-33.361	MWD+IFR1+MS
4700.000	14.215	38.817	4604.260	18.882	0.000	17.636	0.000	6.617	0.000	0.000	18.800	17.508	-33.179	MWD+IFR1+MS
4800.000	14.215	38.817	4701.198	19.257	0.000	18.022	0.000	6.763	0.000	0.000	19.163	17.895	-33.001	MWD+IFR1+MS
4900.000	14.215	38.817	4798.136	19.632	0.000	18.409	0.000	6.912	0.000	0.000	19.528	18.282	-32.828	MWD+IFR1+MS
5000.000	14.215	38.817	4895.074	20.009	0.000	18.796	0.000	7.061	0.000	0.000	19.893	18.669	-32.658	MWD+IFR1+MS
5100.000	14.215	38.817	4992.012	20.386	0.000	19.183	0.000	7.213	0.000	0.000	20.259	19.056	-32.493	MWD+IFR1+MS
5200.000	14.215	38.817	5088.950	20.764	0.000	19.570	0.000	7.366	0.000	0.000	20.626	19.443	-32.333	MWD+IFR1+MS
5300.000	14.215	38.817	5185.888	21.143	0.000	19.957	0.000	7.520	0.000	0.000	20.994	19.830	-32.176	MWD+IFR1+MS
5400.000	14.215	38.817	5282.826	21.522	0.000	20.344	0.000	7.677	0.000	0.000	21.362	20.218	-32.024	MWD+IFR1+MS
5500.000	14.215	38.817	5379.764	21.903	0.000	20.731	0.000	7.835	0.000	0.000	21.731	20.605	-31.876	MWD+IFR1+MS
5600.000	14.215	38.817	5476.702	22.283	0.000	21.118	0.000	7.995	0.000	0.000	22.101	20.992	-31.732	MWD+IFR1+MS
5700.000	14.215	38.817	5573.640	22.665	0.000	21.505	0.000	8.156	0.000	0.000	22.471	21.380	-31.593	MWD+IFR1+MS
5800.000	14.215	38.817	5670.578	23.047	0.000	21.893	0.000	8.319	0.000	0.000	22.842	21.767	-31.457	MWD+IFR1+MS
5900.000	14.215	38.817	5767.515	23.430	0.000	22.280	0.000	8.484	0.000	0.000	23.213	22.155	-31.326	MWD+IFR1+MS
6000.000	14.215	38.817	5864.453	23.813	0.000	22.667	0.000	8.651	0.000	0.000	23.585	22.543	-31.200	MWD+IFR1+MS
6100.000	14.215	38.817	5961.391	24.196	0.000	23.054	0.000	8.820	0.000	0.000	23.958	22.930	-31.077	MWD+IFR1+MS
6136.217	14.215	38.817	5996.499	24.333	0.000	23.192	0.000	8.881	0.000	0.000	24.089	23.070	-31.134	MWD+IFR1+MS

6200.000	12.940	38.817	6058.498	24.600	0.000	23.434	0.000	8.990	0.000	0.000	24.325	23.314	-31.263	MWD+IFR1+MS
6300.000	10.940	38.817	6156.330	25.055	0.000	23.811	0.000	9.165	0.000	0.000	24.756	23.692	-31.828	MWD+IFR1+MS
6400.000	8.940	38.817	6254.824	25.506	0.000	24.184	0.000	9.336	0.000	0.000	25.216	24.062	-32.472	MWD+IFR1+MS
6500.000	6.940	38.817	6353.860	25.918	0.000	24.549	0.000	9.498	0.000	0.000	25.669	24.425	-33.013	MWD+IFR1+MS
6600.000	4.940	38.817	6453.318	26.291	0.000	24.907	0.000	9.653	0.000	0.000	26.113	24.780	-33.464	MWD+IFR1+MS
6700.000	2.940	38.817	6553.077	26.624	0.000	25.257	0.000	9.801	0.000	0.000	26.548	25.127	-33.834	MWD+IFR1+MS
6800.000	0.940	38.817	6653.015	26.916	0.000	25.599	0.000	9.945	0.000	0.000	26.972	25.466	-34.132	MWD+IFR1+MS
6846.987	0.000	0.000	6700.000	26.110	0.000	26.660	0.000	10.012	0.000	0.000	27.128	25.623	-34.276	MWD+IFR1+MS
6900.000	0.000	0.000	6753.013	26.284	0.000	26.826	0.000	10.086	0.000	0.000	27.292	25.800	-34.364	MWD+IFR1+MS
7000.000	0.000	0.000	6853.013	26.613	0.000	27.142	0.000	10.229	0.000	0.000	27.606	26.132	-34.485	MWD+IFR1+MS
7100.000	0.000	0.000	6953.013	26.946	0.000	27.462	0.000	10.374	0.000	0.000	27.926	26.465	-34.644	MWD+IFR1+MS
7200.000	0.000	0.000	7053.013	27.279	0.000	27.784	0.000	10.523	0.000	0.000	28.247	26.798	-34.802	MWD+IFR1+MS
7300.000	0.000	0.000	7153.013	27.613	0.000	28.106	0.000	10.674	0.000	0.000	28.569	27.133	-34.959	MWD+IFR1+MS
7400.000	0.000	0.000	7253.013	27.947	0.000	28.429	0.000	10.829	0.000	0.000	28.892	27.467	-35.115	MWD+IFR1+MS
7500.000	0.000	0.000	7353.013	28.282	0.000	28.753	0.000	10.986	0.000	0.000	29.216	27.803	-35.270	MWD+IFR1+MS
7600.000	0.000	0.000	7453.013	28.617	0.000	29.077	0.000	11.147	0.000	0.000	29.541	28.139	-35.423	MWD+IFR1+MS
7700.000	0.000	0.000	7553.013	28.954	0.000	29.403	0.000	11.310	0.000	0.000	29.866	28.475	-35.576	MWD+IFR1+MS
7800.000	0.000	0.000	7653.013	29.290	0.000	29.729	0.000	11.477	0.000	0.000	30.192	28.812	-35.728	MWD+IFR1+MS
7900.000	0.000	0.000	7753.013	29.627	0.000	30.056	0.000	11.646	0.000	0.000	30.519	29.150	-35.878	MWD+IFR1+MS
8000.000	0.000	0.000	7853.013	29.965	0.000	30.383	0.000	11.819	0.000	0.000	30.847	29.488	-36.028	MWD+IFR1+MS
8100.000	0.000	0.000	7953.013	30.303	0.000	30.712	0.000	11.994	0.000	0.000	31.175	29.826	-36.176	MWD+IFR1+MS
8200.000	0.000	0.000	8053.013	30.642	0.000	31.041	0.000	12.173	0.000	0.000	31.504	30.165	-36.324	MWD+IFR1+MS
8300.000	0.000	0.000	8153.013	30.981	0.000	31.370	0.000	12.355	0.000	0.000	31.834	30.504	-36.470	MWD+IFR1+MS
8400.000	0.000	0.000	8253.013	31.320	0.000	31.701	0.000	12.540	0.000	0.000	32.164	30.844	-36.616	MWD+IFR1+MS
8500.000	0.000	0.000	8353.013	31.660	0.000	32.032	0.000	12.728	0.000	0.000	32.495	31.184	-36.760	MWD+IFR1+MS
8600.000	0.000	0.000	8453.013	32.000	0.000	32.363	0.000	12.919	0.000	0.000	32.826	31.525	-36.903	MWD+IFR1+MS
8700.000	0.000	0.000	8553.013	32.341	0.000	32.695	0.000	13.113	0.000	0.000	33.158	31.866	-37.046	MWD+IFR1+MS
8800.000	0.000	0.000	8653.013	32.682	0.000	33.028	0.000	13.311	0.000	0.000	33.491	32.207	-37.187	MWD+IFR1+MS
8900.000	0.000	0.000	8753.013	33.023	0.000	33.361	0.000	13.512	0.000	0.000	33.824	32.548	-37.327	MWD+IFR1+MS
9000.000	0.000	0.000	8853.013	33.365	0.000	33.694	0.000	13.715	0.000	0.000	34.158	32.890	-37.466	MWD+IFR1+MS
9100.000	0.000	0.000	8953.013	33.707	0.000	34.029	0.000	13.922	0.000	0.000	34.492	33.233	-37.605	MWD+IFR1+MS
9200.000	0.000	0.000	9053.013	34.050	0.000	34.363	0.000	14.133	0.000	0.000	34.827	33.575	-37.742	MWD+IFR1+MS
9300.000	0.000	0.000	9153.013	34.392	0.000	34.698	0.000	14.346	0.000	0.000	35.162	33.918	-37.878	MWD+IFR1+MS

9400.000	0.000	0.000	9253.013	34.735	0.000	35.034	0.000	14.562	0.000	0.000	35.498	34.261	-38.013	MWD+IFR1+MS
9500.000	0.000	0.000	9353.013	35.079	0.000	35.370	0.000	14.782	0.000	0.000	35.834	34.605	-38.148	MWD+IFR1+MS
9600.000	0.000	0.000	9453.013	35.423	0.000	35.706	0.000	15.005	0.000	0.000	36.170	34.949	-38.281	MWD+IFR1+MS
9700.000	0.000	0.000	9553.013	35.767	0.000	36.043	0.000	15.231	0.000	0.000	36.507	35.293	-38.413	MWD+IFR1+MS
9800.000	0.000	0.000	9653.013	36.111	0.000	36.381	0.000	15.460	0.000	0.000	36.845	35.637	-38.544	MWD+IFR1+MS
9900.000	0.000	0.000	9753.013	36.455	0.000	36.718	0.000	15.693	0.000	0.000	37.182	35.982	-38.675	MWD+IFR1+MS
9996.787	0.000	0.000	9849.800	36.789	0.000	37.045	0.000	15.921	0.000	0.000	37.509	36.316	-38.797	MWD+IFR1+MS
10000.000	0.257	179.722	9853.013	36.778	0.000	37.061	-0.000	15.929	0.000	0.000	37.519	36.326	-38.797	MWD+IFR1+MS
10100.000	8.257	179.722	9952.656	36.616	0.000	37.360	-0.000	16.175	0.000	0.000	37.961	36.781	133.973	MWD+IFR1+MS
10200.000	16.257	179.722	10050.297	36.740	0.000	37.642	-0.000	16.513	0.000	0.000	39.026	37.339	114.541	MWD+IFR1+MS
10300.000	24.257	179.722	10144.036	36.328	0.000	37.899	-0.000	17.026	0.000	0.000	40.127	37.680	106.905	MWD+IFR1+MS
10400.000	32.257	179.722	10232.047	35.452	0.000	38.130	-0.000	17.771	0.000	0.000	41.099	37.941	103.591	MWD+IFR1+MS
10500.000	40.257	179.722	10312.619	34.213	0.000	38.332	-0.000	18.774	0.000	0.000	41.899	38.155	101.966	MWD+IFR1+MS
10600.000	48.257	179.722	10384.183	32.744	0.000	38.504	-0.000	20.024	0.000	0.000	42.518	38.330	101.176	MWD+IFR1+MS
10700.000	56.257	179.722	10445.345	31.212	0.000	38.646	-0.000	21.486	0.000	0.000	42.964	38.468	100.881	MWD+IFR1+MS
10800.000	64.257	179.722	10494.916	29.815	0.000	38.758	-0.000	23.109	0.000	0.000	43.254	38.571	100.918	MWD+IFR1+MS
10900.000	72.257	179.722	10531.930	28.776	0.000	38.840	-0.000	24.831	0.000	0.000	43.418	38.640	101.188	MWD+IFR1+MS
11000.000	80.257	179.722	10555.667	28.303	0.000	38.893	-0.000	26.591	0.000	0.000	43.491	38.677	101.601	MWD+IFR1+MS
11100.000	88.257	179.722	10565.666	28.546	0.000	38.916	-0.000	28.329	0.000	0.000	43.517	38.683	102.054	MWD+IFR1+MS
11121.787	90.000	179.722	10565.997	28.396	0.000	38.916	-0.000	28.396	0.000	0.000	43.521	38.679	102.138	MWD+IFR1+MS
11200.000	90.000	179.722	10565.997	28.564	0.000	38.918	-0.000	28.564	0.000	0.000	43.534	38.668	102.460	MWD+IFR1+MS
11300.000	90.000	179.722	10565.997	28.780	0.000	38.939	-0.000	28.780	0.000	0.000	43.552	38.670	102.907	MWD+IFR1+MS
11400.000	90.000	179.722	10565.997	29.016	0.000	38.976	-0.000	29.016	0.000	0.000	43.572	38.687	103.390	MWD+IFR1+MS
11500.000	90.000	179.722	10565.997	29.272	0.000	39.027	-0.000	29.272	0.000	0.000	43.594	38.717	103.909	MWD+IFR1+MS
11600.000	90.000	179.722	10565.997	29.546	0.000	39.094	-0.000	29.546	0.000	0.000	43.619	38.760	104.469	MWD+IFR1+MS
11700.000	90.000	179.722	10565.997	29.839	0.000	39.175	-0.000	29.839	0.000	0.000	43.646	38.817	105.073	MWD+IFR1+MS
11800.000	90.000	179.722	10565.997	30.149	0.000	39.271	-0.000	30.149	0.000	0.000	43.675	38.886	105.727	MWD+IFR1+MS
11900.000	90.000	179.722	10565.997	30.476	0.000	39.382	-0.000	30.476	0.000	0.000	43.707	38.968	106.434	MWD+IFR1+MS
11939.607	90.000	179.722	10565.997	30.608	0.000	39.427	-0.000	30.608	0.000	0.000	43.720	39.002	106.723	MWD+IFR1+MS
12000.000	90.000	179.722	10565.997	30.815	0.000	39.501	-0.000	30.815	0.000	0.000	43.742	39.057	107.182	MWD+IFR1+MS
12100.000	90.000	179.722	10565.997	31.172	0.000	39.639	-0.000	31.172	0.000	0.000	43.780	39.161	108.009	MWD+IFR1+MS
12200.000	90.000	179.722	10565.997	31.547	0.000	39.793	-0.000	31.547	0.000	0.000	43.822	39.277	108.915	MWD+IFR1+MS
12300.000	90.000	179.722	10565.997	31.937	0.000	39.961	-0.000	31.937	0.000	0.000	43.869	39.404	109.902	MWD+IFR1+MS

12400.000	90.000	179.722	10565.997	32.342	0.000	40.143	-0.000	32.342	0.000	0.000	43.921	39.540	110.979	MWD+IFR1+MS
12500.000	90.000	179.722	10565.997	32.760	0.000	40.339	-0.000	32.760	0.000	0.000	43.977	39.685	112.155	MWD+IFR1+MS
12600.000	90.000	179.722	10565.997	33.191	0.000	40.548	-0.000	33.191	0.000	0.000	44.040	39.839	113.439	MWD+IFR1+MS
12700.000	90.000	179.722	10565.997	33.635	0.000	40.770	-0.000	33.635	0.000	0.000	44.110	39.999	114.840	MWD+IFR1+MS
12800.000	90.000	179.722	10565.997	34.092	0.000	41.006	-0.000	34.092	0.000	0.000	44.188	40.165	116.369	MWD+IFR1+MS
12900.000	90.000	179.722	10565.997	34.560	0.000	41.254	-0.000	34.560	0.000	0.000	44.275	40.335	118.033	MWD+IFR1+MS
13000.000	90.000	179.722	10565.997	35.040	0.000	41.515	-0.000	35.040	0.000	0.000	44.371	40.509	119.837	MWD+IFR1+MS
13100.000	90.000	179.722	10565.997	35.530	0.000	41.788	-0.000	35.530	0.000	0.000	44.480	40.684	121.784	MWD+IFR1+MS
13200.000	90.000	179.722	10565.997	36.031	0.000	42.074	-0.000	36.031	0.000	0.000	44.601	40.859	123.871	MWD+IFR1+MS
13300.000	90.000	179.722	10565.997	36.542	0.000	42.371	-0.000	36.542	0.000	0.000	44.736	41.032	126.089	MWD+IFR1+MS
13400.000	90.000	179.722	10565.997	37.063	0.000	42.681	-0.000	37.063	0.000	0.000	44.887	41.202	128.421	MWD+IFR1+MS
13500.000	90.000	179.722	10565.997	37.592	0.000	43.001	-0.000	37.592	0.000	0.000	45.055	41.367	130.845	MWD+IFR1+MS
13600.000	90.000	179.722	10565.997	38.131	0.000	43.333	-0.000	38.131	0.000	0.000	45.242	41.525	133.327	MWD+IFR1+MS
13700.000	90.000	179.722	10565.997	38.678	0.000	43.675	-0.000	38.678	0.000	0.000	45.447	41.676	-44.166	MWD+IFR1+MS
13800.000	90.000	179.722	10565.997	39.233	0.000	44.028	-0.000	39.233	0.000	0.000	45.673	41.818	-41.674	MWD+IFR1+MS
13900.000	90.000	179.722	10565.997	39.795	0.000	44.392	-0.000	39.795	0.000	0.000	45.918	41.951	-39.234	MWD+IFR1+MS
14000.000	90.000	179.722	10565.997	40.365	0.000	44.766	-0.000	40.365	0.000	0.000	46.183	42.075	-36.877	MWD+IFR1+MS
14100.000	90.000	179.722	10565.997	40.943	0.000	45.149	-0.000	40.943	0.000	0.000	46.468	42.190	-34.630	MWD+IFR1+MS
14200.000	90.000	179.722	10565.997	41.527	0.000	45.543	-0.000	41.527	0.000	0.000	46.771	42.296	-32.511	MWD+IFR1+MS
14300.000	90.000	179.722	10565.997	42.117	0.000	45.945	-0.000	42.117	0.000	0.000	47.092	42.395	-30.530	MWD+IFR1+MS
14400.000	90.000	179.722	10565.997	42.714	0.000	46.357	-0.000	42.714	0.000	0.000	47.430	42.486	-28.691	MWD+IFR1+MS
14500.000	90.000	179.722	10565.997	43.317	0.000	46.778	-0.000	43.317	0.000	0.000	47.785	42.571	-26.994	MWD+IFR1+MS
14600.000	90.000	179.722	10565.997	43.925	0.000	47.207	-0.000	43.925	0.000	0.000	48.154	42.650	-25.433	MWD+IFR1+MS
14700.000	90.000	179.722	10565.997	44.539	0.000	47.645	-0.000	44.539	0.000	0.000	48.538	42.724	-24.000	MWD+IFR1+MS
14800.000	90.000	179.722	10565.997	45.159	0.000	48.091	-0.000	45.159	0.000	0.000	48.935	42.793	-22.687	MWD+IFR1+MS
14900.000	90.000	179.722	10565.997	45.783	0.000	48.545	-0.000	45.783	0.000	0.000	49.344	42.858	-21.484	MWD+IFR1+MS
15000.000	90.000	179.722	10565.997	46.412	0.000	49.007	-0.000	46.412	0.000	0.000	49.766	42.920	-20.382	MWD+IFR1+MS
15100.000	90.000	179.722	10565.997	47.046	0.000	49.476	-0.000	47.046	0.000	0.000	50.198	42.979	-19.372	MWD+IFR1+MS
15200.000	90.000	179.722	10565.997	47.685	0.000	49.953	-0.000	47.685	0.000	0.000	50.641	43.035	-18.444	MWD+IFR1+MS
15300.000	90.000	179.722	10565.997	48.327	0.000	50.436	-0.000	48.327	0.000	0.000	51.094	43.089	-17.591	MWD+IFR1+MS
15400.000	90.000	179.722	10565.997	48.974	0.000	50.927	-0.000	48.974	0.000	0.000	51.556	43.142	-16.805	MWD+IFR1+MS
15500.000	90.000	179.722	10565.997	49.625	0.000	51.424	-0.000	49.625	0.000	0.000	52.027	43.192	-16.080	MWD+IFR1+MS
15600.000	90.000	179.722	10565.997	50.280	0.000	51.928	-0.000	50.280	0.000	0.000	52.507	43.241	-15.410	MWD+IFR1+MS

15700.000	90.000	179.722	10565.997	50.938	0.000	52.438	-0.000	50.938	0.000	0.000	52.995	43.289	-14.789	MWD+IFR1+MS
15800.000	90.000	179.722	10565.997	51.600	0.000	52.955	-0.000	51.600	0.000	0.000	53.490	43.336	-14.214	MWD+IFR1+MS
15900.000	90.000	179.722	10565.997	52.266	0.000	53.477	-0.000	52.266	0.000	0.000	53.993	43.382	-13.678	MWD+IFR1+MS
16000.000	90.000	179.722	10565.997	52.934	0.000	54.005	-0.000	52.934	0.000	0.000	54.503	43.428	-13.180	MWD+IFR1+MS
16100.000	90.000	179.722	10565.997	53.606	0.000	54.539	-0.000	53.606	0.000	0.000	55.020	43.473	-12.714	MWD+IFR1+MS
16200.000	90.000	179.722	10565.997	54.281	0.000	55.078	-0.000	54.281	0.000	0.000	55.544	43.517	-12.280	MWD+IFR1+MS
16300.000	90.000	179.722	10565.997	54.958	0.000	55.623	-0.000	54.958	0.000	0.000	56.073	43.561	-11.872	MWD+IFR1+MS
16400.000	90.000	179.722	10565.997	55.639	0.000	56.172	-0.000	55.639	0.000	0.000	56.609	43.605	-11.490	MWD+IFR1+MS
16500.000	90.000	179.722	10565.997	56.322	0.000	56.727	-0.000	56.322	0.000	0.000	57.151	43.648	-11.131	MWD+IFR1+MS
16600.000	90.000	179.722	10565.997	57.008	0.000	57.286	-0.000	57.008	0.000	0.000	57.698	43.691	-10.794	MWD+IFR1+MS
16700.000	90.000	179.722	10565.997	57.696	0.000	57.851	-0.000	57.696	0.000	0.000	58.250	43.734	-10.475	MWD+IFR1+MS
16800.000	90.000	179.722	10565.997	58.387	0.000	58.420	-0.000	58.387	0.000	0.000	58.808	43.777	-10.175	MWD+IFR1+MS
16900.000	90.000	179.722	10565.997	59.080	0.000	58.993	-0.000	59.080	0.000	0.000	59.371	43.821	-9.891	MWD+IFR1+MS
17000.000	90.000	179.722	10565.997	59.776	0.000	59.570	-0.000	59.776	0.000	0.000	59.939	43.864	-9.622	MWD+IFR1+MS
17100.000	90.000	179.722	10565.997	60.473	0.000	60.152	-0.000	60.473	0.000	0.000	60.511	43.907	-9.367	MWD+IFR1+MS
17200.000	90.000	179.722	10565.997	61.173	0.000	60.738	-0.000	61.173	0.000	0.000	61.088	43.950	-9.126	MWD+IFR1+MS
17300.000	90.000	179.722	10565.997	61.875	0.000	61.328	-0.000	61.875	0.000	0.000	61.669	43.994	-8.896	MWD+IFR1+MS
17400.000	90.000	179.722	10565.997	62.578	0.000	61.922	-0.000	62.578	0.000	0.000	62.254	44.037	-8.678	MWD+IFR1+MS
17500.000	90.000	179.722	10565.997	63.284	0.000	62.519	-0.000	63.284	0.000	0.000	62.844	44.081	-8.470	MWD+IFR1+MS
17600.000	90.000	179.722	10565.997	63.991	0.000	63.120	-0.000	63.991	0.000	0.000	63.438	44.125	-8.272	MWD+IFR1+MS
17700.000	90.000	179.722	10565.997	64.701	0.000	63.725	-0.000	64.701	0.000	0.000	64.035	44.169	-8.083	MWD+IFR1+MS
17800.000	90.000	179.722	10565.997	65.412	0.000	64.333	-0.000	65.412	0.000	0.000	64.636	44.214	-7.902	MWD+IFR1+MS
17900.000	90.000	179.722	10565.997	66.124	0.000	64.944	-0.000	66.124	0.000	0.000	65.241	44.259	-7.730	MWD+IFR1+MS
18000.000	90.000	179.722	10565.997	66.839	0.000	65.559	-0.000	66.839	0.000	0.000	65.849	44.304	-7.565	MWD+IFR1+MS
18100.000	90.000	179.722	10565.997	67.554	0.000	66.176	-0.000	67.554	0.000	0.000	66.461	44.349	-7.407	MWD+IFR1+MS
18200.000	90.000	179.722	10565.997	68.272	0.000	66.797	-0.000	68.272	0.000	0.000	67.076	44.395	-7.255	MWD+IFR1+MS
18300.000	90.000	179.722	10565.997	68.991	0.000	67.421	-0.000	68.991	0.000	0.000	67.694	44.441	-7.110	MWD+IFR1+MS
18400.000	90.000	179.722	10565.997	69.711	0.000	68.048	-0.000	69.711	0.000	0.000	68.315	44.487	-6.970	MWD+IFR1+MS
18500.000	90.000	179.722	10565.997	70.432	0.000	68.677	-0.000	70.432	0.000	0.000	68.940	44.534	-6.836	MWD+IFR1+MS
18600.000	90.000	179.722	10565.997	71.155	0.000	69.309	-0.000	71.155	0.000	0.000	69.567	44.581	-6.707	MWD+IFR1+MS
18700.000	90.000	179.722	10565.997	71.880	0.000	69.944	-0.000	71.880	0.000	0.000	70.197	44.628	-6.583	MWD+IFR1+MS
18800.000	90.000	179.722	10565.997	72.605	0.000	70.582	-0.000	72.605	0.000	0.000	70.830	44.676	-6.463	MWD+IFR1+MS
18900.000	90.000	179.722	10565.997	73.332	0.000	71.222	-0.000	73.332	0.000	0.000	71.465	44.724	-6.348	MWD+IFR1+MS

19000.000	90.000	179.722	10565.997	74.060	0.000	71.864	-0.000	74.060	0.000	0.000	72.103	44.773	-6.237	MWD+IFR1+MS
19100.000	90.000	179.722	10565.997	74.789	0.000	72.509	-0.000	74.789	0.000	0.000	72.744	44.822	-6.130	MWD+IFR1+MS
19200.000	90.000	179.722	10565.997	75.519	0.000	73.156	-0.000	75.519	0.000	0.000	73.387	44.871	-6.027	MWD+IFR1+MS
19300.000	90.000	179.722	10565.997	76.250	0.000	73.805	-0.000	76.250	0.000	0.000	74.032	44.921	-5.927	MWD+IFR1+MS
19400.000	90.000	179.722	10565.997	76.983	0.000	74.457	-0.000	76.983	0.000	0.000	74.680	44.971	-5.831	MWD+IFR1+MS
19500.000	90.000	179.722	10565.997	77.716	0.000	75.111	-0.000	77.716	0.000	0.000	75.330	45.021	-5.737	MWD+IFR1+MS
19600.000	90.000	179.722	10565.997	78.450	0.000	75.767	-0.000	78.450	0.000	0.000	75.983	45.072	-5.647	MWD+IFR1+MS
19700.000	90.000	179.722	10565.997	79.186	0.000	76.425	-0.000	79.186	0.000	0.000	76.637	45.123	-5.560	MWD+IFR1+MS
19800.000	90.000	179.722	10565.997	79.922	0.000	77.084	-0.000	79.922	0.000	0.000	77.294	45.175	-5.475	MWD+IFR1+MS
19900.000	90.000	179.722	10565.997	80.659	0.000	77.746	-0.000	80.659	0.000	0.000	77.952	45.227	-5.393	MWD+IFR1+MS
20000.000	90.000	179.722	10565.997	81.397	0.000	78.410	-0.000	81.397	0.000	0.000	78.613	45.280	-5.314	MWD+IFR1+MS
20100.000	90.000	179.722	10565.997	82.136	0.000	79.076	-0.000	82.136	0.000	0.000	79.275	45.333	-5.237	MWD+IFR1+MS
20200.000	90.000	179.722	10565.997	82.876	0.000	79.743	-0.000	82.876	0.000	0.000	79.940	45.386	-5.162	MWD+IFR1+MS
20300.000	90.000	179.722	10565.997	83.616	0.000	80.412	-0.000	83.616	0.000	0.000	80.606	45.440	-5.090	MWD+IFR1+MS
20400.000	90.000	179.722	10565.997	84.358	0.000	81.083	-0.000	84.358	0.000	0.000	81.274	45.494	-5.019	MWD+IFR1+MS
20500.000	90.000	179.722	10565.997	85.100	0.000	81.755	-0.000	85.100	0.000	0.000	81.943	45.549	-4.951	MWD+IFR1+MS
20600.000	90.000	179.722	10565.997	85.843	0.000	82.429	-0.000	85.843	0.000	0.000	82.615	45.604	-4.884	MWD+IFR1+MS
20700.000	90.000	179.722	10565.997	86.586	0.000	83.105	-0.000	86.586	0.000	0.000	83.288	45.660	-4.819	MWD+IFR1+MS
20800.000	90.000	179.722	10565.997	87.331	0.000	83.782	-0.000	87.331	0.000	0.000	83.963	45.715	-4.757	MWD+IFR1+MS
20900.000	90.000	179.722	10565.997	88.076	0.000	84.461	-0.000	88.076	0.000	0.000	84.639	45.772	-4.695	MWD+IFR1+MS
21000.000	90.000	179.722	10565.997	88.822	0.000	85.141	-0.000	88.822	0.000	0.000	85.317	45.829	-4.636	MWD+IFR1+MS
21100.000	90.000	179.722	10565.997	89.568	0.000	85.823	-0.000	89.568	0.000	0.000	85.996	45.886	-4.578	MWD+IFR1+MS
21200.000	90.000	179.722	10565.997	90.315	0.000	86.506	-0.000	90.315	0.000	0.000	86.677	45.943	-4.521	MWD+IFR1+MS
21300.000	90.000	179.722	10565.997	91.063	0.000	87.190	-0.000	91.063	0.000	0.000	87.359	46.002	-4.466	MWD+IFR1+MS
21400.000	90.000	179.722	10565.997	91.811	0.000	87.876	-0.000	91.811	0.000	0.000	88.043	46.060	-4.413	MWD+IFR1+MS
21500.000	90.000	179.722	10565.997	92.560	0.000	88.563	-0.000	92.560	0.000	0.000	88.727	46.119	-4.360	MWD+IFR1+MS
21600.000	90.000	179.722	10565.997	93.310	0.000	89.252	-0.000	93.310	0.000	0.000	89.414	46.178	-4.309	MWD+IFR1+MS
21700.000	90.000	179.722	10565.997	94.060	0.000	89.941	-0.000	94.060	0.000	0.000	90.101	46.238	-4.260	MWD+IFR1+MS
21800.000	90.000	179.722	10565.997	94.810	0.000	90.632	-0.000	94.810	0.000	0.000	90.790	46.298	-4.211	MWD+IFR1+MS
21900.000	90.000	179.722	10565.997	95.562	0.000	91.324	-0.000	95.562	0.000	0.000	91.480	46.359	-4.164	MWD+IFR1+MS
22000.000	90.000	179.722	10565.997	96.313	0.000	92.017	-0.000	96.313	0.000	0.000	92.171	46.420	-4.117	MWD+IFR1+MS
22100.000	90.000	179.722	10565.997	97.066	0.000	92.711	-0.000	97.066	0.000	0.000	92.864	46.482	-4.072	MWD+IFR1+MS
22200.000	90.000	179.722	10565.997	97.818	0.000	93.407	-0.000	97.818	0.000	0.000	93.557	46.544	-4.028	MWD+IFR1+MS

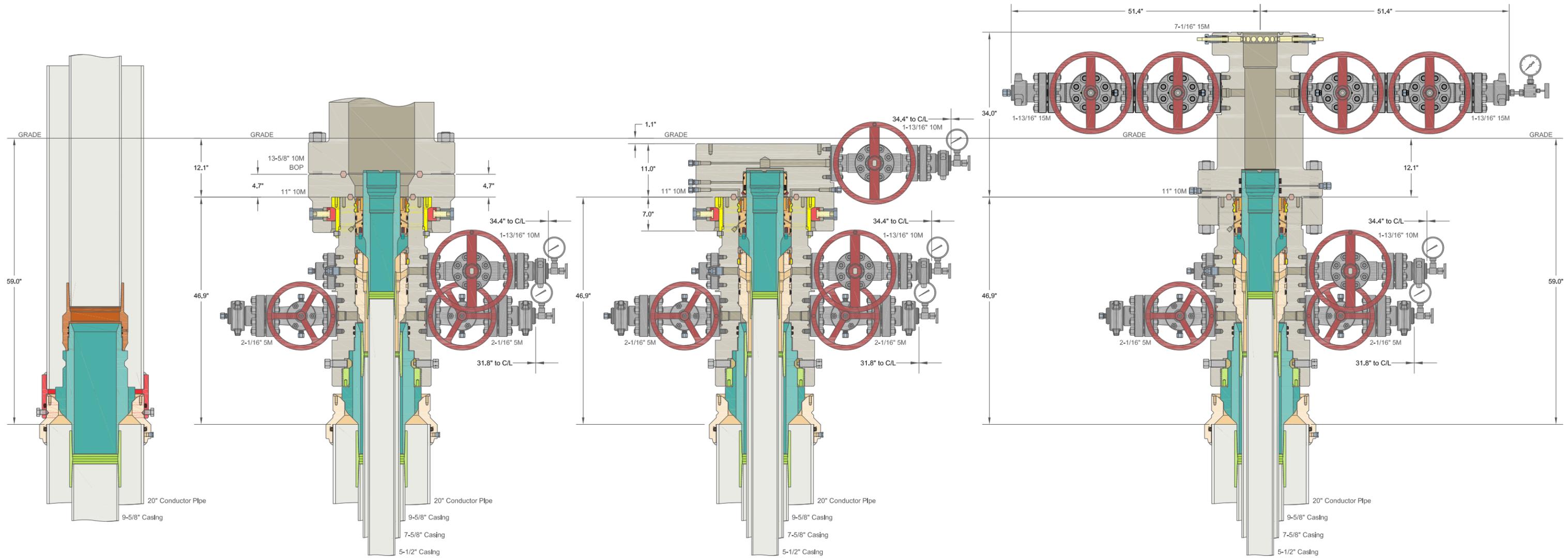
22300.000	90.000	179.722	10565.997	98.572	0.000	94.103	-0.000	98.572	0.000	0.000	94.252	46.606	-3.985	MWD+IFR1+MS
22400.000	90.000	179.722	10565.997	99.325	0.000	94.801	-0.000	99.325	0.000	0.000	94.948	46.669	-3.943	MWD+IFR1+MS
22500.000	90.000	179.722	10565.997	100.080	0.000	95.499	-0.000	100.080	0.000	0.000	95.645	46.732	-3.902	MWD+IFR1+MS
22600.000	90.000	179.722	10565.997	100.834	0.000	96.199	-0.000	100.834	0.000	0.000	96.343	46.796	-3.861	MWD+IFR1+MS
22700.000	90.000	179.722	10565.997	101.590	0.000	96.900	-0.000	101.590	0.000	0.000	97.042	46.860	-3.822	MWD+IFR1+MS
22800.000	90.000	179.722	10565.997	102.345	0.000	97.601	-0.000	102.345	0.000	0.000	97.742	46.924	-3.783	MWD+IFR1+MS
22900.000	90.000	179.722	10565.997	103.101	0.000	98.304	-0.000	103.101	0.000	0.000	98.443	46.989	-3.745	MWD+IFR1+MS
23000.000	90.000	179.722	10565.997	103.858	0.000	99.007	-0.000	103.858	0.000	0.000	99.145	47.054	-3.709	MWD+IFR1+MS
23100.000	90.000	179.722	10565.997	104.615	0.000	99.712	-0.000	104.615	0.000	0.000	99.848	47.120	-3.672	MWD+IFR1+MS
23200.000	90.000	179.722	10565.997	105.372	0.000	100.417	-0.000	105.372	0.000	0.000	100.552	47.186	-3.637	MWD+IFR1+MS
23300.000	90.000	179.722	10565.997	106.130	0.000	101.123	-0.000	106.130	0.000	0.000	101.256	47.253	-3.602	MWD+IFR1+MS
23400.000	90.000	179.722	10565.997	106.888	0.000	101.830	-0.000	106.888	0.000	0.000	101.962	47.320	-3.568	MWD+IFR1+MS
23500.000	90.000	179.722	10565.997	107.646	0.000	102.538	-0.000	107.646	0.000	0.000	102.669	47.387	-3.535	MWD+IFR1+MS
23600.000	90.000	179.722	10565.997	108.405	0.000	103.247	-0.000	108.405	0.000	0.000	103.376	47.455	-3.502	MWD+IFR1+MS
23700.000	90.000	179.722	10565.997	109.164	0.000	103.956	-0.000	109.164	0.000	0.000	104.084	47.523	-3.470	MWD+IFR1+MS
23800.000	90.000	179.722	10565.997	109.924	0.000	104.667	-0.000	109.924	0.000	0.000	104.793	47.592	-3.439	MWD+IFR1+MS
23900.000	90.000	179.722	10565.997	110.684	0.000	105.378	-0.000	110.684	0.000	0.000	105.503	47.661	-3.408	MWD+IFR1+MS
24000.000	90.000	179.722	10565.997	111.444	0.000	106.089	-0.000	111.444	0.000	0.000	106.213	47.731	-3.378	MWD+IFR1+MS
24100.000	90.000	179.722	10565.997	112.205	0.000	106.802	-0.000	112.205	0.000	0.000	106.925	47.801	-3.348	MWD+IFR1+MS
24200.000	90.000	179.722	10565.997	112.966	0.000	107.515	-0.000	112.966	0.000	0.000	107.637	47.871	-3.319	MWD+IFR1+MS
24300.000	90.000	179.722	10565.997	113.727	0.000	108.229	-0.000	113.727	0.000	0.000	108.350	47.942	-3.291	MWD+IFR1+MS
24400.000	90.000	179.722	10565.997	114.488	0.000	108.944	-0.000	114.488	0.000	0.000	109.063	48.013	-3.263	MWD+IFR1+MS
24500.000	90.000	179.722	10565.997	115.250	0.000	109.659	-0.000	115.250	0.000	0.000	109.777	48.084	-3.235	MWD+IFR1+MS
24600.000	90.000	179.722	10565.997	116.013	0.000	110.375	-0.000	116.013	0.000	0.000	110.492	48.156	-3.208	MWD+IFR1+MS
24700.000	90.000	179.722	10565.997	116.775	0.000	111.092	-0.000	116.775	0.000	0.000	111.208	48.228	-3.182	MWD+IFR1+MS
24800.000	90.000	179.722	10565.997	117.538	0.000	111.809	-0.000	117.538	0.000	0.000	111.924	48.301	-3.156	MWD+IFR1+MS
24900.000	90.000	179.722	10565.997	118.301	0.000	112.527	-0.000	118.301	0.000	0.000	112.641	48.374	-3.130	MWD+IFR1+MS
25000.000	90.000	179.722	10565.997	119.064	0.000	113.246	-0.000	119.064	0.000	0.000	113.359	48.448	-3.105	MWD+IFR1+MS
25100.000	90.000	179.722	10565.997	119.828	0.000	113.965	-0.000	119.828	0.000	0.000	114.077	48.521	-3.080	MWD+IFR1+MS
25200.000	90.000	179.722	10565.997	120.592	0.000	114.685	-0.000	120.592	0.000	0.000	114.796	48.596	-3.056	MWD+IFR1+MS
25300.000	90.000	179.722	10565.997	121.356	0.000	115.406	-0.000	121.356	0.000	0.000	115.515	48.670	-3.032	MWD+IFR1+MS
25400.000	90.000	179.722	10565.997	122.120	0.000	116.127	-0.000	122.120	0.000	0.000	116.235	48.745	-3.009	MWD+IFR1+MS
25500.000	90.000	179.722	10565.997	122.885	0.000	116.848	-0.000	122.885	0.000	0.000	116.956	48.821	-2.986	MWD+IFR1+MS

25600.000	90.000	179.722	10565.997	123.650	0.000	117.570	-0.000	123.650	0.000	0.000	117.677	48.897	-2.963	MWD+IFR1+MS
25700.000	90.000	179.722	10565.997	124.415	0.000	118.293	-0.000	124.415	0.000	0.000	118.399	48.973	-2.941	MWD+IFR1+MS
25800.000	90.000	179.722	10565.997	125.181	0.000	119.016	-0.000	125.181	0.000	0.000	119.121	49.050	-2.919	MWD+IFR1+MS
25900.000	90.000	179.722	10565.997	125.946	0.000	119.740	-0.000	125.946	0.000	0.000	119.844	49.127	-2.897	MWD+IFR1+MS
25944.629	90.000	179.722	10565.997	126.288	0.000	120.062	-0.000	126.288	0.000	0.000	120.166	49.161	-2.888	MWD+IFR1+MS

**Plan Targets**

Poker Lake Unit 19 DTD South 312H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 23	10900.58	440332.90	628819.40	7361.00	RECTANGLE
SHL 26	4022.29	440156.33	628785.29	0.00	RECTANGLE
LTP 23	25845.17	424893.50	628894.20	7361.00	RECTANGLE
BHL 23	25945.30	424793.50	628894.40	7361.00	RECTANGLE



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ALL DIMENSIONS APPROXIMATE

### CACTUS WELLHEAD LLC

XTO ENERGY INC  
DELAWARE BASIN

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

DRAWN	VJK	31MAR22
APPRV		
DRAWING NO.		HBE0000479

**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

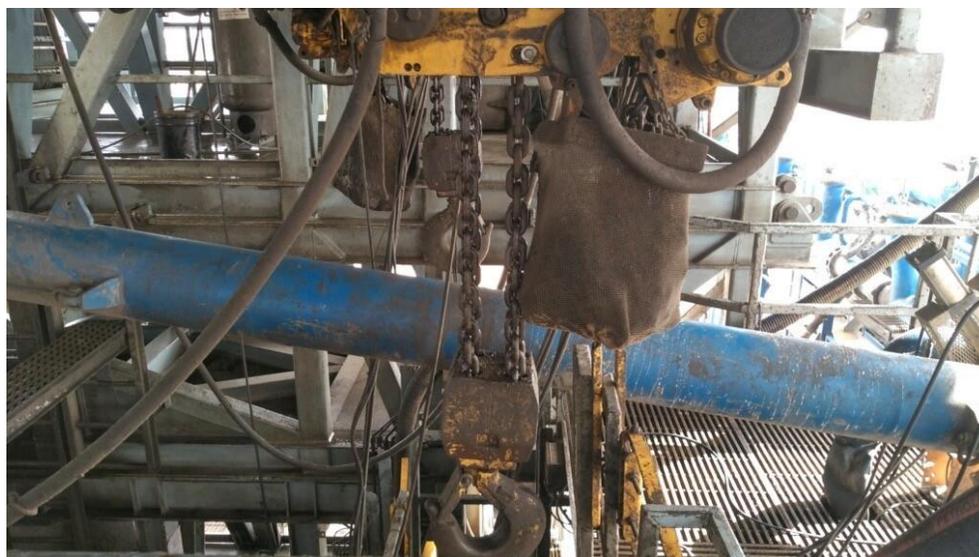


Figure 2: BOP Winch System

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.

API STANDARD 53			
Table C.4—Initial Pressure Testing, Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Pressure Test—High Pressure <sup>ac</sup>	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>bd</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes <sup>e</sup>	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	
<sup>a</sup> 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. <sup>b</sup> Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program. <sup>c</sup> 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. <sup>d</sup> 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. <sup>e</sup> 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.

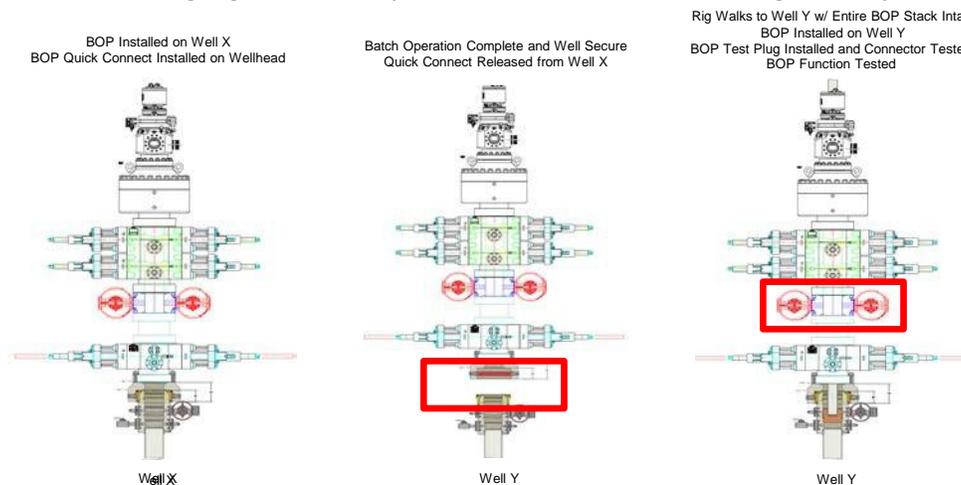
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often 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.

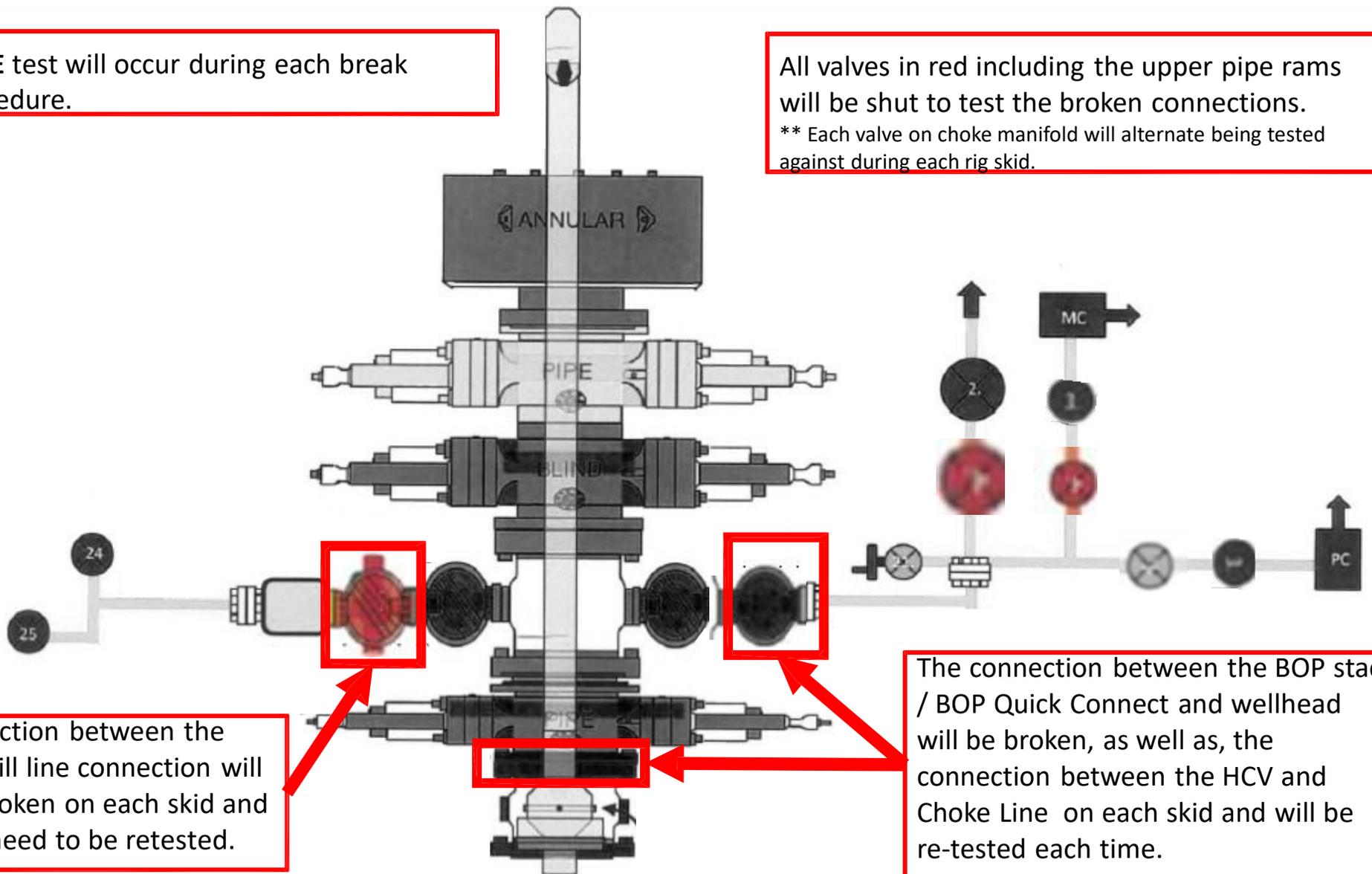
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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 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

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

CONDITIONS  
 Action 356355

**CONDITIONS**

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 356355
	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.	6/21/2024