

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

<b>Well Name:</b> POKER LAKE UNIT 19 DTD	<b>Well Location:</b> T24S / R30E / SEC 19 / NWNW /	<b>County or Parish/State:</b>
<b>Well Number:</b> 124H	<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>	<b>Unit or CA Number:</b> NMNM71016X
<b>US Well Number:</b> 3001553768	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> XTO PERMIAN OPERATING LLC

**Notice of Intent**

**Sundry ID:** 2781295

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

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

**Time Sundry Submitted:** 03:11

**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: 1310' FNL & 889' FWL of Section 19-T24S-R30E 1255' FNL & 889' FWL of Section 19-T24S-R30E FTP: 100' FSL & 1650' FWL of Section 18-T24S-R30E 100' FNL & 1286' FWL of Section 19-T24S-R30E LTP: 2340' FSL & 1650' FWL of Section 31-T23S-R30E 330' FSL & 1286' FWL of Section 31-T24S-R30E BHL: 2590' FSL & 1650' FWL of Section 31-T23S-R30E 230' FSL & 1286' FWL of Section 31-T24S-R30E Proposed total depth will change from 29552' MD; 10753' TVD (Wolfcamp) to 26759' MD; TVD 11392' (Wolfcamp D). 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\_124H\_Sundry\_Attachments\_20240322151010.pdf

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

**Well Location:** T24S / R30E / SEC 19 /  
NWNW /

**County or Parish/State:**

**Well Number:** 124H

**Type of Well:** CONVENTIONAL GAS  
WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM002860

**Unit or CA Name:**

**Unit or CA Number:**  
NMNM71016X

**US Well Number:** 3001553768

**Well Status:** Approved Application for  
Permit to Drill

**Operator:** XTO PERMIAN  
OPERATING LLC

### Conditions of Approval

#### Additional

Sec19\_24S\_30E\_NMP\_Sundry\_2781295\_Poker\_Lake\_Unit\_19\_DTD\_124H\_COAs\_20240404123140.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 26, 2024 10:30 AM

**Name:** XTO PERMIAN OPERATING LLC

**Title:** Regulatory Advisor

**Street Address:** 6401 HOLIDAY HILL ROAD SUITE 200

**City:** MIDLAND

**State:** TX

**Phone:** (432) 999-3107

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

### Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**

### BLM Point of Contact

**BLM POC Name:** CHRISTOPHER WALLS

**BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234

**BLM POC Email Address:** cwalls@blm.gov

**Disposition:** Approved

**Disposition Date:** 04/05/2024

**Signature:** Chris Walls

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		5. Lease Serial No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

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

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

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or 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: NWNW / 1310 FNL / 889 FWL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.206605 / LONG: -103.926629 ( TVD: 0 feet, MD: 0 feet )

PPP: SESW / 330 FSL / 1650 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22525 / LONG: -103.92419 ( TVD: 10753 feet, MD: 16500 feet )

PPP: SESW / 100 FSL / 1650 FWL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210507 / LONG: -103.924179 ( TVD: 10753 feet, MD: 11200 feet )

PPP: NENW / 330 FSL / 1650 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.25055 / LONG: -103.92419 ( TVD: 10753 feet, MD: 25800 feet )

BHL: NESW / 2590 FSL / 1650 FWL / TWSP: 23S / RANGE: 30E / SECTION: 31 / LAT: 32.261073 / LONG: -103.92423 ( TVD: 10753 feet, MD: 29553 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 124H
<b>LOCATION:</b>	Sec 19-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

Changes approved through engineering via **Sundry 2781295** 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 (tieback increased due to not meeting 0.422" clearance requirement.) Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

### **C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

## **D. SPECIAL REQUIREMENT (S)**

### **Unit Wells**

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

### **Commercial Well Determination**

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

### **BOPE Break Testing Variance**

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

### **Offline Cementing**

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

## **GENERAL REQUIREMENTS**

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Eddy County (API No. / US Well No. contains 30-015-#####)**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
[BLM\\_NM\\_CFO\\_DrillingNotifications@blm.gov](mailto:BLM_NM_CFO_DrillingNotifications@blm.gov); (575) 361-2822

**Lea County (API No. / US Well No. contains 30-025-#####)**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240; (575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 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

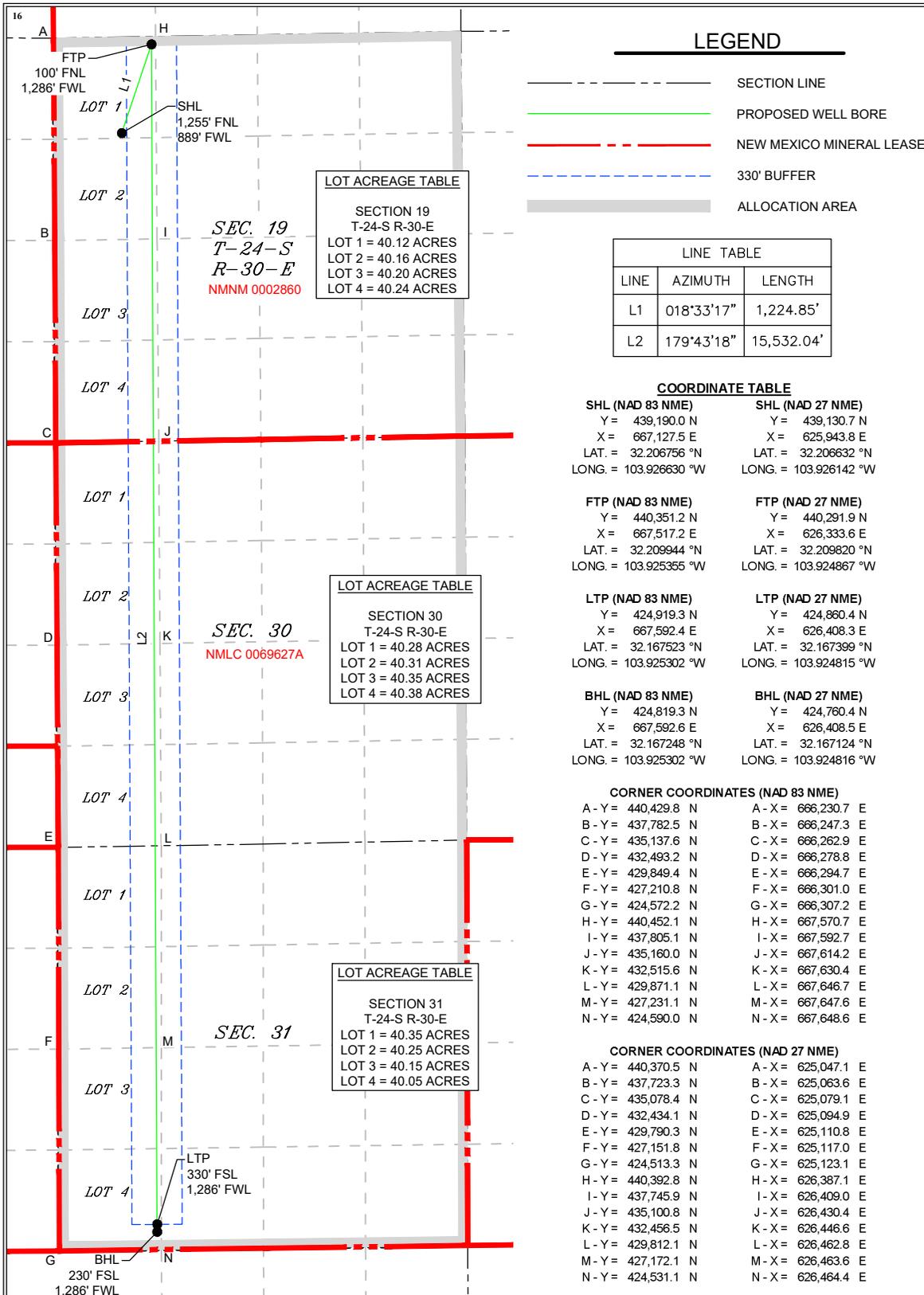
Table with 3 columns: API Number (30-015-53768), Pool Code (98220), Pool Name (Purple Sage; Wolfcamp), Property Code (333976), Property Name (POKER LAKE UNIT 19 DTD), Well Number (124H), OGRID No. (373075), Operator Name (XTO PERMIAN OPERATING, LLC), Elevation (3,146')

Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County. Values: 1, 19, 24S, 30E, 1, 1,255, NORTH, 889, WEST, EDDY

Table with 10 columns: UL or lot no., Section, Township, Range, Lot Idn, Feet from the, North/South line, Feet from the, East/West line, County. Values: 4, 31, 24S, 30E, 1, 230, SOUTH, 1,286, WEST, EDDY

Table with 4 columns: Dedicated Acres (1,922.84), Joint or Infill, Consolidation Code, Order No.

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



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

Terra Sebastian 3/20/24
Signature Date

Terra Sebastian
Printed Name

terra.b.sebastian@exxonmobil.com
E-mail Address

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

02/09/2024
Date of Survey

Signature and Seal of Professional Surveyor:

Handwritten signature of Mark Dillon Harp



MARK DILLON HARP 23786
Certificate Number
DB 618.013003.05-40

\\618.013.XTO.Energy - NM\003.Poker Lake Unit\05 - PLU 19 DTD - EDDY\Wells\40 - 124H\DWG\SOUTH 124H C-102.dwg

Intent  As Drilled

API #

Operator Name:	Property Name:	Well Number
----------------	----------------	-------------

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

Is this well the defining well for the Horizontal Spacing Unit?

Is this well an infill well?

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

API #

Operator Name:	Property Name:	Well Number
----------------	----------------	-------------

KZ 06/29/2018

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

XTO Energy Inc.

Poker Lake Unit 19 DTD South 124H  
Projected TD: 26759.66' MD / 11392' TVD  
SHL: 1255' FNL & 889' FWL , Section 19, T24S, R30E  
BHL: 230' FSL & 1286' FWL , Section 31, T24S, R30E  
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	565'	Water
Top of Salt	968'	Water
Base of Salt	3161'	Water
Delaware	3355'	Water
Brushy Canyon	5853'	Water/Oil/Gas
Bone Spring	7149'	Water
Avalon	7319'	Water/Oil/Gas
1st Bone Spring	8135'	Water/Oil/Gas
2nd Bone Spring	8953'	Water/Oil/Gas
3rd Bone Spring	10047'	Water/Oil/Gas
Wolfcamp	10438'	Water/Oil/Gas
Wolfcamp X	10459'	Water/Oil/Gas
Wolfcamp Y	10537'	Water/Oil/Gas
Wolfcamp A	10579'	Water/Oil/Gas
Wolfcamp B	10913'	Water/Oil/Gas
Wolfcamp D	11362'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>11392'</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 @ 665' (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 10619.67' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 26759.66 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10319.67 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 665'	9.625	40	J-55	BTC	New	1.57	9.47	23.68
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	1.95	2.92	1.77
8.75	4000' – 10619.67'	7.625	29.7	HC L-80	Flush Joint	New	1.42	2.25	2.07
6.75	0' – 10519.67'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.64	1.87
6.75	10519.67' - 26759.66'	5.5	20	RY P-110	Semi-Flush	New	1.05	1.51	1.87

- 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 +/- 665'**

Lead: 120 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 +/- 10619.67'**

###### 1st Stage

Optional Lead: 310 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)  
 TOC: Surface  
 Tail: 440 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 TOC: Brushy Canyon @ 5853  
 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: 660 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 (5853') 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 +/- 26759.66'**

Lead: 20 sxs NeoCem (mixed at 13.2 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 10319.67 feet  
 Tail: 1140 sxs VersaCem (mixed at 14.5 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 10819.67 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 4839 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' - 665'	12.25	FW/Native	8.4-8.9	35-40	NC
665' - 10619.67'	8.75	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10619.67' - 26759.66'	6.75	OBM	12.4-12.9	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 180 to 200 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 7346 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 124H

**Measured Depth:** 26759.66 ft

**TVD RKB:** 11392.00 ft

**Location**

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

**Northing:** 439130.70 ft

**Easting:** 625943.80 ft

**RKB:** 3178.00 ft

**Ground Level:** 3146.00 ft

**North Reference:** Grid

**Convergence Angle:** 0.22 Deg

**Plan Sections**

Poker Lake Unit 19 DTD South 124H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD		Y Offset (ft)	X Offset (ft)	Build	Turn	Dogleg	Target
			RKB (ft)	Y Offset (ft)			Rate (Deg/100ft)	Rate (Deg/100ft)	Rate (Deg/100ft)	
0.00	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	0.00	
1802.59	14.05	18.56	1795.57	81.27	27.28	2.00	0.00	2.00		
6141.28	14.05	18.56	6004.43	1079.93	362.52	0.00	0.00	0.00		
6843.87	0.00	0.00	6700.00	1161.20	389.80	-2.00	0.00	2.00		
10819.67	0.00	0.00	10675.80	1161.20	389.80	0.00	0.00	0.00		
11944.67	90.00	179.72	11392.00	445.01	393.26	8.00	0.00	8.00		
12538.55	90.00	179.72	11392.00	-148.86	396.13	0.00	0.00	0.00	LTP 3	
26759.66	90.00	179.72	11392.00	-14369.80	464.89	0.00	0.00	0.00	BHL 3	

**Position Uncertainty**

Poker Lake Unit 19 DTD South 124H

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	2.404	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.441	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.482	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.527	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	2.629	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	18.556	1199.980	5.192	0.000	4.338	0.000	2.685	0.000	0.000	5.302	4.206	127.814	MWD+IFR1+MS
1300.000	4.000	18.556	1299.838	5.957	0.000	4.718	0.000	2.745	0.000	0.000	6.086	4.563	125.859	MWD+IFR1+MS
1400.000	6.000	18.556	1399.452	6.647	0.000	5.093	0.000	2.810	0.000	0.000	6.798	4.918	124.930	MWD+IFR1+MS
1500.000	8.000	18.556	1498.702	7.282	0.000	5.465	0.000	2.882	0.000	0.000	7.457	5.272	124.390	MWD+IFR1+MS
1600.000	10.000	18.556	1597.465	7.873	0.000	5.835	0.000	2.965	0.000	0.000	8.076	5.626	124.043	MWD+IFR1+MS
1700.000	12.000	18.556	1695.623	8.429	0.000	6.204	0.000	3.059	0.000	0.000	8.661	5.981	123.807	MWD+IFR1+MS
1802.590	14.052	18.556	1795.568	8.985	0.000	6.584	0.000	3.173	0.000	0.000	9.250	6.347	123.638	MWD+IFR1+MS
1900.000	14.052	18.556	1890.063	9.353	0.000	6.944	0.000	3.263	0.000	0.000	9.615	6.700	123.909	MWD+IFR1+MS
2000.000	14.052	18.556	1987.071	9.639	0.000	7.315	0.000	3.350	0.000	0.000	9.896	7.074	124.186	MWD+IFR1+MS
2100.000	14.052	18.556	2084.078	9.934	0.000	7.688	0.000	3.441	0.000	0.000	10.184	7.449	124.465	MWD+IFR1+MS
2200.000	14.052	18.556	2181.086	10.235	0.000	8.062	0.000	3.535	0.000	0.000	10.479	7.825	124.739	MWD+IFR1+MS
2300.000	14.052	18.556	2278.094	10.543	0.000	8.438	0.000	3.632	0.000	0.000	10.780	8.202	125.007	MWD+IFR1+MS
2400.000	14.052	18.556	2375.101	10.857	0.000	8.814	0.000	3.732	0.000	0.000	11.086	8.579	125.269	MWD+IFR1+MS
2500.000	14.052	18.556	2472.109	11.176	0.000	9.190	0.000	3.835	0.000	0.000	11.397	8.957	125.525	MWD+IFR1+MS
2600.000	14.052	18.556	2569.117	11.500	0.000	9.568	0.000	3.941	0.000	0.000	11.713	9.336	125.775	MWD+IFR1+MS
2700.000	14.052	18.556	2666.124	11.828	0.000	9.946	0.000	4.049	0.000	0.000	12.033	9.715	126.019	MWD+IFR1+MS
2800.000	14.052	18.556	2763.132	12.161	0.000	10.325	0.000	4.160	0.000	0.000	12.356	10.095	126.258	MWD+IFR1+MS
2900.000	14.052	18.556	2860.140	12.497	0.000	10.704	0.000	4.273	0.000	0.000	12.684	10.475	126.491	MWD+IFR1+MS
3000.000	14.052	18.556	2957.147	12.837	0.000	11.083	0.000	4.387	0.000	0.000	13.014	10.855	126.719	MWD+IFR1+MS

3100.000	14.052	18.556	3054.155	13.180	0.000	11.463	0.000	4.504	0.000	0.000	13.348	11.236	126.941	MWD+IFR1+MS
3200.000	14.052	18.556	3151.163	13.526	0.000	11.843	0.000	4.623	0.000	0.000	13.684	11.616	127.158	MWD+IFR1+MS
3300.000	14.052	18.556	3248.170	13.875	0.000	12.224	0.000	4.744	0.000	0.000	14.023	11.998	127.370	MWD+IFR1+MS
3400.000	14.052	18.556	3345.178	14.227	0.000	12.605	0.000	4.867	0.000	0.000	14.365	12.379	127.577	MWD+IFR1+MS
3500.000	14.052	18.556	3442.186	14.581	0.000	12.986	0.000	4.991	0.000	0.000	14.709	12.761	127.778	MWD+IFR1+MS
3600.000	14.052	18.556	3539.193	14.937	0.000	13.367	0.000	5.117	0.000	0.000	15.055	13.142	127.974	MWD+IFR1+MS
3700.000	14.052	18.556	3636.201	15.295	0.000	13.749	0.000	5.245	0.000	0.000	15.402	13.524	128.166	MWD+IFR1+MS
3800.000	14.052	18.556	3733.209	15.655	0.000	14.131	0.000	5.375	0.000	0.000	15.752	13.907	128.352	MWD+IFR1+MS
3900.000	14.052	18.556	3830.216	16.017	0.000	14.513	0.000	5.506	0.000	0.000	16.104	14.289	128.534	MWD+IFR1+MS
4000.000	14.052	18.556	3927.224	16.380	0.000	14.895	0.000	5.639	0.000	0.000	16.457	14.672	128.711	MWD+IFR1+MS
4100.000	14.052	18.556	4024.232	16.745	0.000	15.277	0.000	5.773	0.000	0.000	16.811	15.054	128.883	MWD+IFR1+MS
4200.000	14.052	18.556	4121.239	17.112	0.000	15.659	0.000	5.909	0.000	0.000	17.167	15.437	129.050	MWD+IFR1+MS
4300.000	14.052	18.556	4218.247	17.480	0.000	16.042	0.000	6.047	0.000	0.000	17.524	15.820	129.213	MWD+IFR1+MS
4400.000	14.052	18.556	4315.255	17.849	0.000	16.425	0.000	6.186	0.000	0.000	17.883	16.203	129.371	MWD+IFR1+MS
4500.000	14.052	18.556	4412.262	18.219	0.000	16.808	0.000	6.327	0.000	0.000	18.243	16.586	129.524	MWD+IFR1+MS
4600.000	14.052	18.556	4509.270	18.591	0.000	17.190	0.000	6.470	0.000	0.000	18.603	16.970	129.674	MWD+IFR1+MS
4700.000	14.052	18.556	4606.278	18.963	0.000	17.573	0.000	6.614	0.000	0.000	18.965	17.353	129.819	MWD+IFR1+MS
4800.000	14.052	18.556	4703.285	19.337	0.000	17.957	0.000	6.760	0.000	0.000	19.328	17.737	129.959	MWD+IFR1+MS
4900.000	14.052	18.556	4800.293	19.711	0.000	18.340	0.000	6.907	0.000	0.000	19.692	18.120	130.095	MWD+IFR1+MS
5000.000	14.052	18.556	4897.301	20.087	0.000	18.723	0.000	7.057	0.000	0.000	20.057	18.504	130.227	MWD+IFR1+MS
5100.000	14.052	18.556	4994.308	20.463	0.000	19.107	0.000	7.207	0.000	0.000	20.422	18.888	130.355	MWD+IFR1+MS
5200.000	14.052	18.556	5091.316	20.840	0.000	19.490	0.000	7.360	0.000	0.000	20.788	19.271	130.479	MWD+IFR1+MS
5300.000	14.052	18.556	5188.323	21.218	0.000	19.874	0.000	7.514	0.000	0.000	21.155	19.655	130.598	MWD+IFR1+MS
5400.000	14.052	18.556	5285.331	21.596	0.000	20.257	0.000	7.670	0.000	0.000	21.523	20.039	130.714	MWD+IFR1+MS
5500.000	14.052	18.556	5382.339	21.975	0.000	20.641	0.000	7.827	0.000	0.000	21.892	20.424	130.825	MWD+IFR1+MS
5600.000	14.052	18.556	5479.346	22.355	0.000	21.024	0.000	7.986	0.000	0.000	22.261	20.808	130.932	MWD+IFR1+MS
5700.000	14.052	18.556	5576.354	22.736	0.000	21.408	0.000	8.147	0.000	0.000	22.630	21.192	131.036	MWD+IFR1+MS
5800.000	14.052	18.556	5673.362	23.117	0.000	21.792	0.000	8.310	0.000	0.000	23.001	21.576	131.136	MWD+IFR1+MS
5900.000	14.052	18.556	5770.369	23.498	0.000	22.176	0.000	8.475	0.000	0.000	23.372	21.961	131.231	MWD+IFR1+MS
6000.000	14.052	18.556	5867.377	23.880	0.000	22.560	0.000	8.641	0.000	0.000	23.743	22.345	131.323	MWD+IFR1+MS
6100.000	14.052	18.556	5964.385	24.263	0.000	22.944	0.000	8.809	0.000	0.000	24.115	22.730	131.411	MWD+IFR1+MS
6141.282	14.052	18.556	6004.432	24.419	0.000	23.100	0.000	8.879	0.000	0.000	24.265	22.887	131.372	MWD+IFR1+MS
6200.000	12.877	18.556	6061.534	24.663	0.000	23.320	0.000	8.979	0.000	0.000	24.480	23.111	131.288	MWD+IFR1+MS

6300.000	10.877	18.556	6159.388	25.113	0.000	23.695	0.000	9.154	0.000	0.000	24.904	23.488	130.758	MWD+IFR1+MS
6400.000	8.877	18.556	6257.901	25.565	0.000	24.066	0.000	9.324	0.000	0.000	25.363	23.858	130.071	MWD+IFR1+MS
6500.000	6.877	18.556	6356.952	25.977	0.000	24.431	0.000	9.487	0.000	0.000	25.813	24.222	129.471	MWD+IFR1+MS
6600.000	4.877	18.556	6456.422	26.350	0.000	24.788	0.000	9.642	0.000	0.000	26.256	24.578	128.951	MWD+IFR1+MS
6700.000	2.877	18.556	6556.188	26.683	0.000	25.138	0.000	9.791	0.000	0.000	26.689	24.926	128.503	MWD+IFR1+MS
6800.000	0.877	18.556	6656.129	26.977	0.000	25.480	0.000	9.935	0.000	0.000	27.112	25.267	128.123	MWD+IFR1+MS
6843.873	0.000	0.000	6700.000	26.572	0.000	26.129	0.000	9.998	0.000	0.000	27.258	25.413	128.042	MWD+IFR1+MS
6900.000	0.000	0.000	6756.127	26.753	0.000	26.310	0.000	10.077	0.000	0.000	27.433	25.600	127.992	MWD+IFR1+MS
7000.000	0.000	0.000	6856.127	27.076	0.000	26.636	0.000	10.221	0.000	0.000	27.749	25.933	127.978	MWD+IFR1+MS
7100.000	0.000	0.000	6956.127	27.402	0.000	26.965	0.000	10.367	0.000	0.000	28.072	26.267	127.983	MWD+IFR1+MS
7200.000	0.000	0.000	7056.127	27.729	0.000	27.295	0.000	10.516	0.000	0.000	28.395	26.602	127.989	MWD+IFR1+MS
7300.000	0.000	0.000	7156.127	28.057	0.000	27.626	0.000	10.669	0.000	0.000	28.719	26.937	127.994	MWD+IFR1+MS
7400.000	0.000	0.000	7256.127	28.385	0.000	27.957	0.000	10.824	0.000	0.000	29.043	27.273	127.999	MWD+IFR1+MS
7500.000	0.000	0.000	7356.127	28.714	0.000	28.289	0.000	10.982	0.000	0.000	29.369	27.609	128.005	MWD+IFR1+MS
7600.000	0.000	0.000	7456.127	29.044	0.000	28.622	0.000	11.144	0.000	0.000	29.695	27.946	128.010	MWD+IFR1+MS
7700.000	0.000	0.000	7556.127	29.375	0.000	28.955	0.000	11.308	0.000	0.000	30.022	28.283	128.015	MWD+IFR1+MS
7800.000	0.000	0.000	7656.127	29.706	0.000	29.289	0.000	11.475	0.000	0.000	30.350	28.621	128.020	MWD+IFR1+MS
7900.000	0.000	0.000	7756.127	30.038	0.000	29.624	0.000	11.646	0.000	0.000	30.678	28.960	128.025	MWD+IFR1+MS
8000.000	0.000	0.000	7856.127	30.370	0.000	29.959	0.000	11.819	0.000	0.000	31.007	29.299	128.030	MWD+IFR1+MS
8100.000	0.000	0.000	7956.127	30.703	0.000	30.294	0.000	11.996	0.000	0.000	31.337	29.638	128.035	MWD+IFR1+MS
8200.000	0.000	0.000	8056.127	31.037	0.000	30.630	0.000	12.175	0.000	0.000	31.667	29.978	128.040	MWD+IFR1+MS
8300.000	0.000	0.000	8156.127	31.371	0.000	30.967	0.000	12.358	0.000	0.000	31.998	30.318	128.045	MWD+IFR1+MS
8400.000	0.000	0.000	8256.127	31.705	0.000	31.304	0.000	12.544	0.000	0.000	32.330	30.659	128.049	MWD+IFR1+MS
8500.000	0.000	0.000	8356.127	32.041	0.000	31.642	0.000	12.733	0.000	0.000	32.662	31.000	128.054	MWD+IFR1+MS
8600.000	0.000	0.000	8456.127	32.376	0.000	31.980	0.000	12.925	0.000	0.000	32.995	31.341	128.059	MWD+IFR1+MS
8700.000	0.000	0.000	8556.127	32.712	0.000	32.318	0.000	13.120	0.000	0.000	33.328	31.683	128.064	MWD+IFR1+MS
8800.000	0.000	0.000	8656.127	33.049	0.000	32.657	0.000	13.318	0.000	0.000	33.662	32.025	128.068	MWD+IFR1+MS
8900.000	0.000	0.000	8756.127	33.386	0.000	32.996	0.000	13.520	0.000	0.000	33.996	32.368	128.073	MWD+IFR1+MS
9000.000	0.000	0.000	8856.127	33.724	0.000	33.336	0.000	13.724	0.000	0.000	34.330	32.711	128.077	MWD+IFR1+MS
9100.000	0.000	0.000	8956.127	34.061	0.000	33.676	0.000	13.932	0.000	0.000	34.666	33.054	128.082	MWD+IFR1+MS
9200.000	0.000	0.000	9056.127	34.400	0.000	34.017	0.000	14.143	0.000	0.000	35.001	33.397	128.086	MWD+IFR1+MS
9300.000	0.000	0.000	9156.127	34.739	0.000	34.357	0.000	14.357	0.000	0.000	35.337	33.741	128.090	MWD+IFR1+MS
9400.000	0.000	0.000	9256.127	35.078	0.000	34.699	0.000	14.575	0.000	0.000	35.674	34.085	128.095	MWD+IFR1+MS

9500.000	0.000	0.000	9356.127	35.417	0.000	35.040	0.000	14.795	0.000	0.000	36.011	34.430	128.099	MWD+IFR1+MS
9600.000	0.000	0.000	9456.127	35.757	0.000	35.382	0.000	15.019	0.000	0.000	36.348	34.775	128.103	MWD+IFR1+MS
9700.000	0.000	0.000	9556.127	36.097	0.000	35.724	0.000	15.246	0.000	0.000	36.686	35.120	128.107	MWD+IFR1+MS
9800.000	0.000	0.000	9656.127	36.438	0.000	36.067	0.000	15.476	0.000	0.000	37.024	35.465	128.111	MWD+IFR1+MS
9900.000	0.000	0.000	9756.127	36.779	0.000	36.410	0.000	15.710	0.000	0.000	37.363	35.810	128.116	MWD+IFR1+MS
10000.000	0.000	0.000	9856.127	37.120	0.000	36.753	0.000	15.946	0.000	0.000	37.701	36.156	128.120	MWD+IFR1+MS
10100.000	0.000	0.000	9956.127	37.462	0.000	37.096	0.000	16.186	0.000	0.000	38.041	36.502	128.124	MWD+IFR1+MS
10200.000	0.000	0.000	10056.127	37.804	0.000	37.440	0.000	16.429	0.000	0.000	38.380	36.848	128.128	MWD+IFR1+MS
10300.000	0.000	0.000	10156.127	38.146	0.000	37.784	0.000	16.675	0.000	0.000	38.720	37.195	128.132	MWD+IFR1+MS
10400.000	0.000	0.000	10256.127	38.488	0.000	38.128	0.000	16.924	0.000	0.000	39.061	37.542	128.136	MWD+IFR1+MS
10500.000	0.000	0.000	10356.127	38.831	0.000	38.472	0.000	17.177	0.000	0.000	39.401	37.888	128.139	MWD+IFR1+MS
10600.000	0.000	0.000	10456.127	39.174	0.000	38.817	0.000	17.433	0.000	0.000	39.742	38.236	128.143	MWD+IFR1+MS
10700.000	0.000	0.000	10556.127	39.518	0.000	39.162	0.000	17.692	0.000	0.000	40.083	38.583	128.147	MWD+IFR1+MS
10800.000	0.000	0.000	10656.127	39.861	0.000	39.507	0.000	17.954	0.000	0.000	40.425	38.930	128.151	MWD+IFR1+MS
10819.673	0.000	0.000	10675.800	39.928	0.000	39.574	0.000	18.006	0.000	0.000	40.490	38.999	128.144	MWD+IFR1+MS
10900.000	6.426	179.723	10755.959	39.639	0.000	39.838	-0.000	18.218	0.000	0.000	40.809	39.294	126.270	MWD+IFR1+MS
11000.000	14.426	179.723	10854.228	39.460	0.000	40.126	-0.000	18.534	0.000	0.000	41.727	39.756	115.135	MWD+IFR1+MS
11100.000	22.426	179.723	10949.024	38.914	0.000	40.389	-0.000	18.996	0.000	0.000	42.786	40.107	108.369	MWD+IFR1+MS
11200.000	30.426	179.723	11038.502	37.873	0.000	40.624	-0.000	19.651	0.000	0.000	43.729	40.380	105.081	MWD+IFR1+MS
11300.000	38.426	179.723	11120.921	36.442	0.000	40.829	-0.000	20.531	0.000	0.000	44.515	40.602	103.351	MWD+IFR1+MS
11400.000	46.426	179.723	11194.676	34.760	0.000	41.001	-0.000	21.642	0.000	0.000	45.130	40.780	102.437	MWD+IFR1+MS
11500.000	54.426	179.723	11258.331	33.005	0.000	41.142	-0.000	22.960	0.000	0.000	45.578	40.919	102.013	MWD+IFR1+MS
11600.000	62.426	179.723	11310.648	31.393	0.000	41.250	-0.000	24.445	0.000	0.000	45.875	41.021	101.908	MWD+IFR1+MS
11700.000	70.426	179.723	11350.609	30.166	0.000	41.326	-0.000	26.045	0.000	0.000	46.044	41.089	102.012	MWD+IFR1+MS
11800.000	78.426	179.723	11377.435	29.558	0.000	41.370	-0.000	27.703	0.000	0.000	46.120	41.122	102.230	MWD+IFR1+MS
11900.000	86.426	179.723	11390.604	29.737	0.000	41.384	-0.000	29.362	0.000	0.000	46.142	41.126	102.460	MWD+IFR1+MS
11944.673	90.000	179.723	11391.997	29.593	0.000	41.377	-0.000	29.593	0.000	0.000	46.145	41.116	102.524	MWD+IFR1+MS
12000.000	90.000	179.723	11391.997	29.720	0.000	41.367	-0.000	29.720	0.000	0.000	46.149	41.102	102.598	MWD+IFR1+MS
12100.000	90.000	179.723	11391.997	29.920	0.000	41.364	-0.000	29.920	0.000	0.000	46.157	41.091	102.766	MWD+IFR1+MS
12200.000	90.000	179.723	11391.997	30.142	0.000	41.377	-0.000	30.142	0.000	0.000	46.167	41.095	102.968	MWD+IFR1+MS
12300.000	90.000	179.723	11391.997	30.382	0.000	41.404	-0.000	30.382	0.000	0.000	46.178	41.113	103.203	MWD+IFR1+MS
12400.000	90.000	179.723	11391.997	30.641	0.000	41.445	-0.000	30.641	0.000	0.000	46.191	41.143	103.472	MWD+IFR1+MS
12500.000	90.000	179.723	11391.997	30.917	0.000	41.500	-0.000	30.917	0.000	0.000	46.205	41.187	103.776	MWD+IFR1+MS

12538.550	90.000	179.723	11391.997	31.026	0.000	41.523	-0.000	31.026	0.000	0.000	46.211	41.206	103.898	MWD+IFR1+MS
12600.000	90.000	179.723	11391.997	31.206	0.000	41.564	-0.000	31.206	0.000	0.000	46.220	41.239	104.105	MWD+IFR1+MS
12700.000	90.000	179.723	11391.997	31.514	0.000	41.645	-0.000	31.514	0.000	0.000	46.238	41.308	104.485	MWD+IFR1+MS
12800.000	90.000	179.723	11391.997	31.841	0.000	41.742	-0.000	31.841	0.000	0.000	46.257	41.390	104.914	MWD+IFR1+MS
12900.000	90.000	179.723	11391.997	32.184	0.000	41.853	-0.000	32.184	0.000	0.000	46.278	41.485	105.393	MWD+IFR1+MS
13000.000	90.000	179.723	11391.997	32.542	0.000	41.978	-0.000	32.542	0.000	0.000	46.302	41.592	105.926	MWD+IFR1+MS
13100.000	90.000	179.723	11391.997	32.915	0.000	42.116	-0.000	32.915	0.000	0.000	46.328	41.711	106.520	MWD+IFR1+MS
13200.000	90.000	179.723	11391.997	33.302	0.000	42.267	-0.000	33.302	0.000	0.000	46.356	41.841	107.183	MWD+IFR1+MS
13300.000	90.000	179.723	11391.997	33.703	0.000	42.432	-0.000	33.703	0.000	0.000	46.388	41.982	107.921	MWD+IFR1+MS
13400.000	90.000	179.723	11391.997	34.117	0.000	42.610	-0.000	34.117	0.000	0.000	46.422	42.134	108.745	MWD+IFR1+MS
13500.000	90.000	179.723	11391.997	34.544	0.000	42.801	-0.000	34.544	0.000	0.000	46.461	42.295	109.666	MWD+IFR1+MS
13600.000	90.000	179.723	11391.997	34.984	0.000	43.004	-0.000	34.984	0.000	0.000	46.504	42.466	110.697	MWD+IFR1+MS
13700.000	90.000	179.723	11391.997	35.435	0.000	43.220	-0.000	35.435	0.000	0.000	46.551	42.644	111.852	MWD+IFR1+MS
13800.000	90.000	179.723	11391.997	35.898	0.000	43.449	-0.000	35.898	0.000	0.000	46.605	42.831	113.147	MWD+IFR1+MS
13900.000	90.000	179.723	11391.997	36.372	0.000	43.690	-0.000	36.372	0.000	0.000	46.665	43.023	114.601	MWD+IFR1+MS
14000.000	90.000	179.723	11391.997	36.857	0.000	43.943	-0.000	36.857	0.000	0.000	46.733	43.220	116.232	MWD+IFR1+MS
14100.000	90.000	179.723	11391.997	37.352	0.000	44.207	-0.000	37.352	0.000	0.000	46.809	43.421	118.058	MWD+IFR1+MS
14200.000	90.000	179.723	11391.997	37.856	0.000	44.483	-0.000	37.856	0.000	0.000	46.897	43.624	120.096	MWD+IFR1+MS
14300.000	90.000	179.723	11391.997	38.370	0.000	44.771	-0.000	38.370	0.000	0.000	46.996	43.826	122.357	MWD+IFR1+MS
14400.000	90.000	179.723	11391.997	38.893	0.000	45.070	-0.000	38.893	0.000	0.000	47.110	44.026	124.843	MWD+IFR1+MS
14500.000	90.000	179.723	11391.997	39.425	0.000	45.380	-0.000	39.425	0.000	0.000	47.241	44.220	127.545	MWD+IFR1+MS
14600.000	90.000	179.723	11391.997	39.965	0.000	45.700	-0.000	39.965	0.000	0.000	47.390	44.408	130.433	MWD+IFR1+MS
14700.000	90.000	179.723	11391.997	40.513	0.000	46.031	-0.000	40.513	0.000	0.000	47.559	44.586	133.460	MWD+IFR1+MS
14800.000	90.000	179.723	11391.997	41.069	0.000	46.372	-0.000	41.069	0.000	0.000	47.751	44.753	-43.436	MWD+IFR1+MS
14900.000	90.000	179.723	11391.997	41.632	0.000	46.724	-0.000	41.632	0.000	0.000	47.966	44.907	-40.329	MWD+IFR1+MS
15000.000	90.000	179.723	11391.997	42.202	0.000	47.085	-0.000	42.202	0.000	0.000	48.204	45.049	-37.294	MWD+IFR1+MS
15100.000	90.000	179.723	11391.997	42.780	0.000	47.455	-0.000	42.780	0.000	0.000	48.465	45.177	-34.394	MWD+IFR1+MS
15200.000	90.000	179.723	11391.997	43.363	0.000	47.836	-0.000	43.363	0.000	0.000	48.749	45.294	-31.677	MWD+IFR1+MS
15300.000	90.000	179.723	11391.997	43.953	0.000	48.225	-0.000	43.953	0.000	0.000	49.053	45.399	-29.172	MWD+IFR1+MS
15400.000	90.000	179.723	11391.997	44.549	0.000	48.623	-0.000	44.549	0.000	0.000	49.377	45.494	-26.889	MWD+IFR1+MS
15500.000	90.000	179.723	11391.997	45.150	0.000	49.030	-0.000	45.150	0.000	0.000	49.719	45.580	-24.827	MWD+IFR1+MS
15600.000	90.000	179.723	11391.997	45.758	0.000	49.445	-0.000	45.758	0.000	0.000	50.078	45.659	-22.975	MWD+IFR1+MS
15700.000	90.000	179.723	11391.997	46.370	0.000	49.869	-0.000	46.370	0.000	0.000	50.452	45.732	-21.315	MWD+IFR1+MS

15800.000	90.000	179.723	11391.997	46.988	0.000	50.301	-0.000	46.988	0.000	0.000	50.840	45.799	-19.831	MWD+IFR1+MS
15900.000	90.000	179.723	11391.997	47.610	0.000	50.740	-0.000	47.610	0.000	0.000	51.242	45.862	-18.502	MWD+IFR1+MS
16000.000	90.000	179.723	11391.997	48.238	0.000	51.188	-0.000	48.238	0.000	0.000	51.655	45.920	-17.311	MWD+IFR1+MS
16100.000	90.000	179.723	11391.997	48.869	0.000	51.643	-0.000	48.869	0.000	0.000	52.079	45.976	-16.241	MWD+IFR1+MS
16200.000	90.000	179.723	11391.997	49.506	0.000	52.105	-0.000	49.506	0.000	0.000	52.514	46.029	-15.278	MWD+IFR1+MS
16300.000	90.000	179.723	11391.997	50.146	0.000	52.574	-0.000	50.146	0.000	0.000	52.959	46.080	-14.409	MWD+IFR1+MS
16400.000	90.000	179.723	11391.997	50.790	0.000	53.050	-0.000	50.790	0.000	0.000	53.413	46.130	-13.622	MWD+IFR1+MS
16500.000	90.000	179.723	11391.997	51.439	0.000	53.533	-0.000	51.439	0.000	0.000	53.876	46.177	-12.907	MWD+IFR1+MS
16600.000	90.000	179.723	11391.997	52.091	0.000	54.022	-0.000	52.091	0.000	0.000	54.347	46.224	-12.256	MWD+IFR1+MS
16700.000	90.000	179.723	11391.997	52.747	0.000	54.518	-0.000	52.747	0.000	0.000	54.826	46.269	-11.661	MWD+IFR1+MS
16800.000	90.000	179.723	11391.997	53.406	0.000	55.020	-0.000	53.406	0.000	0.000	55.313	46.314	-11.117	MWD+IFR1+MS
16900.000	90.000	179.723	11391.997	54.069	0.000	55.528	-0.000	54.069	0.000	0.000	55.807	46.358	-10.616	MWD+IFR1+MS
17000.000	90.000	179.723	11391.997	54.734	0.000	56.041	-0.000	54.734	0.000	0.000	56.308	46.401	-10.156	MWD+IFR1+MS
17100.000	90.000	179.723	11391.997	55.403	0.000	56.561	-0.000	55.403	0.000	0.000	56.815	46.444	-9.730	MWD+IFR1+MS
17200.000	90.000	179.723	11391.997	56.075	0.000	57.086	-0.000	56.075	0.000	0.000	57.330	46.487	-9.336	MWD+IFR1+MS
17300.000	90.000	179.723	11391.997	56.750	0.000	57.616	-0.000	56.750	0.000	0.000	57.850	46.530	-8.971	MWD+IFR1+MS
17400.000	90.000	179.723	11391.997	57.428	0.000	58.152	-0.000	57.428	0.000	0.000	58.376	46.572	-8.631	MWD+IFR1+MS
17500.000	90.000	179.723	11391.997	58.108	0.000	58.692	-0.000	58.108	0.000	0.000	58.908	46.615	-8.315	MWD+IFR1+MS
17600.000	90.000	179.723	11391.997	58.791	0.000	59.238	-0.000	58.791	0.000	0.000	59.445	46.657	-8.019	MWD+IFR1+MS
17700.000	90.000	179.723	11391.997	59.476	0.000	59.788	-0.000	59.476	0.000	0.000	59.988	46.700	-7.743	MWD+IFR1+MS
17800.000	90.000	179.723	11391.997	60.164	0.000	60.344	-0.000	60.164	0.000	0.000	60.536	46.742	-7.484	MWD+IFR1+MS
17900.000	90.000	179.723	11391.997	60.854	0.000	60.903	-0.000	60.854	0.000	0.000	61.089	46.785	-7.241	MWD+IFR1+MS
18000.000	90.000	179.723	11391.997	61.547	0.000	61.468	-0.000	61.547	0.000	0.000	61.647	46.828	-7.013	MWD+IFR1+MS
18100.000	90.000	179.723	11391.997	62.241	0.000	62.036	-0.000	62.241	0.000	0.000	62.210	46.871	-6.797	MWD+IFR1+MS
18200.000	90.000	179.723	11391.997	62.938	0.000	62.609	-0.000	62.938	0.000	0.000	62.777	46.915	-6.594	MWD+IFR1+MS
18300.000	90.000	179.723	11391.997	63.637	0.000	63.185	-0.000	63.637	0.000	0.000	63.348	46.958	-6.403	MWD+IFR1+MS
18400.000	90.000	179.723	11391.997	64.338	0.000	63.766	-0.000	64.338	0.000	0.000	63.924	47.002	-6.221	MWD+IFR1+MS
18500.000	90.000	179.723	11391.997	65.041	0.000	64.351	-0.000	65.041	0.000	0.000	64.504	47.047	-6.049	MWD+IFR1+MS
18600.000	90.000	179.723	11391.997	65.745	0.000	64.939	-0.000	65.745	0.000	0.000	65.087	47.091	-5.887	MWD+IFR1+MS
18700.000	90.000	179.723	11391.997	66.452	0.000	65.531	-0.000	66.452	0.000	0.000	65.675	47.136	-5.732	MWD+IFR1+MS
18800.000	90.000	179.723	11391.997	67.160	0.000	66.127	-0.000	67.160	0.000	0.000	66.267	47.181	-5.585	MWD+IFR1+MS
18900.000	90.000	179.723	11391.997	67.870	0.000	66.726	-0.000	67.870	0.000	0.000	66.862	47.227	-5.445	MWD+IFR1+MS
19000.000	90.000	179.723	11391.997	68.581	0.000	67.328	-0.000	68.581	0.000	0.000	67.461	47.273	-5.312	MWD+IFR1+MS

19100.000	90.000	179.723	11391.997	69.294	0.000	67.934	-0.000	69.294	0.000	0.000	68.063	47.319	-5.185	MWD+IFR1+MS
19200.000	90.000	179.723	11391.997	70.009	0.000	68.543	-0.000	70.009	0.000	0.000	68.668	47.366	-5.064	MWD+IFR1+MS
19300.000	90.000	179.723	11391.997	70.725	0.000	69.155	-0.000	70.725	0.000	0.000	69.277	47.414	-4.948	MWD+IFR1+MS
19400.000	90.000	179.723	11391.997	71.442	0.000	69.770	-0.000	71.442	0.000	0.000	69.889	47.461	-4.837	MWD+IFR1+MS
19500.000	90.000	179.723	11391.997	72.161	0.000	70.388	-0.000	72.161	0.000	0.000	70.504	47.509	-4.732	MWD+IFR1+MS
19600.000	90.000	179.723	11391.997	72.881	0.000	71.009	-0.000	72.881	0.000	0.000	71.122	47.558	-4.630	MWD+IFR1+MS
19700.000	90.000	179.723	11391.997	73.603	0.000	71.632	-0.000	73.603	0.000	0.000	71.743	47.607	-4.533	MWD+IFR1+MS
19800.000	90.000	179.723	11391.997	74.326	0.000	72.259	-0.000	74.326	0.000	0.000	72.367	47.656	-4.439	MWD+IFR1+MS
19900.000	90.000	179.723	11391.997	75.050	0.000	72.888	-0.000	75.050	0.000	0.000	72.993	47.706	-4.350	MWD+IFR1+MS
20000.000	90.000	179.723	11391.997	75.775	0.000	73.520	-0.000	75.775	0.000	0.000	73.623	47.756	-4.264	MWD+IFR1+MS
20100.000	90.000	179.723	11391.997	76.502	0.000	74.154	-0.000	76.502	0.000	0.000	74.255	47.807	-4.181	MWD+IFR1+MS
20200.000	90.000	179.723	11391.997	77.229	0.000	74.790	-0.000	77.229	0.000	0.000	74.889	47.858	-4.101	MWD+IFR1+MS
20300.000	90.000	179.723	11391.997	77.958	0.000	75.429	-0.000	77.958	0.000	0.000	75.526	47.910	-4.025	MWD+IFR1+MS
20400.000	90.000	179.723	11391.997	78.688	0.000	76.071	-0.000	78.688	0.000	0.000	76.165	47.962	-3.951	MWD+IFR1+MS
20500.000	90.000	179.723	11391.997	79.419	0.000	76.714	-0.000	79.419	0.000	0.000	76.807	48.014	-3.880	MWD+IFR1+MS
20600.000	90.000	179.723	11391.997	80.151	0.000	77.360	-0.000	80.151	0.000	0.000	77.451	48.067	-3.811	MWD+IFR1+MS
20700.000	90.000	179.723	11391.997	80.883	0.000	78.008	-0.000	80.883	0.000	0.000	78.097	48.121	-3.745	MWD+IFR1+MS
20800.000	90.000	179.723	11391.997	81.617	0.000	78.658	-0.000	81.617	0.000	0.000	78.745	48.175	-3.681	MWD+IFR1+MS
20900.000	90.000	179.723	11391.997	82.352	0.000	79.311	-0.000	82.352	0.000	0.000	79.396	48.229	-3.619	MWD+IFR1+MS
21000.000	90.000	179.723	11391.997	83.088	0.000	79.965	-0.000	83.088	0.000	0.000	80.048	48.284	-3.559	MWD+IFR1+MS
21100.000	90.000	179.723	11391.997	83.824	0.000	80.621	-0.000	83.824	0.000	0.000	80.703	48.339	-3.502	MWD+IFR1+MS
21200.000	90.000	179.723	11391.997	84.562	0.000	81.279	-0.000	84.562	0.000	0.000	81.359	48.395	-3.446	MWD+IFR1+MS
21300.000	90.000	179.723	11391.997	85.300	0.000	81.939	-0.000	85.300	0.000	0.000	82.018	48.452	-3.392	MWD+IFR1+MS
21400.000	90.000	179.723	11391.997	86.039	0.000	82.601	-0.000	86.039	0.000	0.000	82.678	48.508	-3.339	MWD+IFR1+MS
21500.000	90.000	179.723	11391.997	86.779	0.000	83.264	-0.000	86.779	0.000	0.000	83.340	48.566	-3.289	MWD+IFR1+MS
21600.000	90.000	179.723	11391.997	87.520	0.000	83.930	-0.000	87.520	0.000	0.000	84.004	48.623	-3.239	MWD+IFR1+MS
21700.000	90.000	179.723	11391.997	88.261	0.000	84.597	-0.000	88.261	0.000	0.000	84.670	48.682	-3.192	MWD+IFR1+MS
21800.000	90.000	179.723	11391.997	89.003	0.000	85.265	-0.000	89.003	0.000	0.000	85.337	48.740	-3.145	MWD+IFR1+MS
21900.000	90.000	179.723	11391.997	89.746	0.000	85.935	-0.000	89.746	0.000	0.000	86.006	48.799	-3.100	MWD+IFR1+MS
22000.000	90.000	179.723	11391.997	90.490	0.000	86.607	-0.000	90.490	0.000	0.000	86.677	48.859	-3.057	MWD+IFR1+MS
22100.000	90.000	179.723	11391.997	91.234	0.000	87.281	-0.000	91.234	0.000	0.000	87.349	48.919	-3.014	MWD+IFR1+MS
22200.000	90.000	179.723	11391.997	91.979	0.000	87.956	-0.000	91.979	0.000	0.000	88.023	48.980	-2.973	MWD+IFR1+MS
22300.000	90.000	179.723	11391.997	92.725	0.000	88.632	-0.000	92.725	0.000	0.000	88.698	49.041	-2.933	MWD+IFR1+MS

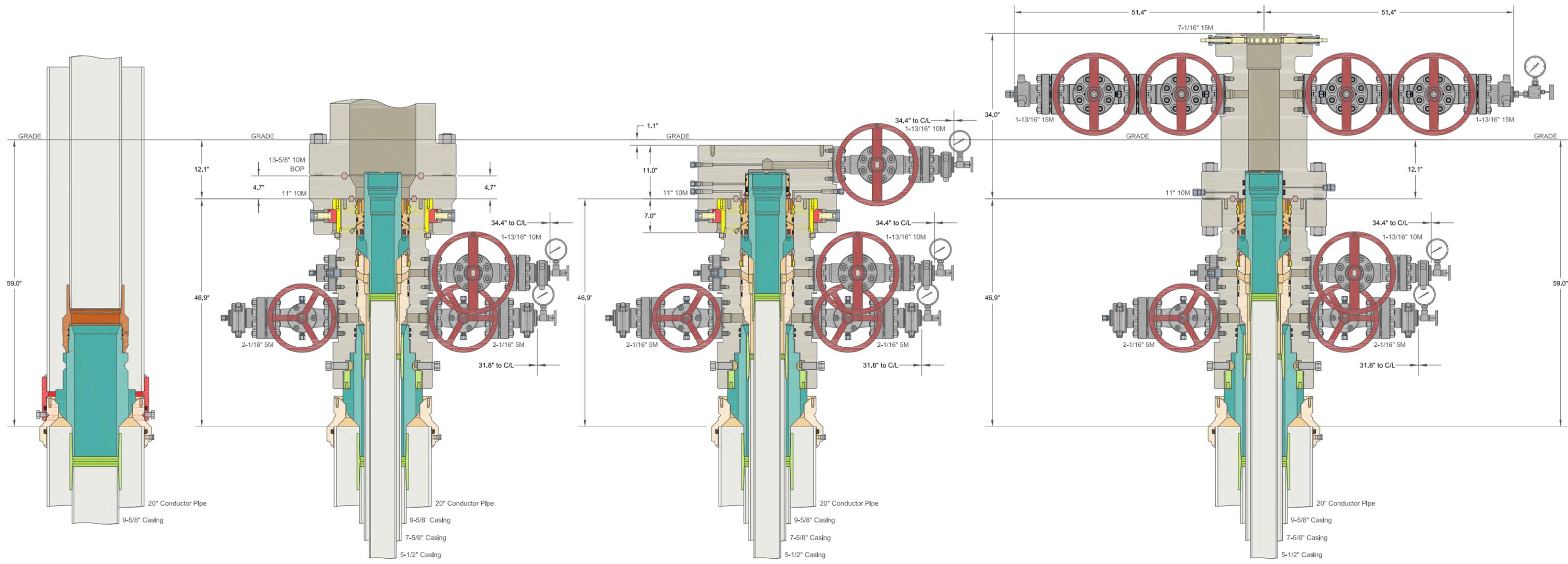
22400.000	90.000	179.723	11391.997	93.471	0.000	89.310	-0.000	93.471	0.000	0.000	89.375	49.102	-2.894	MWD+IFR1+MS
22500.000	90.000	179.723	11391.997	94.218	0.000	89.989	-0.000	94.218	0.000	0.000	90.053	49.164	-2.856	MWD+IFR1+MS
22600.000	90.000	179.723	11391.997	94.966	0.000	90.669	-0.000	94.966	0.000	0.000	90.732	49.226	-2.820	MWD+IFR1+MS
22700.000	90.000	179.723	11391.997	95.714	0.000	91.351	-0.000	95.714	0.000	0.000	91.413	49.289	-2.784	MWD+IFR1+MS
22800.000	90.000	179.723	11391.997	96.463	0.000	92.035	-0.000	96.463	0.000	0.000	92.096	49.353	-2.749	MWD+IFR1+MS
22900.000	90.000	179.723	11391.997	97.212	0.000	92.719	-0.000	97.212	0.000	0.000	92.779	49.417	-2.715	MWD+IFR1+MS
23000.000	90.000	179.723	11391.997	97.962	0.000	93.405	-0.000	97.962	0.000	0.000	93.464	49.481	-2.682	MWD+IFR1+MS
23100.000	90.000	179.723	11391.997	98.712	0.000	94.092	-0.000	98.712	0.000	0.000	94.150	49.546	-2.649	MWD+IFR1+MS
23200.000	90.000	179.723	11391.997	99.463	0.000	94.780	-0.000	99.463	0.000	0.000	94.838	49.611	-2.618	MWD+IFR1+MS
23300.000	90.000	179.723	11391.997	100.214	0.000	95.469	-0.000	100.214	0.000	0.000	95.526	49.677	-2.587	MWD+IFR1+MS
23400.000	90.000	179.723	11391.997	100.966	0.000	96.160	-0.000	100.966	0.000	0.000	96.216	49.743	-2.557	MWD+IFR1+MS
23500.000	90.000	179.723	11391.997	101.719	0.000	96.852	-0.000	101.719	0.000	0.000	96.907	49.809	-2.528	MWD+IFR1+MS
23600.000	90.000	179.723	11391.997	102.472	0.000	97.544	-0.000	102.472	0.000	0.000	97.599	49.876	-2.499	MWD+IFR1+MS
23700.000	90.000	179.723	11391.997	103.225	0.000	98.238	-0.000	103.225	0.000	0.000	98.292	49.944	-2.472	MWD+IFR1+MS
23800.000	90.000	179.723	11391.997	103.979	0.000	98.933	-0.000	103.979	0.000	0.000	98.986	50.012	-2.444	MWD+IFR1+MS
23900.000	90.000	179.723	11391.997	104.733	0.000	99.629	-0.000	104.733	0.000	0.000	99.681	50.080	-2.418	MWD+IFR1+MS
24000.000	90.000	179.723	11391.997	105.488	0.000	100.326	-0.000	105.488	0.000	0.000	100.377	50.149	-2.392	MWD+IFR1+MS
24100.000	90.000	179.723	11391.997	106.243	0.000	101.024	-0.000	106.243	0.000	0.000	101.075	50.219	-2.366	MWD+IFR1+MS
24200.000	90.000	179.723	11391.997	106.999	0.000	101.723	-0.000	106.999	0.000	0.000	101.773	50.288	-2.342	MWD+IFR1+MS
24300.000	90.000	179.723	11391.997	107.755	0.000	102.423	-0.000	107.755	0.000	0.000	102.472	50.359	-2.317	MWD+IFR1+MS
24400.000	90.000	179.723	11391.997	108.511	0.000	103.124	-0.000	108.511	0.000	0.000	103.172	50.429	-2.294	MWD+IFR1+MS
24500.000	90.000	179.723	11391.997	109.268	0.000	103.825	-0.000	109.268	0.000	0.000	103.873	50.500	-2.271	MWD+IFR1+MS
24600.000	90.000	179.723	11391.997	110.025	0.000	104.528	-0.000	110.025	0.000	0.000	104.575	50.572	-2.248	MWD+IFR1+MS
24700.000	90.000	179.723	11391.997	110.783	0.000	105.231	-0.000	110.783	0.000	0.000	105.278	50.644	-2.226	MWD+IFR1+MS
24800.000	90.000	179.723	11391.997	111.541	0.000	105.936	-0.000	111.541	0.000	0.000	105.982	50.717	-2.204	MWD+IFR1+MS
24900.000	90.000	179.723	11391.997	112.299	0.000	106.641	-0.000	112.299	0.000	0.000	106.687	50.789	-2.183	MWD+IFR1+MS
25000.000	90.000	179.723	11391.997	113.058	0.000	107.347	-0.000	113.058	0.000	0.000	107.392	50.863	-2.162	MWD+IFR1+MS
25100.000	90.000	179.723	11391.997	113.817	0.000	108.054	-0.000	113.817	0.000	0.000	108.098	50.937	-2.141	MWD+IFR1+MS
25200.000	90.000	179.723	11391.997	114.577	0.000	108.761	-0.000	114.577	0.000	0.000	108.805	51.011	-2.121	MWD+IFR1+MS
25300.000	90.000	179.723	11391.997	115.336	0.000	109.470	-0.000	115.336	0.000	0.000	109.513	51.085	-2.102	MWD+IFR1+MS
25400.000	90.000	179.723	11391.997	116.097	0.000	110.179	-0.000	116.097	0.000	0.000	110.222	51.161	-2.083	MWD+IFR1+MS
25500.000	90.000	179.723	11391.997	116.857	0.000	110.889	-0.000	116.857	0.000	0.000	110.931	51.236	-2.064	MWD+IFR1+MS
25600.000	90.000	179.723	11391.997	117.618	0.000	111.600	-0.000	117.618	0.000	0.000	111.642	51.312	-2.045	MWD+IFR1+MS

25700.000	90.000	179.723	11391.997	118.379	0.000	112.311	-0.000	118.379	0.000	0.000	112.352	51.388	-2.027	MWD+IFR1+MS
25800.000	90.000	179.723	11391.997	119.140	0.000	113.023	-0.000	119.140	0.000	0.000	113.064	51.465	-2.010	MWD+IFR1+MS
25900.000	90.000	179.723	11391.997	119.902	0.000	113.736	-0.000	119.902	0.000	0.000	113.776	51.542	-1.992	MWD+IFR1+MS
26000.000	90.000	179.723	11391.997	120.664	0.000	114.449	-0.000	120.664	0.000	0.000	114.489	51.620	-1.975	MWD+IFR1+MS
26100.000	90.000	179.723	11391.997	121.426	0.000	115.163	-0.000	121.426	0.000	0.000	115.203	51.698	-1.958	MWD+IFR1+MS
26200.000	90.000	179.723	11391.997	122.189	0.000	115.878	-0.000	122.189	0.000	0.000	115.917	51.777	-1.942	MWD+IFR1+MS
26300.000	90.000	179.723	11391.997	122.951	0.000	116.594	-0.000	122.951	0.000	0.000	116.632	51.856	-1.926	MWD+IFR1+MS
26400.000	90.000	179.723	11391.997	123.714	0.000	117.310	-0.000	123.714	0.000	0.000	117.348	51.935	-1.910	MWD+IFR1+MS
26500.000	90.000	179.723	11391.997	124.478	0.000	118.026	-0.000	124.478	0.000	0.000	118.064	52.015	-1.895	MWD+IFR1+MS
26600.000	90.000	179.723	11391.997	125.241	0.000	118.744	-0.000	125.241	0.000	0.000	118.781	52.095	-1.879	MWD+IFR1+MS
26700.000	90.000	179.723	11391.997	126.005	0.000	119.462	-0.000	126.005	0.000	0.000	119.499	52.175	-1.864	MWD+IFR1+MS
26759.661	90.000	179.723	11391.997	126.461	0.000	119.889	-0.000	126.461	0.000	0.000	119.926	52.224	-1.856	MWD+IFR1+MS

**Plan Targets**

Poker Lake Unit 19 DTD South 124H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 3	11697.42	440291.90	626333.60	8214.00	RECTANGLE
SHL 14	4187.98	439065.89	626948.89	0.00	RECTANGLE
LTP 3	26660.16	424860.40	626408.30	8214.00	RECTANGLE
BHL 3	26760.19	424760.40	626408.50	8214.00	RECTANGLE



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	

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

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

**Background**

Onshore Oil and Gas Order CFR Title 43 Part 3170, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. CFR Title 43 Part 3170 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

**Supporting Documentation**

CFR Title 43 Part 3170 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since CFR Title 43 Part 3170 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. CFR Title 43 Part 3170 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

62 API STANDARD 53			
Table C.4—Initial Pressure Testing, Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure <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.

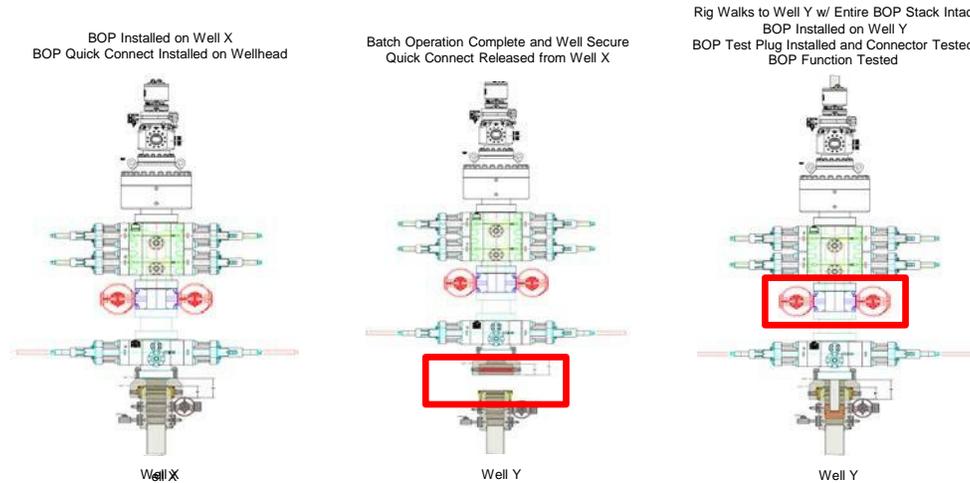
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

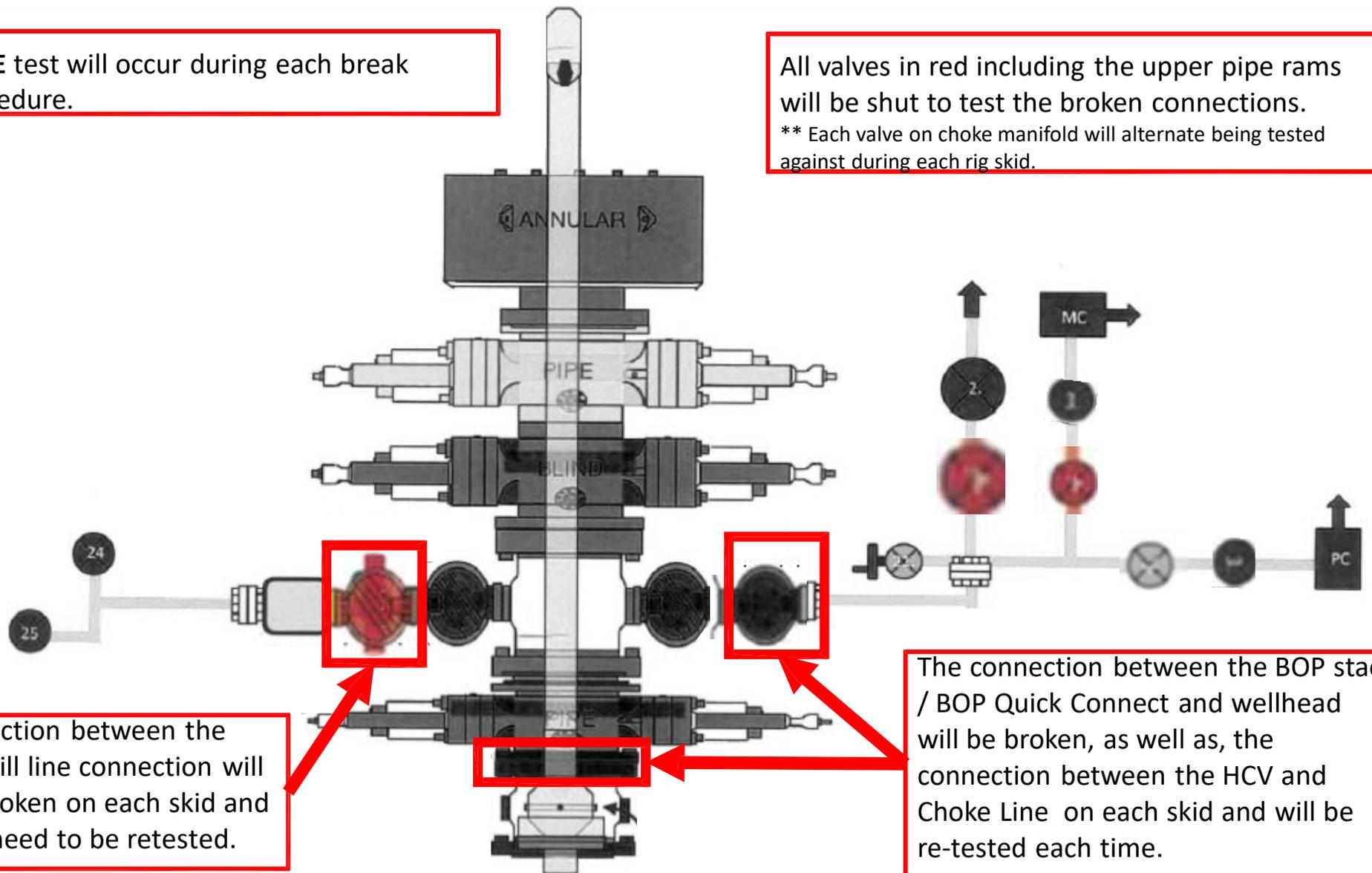
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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 II**  
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**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
 Action 330574

**CONDITIONS**

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 330574
	Action Type: [C-103] NOI Change of Plans (C-103A)

**CONDITIONS**

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