

<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> 111H	<b>Type of Well:</b> OIL 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> 3001553761	<b>Well Status:</b> Approved Application for Permit to Drill	<b>Operator:</b> XTO PERMIAN OPERATING LLC

**Notice of Intent**

**Sundry ID:** 2781290

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

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

**Time Sundry Submitted:** 03:00

**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: 1231' FNL & 369' FWL of Section 19-T24S-R30E 1159' FNL & 859' FWL of Section 19-T24S-R30E  
FTP: 100' FSL & 1110' FWL of Section 18-T24S-R30E 100' FNL & 1095' FWL of Section 19-T24S-R30E LTP: 100' FSL & 1110' FWL of Section 6-T24S-R30E 100' FSL & 1095' FEL of Section 31-T24S-R30E BHL: 50' FNL & 1110' FWL of Section 6-T24S-R30E 50' FSL & 1095' FWL of Section 31-T24S-R30E Proposed total depth will change from 25268' MD; 9095' TVD (Bone Spring) to 24553' MD; TVD 9037' (Bone Spring 2 Sand). 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\_111H\_Sundry\_Attachments\_20240322145833.pdf

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

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

**County or Parish/State:**

**Well Number:** 111H

**Type of Well:** OIL WELL

**Allottee or Tribe Name:**

**Lease Number:** NMNM002860

**Unit or CA Name:**

**Unit or CA Number:**  
NMNM71016X

**US Well Number:** 3001553761

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

**Operator:** XTO PERMIAN  
OPERATING LLC

### Conditions of Approval

#### Additional

Sec19\_24S\_30E\_NMP\_Sundry\_2781290\_Poker\_Lake\_Unit\_19\_DTD\_111H\_COAs\_20240408095756.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 10:45 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:** 04/09/2024

**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 / 1231 FNL / 369 FWL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.206801 / LONG: -103.928311 ( TVD: 0 feet, MD: 0 feet )  
PPP: SWSW / 330 FSL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22518 / LONG: -103.92594 ( TVD: 9095 feet, MD: 14900 feet )  
PPP: SWNW / 330 FSL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.23236 / LONG: -103.92594 ( TVD: 9095 feet, MD: 17600 feet )  
PPP: NWSW / 330 FSL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22881 / LONG: -103.92594 ( TVD: 9095 feet, MD: 16200 feet )  
PPP: SWSW / 330 FSL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.2397 / LONG: -103.92594 ( TVD: 9095 feet, MD: 20200 feet )  
PPP: SWSW / 100 FSL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210488 / LONG: -103.925925 ( TVD: 9095 feet, MD: 9600 feet )  
BHL: NWNW / 50 FNL / 1110 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.253813 / LONG: -103.925975 ( TVD: 9095 feet, MD: 25268 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 111H
<b>LOCATION:</b>	Sec 19-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781290** on 04/08/2024. 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** (due to not meeting 0.422" clearance requirement) into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

### **C. PRESSURE CONTROL**

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

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

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**AMENDED REPORT**

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-53761</b>		<sup>2</sup> Pool Code <b>47545</b>		<sup>3</sup> Pool Name <b>Nash Draw; Delaware/BS (Avalon Sand)</b>	
<sup>4</sup> Property Code <b>333976</b>		<sup>5</sup> Property Name <b>POKER LAKE UNIT 19 DTD</b>			<sup>6</sup> Well Number <b>111H</b>
<sup>7</sup> OGRID No. <b>373075</b>		<sup>8</sup> Operator Name <b>XTO PERMIAN OPERATING, LLC</b>			<sup>9</sup> Elevation <b>3,148'</b>

<sup>10</sup> Surface Location

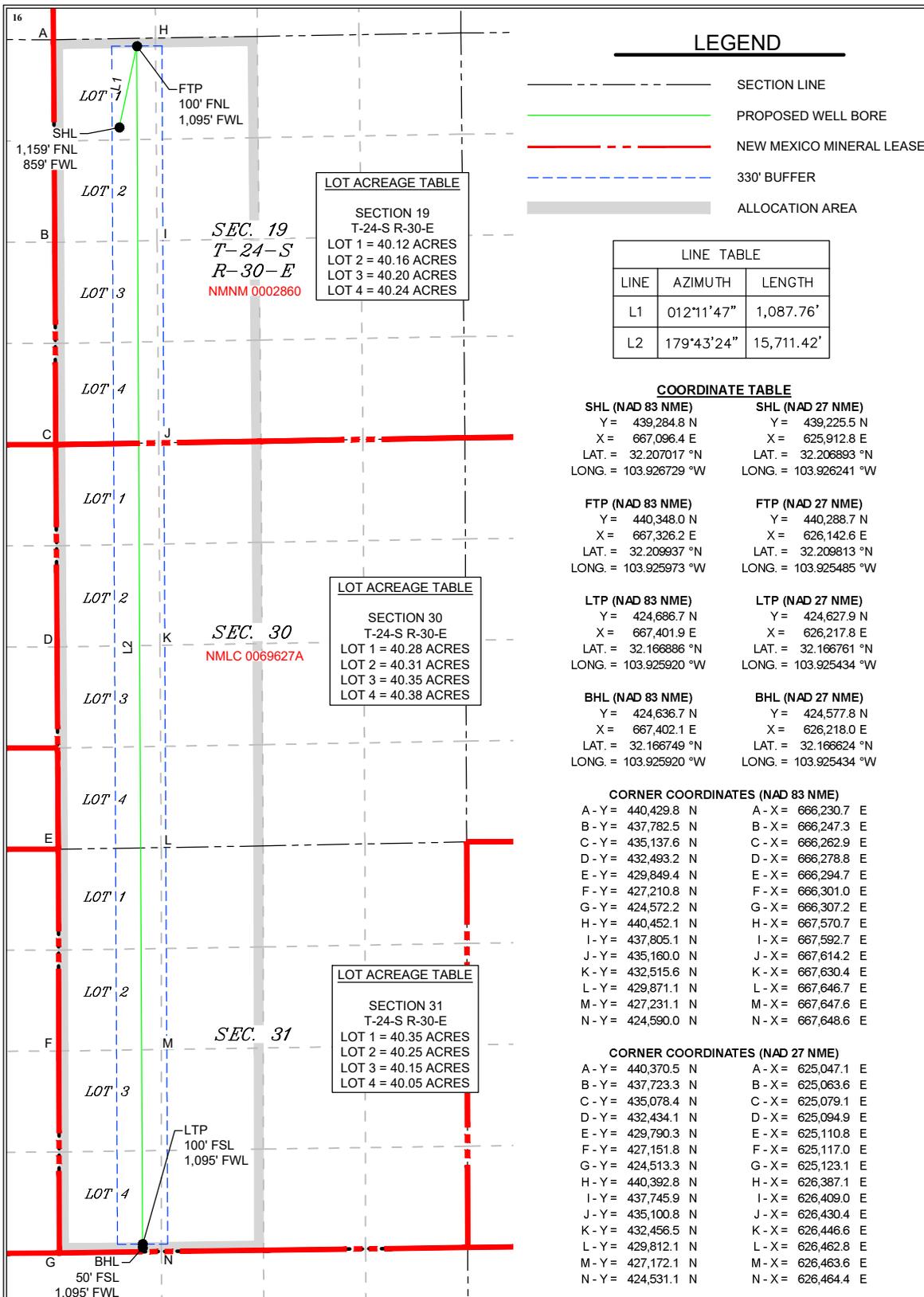
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>1</b>	<b>19</b>	<b>24S</b>	<b>30E</b>		<b>1,159</b>	<b>NORTH</b>	<b>859</b>	<b>WEST</b>	<b>EDDY</b>

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>4</b>	<b>31</b>	<b>24S</b>	<b>30E</b>		<b>50</b>	<b>SOUTH</b>	<b>1,095</b>	<b>WEST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres <b>962.84</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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:

*(Signature)*

**MARK DILLON HARP**  
NEW MEXICO  
23786  
PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786  
Certificate Number

DB 618.013003.05-35

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 111H  
 Projected TD: 24553.26' MD / 9037' TVD  
 SHL: 1159' FNL & 859' FWL , Section 19, T24S, R30E  
 BHL: 50' FSL & 1095' 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	567'	Water
Top of Salt	970'	Water
Base of Salt	3163'	Water
Delaware	3357'	Water
Brushy Canyon	5855'	Water/Oil/Gas
Bone Spring	7151'	Water
1st Bone Spring	8137'	Water/Oil/Gas
2nd Bone Spring	8955'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>9037'</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 13.375 inch casing @ 667' (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 9.625 inch casing at 8233.41' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 24553.26 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 7933.41 feet).

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 667'	13.375	54.5	J-55	BTC	New	1.61	3.88	25.01
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	3.46	2.48	3.84
12.25	4000' – 8233.41'	9.625	40	HC L-80	BTC	New	2.51	2.44	5.41
8.5	0' – 8133.41'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.88	2.16
8.5	8133.41' - 24553.26'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.60	2.16

- 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
- 9.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- 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: 13-5/8" 10M top flange x 13-3/8" SOW bottom (or equivalent)

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

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

#### 4. Cement Program

##### **Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 667'**

Lead: 270 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)  
 Tail: 300 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: 9.625, 40 New casing to be set at +/- 8233.41'**

###### 1st Stage

Optional Lead: 990 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)  
 TOC: Surface  
 Tail: 680 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)  
 TOC: Brushy Canyon @ 5855  
 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: 2060 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 (5855') 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-Premium, RY P-110 casing to be set at +/- 24553.26'**

Lead: 50 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement:           7933.41 feet  
 Tail: 3170 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement:           8433.41 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 13.375 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 2288 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 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

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

hole on each of the wells.

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

**6. Proposed Mud Circulation System**

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 667'	17.5	FW/Native	8.4-8.9	35-40	NC
667' - 8233.41'	12.25	FW / Cut Brine / Direct Emulsion	8.2-8.7	30-32	NC
8233.41' - 24553.26'	8.5	OBM	9.1-9.6	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 13.375 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 155 to 175 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 4276 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 111H

**Measured Depth:** 24553.26 ft

**TVD RKB:** 9037.00 ft

**Location**

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

**Northing:** 439225.50 ft

**Easting:** 625912.80 ft

**RKB:** 3180.00 ft

**Ground Level:** 3148.00 ft

**North Reference:** Grid

**Convergence Angle:** 0.22 Deg

**Plan Sections**

Poker Lake Unit 19 DTD South 111H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1715.85	12.32	12.20	1711.12	64.45	13.93	2.00	0.00	2.00	
6196.75	12.32	12.20	6088.88	998.75	215.87	0.00	0.00	0.00	
6812.61	0.00	0.00	6700.00	1063.20	229.80	-2.00	0.00	2.00	
8433.41	0.00	0.00	8320.80	1063.20	229.80	0.00	0.00	0.00	
9558.41	90.00	179.73	9037.00	347.01	233.24	8.00	0.00	8.00	
9976.52	90.00	179.73	9037.00	-71.09	235.24	0.00	0.00	0.00	LTP 8
24553.26	90.00	179.73	9037.00	-14647.68	305.21	0.00	0.00	0.00	BHL 8

**Position Uncertainty**

Poker Lake Unit 19 DTD South 111H

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

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	12.196	1199.980	5.125	0.000	4.414	0.000	2.685	0.000	0.000	5.297	4.209	126.644	MWD+IFR1+MS
1300.000	4.000	12.196	1299.838	5.900	0.000	4.787	0.000	2.745	0.000	0.000	6.075	4.575	122.834	MWD+IFR1+MS
1400.000	6.000	12.196	1399.452	6.598	0.000	5.157	0.000	2.810	0.000	0.000	6.786	4.933	121.024	MWD+IFR1+MS
1500.000	8.000	12.196	1498.702	7.238	0.000	5.524	0.000	2.882	0.000	0.000	7.446	5.287	119.979	MWD+IFR1+MS
1600.000	10.000	12.196	1597.465	7.833	0.000	5.890	0.000	2.965	0.000	0.000	8.066	5.641	119.308	MWD+IFR1+MS
1700.000	12.000	12.196	1695.623	8.393	0.000	6.255	0.000	3.059	0.000	0.000	8.653	5.994	118.848	MWD+IFR1+MS
1715.851	12.317	12.196	1711.119	8.430	0.000	6.309	0.000	3.065	0.000	0.000	8.697	6.051	118.813	MWD+IFR1+MS
1800.000	12.317	12.196	1793.331	8.661	0.000	6.599	0.000	3.129	0.000	0.000	8.920	6.351	118.824	MWD+IFR1+MS
1900.000	12.317	12.196	1891.029	8.950	0.000	6.963	0.000	3.211	0.000	0.000	9.205	6.718	119.105	MWD+IFR1+MS
2000.000	12.317	12.196	1988.727	9.250	0.000	7.332	0.000	3.296	0.000	0.000	9.501	7.088	119.444	MWD+IFR1+MS
2100.000	12.317	12.196	2086.425	9.557	0.000	7.703	0.000	3.385	0.000	0.000	9.804	7.459	119.772	MWD+IFR1+MS
2200.000	12.317	12.196	2184.124	9.869	0.000	8.074	0.000	3.477	0.000	0.000	10.112	7.831	120.092	MWD+IFR1+MS
2300.000	12.317	12.196	2281.822	10.187	0.000	8.446	0.000	3.571	0.000	0.000	10.425	8.203	120.402	MWD+IFR1+MS
2400.000	12.317	12.196	2379.520	10.509	0.000	8.818	0.000	3.668	0.000	0.000	10.742	8.576	120.704	MWD+IFR1+MS
2500.000	12.317	12.196	2477.218	10.836	0.000	9.191	0.000	3.768	0.000	0.000	11.063	8.949	120.996	MWD+IFR1+MS
2600.000	12.317	12.196	2574.916	11.166	0.000	9.564	0.000	3.870	0.000	0.000	11.388	9.322	121.280	MWD+IFR1+MS
2700.000	12.317	12.196	2672.615	11.501	0.000	9.938	0.000	3.973	0.000	0.000	11.717	9.696	121.555	MWD+IFR1+MS
2800.000	12.317	12.196	2770.313	11.839	0.000	10.312	0.000	4.079	0.000	0.000	12.048	10.069	121.821	MWD+IFR1+MS
2900.000	12.317	12.196	2868.011	12.179	0.000	10.686	0.000	4.187	0.000	0.000	12.383	10.444	122.080	MWD+IFR1+MS

3000.000	12.317	12.196	2965.709	12.523	0.000	11.061	0.000	4.297	0.000	0.000	12.720	10.818	122.330	MWD+IFR1+MS
3100.000	12.317	12.196	3063.408	12.869	0.000	11.435	0.000	4.409	0.000	0.000	13.060	11.193	122.573	MWD+IFR1+MS
3200.000	12.317	12.196	3161.106	13.218	0.000	11.810	0.000	4.522	0.000	0.000	13.402	11.568	122.808	MWD+IFR1+MS
3300.000	12.317	12.196	3258.804	13.569	0.000	12.186	0.000	4.638	0.000	0.000	13.746	11.943	123.036	MWD+IFR1+MS
3400.000	12.317	12.196	3356.502	13.922	0.000	12.561	0.000	4.755	0.000	0.000	14.092	12.318	123.256	MWD+IFR1+MS
3500.000	12.317	12.196	3454.200	14.276	0.000	12.937	0.000	4.873	0.000	0.000	14.439	12.693	123.469	MWD+IFR1+MS
3600.000	12.317	12.196	3551.899	14.633	0.000	13.312	0.000	4.993	0.000	0.000	14.789	13.069	123.675	MWD+IFR1+MS
3700.000	12.317	12.196	3649.597	14.991	0.000	13.688	0.000	5.115	0.000	0.000	15.140	13.445	123.874	MWD+IFR1+MS
3800.000	12.317	12.196	3747.295	15.351	0.000	14.064	0.000	5.239	0.000	0.000	15.492	13.821	124.066	MWD+IFR1+MS
3900.000	12.317	12.196	3844.993	15.712	0.000	14.441	0.000	5.364	0.000	0.000	15.846	14.197	124.252	MWD+IFR1+MS
4000.000	12.317	12.196	3942.692	16.074	0.000	14.817	0.000	5.491	0.000	0.000	16.201	14.573	124.432	MWD+IFR1+MS
4100.000	12.317	12.196	4040.390	16.438	0.000	15.193	0.000	5.619	0.000	0.000	16.557	14.949	124.605	MWD+IFR1+MS
4200.000	12.317	12.196	4138.088	16.802	0.000	15.570	0.000	5.749	0.000	0.000	16.914	15.325	124.773	MWD+IFR1+MS
4300.000	12.317	12.196	4235.786	17.168	0.000	15.946	0.000	5.880	0.000	0.000	17.272	15.702	124.934	MWD+IFR1+MS
4400.000	12.317	12.196	4333.484	17.535	0.000	16.323	0.000	6.013	0.000	0.000	17.631	16.078	125.090	MWD+IFR1+MS
4500.000	12.317	12.196	4431.183	17.903	0.000	16.700	0.000	6.148	0.000	0.000	17.992	16.455	125.239	MWD+IFR1+MS
4600.000	12.317	12.196	4528.881	18.271	0.000	17.076	0.000	6.284	0.000	0.000	18.353	16.832	125.384	MWD+IFR1+MS
4700.000	12.317	12.196	4626.579	18.641	0.000	17.453	0.000	6.422	0.000	0.000	18.714	17.208	125.522	MWD+IFR1+MS
4800.000	12.317	12.196	4724.277	19.011	0.000	17.830	0.000	6.562	0.000	0.000	19.077	17.585	125.656	MWD+IFR1+MS
4900.000	12.317	12.196	4821.976	19.382	0.000	18.207	0.000	6.703	0.000	0.000	19.440	17.962	125.784	MWD+IFR1+MS
5000.000	12.317	12.196	4919.674	19.754	0.000	18.584	0.000	6.846	0.000	0.000	19.804	18.339	125.908	MWD+IFR1+MS
5100.000	12.317	12.196	5017.372	20.126	0.000	18.961	0.000	6.991	0.000	0.000	20.169	18.717	126.026	MWD+IFR1+MS
5200.000	12.317	12.196	5115.070	20.499	0.000	19.338	0.000	7.137	0.000	0.000	20.534	19.094	126.139	MWD+IFR1+MS
5300.000	12.317	12.196	5212.768	20.873	0.000	19.716	0.000	7.285	0.000	0.000	20.900	19.471	126.248	MWD+IFR1+MS
5400.000	12.317	12.196	5310.467	21.247	0.000	20.093	0.000	7.435	0.000	0.000	21.266	19.848	126.352	MWD+IFR1+MS
5500.000	12.317	12.196	5408.165	21.622	0.000	20.470	0.000	7.587	0.000	0.000	21.633	20.226	126.451	MWD+IFR1+MS
5600.000	12.317	12.196	5505.863	21.997	0.000	20.847	0.000	7.740	0.000	0.000	22.000	20.603	126.546	MWD+IFR1+MS
5700.000	12.317	12.196	5603.561	22.372	0.000	21.225	0.000	7.896	0.000	0.000	22.368	20.981	126.637	MWD+IFR1+MS
5800.000	12.317	12.196	5701.260	22.748	0.000	21.602	0.000	8.053	0.000	0.000	22.736	21.358	126.723	MWD+IFR1+MS
5900.000	12.317	12.196	5798.958	23.125	0.000	21.979	0.000	8.212	0.000	0.000	23.105	21.736	126.805	MWD+IFR1+MS
6000.000	12.317	12.196	5896.656	23.502	0.000	22.357	0.000	8.373	0.000	0.000	23.474	22.114	126.882	MWD+IFR1+MS
6100.000	12.317	12.196	5994.354	23.879	0.000	22.734	0.000	8.536	0.000	0.000	23.844	22.491	126.956	MWD+IFR1+MS
6196.754	12.317	12.196	6088.881	24.244	0.000	23.099	0.000	8.695	0.000	0.000	24.201	22.857	127.010	MWD+IFR1+MS

6200.000	12.252	12.196	6092.053	24.257	0.000	23.111	0.000	8.700	0.000	0.000	24.212	22.869	127.006	MWD+IFR1+MS
6300.000	10.252	12.196	6190.126	24.676	0.000	23.480	0.000	8.868	0.000	0.000	24.597	23.243	126.643	MWD+IFR1+MS
6400.000	8.252	12.196	6288.820	25.140	0.000	23.850	0.000	9.038	0.000	0.000	25.056	23.613	125.749	MWD+IFR1+MS
6500.000	6.252	12.196	6388.015	25.565	0.000	24.213	0.000	9.201	0.000	0.000	25.509	23.977	124.975	MWD+IFR1+MS
6600.000	4.252	12.196	6487.590	25.952	0.000	24.570	0.000	9.358	0.000	0.000	25.955	24.334	124.309	MWD+IFR1+MS
6700.000	2.252	12.196	6587.424	26.301	0.000	24.921	0.000	9.509	0.000	0.000	26.391	24.684	123.738	MWD+IFR1+MS
6800.000	0.252	12.196	6687.395	26.610	0.000	25.265	0.000	9.656	0.000	0.000	26.818	25.027	123.252	MWD+IFR1+MS
6812.605	0.000	0.000	6700.000	26.333	0.000	25.620	0.000	9.675	0.000	0.000	26.858	25.070	123.245	MWD+IFR1+MS
6900.000	0.000	0.000	6787.395	26.617	0.000	25.909	0.000	9.803	0.000	0.000	27.136	25.364	123.213	MWD+IFR1+MS
7000.000	0.000	0.000	6887.395	26.946	0.000	26.244	0.000	9.952	0.000	0.000	27.463	25.703	123.248	MWD+IFR1+MS
7100.000	0.000	0.000	6987.395	27.276	0.000	26.581	0.000	10.103	0.000	0.000	27.792	26.042	123.293	MWD+IFR1+MS
7200.000	0.000	0.000	7087.395	27.607	0.000	26.918	0.000	10.258	0.000	0.000	28.121	26.381	123.337	MWD+IFR1+MS
7300.000	0.000	0.000	7187.395	27.939	0.000	27.256	0.000	10.416	0.000	0.000	28.451	26.721	123.380	MWD+IFR1+MS
7400.000	0.000	0.000	7287.395	28.271	0.000	27.595	0.000	10.576	0.000	0.000	28.782	27.061	123.423	MWD+IFR1+MS
7500.000	0.000	0.000	7387.395	28.604	0.000	27.934	0.000	10.740	0.000	0.000	29.114	27.402	123.466	MWD+IFR1+MS
7600.000	0.000	0.000	7487.395	28.938	0.000	28.273	0.000	10.906	0.000	0.000	29.446	27.743	123.508	MWD+IFR1+MS
7700.000	0.000	0.000	7587.395	29.272	0.000	28.613	0.000	11.075	0.000	0.000	29.779	28.085	123.549	MWD+IFR1+MS
7800.000	0.000	0.000	7687.395	29.606	0.000	28.953	0.000	11.248	0.000	0.000	30.112	28.427	123.590	MWD+IFR1+MS
7900.000	0.000	0.000	7787.395	29.942	0.000	29.294	0.000	11.423	0.000	0.000	30.446	28.770	123.630	MWD+IFR1+MS
8000.000	0.000	0.000	7887.395	30.277	0.000	29.635	0.000	11.601	0.000	0.000	30.780	29.113	123.670	MWD+IFR1+MS
8100.000	0.000	0.000	7987.395	30.614	0.000	29.977	0.000	11.782	0.000	0.000	31.115	29.456	123.709	MWD+IFR1+MS
8200.000	0.000	0.000	8087.395	30.951	0.000	30.319	0.000	11.967	0.000	0.000	31.451	29.799	123.748	MWD+IFR1+MS
8300.000	0.000	0.000	8187.395	31.288	0.000	30.661	0.000	12.154	0.000	0.000	31.787	30.143	123.786	MWD+IFR1+MS
8400.000	0.000	0.000	8287.395	31.626	0.000	31.004	0.000	12.344	0.000	0.000	32.123	30.488	123.824	MWD+IFR1+MS
8433.405	0.000	0.000	8320.800	31.737	0.000	31.117	0.000	12.409	0.000	0.000	32.233	30.603	123.815	MWD+IFR1+MS
8500.000	5.328	179.725	8387.299	31.538	0.000	31.335	-0.000	12.535	0.000	0.000	32.478	30.834	122.875	MWD+IFR1+MS
8600.000	13.328	179.725	8485.896	31.639	0.000	31.622	-0.000	12.784	0.000	0.000	33.473	31.274	112.795	MWD+IFR1+MS
8700.000	21.328	179.725	8581.281	31.654	0.000	31.884	-0.000	13.236	0.000	0.000	34.763	31.622	106.133	MWD+IFR1+MS
8800.000	29.328	179.725	8671.595	31.224	0.000	32.118	-0.000	13.960	0.000	0.000	35.901	31.890	103.140	MWD+IFR1+MS
8900.000	37.328	179.725	8755.081	30.433	0.000	32.322	-0.000	14.990	0.000	0.000	36.844	32.106	101.619	MWD+IFR1+MS
9000.000	45.328	179.725	8830.115	29.392	0.000	32.495	-0.000	16.317	0.000	0.000	37.584	32.283	100.830	MWD+IFR1+MS
9100.000	53.328	179.725	8895.235	28.242	0.000	32.637	-0.000	17.895	0.000	0.000	38.126	32.423	100.466	MWD+IFR1+MS
9200.000	61.328	179.725	8949.175	27.152	0.000	32.750	-0.000	19.657	0.000	0.000	38.488	32.529	100.373	MWD+IFR1+MS

9300.000	69.328	179.725	8990.884	26.307	0.000	32.834	-0.000	21.534	0.000	0.000	38.699	32.604	100.457	MWD+IFR1+MS
9400.000	77.328	179.725	9019.551	25.894	0.000	32.890	-0.000	23.456	0.000	0.000	38.797	32.650	100.639	MWD+IFR1+MS
9500.000	85.328	179.725	9034.617	26.053	0.000	32.918	-0.000	25.359	0.000	0.000	38.824	32.669	100.835	MWD+IFR1+MS
9558.405	90.000	179.725	9036.997	25.828	0.000	32.919	-0.000	25.828	0.000	0.000	38.827	32.666	100.905	MWD+IFR1+MS
9600.000	90.000	179.725	9036.997	25.935	0.000	32.916	-0.000	25.935	0.000	0.000	38.829	32.662	100.947	MWD+IFR1+MS
9700.000	90.000	179.725	9036.997	26.146	0.000	32.928	-0.000	26.146	0.000	0.000	38.834	32.668	101.077	MWD+IFR1+MS
9800.000	90.000	179.725	9036.997	26.382	0.000	32.961	-0.000	26.382	0.000	0.000	38.840	32.694	101.240	MWD+IFR1+MS
9900.000	90.000	179.725	9036.997	26.639	0.000	33.011	-0.000	26.639	0.000	0.000	38.848	32.737	101.434	MWD+IFR1+MS
9976.516	90.000	179.725	9036.997	26.847	0.000	33.058	-0.000	26.847	0.000	0.000	38.854	32.778	101.599	MWD+IFR1+MS
10000.000	90.000	179.725	9036.997	26.913	0.000	33.074	-0.000	26.913	0.000	0.000	38.857	32.792	101.652	MWD+IFR1+MS
10100.000	90.000	179.725	9036.997	27.206	0.000	33.156	-0.000	27.206	0.000	0.000	38.867	32.866	101.906	MWD+IFR1+MS
10200.000	90.000	179.725	9036.997	27.522	0.000	33.259	-0.000	27.522	0.000	0.000	38.878	32.959	102.203	MWD+IFR1+MS
10300.000	90.000	179.725	9036.997	27.857	0.000	33.379	-0.000	27.857	0.000	0.000	38.892	33.068	102.540	MWD+IFR1+MS
10400.000	90.000	179.725	9036.997	28.210	0.000	33.516	-0.000	28.210	0.000	0.000	38.906	33.194	102.923	MWD+IFR1+MS
10500.000	90.000	179.725	9036.997	28.580	0.000	33.670	-0.000	28.580	0.000	0.000	38.923	33.335	103.356	MWD+IFR1+MS
10600.000	90.000	179.725	9036.997	28.967	0.000	33.840	-0.000	28.967	0.000	0.000	38.942	33.491	103.845	MWD+IFR1+MS
10700.000	90.000	179.725	9036.997	29.370	0.000	34.027	-0.000	29.370	0.000	0.000	38.963	33.662	104.398	MWD+IFR1+MS
10800.000	90.000	179.725	9036.997	29.787	0.000	34.230	-0.000	29.787	0.000	0.000	38.986	33.847	105.023	MWD+IFR1+MS
10900.000	90.000	179.725	9036.997	30.220	0.000	34.449	-0.000	30.220	0.000	0.000	39.012	34.046	105.733	MWD+IFR1+MS
11000.000	90.000	179.725	9036.997	30.666	0.000	34.683	-0.000	30.666	0.000	0.000	39.042	34.258	106.539	MWD+IFR1+MS
11100.000	90.000	179.725	9036.997	31.126	0.000	34.933	-0.000	31.126	0.000	0.000	39.075	34.481	107.457	MWD+IFR1+MS
11200.000	90.000	179.725	9036.997	31.598	0.000	35.197	-0.000	31.598	0.000	0.000	39.113	34.716	108.508	MWD+IFR1+MS
11300.000	90.000	179.725	9036.997	32.083	0.000	35.476	-0.000	32.083	0.000	0.000	39.155	34.960	109.713	MWD+IFR1+MS
11400.000	90.000	179.725	9036.997	32.580	0.000	35.769	-0.000	32.580	0.000	0.000	39.204	35.213	111.100	MWD+IFR1+MS
11500.000	90.000	179.725	9036.997	33.087	0.000	36.076	-0.000	33.087	0.000	0.000	39.261	35.474	112.702	MWD+IFR1+MS
11600.000	90.000	179.725	9036.997	33.606	0.000	36.397	-0.000	33.606	0.000	0.000	39.327	35.738	114.556	MWD+IFR1+MS
11700.000	90.000	179.725	9036.997	34.134	0.000	36.731	-0.000	34.134	0.000	0.000	39.404	36.006	116.700	MWD+IFR1+MS
11800.000	90.000	179.725	9036.997	34.672	0.000	37.077	-0.000	34.672	0.000	0.000	39.494	36.273	119.174	MWD+IFR1+MS
11900.000	90.000	179.725	9036.997	35.220	0.000	37.436	-0.000	35.220	0.000	0.000	39.602	36.536	122.010	MWD+IFR1+MS
12000.000	90.000	179.725	9036.997	35.776	0.000	37.807	-0.000	35.776	0.000	0.000	39.731	36.791	125.218	MWD+IFR1+MS
12100.000	90.000	179.725	9036.997	36.341	0.000	38.190	-0.000	36.341	0.000	0.000	39.884	37.033	128.776	MWD+IFR1+MS
12200.000	90.000	179.725	9036.997	36.914	0.000	38.584	-0.000	36.914	0.000	0.000	40.065	37.259	132.613	MWD+IFR1+MS
12300.000	90.000	179.725	9036.997	37.494	0.000	38.990	-0.000	37.494	0.000	0.000	40.278	37.465	-43.391	MWD+IFR1+MS

12400.000	90.000	179.725	9036.997	38.082	0.000	39.405	-0.000	38.082	0.000	0.000	40.525	37.649	-39.390	MWD+IFR1+MS
12500.000	90.000	179.725	9036.997	38.677	0.000	39.832	-0.000	38.677	0.000	0.000	40.805	37.810	-35.539	MWD+IFR1+MS
12600.000	90.000	179.725	9036.997	39.278	0.000	40.268	-0.000	39.278	0.000	0.000	41.117	37.950	-31.959	MWD+IFR1+MS
12700.000	90.000	179.725	9036.997	39.886	0.000	40.714	-0.000	39.886	0.000	0.000	41.458	38.071	-28.725	MWD+IFR1+MS
12800.000	90.000	179.725	9036.997	40.500	0.000	41.170	-0.000	40.500	0.000	0.000	41.826	38.176	-25.860	MWD+IFR1+MS
12900.000	90.000	179.725	9036.997	41.120	0.000	41.634	-0.000	41.120	0.000	0.000	42.217	38.266	-23.354	MWD+IFR1+MS
13000.000	90.000	179.725	9036.997	41.745	0.000	42.108	-0.000	41.745	0.000	0.000	42.629	38.346	-21.178	MWD+IFR1+MS
13100.000	90.000	179.725	9036.997	42.376	0.000	42.590	-0.000	42.376	0.000	0.000	43.058	38.416	-19.292	MWD+IFR1+MS
13200.000	90.000	179.725	9036.997	43.011	0.000	43.080	-0.000	43.011	0.000	0.000	43.504	38.479	-17.656	MWD+IFR1+MS
13300.000	90.000	179.725	9036.997	43.652	0.000	43.578	-0.000	43.652	0.000	0.000	43.964	38.536	-16.233	MWD+IFR1+MS
13400.000	90.000	179.725	9036.997	44.297	0.000	44.083	-0.000	44.297	0.000	0.000	44.437	38.589	-14.990	MWD+IFR1+MS
13500.000	90.000	179.725	9036.997	44.946	0.000	44.596	-0.000	44.946	0.000	0.000	44.922	38.638	-13.900	MWD+IFR1+MS
13600.000	90.000	179.725	9036.997	45.600	0.000	45.117	-0.000	45.600	0.000	0.000	45.417	38.683	-12.940	MWD+IFR1+MS
13700.000	90.000	179.725	9036.997	46.258	0.000	45.644	-0.000	46.258	0.000	0.000	45.923	38.727	-12.089	MWD+IFR1+MS
13800.000	90.000	179.725	9036.997	46.920	0.000	46.178	-0.000	46.920	0.000	0.000	46.437	38.768	-11.331	MWD+IFR1+MS
13900.000	90.000	179.725	9036.997	47.586	0.000	46.718	-0.000	47.586	0.000	0.000	46.960	38.807	-10.654	MWD+IFR1+MS
14000.000	90.000	179.725	9036.997	48.255	0.000	47.264	-0.000	48.255	0.000	0.000	47.491	38.846	-10.046	MWD+IFR1+MS
14100.000	90.000	179.725	9036.997	48.927	0.000	47.817	-0.000	48.927	0.000	0.000	48.030	38.883	-9.498	MWD+IFR1+MS
14200.000	90.000	179.725	9036.997	49.603	0.000	48.375	-0.000	49.603	0.000	0.000	48.576	38.920	-9.001	MWD+IFR1+MS
14300.000	90.000	179.725	9036.997	50.282	0.000	48.939	-0.000	50.282	0.000	0.000	49.128	38.955	-8.549	MWD+IFR1+MS
14400.000	90.000	179.725	9036.997	50.964	0.000	49.509	-0.000	50.964	0.000	0.000	49.688	38.991	-8.138	MWD+IFR1+MS
14500.000	90.000	179.725	9036.997	51.649	0.000	50.083	-0.000	51.649	0.000	0.000	50.253	39.026	-7.761	MWD+IFR1+MS
14600.000	90.000	179.725	9036.997	52.337	0.000	50.663	-0.000	52.337	0.000	0.000	50.824	39.060	-7.414	MWD+IFR1+MS
14700.000	90.000	179.725	9036.997	53.028	0.000	51.247	-0.000	53.028	0.000	0.000	51.400	39.095	-7.096	MWD+IFR1+MS
14800.000	90.000	179.725	9036.997	53.721	0.000	51.836	-0.000	53.721	0.000	0.000	51.982	39.129	-6.801	MWD+IFR1+MS
14900.000	90.000	179.725	9036.997	54.416	0.000	52.430	-0.000	54.416	0.000	0.000	52.569	39.163	-6.529	MWD+IFR1+MS
15000.000	90.000	179.725	9036.997	55.114	0.000	53.028	-0.000	55.114	0.000	0.000	53.161	39.198	-6.276	MWD+IFR1+MS
15100.000	90.000	179.725	9036.997	55.815	0.000	53.631	-0.000	55.815	0.000	0.000	53.758	39.232	-6.041	MWD+IFR1+MS
15200.000	90.000	179.725	9036.997	56.517	0.000	54.237	-0.000	56.517	0.000	0.000	54.359	39.267	-5.822	MWD+IFR1+MS
15300.000	90.000	179.725	9036.997	57.222	0.000	54.848	-0.000	57.222	0.000	0.000	54.964	39.301	-5.617	MWD+IFR1+MS
15400.000	90.000	179.725	9036.997	57.928	0.000	55.462	-0.000	57.928	0.000	0.000	55.574	39.336	-5.425	MWD+IFR1+MS
15500.000	90.000	179.725	9036.997	58.637	0.000	56.080	-0.000	58.637	0.000	0.000	56.188	39.371	-5.246	MWD+IFR1+MS
15600.000	90.000	179.725	9036.997	59.348	0.000	56.702	-0.000	59.348	0.000	0.000	56.805	39.406	-5.077	MWD+IFR1+MS

15700.000	90.000	179.725	9036.997	60.060	0.000	57.327	-0.000	60.060	0.000	0.000	57.427	39.441	-4.918	MWD+IFR1+MS
15800.000	90.000	179.725	9036.997	60.774	0.000	57.956	-0.000	60.774	0.000	0.000	58.051	39.477	-4.768	MWD+IFR1+MS
15900.000	90.000	179.725	9036.997	61.490	0.000	58.587	-0.000	61.490	0.000	0.000	58.680	39.513	-4.627	MWD+IFR1+MS
16000.000	90.000	179.725	9036.997	62.208	0.000	59.222	-0.000	62.208	0.000	0.000	59.312	39.549	-4.494	MWD+IFR1+MS
16100.000	90.000	179.725	9036.997	62.927	0.000	59.860	-0.000	62.927	0.000	0.000	59.946	39.586	-4.368	MWD+IFR1+MS
16200.000	90.000	179.725	9036.997	63.648	0.000	60.501	-0.000	63.648	0.000	0.000	60.585	39.623	-4.248	MWD+IFR1+MS
16300.000	90.000	179.725	9036.997	64.370	0.000	61.145	-0.000	64.370	0.000	0.000	61.226	39.660	-4.134	MWD+IFR1+MS
16400.000	90.000	179.725	9036.997	65.094	0.000	61.792	-0.000	65.094	0.000	0.000	61.870	39.697	-4.027	MWD+IFR1+MS
16500.000	90.000	179.725	9036.997	65.819	0.000	62.441	-0.000	65.819	0.000	0.000	62.516	39.735	-3.924	MWD+IFR1+MS
16600.000	90.000	179.725	9036.997	66.545	0.000	63.093	-0.000	66.545	0.000	0.000	63.166	39.774	-3.827	MWD+IFR1+MS
16700.000	90.000	179.725	9036.997	67.273	0.000	63.747	-0.000	67.273	0.000	0.000	63.818	39.812	-3.734	MWD+IFR1+MS
16800.000	90.000	179.725	9036.997	68.002	0.000	64.404	-0.000	68.002	0.000	0.000	64.473	39.851	-3.645	MWD+IFR1+MS
16900.000	90.000	179.725	9036.997	68.732	0.000	65.063	-0.000	68.732	0.000	0.000	65.130	39.891	-3.560	MWD+IFR1+MS
17000.000	90.000	179.725	9036.997	69.464	0.000	65.725	-0.000	69.464	0.000	0.000	65.790	39.930	-3.479	MWD+IFR1+MS
17100.000	90.000	179.725	9036.997	70.197	0.000	66.389	-0.000	70.197	0.000	0.000	66.452	39.971	-3.402	MWD+IFR1+MS
17200.000	90.000	179.725	9036.997	70.930	0.000	67.055	-0.000	70.930	0.000	0.000	67.116	40.011	-3.328	MWD+IFR1+MS
17300.000	90.000	179.725	9036.997	71.665	0.000	67.723	-0.000	71.665	0.000	0.000	67.782	40.052	-3.257	MWD+IFR1+MS
17400.000	90.000	179.725	9036.997	72.401	0.000	68.393	-0.000	72.401	0.000	0.000	68.451	40.093	-3.189	MWD+IFR1+MS
17500.000	90.000	179.725	9036.997	73.138	0.000	69.065	-0.000	73.138	0.000	0.000	69.121	40.135	-3.124	MWD+IFR1+MS
17600.000	90.000	179.725	9036.997	73.876	0.000	69.739	-0.000	73.876	0.000	0.000	69.794	40.177	-3.061	MWD+IFR1+MS
17700.000	90.000	179.725	9036.997	74.614	0.000	70.415	-0.000	74.614	0.000	0.000	70.469	40.220	-3.001	MWD+IFR1+MS
17800.000	90.000	179.725	9036.997	75.354	0.000	71.092	-0.000	75.354	0.000	0.000	71.145	40.263	-2.943	MWD+IFR1+MS
17900.000	90.000	179.725	9036.997	76.095	0.000	71.772	-0.000	76.095	0.000	0.000	71.823	40.306	-2.887	MWD+IFR1+MS
18000.000	90.000	179.725	9036.997	76.836	0.000	72.453	-0.000	76.836	0.000	0.000	72.503	40.350	-2.834	MWD+IFR1+MS
18100.000	90.000	179.725	9036.997	77.579	0.000	73.136	-0.000	77.579	0.000	0.000	73.185	40.394	-2.782	MWD+IFR1+MS
18200.000	90.000	179.725	9036.997	78.322	0.000	73.820	-0.000	78.322	0.000	0.000	73.868	40.439	-2.732	MWD+IFR1+MS
18300.000	90.000	179.725	9036.997	79.066	0.000	74.506	-0.000	79.066	0.000	0.000	74.553	40.484	-2.684	MWD+IFR1+MS
18400.000	90.000	179.725	9036.997	79.811	0.000	75.194	-0.000	79.811	0.000	0.000	75.239	40.529	-2.638	MWD+IFR1+MS
18500.000	90.000	179.725	9036.997	80.556	0.000	75.883	-0.000	80.556	0.000	0.000	75.927	40.575	-2.593	MWD+IFR1+MS
18600.000	90.000	179.725	9036.997	81.303	0.000	76.574	-0.000	81.303	0.000	0.000	76.617	40.621	-2.550	MWD+IFR1+MS
18700.000	90.000	179.725	9036.997	82.050	0.000	77.266	-0.000	82.050	0.000	0.000	77.308	40.668	-2.508	MWD+IFR1+MS
18800.000	90.000	179.725	9036.997	82.797	0.000	77.959	-0.000	82.797	0.000	0.000	78.000	40.715	-2.468	MWD+IFR1+MS
18900.000	90.000	179.725	9036.997	83.546	0.000	78.653	-0.000	83.546	0.000	0.000	78.694	40.763	-2.429	MWD+IFR1+MS

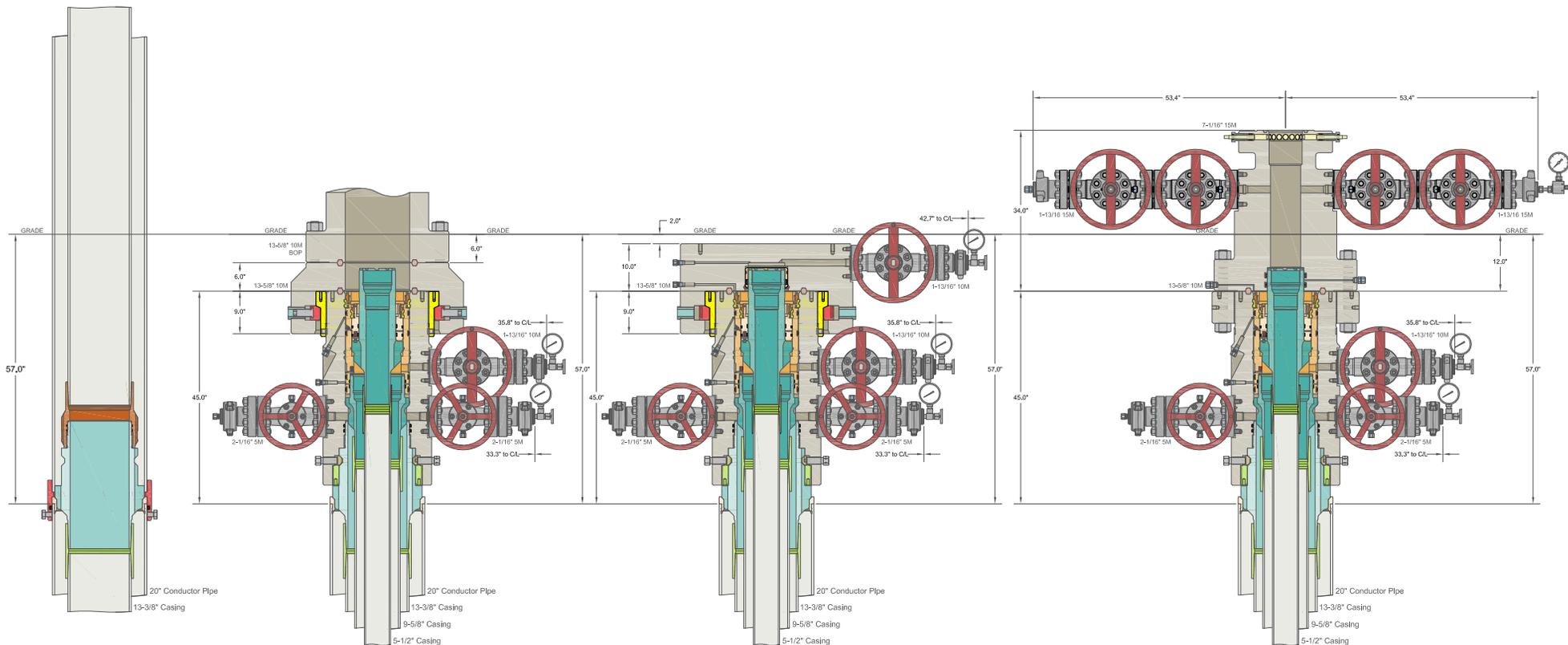
19000.000	90.000	179.725	9036.997	84.295	0.000	79.349	-0.000	84.295	0.000	0.000	79.389	40.811	-2.391	MWD+IFR1+MS
19100.000	90.000	179.725	9036.997	85.044	0.000	80.047	-0.000	85.044	0.000	0.000	80.086	40.859	-2.354	MWD+IFR1+MS
19200.000	90.000	179.725	9036.997	85.795	0.000	80.745	-0.000	85.795	0.000	0.000	80.783	40.908	-2.319	MWD+IFR1+MS
19300.000	90.000	179.725	9036.997	86.546	0.000	81.445	-0.000	86.546	0.000	0.000	81.482	40.957	-2.284	MWD+IFR1+MS
19400.000	90.000	179.725	9036.997	87.297	0.000	82.146	-0.000	87.297	0.000	0.000	82.182	41.006	-2.251	MWD+IFR1+MS
19500.000	90.000	179.725	9036.997	88.049	0.000	82.848	-0.000	88.049	0.000	0.000	82.884	41.056	-2.218	MWD+IFR1+MS
19600.000	90.000	179.725	9036.997	88.802	0.000	83.551	-0.000	88.802	0.000	0.000	83.586	41.107	-2.187	MWD+IFR1+MS
19700.000	90.000	179.725	9036.997	89.555	0.000	84.255	-0.000	89.555	0.000	0.000	84.290	41.158	-2.156	MWD+IFR1+MS
19800.000	90.000	179.725	9036.997	90.309	0.000	84.960	-0.000	90.309	0.000	0.000	84.994	41.209	-2.127	MWD+IFR1+MS
19900.000	90.000	179.725	9036.997	91.063	0.000	85.666	-0.000	91.063	0.000	0.000	85.700	41.261	-2.098	MWD+IFR1+MS
20000.000	90.000	179.725	9036.997	91.818	0.000	86.374	-0.000	91.818	0.000	0.000	86.406	41.313	-2.070	MWD+IFR1+MS
20100.000	90.000	179.725	9036.997	92.573	0.000	87.082	-0.000	92.573	0.000	0.000	87.114	41.365	-2.043	MWD+IFR1+MS
20200.000	90.000	179.725	9036.997	93.329	0.000	87.791	-0.000	93.329	0.000	0.000	87.823	41.418	-2.016	MWD+IFR1+MS
20300.000	90.000	179.725	9036.997	94.085	0.000	88.501	-0.000	94.085	0.000	0.000	88.532	41.471	-1.991	MWD+IFR1+MS
20400.000	90.000	179.725	9036.997	94.842	0.000	89.213	-0.000	94.842	0.000	0.000	89.243	41.525	-1.966	MWD+IFR1+MS
20500.000	90.000	179.725	9036.997	95.599	0.000	89.925	-0.000	95.599	0.000	0.000	89.954	41.579	-1.941	MWD+IFR1+MS
20600.000	90.000	179.725	9036.997	96.357	0.000	90.637	-0.000	96.357	0.000	0.000	90.667	41.634	-1.918	MWD+IFR1+MS
20700.000	90.000	179.725	9036.997	97.115	0.000	91.351	-0.000	97.115	0.000	0.000	91.380	41.689	-1.894	MWD+IFR1+MS
20800.000	90.000	179.725	9036.997	97.873	0.000	92.066	-0.000	97.873	0.000	0.000	92.094	41.744	-1.872	MWD+IFR1+MS
20900.000	90.000	179.725	9036.997	98.632	0.000	92.781	-0.000	98.632	0.000	0.000	92.809	41.800	-1.850	MWD+IFR1+MS
21000.000	90.000	179.725	9036.997	99.392	0.000	93.497	-0.000	99.392	0.000	0.000	93.525	41.856	-1.829	MWD+IFR1+MS
21100.000	90.000	179.725	9036.997	100.151	0.000	94.214	-0.000	100.151	0.000	0.000	94.241	41.913	-1.808	MWD+IFR1+MS
21200.000	90.000	179.725	9036.997	100.911	0.000	94.932	-0.000	100.911	0.000	0.000	94.958	41.970	-1.787	MWD+IFR1+MS
21300.000	90.000	179.725	9036.997	101.672	0.000	95.650	-0.000	101.672	0.000	0.000	95.676	42.027	-1.767	MWD+IFR1+MS
21400.000	90.000	179.725	9036.997	102.433	0.000	96.369	-0.000	102.433	0.000	0.000	96.395	42.085	-1.748	MWD+IFR1+MS
21500.000	90.000	179.725	9036.997	103.194	0.000	97.089	-0.000	103.194	0.000	0.000	97.115	42.143	-1.729	MWD+IFR1+MS
21600.000	90.000	179.725	9036.997	103.955	0.000	97.810	-0.000	103.955	0.000	0.000	97.835	42.201	-1.711	MWD+IFR1+MS
21700.000	90.000	179.725	9036.997	104.717	0.000	98.531	-0.000	104.717	0.000	0.000	98.556	42.260	-1.692	MWD+IFR1+MS
21800.000	90.000	179.725	9036.997	105.479	0.000	99.253	-0.000	105.479	0.000	0.000	99.277	42.320	-1.675	MWD+IFR1+MS
21900.000	90.000	179.725	9036.997	106.242	0.000	99.975	-0.000	106.242	0.000	0.000	99.999	42.379	-1.658	MWD+IFR1+MS
22000.000	90.000	179.725	9036.997	107.005	0.000	100.699	-0.000	107.005	0.000	0.000	100.722	42.439	-1.641	MWD+IFR1+MS
22100.000	90.000	179.725	9036.997	107.768	0.000	101.422	-0.000	107.768	0.000	0.000	101.446	42.500	-1.624	MWD+IFR1+MS
22200.000	90.000	179.725	9036.997	108.531	0.000	102.147	-0.000	108.531	0.000	0.000	102.170	42.561	-1.608	MWD+IFR1+MS

22300.000	90.000	179.725	9036.997	109.295	0.000	102.872	-0.000	109.295	0.000	0.000	102.894	42.622	-1.592	MWD+IFR1+MS
22400.000	90.000	179.725	9036.997	110.059	0.000	103.597	-0.000	110.059	0.000	0.000	103.620	42.684	-1.577	MWD+IFR1+MS
22500.000	90.000	179.725	9036.997	110.823	0.000	104.324	-0.000	110.823	0.000	0.000	104.345	42.746	-1.562	MWD+IFR1+MS
22600.000	90.000	179.725	9036.997	111.588	0.000	105.050	-0.000	111.588	0.000	0.000	105.072	42.808	-1.547	MWD+IFR1+MS
22700.000	90.000	179.725	9036.997	112.353	0.000	105.778	-0.000	112.353	0.000	0.000	105.799	42.871	-1.533	MWD+IFR1+MS
22800.000	90.000	179.725	9036.997	113.118	0.000	106.505	-0.000	113.118	0.000	0.000	106.526	42.934	-1.518	MWD+IFR1+MS
22900.000	90.000	179.725	9036.997	113.884	0.000	107.234	-0.000	113.884	0.000	0.000	107.254	42.998	-1.505	MWD+IFR1+MS
23000.000	90.000	179.725	9036.997	114.649	0.000	107.962	-0.000	114.649	0.000	0.000	107.983	43.062	-1.491	MWD+IFR1+MS
23100.000	90.000	179.725	9036.997	115.415	0.000	108.692	-0.000	115.415	0.000	0.000	108.712	43.126	-1.478	MWD+IFR1+MS
23200.000	90.000	179.725	9036.997	116.182	0.000	109.422	-0.000	116.182	0.000	0.000	109.442	43.191	-1.465	MWD+IFR1+MS
23300.000	90.000	179.725	9036.997	116.948	0.000	110.152	-0.000	116.948	0.000	0.000	110.172	43.256	-1.452	MWD+IFR1+MS
23400.000	90.000	179.725	9036.997	117.715	0.000	110.883	-0.000	117.715	0.000	0.000	110.902	43.321	-1.439	MWD+IFR1+MS
23500.000	90.000	179.725	9036.997	118.482	0.000	111.614	-0.000	118.482	0.000	0.000	111.633	43.387	-1.427	MWD+IFR1+MS
23600.000	90.000	179.725	9036.997	119.249	0.000	112.346	-0.000	119.249	0.000	0.000	112.365	43.453	-1.415	MWD+IFR1+MS
23700.000	90.000	179.725	9036.997	120.016	0.000	113.078	-0.000	120.016	0.000	0.000	113.097	43.520	-1.403	MWD+IFR1+MS
23800.000	90.000	179.725	9036.997	120.784	0.000	113.811	-0.000	120.784	0.000	0.000	113.829	43.586	-1.392	MWD+IFR1+MS
23900.000	90.000	179.725	9036.997	121.552	0.000	114.544	-0.000	121.552	0.000	0.000	114.562	43.654	-1.380	MWD+IFR1+MS
24000.000	90.000	179.725	9036.997	122.320	0.000	115.277	-0.000	122.320	0.000	0.000	115.295	43.721	-1.369	MWD+IFR1+MS
24100.000	90.000	179.725	9036.997	123.088	0.000	116.011	-0.000	123.088	0.000	0.000	116.029	43.789	-1.358	MWD+IFR1+MS
24200.000	90.000	179.725	9036.997	123.857	0.000	116.745	-0.000	123.857	0.000	0.000	116.763	43.858	-1.348	MWD+IFR1+MS
24300.000	90.000	179.725	9036.997	124.625	0.000	117.480	-0.000	124.625	0.000	0.000	117.497	43.926	-1.337	MWD+IFR1+MS
24400.000	90.000	179.725	9036.997	125.394	0.000	118.215	-0.000	125.394	0.000	0.000	118.232	43.995	-1.327	MWD+IFR1+MS
24500.000	90.000	179.725	9036.997	126.163	0.000	118.950	-0.000	126.163	0.000	0.000	118.967	44.065	-1.317	MWD+IFR1+MS
24553.265	90.000	179.725	9036.997	126.572	0.000	119.341	-0.000	126.572	0.000	0.000	119.358	44.102	-1.311	MWD+IFR1+MS

**Plan Targets**

Poker Lake Unit 19 DTD South 111H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 8	9296.70	440288.70	626142.60	5857.00	RECTANGLE
LTP 8	24503.19	424627.90	626217.80	5857.00	RECTANGLE
BHL 8	24553.29	424577.80	626218.00	5857.00	RECTANGLE



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ALL DIMENSIONS APPROXIMATE

<b>CACTUS WELLHEAD LLC</b>		<b>XTO ENERGY INC DELAWARE BASIN</b>	
(20") x 13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO-SF Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations		DRAWN	VJK
		APPRV	31MAR22
		DRAWING NO.	SDT-2856

**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.

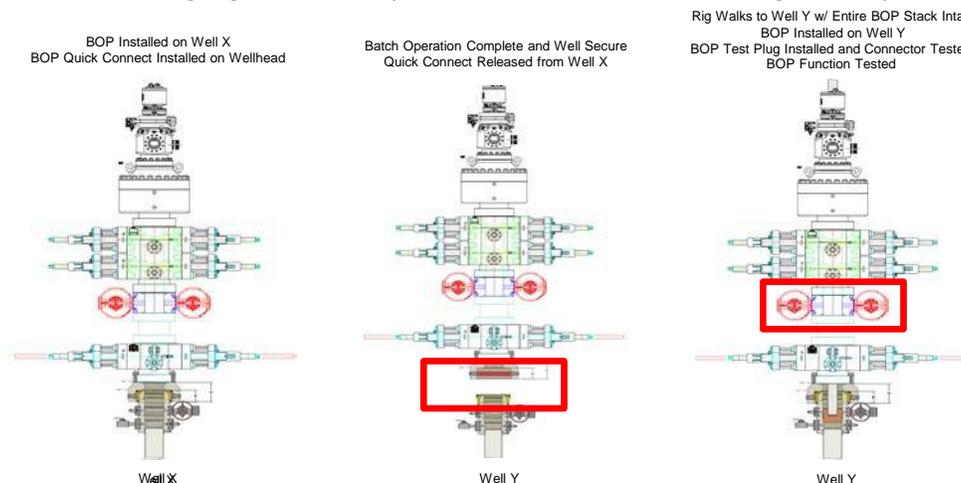
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

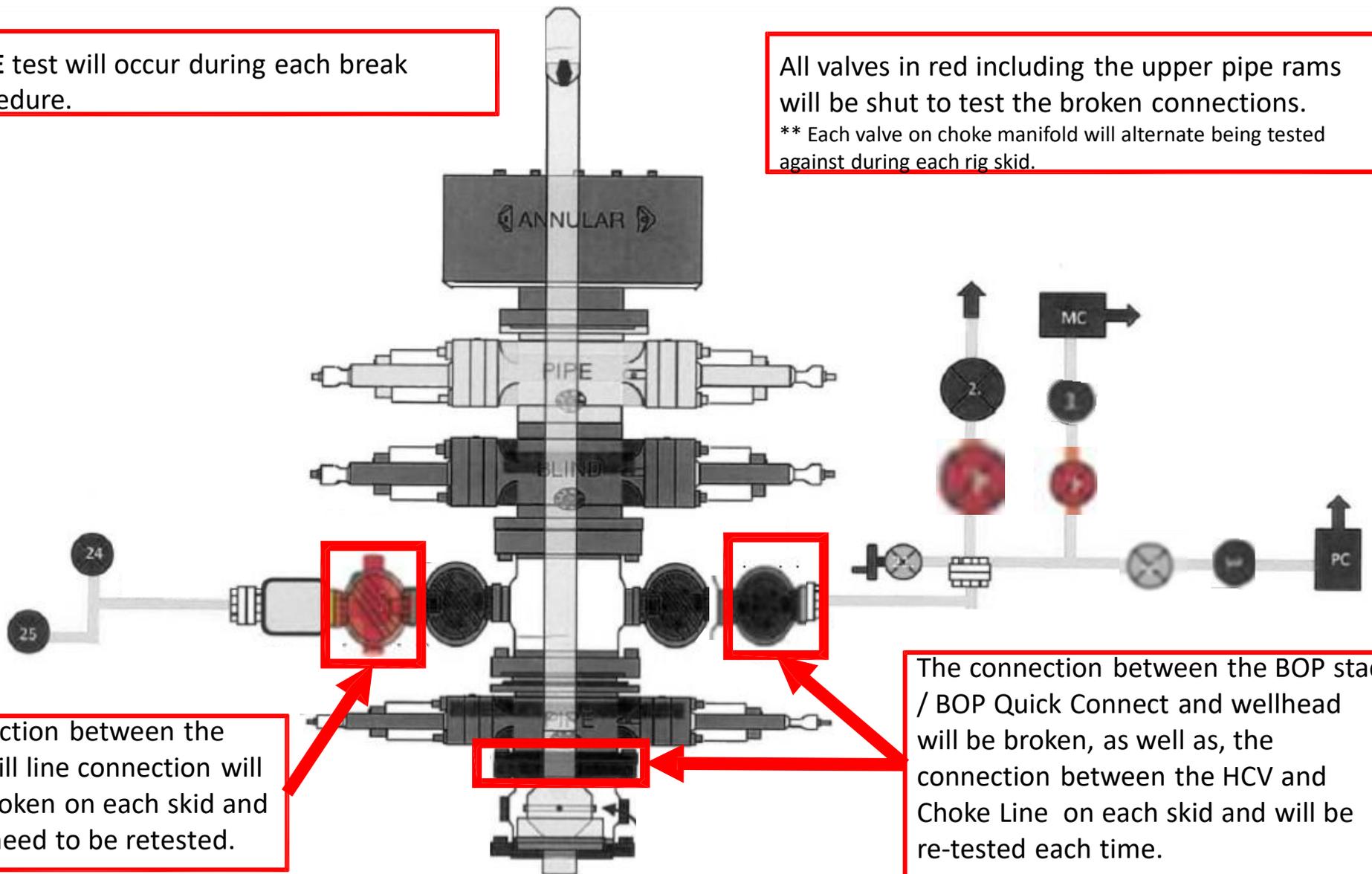
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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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**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
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CONDITIONS

Action 331644

**CONDITIONS**

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 331644
	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.	4/17/2024