

Lease Number: NMLC062140A

Unit or CA Name: POKER LAKE UNIT

Unit or CA Number:  
NMNM71016X

US Well Number:

Operator: XTO PERMIAN OPERATING  
LLC

## Notice of Intent

Sundry ID: 2820803

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 11/05/2024

Time Sundry Submitted: 09:02

Date proposed operation will begin: 11/26/2024

**Procedure Description:** XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, KOP, FTP, LTP, BHL, Proposed total Depth, & pool code. There will be no additional surface disturbance. There is a dedicated acreage change. FROM: TO: SHL: 2435' FNL & 690' FWL OF SECTION 28-T25S-R31E 2435' FNL & 690' FWL OF SECTION 29-T25S-R31E KOP: 2435' FNL & 630' FWL OF SECTION 28-T25S-R31E 2036' FNL & 498' FWL OF SECTION 28-T25S-R31E FTP: 2435' FNL & 770' FWL OF SECTION 28-T25S-R31E 2553' FSL & 500' FWL OF SECTION 28-T25S-R31E LTP: 100' FSL & 770' FWL OF SECTION 4-T26S-R31E 100' FSL & 500' FWL OF SECTION 4-T26S-R31E BHL: 50' FSL & 770' FWL OF SECTION 4-T26S-R31E 50' FSL & 500' FWL OF SECTION 4-T26S-R31E The proposed total depth is changing from 24763' MD; 10959' TVD (Bone Spring) to 23733' MD; 10170' TVD (Bone Spring). A saturated salt brine will be utilized while drilling through the salt formations.

## NOI Attachments

### Procedure Description

PLU\_28\_BS\_\_\_\_109H\_Sundry\_Attachments\_20241209102845.pdf

US Well Number:

Operator: XTO PERMIAN OPERATING  
LLC**Conditions of Approval****Additional**

Poker\_Lake\_Unit\_28\_BS\_110H\_\_109H\_113H\_COA\_20250113160614.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:** DEC 11, 2024 09:14 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:** 01/13/2025**Signature:** Cody R. Layton

Form 3160-5  
(June 2019)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

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

5. Lease Serial No.	NMLC062140A
6. If Indian, Allottee or Tribe Name	

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>	
1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	
2. Name of Operator XTO PERMIAN OPERATING LLC	
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND,	3b. Phone No. (include area code) (432) 683-2277
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) SEC 28/T25S/R31E/NMP	

7. If Unit of CA/Agreement, Name and/or No. POKER LAKE UNIT/NMNM71016X
8. Well Name and No. POKER LAKE UNIT 28 BS/109H
9. API Well No.
10. Field and Pool or Exploratory Area WC-015 G-06 S243119C/BONE SPRING
11. Country or Parish, State EDDY/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" 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 checked="" 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 recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, KOP, FTP, LTP, BHL, Proposed total Depth, & pool code. There will be no additional surface disturbance. There is a dedicated acreage change.

FROM: TO:  
SHL: 2435' FNL & 690' FWL OF SECTION 28-T25S-R31E 2435 FNL & 690 FWL OF SECTION 29-T25S-R31E  
KOP: 2435' FNL & 630' FWL OF SECTION 28-T25S-R31E 2036 FNL & 498 FWL OF SECTION 28-T25S-R31E  
FTP: 2435' FNL & 770' FWL OF SECTION 28-T25S-R31E 2553' FSL & 500' FWL OF SECTION 28-T25S-R31E  
LTP: 100' FSL & 770' FWL OF SECTION 4-T26S-R31E 100' FSL & 500' FWL OF SECTION 4-T26S-R31E  
BHL: 50' FSL & 770' FWL OF SECTION 4-T26S-R31E 50' FSL & 500' FWL OF SECTION 4-T26S-R31E

The proposed total depth is changing from 24763 MD; 10959 TVD (Bone Spring) to 23733 MD; 10170 TVD (Bone Spring).

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) TERRA SEBASTIAN / Ph: (432) 999-3107	Title Regulatory Advisor
Signature (Electronic Submission)	Date 12/11/2024

**THE SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by CODY LAYTON / Ph: (575) 234-5959 / Approved	Title Assistant Field Manager Lands & I	Date 01/13/2025
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 CARLSBAD	

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

A saturated salt brine will be utilized while drilling through the salt formations.

### Location of Well

0. SHL: SWNW / 2435 FNL / 690 FWL / TWSP: 25S / RANGE: 31E / SECTION: 28 / LAT: 32.101875 / LONG: -103.789503 ( TVD: 0 feet, MD: 0 feet )

PPP: SWNW / 2435 FNL / 770 FWL / TWSP: 25S / RANGE: 31E / SECTION: 28 / LAT: 32.101875 / LONG: -103.789245 ( TVD: 10959 feet, MD: 11306 feet )

PPP: NWNW / 0 FNL / 790 FWL / TWSP: 25S / RANGE: 31E / SECTION: 33 / LAT: 32.093982 / LONG: -103.789258 ( TVD: 10959 feet, MD: 14300 feet )

PPP: NWSW / 2654 FNL / 771 FWL / TWSP: 25S / RANGE: 31E / SECTION: 28 / LAT: 32.101274 / LONG: -103.789246 ( TVD: 10959 feet, MD: 11700 feet )

BHL: SWSW / 50 FSL / 770 FWL / TWSP: 26S / RANGE: 31E / SECTION: 4 / LAT: 32.064884 / LONG: -103.789306 ( TVD: 10959 feet, MD: 24763 feet )

CONFIDENTIAL

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO
<b>LEASE NO.:</b>	NMLC062140A
<b>LOCATION:</b>	Sec. 28, T.25 S, R 31 E
<b>COUNTY:</b>	Eddy County, New Mexico ▼
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 28 BS 110H
<b>SURFACE HOLE FOOTAGE:</b>	2435'/N & 600'/W
<b>BOTTOM HOLE FOOTAGE:</b>	2649'/N & 656'/E

<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 28 BS 113H
<b>SURFACE HOLE FOOTAGE:</b>	2435'/N & 660'/W
<b>BOTTOM HOLE FOOTAGE:</b>	50'/S & 800'/W

<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 28 BS 109H
<b>SURFACE HOLE FOOTAGE:</b>	2435'/N & 630'/W
<b>BOTTOM HOLE FOOTAGE:</b>	50'/S & 500'/W

COA

H <sub>2</sub> S	<input checked="" type="radio"/> No <span style="margin-left: 100px;"><input type="radio"/> Yes</span>			
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
	Choose an option (including blank option.)			
<b>Cave / Karst</b>	<input type="radio"/> Low	<input type="radio"/> Medium	<input checked="" 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 checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

Changes approved through engineering via **Sundry 2820800,2820803,2826587** on 1-13-2025\_.  
Any previous COAs not addressed within the updated COAs still apply.

### 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 **947** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **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: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.
  - a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon at 6823' - 6849'**.
  - b. **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

- ❖ In High 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 Surface X Intermediate 1 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 Surface casing to tieback requirements listed above after the second stage BH to verify TOC.** Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

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

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

## C. PRESSURE CONTROL

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

## D. SPECIAL REQUIREMENT (S)

### Unit Wells

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

### Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months. **(This is not necessary for secondary recovery unit wells).**

### BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 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 43 CFR 3172.
- 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)

### Contact Eddy County Petroleum Engineering Inspection Staff:

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.

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
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. 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.
    - iii. BOP/BOPE test to be conducted per 43 CFR 3172 as soon as 2<sup>nd</sup> 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 doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

## 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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q 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 3172**.
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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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).

- ii. 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.)
- iii. 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 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 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.

**Approved by Zota Stevens on 1/13/2025**  
575-234-5998 / [zstevens@blm.gov](mailto:zstevens@blm.gov)

## GENERAL REQUIREMENTS

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

- d. Spudding well (minimum of 24 hours)
- e. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- f. BOPE tests (minimum of 4 hours)

### Contact Eddy County Petroleum Engineering Inspection Staff:

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

- 4. 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
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. 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.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
- 5. 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.
- 6. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### E. 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 of both lead and tail cement, 2) until cement has been in place at least 8 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-Q potash area, the NMOCD requirements shall be followed.

#### **F. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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).
  - ii. 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.)
- iii. 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 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. 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.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. 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.
  - vii. 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.
  - viii. 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 3172**.

#### **G. DRILLING MUD**

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#### **H. WASTE MATERIAL AND FLUIDS**

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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.

**Approved by Zota Stevens on 1/13/2025**  
575-234-5998 / [zstevens@blm.gov](mailto:zstevens@blm.gov)

APD ID: 10400094672		WELL LOCATION INFORMATION	
API Number 30-015	Pool Code 97860	Pool Name Jennings, Bone Springs, west	
Property Code	Property Name POKER LAKE UNIT 28 BS	Well Number 109H	
ORGID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,329'	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input checked="" type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

## Surface Location

UL E	Section 28	Township 25 S	Range 31 E	Lot	Ft. from N/S 2,435' FNL	Ft. from E/W 630' FWL	Latitude 32.101876	Longitude -103.789696	County EDDY
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## Bottom Hole Location

UL M	Section 4	Township 26 S	Range 31 E	Lot	Ft. from N/S 50' FSL	Ft. from E/W 500' FWL	Latitude 32.064883	Longitude -103.790178	County EDDY
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Dedicated Acres 400	Infill or Defining Well INFILL	Defining Well API	Overlapping Spacing Unit (Y/N) No	Consolidation Code U
Order Numbers.			Well setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL E	Section 28	Township 25 S	Range 31 E	Lot	Ft. from N/S 2,036' FNL	Ft. from E/W 498' FWL	Latitude 32.101876	Longitude -103.789696	County EDDY
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## First Take Point (FTP)

UL L	Section 28	Township 25 S	Range 31 E	Lot	Ft. from N/S 2,553' FSL	Ft. from E/W 500' FWL	Latitude 32.101000	Longitude -103.790122	County EDDY
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## Last Take Point (LTP)

UL M	Section 4	Township 26 S	Range 31 E	Lot	Ft. from N/S 100' FSL	Ft. from E/W 500' FWL	Latitude 32.065020	Longitude -103.790178	County EDDY
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Unitized Area or Area of Uniform Interest NMNM-071016X	Spacing Unit Type <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Floor Elevation: 3,329'
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## OPERATOR CERTIFICATIONS

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.

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling form the division.

Terra Sebastian 10/30/2024

Signature Date

Terra Sebastian

Printed Name

terra.b.sebastian@exxonmobil.com

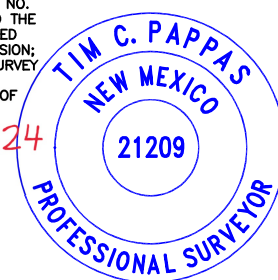
Email Address

## SURVEYOR CERTIFICATIONS

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.

I, TIM C. PAPPAS, NEW MEXICO PROFESSIONAL SURVEYOR NO. 21209, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

TIM C. PAPPAS  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 21209



Signature and Seal of Professional Surveyor

Certificate Number

TIM C. PAPPAS 21209

Date of Survey

9/28/2024

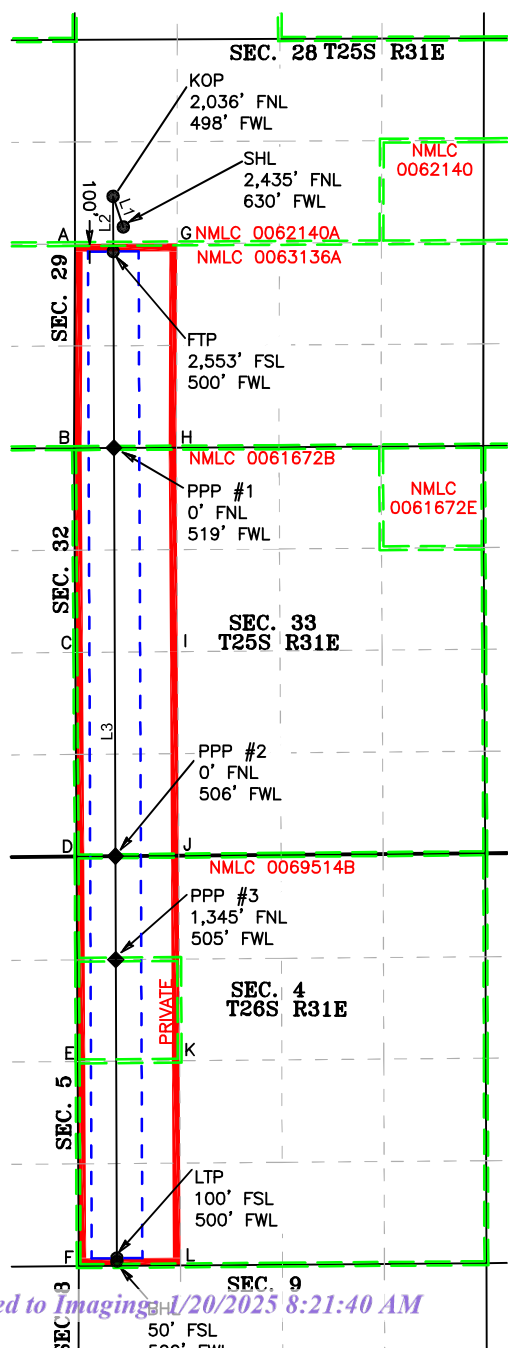
Note: No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

# LEGEND

- SECTION LINE
- PROPOSED WELLBORE
- NEW MEXICO MINERAL LEASE LINE
- 330' BUFFER
- DEDICATED ACREAGE

## LINE TABLE

LINE	AZIMUTH	LENGTH
L1	341° 33'23"	420.49
L2	179° 47'25"	718.24
L3	179° 47'12"	13,138.79'



## COORDINATE TABLE

SHL (NAD 83 NME)			FTP (NAD 83 NME)		
Y =	401,223.3	N	Y =	400,904.0	N
X =	709,673.2	E	X =	709,542.8	E
LAT. =	32.101876	°N	LAT. =	32.101000	°N
LONG. =	103.789696	°W	LONG. =	103.790122	°W
KOP (NAD 83 NME)					
Y =	401,622.2	N			
X =	709,540.1	E			
LAT. =	32.102974	°N			
LONG. =	103.790119	°W			
LTP (NAD 83 NME)			BHL (NAD 83 NME)		
Y =	387,815.3	N	Y =	387,765.3	N
X =	709,591.4	E	X =	709,591.7	E
LAT. =	32.065020	°N	LAT. =	32.064883	°N
LONG. =	103.790178	°W	LONG. =	103.790178	°W
SHL (NAD 27 NME)			FTP (NAD 27 NME)		
Y =	401,165.4	N	Y =	400,846.1	N
X =	668,487.5	E	X =	668,357.1	E
LAT. =	32.101751	°N	LAT. =	32.100875	°N
LONG. =	103.789218	°W	LONG. =	103.789644	°W
KOP (NAD 27 NME)					
Y =	401,564.3	N			
X =	668,354.4	E			
LAT. =	32.102849	°N			
LONG. =	103.789641	°W			
LTP (NAD 27 NME)			BHL (NAD 27 NME)		
Y =	387,757.8	N	Y =	387,707.8	N
X =	668,405.2	E	X =	668,405.5	E
LAT. =	32.064895	°N	LAT. =	32.064758	°N
LONG. =	103.789702	°W	LONG. =	103.789702	°W
PPP #1 (NAD 83 NME)			PPP #1 (NAD 27 NME)		
Y =	398,351.1	N	Y =	398,293.3	N
X =	709,552.3	E	X =	668,366.5	E
LAT. =	32.093982	°N	LAT. =	32.093857	°N
LONG. =	103.790133	°W	LONG. =	103.789655	°W
PPP #2 (NAD 83 NME)			PPP #2 (NAD 27 NME)		
Y =	393,042.5	N	Y =	392,984.8	N
X =	709,572.0	E	X =	668,386.0	E
LAT. =	32.079389	°N	LAT. =	32.079265	°N
LONG. =	103.790156	°W	LONG. =	103.789679	°W
PPP #3 (NAD 83 NME)			PPP #3 (NAD 27 NME)		
Y =	391,697.8	N	Y =	391,640.2	N
X =	709,577.0	E	X =	668,391.0	E
LAT. =	32.075693	°N	LAT. =	32.075568	°N
LONG. =	103.790161	°W	LONG. =	103.789685	°W

## CORNER COORDINATES (NAD83 NME)

A - Y =	401,001.6	N	A - X =	709,043.1	E
B - Y =	398,348.5	N	B - X =	709,032.9	E
C - Y =	395,690.8	N	C - X =	709,049.4	E
D - Y =	393,038.4	N	D - X =	709,066.3	E
E - Y =	390,373.0	N	E - X =	709,078.3	E
F - Y =	387,711.6	N	F - X =	709,092.0	E
G - Y =	401,008.0	N	G - X =	710,375.2	E
H - Y =	398,355.2	N	H - X =	710,366.6	E
I - Y =	395,701.2	N	E - X =	710,382.1	E
J - Y =	393,049.2	N	F - X =	710,397.7	E
K - Y =	390,383.8	N	G - X =	710,408.3	E
L - Y =	387,721.3	N	H - X =	710,419.7	E

## CORNER COORDINATES (NAD27 NME)

A - Y =	400,943.7	N	A - X =	667,857.4	E
B - Y =	398,290.7	N	B - X =	667,847.1	E
C - Y =	395,633.1	N	C - X =	667,863.5	E
D - Y =	392,980.7	N	D - X =	667,880.3	E
E - Y =	390,315.4	N	E - X =	667,892.2	E
F - Y =	387,654.1	N	F - X =	667,905.8	E
G - Y =	400,950.1	N	G - X =	669,189.5	E
H - Y =	398,297.4	N	H - X =	669,180.8	E
I - Y =	395,643.5	N	E - X =	669,196.2	E
J - Y =	392,991.5	N	F - X =	669,211.7	E
K - Y =	390,326.2	N	G - X =	669,222.2	E

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

XTO Energy Inc.  
POKER LAKE UNIT 28 BS 109H  
Projected TD: 23733.23' MD / 10170' TVD  
SHL: 2435' FNL & 630' FWL , Section 28, T25S, R31E  
BHL: 50' FSL & 500' FWL , Section 4, T26S, R31E  
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	891'	Water
Top of Salt	1173'	Water
Base of Salt	3972'	Water
Delaware	4173'	Water
Brushy Canyon	6849'	Water/Oil/Gas
Bone Spring	8142'	Water
Avalon	8246'	Water/Oil/Gas
1st Bone Spring	8912'	Water/Oil/Gas
2nd Bone Spring	9396'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>10170'</b>	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 991' (182' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9269.85' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 23733.23 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 8969.85 feet).

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 991'	9.625	40	J-55	BTC	New	1.72	6.35	15.89
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	3.67	2.86	2.03
8.75	4000' – 9269.85'	7.625	29.7	HC L-80	Flush Joint	New	2.67	2.47	2.59
6.75	0' – 9169.85'	5.5	20	RY P-110	Freedom/Semi-Permium	New	1.05	2.56	2.11
6.75	9169.85' - 23733.23'	5.5	20	RY P-110	Talon/Semi-Flush	New	1.05	2.31	2.11

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

**Wellhead:**

Operator will utilize Multibowl System - See Attached

**4. Cement Program****Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 991'**Lead: 230 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

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

**Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9269.85'**1st StageOptional Lead: 370 sxs Class C (mixed at 10.5 ppg, 2.77 ft<sup>3</sup>/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 220 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6849

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

2nd StageLead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft<sup>3</sup>/sx, 9.61 gal/sx water)Tail: 770 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 (6849') 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 Talon/Semi-Flush, RY P-110 casing to be set at +/- 23733.23'**

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 8969.85 feet  
Tail: 1020 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 9469.85 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 surface casing, the blow out preventer equipment (BOP) will consist of a **5M Hydril Annular** and a **10M Triple Ram BOP**

All BOP testing will be done by an independent service company. Operator will test as per BLM CFR43-3172

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. 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)	Additional Comments
0' - 991'	12.25	FW/Native	8.4-8.9	35-40	NC	Fresh water or native water
991' - 9269.85'	8.75	Saturated brine for salt interval / Direct Emulsion	9-9.5	30-32	NC	Fully saturated salt across salado / salt
9269.85' - 23733.23'	6.75	OBM	9.1-9.6	50-60	NC - 20	N/A

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 surface casing with Saturated Salt. A saturated salt brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

**7. Auxiliary Well Control and Monitoring Equipment**

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

**8. Logging, Coring and Testing Program**

Open hole logging will not be done on this well.

**9. Abnormal Pressures and Temperatures / Potential Hazards**

None Anticipated. BHT of 165 to 185 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

**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 28 BS 109H

Measured Depth: 23733.23 ft  
TVD RKB: 10170.00 ft  
Location  
Cartographic Reference System: New Mexico East - NAD 27  
Northing: 401165.40 ft  
Easting: 668487.50 ft  
RKB: 3361.00 ft  
Ground Level: 3329.00 ft  
North Reference: Grid  
Convergence Angle: 0.29 Deg

Plan Sections  
Poker Lake Unit 28 BS 109H

Measured	Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD		Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn		Dogleg	
				RKB	(ft)				Rate (Deg/100ft)		Rate (Deg/100ft)	Target
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
	1322.56	4.45	341.47	1322.33	8.19	-2.75	-2.75	2.00	0.00		2.00	2.00
	6493.49	4.45	341.47	6477.67	388.70	-130.29	-130.29	0.00	0.00		0.00	0.00
	6716.04	0.00	0.00	6700.00	396.89	-133.03	-133.03	-2.00	0.00		2.00	2.00
	9469.85	0.00	0.00	9453.80	396.89	-133.03	-133.03	0.00	0.00		0.00	0.00
	10594.85	90.00	179.79	10170.00	-319.30	-130.40	-130.40	8.00	0.00		8.00	FTP 12
	23683.24	90.00	179.79	10170.00	-13407.60	-82.30	-82.30	0.00	0.00		0.00	LTP 12
	23733.23	90.00	179.79	10170.00	-13457.60	-82.12	-82.12	0.00	0.00		0.00	BHL 6

Position Uncertainty  
Poker Lake Unit 28 BS 109H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-Tool
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Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (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	XOMR2_OWSG MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.358	0.179	90.000	XOMR2_OWSG MWD+IFR1+MS
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.309	0.000	0.717	0.538	90.000	XOMR2_OWSG MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2.325	0.000	1.075	0.896	90.000	XOMR2_OWSG MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.347	0.000	1.434	1.255	90.000	XOMR2_OWSG MWD+IFR1+MS
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.374	0.000	1.792	1.613	90.000	XOMR2_OWSG MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.406	0.000	2.151	1.972	90.000	XOMR2_OWSG MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.443	0.000	2.509	2.330	90.000	XOMR2_OWSG MWD+IFR1+MS
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.485	0.000	2.868	2.689	90.000	XOMR2_OWSG MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.531	0.000	3.226	3.047	90.000	XOMR2_OWSG MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.580	0.000	3.585	3.405	90.000	XOMR2_OWSG MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.634	0.000	3.943	3.764	90.000	XOMR2_OWSG MWD+IFR1+MS
1200.000	2.000	341.470	1199.980	4.282	0.000	4.140	0.000	2.690	0.000	4.301	4.121	89.964	XOMR2_OWSG MWD+IFR1+MS
1300.000	4.000	341.470	1299.838	4.633	0.000	4.496	0.000	2.747	0.000	4.660	4.478	89.807	XOMR2_OWSG MWD+IFR1+MS
1322.559	4.451	341.470	1322.335	4.711	0.000	4.576	0.000	2.758	0.000	4.742	4.558	89.662	XOMR2_OWSG MWD+IFR1+MS
1400.000	4.451	341.470	1399.543	4.988	0.000	4.852	0.000	2.807	0.000	5.019	4.833	89.720	XOMR2_OWSG MWD+IFR1+MS
1500.000	4.451	341.470	1499.241	5.346	0.000	5.208	0.000	2.872	0.000	5.377	5.189	89.818	XOMR2_OWSG MWD+IFR1+MS
1600.000	4.451	341.470	1598.939	5.705	0.000	5.565	0.000	2.940	0.000	5.734	5.546	89.898	XOMR2_OWSG MWD+IFR1+MS
1700.000	4.451	341.470	1698.638	6.065	0.000	5.922	0.000	3.011	0.000	6.093	5.903	89.962	XOMR2_OWSG MWD+IFR1+MS

1800.000	4.451	341.470	1798.336	6.424	0.000	6.280	0.000	3.084	0.000	0.000	6.452	6.260	90.013	XOMR2_OWSG MWD+IFR1+MS
1900.000	4.451	341.470	1898.035	6.784	0.000	6.638	0.000	3.159	0.000	0.000	6.811	6.618	90.053	XOMR2_OWSG MWD+IFR1+MS
2000.000	4.451	341.470	1997.733	7.145	0.000	6.996	0.000	3.236	0.000	0.000	7.170	6.976	90.083	XOMR2_OWSG MWD+IFR1+MS
2100.000	4.451	341.470	2097.431	7.505	0.000	7.354	0.000	3.315	0.000	0.000	7.530	7.333	90.106	XOMR2_OWSG MWD+IFR1+MS
2200.000	4.451	341.470	2197.130	7.866	0.000	7.712	0.000	3.395	0.000	0.000	7.890	7.692	90.123	XOMR2_OWSG MWD+IFR1+MS
2300.000	4.451	341.470	2296.828	8.227	0.000	8.071	0.000	3.477	0.000	0.000	8.250	8.050	90.134	XOMR2_OWSG MWD+IFR1+MS
2400.000	4.451	341.470	2396.526	8.588	0.000	8.429	0.000	3.561	0.000	0.000	8.610	8.408	90.140	XOMR2_OWSG MWD+IFR1+MS
2500.000	4.451	341.470	2496.225	8.949	0.000	8.788	0.000	3.647	0.000	0.000	8.970	8.767	90.142	XOMR2_OWSG MWD+IFR1+MS
2600.000	4.451	341.470	2595.923	9.310	0.000	9.147	0.000	3.734	0.000	0.000	9.331	9.125	90.140	XOMR2_OWSG MWD+IFR1+MS
2700.000	4.451	341.470	2695.622	9.671	0.000	9.505	0.000	3.822	0.000	0.000	9.691	9.484	90.136	XOMR2_OWSG MWD+IFR1+MS
2800.000	4.451	341.470	2795.320	10.033	0.000	9.864	0.000	3.912	0.000	0.000	10.052	9.843	90.128	XOMR2_OWSG MWD+IFR1+MS
2900.000	4.451	341.470	2895.018	10.395	0.000	10.223	0.000	4.003	0.000	0.000	10.412	10.202	90.119	XOMR2_OWSG MWD+IFR1+MS
3000.000	4.451	341.470	2994.717	10.756	0.000	10.582	0.000	4.096	0.000	0.000	10.773	10.560	90.107	XOMR2_OWSG MWD+IFR1+MS
3100.000	4.451	341.470	3094.415	11.118	0.000	10.942	0.000	4.190	0.000	0.000	11.134	10.919	90.093	XOMR2_OWSG MWD+IFR1+MS
3200.000	4.451	341.470	3194.114	11.480	0.000	11.301	0.000	4.285	0.000	0.000	11.495	11.278	90.078	XOMR2_OWSG MWD+IFR1+MS
3300.000	4.451	341.470	3293.812	11.841	0.000	11.660	0.000	4.382	0.000	0.000	11.856	11.637	90.062	XOMR2_OWSG MWD+IFR1+MS
3400.000	4.451	341.470	3393.510	12.203	0.000	12.019	0.000	4.480	0.000	0.000	12.217	11.997	90.044	XOMR2_OWSG MWD+IFR1+MS
3500.000	4.451	341.470	3493.209	12.565	0.000	12.378	0.000	4.579	0.000	0.000	12.578	12.356	90.026	XOMR2_OWSG MWD+IFR1+MS
3600.000	4.451	341.470	3592.907	12.927	0.000	12.738	0.000	4.680	0.000	0.000	12.939	12.715	90.006	XOMR2_OWSG MWD+IFR1+MS
3700.000	4.451	341.470	3692.605	13.289	0.000	13.097	0.000	4.782	0.000	0.000	13.300	13.074	89.985	XOMR2_OWSG MWD+IFR1+MS

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Well Plan Report														
3800.000	4.451	341.470	3792.304	13.651	0.000	13.456	0.000	4.886	0.000	0.000	13.661	13.433	89.964	XOMR2_OWSG MWD+IFR1+MS
3900.000	4.451	341.470	3892.002	14.013	0.000	13.816	0.000	4.991	0.000	0.000	14.023	13.792	89.942	XOMR2_OWSG MWD+IFR1+MS
4000.000	4.451	341.470	3991.701	14.375	0.000	14.175	0.000	5.098	0.000	0.000	14.384	14.152	89.920	XOMR2_OWSG MWD+IFR1+MS
4100.000	4.451	341.470	4091.399	14.738	0.000	14.535	0.000	5.206	0.000	0.000	14.745	14.511	89.897	XOMR2_OWSG MWD+IFR1+MS
4200.000	4.451	341.470	4191.097	15.100	0.000	14.894	0.000	5.316	0.000	0.000	15.106	14.870	89.873	XOMR2_OWSG MWD+IFR1+MS
4300.000	4.451	341.470	4290.796	15.462	0.000	15.253	0.000	5.428	0.000	0.000	15.468	15.230	89.850	XOMR2_OWSG MWD+IFR1+MS
4400.000	4.451	341.470	4390.494	15.824	0.000	15.613	0.000	5.541	0.000	0.000	15.829	15.589	89.826	XOMR2_OWSG MWD+IFR1+MS
4500.000	4.451	341.470	4490.193	16.186	0.000	15.972	0.000	5.655	0.000	0.000	16.191	15.948	89.801	XOMR2_OWSG MWD+IFR1+MS
4600.000	4.451	341.470	4589.891	16.549	0.000	16.332	0.000	5.772	0.000	0.000	16.552	16.308	89.776	XOMR2_OWSG MWD+IFR1+MS
4700.000	4.451	341.470	4689.589	16.911	0.000	16.691	0.000	5.890	0.000	0.000	16.913	16.667	89.752	XOMR2_OWSG MWD+IFR1+MS
4800.000	4.451	341.470	4789.288	17.273	0.000	17.051	0.000	6.010	0.000	0.000	17.275	17.026	89.726	XOMR2_OWSG MWD+IFR1+MS
4900.000	4.451	341.470	4888.986	17.635	0.000	17.411	0.000	6.131	0.000	0.000	17.636	17.386	89.701	XOMR2_OWSG MWD+IFR1+MS
5000.000	4.451	341.470	4988.684	17.998	0.000	17.770	0.000	6.255	0.000	0.000	17.998	17.745	89.676	XOMR2_OWSG MWD+IFR1+MS
5100.000	4.451	341.470	5088.383	18.360	0.000	18.130	0.000	6.380	0.000	0.000	18.359	18.105	89.650	XOMR2_OWSG MWD+IFR1+MS
5200.000	4.451	341.470	5188.081	18.722	0.000	18.489	0.000	6.507	0.000	0.000	18.721	18.464	89.624	XOMR2_OWSG MWD+IFR1+MS
5300.000	4.451	341.470	5287.780	19.085	0.000	18.849	0.000	6.637	0.000	0.000	19.082	18.824	89.599	XOMR2_OWSG MWD+IFR1+MS
5400.000	4.451	341.470	5387.478	19.447	0.000	19.209	0.000	6.768	0.000	0.000	19.444	19.183	89.573	XOMR2_OWSG MWD+IFR1+MS
5500.000	4.451	341.470	5487.176	19.810	0.000	19.568	0.000	6.901	0.000	0.000	19.806	19.543	89.547	XOMR2_OWSG MWD+IFR1+MS
5600.000	4.451	341.470	5586.875	20.172	0.000	19.928	0.000	7.036	0.000	0.000	20.167	19.902	89.521	XOMR2_OWSG MWD+IFR1+MS
5700.000	4.451	341.470	5686.573	20.534	0.000	20.287	0.000	7.173	0.000	0.000	20.529	20.262	89.494	XOMR2_OWSG MWD+IFR1+MS



Well Plan Report

5800.000	4.451	341.470	5786.272	20.897	0.000	20.647	0.000	7.312	0.000	0.000	20.890	20.621	89.468	XOMR2_OWSG MWD+IFR1+MS
5900.000	4.451	341.470	5885.970	21.259	0.000	21.007	0.000	7.454	0.000	0.000	21.252	20.981	89.442	XOMR2_OWSG MWD+IFR1+MS
6000.000	4.451	341.470	5985.668	21.622	0.000	21.366	0.000	7.597	0.000	0.000	21.614	21.340	89.416	XOMR2_OWSG MWD+IFR1+MS
6100.000	4.451	341.470	6085.367	21.984	0.000	21.726	0.000	7.743	0.000	0.000	21.975	21.700	89.389	XOMR2_OWSG MWD+IFR1+MS
6200.000	4.451	341.470	6185.065	22.347	0.000	22.086	0.000	7.891	0.000	0.000	22.337	22.059	89.363	XOMR2_OWSG MWD+IFR1+MS
6300.000	4.451	341.470	6284.763	22.709	0.000	22.445	0.000	8.042	0.000	0.000	22.699	22.419	89.336	XOMR2_OWSG MWD+IFR1+MS
6400.000	4.451	341.470	6384.462	23.071	0.000	22.805	0.000	8.194	0.000	0.000	23.060	22.778	89.310	XOMR2_OWSG MWD+IFR1+MS
6493.485	4.451	341.470	6477.665	23.410	0.000	23.141	0.000	8.339	0.000	0.000	23.398	23.115	89.285	XOMR2_OWSG MWD+IFR1+MS
6500.000	4.321	341.470	6484.161	23.435	0.000	23.165	0.000	8.349	0.000	0.000	23.422	23.138	89.284	XOMR2_OWSG MWD+IFR1+MS
6600.000	2.321	341.470	6583.988	23.792	0.000	23.523	0.000	8.506	0.000	0.000	23.782	23.497	89.273	XOMR2_OWSG MWD+IFR1+MS
6700.000	0.321	341.470	6683.956	24.120	0.000	23.880	0.000	8.663	0.000	0.000	24.139	23.853	89.274	XOMR2_OWSG MWD+IFR1+MS
6716.044	0.000	0.000	6700.000	24.196	0.000	23.910	0.000	8.689	0.000	0.000	24.196	23.910	89.282	XOMR2_OWSG MWD+IFR1+MS
6800.000	0.000	0.000	6783.956	24.494	0.000	24.208	0.000	8.821	0.000	0.000	24.494	24.208	89.349	XOMR2_OWSG MWD+IFR1+MS
6900.000	0.000	0.000	6883.956	24.848	0.000	24.563	0.000	8.981	0.000	0.000	24.848	24.563	89.427	XOMR2_OWSG MWD+IFR1+MS
7000.000	0.000	0.000	6983.956	25.203	0.000	24.918	0.000	9.144	0.000	0.000	25.203	24.918	89.503	XOMR2_OWSG MWD+IFR1+MS
7100.000	0.000	0.000	7083.956	25.558	0.000	25.273	0.000	9.309	0.000	0.000	25.558	25.273	89.577	XOMR2_OWSG MWD+IFR1+MS
7200.000	0.000	0.000	7183.956	25.913	0.000	25.629	0.000	9.477	0.000	0.000	25.913	25.628	89.649	XOMR2_OWSG MWD+IFR1+MS
7300.000	0.000	0.000	7283.956	26.268	0.000	25.984	0.000	9.648	0.000	0.000	26.268	25.984	89.719	XOMR2_OWSG MWD+IFR1+MS
7400.000	0.000	0.000	7383.956	26.623	0.000	26.339	0.000	9.821	0.000	0.000	26.623	26.339	89.788	XOMR2_OWSG MWD+IFR1+MS
7500.000	0.000	0.000	7483.956	26.979	0.000	26.695	0.000	9.997	0.000	0.000	26.979	26.695	89.854	XOMR2_OWSG MWD+IFR1+MS

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7600.000	0.000	0.000	7583.956	27.334	0.000	27.050	0.000	10.176	0.000	0.000	27.334	27.050	89.919	XOMR2_OWSG MWD+IFR1+MS
7700.000	0.000	0.000	7683.956	27.689	0.000	27.406	0.000	10.357	0.000	0.000	27.689	27.406	89.983	XOMR2_OWSG MWD+IFR1+MS
7800.000	0.000	0.000	7783.956	28.045	0.000	27.762	0.000	10.541	0.000	0.000	28.045	27.762	90.045	XOMR2_OWSG MWD+IFR1+MS
7900.000	0.000	0.000	7883.956	28.400	0.000	28.117	0.000	10.728	0.000	0.000	28.400	28.117	90.105	XOMR2_OWSG MWD+IFR1+MS
8000.000	0.000	0.000	7983.956	28.756	0.000	28.473	0.000	10.917	0.000	0.000	28.756	28.473	90.164	XOMR2_OWSG MWD+IFR1+MS
8100.000	0.000	0.000	8083.956	29.112	0.000	28.829	0.000	11.109	0.000	0.000	29.112	28.829	90.222	XOMR2_OWSG MWD+IFR1+MS
8200.000	0.000	0.000	8183.956	29.468	0.000	29.185	0.000	11.304	0.000	0.000	29.468	29.185	90.279	XOMR2_OWSG MWD+IFR1+MS
8300.000	0.000	0.000	8283.956	29.823	0.000	29.541	0.000	11.502	0.000	0.000	29.823	29.541	90.334	XOMR2_OWSG MWD+IFR1+MS
8400.000	0.000	0.000	8383.956	30.179	0.000	29.897	0.000	11.703	0.000	0.000	30.179	29.897	90.387	XOMR2_OWSG MWD+IFR1+MS
8500.000	0.000	0.000	8483.956	30.535	0.000	30.253	0.000	11.906	0.000	0.000	30.535	30.253	90.440	XOMR2_OWSG MWD+IFR1+MS
8600.000	0.000	0.000	8583.956	30.891	0.000	30.610	0.000	12.113	0.000	0.000	30.891	30.610	90.492	XOMR2_OWSG MWD+IFR1+MS
8700.000	0.000	0.000	8683.956	31.247	0.000	30.966	0.000	12.322	0.000	0.000	31.247	30.966	90.542	XOMR2_OWSG MWD+IFR1+MS
8800.000	0.000	0.000	8783.956	31.604	0.000	31.322	0.000	12.534	0.000	0.000	31.604	31.322	90.591	XOMR2_OWSG MWD+IFR1+MS
8900.000	0.000	0.000	8883.956	31.960	0.000	31.679	0.000	12.749	0.000	0.000	31.960	31.679	90.640	XOMR2_OWSG MWD+IFR1+MS
9000.000	0.000	0.000	8983.956	32.316	0.000	32.035	0.000	12.967	0.000	0.000	32.316	32.035	90.687	XOMR2_OWSG MWD+IFR1+MS
9100.000	0.000	0.000	9083.956	32.672	0.000	32.391	0.000	13.187	0.000	0.000	32.672	32.391	90.733	XOMR2_OWSG MWD+IFR1+MS
9200.000	0.000	0.000	9183.956	33.029	0.000	32.748	0.000	13.411	0.000	0.000	33.029	32.748	90.778	XOMR2_OWSG MWD+IFR1+MS
9300.000	0.000	0.000	9283.956	33.385	0.000	33.104	0.000	13.638	0.000	0.000	33.385	33.104	90.823	XOMR2_OWSG MWD+IFR1+MS
9400.000	0.000	0.000	9383.956	33.741	0.000	33.461	0.000	13.867	0.000	0.000	33.741	33.461	90.866	XOMR2_OWSG MWD+IFR1+MS
9469.847	0.000	0.000	9453.803	33.990	0.000	33.710	0.000	14.029	0.000	0.000	33.990	33.710	90.896	XOMR2_OWSG MWD+IFR1+MS

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9500.000	2.412	179.789	9483.947	34.015	0.000	33.812	-0.000	14.099	0.000	0.000	34.092	33.812	90.912	XOMR2_OWSG MWD+IFR1+MS
9600.000	10.412	179.789	9583.241	33.712	0.000	34.125	-0.000	14.326	0.000	0.000	34.401	34.125	91.040	XOMR2_OWSG MWD+IFR1+MS
9700.000	18.412	179.789	9680.015	32.858	0.000	34.422	-0.000	14.538	0.000	0.000	34.689	34.422	91.296	XOMR2_OWSG MWD+IFR1+MS
9800.000	26.412	179.789	9772.387	31.481	0.000	34.700	-0.000	14.734	0.000	0.000	34.949	34.699	91.689	XOMR2_OWSG MWD+IFR1+MS
9900.000	34.412	179.789	9858.557	29.633	0.000	34.955	-0.000	14.911	0.000	0.000	35.173	34.954	92.249	XOMR2_OWSG MWD+IFR1+MS
10000.000	42.412	179.789	9936.849	27.391	0.000	35.186	-0.000	15.073	0.000	0.000	35.360	35.185	93.087	XOMR2_OWSG MWD+IFR1+MS
10100.000	50.412	179.789	10005.740	24.867	0.000	35.391	-0.000	15.226	0.000	0.000	35.507	35.390	94.620	XOMR2_OWSG MWD+IFR1+MS
10200.000	58.412	179.789	10063.888	22.220	0.000	35.570	-0.000	15.376	0.000	0.000	35.617	35.568	99.907	XOMR2_OWSG MWD+IFR1+MS
10300.000	66.412	179.789	10110.161	19.675	0.000	35.722	-0.000	15.533	0.000	0.000	35.723	35.689	-9.773	XOMR2_OWSG MWD+IFR1+MS
10400.000	74.412	179.789	10143.658	17.555	0.000	35.846	-0.000	15.706	0.000	0.000	35.846	35.734	-0.722	XOMR2_OWSG MWD+IFR1+MS
10500.000	82.412	179.789	10163.729	16.257	0.000	35.943	-0.000	15.899	0.000	0.000	35.943	35.755	1.423	XOMR2_OWSG MWD+IFR1+MS
10594.847	90.000	179.789	10170.000	16.104	0.000	36.007	-0.000	16.104	0.000	0.000	36.008	35.763	2.839	XOMR2_OWSG MWD+IFR1+MS
10600.000	90.000	179.789	10170.000	16.116	0.000	36.010	-0.000	16.116	0.000	0.000	36.011	35.764	2.923	XOMR2_OWSG MWD+IFR1+MS
10700.000	90.000	179.789	10170.000	16.363	0.000	36.073	-0.000	16.363	0.000	0.000	36.075	35.768	3.967	XOMR2_OWSG MWD+IFR1+MS
10800.000	90.000	179.789	10170.000	16.642	0.000	36.152	-0.000	16.642	0.000	0.000	36.155	35.772	4.468	XOMR2_OWSG MWD+IFR1+MS
10900.000	90.000	179.789	10170.000	16.954	0.000	36.248	-0.000	16.954	0.000	0.000	36.251	35.777	4.639	XOMR2_OWSG MWD+IFR1+MS
11000.000	90.000	179.789	10170.000	17.296	0.000	36.359	-0.000	17.296	0.000	0.000	36.363	35.782	4.621	XOMR2_OWSG MWD+IFR1+MS
11100.000	90.000	179.789	10170.000	17.665	0.000	36.485	-0.000	17.665	0.000	0.000	36.490	35.788	4.503	XOMR2_OWSG MWD+IFR1+MS
11200.000	90.000	179.789	10170.000	18.062	0.000	36.628	-0.000	18.062	0.000	0.000	36.633	35.796	4.335	XOMR2_OWSG MWD+IFR1+MS
11300.000	90.000	179.789	10170.000	18.483	0.000	36.785	-0.000	18.483	0.000	0.000	36.791	35.803	4.145	XOMR2_OWSG MWD+IFR1+MS

11400.000	90.000	179.789	10170.000	18.927	0.000	36.958	-0.000	18.927	0.000	0.000	36.964	35.812	3.949	XOMR2_OWSG MWD+IFR1+MS
11500.000	90.000	179.789	10170.000	19.393	0.000	37.146	-0.000	19.393	0.000	0.000	37.152	35.821	3.757	XOMR2_OWSG MWD+IFR1+MS
11600.000	90.000	179.789	10170.000	19.879	0.000	37.348	-0.000	19.879	0.000	0.000	37.355	35.831	3.572	XOMR2_OWSG MWD+IFR1+MS
11700.000	90.000	179.789	10170.000	20.384	0.000	37.565	-0.000	20.384	0.000	0.000	37.572	35.842	3.398	XOMR2_OWSG MWD+IFR1+MS
11800.000	90.000	179.789	10170.000	20.906	0.000	37.796	-0.000	20.906	0.000	0.000	37.803	35.853	3.234	XOMR2_OWSG MWD+IFR1+MS
11900.000	90.000	179.789	10170.000	21.444	0.000	38.041	-0.000	21.444	0.000	0.000	38.048	35.865	3.082	XOMR2_OWSG MWD+IFR1+MS
12000.000	90.000	179.789	10170.000	21.997	0.000	38.300	-0.000	21.997	0.000	0.000	38.307	35.878	2.940	XOMR2_OWSG MWD+IFR1+MS
12100.000	90.000	179.789	10170.000	22.564	0.000	38.572	-0.000	22.564	0.000	0.000	38.580	35.891	2.807	XOMR2_OWSG MWD+IFR1+MS
12200.000	90.000	179.789	10170.000	23.143	0.000	38.858	-0.000	23.143	0.000	0.000	38.865	35.905	2.684	XOMR2_OWSG MWD+IFR1+MS
12300.000	90.000	179.789	10170.000	23.734	0.000	39.156	-0.000	23.734	0.000	0.000	39.163	35.920	2.570	XOMR2_OWSG MWD+IFR1+MS
12400.000	90.000	179.789	10170.000	24.336	0.000	39.467	-0.000	24.336	0.000	0.000	39.474	35.935	2.464	XOMR2_OWSG MWD+IFR1+MS
12500.000	90.000	179.789	10170.000	24.948	0.000	39.790	-0.000	24.948	0.000	0.000	39.797	35.951	2.364	XOMR2_OWSG MWD+IFR1+MS
12600.000	90.000	179.789	10170.000	25.570	0.000	40.125	-0.000	25.570	0.000	0.000	40.132	35.968	2.272	XOMR2_OWSG MWD+IFR1+MS
12700.000	90.000	179.789	10170.000	26.201	0.000	40.472	-0.000	26.201	0.000	0.000	40.479	35.985	2.185	XOMR2_OWSG MWD+IFR1+MS
12800.000	90.000	179.789	10170.000	26.839	0.000	40.830	-0.000	26.839	0.000	0.000	40.837	36.003	2.104	XOMR2_OWSG MWD+IFR1+MS
12900.000	90.000	179.789	10170.000	27.485	0.000	41.199	-0.000	27.485	0.000	0.000	41.206	36.021	2.027	XOMR2_OWSG MWD+IFR1+MS
13000.000	90.000	179.789	10170.000	28.139	0.000	41.579	-0.000	28.139	0.000	0.000	41.586	36.040	1.956	XOMR2_OWSG MWD+IFR1+MS
13100.000	90.000	179.789	10170.000	28.798	0.000	41.970	-0.000	28.798	0.000	0.000	41.977	36.060	1.888	XOMR2_OWSG MWD+IFR1+MS
13200.000	90.000	179.789	10170.000	29.464	0.000	42.370	-0.000	29.464	0.000	0.000	42.378	36.081	1.825	XOMR2_OWSG MWD+IFR1+MS
13300.000	90.000	179.789	10170.000	30.136	0.000	42.781	-0.000	30.136	0.000	0.000	42.788	36.102	1.765	XOMR2_OWSG MWD+IFR1+MS

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13400.000	90.000	179.789	10170.000	30.813	0.000	43.201	-0.000	30.813	0.000	0.000	43.208	36.123	1.709	XOMR2_OWSG MWD+IFR1+MS
13500.000	90.000	179.789	10170.000	31.495	0.000	43.631	-0.000	31.495	0.000	0.000	43.638	36.146	1.655	XOMR2_OWSG MWD+IFR1+MS
13600.000	90.000	179.789	10170.000	32.181	0.000	44.069	-0.000	32.181	0.000	0.000	44.077	36.169	1.604	XOMR2_OWSG MWD+IFR1+MS
13700.000	90.000	179.789	10170.000	32.873	0.000	44.517	-0.000	32.873	0.000	0.000	44.524	36.192	1.556	XOMR2_OWSG MWD+IFR1+MS
13800.000	90.000	179.789	10170.000	33.568	0.000	44.973	-0.000	33.568	0.000	0.000	44.980	36.217	1.511	XOMR2_OWSG MWD+IFR1+MS
13900.000	90.000	179.789	10170.000	34.267	0.000	45.437	-0.000	34.267	0.000	0.000	45.444	36.242	1.467	XOMR2_OWSG MWD+IFR1+MS
14000.000	90.000	179.789	10170.000	34.969	0.000	45.910	-0.000	34.969	0.000	0.000	45.917	36.267	1.426	XOMR2_OWSG MWD+IFR1+MS
14100.000	90.000	179.789	10170.000	35.676	0.000	46.390	-0.000	35.676	0.000	0.000	46.397	36.293	1.386	XOMR2_OWSG MWD+IFR1+MS
14200.000	90.000	179.789	10170.000	36.385	0.000	46.878	-0.000	36.385	0.000	0.000	46.885	36.320	1.349	XOMR2_OWSG MWD+IFR1+MS
14300.000	90.000	179.789	10170.000	37.097	0.000	47.373	-0.000	37.097	0.000	0.000	47.380	36.347	1.313	XOMR2_OWSG MWD+IFR1+MS
14400.000	90.000	179.789	10170.000	37.813	0.000	47.875	-0.000	37.813	0.000	0.000	47.882	36.375	1.279	XOMR2_OWSG MWD+IFR1+MS
14500.000	90.000	179.789	10170.000	38.531	0.000	48.384	-0.000	38.531	0.000	0.000	48.391	36.404	1.246	XOMR2_OWSG MWD+IFR1+MS
14600.000	90.000	179.789	10170.000	39.251	0.000	48.900	-0.000	39.251	0.000	0.000	48.906	36.433	1.214	XOMR2_OWSG MWD+IFR1+MS
14700.000	90.000	179.789	10170.000	39.974	0.000	49.422	-0.000	39.974	0.000	0.000	49.428	36.463	1.184	XOMR2_OWSG MWD+IFR1+MS
14800.000	90.000	179.789	10170.000	40.699	0.000	49.950	-0.000	40.699	0.000	0.000	49.957	36.494	1.155	XOMR2_OWSG MWD+IFR1+MS
14900.000	90.000	179.789	10170.000	41.427	0.000	50.485	-0.000	41.427	0.000	0.000	50.491	36.525	1.128	XOMR2_OWSG MWD+IFR1+MS
15000.000	90.000	179.789	10170.000	42.156	0.000	51.025	-0.000	42.156	0.000	0.000	51.031	36.556	1.101	XOMR2_OWSG MWD+IFR1+MS
15100.000	90.000	179.789	10170.000	42.887	0.000	51.571	-0.000	42.887	0.000	0.000	51.577	36.589	1.075	XOMR2_OWSG MWD+IFR1+MS
15200.000	90.000	179.789	10170.000	43.621	0.000	52.122	-0.000	43.621	0.000	0.000	52.129	36.622	1.051	XOMR2_OWSG MWD+IFR1+MS
15300.000	90.000	179.789	10170.000	44.356	0.000	52.679	-0.000	44.356	0.000	0.000	52.686	36.655	1.027	XOMR2_OWSG MWD+IFR1+MS

15400.000	90.000	179.789	10170.000	45.092	0.000	53.241	-0.000	45.092	0.000	0.000	53.248	36.689	1.004	XOMR2_OWSG MWD+IFR1+MS
15500.000	90.000	179.789	10170.000	45.831	0.000	53.808	-0.000	45.831	0.000	0.000	53.814	36.724	0.982	XOMR2_OWSG MWD+IFR1+MS
15600.000	90.000	179.789	10170.000	46.571	0.000	54.380	-0.000	46.571	0.000	0.000	54.386	36.759	0.961	XOMR2_OWSG MWD+IFR1+MS
15700.000	90.000	179.789	10170.000	47.312	0.000	54.957	-0.000	47.312	0.000	0.000	54.963	36.795	0.940	XOMR2_OWSG MWD+IFR1+MS
15800.000	90.000	179.789	10170.000	48.054	0.000	55.538	-0.000	48.054	0.000	0.000	55.544	36.832	0.920	XOMR2_OWSG MWD+IFR1+MS
15900.000	90.000	179.789	10170.000	48.798	0.000	56.123	-0.000	48.798	0.000	0.000	56.129	36.869	0.901	XOMR2_OWSG MWD+IFR1+MS
16000.000	90.000	179.789	10170.000	49.544	0.000	56.713	-0.000	49.544	0.000	0.000	56.719	36.907	0.883	XOMR2_OWSG MWD+IFR1+MS
16100.000	90.000	179.789	10170.000	50.290	0.000	57.307	-0.000	50.290	0.000	0.000	57.313	36.945	0.865	XOMR2_OWSG MWD+IFR1+MS
16200.000	90.000	179.789	10170.000	51.038	0.000	57.905	-0.000	51.038	0.000	0.000	57.911	36.984	0.847	XOMR2_OWSG MWD+IFR1+MS
16300.000	90.000	179.789	10170.000	51.786	0.000	58.506	-0.000	51.786	0.000	0.000	58.512	37.024	0.831	XOMR2_OWSG MWD+IFR1+MS
16400.000	90.000	179.789	10170.000	52.536	0.000	59.112	-0.000	52.536	0.000	0.000	59.118	37.064	0.814	XOMR2_OWSG MWD+IFR1+MS
16500.000	90.000	179.789	10170.000	53.287	0.000	59.721	-0.000	53.287	0.000	0.000	59.727	37.104	0.798	XOMR2_OWSG MWD+IFR1+MS
16600.000	90.000	179.789	10170.000	54.039	0.000	60.334	-0.000	54.039	0.000	0.000	60.340	37.146	0.783	XOMR2_OWSG MWD+IFR1+MS
16700.000	90.000	179.789	10170.000	54.791	0.000	60.950	-0.000	54.791	0.000	0.000	60.956	37.187	0.768	XOMR2_OWSG MWD+IFR1+MS
16800.000	90.000	179.789	10170.000	55.545	0.000	61.570	-0.000	55.545	0.000	0.000	61.575	37.230	0.754	XOMR2_OWSG MWD+IFR1+MS
16900.000	90.000	179.789	10170.000	56.299	0.000	62.192	-0.000	56.299	0.000	0.000	62.198	37.273	0.740	XOMR2_OWSG MWD+IFR1+MS
17000.000	90.000	179.789	10170.000	57.054	0.000	62.818	-0.000	57.054	0.000	0.000	62.824	37.316	0.726	XOMR2_OWSG MWD+IFR1+MS
17100.000	90.000	179.789	10170.000	57.810	0.000	63.447	-0.000	57.810	0.000	0.000	63.452	37.361	0.713	XOMR2_OWSG MWD+IFR1+MS
17200.000	90.000	179.789	10170.000	58.567	0.000	64.079	-0.000	58.567	0.000	0.000	64.084	37.405	0.700	XOMR2_OWSG MWD+IFR1+MS
17300.000	90.000	179.789	10170.000	59.325	0.000	64.714	-0.000	59.325	0.000	0.000	64.719	37.451	0.688	XOMR2_OWSG MWD+IFR1+MS

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17400.000	90.000	179.789	10170.000	60.083	0.000	65.351	-0.000	60.083	0.000	0.000	65.356	37.496	0.675	XOMR2_OWSG MWD+IFR1+MS
17500.000	90.000	179.789	10170.000	60.842	0.000	65.991	-0.000	60.842	0.000	0.000	65.997	37.543	0.664	XOMR2_OWSG MWD+IFR1+MS
17600.000	90.000	179.789	10170.000	61.601	0.000	66.634	-0.000	61.601	0.000	0.000	66.639	37.590	0.652	XOMR2_OWSG MWD+IFR1+MS
17700.000	90.000	179.789	10170.000	62.361	0.000	67.280	-0.000	62.361	0.000	0.000	67.285	37.637	0.641	XOMR2_OWSG MWD+IFR1+MS
17800.000	90.000	179.789	10170.000	63.122	0.000	67.928	-0.000	63.122	0.000	0.000	67.933	37.686	0.630	XOMR2_OWSG MWD+IFR1+MS
17900.000	90.000	179.789	10170.000	63.883	0.000	68.578	-0.000	63.883	0.000	0.000	68.583	37.734	0.619	XOMR2_OWSG MWD+IFR1+MS
18000.000	90.000	179.789	10170.000	64.645	0.000	69.230	-0.000	64.645	0.000	0.000	69.235	37.783	0.609	XOMR2_OWSG MWD+IFR1+MS
18100.000	90.000	179.789	10170.000	65.408	0.000	69.885	-0.000	65.408	0.000	0.000	69.890	37.833	0.599	XOMR2_OWSG MWD+IFR1+MS
18200.000	90.000	179.789	10170.000	66.171	0.000	70.542	-0.000	66.171	0.000	0.000	70.547	37.883	0.589	XOMR2_OWSG MWD+IFR1+MS
18300.000	90.000	179.789	10170.000	66.934	0.000	71.202	-0.000	66.934	0.000	0.000	71.207	37.934	0.579	XOMR2_OWSG MWD+IFR1+MS
18400.000	90.000	179.789	10170.000	67.698	0.000	71.863	-0.000	67.698	0.000	0.000	71.868	37.986	0.570	XOMR2_OWSG MWD+IFR1+MS
18500.000	90.000	179.789	10170.000	68.462	0.000	72.526	-0.000	68.462	0.000	0.000	72.531	38.038	0.560	XOMR2_OWSG MWD+IFR1+MS
18600.000	90.000	179.789	10170.000	69.227	0.000	73.192	-0.000	69.227	0.000	0.000	73.197	38.090	0.551	XOMR2_OWSG MWD+IFR1+MS
18700.000	90.000	179.789	10170.000	69.992	0.000	73.859	-0.000	69.992	0.000	0.000	73.864	38.143	0.543	XOMR2_OWSG MWD+IFR1+MS
18800.000	90.000	179.789	10170.000	70.758	0.000	74.528	-0.000	70.758	0.000	0.000	74.533	38.197	0.534	XOMR2_OWSG MWD+IFR1+MS
18900.000	90.000	179.789	10170.000	71.524	0.000	75.199	-0.000	71.524	0.000	0.000	75.204	38.251	0.526	XOMR2_OWSG MWD+IFR1+MS
19000.000	90.000	179.789	10170.000	72.291	0.000	75.872	-0.000	72.291	0.000	0.000	75.877	38.306	0.517	XOMR2_OWSG MWD+IFR1+MS
19100.000	90.000	179.789	10170.000	73.058	0.000	76.546	-0.000	73.058	0.000	0.000	76.551	38.361	0.509	XOMR2_OWSG MWD+IFR1+MS
19200.000	90.000	179.789	10170.000	73.825	0.000	77.223	-0.000	73.825	0.000	0.000	77.227	38.416	0.502	XOMR2_OWSG MWD+IFR1+MS
19300.000	90.000	179.789	10170.000	74.593	0.000	77.900	-0.000	74.593	0.000	0.000	77.905	38.473	0.494	XOMR2_OWSG MWD+IFR1+MS



19400.000	90.000	179.789	10170.000	75.361	0.000	78.580	-0.000	75.361	0.000	0.000	78.584	38.529	0.486	XOMR2_OWSG MWD+IFR1+MS
19500.000	90.000	179.789	10170.000	76.129	0.000	79.261	-0.000	76.129	0.000	0.000	79.265	38.587	0.479	XOMR2_OWSG MWD+IFR1+MS
19600.000	90.000	179.789	10170.000	76.898	0.000	79.943	-0.000	76.898	0.000	0.000	79.948	38.645	0.472	XOMR2_OWSG MWD+IFR1+MS
19700.000	90.000	179.789	10170.000	77.667	0.000	80.627	-0.000	77.667	0.000	0.000	80.632	38.703	0.465	XOMR2_OWSG MWD+IFR1+MS
19800.000	90.000	179.789	10170.000	78.436	0.000	81.313	-0.000	78.436	0.000	0.000	81.317	38.762	0.458	XOMR2_OWSG MWD+IFR1+MS
19900.000	90.000	179.789	10170.000	79.206	0.000	81.999	-0.000	79.206	0.000	0.000	82.004	38.821	0.451	XOMR2_OWSG MWD+IFR1+MS
20000.000	90.000	179.789	10170.000	79.976	0.000	82.688	-0.000	79.976	0.000	0.000	82.692	38.881	0.444	XOMR2_OWSG MWD+IFR1+MS
20100.000	90.000	179.789	10170.000	80.746	0.000	83.377	-0.000	80.746	0.000	0.000	83.381	38.941	0.438	XOMR2_OWSG MWD+IFR1+MS
20200.000	90.000	179.789	10170.000	81.517	0.000	84.068	-0.000	81.517	0.000	0.000	84.072	39.002	0.431	XOMR2_OWSG MWD+IFR1+MS
20300.000	90.000	179.789	10170.000	82.287	0.000	84.760	-0.000	82.287	0.000	0.000	84.764	39.063	0.425	XOMR2_OWSG MWD+IFR1+MS
20400.000	90.000	179.789	10170.000	83.058	0.000	85.453	-0.000	83.058	0.000	0.000	85.457	39.125	0.419	XOMR2_OWSG MWD+IFR1+MS
20500.000	90.000	179.789	10170.000	83.830	0.000	86.148	-0.000	83.830	0.000	0.000	86.152	39.188	0.413	XOMR2_OWSG MWD+IFR1+MS
20600.000	90.000	179.789	10170.000	84.601	0.000	86.843	-0.000	84.601	0.000	0.000	86.847	39.250	0.407	XOMR2_OWSG MWD+IFR1+MS
20700.000	90.000	179.789	10170.000	85.373	0.000	87.540	-0.000	85.373	0.000	0.000	87.544	39.314	0.401	XOMR2_OWSG MWD+IFR1+MS
20800.000	90.000	179.789	10170.000	86.145	0.000	88.238	-0.000	86.145	0.000	0.000	88.242	39.378	0.396	XOMR2_OWSG MWD+IFR1+MS
20900.000	90.000	179.789	10170.000	86.917	0.000	88.937	-0.000	86.917	0.000	0.000	88.941	39.442	0.390	XOMR2_OWSG MWD+IFR1+MS
21000.000	90.000	179.789	10170.000	87.690	0.000	89.637	-0.000	87.690	0.000	0.000	89.641	39.507	0.385	XOMR2_OWSG MWD+IFR1+MS
21100.000	90.000	179.789	10170.000	88.462	0.000	90.339	-0.000	88.462	0.000	0.000	90.342	39.572	0.379	XOMR2_OWSG MWD+IFR1+MS
21200.000	90.000	179.789	10170.000	89.235	0.000	91.041	-0.000	89.235	0.000	0.000	91.045	39.638	0.374	XOMR2_OWSG MWD+IFR1+MS
21300.000	90.000	179.789	10170.000	90.008	0.000	91.744	-0.000	90.008	0.000	0.000	91.748	39.704	0.369	XOMR2_OWSG MWD+IFR1+MS

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21400.000	90.000	179.789	10170.000	90.782	0.000	92.448	-0.000	90.782	0.000	0.000	92.452	39.771	0.364	XOMR2_OWSG MWD+IFR1+MS
21500.000	90.000	179.789	10170.000	91.555	0.000	93.153	-0.000	91.555	0.000	0.000	93.157	39.838	0.359	XOMR2_OWSG MWD+IFR1+MS
21600.000	90.000	179.789	10170.000	92.329	0.000	93.859	-0.000	92.329	0.000	0.000	93.863	39.906	0.354	XOMR2_OWSG MWD+IFR1+MS
21700.000	90.000	179.789	10170.000	93.103	0.000	94.566	-0.000	93.103	0.000	0.000	94.570	39.974	0.349	XOMR2_OWSG MWD+IFR1+MS
21800.000	90.000	179.789	10170.000	93.877	0.000	95.274	-0.000	93.877	0.000	0.000	95.278	40.042	0.344	XOMR2_OWSG MWD+IFR1+MS
21900.000	90.000	179.789	10170.000	94.651	0.000	95.983	-0.000	94.651	0.000	0.000	95.987	40.111	0.339	XOMR2_OWSG MWD+IFR1+MS
22000.000	90.000	179.789	10170.000	95.425	0.000	96.693	-0.000	95.425	0.000	0.000	96.696	40.181	0.335	XOMR2_OWSG MWD+IFR1+MS
22100.000	90.000	179.789	10170.000	96.200	0.000	97.403	-0.000	96.200	0.000	0.000	97.407	40.251	0.330	XOMR2_OWSG MWD+IFR1+MS
22200.000	90.000	179.789	10170.000	96.975	0.000	98.114	-0.000	96.975	0.000	0.000	98.118	40.321	0.326	XOMR2_OWSG MWD+IFR1+MS
22300.000	90.000	179.789	10170.000	97.749	0.000	98.826	-0.000	97.749	0.000	0.000	98.830	40.392	0.321	XOMR2_OWSG MWD+IFR1+MS
22400.000	90.000	179.789	10170.000	98.524	0.000	99.539	-0.000	98.524	0.000	0.000	99.543	40.463	0.317	XOMR2_OWSG MWD+IFR1+MS
22500.000	90.000	179.789	10170.000	99.300	0.000	100.253	-0.000	99.300	0.000	0.000	100.256	40.535	0.313	XOMR2_OWSG MWD+IFR1+MS
22600.000	90.000	179.789	10170.000	100.075	0.000	100.967	-0.000	100.075	0.000	0.000	100.970	40.608	0.309	XOMR2_OWSG MWD+IFR1+MS
22700.000	90.000	179.789	10170.000	100.850	0.000	101.682	-0.000	100.850	0.000	0.000	101.686	40.680	0.305	XOMR2_OWSG MWD+IFR1+MS
22800.000	90.000	179.789	10170.000	101.626	0.000	102.398	-0.000	101.626	0.000	0.000	102.401	40.753	0.301	XOMR2_OWSG MWD+IFR1+MS
22900.000	90.000	179.789	10170.000	102.402	0.000	103.114	-0.000	102.402	0.000	0.000	103.118	40.827	0.297	XOMR2_OWSG MWD+IFR1+MS
23000.000	90.000	179.789	10170.000	103.178	0.000	103.832	-0.000	103.178	0.000	0.000	103.835	40.901	0.293	XOMR2_OWSG MWD+IFR1+MS
23100.000	90.000	179.789	10170.000	103.954	0.000	104.549	-0.000	103.954	0.000	0.000	104.553	40.975	0.289	XOMR2_OWSG MWD+IFR1+MS
23200.000	90.000	179.789	10170.000	104.730	0.000	105.268	-0.000	104.730	0.000	0.000	105.271	41.050	0.285	XOMR2_OWSG MWD+IFR1+MS
23300.000	90.000	179.789	10170.000	105.506	0.000	105.987	-0.000	105.506	0.000	0.000	105.990	41.126	0.281	XOMR2_OWSG MWD+IFR1+MS

23400.000	90.000	179.789	10170.000	106.283	0.000	106.707	-0.000	106.283	0.000	0.000	106.710	41.201	0.278	XOMR2_OWSG MWD+IFR1+MS
23500.000	90.000	179.789	10170.000	107.059	0.000	107.427	-0.000	107.059	0.000	0.000	107.431	41.277	0.274	XOMR2_OWSG MWD+IFR1+MS
23600.000	90.000	179.789	10170.000	107.836	0.000	108.148	-0.000	107.836	0.000	0.000	108.152	41.354	0.270	XOMR2_OWSG MWD+IFR1+MS
23683.235	90.000	179.789	10170.000	108.483	0.000	108.749	-0.000	108.483	0.000	0.000	108.752	41.418	0.267	XOMR2_OWSG MWD+IFR1+MS
23700.000	90.000	179.789	10170.000	108.613	0.000	108.870	-0.000	108.613	0.000	0.000	108.873	41.431	0.267	XOMR2_OWSG MWD+IFR1+MS
23733.235	90.000	179.789	10170.000	108.871	0.000	109.109	-0.000	108.871	0.000	0.000	109.112	41.457	0.266	XOMR2_OWSG MWD+IFR1+MS

Poker Lake Unit 28 BS 109H													
Plan Targets													
Target Name	Measured Depth			Grid Northing			Grid Easting			TVD MSL		Target Shape	
	(ft)			(ft)			(ft)			(ft)			
FTP 12	10594.78			400846.10			668357.10			6809.00		CIRCLE	
LTP 12	23683.24			387757.80			668405.20			6809.00		CIRCLE	
BHL 6	23733.35			387707.80			668405.50			6809.00		CIRCLE	



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

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

### **Background**

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

### **Supporting Documentation**

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

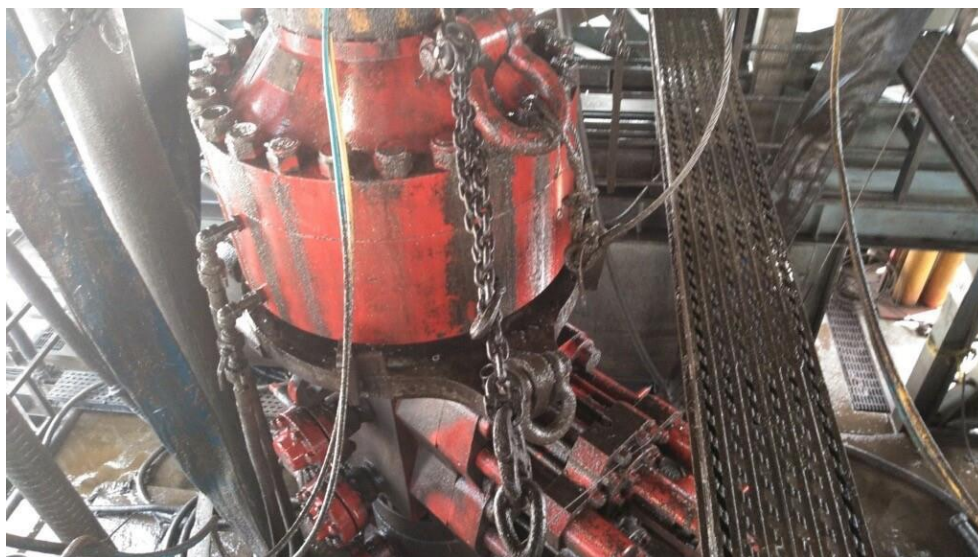


Figure 1: Winch System attached to BOP Stack





Figure 2: BOP Winch System

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

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API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure <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.

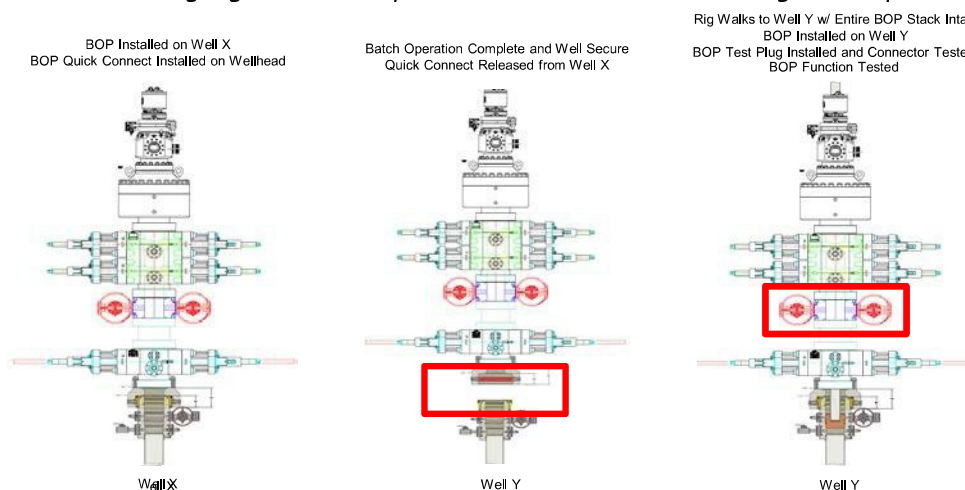
### **Procedures**

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*



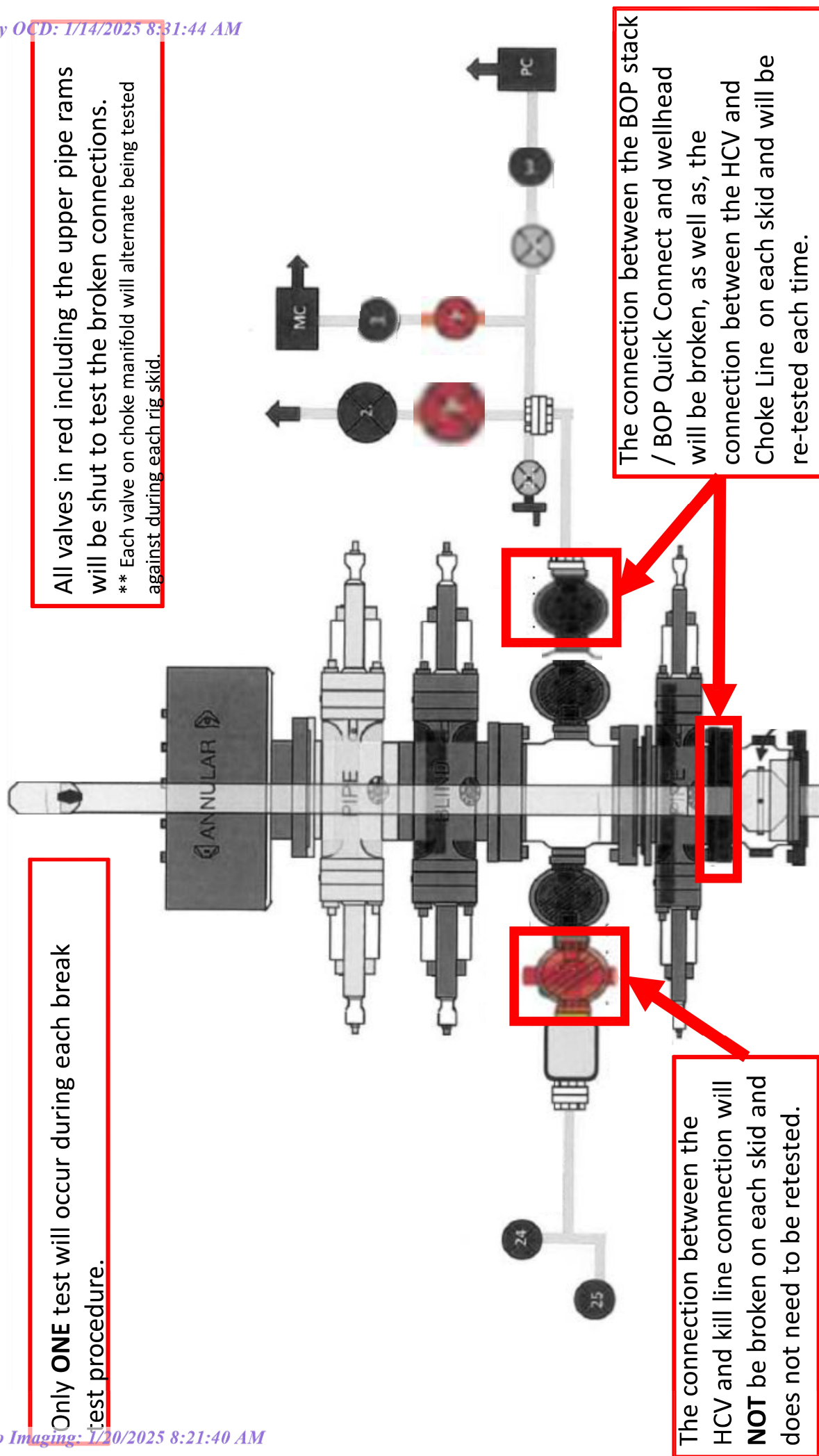
### Summary

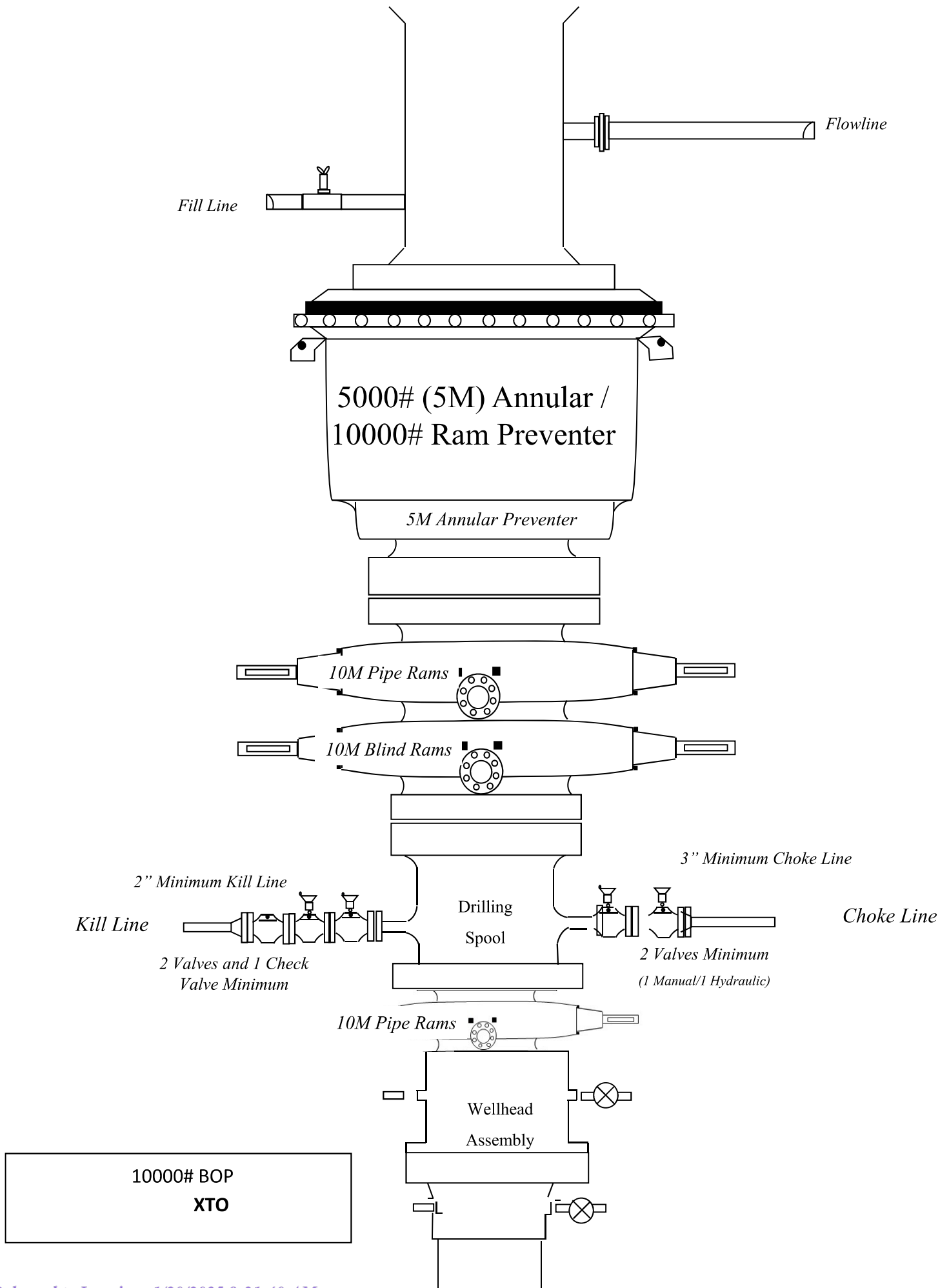
A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required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

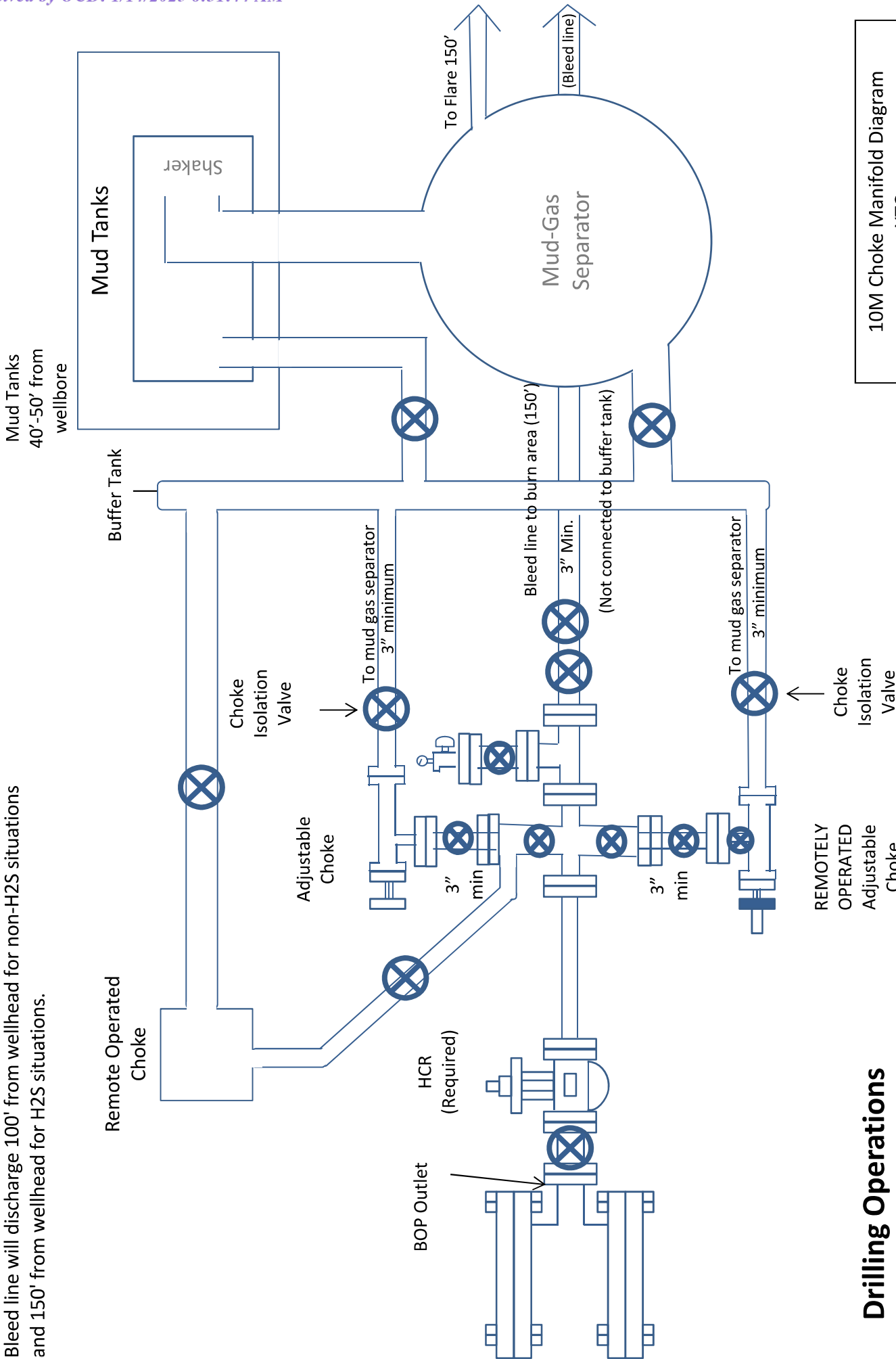
Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met:

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.





Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



# Drilling Operations Choke Manifold 10M Service

10M Choke Manifold Diagram  
XTO



## U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-FREEDOM HTQ®



MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ®		—
Minimum Yield Strength	110,000	—	psi	—
Maximum Yield Strength	125,000	—	psi	—
Minimum Tensile Strength	125,000	—	psi	—
DIMENSIONS	Pipe	USS-FREEDOM HTQ®		—
Outside Diameter	5.500	6.300	in.	—
Wall Thickness	0.361	--	in.	—
Inside Diameter	4.778	4.778	in.	—
Standard Drift	4.653	4.653	in.	—
Alternate Drift	--	--	in.	—
Nominal Linear Weight, T&C	20.00	--	lb/ft	—
Plain End Weight	19.83	--	lb/ft	—
SECTION AREA	Pipe	USS-FREEDOM HTQ®		—
Critical Area	5.828	5.828	sq. in.	—
Joint Efficiency	—	100.0	%	—
PERFORMANCE	Pipe	USS-FREEDOM HTQ®		—
Minimum Collapse Pressure	11,100	11,100	psi	—
Minimum Internal Yield Pressure	12,640	12,640	psi	—
Minimum Pipe Body Yield Strength	641,000	--	lb	—
Joint Strength	--	641,000	lb	—
Compression Rating	--	641,000	lb	—
Reference Length [4]	--	21,370	ft	—
Maximum Uniaxial Bend Rating [2]	--	91.7	deg/100 ft	—
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ®		—
Make-Up Loss	--	4.13	in.	—
Minimum Make-Up Torque [3]	--	15,000	ft-lb	—
Maximum Make-Up Torque [3]	--	21,000	ft-lb	—
Maximum Operating Torque[3]	--	29,500	ft-lb	—

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## Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

## Legal Notice

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Spring, Texas 77380

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connections@uss.com  
www.usstubular.com

**XTO Permian Operating, LLC Offline Cementing Variance Request**

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

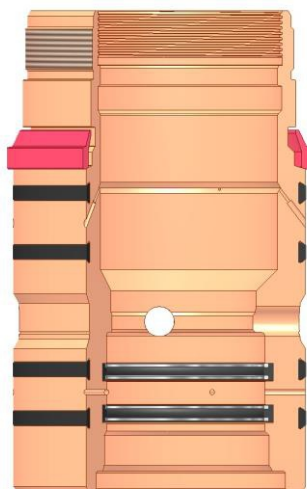
**1. Cement Program**

No changes to the cement program will take place for offline cementing.

**2. Offline Cementing Procedure**

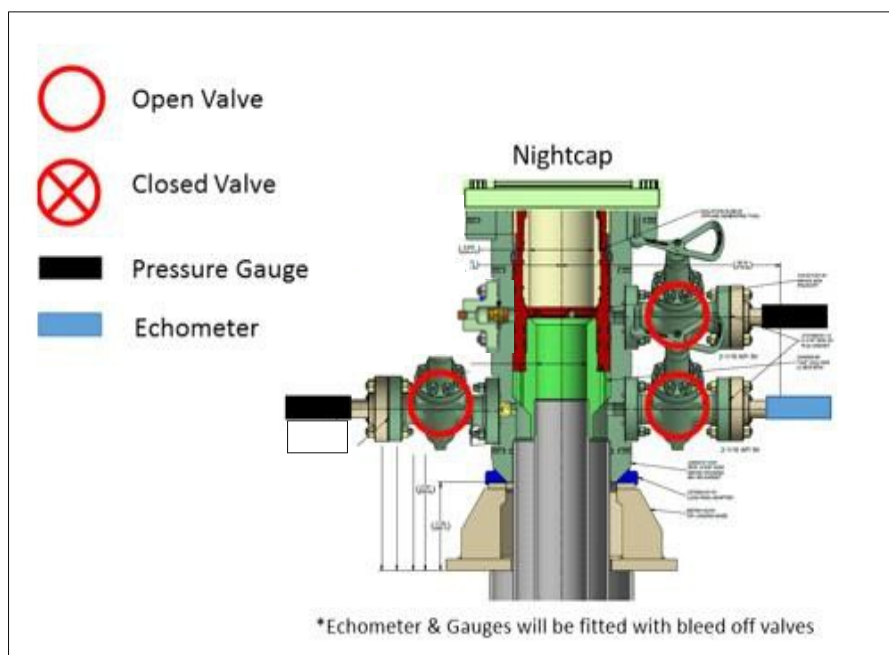
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nipped down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



Annular packoff with both external and internal seals

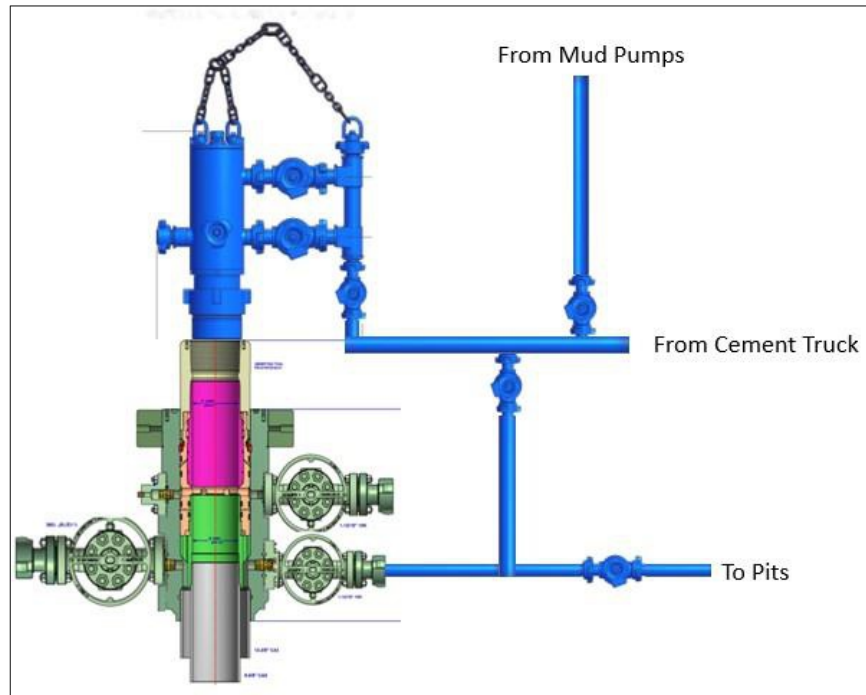
## XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nipping up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a 3<sup>rd</sup> party pump will be tied into the upper casing valve to pump down the casing ID
    - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
    - v. Well will be confirmed static
    - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment



**XTO Permian Operating, LLC Offline Cementing Variance Request**

Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
  - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
  - b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.


Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
  - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.



## U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-TALON HTQ™ RD

				
MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	—	psi	—
Maximum Yield Strength	125,000	—	psi	—
Minimum Tensile Strength	125,000	—	psi	—
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		—
Outside Diameter	5.500	5.900	in.	—
Wall Thickness	0.361	--	in.	—
Inside Diameter	4.778	4.778	in.	—
Standard Drift	4.653	4.653	in.	—
Alternate Drift	—	--	in.	—
Nominal Linear Weight, T&C	20.00	--	lb/ft	—
Plain End Weight	19.83	--	lb/ft	—
SECTION AREA	Pipe	USS-TALON HTQ™ RD		—
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		—
Minimum Collapse Pressure	11,100	11,100	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	641,000	lb	--
Compression Rating	--	641,000	lb	--
Reference Length	--	21,370	ft	[5]
Maximum Uniaxial Bend Rating	--	91.7	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		—
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	17,000	ft-lb	[4]
Maximum Make-Up Torque	--	20,000	ft-lb	[4]
Maximum Operating Torque	--	39,500	ft-lb	[4]

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## Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

## Legal Notice

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*NEW CHOKE HOSE*  
*INSTALLED 02-10-2024*

## CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

**CUSTOMER:** NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA  
**CUSTOMER P.O.#:** 15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)  
**CUSTOMER P/N:** IMR RETEST SN 74621 ASSET #66-1531

**PART DESCRIPTION:** RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES

**SALES ORDER #:** 529480  
**QUANTITY:** 1  
**SERIAL #:** 74621 H3-012524-1

**SIGNATURE:***F. Cismos***TITLE:****QUALITY ASSURANCE****DATE:**

1/25/2024



H3-15/16

1/25/2024 11:48:06 AM

# TEST REPORT

**CUSTOMER**

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

**TEST OBJECT**

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

**TEST INFORMATION**

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2: 3.0 x 4-1/16 10K

Part number:

Description:

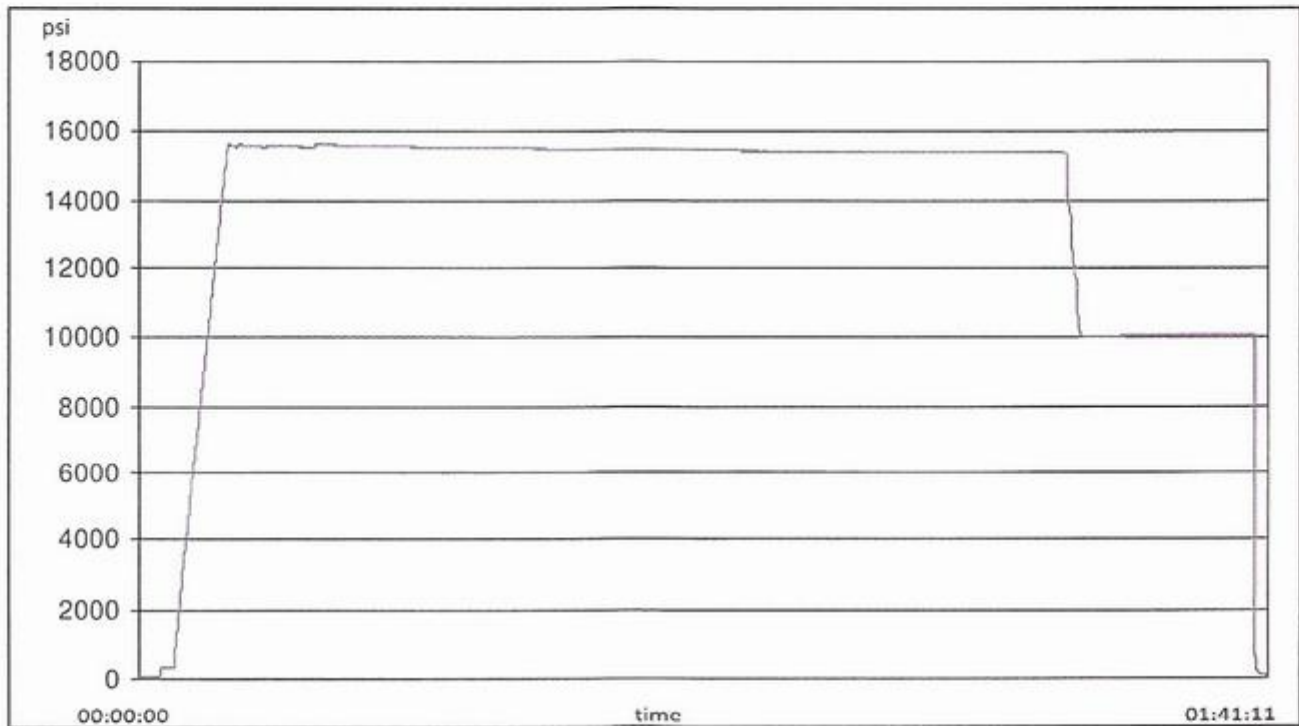
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





H3-15/16

1/25/2024 11:48:06 AM

# TEST REPORT

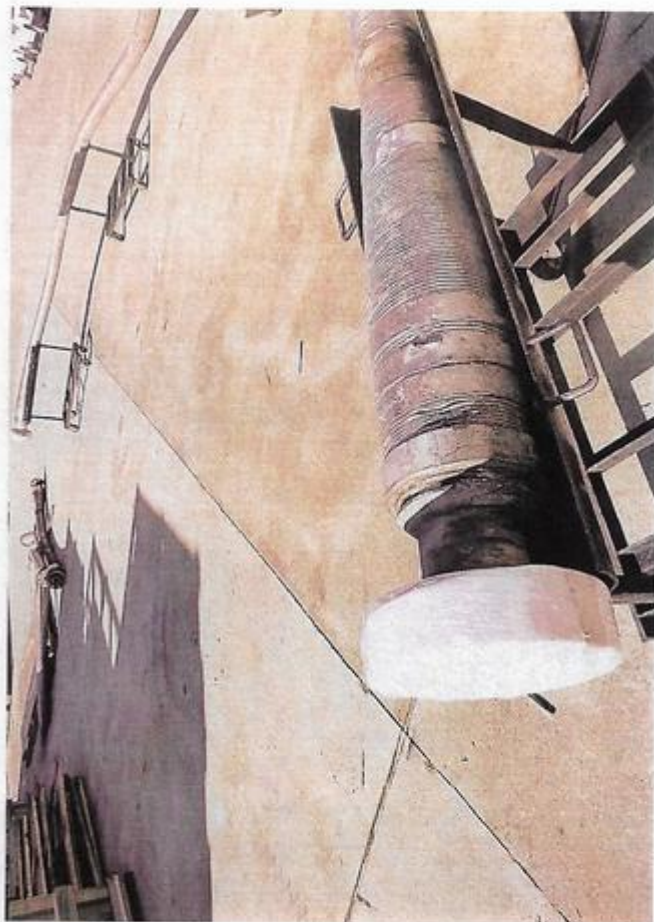
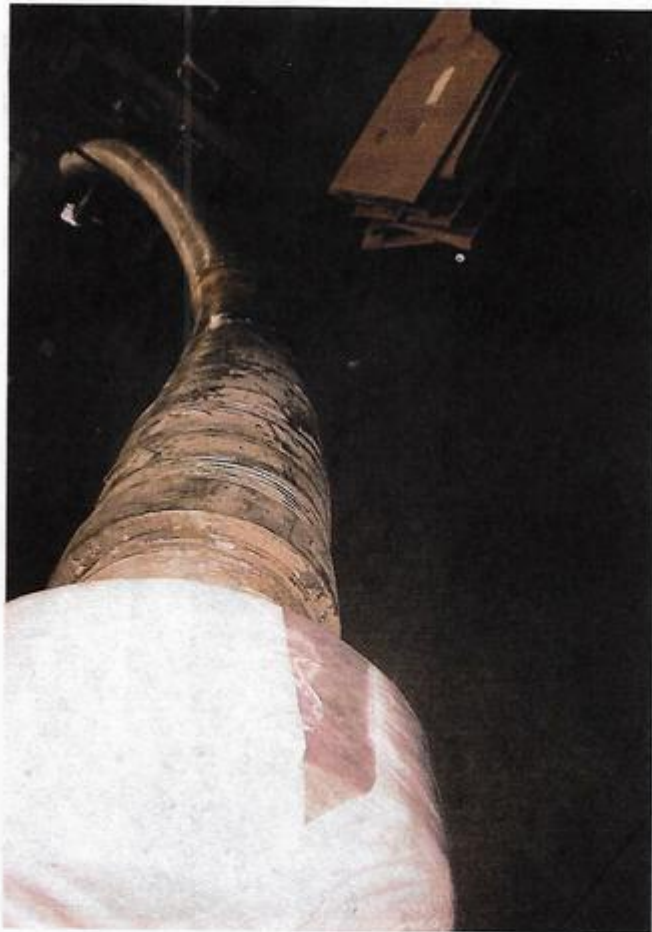
## GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16

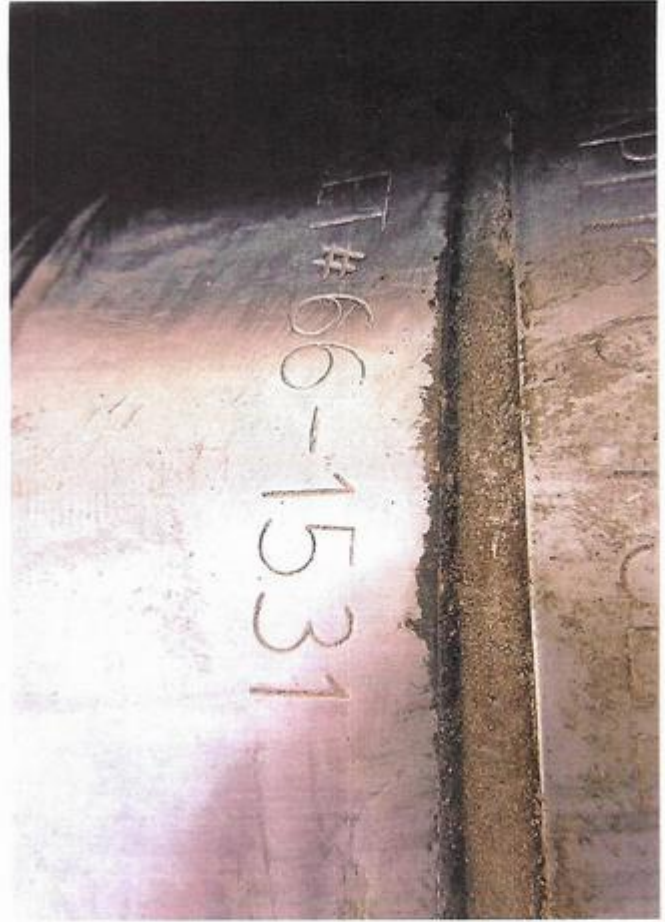
**Comment**

\_\_\_\_\_











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Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 420313

CONDITIONS

Operator:  XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID:  373075
	Action Number:  420313
	Action Type:  [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	1/20/2025