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

Sundry Print Report

05/02/2025

Well Name: POKER LAKE UNIT 27 BD	**Well Location:** T25S / R30E / SEC 27 / NWSW / 32.099163 / -103.875839	**County or Parish/State:** EDDY / NM
Well Number: 509H	**Type of Well:** OIL WELL	**Allottee or Tribe Name:**
Lease Number: NMLC063875A	**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: 2839999

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/04/2025

Time Sundry Submitted: 02:10

Date proposed operation will begin: 03/25/2025

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. FROM: TO: SHL: 1955' FSL & 540' FWL OF SECTION 27-T25S-R30E 2145' FSL & 538' FWL OF SECTION 27-T25S-R30E KOP: 1955' FSL & 540' FWL OF SECTION 27-T25S-R30E 2045’ FNL & 488’ FEL OF SECTION 27-T25S-R30E FTP: 2640' FSL & 330' FWL OF SECTION 27-T25S-R30E 2562' FSL & 490' FWL OF SECTION 27-T25S-R30E LTP: 2510' FNL & 330' FWL OF SECTION 10-T26S-R30E 2558' FNL & 490' FWL OF SECTION 10-T26S-R30E BHL: 2560' FNL & 330' FWL OF SECTION 10-T26S-R30E 2648' FNL & 490' FWL OF SECTION 10-T26S-R30E The proposed total depth is changing from 25772’ MD; 9483’ TVD to 26035’ MD; 9626’ TVD. There is no new surface disturbance.

NOI Attachments

Procedure Description

Poker_Lake_Unit_27_BD_509H_Sundry_Docs_20250304141024.pdf

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US Well Number:	**Operator:** XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional

Poker_Lake_Unit_27_BD_509H_COA_20250411140323.pdf

Operator

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

Operator Electronic Signature: TERRA SEBASTIAN

Signed on: MAR 04, 2025 02:09 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Advisor

Street Address: 6401 HOLIDAY HILL ROAD SUITE 200

City: MIDLAND **State:** TX

Phone: (432) 999-3107

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

Field

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 05/02/2025

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. NMLC063875A

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No. POKER LAKE UNIT/NMNM71016X

1. Type of Well
☑ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No. POKER LAKE UNIT 27 BD/509H

2. Name of Operator XTO PERMIAN OPERATING LLC

9. API Well No.

3a. Address 6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND,

3b. Phone No. *(include area code)* (432) 683-2277

10. Field and Pool or Exploratory Area WC-015 G-06 S243119C/Bone Spring

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SEC 27/T25S/R30E/NMP

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			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be 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 recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has 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.

FROM: TO:
SHL: 1955' FSL & 540' FWL OF SECTION 27-T25S-R30E 2145' FSL & 538' FWL OF SECTION 27-T25S-R30E
KOP: 1955' FSL & 540' FWL OF SECTION 27-T25S-R30E 2045 FNL & 488 FEL OF SECTION 27-T25S-R30E
FTP: 2640' FSL & 330' FWL OF SECTION 27-T25S-R30E 2562' FSL & 490' FWL OF SECTION 27-T25S-R30E
LTP: 2510' FNL & 330' FWL OF SECTION 10-T26S-R30E 2558' FNL & 490' FWL OF SECTION 10-T26S-R30E
BHL: 2560' FNL & 330' FWL OF SECTION 10-T26S-R30E 2648' FNL & 490' FWL OF SECTION 10-T26S-R30E

The proposed total depth is changing from 25772 MD; 9483 TVD to 26035 MD; 9626 TVD.

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 03/04/2025

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 05/02/2025

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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand 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

There is no new surface disturbance.

Location of Well

0. SHL: NWSW / 1955 FSL / 540 FWL / TWSP: 25S / RANGE: 30E / SECTION: 27 / LAT: 32.099163 / LONG: -103.875839 (TVD: 0 feet, MD: 0 feet)

PPP: NWNW / 330 FNL / 330 FWL / TWSP: 25S / RANGE: 30E / SECTION: 34 / LAT: 32.0921451 / LONG: -103.876526 (TVD: 9483 feet, MD: 12700 feet)

PPP: NWSW / 2640 FSL / 330 FWL / TWSP: 25S / RANGE: 30E / SECTION: 27 / LAT: 32.101043 / LONG: -103.876506 (TVD: 9483 feet, MD: 10000 feet)

PPP: NWNW / 0 FNL / 353 FWL / TWSP: 26S / RANGE: 30E / SECTION: 3 / LAT: 32.079149 / LONG: -103.876565 (TVD: 9483 feet, MD: 18000 feet)

BHL: SWNW / 2560 FNL / 330 FWL / TWSP: 26S / RANGE: 30E / SECTION: 10 / LAT: 32.057492 / LONG: -103.876622 (TVD: 9483 feet, MD: 25773 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	**NMLC063875A**
LOCATION:	Sec. 27, T.25 S, R 30 E
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	Poker Lake Unit 27 BD 509H
SURFACE HOLE FOOTAGE:	2145'/S & 538'/W
BOTTOM HOLE FOOTAGE:	2648'/N & 490'/W

*Changes approved through engineering via **Sundry 2839999**_ on _4-11-2025____. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No		○ Yes	
Potash / WIPP	◉ None	○ Secretary	○ R-111-Q	☐ Open Annulus
	Choose an option (including blank option.)			☐ WIPP
Cave / Karst	◉ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☑ Primary Squeeze	☐ Cont. Squeeze	☑ EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☐ COM	☑ Unit
Waste Prev.	○ Self-Certification	○ Waste Min. Plan	◉ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☑ Casing Clearance	☐ Pilot Hole	☑ Break Testing
	☐ Four-String	☑ Offline Cementing	☐ Fluid-Filled	

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **9-5/8** inch surface casing shall be set at approximately **1344** 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 5941'.**

    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.**

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.

Engineer may elect to vary this language. Speak with Chris about implementing changes and whether that change seems reasonable.

Casing Clearance

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Production casing tieback. Operator may contact approving engineer to discuss changing casing set depth or grade to meet clearance requirement.

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; (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 2nd 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 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. 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 4/11/2025
575-234-5998 / zstevens@blm.gov

C-102

Submit Electronically
Via OCD Permitting

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

Revised July 9, 2024

Submittal Type: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015	(97814)	Wildcat G-015 S263001O; Bone Spring

Property Code	Property Name	Well Number
	POKER LAKE UNIT 27 BD	509H

ORGID No.	Operator Name	Ground Level Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,263'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☐ Federal

Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	27	25 S	30 E		2,145' FSL	538' FWL	32.099686	-103.875841	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	10	26 S	30 E		2,648' FNL	490' FWL	32.057250	-103.876105	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
480	DEFINING		N	U

Order Numbers.

Well setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	27	25 S	30 E		2,045' FNL	488' FWL	32.102798	-103.875985	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
L	27	25 S	30 E		2,562' FSL	490' FWL	32.100830	-103.875991	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	10	26 S	30 E		2,558' FNL	490' FWL	32.057497	-103.876106	EDDY

Unitized Area or Area of Uniform Interest	Spacing Unit Type	Ground Floor Elevation:
NMNM-071016X	☒ Horizontal ☐ Vertical	3,263'

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 — 3/4/2025

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. 22 Jan 2025

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

TIM C. PAPPAS NEW MEXICO 21209 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

Certificate Number	Date of Survey
TIM C. PAPPAS 21209	01/22/2025

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.

FSC INC SURVEYORS+ENGINEERS
2821 West 7th Street., Ste 200 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE:	1-22-2025	PROJECT NO:	2023040146
DRAWN BY:	LM	SCALE:	1" = 2,000'
CHECKED BY:	CH	SHEET:	1 OF 2
FIELD CREW:	IR	REVISION:	

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or a larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point or Last Take Point) that is the closest to any outer boundary of the tract.

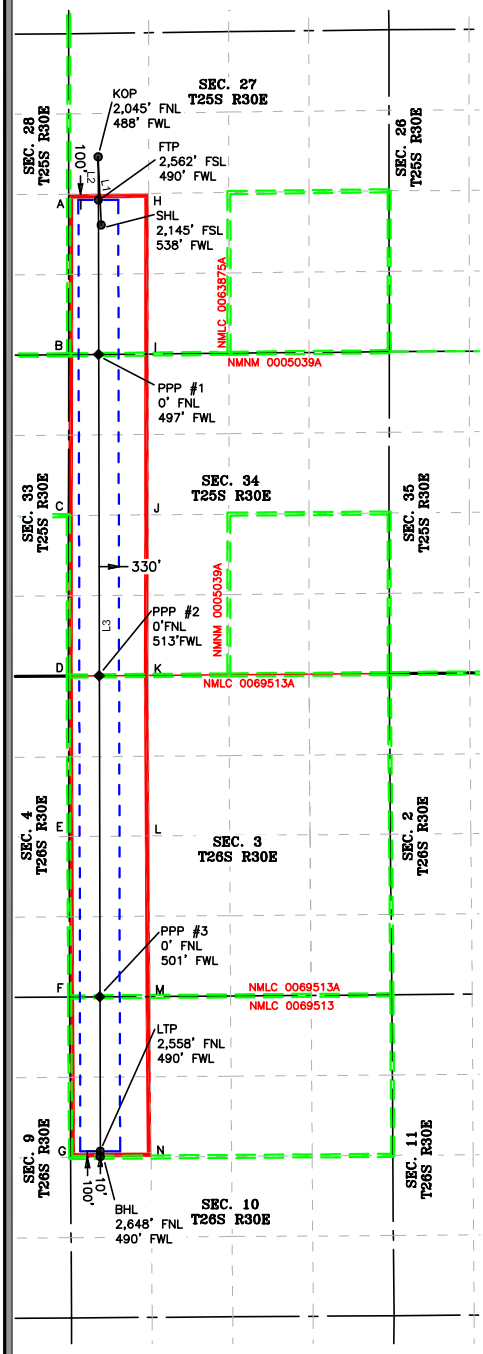
Surveyors shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.

LEGEND

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

LINE TABLE

LINE	AZIMUTH	LENGTH
L1	357° 30'06"	1,133.08'
L2	179° 53'21"	716.23'
L3	179° 53'08"	15,853.55'



COORDINATE TABLE					
SHL (NAD 83 NME)			**LTP (NAD 83 NME)**		
Y =	400,303.0	N	Y =	384,955.3	N
X =	683,001.6	E	X =	682,984.7	E
LAT. =	32.099686	°N	LAT. =	32.057497	°N
LONG. =	103.875841	°W	LONG. =	103.876106	°W
KOP (NAD 83 NME)			**BHL (NAD 83 NME)**		
Y =	401,435.0	N	Y =	384,865.3	N
X =	682,952.2	E	X =	682,985.2	E
LAT. =	32.102798	°N	LAT. =	32.057250	°N
LONG. =	103.875985	°W	LONG. =	103.876105	°W
FTP (NAD 83 NME)					
Y =	400,718.8	N			
X =	682,953.6	E			
LAT. =	32.100830	°N			
LONG. =	103.875991	°W			
SHL (NAD 27 NME)			**LTP (NAD 27 NME)**		
Y =	400,244.8	N	Y =	384,897.5	N
X =	641,816.4	E	X =	641,799.0	E
LAT. =	32.099561	°N	LAT. =	32.057372	°N
LONG. =	103.875360	°W	LONG. =	103.875626	°W
KOP (NAD 27 NME)			**BHL (NAD 27 NME)**		
Y =	401,376.8	N	Y =	384,807.5	N
X =	641,767.0	E	X =	641,799.5	E
LAT. =	32.102673	°N	LAT. =	32.057125	°N
LONG. =	103.875504	°W	LONG. =	103.875626	°W
FTP (NAD 27 NME)					
Y =	400,660.6	N			
X =	641,768.4	E			
LAT. =	32.100705	°N			
LONG. =	103.875509	°W			
PPP #1 (NAD 83 NME)			**PPP #1 (NAD 27 NME)**		
Y =	398,157.1	N	Y =	398,099.0	N
X =	682,958.6	E	X =	641,773.3	E
LAT. =	32.093788	°N	LAT. =	32.093663	°N
LONG. =	103.876009	°W	LONG. =	103.875528	°W
PPP #2 (NAD 83 NME)			**PPP #2 (NAD 27 NME)**		
Y =	392,832.3	N	Y =	392,774.3	N
X =	682,969.1	E	X =	641,783.7	E
LAT. =	32.079150	°N	LAT. =	32.079025	°N
LONG. =	103.876048	°W	LONG. =	103.875568	°W
PPP #3 (NAD 83 NME)			**PPP #3 (NAD 27 NME)**		
Y =	387,513.8	N	Y =	387,455.9	N
X =	682,979.6	E	X =	641,794.0	E
LAT. =	32.064530	°N	LAT. =	32.064405	°N
LONG. =	103.876087	°W	LONG. =	103.875607	°W

CORNER COORDINATES (NAD83 NME)					
A - Y =	400,813.4	N	A - X =	682,463.6	E
B - Y =	398,152.3	N	B - X =	682,461.9	E
C - Y =	395,489.3	N	C - X =	682,459.2	E
D - Y =	392,828.3	N	D - X =	682,455.8	E
E - Y =	390,169.9	N	E - X =	682,467.5	E
F - Y =	387,510.3	N	F - X =	682,478.3	E
G - Y =	384,852.0	N	G - X =	682,495.3	E
H - Y =	400,827.9	N	H - X =	683,790.5	E
I - Y =	398,165.1	N	I - X =	683,790.3	E
J - Y =	395,500.1	N	J - X =	683,788.4	E
K - Y =	392,838.6	N	K - X =	683,786.1	E
L - Y =	390,179.7	N	L - X =	683,799.1	E
M - Y =	387,519.6	N	M - X =	683,811.6	E
N - Y =	384,860.9	N	N - X =	683,829.3	E
CORNER COORDINATES (NAD27 NME)					
A - Y =	400,755.2	N	A - X =	641,278.5	E
B - Y =	398,094.2	N	B - X =	641,276.6	E
C - Y =	395,431.3	N	C - X =	641,273.9	E
D - Y =	392,770.3	N	D - X =	641,270.4	E
E - Y =	390,112.0	N	E - X =	641,282.0	E
F - Y =	387,452.4	N	F - X =	641,292.7	E
G - Y =	384,794.2	N	G - X =	641,309.6	E
H - Y =	400,769.9	N	H - X =	642,605.3	E
I - Y =	398,107.2	N	I - X =	642,605.0	E
J - Y =	395,442.3	N	J - X =	642,603.0	E
K - Y =	392,780.8	N	K - X =	642,600.6	E
L - Y =	390,121.9	N	L - X =	642,613.5	E
M - Y =	387,461.9	N	M - X =	642,625.9	E
N - Y =	384,803.3	N	N - X =	642,643.6	E

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DATE:	1-22-2025	PROJECT NO:	2023040146
DRAWN BY:	LM	SCALE:	1" = 2,500'
CHECKED BY:	CH	SHEET:	2 OF 2
FIELD CREW:	IR	REVISION:	NO

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

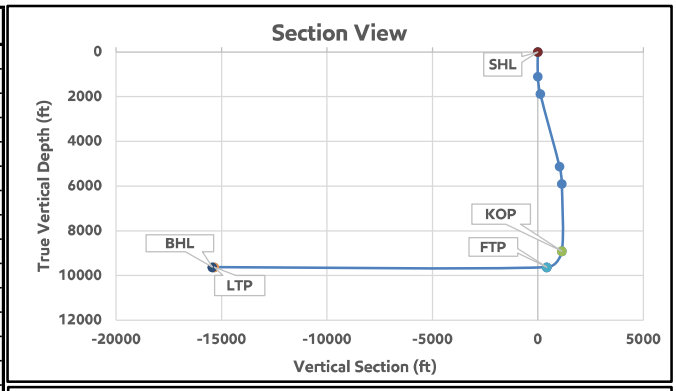
ExxonMobil
Poker Lake Unit 27 BD - 509H
Projected TD: 26035' MD / 9626' TVD
SHL: 2145' FSL & 538' FWL , Section 27, T25S, R30E
BHL: 2648' FNL & 490' FWL , Section 10, T26S, R30E
Eddy County, NM

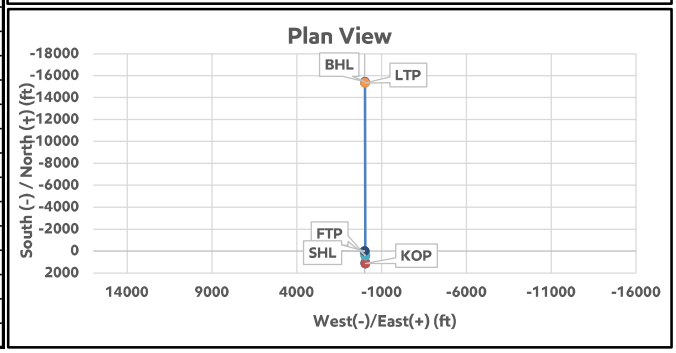
1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth	Water/Oil/Gas
Rustler	1039'	Water
Salado	1331'	Water
Base of Salt	3669'	Water
Delaware	3861'	Water/Oil/Gas
Cherry Canyon	4799'	Water/Oil/Gas
Brushy Canyon	5941'	Water/Oil/Gas
Basal Brushy Canyon	7393'	Water/Oil/Gas
Bone Spring Lm.	7657'	Water/Oil/Gas
Avalon Shale	7801'	Water/Oil/Gas
Lower Avalon Shale	8225'	Water/Oil/Gas
1st Bone Spring Lime	8387'	Water/Oil/Gas
1st Bone Spring Sand	8606'	Water/Oil/Gas
2nd Bone Spring Shale	8876'	Water/Oil/Gas
2nd Bone Spring Lime	9086'	Water/Oil/Gas
2nd Bone Spring Sand	9466'	Water/Oil/Gas
2nd BS Sand Lower Landing	9626'	Water/Oil/Gas





	Inclination (°)	Azimuth (°)	True Vertical Depth (ft)	Y Offset (ft)	X Offset (ft)
SHL	0	0	0	0	0
KOP	0	0	8910	1132	-49
LP	90	180	9626	416	-48
FTP	90	180	9626	416	-48
LTP	90	180	9626	-15347	-17
BHL	90	180	9626	-15437	-17

Section 2 Summary:

*** Deepest Expected Groundwater Depth: 40' (per NM State Engineers Office).

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 9-5/8" inch casing at 1306' and circulating cement back to surface.

3. Primary Casing Design

Primary Design:

Hole Size	MD	Casing TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 1306'	1303'	9-5/8"	40	J55	BTC	New	9.87	4.55	4.79
8.75	0' – 8857'	8710'	7-5/8"	29.7	L80-IC	Tenaris Wedge 511	New	3.32	3.13	2.42
6.75	0' – 8657'	8510'	5-1/2"	20	P110-CY	TPN	New	1.18	3.01	2.64
6.75	8657' – 26035'	9626'	5-1/2"	20	P110-IC	Tenaris Wedge 441	New	1.18	2.95	2.65

Section 3 Summary:

XTO will keep casing fluid filled to meet BLM's collapse requirement.
The planned kick off point is located at: 9057' MD / 8910' TVD.

Wellhead:

A multi-bowl wellhead system will be utilized.The well design chosen is: 3-String Slim Non-Potash

Wellhead will be installed by manufacturer's representatives.

Manufacturer will monitor welding process to ensure appropriate temperature of seal.

4. Cement Program

Primary Cementing

Hole Section	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	TOC (ft)	Casing Setting Depth (MD)	Excess (%)	Slurry Description
Surface 1	Lead	299	12.4	2.11	0	1,306	100%	
Surface 1	Tail	141	14.8	1.33	1006	1,306	100%	
Intermediate 1	Lead							
Intermediate 1	Tail	273	14.8	1.45	5941	8,857	35%	
Production 1	Lead							
Production 1	Tail	1333	13.2	1.44	8357	26,035	30%	

Remedial Cementing

Casing	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	Cemented Interval	Excess (%)	Slurry Description
Intermediate 1	Bradenhead Squeeze	618	14.8	1.45	0 - 5941'	50%	Intermediate Class C Bradenhead Squeeze Cement

Section 4 Summary:

*Bradenhead Squeeze 2nd Stage Offline

5. Pressure Control Equipment

Section 5 Summary:

Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of a minimum 5M Hydril and a minimum 10M triple Ram BOP.

All BOP testing will be done by an independent service company. Operator will Test as per 43CFR-3172

Requested Variances

4A) Offline Cementing Variance
XOM 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. XOM 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. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence. The TA cap will also be installed when applicable per wellhead manufacturer's procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

5A) Break Test Variance
A break testing variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead for the intermediate hole sections which is in compliance with API Standard 53. The maximum anticipated surface pressure at the deepest intermediate casing point is less than 4800psi.

5B) Flex Hose Variance
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.

5C) 10M Annular Variance
XOM requests a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables attached along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

8A) Open Hole Logging Variance
Open hole logging will not be done on this well.

10A) Spudder Rig Variance
XOM requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing.

10B) Batch Drilling Variance
XOM requests a variance to be able to batch drill this well. In doing so, XOM will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. XOM will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and intermediate strings are all completed, XOM will begin drilling the production hole on each of the wells.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Comments

0' – 1306'	12.25"	FW/Native	8.3 - 8.7	35-40	NC	Fresh Water or Native Water
1306' – 8857'	8.75"	BDE/OBM or FW/Brine	9.5 - 10	30-32	NC	Fluid type will be based upon on well conditions. A fully saturated system will be used across the salt interval.
8857' – 8657'	6.75"	OBM	9 - 9.6	50-60	NC - 20	OBM or Cut Brine depending on Well Conditions
8657' – 26035'	6.75"	OBM	9 - 9.6	50-60	NC - 20	OBM or Cut Brine depending on Well Conditions

Section 6 Summary:

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 a fully saturated brine 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. An EDR (Electronic Drilling Recorder) 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

Section 7 Summary:

A Kelly cock will be in the drill string at all times.

A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.

H2S monitors will be on location when drilling below the 9-5/8" casing.

8. Logging, Coring and Testing Program

Section 8 Summary:

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

Section 9 Summary:

The estimated bottom hole temperature of 162F to 182F. 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 is possible throughout the well.

10. Anticipated Starting Date and Duration of Operations

Section 10 Summary:

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 27 BD 509H

Measured Depth:	26035.04 ft	**Site:**	A
TVD RKB:	9626.00 ft	**Slot:**	Poker Lake Unit 27 BD 509H
Location			
Cartographic Reference System:	New Mexico East - NAD 27		
Northing:	400244.80 ft		
Easting:	641816.40 ft		
RKB:	3295.00 ft		
Ground Level:	3263.00 ft		
North Reference:	Grid		
Convergence Angle:	0.24 Deg		

Plan Sections Poker Lake Unit 27 BD 509H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1889.82	15.80	357.50	1879.86	108.09	-4.72	2.00	0.00	2.00	
5257.29	15.80	357.50	5120.14	1023.91	-44.67	0.00	0.00	0.00	
6047.11	0.00	0.00	5900.00	1132.00	-49.39	-2.00	0.00	2.00	
9056.91	0.00	0.00	8909.80	1132.00	-49.39	0.00	0.00	0.00	
10181.91	90.00	179.89	9626.00	415.80	-48.00	8.00	0.00	8.00	FTP 6
25945.04	90.00	179.89	9626.00	-15347.30	-17.40	0.00	0.00	0.00	LTP 6
26035.04	90.00	179.89	9626.00	-15437.30	-17.23	0.00	0.00	0.00	BHL 6

Position Uncertainty Poker Lake Unit 27 BD 509H

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

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	XOM_R2OWSG MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.000	0.358	0.179	90.000	XOM_R2OWSG MWD+IFR1+MS
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.309	0.000	0.000	0.717	0.538	90.000	XOM_R2OWSG MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2.325	0.000	0.000	1.075	0.896	90.000	XOM_R2OWSG MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.347	0.000	0.000	1.434	1.255	90.000	XOM_R2OWSG MWD+IFR1+MS
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.373	0.000	0.000	1.792	1.613	90.000	XOM_R2OWSG MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.406	0.000	0.000	2.151	1.972	90.000	XOM_R2OWSG MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.442	0.000	0.000	2.509	2.330	90.000	XOM_R2OWSG MWD+IFR1+MS
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.484	0.000	0.000	2.868	2.689	90.000	XOM_R2OWSG MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.529	0.000	0.000	3.226	3.047	90.000	XOM_R2OWSG MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.579	0.000	0.000	3.585	3.405	90.000	XOM_R2OWSG MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.632	0.000	0.000	3.943	3.764	90.000	XOM_R2OWSG MWD+IFR1+MS
1200.000	2.000	357.502	1199.980	4.299	0.000	4.122	0.000	2.688	0.000	0.000	4.302	4.121	89.989	XOM_R2OWSG MWD+IFR1+MS
1300.000	4.000	357.502	1299.838	4.651	0.000	4.478	0.000	2.745	0.000	0.000	4.662	4.477	89.952	XOM_R2OWSG MWD+IFR1+MS
1400.000	6.000	357.502	1399.452	4.998	0.000	4.832	0.000	2.803	0.000	0.000	5.021	4.832	89.907	XOM_R2OWSG MWD+IFR1+MS
1500.000	8.000	357.502	1498.702	5.340	0.000	5.186	0.000	2.862	0.000	0.000	5.381	5.185	89.865	XOM_R2OWSG MWD+IFR1+MS
1600.000	10.000	357.502	1597.465	5.676	0.000	5.540	0.000	2.923	0.000	0.000	5.741	5.539	89.835	XOM_R2OWSG MWD+IFR1+MS
1700.000	12.000	357.502	1695.623	6.009	0.000	5.894	0.000	2.985	0.000	0.000	6.101	5.894	89.822	XOM_R2OWSG MWD+IFR1+MS
1800.000	14.000	357.502	1793.055	6.337	0.000	6.252	0.000	3.051	0.000	0.000	6.462	6.251	89.833	XOM_R2OWSG MWD+IFR1+MS

1889.824	15.796	357.502	1879.856	6.629	0.000	6.575	0.000	3.113	0.000	0.000	6.786	6.574	89.864	XOM_R2OWSG MWD+IFR1+MS
1900.000	15.796	357.502	1889.648	6.667	0.000	6.611	0.000	3.116	0.000	0.000	6.826	6.611	89.840	XOM_R2OWSG MWD+IFR1+MS
2000.000	15.796	357.502	1985.871	7.038	0.000	6.976	0.000	3.205	0.000	0.000	7.182	6.976	89.984	XOM_R2OWSG MWD+IFR1+MS
2100.000	15.796	357.502	2082.095	7.413	0.000	7.345	0.000	3.299	0.000	0.000	7.542	7.344	90.140	XOM_R2OWSG MWD+IFR1+MS
2200.000	15.796	357.502	2178.318	7.792	0.000	7.716	0.000	3.398	0.000	0.000	7.906	7.716	90.310	XOM_R2OWSG MWD+IFR1+MS
2300.000	15.796	357.502	2274.542	8.173	0.000	8.091	0.000	3.500	0.000	0.000	8.272	8.091	90.496	XOM_R2OWSG MWD+IFR1+MS
2400.000	15.796	357.502	2370.765	8.556	0.000	8.469	0.000	3.605	0.000	0.000	8.640	8.468	90.701	XOM_R2OWSG MWD+IFR1+MS
2500.000	15.796	357.502	2466.989	8.942	0.000	8.848	0.000	3.714	0.000	0.000	9.011	8.848	90.928	XOM_R2OWSG MWD+IFR1+MS
2600.000	15.796	357.502	2563.212	9.330	0.000	9.230	0.000	3.826	0.000	0.000	9.383	9.229	91.182	XOM_R2OWSG MWD+IFR1+MS
2700.000	15.796	357.502	2659.436	9.719	0.000	9.613	0.000	3.941	0.000	0.000	9.757	9.612	91.467	XOM_R2OWSG MWD+IFR1+MS
2800.000	15.796	357.502	2755.659	10.109	0.000	9.997	0.000	4.059	0.000	0.000	10.133	9.997	91.791	XOM_R2OWSG MWD+IFR1+MS
2900.000	15.796	357.502	2851.883	10.501	0.000	10.384	0.000	4.179	0.000	0.000	10.509	10.383	92.161	XOM_R2OWSG MWD+IFR1+MS
3000.000	15.796	357.502	2948.106	10.894	0.000	10.771	0.000	4.301	0.000	0.000	10.887	10.770	92.588	XOM_R2OWSG MWD+IFR1+MS
3100.000	15.796	357.502	3044.329	11.288	0.000	11.159	0.000	4.426	0.000	0.000	11.266	11.158	93.086	XOM_R2OWSG MWD+IFR1+MS
3200.000	15.796	357.502	3140.553	11.683	0.000	11.548	0.000	4.552	0.000	0.000	11.646	11.547	93.675	XOM_R2OWSG MWD+IFR1+MS
3300.000	15.796	357.502	3236.776	12.078	0.000	11.938	0.000	4.681	0.000	0.000	12.027	11.937	94.382	XOM_R2OWSG MWD+IFR1+MS
3400.000	15.796	357.502	3333.000	12.475	0.000	12.329	0.000	4.812	0.000	0.000	12.409	12.328	95.245	XOM_R2OWSG MWD+IFR1+MS
3500.000	15.796	357.502	3429.223	12.872	0.000	12.721	0.000	4.944	0.000	0.000	12.791	12.719	96.320	XOM_R2OWSG MWD+IFR1+MS
3600.000	15.796	357.502	3525.447	13.270	0.000	13.113	0.000	5.078	0.000	0.000	13.175	13.111	97.691	XOM_R2OWSG MWD+IFR1+MS
3700.000	15.796	357.502	3621.670	13.668	0.000	13.506	0.000	5.214	0.000	0.000	13.559	13.504	99.492	XOM_R2OWSG MWD+IFR1+MS

3800.000	15.796	357.502	3717.894	14.067	0.000	13.899	0.000	5.352	0.000	0.000	13.943	13.896	101.935	XOM_R2OWSG MWD+IFR1+MS
3900.000	15.796	357.502	3814.117	14.466	0.000	14.293	0.000	5.491	0.000	0.000	14.328	14.289	105.379	XOM_R2OWSG MWD+IFR1+MS
4000.000	15.796	357.502	3910.341	14.866	0.000	14.688	0.000	5.633	0.000	0.000	14.715	14.683	110.400	XOM_R2OWSG MWD+IFR1+MS
4100.000	15.796	357.502	4006.564	15.266	0.000	15.082	0.000	5.775	0.000	0.000	15.102	15.075	117.770	XOM_R2OWSG MWD+IFR1+MS
4200.000	15.796	357.502	4102.788	15.666	0.000	15.477	0.000	5.919	0.000	0.000	15.491	15.467	127.798	XOM_R2OWSG MWD+IFR1+MS
4300.000	15.796	357.502	4199.011	16.067	0.000	15.873	0.000	6.065	0.000	0.000	15.882	15.858	-41.147	XOM_R2OWSG MWD+IFR1+MS
4400.000	15.796	357.502	4295.235	16.468	0.000	16.269	0.000	6.213	0.000	0.000	16.275	16.248	-31.836	XOM_R2OWSG MWD+IFR1+MS
4500.000	15.796	357.502	4391.458	16.869	0.000	16.665	0.000	6.361	0.000	0.000	16.670	16.636	-25.229	XOM_R2OWSG MWD+IFR1+MS
4600.000	15.796	357.502	4487.682	17.271	0.000	17.061	0.000	6.512	0.000	0.000	17.065	17.025	-20.743	XOM_R2OWSG MWD+IFR1+MS
4700.000	15.796	357.502	4583.905	17.673	0.000	17.458	0.000	6.664	0.000	0.000	17.461	17.413	-17.640	XOM_R2OWSG MWD+IFR1+MS
4800.000	15.796	357.502	4680.129	18.075	0.000	17.855	0.000	6.817	0.000	0.000	17.858	17.801	-15.414	XOM_R2OWSG MWD+IFR1+MS
4900.000	15.796	357.502	4776.352	18.478	0.000	18.252	0.000	6.972	0.000	0.000	18.255	18.190	-13.758	XOM_R2OWSG MWD+IFR1+MS
5000.000	15.796	357.502	4872.575	18.880	0.000	18.650	0.000	7.129	0.000	0.000	18.652	18.579	-12.486	XOM_R2OWSG MWD+IFR1+MS
5100.000	15.796	357.502	4968.799	19.283	0.000	19.047	0.000	7.287	0.000	0.000	19.049	18.967	-11.482	XOM_R2OWSG MWD+IFR1+MS
5200.000	15.796	357.502	5065.022	19.686	0.000	19.445	0.000	7.447	0.000	0.000	19.447	19.357	-10.672	XOM_R2OWSG MWD+IFR1+MS
5257.285	15.796	357.502	5120.144	19.917	0.000	19.673	0.000	7.539	0.000	0.000	19.675	19.579	-10.293	XOM_R2OWSG MWD+IFR1+MS
5300.000	14.942	357.502	5161.331	20.105	0.000	19.842	0.000	7.609	0.000	0.000	19.844	19.745	-10.027	XOM_R2OWSG MWD+IFR1+MS
5400.000	12.942	357.502	5258.380	20.523	0.000	20.232	0.000	7.769	0.000	0.000	20.234	20.129	-9.590	XOM_R2OWSG MWD+IFR1+MS
5500.000	10.942	357.502	5356.211	20.910	0.000	20.614	0.000	7.923	0.000	0.000	20.616	20.507	-9.383	XOM_R2OWSG MWD+IFR1+MS
5600.000	8.942	357.502	5454.704	21.266	0.000	20.987	0.000	8.071	0.000	0.000	20.988	20.879	-9.365	XOM_R2OWSG MWD+IFR1+MS

5700.000	6.942	357.502	5553.740	21.588	0.000	21.350	0.000	8.212	0.000	0.000	21.352	21.243	-9.488	XOM_R2OWSG MWD+IFR1+MS
5800.000	4.942	357.502	5653.197	21.877	0.000	21.704	0.000	8.347	0.000	0.000	21.705	21.600	-9.726	XOM_R2OWSG MWD+IFR1+MS
5900.000	2.942	357.502	5752.956	22.132	0.000	22.047	0.000	8.477	0.000	0.000	22.049	21.949	-10.056	XOM_R2OWSG MWD+IFR1+MS
6000.000	0.942	357.502	5852.893	22.353	0.000	22.381	0.000	8.602	0.000	0.000	22.383	22.287	-10.457	XOM_R2OWSG MWD+IFR1+MS
6047.109	0.000	0.000	5900.000	22.447	0.000	22.534	0.000	8.660	0.000	0.000	22.537	22.444	-10.689	XOM_R2OWSG MWD+IFR1+MS
6100.000	0.000	0.000	5952.891	22.621	0.000	22.706	0.000	8.724	0.000	0.000	22.709	22.618	-10.991	XOM_R2OWSG MWD+IFR1+MS
6200.000	0.000	0.000	6052.891	22.952	0.000	23.031	0.000	8.848	0.000	0.000	23.034	22.948	-11.598	XOM_R2OWSG MWD+IFR1+MS
6300.000	0.000	0.000	6152.891	23.283	0.000	23.357	0.000	8.974	0.000	0.000	23.361	23.280	-12.256	XOM_R2OWSG MWD+IFR1+MS
6400.000	0.000	0.000	6252.891	23.615	0.000	23.685	0.000	9.102	0.000	0.000	23.689	23.612	-12.969	XOM_R2OWSG MWD+IFR1+MS
6500.000	0.000	0.000	6352.891	23.948	0.000	24.013	0.000	9.234	0.000	0.000	24.017	23.944	-13.745	XOM_R2OWSG MWD+IFR1+MS
6600.000	0.000	0.000	6452.891	24.282	0.000	24.342	0.000	9.368	0.000	0.000	24.346	24.278	-14.591	XOM_R2OWSG MWD+IFR1+MS
6700.000	0.000	0.000	6552.891	24.616	0.000	24.672	0.000	9.505	0.000	0.000	24.677	24.612	-15.515	XOM_R2OWSG MWD+IFR1+MS
6800.000	0.000	0.000	6652.891	24.951	0.000	25.003	0.000	9.645	0.000	0.000	25.007	24.946	-16.526	XOM_R2OWSG MWD+IFR1+MS
6900.000	0.000	0.000	6752.891	25.287	0.000	25.334	0.000	9.787	0.000	0.000	25.339	25.282	-17.634	XOM_R2OWSG MWD+IFR1+MS
7000.000	0.000	0.000	6852.891	25.623	0.000	25.666	0.000	9.932	0.000	0.000	25.672	25.617	-18.850	XOM_R2OWSG MWD+IFR1+MS
7100.000	0.000	0.000	6952.891	25.960	0.000	25.999	0.000	10.080	0.000	0.000	26.005	25.954	-20.185	XOM_R2OWSG MWD+IFR1+MS
7200.000	0.000	0.000	7052.891	26.297	0.000	26.332	0.000	10.231	0.000	0.000	26.339	26.291	-21.651	XOM_R2OWSG MWD+IFR1+MS
7300.000	0.000	0.000	7152.891	26.635	0.000	26.667	0.000	10.385	0.000	0.000	26.674	26.628	-23.260	XOM_R2OWSG MWD+IFR1+MS
7400.000	0.000	0.000	7252.891	26.974	0.000	27.001	0.000	10.542	0.000	0.000	27.009	26.966	-25.022	XOM_R2OWSG MWD+IFR1+MS
7500.000	0.000	0.000	7352.891	27.313	0.000	27.337	0.000	10.702	0.000	0.000	27.345	27.305	-26.944	XOM_R2OWSG MWD+IFR1+MS

7600.000	0.000	0.000	7452.891	27.652	0.000	27.673	0.000	10.864	0.000	0.000	27.682	27.643	-29.029	XOM_R2OWSG MWD+IFR1+MS
7700.000	0.000	0.000	7552.891	27.992	0.000	28.009	0.000	11.030	0.000	0.000	28.019	27.982	-31.275	XOM_R2OWSG MWD+IFR1+MS
7800.000	0.000	0.000	7652.891	28.333	0.000	28.346	0.000	11.199	0.000	0.000	28.357	28.322	-33.669	XOM_R2OWSG MWD+IFR1+MS
7900.000	0.000	0.000	7752.891	28.674	0.000	28.684	0.000	11.370	0.000	0.000	28.696	28.662	-36.191	XOM_R2OWSG MWD+IFR1+MS
8000.000	0.000	0.000	7852.891	29.015	0.000	29.022	0.000	11.545	0.000	0.000	29.035	29.002	-38.809	XOM_R2OWSG MWD+IFR1+MS
8100.000	0.000	0.000	7952.891	29.357	0.000	29.361	0.000	11.722	0.000	0.000	29.375	29.342	-41.483	XOM_R2OWSG MWD+IFR1+MS
8200.000	0.000	0.000	8052.891	29.699	0.000	29.700	0.000	11.903	0.000	0.000	29.715	29.683	-44.169	XOM_R2OWSG MWD+IFR1+MS
8300.000	0.000	0.000	8152.891	30.041	0.000	30.039	0.000	12.087	0.000	0.000	30.056	30.024	133.182	XOM_R2OWSG MWD+IFR1+MS
8400.000	0.000	0.000	8252.891	30.384	0.000	30.379	0.000	12.273	0.000	0.000	30.398	30.365	130.611	XOM_R2OWSG MWD+IFR1+MS
8500.000	0.000	0.000	8352.891	30.727	0.000	30.719	0.000	12.463	0.000	0.000	30.740	30.707	128.154	XOM_R2OWSG MWD+IFR1+MS
8600.000	0.000	0.000	8452.891	31.071	0.000	31.060	0.000	12.656	0.000	0.000	31.082	31.049	125.838	XOM_R2OWSG MWD+IFR1+MS
8700.000	0.000	0.000	8552.891	31.415	0.000	31.401	0.000	12.852	0.000	0.000	31.425	31.391	123.678	XOM_R2OWSG MWD+IFR1+MS
8800.000	0.000	0.000	8652.891	31.759	0.000	31.743	0.000	13.051	0.000	0.000	31.769	31.733	121.680	XOM_R2OWSG MWD+IFR1+MS
8900.000	0.000	0.000	8752.891	32.103	0.000	32.085	0.000	13.253	0.000	0.000	32.113	32.076	119.845	XOM_R2OWSG MWD+IFR1+MS
9000.000	0.000	0.000	8852.891	32.448	0.000	32.427	0.000	13.459	0.000	0.000	32.457	32.418	118.166	XOM_R2OWSG MWD+IFR1+MS
9056.912	0.000	0.000	8909.803	32.645	0.000	32.622	0.000	13.577	0.000	0.000	32.653	32.614	117.278	XOM_R2OWSG MWD+IFR1+MS
9100.000	3.447	179.889	8952.865	32.501	0.000	32.763	-0.000	13.665	0.000	0.000	32.792	32.754	118.874	XOM_R2OWSG MWD+IFR1+MS
9200.000	11.447	179.889	9051.941	31.753	0.000	33.061	-0.000	13.862	0.000	0.000	33.077	33.044	-44.929	XOM_R2OWSG MWD+IFR1+MS
9300.000	19.447	179.889	9148.251	30.472	0.000	33.334	-0.000	14.043	0.000	0.000	33.341	33.294	-22.747	XOM_R2OWSG MWD+IFR1+MS
9400.000	27.447	179.889	9239.919	28.705	0.000	33.580	-0.000	14.212	0.000	0.000	33.583	33.494	-11.524	XOM_R2OWSG MWD+IFR1+MS

9500.000	35.447	179.889	9325.162	26.526	0.000	33.797	-0.000	14.375	0.000	0.000	33.799	33.648	-6.895	XOM_R2OWSG MWD+IFR1+MS
9600.000	43.447	179.889	9402.320	24.041	0.000	33.986	-0.000	14.537	0.000	0.000	33.987	33.758	-4.645	XOM_R2OWSG MWD+IFR1+MS
9700.000	51.447	179.889	9469.892	21.403	0.000	34.148	-0.000	14.708	0.000	0.000	34.149	33.830	-3.377	XOM_R2OWSG MWD+IFR1+MS
9800.000	59.447	179.889	9526.563	18.832	0.000	34.283	-0.000	14.897	0.000	0.000	34.284	33.869	-2.580	XOM_R2OWSG MWD+IFR1+MS
9900.000	67.447	179.889	9571.229	16.652	0.000	34.393	-0.000	15.114	0.000	0.000	34.394	33.882	-2.035	XOM_R2OWSG MWD+IFR1+MS
10000.000	75.447	179.889	9603.021	15.278	0.000	34.480	-0.000	15.364	0.000	0.000	34.480	33.880	-1.639	XOM_R2OWSG MWD+IFR1+MS
10100.000	83.447	179.889	9621.321	15.095	0.000	34.543	-0.000	15.651	0.000	0.000	34.543	33.873	-1.333	XOM_R2OWSG MWD+IFR1+MS
10181.912	90.000	179.889	9626.000	15.911	0.000	34.576	-0.000	15.911	0.000	0.000	34.576	33.871	-1.129	XOM_R2OWSG MWD+IFR1+MS
10200.000	90.000	179.889	9626.000	15.971	0.000	34.581	-0.000	15.971	0.000	0.000	34.581	33.871	-1.088	XOM_R2OWSG MWD+IFR1+MS
10300.000	90.000	179.889	9626.000	16.322	0.000	34.629	-0.000	16.322	0.000	0.000	34.629	33.872	-0.848	XOM_R2OWSG MWD+IFR1+MS
10400.000	90.000	179.889	9626.000	16.702	0.000	34.698	-0.000	16.702	0.000	0.000	34.698	33.873	-0.623	XOM_R2OWSG MWD+IFR1+MS
10500.000	90.000	179.889	9626.000	17.110	0.000	34.790	-0.000	17.110	0.000	0.000	34.790	33.875	-0.425	XOM_R2OWSG MWD+IFR1+MS
10600.000	90.000	179.889	9626.000	17.544	0.000	34.904	-0.000	17.544	0.000	0.000	34.904	33.877	-0.260	XOM_R2OWSG MWD+IFR1+MS
10700.000	90.000	179.889	9626.000	18.001	0.000	35.040	-0.000	18.001	0.000	0.000	35.040	33.881	-0.127	XOM_R2OWSG MWD+IFR1+MS
10800.000	90.000	179.889	9626.000	18.480	0.000	35.197	-0.000	18.480	0.000	0.000	35.197	33.884	-0.024	XOM_R2OWSG MWD+IFR1+MS
10900.000	90.000	179.889	9626.000	18.980	0.000	35.376	-0.000	18.980	0.000	0.000	35.376	33.889	0.056	XOM_R2OWSG MWD+IFR1+MS
11000.000	90.000	179.889	9626.000	19.499	0.000	35.575	-0.000	19.499	0.000	0.000	35.575	33.894	0.115	XOM_R2OWSG MWD+IFR1+MS
11100.000	90.000	179.889	9626.000	20.034	0.000	35.795	-0.000	20.034	0.000	0.000	35.795	33.899	0.159	XOM_R2OWSG MWD+IFR1+MS
11200.000	90.000	179.889	9626.000	20.586	0.000	36.035	-0.000	20.586	0.000	0.000	36.035	33.906	0.190	XOM_R2OWSG MWD+IFR1+MS
11300.000	90.000	179.889	9626.000	21.153	0.000	36.295	-0.000	21.153	0.000	0.000	36.295	33.913	0.212	XOM_R2OWSG MWD+IFR1+MS

11400.000	90.000	179.889	9626.000	21.733	0.000	36.574	-0.000	21.733	0.000	0.000	36.574	33.920	0.227	XOM_R2OWSG MWD+IFR1+MS
11500.000	90.000	179.889	9626.000	22.326	0.000	36.873	-0.000	22.326	0.000	0.000	36.873	33.928	0.237	XOM_R2OWSG MWD+IFR1+MS
11600.000	90.000	179.889	9626.000	22.930	0.000	37.189	-0.000	22.930	0.000	0.000	37.189	33.937	0.242	XOM_R2OWSG MWD+IFR1+MS
11700.000	90.000	179.889	9626.000	23.545	0.000	37.524	-0.000	23.545	0.000	0.000	37.524	33.947	0.245	XOM_R2OWSG MWD+IFR1+MS
11800.000	90.000	179.889	9626.000	24.169	0.000	37.876	-0.000	24.169	0.000	0.000	37.876	33.957	0.245	XOM_R2OWSG MWD+IFR1+MS
11900.000	90.000	179.889	9626.000	24.803	0.000	38.245	-0.000	24.803	0.000	0.000	38.246	33.968	0.243	XOM_R2OWSG MWD+IFR1+MS
12000.000	90.000	179.889	9626.000	25.445	0.000	38.631	-0.000	25.445	0.000	0.000	38.631	33.979	0.240	XOM_R2OWSG MWD+IFR1+MS
12100.000	90.000	179.889	9626.000	26.095	0.000	39.033	-0.000	26.095	0.000	0.000	39.033	33.991	0.236	XOM_R2OWSG MWD+IFR1+MS
12200.000	90.000	179.889	9626.000	26.753	0.000	39.451	-0.000	26.753	0.000	0.000	39.451	34.004	0.232	XOM_R2OWSG MWD+IFR1+MS
12300.000	90.000	179.889	9626.000	27.417	0.000	39.883	-0.000	27.417	0.000	0.000	39.883	34.017	0.227	XOM_R2OWSG MWD+IFR1+MS
12400.000	90.000	179.889	9626.000	28.087	0.000	40.330	-0.000	28.087	0.000	0.000	40.331	34.031	0.221	XOM_R2OWSG MWD+IFR1+MS
12500.000	90.000	179.889	9626.000	28.763	0.000	40.792	-0.000	28.763	0.000	0.000	40.792	34.046	0.215	XOM_R2OWSG MWD+IFR1+MS
12600.000	90.000	179.889	9626.000	29.444	0.000	41.267	-0.000	29.444	0.000	0.000	41.267	34.061	0.210	XOM_R2OWSG MWD+IFR1+MS
12700.000	90.000	179.889	9626.000	30.131	0.000	41.755	-0.000	30.131	0.000	0.000	41.755	34.077	0.204	XOM_R2OWSG MWD+IFR1+MS
12800.000	90.000	179.889	9626.000	30.822	0.000	42.256	-0.000	30.822	0.000	0.000	42.256	34.094	0.198	XOM_R2OWSG MWD+IFR1+MS
12900.000	90.000	179.889	9626.000	31.517	0.000	42.769	-0.000	31.517	0.000	0.000	42.769	34.111	0.192	XOM_R2OWSG MWD+IFR1+MS
13000.000	90.000	179.889	9626.000	32.217	0.000	43.294	-0.000	32.217	0.000	0.000	43.294	34.129	0.186	XOM_R2OWSG MWD+IFR1+MS
13100.000	90.000	179.889	9626.000	32.920	0.000	43.830	-0.000	32.920	0.000	0.000	43.830	34.147	0.181	XOM_R2OWSG MWD+IFR1+MS
13200.000	90.000	179.889	9626.000	33.627	0.000	44.377	-0.000	33.627	0.000	0.000	44.378	34.166	0.175	XOM_R2OWSG MWD+IFR1+MS
13300.000	90.000	179.889	9626.000	34.338	0.000	44.935	-0.000	34.338	0.000	0.000	44.936	34.186	0.169	XOM_R2OWSG MWD+IFR1+MS

13400.000	90.000	179.889	9626.000	35.051	0.000	45.504	-0.000	35.051	0.000	0.000	45.504	34.206	0.164	XOM_R2OWSG MWD+IFR1+MS
13500.000	90.000	179.889	9626.000	35.768	0.000	46.082	-0.000	35.768	0.000	0.000	46.082	34.227	0.159	XOM_R2OWSG MWD+IFR1+MS
13600.000	90.000	179.889	9626.000	36.487	0.000	46.669	-0.000	36.487	0.000	0.000	46.669	34.248	0.154	XOM_R2OWSG MWD+IFR1+MS
13700.000	90.000	179.889	9626.000	37.209	0.000	47.266	-0.000	37.209	0.000	0.000	47.266	34.271	0.149	XOM_R2OWSG MWD+IFR1+MS
13800.000	90.000	179.889	9626.000	37.934	0.000	47.871	-0.000	37.934	0.000	0.000	47.871	34.293	0.144	XOM_R2OWSG MWD+IFR1+MS
13900.000	90.000	179.889	9626.000	38.661	0.000	48.485	-0.000	38.661	0.000	0.000	48.485	34.317	0.140	XOM_R2OWSG MWD+IFR1+MS
14000.000	90.000	179.889	9626.000	39.390	0.000	49.107	-0.000	39.390	0.000	0.000	49.107	34.341	0.135	XOM_R2OWSG MWD+IFR1+MS
14100.000	90.000	179.889	9626.000	40.121	0.000	49.736	-0.000	40.121	0.000	0.000	49.737	34.366	0.131	XOM_R2OWSG MWD+IFR1+MS
14200.000	90.000	179.889	9626.000	40.854	0.000	50.374	-0.000	40.854	0.000	0.000	50.374	34.391	0.126	XOM_R2OWSG MWD+IFR1+MS
14300.000	90.000	179.889	9626.000	41.589	0.000	51.018	-0.000	41.589	0.000	0.000	51.018	34.417	0.122	XOM_R2OWSG MWD+IFR1+MS
14400.000	90.000	179.889	9626.000	42.326	0.000	51.670	-0.000	42.326	0.000	0.000	51.670	34.443	0.118	XOM_R2OWSG MWD+IFR1+MS
14500.000	90.000	179.889	9626.000	43.065	0.000	52.328	-0.000	43.065	0.000	0.000	52.328	34.470	0.114	XOM_R2OWSG MWD+IFR1+MS
14600.000	90.000	179.889	9626.000	43.805	0.000	52.993	-0.000	43.805	0.000	0.000	52.993	34.498	0.110	XOM_R2OWSG MWD+IFR1+MS
14700.000	90.000	179.889	9626.000	44.546	0.000	53.664	-0.000	44.546	0.000	0.000	53.664	34.527	0.107	XOM_R2OWSG MWD+IFR1+MS
14800.000	90.000	179.889	9626.000	45.290	0.000	54.340	-0.000	45.290	0.000	0.000	54.341	34.556	0.103	XOM_R2OWSG MWD+IFR1+MS
14900.000	90.000	179.889	9626.000	46.034	0.000	55.023	-0.000	46.034	0.000	0.000	55.023	34.585	0.100	XOM_R2OWSG MWD+IFR1+MS
15000.000	90.000	179.889	9626.000	46.780	0.000	55.711	-0.000	46.780	0.000	0.000	55.712	34.615	0.096	XOM_R2OWSG MWD+IFR1+MS
15100.000	90.000	179.889	9626.000	47.527	0.000	56.405	-0.000	47.527	0.000	0.000	56.405	34.646	0.093	XOM_R2OWSG MWD+IFR1+MS
15200.000	90.000	179.889	9626.000	48.275	0.000	57.104	-0.000	48.275	0.000	0.000	57.104	34.678	0.090	XOM_R2OWSG MWD+IFR1+MS
15300.000	90.000	179.889	9626.000	49.025	0.000	57.807	-0.000	49.025	0.000	0.000	57.808	34.709	0.087	XOM_R2OWSG MWD+IFR1+MS

15400.000	90.000	179.889	9626.000	49.775	0.000	58.516	-0.000	49.775	0.000	0.000	58.516	34.742	0.084	XOM_R2OWSG MWD+IFR1+MS
15500.000	90.000	179.889	9626.000	50.527	0.000	59.229	-0.000	50.527	0.000	0.000	59.229	34.775	0.081	XOM_R2OWSG MWD+IFR1+MS
15600.000	90.000	179.889	9626.000	51.279	0.000	59.947	-0.000	51.279	0.000	0.000	59.947	34.809	0.078	XOM_R2OWSG MWD+IFR1+MS
15700.000	90.000	179.889	9626.000	52.033	0.000	60.669	-0.000	52.033	0.000	0.000	60.669	34.843	0.075	XOM_R2OWSG MWD+IFR1+MS
15800.000	90.000	179.889	9626.000	52.787	0.000	61.395	-0.000	52.787	0.000	0.000	61.395	34.878	0.073	XOM_R2OWSG MWD+IFR1+MS
15900.000	90.000	179.889	9626.000	53.543	0.000	62.125	-0.000	53.543	0.000	0.000	62.125	34.914	0.070	XOM_R2OWSG MWD+IFR1+MS
16000.000	90.000	179.889	9626.000	54.299	0.000	62.859	-0.000	54.299	0.000	0.000	62.859	34.950	0.068	XOM_R2OWSG MWD+IFR1+MS
16100.000	90.000	179.889	9626.000	55.056	0.000	63.596	-0.000	55.056	0.000	0.000	63.596	34.987	0.065	XOM_R2OWSG MWD+IFR1+MS
16200.000	90.000	179.889	9626.000	55.813	0.000	64.337	-0.000	55.813	0.000	0.000	64.338	35.024	0.063	XOM_R2OWSG MWD+IFR1+MS
16300.000	90.000	179.889	9626.000	56.572	0.000	65.082	-0.000	56.572	0.000	0.000	65.082	35.062	0.060	XOM_R2OWSG MWD+IFR1+MS
16400.000	90.000	179.889	9626.000	57.331	0.000	65.830	-0.000	57.331	0.000	0.000	65.831	35.101	0.058	XOM_R2OWSG MWD+IFR1+MS
16500.000	90.000	179.889	9626.000	58.091	0.000	66.582	-0.000	58.091	0.000	0.000	66.582	35.140	0.056	XOM_R2OWSG MWD+IFR1+MS
16600.000	90.000	179.889	9626.000	58.851	0.000	67.336	-0.000	58.851	0.000	0.000	67.336	35.179	0.054	XOM_R2OWSG MWD+IFR1+MS
16700.000	90.000	179.889	9626.000	59.612	0.000	68.094	-0.000	59.612	0.000	0.000	68.094	35.220	0.051	XOM_R2OWSG MWD+IFR1+MS
16800.000	90.000	179.889	9626.000	60.374	0.000	68.854	-0.000	60.374	0.000	0.000	68.854	35.260	0.049	XOM_R2OWSG MWD+IFR1+MS
16900.000	90.000	179.889	9626.000	61.136	0.000	69.617	-0.000	61.136	0.000	0.000	69.618	35.302	0.047	XOM_R2OWSG MWD+IFR1+MS
17000.000	90.000	179.889	9626.000	61.899	0.000	70.383	-0.000	61.899	0.000	0.000	70.384	35.344	0.045	XOM_R2OWSG MWD+IFR1+MS
17100.000	90.000	179.889	9626.000	62.663	0.000	71.152	-0.000	62.663	0.000	0.000	71.152	35.386	0.043	XOM_R2OWSG MWD+IFR1+MS
17200.000	90.000	179.889	9626.000	63.426	0.000	71.923	-0.000	63.426	0.000	0.000	71.923	35.429	0.042	XOM_R2OWSG MWD+IFR1+MS
17300.000	90.000	179.889	9626.000	64.191	0.000	72.697	-0.000	64.191	0.000	0.000	72.697	35.473	0.040	XOM_R2OWSG MWD+IFR1+MS

17400.000	90.000	179.889	9626.000	64.956	0.000	73.473	-0.000	64.956	0.000	0.000	73.473	35.517	0.038	XOM_R2OWSG MWD+IFR1+MS
17500.000	90.000	179.889	9626.000	65.721	0.000	74.252	-0.000	65.721	0.000	0.000	74.252	35.562	0.036	XOM_R2OWSG MWD+IFR1+MS
17600.000	90.000	179.889	9626.000	66.487	0.000	75.032	-0.000	66.487	0.000	0.000	75.033	35.607	0.035	XOM_R2OWSG MWD+IFR1+MS
17700.000	90.000	179.889	9626.000	67.253	0.000	75.815	-0.000	67.253	0.000	0.000	75.816	35.653	0.033	XOM_R2OWSG MWD+IFR1+MS
17800.000	90.000	179.889	9626.000	68.020	0.000	76.600	-0.000	68.020	0.000	0.000	76.601	35.699	0.031	XOM_R2OWSG MWD+IFR1+MS
17900.000	90.000	179.889	9626.000	68.787	0.000	77.388	-0.000	68.787	0.000	0.000	77.388	35.746	0.030	XOM_R2OWSG MWD+IFR1+MS
18000.000	90.000	179.889	9626.000	69.555	0.000	78.177	-0.000	69.555	0.000	0.000	78.177	35.794	0.028	XOM_R2OWSG MWD+IFR1+MS
18100.000	90.000	179.889	9626.000	70.322	0.000	78.968	-0.000	70.322	0.000	0.000	78.968	35.842	0.026	XOM_R2OWSG MWD+IFR1+MS
18200.000	90.000	179.889	9626.000	71.091	0.000	79.761	-0.000	71.091	0.000	0.000	79.761	35.891	0.025	XOM_R2OWSG MWD+IFR1+MS
18300.000	90.000	179.889	9626.000	71.859	0.000	80.555	-0.000	71.859	0.000	0.000	80.556	35.940	0.024	XOM_R2OWSG MWD+IFR1+MS
18400.000	90.000	179.889	9626.000	72.628	0.000	81.352	-0.000	72.628	0.000	0.000	81.352	35.989	0.022	XOM_R2OWSG MWD+IFR1+MS
18500.000	90.000	179.889	9626.000	73.398	0.000	82.150	-0.000	73.398	0.000	0.000	82.150	36.040	0.021	XOM_R2OWSG MWD+IFR1+MS
18600.000	90.000	179.889	9626.000	74.167	0.000	82.950	-0.000	74.167	0.000	0.000	82.950	36.090	0.019	XOM_R2OWSG MWD+IFR1+MS
18700.000	90.000	179.889	9626.000	74.937	0.000	83.752	-0.000	74.937	0.000	0.000	83.752	36.142	0.018	XOM_R2OWSG MWD+IFR1+MS
18800.000	90.000	179.889	9626.000	75.707	0.000	84.555	-0.000	75.707	0.000	0.000	84.555	36.194	0.017	XOM_R2OWSG MWD+IFR1+MS
18900.000	90.000	179.889	9626.000	76.478	0.000	85.360	-0.000	76.478	0.000	0.000	85.360	36.246	0.015	XOM_R2OWSG MWD+IFR1+MS
19000.000	90.000	179.889	9626.000	77.249	0.000	86.166	-0.000	77.249	0.000	0.000	86.166	36.299	0.014	XOM_R2OWSG MWD+IFR1+MS
19100.000	90.000	179.889	9626.000	78.020	0.000	86.973	-0.000	78.020	0.000	0.000	86.974	36.352	0.013	XOM_R2OWSG MWD+IFR1+MS
19200.000	90.000	179.889	9626.000	78.791	0.000	87.782	-0.000	78.791	0.000	0.000	87.783	36.406	0.012	XOM_R2OWSG MWD+IFR1+MS
19300.000	90.000	179.889	9626.000	79.563	0.000	88.593	-0.000	79.563	0.000	0.000	88.593	36.461	0.010	XOM_R2OWSG MWD+IFR1+MS

19400.000	90.000	179.889	9626.000	80.335	0.000	89.404	-0.000	80.335	0.000	0.000	89.405	36.516	0.009	XOM_R2OWSG MWD+IFR1+MS
19500.000	90.000	179.889	9626.000	81.107	0.000	90.217	-0.000	81.107	0.000	0.000	90.218	36.571	0.008	XOM_R2OWSG MWD+IFR1+MS
19600.000	90.000	179.889	9626.000	81.879	0.000	91.032	-0.000	81.879	0.000	0.000	91.032	36.627	0.007	XOM_R2OWSG MWD+IFR1+MS
19700.000	90.000	179.889	9626.000	82.652	0.000	91.847	-0.000	82.652	0.000	0.000	91.847	36.684	0.006	XOM_R2OWSG MWD+IFR1+MS
19800.000	90.000	179.889	9626.000	83.425	0.000	92.664	-0.000	83.425	0.000	0.000	92.664	36.741	0.005	XOM_R2OWSG MWD+IFR1+MS
19900.000	90.000	179.889	9626.000	84.198	0.000	93.482	-0.000	84.198	0.000	0.000	93.482	36.798	0.004	XOM_R2OWSG MWD+IFR1+MS
20000.000	90.000	179.889	9626.000	84.971	0.000	94.301	-0.000	84.971	0.000	0.000	94.301	36.856	0.003	XOM_R2OWSG MWD+IFR1+MS
20100.000	90.000	179.889	9626.000	85.744	0.000	95.121	-0.000	85.744	0.000	0.000	95.121	36.915	0.002	XOM_R2OWSG MWD+IFR1+MS
20200.000	90.000	179.889	9626.000	86.518	0.000	95.942	-0.000	86.518	0.000	0.000	95.942	36.974	0.001	XOM_R2OWSG MWD+IFR1+MS
20300.000	90.000	179.889	9626.000	87.292	0.000	96.764	-0.000	87.292	0.000	0.000	96.764	37.033	-0.000	XOM_R2OWSG MWD+IFR1+MS
20400.000	90.000	179.889	9626.000	88.066	0.000	97.588	-0.000	88.066	0.000	0.000	97.588	37.093	-0.001	XOM_R2OWSG MWD+IFR1+MS
20500.000	90.000	179.889	9626.000	88.840	0.000	98.412	-0.000	88.840	0.000	0.000	98.412	37.154	-0.002	XOM_R2OWSG MWD+IFR1+MS
20600.000	90.000	179.889	9626.000	89.615	0.000	99.237	-0.000	89.615	0.000	0.000	99.237	37.215	-0.003	XOM_R2OWSG MWD+IFR1+MS
20700.000	90.000	179.889	9626.000	90.389	0.000	100.063	-0.000	90.389	0.000	0.000	100.063	37.276	-0.004	XOM_R2OWSG MWD+IFR1+MS
20800.000	90.000	179.889	9626.000	91.164	0.000	100.890	-0.000	91.164	0.000	0.000	100.890	37.338	-0.005	XOM_R2OWSG MWD+IFR1+MS
20900.000	90.000	179.889	9626.000	91.939	0.000	101.718	-0.000	91.939	0.000	0.000	101.718	37.401	-0.006	XOM_R2OWSG MWD+IFR1+MS
21000.000	90.000	179.889	9626.000	92.714	0.000	102.547	-0.000	92.714	0.000	0.000	102.547	37.464	-0.007	XOM_R2OWSG MWD+IFR1+MS
21100.000	90.000	179.889	9626.000	93.490	0.000	103.377	-0.000	93.490	0.000	0.000	103.377	37.527	-0.008	XOM_R2OWSG MWD+IFR1+MS
21200.000	90.000	179.889	9626.000	94.265	0.000	104.207	-0.000	94.265	0.000	0.000	104.208	37.591	-0.009	XOM_R2OWSG MWD+IFR1+MS
21300.000	90.000	179.889	9626.000	95.041	0.000	105.039	-0.000	95.041	0.000	0.000	105.039	37.655	-0.010	XOM_R2OWSG MWD+IFR1+MS

21400.000	90.000	179.889	9626.000	95.816	0.000	105.871	-0.000	95.816	0.000	0.000	105.871	37.720	-0.010	XOM_R2OWSG MWD+IFR1+MS
21500.000	90.000	179.889	9626.000	96.592	0.000	106.704	-0.000	96.592	0.000	0.000	106.704	37.785	-0.011	XOM_R2OWSG MWD+IFR1+MS
21600.000	90.000	179.889	9626.000	97.368	0.000	107.538	-0.000	97.368	0.000	0.000	107.538	37.851	-0.012	XOM_R2OWSG MWD+IFR1+MS
21700.000	90.000	179.889	9626.000	98.144	0.000	108.372	-0.000	98.144	0.000	0.000	108.372	37.917	-0.013	XOM_R2OWSG MWD+IFR1+MS
21800.000	90.000	179.889	9626.000	98.921	0.000	109.207	-0.000	98.921	0.000	0.000	109.207	37.984	-0.014	XOM_R2OWSG MWD+IFR1+MS
21900.000	90.000	179.889	9626.000	99.697	0.000	110.043	-0.000	99.697	0.000	0.000	110.043	38.051	-0.014	XOM_R2OWSG MWD+IFR1+MS
22000.000	90.000	179.889	9626.000	100.474	0.000	110.880	-0.000	100.474	0.000	0.000	110.880	38.119	-0.015	XOM_R2OWSG MWD+IFR1+MS
22100.000	90.000	179.889	9626.000	101.251	0.000	111.717	-0.000	101.251	0.000	0.000	111.717	38.187	-0.016	XOM_R2OWSG MWD+IFR1+MS
22200.000	90.000	179.889	9626.000	102.027	0.000	112.555	-0.000	102.027	0.000	0.000	112.555	38.255	-0.017	XOM_R2OWSG MWD+IFR1+MS
22300.000	90.000	179.889	9626.000	102.804	0.000	113.394	-0.000	102.804	0.000	0.000	113.394	38.324	-0.017	XOM_R2OWSG MWD+IFR1+MS
22400.000	90.000	179.889	9626.000	103.581	0.000	114.233	-0.000	103.581	0.000	0.000	114.233	38.394	-0.018	XOM_R2OWSG MWD+IFR1+MS
22500.000	90.000	179.889	9626.000	104.359	0.000	115.073	-0.000	104.359	0.000	0.000	115.073	38.463	-0.019	XOM_R2OWSG MWD+IFR1+MS
22600.000	90.000	179.889	9626.000	105.136	0.000	115.913	-0.000	105.136	0.000	0.000	115.913	38.534	-0.019	XOM_R2OWSG MWD+IFR1+MS
22700.000	90.000	179.889	9626.000	105.913	0.000	116.754	-0.000	105.913	0.000	0.000	116.754	38.604	-0.020	XOM_R2OWSG MWD+IFR1+MS
22800.000	90.000	179.889	9626.000	106.691	0.000	117.596	-0.000	106.691	0.000	0.000	117.596	38.676	-0.021	XOM_R2OWSG MWD+IFR1+MS
22900.000	90.000	179.889	9626.000	107.468	0.000	118.438	-0.000	107.468	0.000	0.000	118.438	38.747	-0.021	XOM_R2OWSG MWD+IFR1+MS
23000.000	90.000	179.889	9626.000	108.246	0.000	119.281	-0.000	108.246	0.000	0.000	119.281	38.819	-0.022	XOM_R2OWSG MWD+IFR1+MS
23100.000	90.000	179.889	9626.000	109.024	0.000	120.124	-0.000	109.024	0.000	0.000	120.124	38.892	-0.023	XOM_R2OWSG MWD+IFR1+MS
23200.000	90.000	179.889	9626.000	109.802	0.000	120.968	-0.000	109.802	0.000	0.000	120.968	38.964	-0.023	XOM_R2OWSG MWD+IFR1+MS
23300.000	90.000	179.889	9626.000	110.580	0.000	121.812	-0.000	110.580	0.000	0.000	121.813	39.038	-0.024	XOM_R2OWSG MWD+IFR1+MS

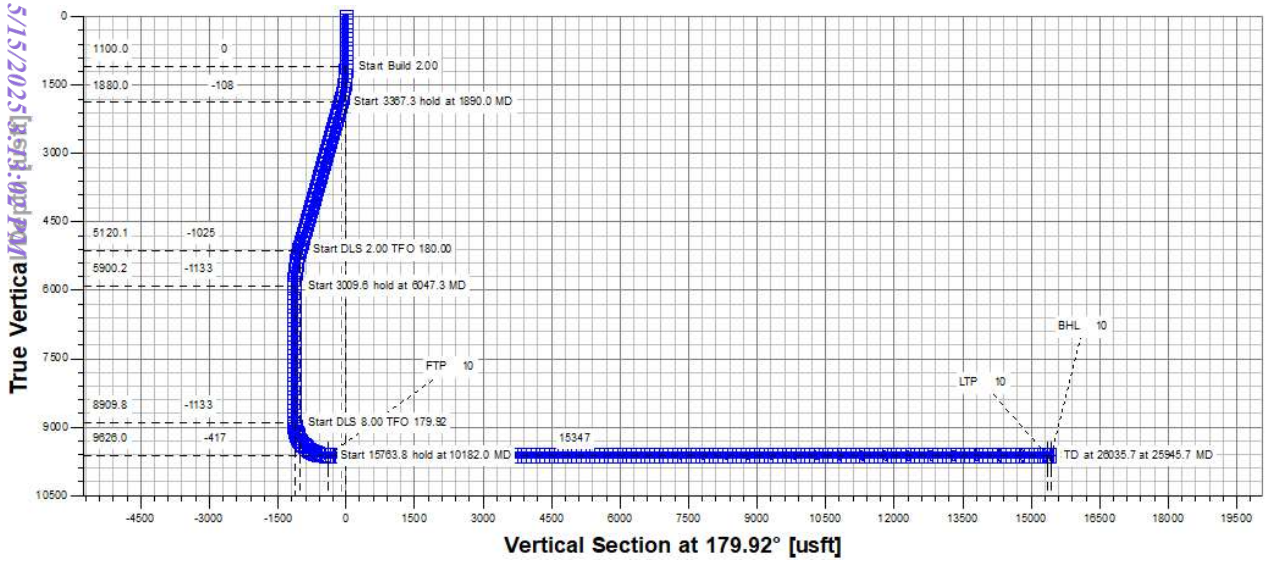
23400.000	90.000	179.889	9626.000	111.358	0.000	122.657	-0.000	111.358	0.000	0.000	122.657	39.111	-0.025	XOM_R2OWSG MWD+IFR1+MS
23500.000	90.000	179.889	9626.000	112.136	0.000	123.503	-0.000	112.136	0.000	0.000	123.503	39.186	-0.025	XOM_R2OWSG MWD+IFR1+MS
23600.000	90.000	179.889	9626.000	112.914	0.000	124.349	-0.000	112.914	0.000	0.000	124.349	39.260	-0.026	XOM_R2OWSG MWD+IFR1+MS
23700.000	90.000	179.889	9626.000	113.693	0.000	125.195	-0.000	113.693	0.000	0.000	125.195	39.335	-0.026	XOM_R2OWSG MWD+IFR1+MS
23800.000	90.000	179.889	9626.000	114.471	0.000	126.042	-0.000	114.471	0.000	0.000	126.042	39.410	-0.027	XOM_R2OWSG MWD+IFR1+MS
23900.000	90.000	179.889	9626.000	115.250	0.000	126.889	-0.000	115.250	0.000	0.000	126.889	39.486	-0.028	XOM_R2OWSG MWD+IFR1+MS
24000.000	90.000	179.889	9626.000	116.029	0.000	127.737	-0.000	116.029	0.000	0.000	127.737	39.562	-0.028	XOM_R2OWSG MWD+IFR1+MS
24100.000	90.000	179.889	9626.000	116.807	0.000	128.585	-0.000	116.807	0.000	0.000	128.585	39.639	-0.029	XOM_R2OWSG MWD+IFR1+MS
24200.000	90.000	179.889	9626.000	117.586	0.000	129.434	-0.000	117.586	0.000	0.000	129.434	39.716	-0.029	XOM_R2OWSG MWD+IFR1+MS
24300.000	90.000	179.889	9626.000	118.365	0.000	130.283	-0.000	118.365	0.000	0.000	130.283	39.793	-0.030	XOM_R2OWSG MWD+IFR1+MS
24400.000	90.000	179.889	9626.000	119.144	0.000	131.132	-0.000	119.144	0.000	0.000	131.132	39.871	-0.030	XOM_R2OWSG MWD+IFR1+MS
24500.000	90.000	179.889	9626.000	119.923	0.000	131.982	-0.000	119.923	0.000	0.000	131.982	39.949	-0.031	XOM_R2OWSG MWD+IFR1+MS
24600.000	90.000	179.889	9626.000	120.702	0.000	132.832	-0.000	120.702	0.000	0.000	132.832	40.028	-0.031	XOM_R2OWSG MWD+IFR1+MS
24700.000	90.000	179.889	9626.000	121.481	0.000	133.683	-0.000	121.481	0.000	0.000	133.683	40.107	-0.032	XOM_R2OWSG MWD+IFR1+MS
24800.000	90.000	179.889	9626.000	122.261	0.000	134.534	-0.000	122.261	0.000	0.000	134.534	40.186	-0.032	XOM_R2OWSG MWD+IFR1+MS
24900.000	90.000	179.889	9626.000	123.040	0.000	135.385	-0.000	123.040	0.000	0.000	135.386	40.266	-0.033	XOM_R2OWSG MWD+IFR1+MS
25000.000	90.000	179.889	9626.000	123.819	0.000	136.237	-0.000	123.819	0.000	0.000	136.237	40.346	-0.033	XOM_R2OWSG MWD+IFR1+MS
25100.000	90.000	179.889	9626.000	124.599	0.000	137.089	-0.000	124.599	0.000	0.000	137.090	40.427	-0.034	XOM_R2OWSG MWD+IFR1+MS
25200.000	90.000	179.889	9626.000	125.378	0.000	137.942	-0.000	125.378	0.000	0.000	137.942	40.508	-0.034	XOM_R2OWSG MWD+IFR1+MS
25300.000	90.000	179.889	9626.000	126.158	0.000	138.795	-0.000	126.158	0.000	0.000	138.795	40.589	-0.035	XOM_R2OWSG MWD+IFR1+MS

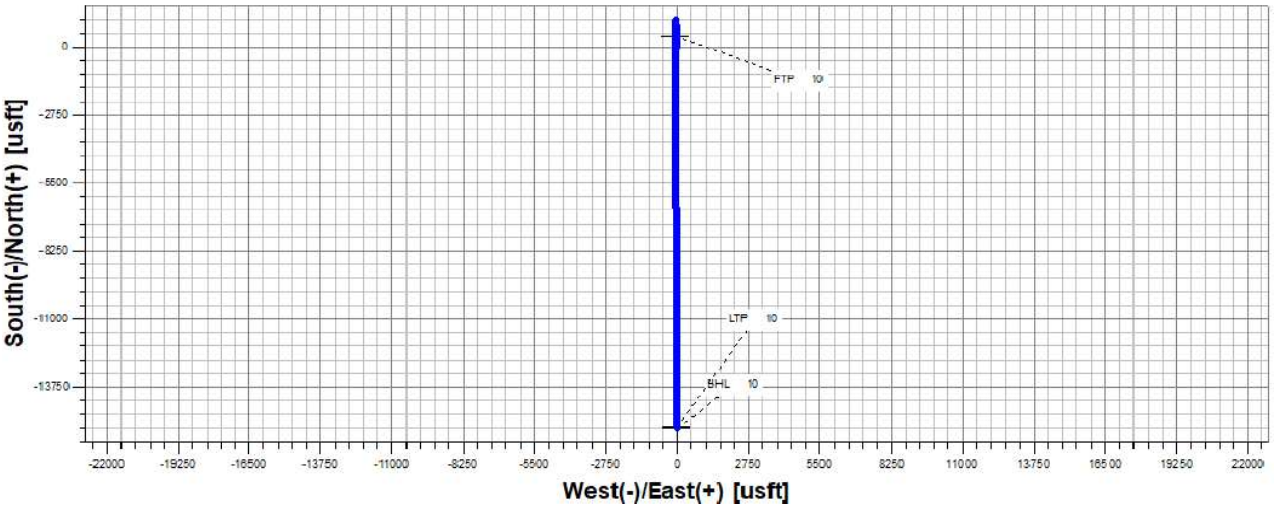
25400.000	90.000	179.889	9626.000	126.938	0.000	139.648	-0.000	126.938	0.000	0.000	139.648	40.670	-0.035	XOM_R2OWSG MWD+IFR1+MS
25500.000	90.000	179.889	9626.000	127.717	0.000	140.502	-0.000	127.717	0.000	0.000	140.502	40.752	-0.036	XOM_R2OWSG MWD+IFR1+MS
25600.000	90.000	179.889	9626.000	128.497	0.000	141.356	-0.000	128.497	0.000	0.000	141.356	40.835	-0.036	XOM_R2OWSG MWD+IFR1+MS
25700.000	90.000	179.889	9626.000	129.277	0.000	142.210	-0.000	129.277	0.000	0.000	142.210	40.918	-0.037	XOM_R2OWSG MWD+IFR1+MS
25800.000	90.000	179.889	9626.000	130.057	0.000	143.065	-0.000	130.057	0.000	0.000	143.065	41.001	-0.037	XOM_R2OWSG MWD+IFR1+MS
25900.000	90.000	179.889	9626.000	130.837	0.000	143.919	-0.000	130.837	0.000	0.000	143.920	41.084	-0.038	XOM_R2OWSG MWD+IFR1+MS
25945.041	90.000	179.889	9626.000	131.188	0.000	144.304	-0.000	131.188	0.000	0.000	144.304	41.122	-0.038	XOM_R2OWSG MWD+IFR1+MS
26000.000	90.000	179.889	9626.000	131.617	0.000	144.774	-0.000	131.617	0.000	0.000	144.774	41.168	-0.038	XOM_R2OWSG MWD+IFR1+MS
26035.041	90.000	179.889	9626.000	131.890	0.000	145.073	-0.000	131.890	0.000	0.000	145.073	41.198	-0.038	XOM_R2OWSG MWD+IFR1+MS

Plan Targets Poker Lake Unit 27 BD 509H

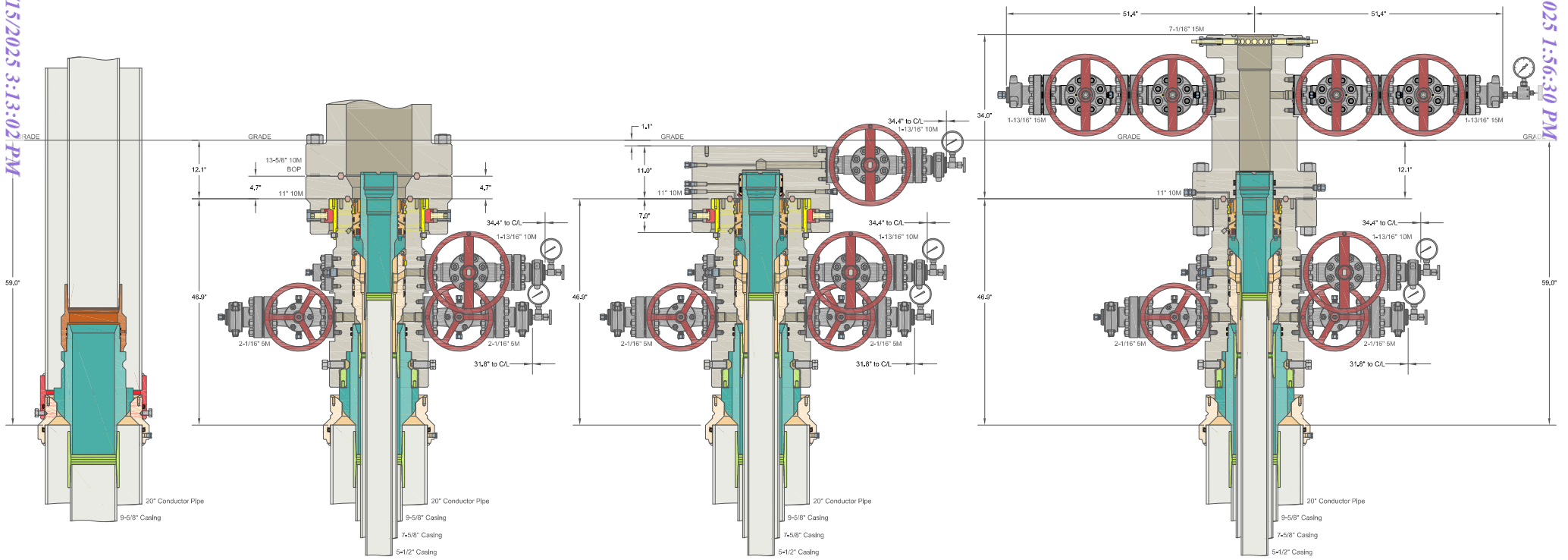
Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 6	10181.87	400660.60	641768.40	6331.00	CIRCLE
LTP 6	25945.04	384897.50	641799.00	6331.00	CIRCLE
BHL 6	26035.37	384807.50	641799.50	6331.00	CIRCLE

Loker Lake Unit 27 BD 509H





Formation	TVDSS (feet)	TVD (feet)
Rustler	2,256'	1,039'
Salado	1,964'	1,331'
Base of Salt	-374'	3,669'
Delaware	-566'	3,861'
Cherry Canyon	-1,504'	4,799'
Brushy Canyon	-2,646'	5,941'
Basal Brushy Canyon	-4,098'	7,393'
Bone Spring Lm.	-4,362'	7,657'
Avalon Shale	-4,507'	7,801'
Lower Avalon Shale	-4,930'	8,225'
1st Bone Spring Lime	-5,092'	8,387'
1st Bone Spring Sand	-5,311'	8,606'
2nd Bone Spring Shale	-5,581'	8,876'
2nd Bone Spring Lime	-5,791'	9,086'
2nd Bone Spring Sand	-6,171'	9,466'
2nd BS Sand Lower Landing	-6,331'	9,626'
3rd Bone Spring Lime	-6,460'	9,755'



ALL DIMENSIONS APPROXIMATE

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

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

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

Background

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

Supporting Documentation

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

Figure 1: Winch System attached to BOP Stack

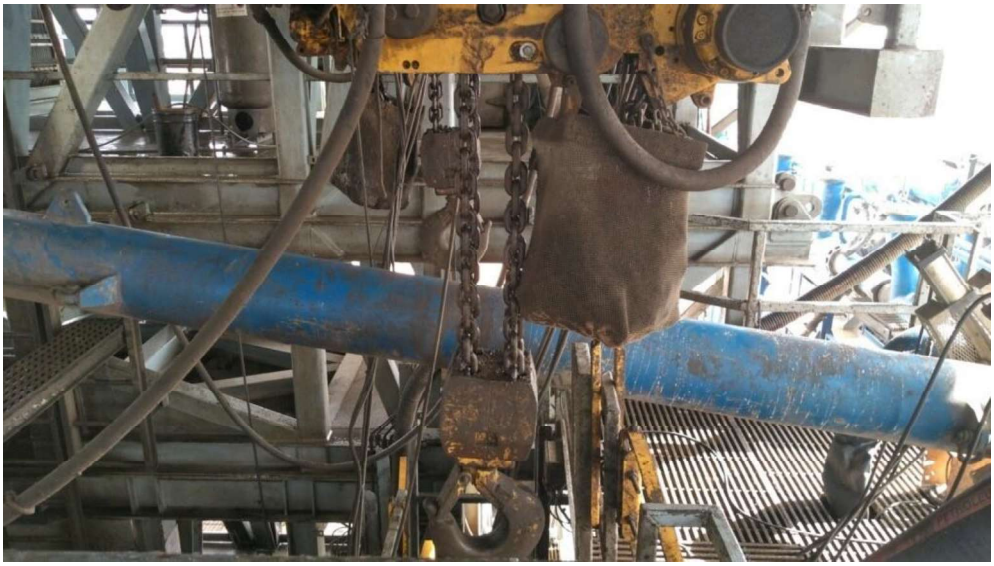


Figure 2: BOP Winch System

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

62 API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure[ac] psig (MPa)	Pressure Test—High Pressure[ac]	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer[b]	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers[bd]	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes[e]	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

[b] Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

[c] For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

[d] For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

[e] Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

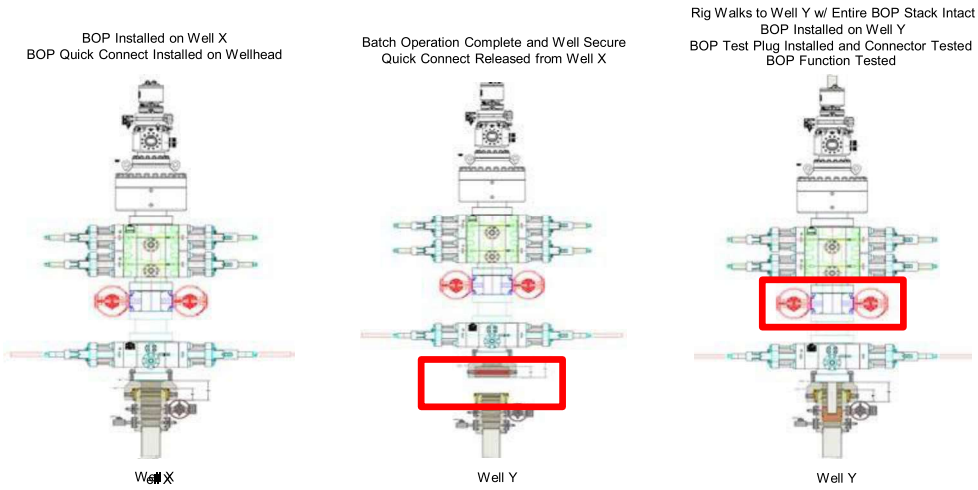
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

1. XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
    a. A full BOP test will be conducted on the first well on the pad.
    b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
        i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
        ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
    c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
    d. A full BOP test will be required prior to drilling any production hole.
3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
    a. Between the HCV valve and choke line connection
    b. Between the BOP quick connect and the wellhead
4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6. The connections mentioned in 3a and 3b will then be reconnected.
7. Install test plug into the wellhead using test joint or drill pipe.
8. A shell test is performed against the upper pipe rams testing the two breaks.
9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



Summary

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

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

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

1. After a full BOP test is conducted on the first well on the pad.

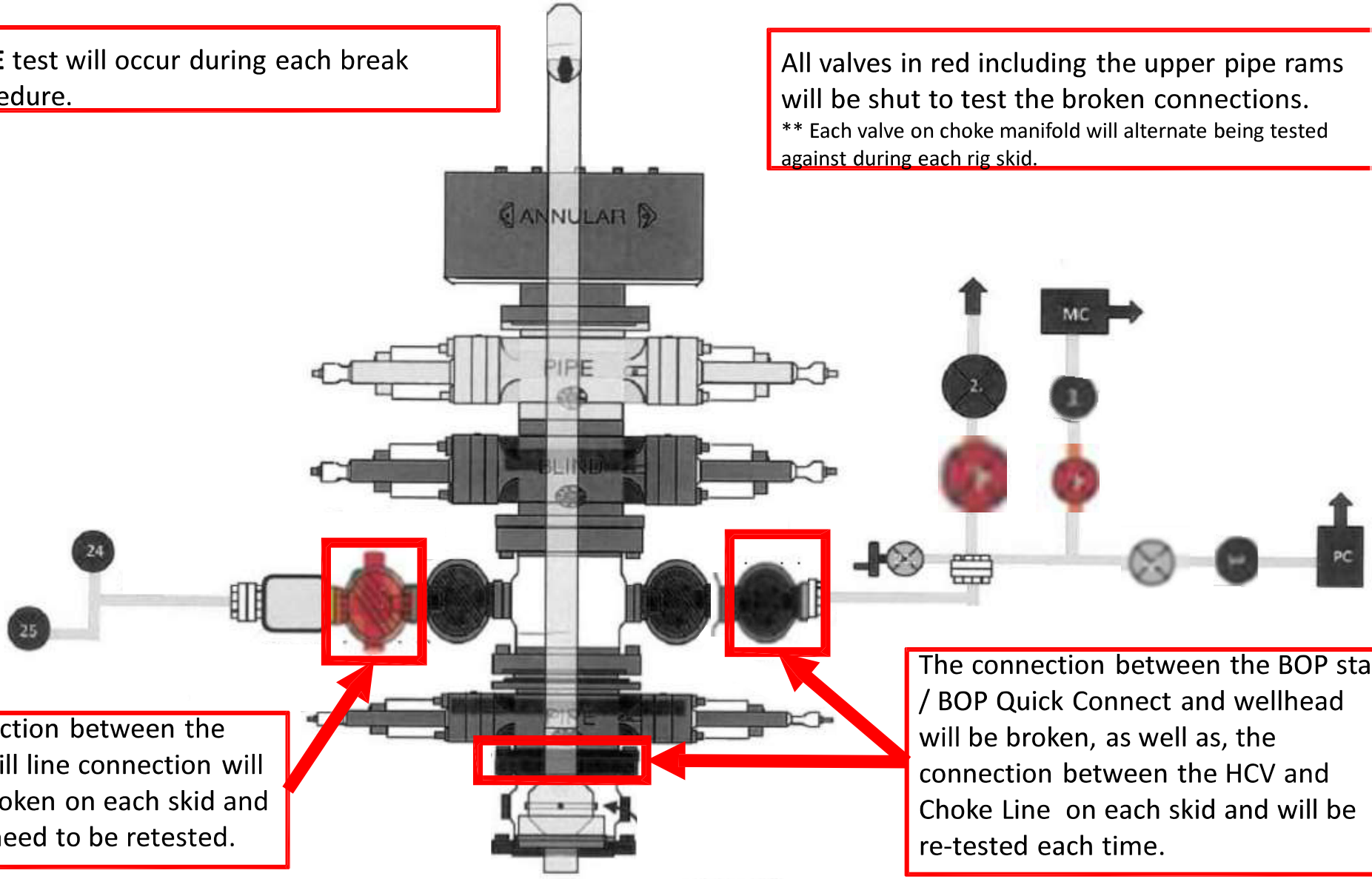
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

4. Full BOP test will be required prior to drilling the production hole.

Only **ONE** test will occur during each break test procedure.

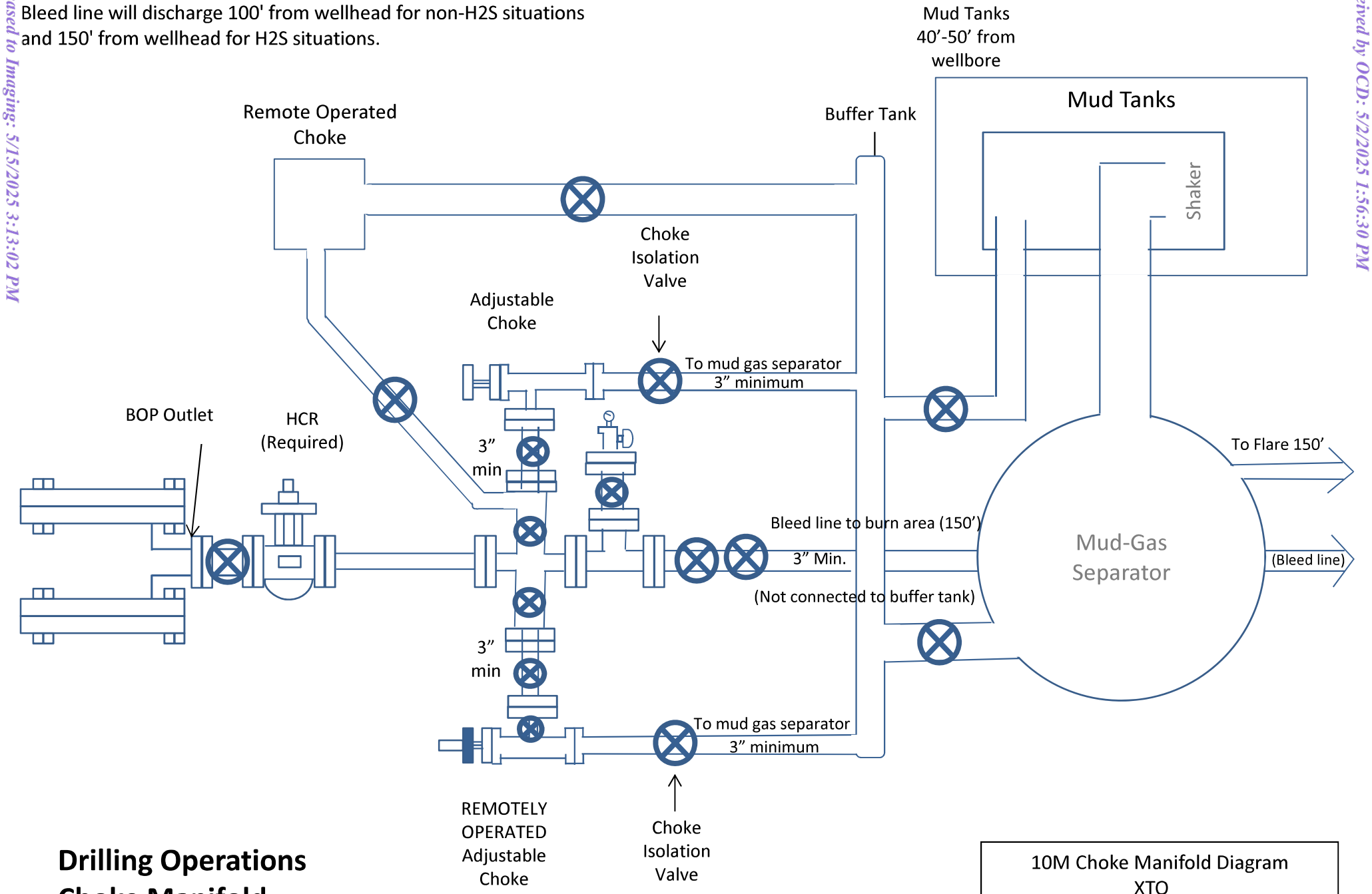
All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

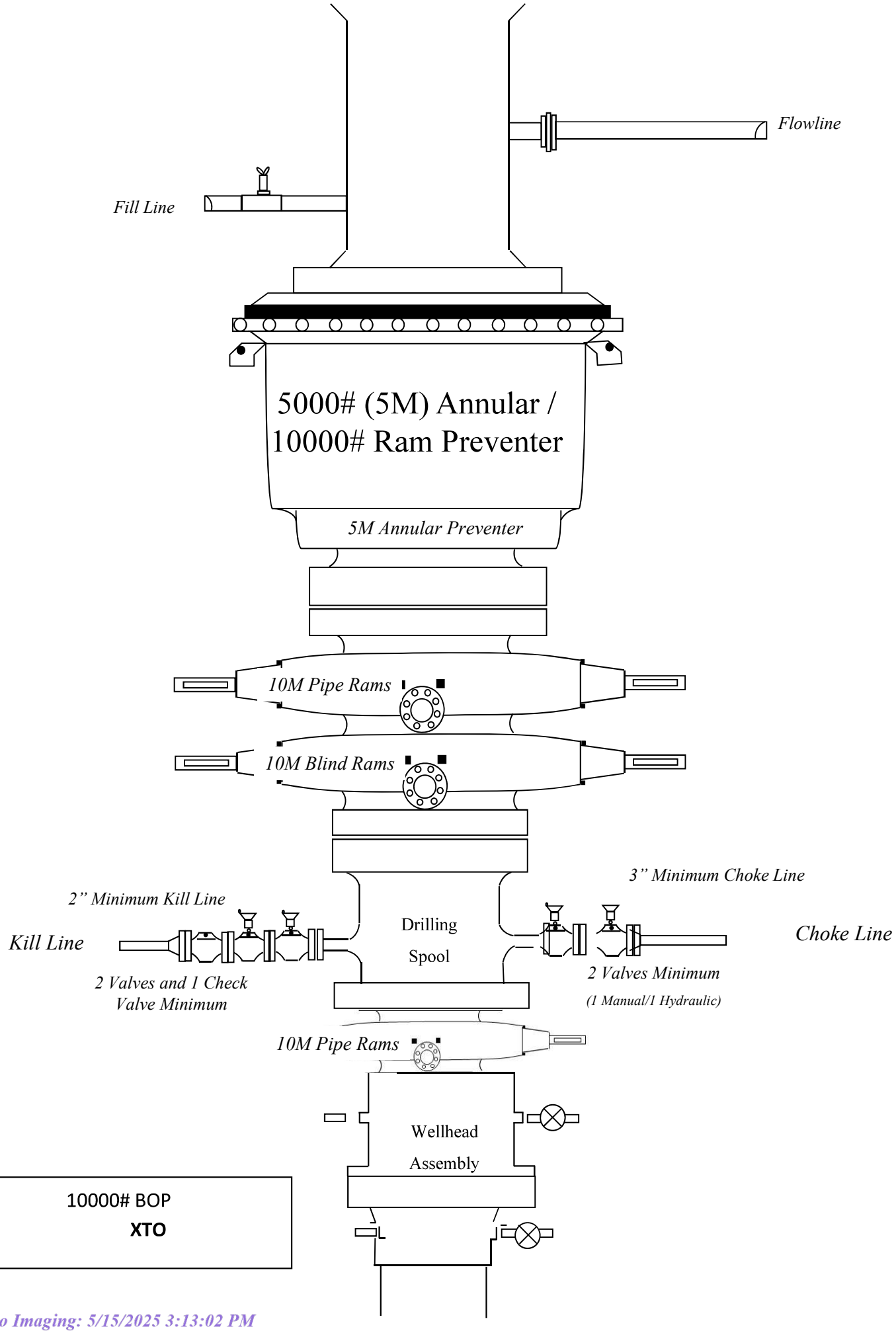
The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.

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



10000# BOP

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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. OSPINOS

TITLE: QUALITY ASSURANCE

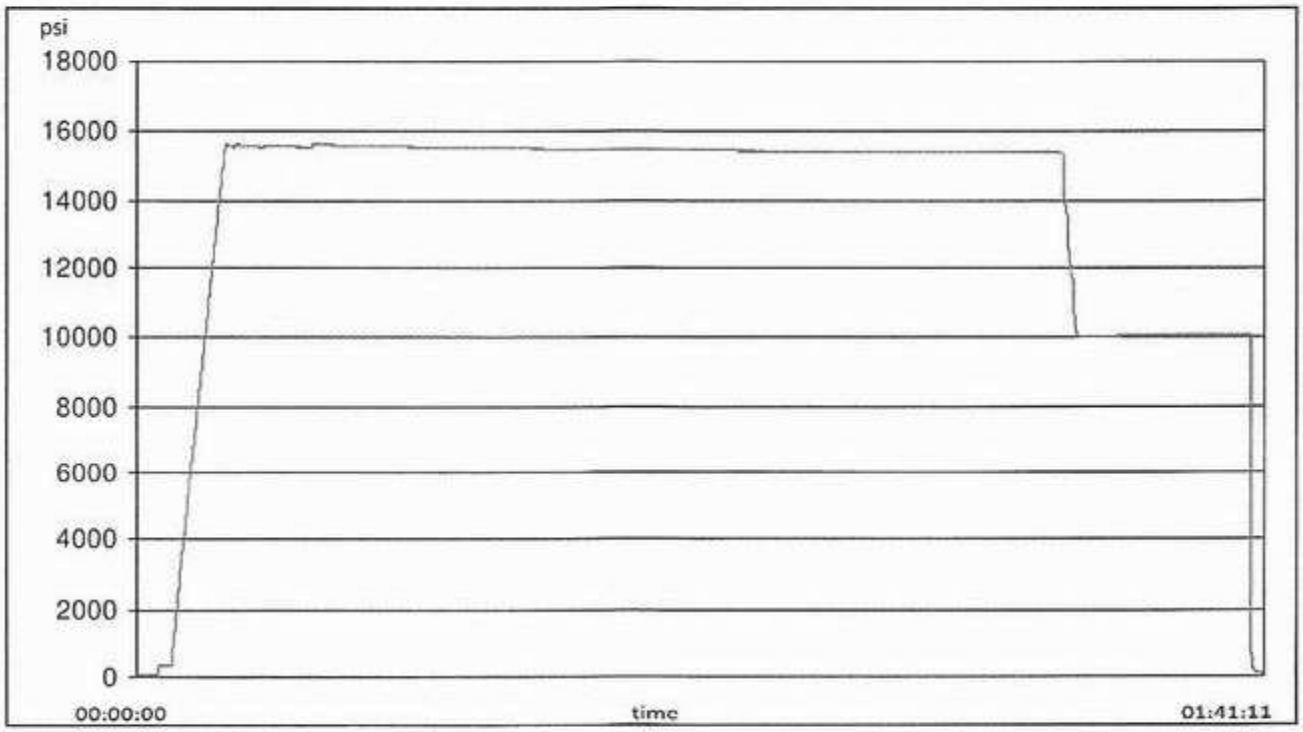
DATE: 1/25/2024

H3-15716

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER			TEST OBJECT		
Company:	Nabors Industries Inc.		Serial number:	H3-012524-1	
			Lot number:		
Production description:	74621/66-1531		Description:	74621/66-1531	
Sales order #:	529480				
Customer reference:	FG1213		Hose ID:	3" 16C CK	
			Part number:		
TEST INFORMATION					
Test procedure:	GTS-04-053		Fitting 1:	3.0 x 4-1/16 10K	
Test pressure:	15000.00	psi	Part number:		
Test pressure hold:	3600.00	sec	Description:		
Work pressure:	10000.00	psi			
Work pressure hold:	900.00	sec	Fitting 2:	3.0 x 4-1/16 10K	
Length difference:	0.00	%	Part number:		
Length difference:	0.00	inch	Description:		
Visual check:			Length:	45	feet
Pressure test result:	PASS				
Length measurement result:					
Test operator:	Travis				



H3-15/16

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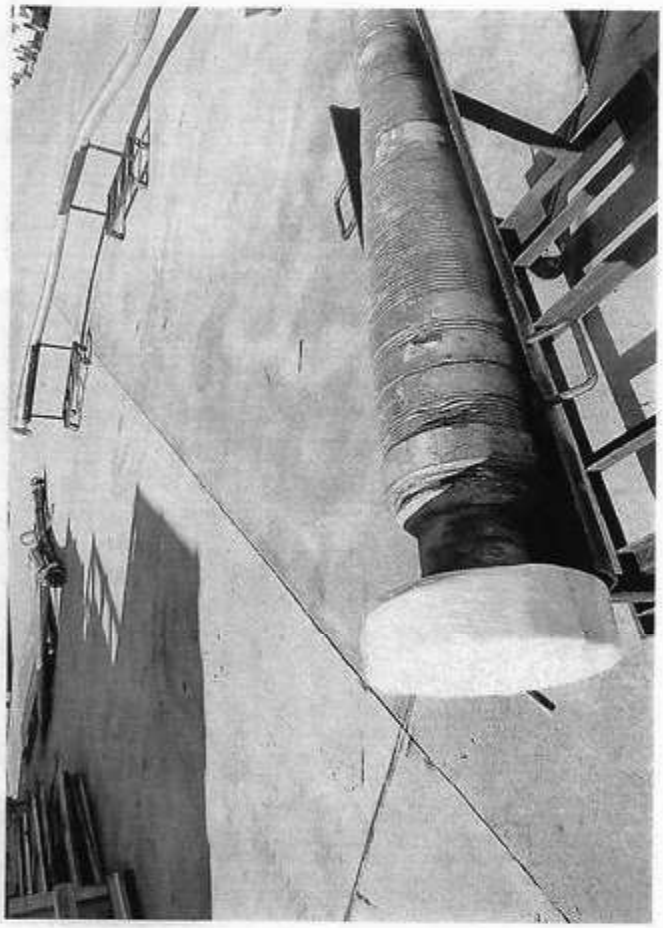
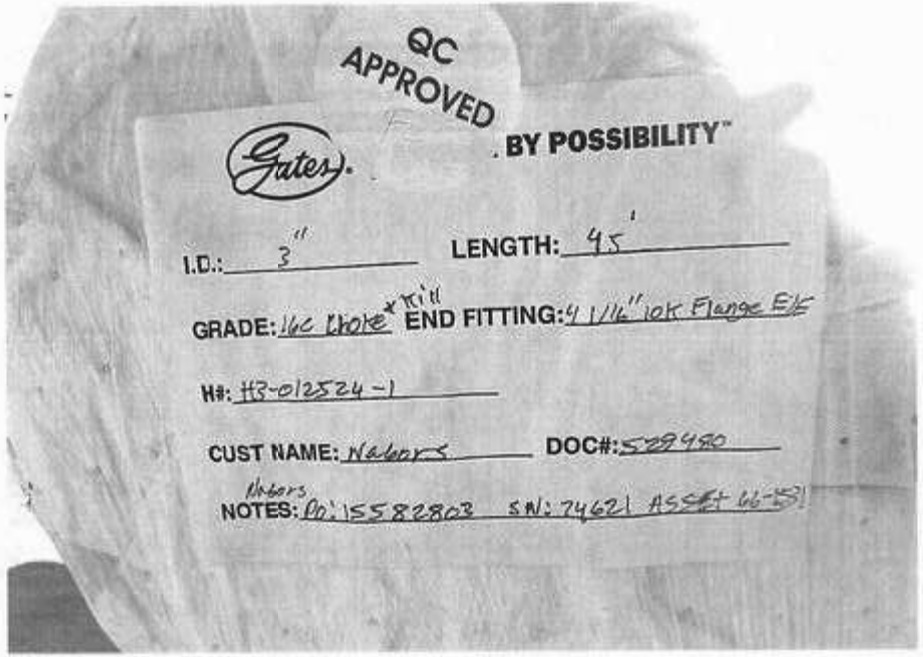
TEST REPORT

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





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.

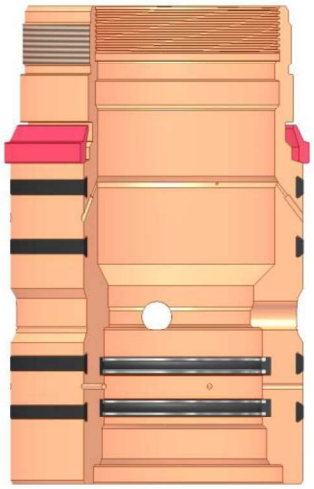
1. Cement Program

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

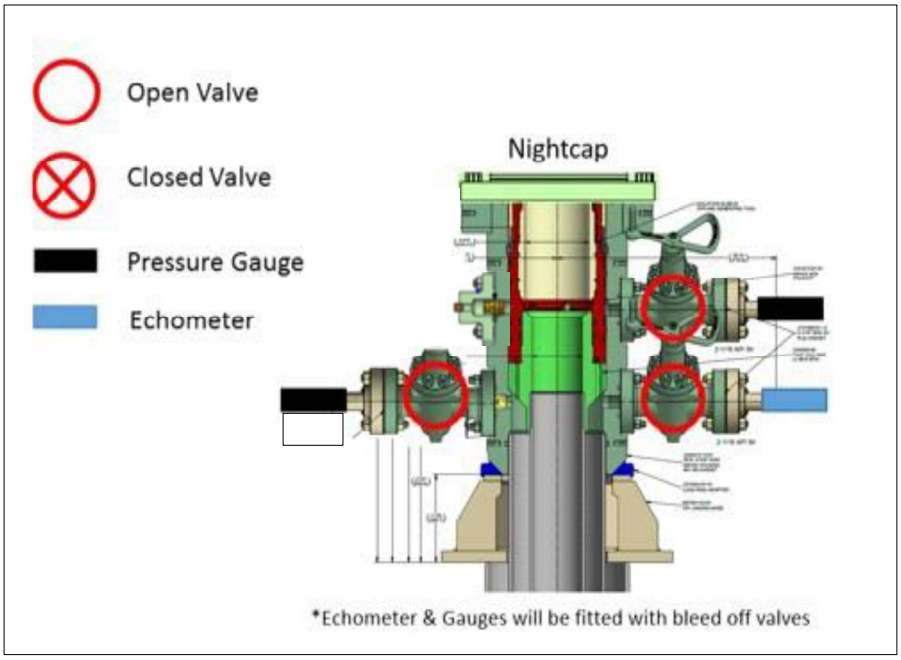
2. Offline Cementing Procedure

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 nippled 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.



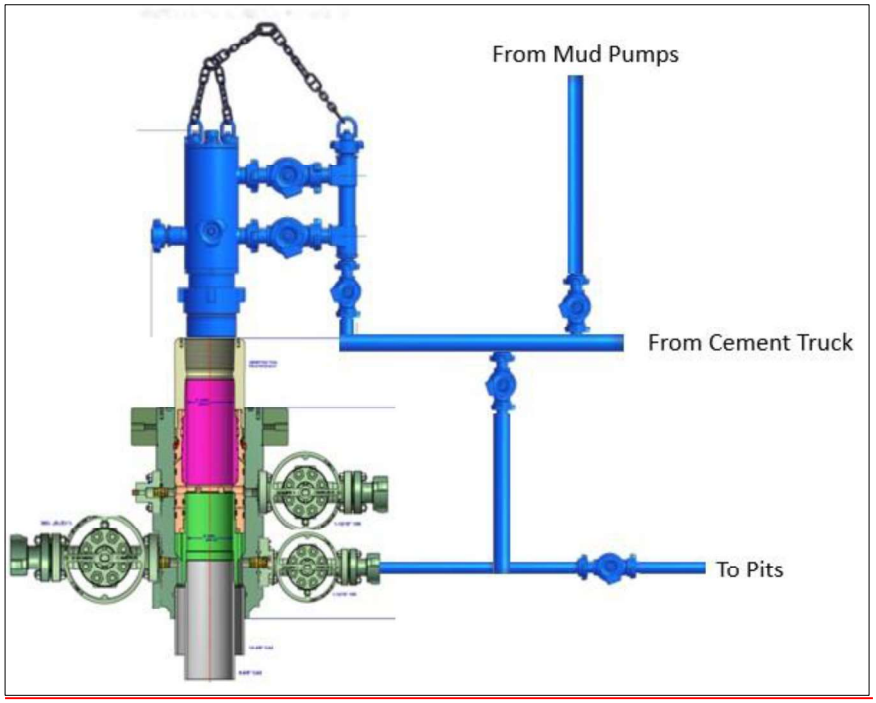
Annular packoff with both external and internal seals



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 nippling 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 3rd 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 nippled 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.

Tenaris

TPN™

Coupling	Pipe Body
Grade: **P110-CY**	Grade: **P110-CY**
Body: **White**	1st Band: **White**
1st Band: **Grey**	2nd Band: **Grey**
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-CY
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	641 x1000 lb
Nominal Weight	20.00 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	12,640 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	11,100 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.300 in.	**Tension Efficiency**	100 %	**Minimum**	13,860 ft-lb
Coupling Length	8.408 in.	**Joint Yield Strength**	641 x1000 lb	**Optimum**	15,400 ft-lb
Connection ID	4.778 in.	**Internal Pressure Capacity**	12,640 psi	**Maximum**	16,940 ft-lb
Make-up Loss	4.204 in.	**Compression Efficiency**	100 %		
Threads per inch	5	**Compression Strength**	641 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	92 °/100 ft	**Operating Torque**	26,350 ft-lb
		External Pressure Capacity	11,100 psi	**Yield Torque**	29,300 ft-lb

Notes

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

PI/CIII

Tenaris

TenarisHydril Wedge 441®

Coupling	Pipe Body
Grade: **P110-IC**	Grade: **P110-IC**
Body: **White**	1st Band: **White**
1st Band: **-**	2nd Band: **Pale Green**
2nd Band: **-**	3rd Band: **-**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	5.500 in.	**Wall Thickness**	0.361 in.	**Grade**	P110-IC
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	**Wall Thickness**	0.361 in.	**Body Yield Strength**	641 x1000 lb
Nominal Weight	20.00 lb/ft	**Plain End Weight**	19.83 lb/ft	**Min. Internal Yield Pressure**	12,640 psi
Drift	4.653 in.	**OD Tolerance**	API	**SMYS**	110,000 psi
Nominal ID	4.778 in.			**Collapse Pressure**	12,300 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	5.852 in.	**Tension Efficiency**	81.50 %	**Minimum**	15,000 ft-lb
Coupling Length	8.714 in.	**Joint Yield Strength**	522 x1000 lb	**Optimum**	16,000 ft-lb
Connection ID	4.778 in.	**Internal Pressure Capacity**	12,640 psi	**Maximum**	19,200 ft-lb
Make-up Loss	3.780 in.	**Compression Efficiency**	81.50 %		
Threads per inch	3.40	**Compression Strength**	522 x1000 lb	**Operation Limit Torques**	
Connection OD Option	Regular	**Max. Allowable Bending**	74.98 °/100 ft	**Operating Torque**	32,000 ft-lb
		External Pressure Capacity	12,300 psi	**Yield Torque**	38,000 ft-lb
				Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

This connection is fully interchangeable with:
Wedge 441® - 5.5 in. - 0.304 (17.00) in. (lb/ft)
Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) / 0.415 (23.00) in. (lb/ft)
Connections with Dopeless® Technology are fully compatible with the same connection in its doped version
Connection performance values are related to structural capabilities. For sealability-related performance information, request the Connection Service Envelope from your local Tenaris Representative.

For the lastest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris

TenarisHydril Wedge 511

Coupling	Pipe Body
Grade: **L80-IC**	Grade: **L80-IC**
Body: **Red**	1st Band: **Red**
1st Band: **Brown**	2nd Band: **Brown**
2nd Band: **-**	3rd Band: **Pale Green**
3rd Band: **-**	4th Band: **-**
	5th Band: **-**
	6th Band: **-**

Outside Diameter	7.625 in.	**Wall Thickness**	0.375 in.	**Grade**	L80-IC
Min. Wall Thickness	87.50 %	**Pipe Body Drift**	API Standard	**Type**	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	**Wall Thickness**	0.375 in.	**Body Yield Strength**	683 x1000 lb
Nominal Weight	29.70 lb/ft	**Plain End Weight**	29.06 lb/ft	**Min. Internal Yield Pressure**	6890 psi
Drift	6.750 in.	**OD Tolerance**	API	**SMYS**	80,000 psi
Nominal ID	6.875 in.			**Collapse Pressure**	5900 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.625 in.	**Tension Efficiency**	61.10 %	**Minimum**	5900 ft-lb
Connection ID	6.787 in.	**Joint Yield Strength**	417 x1000 lb	**Optimum**	7100 ft-lb
Make-up Loss	3.704 in.	**Internal Pressure Capacity**	6890 psi	**Maximum**	10,300 ft-lb
Threads per inch	3.28	**Compression Efficiency**	73.80 %		
Connection OD Option	Regular	**Compression Strength**	504 x1000 lb	**Operation Limit Torques**	
		Max. Allowable Bending	29.33 °/100 ft	**Operating Torque**	35,000 ft-lb
		External Pressure Capacity	5900 psi	**Yield Torque**	52,000 ft-lb

Notes

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For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

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 458145

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 458145
	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.	5/15/2025