

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

Well Name: POKER LAKE UNIT 20
DTD

Well Location: T24S / R30E / SEC 20 /
NENE / 32.209455 / -103.898239

County or Parish/State: EDDY /
NM

Well Number: 411H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMLC068905

Unit or CA Name:

Unit or CA Number:
NMNM71016X

US Well Number:

Operator: XTO PERMIAN OPERATING
LLC

Notice of Intent

Sundry ID: 2781324

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/23/2024

Time Sundry Submitted: 09:03

Date proposed operation will begin: 08/15/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, proposed total depth, and formation (pool). FROM: TO: SHL: 357' FNL & 1037' FEL of Section 20-T24S-R30E 337' FNL & 548' FEL of Section 20-T24S-R30E FTP: 100' FSL & 650' FEL of Section 17-T24S-R30E 100' FNL & 497' FEL of Section 20-T24S-R30E LTP: 330' FNL & 650' FEL of Section 32-T23S-R30E 330' FSL & 496' FEL of Section 5-T25S-R30E BHL: 200' FNL & 650' FEL of Section 32-T23S-R30E 230' FSL & 496' FEL of Section 5-T25S-R30E Proposed total depth will change from 30554' MD; 9351' TVD (Bone Spring) to 31607' MD; TVD 11064' (Wolfcamp). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

PLU_20_DTD_411H_BLM_APD_Change_sundry_attachments_20240323090308.pdf

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Conditions of Approval

Additional

Sec_20_24S_30E_NMP_Sundry_2781324_Poker_Lake_Unit_20_DTD_411H_COAs_20240404134452.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: RICHARD REDUS

Signed on: MAR 23, 2024 09:03 AM

Name: XTO PERMIAN OPERATING LLC

Title: Permitting Manager

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING

State: TX

Phone: (720) 539-1673

Email address: RICHARD.L.REDUS@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 04/25/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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

5. Lease Serial No. **NMLC068905**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
 Oil Well Gas Well Other

2. Name of Operator **XTO PERMIAN OPERATING LLC**

3a. Address **6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND,** 3b. Phone No. (include area code)
(432) 683-2277

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)
SEC 20/T24S/R30E/NMP

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

8. Well Name and No. **POKER LAKE UNIT 20 DTD/411H**

9. API Well No.

10. Field and Pool or Exploratory Area
Wildcat/Bone Spring

11. Country or Parish, State
EDDY/NM

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

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

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, proposed total depth, and formation (pool).

FROM: TO:

SHL: 357' FNL & 1037' FEL of Section 20-T24S-R30E 337' FNL & 548' FEL of Section 20-T24S-R30E

FTP: 100' FSL & 650' FEL of Section 17-T24S-R30E 100' FNL & 497' FEL of Section 20-T24S-R30E

LTP: 330' FNL & 650' FEL of Section 32-T23S-R30E 330' FSL & 496' FEL of Section 5-T25S-R30E

BHL: 200' FNL & 650' FEL of Section 32-T23S-R30E 230' FSL & 496' FEL of Section 5-T25S-R30E

Proposed total depth will change from 30554 MD; 9351 TVD (Bone Spring) to 31607 MD; TVD 11064 (Wolfcamp).

See attached Drilling Plan for updated cement and casing program.

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
RICHARD REDUS / Ph: (720) 539-1673

Signature (Electronic Submission)

Title **Permitting Manager**

Date **03/23/2024**

THE SPACE FOR FEDERAL OR STATE OFFICE USE

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

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.

Title **Petroleum Engineer** Date **04/25/2024**

Office **CARLSBAD**

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Additional Remarks

Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

Location of Well

0. SHL: NENE / 357 FNL / 1037 FEL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.209455 / LONG: -103.898239 (TVD: 0 feet, MD: 0 feet)

PPP: SESE / 330 FSL / 650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22545 / LONG: -103.89699 (TVD: 9351 feet, MD: 15000 feet)

PPP: SESE / 100 FSL / 650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.210718 / LONG: -103.896984 (TVD: 9351 feet, MD: 9700 feet)

PPP: NESE / 330 FSL / 650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.21441 / LONG: -103.89699 (TVD: 9351 feet, MD: 11100 feet)

PPP: SESE / 330 FSL / 650 FEL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.24023 / LONG: -103.89699 (TVD: 9351 feet, MD: 20300 feet)

BHL: NENE / 200 FNL / 650 FEL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268073 / LONG: -103.896988 (TVD: 9351 feet, MD: 30554 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 20 411H
LOCATION:	Sec 20-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

Changes approved through engineering via **Sundry 2781324** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.

COA

H₂S	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Variance	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
Variance	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> Batch APD / Sundry				

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 **13-3/8** inch surface casing shall be set at approximately 700 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. *Set depth adjusted per BLM geologist.*
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead

- cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to the BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

3. The minimum required fill of cement behind the **6** 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.

BOPE Break Testing Variance

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

Offline Cementing

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

GENERAL REQUIREMENTS

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

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

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

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@blm.gov; (575) 361-2822

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. **Wait on cement (WOC) for Potash Areas:** After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear

chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

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

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

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

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

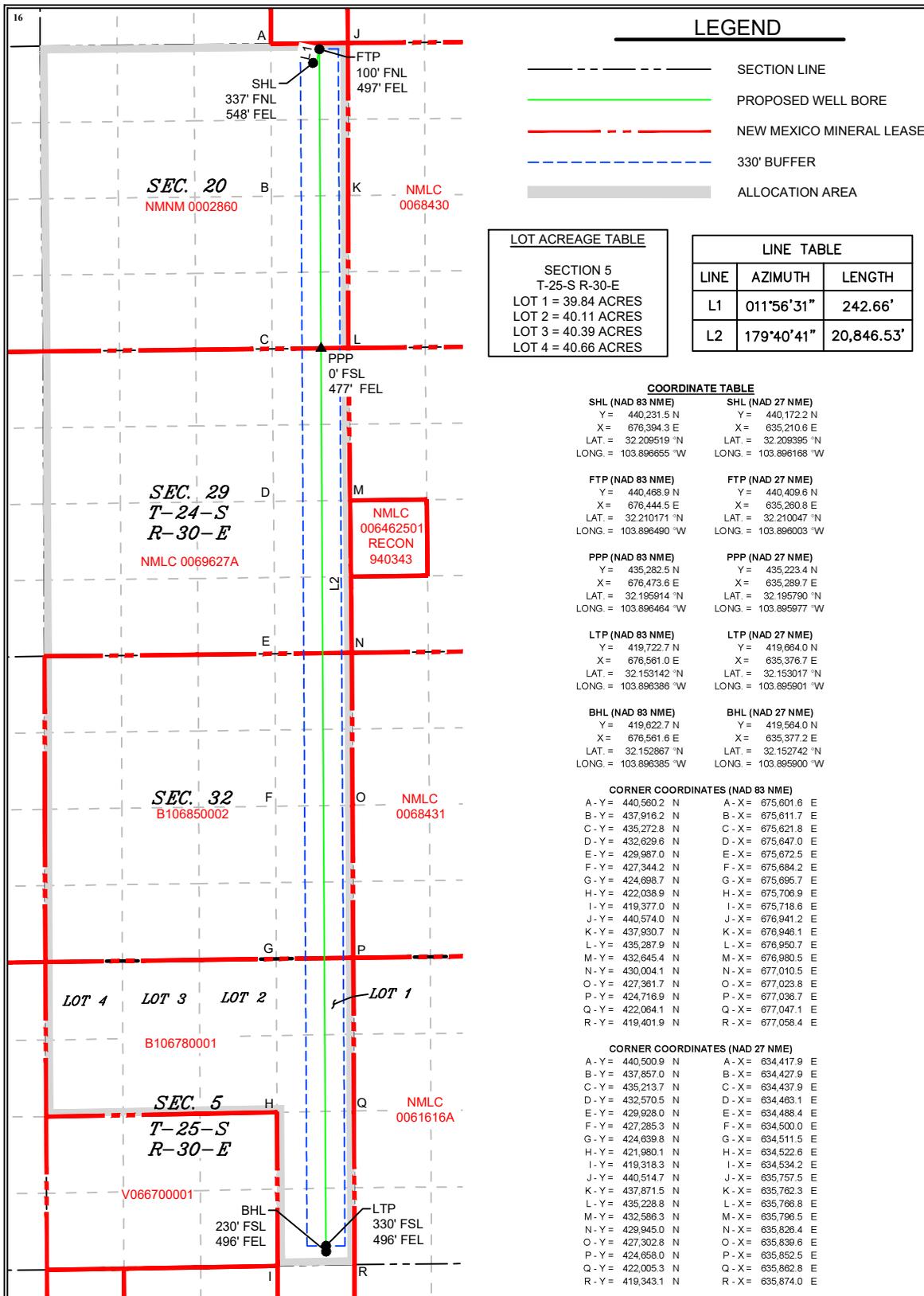
Table with 3 columns: APD ID (10400089259), Pool Code (98220), Pool Name (Purple Sage;Wolfcamp), Property Code, Property Name (POKER LAKE UNIT 20 DTD), Well Number (411H), OGRID No. (373075), Operator Name (XTO PERMIAN OPERATING, LLC), Elevation (3,291')

Surface Location table with columns: UL or lot no. (A), Section (20), Township (24S), Range (30E), Lot Idn, Feet from the (337), North/South line (NORTH), Feet from the (548), East/West line (EAST), County (EDDY)

Bottom Hole Location If Different From Surface table with columns: UL or lot no. (P), Section (5), Township (25S), Range (30E), Lot Idn, Feet from the (230), North/South line (SOUTH), Feet from the (496), East/West line (EAST), County (EDDY)

Dedicated Acres (2,321.00), Joint or Infill, Consolidation Code, Order No.

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



LOT ACREAGE TABLE
SECTION 5
T-25-S R-30-E
LOT 1 = 39.84 ACRES
LOT 2 = 40.11 ACRES
LOT 3 = 40.39 ACRES
LOT 4 = 40.66 ACRES

LINE TABLE
LINE AZIMUTH LENGTH
L1 011°56'31" 242.66'
L2 179°40'41" 20,846.53'

COORDINATE TABLE
SHL (NAD 83 NME) SHL (NAD 27 NME)
FTP (NAD 83 NME) FTP (NAD 27 NME)
PPP (NAD 83 NME) PPP (NAD 27 NME)
LTP (NAD 83 NME) LTP (NAD 27 NME)
BHL (NAD 83 NME) BHL (NAD 27 NME)

CORNER COORDINATES (NAD 83 NME)
A-Y = 440,500.2 N A-X = 675,601.6 E
B-Y = 437,916.2 N B-X = 675,611.7 E
C-Y = 435,272.8 N C-X = 675,621.8 E
D-Y = 432,629.6 N D-X = 675,647.0 E
E-Y = 429,987.0 N E-X = 675,672.5 E
F-Y = 427,344.2 N F-X = 675,684.2 E
G-Y = 424,698.7 N G-X = 675,695.7 E
H-Y = 422,058.9 N H-X = 675,708.9 E
I-Y = 419,377.0 N I-X = 675,718.8 E
J-Y = 440,574.0 N J-X = 676,941.2 E
K-Y = 437,930.7 N K-X = 676,946.1 E
L-Y = 435,287.9 N L-X = 676,950.7 E
M-Y = 432,645.4 N M-X = 676,980.5 E
N-Y = 430,004.1 N N-X = 677,010.5 E
O-Y = 427,361.7 N O-X = 677,023.8 E
P-Y = 424,716.9 N P-X = 677,039.7 E
Q-Y = 422,084.1 N Q-X = 677,047.1 E
R-Y = 419,401.9 N R-X = 677,058.4 E

CORNER COORDINATES (NAD 27 NME)
A-Y = 440,500.9 N A-X = 634,417.9 E
B-Y = 437,857.0 N B-X = 634,427.9 E
C-Y = 435,213.7 N C-X = 634,437.9 E
D-Y = 432,570.5 N D-X = 634,463.1 E
E-Y = 429,928.0 N E-X = 634,488.4 E
F-Y = 427,285.3 N F-X = 634,500.0 E
G-Y = 424,639.8 N G-X = 634,511.5 E
H-Y = 421,980.1 N H-X = 634,522.6 E
I-Y = 419,318.3 N I-X = 634,534.2 E
J-Y = 440,514.7 N J-X = 635,757.5 E
K-Y = 437,871.5 N K-X = 635,762.3 E
L-Y = 435,228.8 N L-X = 635,768.8 E
M-Y = 432,586.3 N M-X = 635,798.5 E
N-Y = 429,945.0 N N-X = 635,828.4 E
O-Y = 427,302.8 N O-X = 635,839.6 E
P-Y = 424,658.0 N P-X = 635,852.5 E
Q-Y = 422,005.3 N Q-X = 635,862.8 E
R-Y = 419,343.1 N R-X = 635,874.0 E

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

Manish Saini 03/21/2024
Signature Date

Manish Saini
Printed Name

manish.saini@exxonmobil.com
E-mail Address

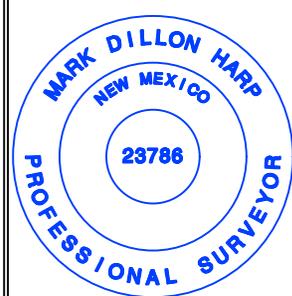
SURVEYOR CERTIFICATION

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

3/15/2024
Date of Survey

Signature and Seal of Professional Surveyor:

Handwritten signature of Mark Dillon Harp



MARK DILLON HARP 23786
Certificate Number
RP/DB 618.013003.06-59

618.013 XTO Energy - NM\003 Poker Lake Unit\06 - PLU 20 DTD - EDDY\Wells\59 - 411H\DWG\SOUTH 411H C-102.dwg

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

XTO Energy Inc.
 PLU 20 Dog Town Draw 411H
 Projected TD: 31607.8' MD / 11064' TVD
 SHL: 337' FNL & 548' FEL , Section 20, T24S, R30E
 BHL: 230' FSL & 496' FEL , Section 5, T25S, R30E
 Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	930'	Water
Top of Salt	1333'	Water
Base of Salt	3526'	Water
Delaware	3720'	Water
Brushy Canyon	6218'	Water/Oil/Gas
Bone Spring	7514'	Water
1st Bone Spring	8500'	Water/Oil/Gas
2nd Bone Spring	9318'	Water/Oil/Gas
3rd Bone Spring	10412'	Water/Oil/Gas
Wolfcamp	10803'	Water/Oil/Gas
Wolfcamp X	10824'	Water/Oil/Gas
Wolfcamp Y	10902'	Water/Oil/Gas
Wolfcamp A	10944'	Water/Oil/Gas
Target/Land Curve	11064'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon
 *** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 1030' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 9.625 inch casing at 10153.13' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 31607.8 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9853.13 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 1030'	13.375	54.5	J-55	BTC	New	1.14	2.51	16.19
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.82	2.31	3.12
12.25	4000' – 10153.13'	9.625	40	HC L-80	BTC	New	1.32	1.72	3.72
8.5	0' – 10053.13'	6	26	P-110	Semi-Premium	New	1.17	2.20	1.55
8.5	10053.13' - 31607.8'	6	26	P-110	Semi-Premium	New	1.17	2.00	1.74

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 9.625 Collapse analyzed using 50% evacuation based on regional experience.
- 6 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

. XTO requests the option to use 5.5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom (or equivalent)

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

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

4. Cement Program

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 1030'

Lead: 540 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft³/sx, 10.13 gal/sx water)
 Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 10153.13'

1st Stage

Optional Lead: 1050 sxs Class C (mixed at 10.5 ppg, 2.77 ft³/sx, 15.59 gal/sx water)
 TOC: Surface
 Tail: 1140 sxs Class C (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 TOC: Brushy Canyon @ 6218
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft³/sx, 9.61 gal/sx water)
 Tail: 2190 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 Top of Cement: 0
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6218') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Production Casing: 6, 26 New Semi-Premium, P-110 casing to be set at +/- 31607.8'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cement: 9853.13 feet
 Tail: 3610 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft³/sx, 8.38 gal/sx water) Top of Cement: 10353.13 feet
 Compressives: 12-hr = 800 psi 24 hr = 1500 psi

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4355 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each week.

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

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

hole on each of the wells.

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1030'	17.5	FW/Native	8.4-8.9	35-40	NC
1030' - 10153.13'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10153.13' - 31607.8'	8.5	OBM	11.8-12.3	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13.375 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6789 psi.

10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

Well Plan Report - Poker Lake Unit 20 DTD South 411H

Measured Depth: 31607.86 ft

TVD RKB: 11064.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 440172.20 ft

Easting: 635210.60 ft

RKB: 3323.00 ft

Ground Level: 3291.00 ft

North Reference: Grid

Convergence Angle: 0.23 Deg

Plan Sections

Poker Lake Unit 20 DTD South 411H

Measured			TVD			Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1226.93	2.54	11.94	1226.89	2.75	0.58	2.00	0.00	2.00
6578.41	2.54	11.94	6573.11	234.65	49.62	0.00	0.00	0.00
6705.33	0.00	0.00	6700.00	237.40	50.20	-2.00	0.00	2.00
10353.13	0.00	0.00	10347.80	237.40	50.20	0.00	0.00	0.00
11478.13	90.00	179.68	11064.00	-478.79	54.20	8.00	0.00	8.00
31507.86	90.00	179.68	11064.00	-20508.20	166.07	0.00	0.00	0.00 LTP 24
31607.86	90.00	179.68	11064.00	-20608.20	166.63	0.00	0.00	0.00 BHL 24

Position Uncertainty

Poker Lake Unit 20 DTD South 411H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.347	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.374	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.406	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.443	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.484	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.530	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.580	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.633	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	11.940	1199.980	5.122	0.000	4.418	0.000	2.689	0.000	0.000	5.297	4.209	126.597	MWD+IFR1+MS
1226.928	2.539	11.940	1226.887	5.216	0.000	4.509	0.000	2.704	0.000	0.000	5.390	4.305	126.322	MWD+IFR1+MS
1300.000	2.539	11.940	1299.887	5.452	0.000	4.759	0.000	2.747	0.000	0.000	5.620	4.565	126.155	MWD+IFR1+MS
1400.000	2.539	11.940	1399.789	5.784	0.000	5.123	0.000	2.810	0.000	0.000	5.956	4.927	126.736	MWD+IFR1+MS
1500.000	2.539	11.940	1499.690	6.127	0.000	5.495	0.000	2.875	0.000	0.000	6.308	5.291	127.548	MWD+IFR1+MS
1600.000	2.539	11.940	1599.592	6.471	0.000	5.865	0.000	2.943	0.000	0.000	6.660	5.653	128.277	MWD+IFR1+MS
1700.000	2.539	11.940	1699.494	6.817	0.000	6.234	0.000	3.013	0.000	0.000	7.014	6.015	128.934	MWD+IFR1+MS
1800.000	2.539	11.940	1799.396	7.164	0.000	6.601	0.000	3.085	0.000	0.000	7.368	6.376	129.528	MWD+IFR1+MS
1900.000	2.539	11.940	1899.298	7.513	0.000	6.968	0.000	3.159	0.000	0.000	7.723	6.737	130.067	MWD+IFR1+MS
2000.000	2.539	11.940	1999.200	7.862	0.000	7.334	0.000	3.235	0.000	0.000	8.079	7.097	130.557	MWD+IFR1+MS
2100.000	2.539	11.940	2099.102	8.213	0.000	7.699	0.000	3.313	0.000	0.000	8.435	7.457	131.004	MWD+IFR1+MS
2200.000	2.539	11.940	2199.004	8.564	0.000	8.063	0.000	3.392	0.000	0.000	8.791	7.817	131.413	MWD+IFR1+MS
2300.000	2.539	11.940	2298.905	8.916	0.000	8.427	0.000	3.473	0.000	0.000	9.147	8.176	131.787	MWD+IFR1+MS
2400.000	2.539	11.940	2398.807	9.268	0.000	8.791	0.000	3.556	0.000	0.000	9.504	8.536	132.131	MWD+IFR1+MS
2500.000	2.539	11.940	2498.709	9.622	0.000	9.154	0.000	3.640	0.000	0.000	9.861	8.895	132.447	MWD+IFR1+MS
2600.000	2.539	11.940	2598.611	9.975	0.000	9.516	0.000	3.726	0.000	0.000	10.219	9.254	132.739	MWD+IFR1+MS
2700.000	2.539	11.940	2698.513	10.329	0.000	9.879	0.000	3.813	0.000	0.000	10.576	9.613	133.009	MWD+IFR1+MS
2800.000	2.539	11.940	2798.415	10.683	0.000	10.241	0.000	3.901	0.000	0.000	10.934	9.972	133.258	MWD+IFR1+MS
2900.000	2.539	11.940	2898.317	11.038	0.000	10.603	0.000	3.991	0.000	0.000	11.291	10.331	133.489	MWD+IFR1+MS

3000.000	2.539	11.940	2998.218	11.393	0.000	10.964	0.000	4.082	0.000	0.000	11.649	10.690	133.703	MWD+IFR1+MS
3100.000	2.539	11.940	3098.120	11.749	0.000	11.326	0.000	4.174	0.000	0.000	12.007	11.049	133.903	MWD+IFR1+MS
3200.000	2.539	11.940	3198.022	12.104	0.000	11.687	0.000	4.268	0.000	0.000	12.365	11.408	134.088	MWD+IFR1+MS
3300.000	2.539	11.940	3297.924	12.460	0.000	12.048	0.000	4.363	0.000	0.000	12.723	11.766	134.261	MWD+IFR1+MS
3400.000	2.539	11.940	3397.826	12.816	0.000	12.409	0.000	4.460	0.000	0.000	13.081	12.125	134.422	MWD+IFR1+MS
3500.000	2.539	11.940	3497.728	13.172	0.000	12.769	0.000	4.558	0.000	0.000	13.440	12.484	134.572	MWD+IFR1+MS
3600.000	2.539	11.940	3597.630	13.529	0.000	13.130	0.000	4.657	0.000	0.000	13.798	12.843	134.712	MWD+IFR1+MS
3700.000	2.539	11.940	3697.531	13.885	0.000	13.490	0.000	4.758	0.000	0.000	14.156	13.201	134.843	MWD+IFR1+MS
3800.000	2.539	11.940	3797.433	14.242	0.000	13.851	0.000	4.860	0.000	0.000	14.515	13.560	134.965	MWD+IFR1+MS
3900.000	2.539	11.940	3897.335	14.599	0.000	14.211	0.000	4.964	0.000	0.000	14.873	13.919	-44.920	MWD+IFR1+MS
4000.000	2.539	11.940	3997.237	14.956	0.000	14.571	0.000	5.070	0.000	0.000	15.232	14.278	-44.813	MWD+IFR1+MS
4100.000	2.539	11.940	4097.139	15.313	0.000	14.931	0.000	5.176	0.000	0.000	15.590	14.636	-44.712	MWD+IFR1+MS
4200.000	2.539	11.940	4197.041	15.671	0.000	15.291	0.000	5.285	0.000	0.000	15.949	14.995	-44.618	MWD+IFR1+MS
4300.000	2.539	11.940	4296.943	16.028	0.000	15.651	0.000	5.395	0.000	0.000	16.307	15.354	-44.530	MWD+IFR1+MS
4400.000	2.539	11.940	4396.845	16.386	0.000	16.011	0.000	5.506	0.000	0.000	16.666	15.712	-44.447	MWD+IFR1+MS
4500.000	2.539	11.940	4496.746	16.743	0.000	16.370	0.000	5.620	0.000	0.000	17.024	16.071	-44.370	MWD+IFR1+MS
4600.000	2.539	11.940	4596.648	17.101	0.000	16.730	0.000	5.735	0.000	0.000	17.383	16.430	-44.298	MWD+IFR1+MS
4700.000	2.539	11.940	4696.550	17.459	0.000	17.089	0.000	5.852	0.000	0.000	17.742	16.788	-44.230	MWD+IFR1+MS
4800.000	2.539	11.940	4796.452	17.817	0.000	17.449	0.000	5.970	0.000	0.000	18.100	17.147	-44.166	MWD+IFR1+MS
4900.000	2.539	11.940	4896.354	18.175	0.000	17.809	0.000	6.091	0.000	0.000	18.459	17.506	-44.107	MWD+IFR1+MS
5000.000	2.539	11.940	4996.256	18.533	0.000	18.168	0.000	6.213	0.000	0.000	18.818	17.864	-44.051	MWD+IFR1+MS
5100.000	2.539	11.940	5096.158	18.891	0.000	18.527	0.000	6.337	0.000	0.000	19.176	18.223	-43.999	MWD+IFR1+MS
5200.000	2.539	11.940	5196.059	19.249	0.000	18.887	0.000	6.463	0.000	0.000	19.535	18.582	-43.951	MWD+IFR1+MS
5300.000	2.539	11.940	5295.961	19.608	0.000	19.246	0.000	6.591	0.000	0.000	19.894	18.940	-43.905	MWD+IFR1+MS
5400.000	2.539	11.940	5395.863	19.966	0.000	19.605	0.000	6.721	0.000	0.000	20.253	19.299	-43.863	MWD+IFR1+MS
5500.000	2.539	11.940	5495.765	20.324	0.000	19.965	0.000	6.853	0.000	0.000	20.611	19.658	-43.824	MWD+IFR1+MS
5600.000	2.539	11.940	5595.667	20.683	0.000	20.324	0.000	6.988	0.000	0.000	20.970	20.016	-43.787	MWD+IFR1+MS
5700.000	2.539	11.940	5695.569	21.041	0.000	20.683	0.000	7.124	0.000	0.000	21.329	20.375	-43.753	MWD+IFR1+MS
5800.000	2.539	11.940	5795.471	21.400	0.000	21.042	0.000	7.262	0.000	0.000	21.688	20.734	-43.721	MWD+IFR1+MS
5900.000	2.539	11.940	5895.372	21.758	0.000	21.401	0.000	7.403	0.000	0.000	22.047	21.092	-43.692	MWD+IFR1+MS
6000.000	2.539	11.940	5995.274	22.117	0.000	21.760	0.000	7.546	0.000	0.000	22.406	21.451	-43.665	MWD+IFR1+MS
6100.000	2.539	11.940	6095.176	22.475	0.000	22.119	0.000	7.691	0.000	0.000	22.764	21.810	-43.641	MWD+IFR1+MS
6200.000	2.539	11.940	6195.078	22.834	0.000	22.478	0.000	7.838	0.000	0.000	23.123	22.169	-43.618	MWD+IFR1+MS

6300.000	2.539	11.940	6294.980	23.193	0.000	22.837	0.000	7.988	0.000	0.000	23.482	22.527	-43.597	MWD+IFR1+MS
6400.000	2.539	11.940	6394.882	23.552	0.000	23.196	0.000	8.140	0.000	0.000	23.841	22.886	-43.578	MWD+IFR1+MS
6500.000	2.539	11.940	6494.784	23.910	0.000	23.555	0.000	8.294	0.000	0.000	24.200	23.245	-43.561	MWD+IFR1+MS
6578.407	2.539	11.940	6573.113	24.190	0.000	23.834	0.000	8.417	0.000	0.000	24.477	23.526	-43.597	MWD+IFR1+MS
6600.000	2.107	11.940	6594.689	24.266	0.000	23.910	0.000	8.451	0.000	0.000	24.552	23.603	-43.628	MWD+IFR1+MS
6705.335	0.000	0.000	6700.000	24.479	0.000	24.476	0.000	8.618	0.000	0.000	24.953	23.992	134.891	MWD+IFR1+MS
6800.000	0.000	0.000	6794.665	24.853	0.000	24.811	0.000	8.770	0.000	0.000	25.318	24.337	133.784	MWD+IFR1+MS
6900.000	0.000	0.000	6894.665	25.211	0.000	25.166	0.000	8.932	0.000	0.000	25.674	24.693	133.702	MWD+IFR1+MS
7000.000	0.000	0.000	6994.665	25.569	0.000	25.522	0.000	9.097	0.000	0.000	26.031	25.050	133.623	MWD+IFR1+MS
7100.000	0.000	0.000	7094.665	25.927	0.000	25.877	0.000	9.265	0.000	0.000	26.388	25.406	133.547	MWD+IFR1+MS
7200.000	0.000	0.000	7194.665	26.285	0.000	26.233	0.000	9.435	0.000	0.000	26.746	25.763	133.472	MWD+IFR1+MS
7300.000	0.000	0.000	7294.665	26.643	0.000	26.588	0.000	9.608	0.000	0.000	27.103	26.119	133.400	MWD+IFR1+MS
7400.000	0.000	0.000	7394.665	27.001	0.000	26.944	0.000	9.784	0.000	0.000	27.460	26.476	133.329	MWD+IFR1+MS
7500.000	0.000	0.000	7494.665	27.359	0.000	27.299	0.000	9.962	0.000	0.000	27.817	26.833	133.261	MWD+IFR1+MS
7600.000	0.000	0.000	7594.665	27.717	0.000	27.655	0.000	10.143	0.000	0.000	28.174	27.189	133.194	MWD+IFR1+MS
7700.000	0.000	0.000	7694.665	28.075	0.000	28.011	0.000	10.326	0.000	0.000	28.532	27.546	133.130	MWD+IFR1+MS
7800.000	0.000	0.000	7794.665	28.434	0.000	28.367	0.000	10.512	0.000	0.000	28.889	27.903	133.067	MWD+IFR1+MS
7900.000	0.000	0.000	7894.665	28.792	0.000	28.723	0.000	10.701	0.000	0.000	29.246	28.260	133.005	MWD+IFR1+MS
8000.000	0.000	0.000	7994.665	29.150	0.000	29.079	0.000	10.893	0.000	0.000	29.604	28.617	132.945	MWD+IFR1+MS
8100.000	0.000	0.000	8094.665	29.508	0.000	29.435	0.000	11.087	0.000	0.000	29.961	28.974	132.887	MWD+IFR1+MS
8200.000	0.000	0.000	8194.665	29.866	0.000	29.791	0.000	11.284	0.000	0.000	30.319	29.331	132.830	MWD+IFR1+MS
8300.000	0.000	0.000	8294.665	30.224	0.000	30.148	0.000	11.484	0.000	0.000	30.676	29.688	132.774	MWD+IFR1+MS
8400.000	0.000	0.000	8394.665	30.582	0.000	30.504	0.000	11.687	0.000	0.000	31.034	30.045	132.720	MWD+IFR1+MS
8500.000	0.000	0.000	8494.665	30.941	0.000	30.860	0.000	11.892	0.000	0.000	31.391	30.402	132.667	MWD+IFR1+MS
8600.000	0.000	0.000	8594.665	31.299	0.000	31.217	0.000	12.101	0.000	0.000	31.749	30.759	132.616	MWD+IFR1+MS
8700.000	0.000	0.000	8694.665	31.657	0.000	31.573	0.000	12.312	0.000	0.000	32.106	31.116	132.565	MWD+IFR1+MS
8800.000	0.000	0.000	8794.665	32.015	0.000	31.929	0.000	12.526	0.000	0.000	32.464	31.473	132.516	MWD+IFR1+MS
8900.000	0.000	0.000	8894.665	32.373	0.000	32.286	0.000	12.743	0.000	0.000	32.822	31.830	132.468	MWD+IFR1+MS
9000.000	0.000	0.000	8994.665	32.732	0.000	32.643	0.000	12.962	0.000	0.000	33.179	32.188	132.421	MWD+IFR1+MS
9100.000	0.000	0.000	9094.665	33.090	0.000	32.999	0.000	13.185	0.000	0.000	33.537	32.545	132.375	MWD+IFR1+MS
9200.000	0.000	0.000	9194.665	33.448	0.000	33.356	0.000	13.410	0.000	0.000	33.895	32.902	132.330	MWD+IFR1+MS
9300.000	0.000	0.000	9294.665	33.806	0.000	33.712	0.000	13.639	0.000	0.000	34.252	33.259	132.286	MWD+IFR1+MS
9400.000	0.000	0.000	9394.665	34.165	0.000	34.069	0.000	13.870	0.000	0.000	34.610	33.617	132.243	MWD+IFR1+MS

9500.000	0.000	0.000	9494.665	34.523	0.000	34.426	0.000	14.104	0.000	0.000	34.968	33.974	132.201	MWD+IFR1+MS
9600.000	0.000	0.000	9594.665	34.881	0.000	34.783	0.000	14.342	0.000	0.000	35.325	34.331	132.160	MWD+IFR1+MS
9700.000	0.000	0.000	9694.665	35.239	0.000	35.140	0.000	14.582	0.000	0.000	35.683	34.689	132.119	MWD+IFR1+MS
9800.000	0.000	0.000	9794.665	35.598	0.000	35.496	0.000	14.825	0.000	0.000	36.041	35.046	132.080	MWD+IFR1+MS
9900.000	0.000	0.000	9894.665	35.956	0.000	35.853	0.000	15.071	0.000	0.000	36.399	35.404	132.041	MWD+IFR1+MS
10000.000	0.000	0.000	9994.665	36.314	0.000	36.210	0.000	15.320	0.000	0.000	36.756	35.761	132.003	MWD+IFR1+MS
10100.000	0.000	0.000	10094.665	36.672	0.000	36.567	0.000	15.571	0.000	0.000	37.114	36.119	131.966	MWD+IFR1+MS
10200.000	0.000	0.000	10194.665	37.031	0.000	36.924	0.000	15.826	0.000	0.000	37.472	36.476	131.930	MWD+IFR1+MS
10300.000	0.000	0.000	10294.665	37.389	0.000	37.281	0.000	16.084	0.000	0.000	37.830	36.834	131.894	MWD+IFR1+MS
10353.135	0.000	0.000	10347.800	37.578	0.000	37.469	0.000	16.222	0.000	0.000	38.017	37.024	131.864	MWD+IFR1+MS
10400.000	3.749	179.680	10394.632	37.627	0.000	37.631	-0.000	16.344	0.000	0.000	38.177	37.187	131.497	MWD+IFR1+MS
10500.000	11.749	179.680	10493.638	37.878	0.000	37.941	-0.000	16.635	0.000	0.000	38.917	37.658	117.785	MWD+IFR1+MS
10600.000	19.749	179.680	10589.806	38.064	0.000	38.239	-0.000	17.062	0.000	0.000	40.118	38.055	106.844	MWD+IFR1+MS
10700.000	27.749	179.680	10681.263	37.695	0.000	38.520	-0.000	17.683	0.000	0.000	41.231	38.366	102.862	MWD+IFR1+MS
10800.000	35.749	179.680	10766.230	36.837	0.000	38.780	-0.000	18.536	0.000	0.000	42.186	38.636	101.053	MWD+IFR1+MS
10900.000	43.749	179.680	10843.053	35.581	0.000	39.017	-0.000	19.629	0.000	0.000	42.962	38.874	100.169	MWD+IFR1+MS
11000.000	51.749	179.680	10910.236	34.050	0.000	39.229	-0.000	20.941	0.000	0.000	43.557	39.084	99.775	MWD+IFR1+MS
11100.000	59.749	179.680	10966.472	32.403	0.000	39.415	-0.000	22.433	0.000	0.000	43.978	39.265	99.682	MWD+IFR1+MS
11200.000	67.749	179.680	11010.666	30.834	0.000	39.575	-0.000	24.051	0.000	0.000	44.247	39.417	99.784	MWD+IFR1+MS
11300.000	75.749	179.680	11041.958	29.565	0.000	39.707	-0.000	25.736	0.000	0.000	44.393	39.542	100.004	MWD+IFR1+MS
11400.000	83.749	179.680	11059.739	28.822	0.000	39.810	-0.000	27.431	0.000	0.000	44.452	39.638	100.261	MWD+IFR1+MS
11478.135	90.000	179.680	11063.997	28.278	0.000	39.868	-0.000	28.278	0.000	0.000	44.464	39.693	100.412	MWD+IFR1+MS
11500.000	90.000	179.680	11063.997	28.317	0.000	39.881	-0.000	28.317	0.000	0.000	44.466	39.706	100.445	MWD+IFR1+MS
11600.000	90.000	179.680	11063.997	28.460	0.000	39.954	-0.000	28.460	0.000	0.000	44.474	39.775	100.628	MWD+IFR1+MS
11700.000	90.000	179.680	11063.997	28.627	0.000	40.044	-0.000	28.627	0.000	0.000	44.484	39.861	100.853	MWD+IFR1+MS
11800.000	90.000	179.680	11063.997	28.814	0.000	40.149	-0.000	28.814	0.000	0.000	44.495	39.961	101.118	MWD+IFR1+MS
11900.000	90.000	179.680	11063.997	29.022	0.000	40.267	-0.000	29.022	0.000	0.000	44.508	40.074	101.427	MWD+IFR1+MS
12000.000	90.000	179.680	11063.997	29.249	0.000	40.400	-0.000	29.249	0.000	0.000	44.521	40.201	101.784	MWD+IFR1+MS
12100.000	90.000	179.680	11063.997	29.495	0.000	40.547	-0.000	29.495	0.000	0.000	44.536	40.341	102.198	MWD+IFR1+MS
12200.000	90.000	179.680	11063.997	29.760	0.000	40.708	-0.000	29.760	0.000	0.000	44.553	40.493	102.675	MWD+IFR1+MS
12300.000	90.000	179.680	11063.997	30.043	0.000	40.883	-0.000	30.043	0.000	0.000	44.572	40.658	103.228	MWD+IFR1+MS
12400.000	90.000	179.680	11063.997	30.344	0.000	41.071	-0.000	30.344	0.000	0.000	44.593	40.835	103.867	MWD+IFR1+MS
12500.000	90.000	179.680	11063.997	30.662	0.000	41.272	-0.000	30.662	0.000	0.000	44.616	41.024	104.610	MWD+IFR1+MS

12600.000	90.000	179.680	11063.997	30.996	0.000	41.487	-0.000	30.996	0.000	0.000	44.642	41.224	105.477	MWD+IFR1+MS
12700.000	90.000	179.680	11063.997	31.347	0.000	41.714	-0.000	31.347	0.000	0.000	44.671	41.434	106.494	MWD+IFR1+MS
12800.000	90.000	179.680	11063.997	31.713	0.000	41.955	-0.000	31.713	0.000	0.000	44.704	41.653	107.695	MWD+IFR1+MS
12900.000	90.000	179.680	11063.997	32.094	0.000	42.207	-0.000	32.094	0.000	0.000	44.742	41.881	109.121	MWD+IFR1+MS
13000.000	90.000	179.680	11063.997	32.490	0.000	42.473	-0.000	32.490	0.000	0.000	44.787	42.115	110.827	MWD+IFR1+MS
13100.000	90.000	179.680	11063.997	32.899	0.000	42.750	-0.000	32.899	0.000	0.000	44.838	42.355	112.880	MWD+IFR1+MS
13200.000	90.000	179.680	11063.997	33.322	0.000	43.039	-0.000	33.322	0.000	0.000	44.900	42.597	115.361	MWD+IFR1+MS
13300.000	90.000	179.680	11063.997	33.758	0.000	43.339	-0.000	33.758	0.000	0.000	44.975	42.838	118.359	MWD+IFR1+MS
13400.000	90.000	179.680	11063.997	34.207	0.000	43.651	-0.000	34.207	0.000	0.000	45.067	43.074	121.954	MWD+IFR1+MS
13500.000	90.000	179.680	11063.997	34.667	0.000	43.974	-0.000	34.667	0.000	0.000	45.181	43.299	126.185	MWD+IFR1+MS
13600.000	90.000	179.680	11063.997	35.139	0.000	44.308	-0.000	35.139	0.000	0.000	45.323	43.508	130.992	MWD+IFR1+MS
13700.000	90.000	179.680	11063.997	35.622	0.000	44.653	-0.000	35.622	0.000	0.000	45.498	43.696	-43.823	MWD+IFR1+MS
13800.000	90.000	179.680	11063.997	36.116	0.000	45.008	-0.000	36.116	0.000	0.000	45.708	43.859	-38.583	MWD+IFR1+MS
13900.000	90.000	179.680	11063.997	36.619	0.000	45.373	-0.000	36.619	0.000	0.000	45.955	43.996	-33.628	MWD+IFR1+MS
14000.000	90.000	179.680	11063.997	37.133	0.000	45.748	-0.000	37.133	0.000	0.000	46.235	44.110	-29.201	MWD+IFR1+MS
14100.000	90.000	179.680	11063.997	37.656	0.000	46.133	-0.000	37.656	0.000	0.000	46.544	44.206	-25.401	MWD+IFR1+MS
14200.000	90.000	179.680	11063.997	38.187	0.000	46.527	-0.000	38.187	0.000	0.000	46.878	44.286	-22.213	MWD+IFR1+MS
14300.000	90.000	179.680	11063.997	38.728	0.000	46.930	-0.000	38.728	0.000	0.000	47.234	44.355	-19.566	MWD+IFR1+MS
14400.000	90.000	179.680	11063.997	39.277	0.000	47.342	-0.000	39.277	0.000	0.000	47.608	44.415	-17.371	MWD+IFR1+MS
14500.000	90.000	179.680	11063.997	39.833	0.000	47.763	-0.000	39.833	0.000	0.000	47.998	44.468	-15.542	MWD+IFR1+MS
14600.000	90.000	179.680	11063.997	40.397	0.000	48.192	-0.000	40.397	0.000	0.000	48.402	44.517	-14.008	MWD+IFR1+MS
14700.000	90.000	179.680	11063.997	40.969	0.000	48.630	-0.000	40.969	0.000	0.000	48.818	44.562	-12.711	MWD+IFR1+MS
14800.000	90.000	179.680	11063.997	41.547	0.000	49.076	-0.000	41.547	0.000	0.000	49.245	44.604	-11.606	MWD+IFR1+MS
14900.000	90.000	179.680	11063.997	42.132	0.000	49.529	-0.000	42.132	0.000	0.000	49.684	44.644	-10.657	MWD+IFR1+MS
15000.000	90.000	179.680	11063.997	42.723	0.000	49.990	-0.000	42.723	0.000	0.000	50.131	44.683	-9.834	MWD+IFR1+MS
15100.000	90.000	179.680	11063.997	43.321	0.000	50.459	-0.000	43.321	0.000	0.000	50.588	44.720	-9.116	MWD+IFR1+MS
15200.000	90.000	179.680	11063.997	43.925	0.000	50.935	-0.000	43.925	0.000	0.000	51.054	44.757	-8.485	MWD+IFR1+MS
15300.000	90.000	179.680	11063.997	44.534	0.000	51.417	-0.000	44.534	0.000	0.000	51.528	44.793	-7.928	MWD+IFR1+MS
15400.000	90.000	179.680	11063.997	45.148	0.000	51.907	-0.000	45.148	0.000	0.000	52.009	44.828	-7.432	MWD+IFR1+MS
15500.000	90.000	179.680	11063.997	45.768	0.000	52.403	-0.000	45.768	0.000	0.000	52.499	44.863	-6.988	MWD+IFR1+MS
15600.000	90.000	179.680	11063.997	46.393	0.000	52.906	-0.000	46.393	0.000	0.000	52.995	44.898	-6.590	MWD+IFR1+MS
15700.000	90.000	179.680	11063.997	47.022	0.000	53.414	-0.000	47.022	0.000	0.000	53.498	44.933	-6.230	MWD+IFR1+MS
15800.000	90.000	179.680	11063.997	47.656	0.000	53.929	-0.000	47.656	0.000	0.000	54.008	44.968	-5.905	MWD+IFR1+MS

15900.000	90.000	179.680	11063.997	48.295	0.000	54.450	-0.000	48.295	0.000	0.000	54.524	45.003	-5.608	MWD+IFR1+MS
16000.000	90.000	179.680	11063.997	48.938	0.000	54.977	-0.000	48.938	0.000	0.000	55.046	45.038	-5.337	MWD+IFR1+MS
16100.000	90.000	179.680	11063.997	49.585	0.000	55.509	-0.000	49.585	0.000	0.000	55.574	45.074	-5.089	MWD+IFR1+MS
16200.000	90.000	179.680	11063.997	50.236	0.000	56.046	-0.000	50.236	0.000	0.000	56.108	45.110	-4.862	MWD+IFR1+MS
16300.000	90.000	179.680	11063.997	50.890	0.000	56.589	-0.000	50.890	0.000	0.000	56.648	45.146	-4.652	MWD+IFR1+MS
16400.000	90.000	179.680	11063.997	51.549	0.000	57.137	-0.000	51.549	0.000	0.000	57.193	45.182	-4.458	MWD+IFR1+MS
16500.000	90.000	179.680	11063.997	52.210	0.000	57.690	-0.000	52.210	0.000	0.000	57.743	45.218	-4.278	MWD+IFR1+MS
16600.000	90.000	179.680	11063.997	52.875	0.000	58.247	-0.000	52.875	0.000	0.000	58.298	45.255	-4.111	MWD+IFR1+MS
16700.000	90.000	179.680	11063.997	53.544	0.000	58.809	-0.000	53.544	0.000	0.000	58.858	45.293	-3.955	MWD+IFR1+MS
16800.000	90.000	179.680	11063.997	54.215	0.000	59.376	-0.000	54.215	0.000	0.000	59.422	45.330	-3.811	MWD+IFR1+MS
16900.000	90.000	179.680	11063.997	54.890	0.000	59.947	-0.000	54.890	0.000	0.000	59.991	45.368	-3.675	MWD+IFR1+MS
17000.000	90.000	179.680	11063.997	55.567	0.000	60.523	-0.000	55.567	0.000	0.000	60.565	45.407	-3.548	MWD+IFR1+MS
17100.000	90.000	179.680	11063.997	56.247	0.000	61.103	-0.000	56.247	0.000	0.000	61.143	45.446	-3.429	MWD+IFR1+MS
17200.000	90.000	179.680	11063.997	56.930	0.000	61.687	-0.000	56.930	0.000	0.000	61.725	45.485	-3.318	MWD+IFR1+MS
17300.000	90.000	179.680	11063.997	57.616	0.000	62.274	-0.000	57.616	0.000	0.000	62.311	45.525	-3.213	MWD+IFR1+MS
17400.000	90.000	179.680	11063.997	58.304	0.000	62.866	-0.000	58.304	0.000	0.000	62.901	45.565	-3.114	MWD+IFR1+MS
17500.000	90.000	179.680	11063.997	58.994	0.000	63.461	-0.000	58.994	0.000	0.000	63.495	45.606	-3.020	MWD+IFR1+MS
17600.000	90.000	179.680	11063.997	59.687	0.000	64.060	-0.000	59.687	0.000	0.000	64.093	45.647	-2.932	MWD+IFR1+MS
17700.000	90.000	179.680	11063.997	60.382	0.000	64.662	-0.000	60.382	0.000	0.000	64.694	45.689	-2.848	MWD+IFR1+MS
17800.000	90.000	179.680	11063.997	61.079	0.000	65.268	-0.000	61.079	0.000	0.000	65.298	45.731	-2.769	MWD+IFR1+MS
17900.000	90.000	179.680	11063.997	61.778	0.000	65.877	-0.000	61.778	0.000	0.000	65.907	45.774	-2.694	MWD+IFR1+MS
18000.000	90.000	179.680	11063.997	62.480	0.000	66.490	-0.000	62.480	0.000	0.000	66.518	45.817	-2.623	MWD+IFR1+MS
18100.000	90.000	179.680	11063.997	63.183	0.000	67.105	-0.000	63.183	0.000	0.000	67.132	45.860	-2.555	MWD+IFR1+MS
18200.000	90.000	179.680	11063.997	63.888	0.000	67.724	-0.000	63.888	0.000	0.000	67.750	45.904	-2.491	MWD+IFR1+MS
18300.000	90.000	179.680	11063.997	64.595	0.000	68.345	-0.000	64.595	0.000	0.000	68.371	45.949	-2.430	MWD+IFR1+MS
18400.000	90.000	179.680	11063.997	65.304	0.000	68.970	-0.000	65.304	0.000	0.000	68.994	45.994	-2.371	MWD+IFR1+MS
18500.000	90.000	179.680	11063.997	66.014	0.000	69.597	-0.000	66.014	0.000	0.000	69.621	46.039	-2.315	MWD+IFR1+MS
18600.000	90.000	179.680	11063.997	66.726	0.000	70.227	-0.000	66.726	0.000	0.000	70.250	46.085	-2.262	MWD+IFR1+MS
18700.000	90.000	179.680	11063.997	67.440	0.000	70.860	-0.000	67.440	0.000	0.000	70.882	46.132	-2.211	MWD+IFR1+MS
18800.000	90.000	179.680	11063.997	68.155	0.000	71.495	-0.000	68.155	0.000	0.000	71.517	46.179	-2.162	MWD+IFR1+MS
18900.000	90.000	179.680	11063.997	68.872	0.000	72.133	-0.000	68.872	0.000	0.000	72.154	46.226	-2.116	MWD+IFR1+MS
19000.000	90.000	179.680	11063.997	69.591	0.000	72.773	-0.000	69.591	0.000	0.000	72.793	46.274	-2.071	MWD+IFR1+MS
19100.000	90.000	179.680	11063.997	70.310	0.000	73.416	-0.000	70.310	0.000	0.000	73.435	46.323	-2.028	MWD+IFR1+MS

19200.000	90.000	179.680	11063.997	71.031	0.000	74.061	-0.000	71.031	0.000	0.000	74.080	46.372	-1.987	MWD+IFR1+MS
19300.000	90.000	179.680	11063.997	71.754	0.000	74.708	-0.000	71.754	0.000	0.000	74.727	46.421	-1.947	MWD+IFR1+MS
19400.000	90.000	179.680	11063.997	72.478	0.000	75.358	-0.000	72.478	0.000	0.000	75.376	46.471	-1.909	MWD+IFR1+MS
19500.000	90.000	179.680	11063.997	73.203	0.000	76.009	-0.000	73.203	0.000	0.000	76.027	46.522	-1.873	MWD+IFR1+MS
19600.000	90.000	179.680	11063.997	73.929	0.000	76.663	-0.000	73.929	0.000	0.000	76.680	46.572	-1.838	MWD+IFR1+MS
19700.000	90.000	179.680	11063.997	74.656	0.000	77.319	-0.000	74.656	0.000	0.000	77.335	46.624	-1.804	MWD+IFR1+MS
19800.000	90.000	179.680	11063.997	75.385	0.000	77.977	-0.000	75.385	0.000	0.000	77.993	46.676	-1.772	MWD+IFR1+MS
19900.000	90.000	179.680	11063.997	76.114	0.000	78.636	-0.000	76.114	0.000	0.000	78.652	46.728	-1.740	MWD+IFR1+MS
20000.000	90.000	179.680	11063.997	76.845	0.000	79.298	-0.000	76.845	0.000	0.000	79.313	46.781	-1.710	MWD+IFR1+MS
20100.000	90.000	179.680	11063.997	77.577	0.000	79.962	-0.000	77.577	0.000	0.000	79.976	46.834	-1.681	MWD+IFR1+MS
20200.000	90.000	179.680	11063.997	78.310	0.000	80.627	-0.000	78.310	0.000	0.000	80.641	46.888	-1.653	MWD+IFR1+MS
20300.000	90.000	179.680	11063.997	79.044	0.000	81.294	-0.000	79.044	0.000	0.000	81.308	46.943	-1.626	MWD+IFR1+MS
20400.000	90.000	179.680	11063.997	79.779	0.000	81.963	-0.000	79.779	0.000	0.000	81.977	46.998	-1.599	MWD+IFR1+MS
20500.000	90.000	179.680	11063.997	80.514	0.000	82.633	-0.000	80.514	0.000	0.000	82.647	47.053	-1.574	MWD+IFR1+MS
20600.000	90.000	179.680	11063.997	81.251	0.000	83.306	-0.000	81.251	0.000	0.000	83.319	47.109	-1.549	MWD+IFR1+MS
20700.000	90.000	179.680	11063.997	81.989	0.000	83.979	-0.000	81.989	0.000	0.000	83.992	47.165	-1.526	MWD+IFR1+MS
20800.000	90.000	179.680	11063.997	82.727	0.000	84.655	-0.000	82.727	0.000	0.000	84.667	47.222	-1.503	MWD+IFR1+MS
20900.000	90.000	179.680	11063.997	83.466	0.000	85.331	-0.000	83.466	0.000	0.000	85.344	47.279	-1.481	MWD+IFR1+MS
21000.000	90.000	179.680	11063.997	84.206	0.000	86.010	-0.000	84.206	0.000	0.000	86.022	47.337	-1.459	MWD+IFR1+MS
21100.000	90.000	179.680	11063.997	84.947	0.000	86.690	-0.000	84.947	0.000	0.000	86.701	47.395	-1.438	MWD+IFR1+MS
21200.000	90.000	179.680	11063.997	85.689	0.000	87.371	-0.000	85.689	0.000	0.000	87.382	47.454	-1.418	MWD+IFR1+MS
21300.000	90.000	179.680	11063.997	86.431	0.000	88.053	-0.000	86.431	0.000	0.000	88.064	47.513	-1.398	MWD+IFR1+MS
21400.000	90.000	179.680	11063.997	87.175	0.000	88.737	-0.000	87.175	0.000	0.000	88.748	47.572	-1.379	MWD+IFR1+MS
21500.000	90.000	179.680	11063.997	87.918	0.000	89.422	-0.000	87.918	0.000	0.000	89.433	47.633	-1.361	MWD+IFR1+MS
21600.000	90.000	179.680	11063.997	88.663	0.000	90.109	-0.000	88.663	0.000	0.000	90.119	47.693	-1.343	MWD+IFR1+MS
21700.000	90.000	179.680	11063.997	89.408	0.000	90.797	-0.000	89.408	0.000	0.000	90.807	47.754	-1.326	MWD+IFR1+MS
21800.000	90.000	179.680	11063.997	90.154	0.000	91.486	-0.000	90.154	0.000	0.000	91.496	47.816	-1.309	MWD+IFR1+MS
21900.000	90.000	179.680	11063.997	90.901	0.000	92.176	-0.000	90.901	0.000	0.000	92.186	47.878	-1.292	MWD+IFR1+MS
22000.000	90.000	179.680	11063.997	91.648	0.000	92.868	-0.000	91.648	0.000	0.000	92.877	47.940	-1.276	MWD+IFR1+MS
22100.000	90.000	179.680	11063.997	92.396	0.000	93.560	-0.000	92.396	0.000	0.000	93.569	48.003	-1.261	MWD+IFR1+MS
22200.000	90.000	179.680	11063.997	93.145	0.000	94.254	-0.000	93.145	0.000	0.000	94.263	48.066	-1.246	MWD+IFR1+MS
22300.000	90.000	179.680	11063.997	93.894	0.000	94.949	-0.000	93.894	0.000	0.000	94.958	48.130	-1.231	MWD+IFR1+MS
22400.000	90.000	179.680	11063.997	94.643	0.000	95.645	-0.000	94.643	0.000	0.000	95.653	48.195	-1.217	MWD+IFR1+MS

22500.000	90.000	179.680	11063.997	95.394	0.000	96.342	-0.000	95.394	0.000	0.000	96.350	48.259	-1.203	MWD+IFR1+MS
22600.000	90.000	179.680	11063.997	96.144	0.000	97.040	-0.000	96.144	0.000	0.000	97.048	48.324	-1.189	MWD+IFR1+MS
22700.000	90.000	179.680	11063.997	96.896	0.000	97.739	-0.000	96.896	0.000	0.000	97.747	48.390	-1.176	MWD+IFR1+MS
22800.000	90.000	179.680	11063.997	97.648	0.000	98.439	-0.000	97.648	0.000	0.000	98.447	48.456	-1.163	MWD+IFR1+MS
22900.000	90.000	179.680	11063.997	98.400	0.000	99.140	-0.000	98.400	0.000	0.000	99.147	48.523	-1.150	MWD+IFR1+MS
23000.000	90.000	179.680	11063.997	99.153	0.000	99.841	-0.000	99.153	0.000	0.000	99.849	48.590	-1.138	MWD+IFR1+MS
23100.000	90.000	179.680	11063.997	99.906	0.000	100.544	-0.000	99.906	0.000	0.000	100.552	48.657	-1.126	MWD+IFR1+MS
23200.000	90.000	179.680	11063.997	100.660	0.000	101.248	-0.000	100.660	0.000	0.000	101.256	48.725	-1.115	MWD+IFR1+MS
23300.000	90.000	179.680	11063.997	101.414	0.000	101.953	-0.000	101.414	0.000	0.000	101.960	48.794	-1.103	MWD+IFR1+MS
23400.000	90.000	179.680	11063.997	102.169	0.000	102.658	-0.000	102.169	0.000	0.000	102.665	48.862	-1.092	MWD+IFR1+MS
23500.000	90.000	179.680	11063.997	102.924	0.000	103.365	-0.000	102.924	0.000	0.000	103.372	48.932	-1.081	MWD+IFR1+MS
23600.000	90.000	179.680	11063.997	103.680	0.000	104.072	-0.000	103.680	0.000	0.000	104.079	49.001	-1.071	MWD+IFR1+MS
23700.000	90.000	179.680	11063.997	104.436	0.000	104.780	-0.000	104.436	0.000	0.000	104.787	49.071	-1.061	MWD+IFR1+MS
23800.000	90.000	179.680	11063.997	105.192	0.000	105.489	-0.000	105.192	0.000	0.000	105.495	49.142	-1.050	MWD+IFR1+MS
23900.000	90.000	179.680	11063.997	105.949	0.000	106.198	-0.000	105.949	0.000	0.000	106.205	49.213	-1.041	MWD+IFR1+MS
24000.000	90.000	179.680	11063.997	106.707	0.000	106.909	-0.000	106.707	0.000	0.000	106.915	49.284	-1.031	MWD+IFR1+MS
24100.000	90.000	179.680	11063.997	107.464	0.000	107.620	-0.000	107.464	0.000	0.000	107.626	49.356	-1.022	MWD+IFR1+MS
24200.000	90.000	179.680	11063.997	108.222	0.000	108.332	-0.000	108.222	0.000	0.000	108.338	49.428	-1.012	MWD+IFR1+MS
24300.000	90.000	179.680	11063.997	108.981	0.000	109.044	-0.000	108.981	0.000	0.000	109.050	49.501	-1.003	MWD+IFR1+MS
24400.000	90.000	179.680	11063.997	109.740	0.000	109.758	-0.000	109.740	0.000	0.000	109.764	49.574	-0.995	MWD+IFR1+MS
24500.000	90.000	179.680	11063.997	110.499	0.000	110.472	-0.000	110.499	0.000	0.000	110.478	49.648	-0.986	MWD+IFR1+MS
24600.000	90.000	179.680	11063.997	111.259	0.000	111.186	-0.000	111.259	0.000	0.000	111.192	49.722	-0.978	MWD+IFR1+MS
24700.000	90.000	179.680	11063.997	112.018	0.000	111.902	-0.000	112.018	0.000	0.000	111.908	49.796	-0.969	MWD+IFR1+MS
24800.000	90.000	179.680	11063.997	112.779	0.000	112.618	-0.000	112.779	0.000	0.000	112.624	49.871	-0.961	MWD+IFR1+MS
24900.000	90.000	179.680	11063.997	113.539	0.000	113.335	-0.000	113.539	0.000	0.000	113.340	49.946	-0.954	MWD+IFR1+MS
25000.000	90.000	179.680	11063.997	114.300	0.000	114.052	-0.000	114.300	0.000	0.000	114.057	50.022	-0.946	MWD+IFR1+MS
25100.000	90.000	179.680	11063.997	115.061	0.000	114.770	-0.000	115.061	0.000	0.000	114.775	50.098	-0.938	MWD+IFR1+MS
25200.000	90.000	179.680	11063.997	115.823	0.000	115.488	-0.000	115.823	0.000	0.000	115.494	50.174	-0.931	MWD+IFR1+MS
25300.000	90.000	179.680	11063.997	116.585	0.000	116.208	-0.000	116.585	0.000	0.000	116.213	50.251	-0.924	MWD+IFR1+MS
25400.000	90.000	179.680	11063.997	117.347	0.000	116.927	-0.000	117.347	0.000	0.000	116.932	50.328	-0.917	MWD+IFR1+MS
25500.000	90.000	179.680	11063.997	118.109	0.000	117.648	-0.000	118.109	0.000	0.000	117.653	50.406	-0.910	MWD+IFR1+MS
25600.000	90.000	179.680	11063.997	118.872	0.000	118.369	-0.000	118.872	0.000	0.000	118.374	50.484	-0.903	MWD+IFR1+MS
25700.000	90.000	179.680	11063.997	119.635	0.000	119.090	-0.000	119.635	0.000	0.000	119.095	50.562	-0.896	MWD+IFR1+MS

25800.000	90.000	179.680	11063.997	120.399	0.000	119.812	-0.000	120.399	0.000	0.000	119.817	50.641	-0.889	MWD+IFR1+MS
25900.000	90.000	179.680	11063.997	121.162	0.000	120.535	-0.000	121.162	0.000	0.000	120.539	50.720	-0.883	MWD+IFR1+MS
26000.000	90.000	179.680	11063.997	121.926	0.000	121.258	-0.000	121.926	0.000	0.000	121.262	50.800	-0.877	MWD+IFR1+MS
26100.000	90.000	179.680	11063.997	122.690	0.000	121.981	-0.000	122.690	0.000	0.000	121.986	50.880	-0.871	MWD+IFR1+MS
26200.000	90.000	179.680	11063.997	123.454	0.000	122.705	-0.000	123.454	0.000	0.000	122.710	50.961	-0.865	MWD+IFR1+MS
26300.000	90.000	179.680	11063.997	124.219	0.000	123.430	-0.000	124.219	0.000	0.000	123.434	51.041	-0.859	MWD+IFR1+MS
26400.000	90.000	179.680	11063.997	124.984	0.000	124.155	-0.000	124.984	0.000	0.000	124.160	51.123	-0.853	MWD+IFR1+MS
26500.000	90.000	179.680	11063.997	125.749	0.000	124.881	-0.000	125.749	0.000	0.000	124.885	51.204	-0.847	MWD+IFR1+MS
26600.000	90.000	179.680	11063.997	126.514	0.000	125.607	-0.000	126.514	0.000	0.000	125.611	51.286	-0.841	MWD+IFR1+MS
26700.000	90.000	179.680	11063.997	127.280	0.000	126.333	-0.000	127.280	0.000	0.000	126.337	51.369	-0.836	MWD+IFR1+MS
26800.000	90.000	179.680	11063.997	128.046	0.000	127.060	-0.000	128.046	0.000	0.000	127.064	51.451	-0.830	MWD+IFR1+MS
26900.000	90.000	179.680	11063.997	128.812	0.000	127.788	-0.000	128.812	0.000	0.000	127.792	51.534	-0.825	MWD+IFR1+MS
27000.000	90.000	179.680	11063.997	129.578	0.000	128.515	-0.000	129.578	0.000	0.000	128.520	51.618	-0.820	MWD+IFR1+MS
27100.000	90.000	179.680	11063.997	130.345	0.000	129.244	-0.000	130.345	0.000	0.000	129.248	51.702	-0.815	MWD+IFR1+MS
27200.000	90.000	179.680	11063.997	131.111	0.000	129.973	-0.000	131.111	0.000	0.000	129.977	51.786	-0.810	MWD+IFR1+MS
27300.000	90.000	179.680	11063.997	131.878	0.000	130.702	-0.000	131.878	0.000	0.000	130.706	51.871	-0.805	MWD+IFR1+MS
27400.000	90.000	179.680	11063.997	132.646	0.000	131.431	-0.000	132.646	0.000	0.000	131.435	51.956	-0.800	MWD+IFR1+MS
27500.000	90.000	179.680	11063.997	133.413	0.000	132.161	-0.000	133.413	0.000	0.000	132.165	52.041	-0.795	MWD+IFR1+MS
27600.000	90.000	179.680	11063.997	134.180	0.000	132.892	-0.000	134.180	0.000	0.000	132.895	52.127	-0.790	MWD+IFR1+MS
27700.000	90.000	179.680	11063.997	134.948	0.000	133.622	-0.000	134.948	0.000	0.000	133.626	52.213	-0.786	MWD+IFR1+MS
27800.000	90.000	179.680	11063.997	135.716	0.000	134.354	-0.000	135.716	0.000	0.000	134.357	52.299	-0.781	MWD+IFR1+MS
27900.000	90.000	179.680	11063.997	136.484	0.000	135.085	-0.000	136.484	0.000	0.000	135.089	52.386	-0.777	MWD+IFR1+MS
28000.000	90.000	179.680	11063.997	137.253	0.000	135.817	-0.000	137.253	0.000	0.000	135.821	52.473	-0.772	MWD+IFR1+MS
28100.000	90.000	179.680	11063.997	138.021	0.000	136.549	-0.000	138.021	0.000	0.000	136.553	52.561	-0.768	MWD+IFR1+MS
28200.000	90.000	179.680	11063.997	138.790	0.000	137.282	-0.000	138.790	0.000	0.000	137.285	52.649	-0.764	MWD+IFR1+MS
28300.000	90.000	179.680	11063.997	139.559	0.000	138.015	-0.000	139.559	0.000	0.000	138.018	52.737	-0.760	MWD+IFR1+MS
28400.000	90.000	179.680	11063.997	140.328	0.000	138.748	-0.000	140.328	0.000	0.000	138.752	52.826	-0.756	MWD+IFR1+MS
28500.000	90.000	179.680	11063.997	141.097	0.000	139.482	-0.000	141.097	0.000	0.000	139.485	52.915	-0.752	MWD+IFR1+MS
28600.000	90.000	179.680	11063.997	141.866	0.000	140.216	-0.000	141.866	0.000	0.000	140.219	53.004	-0.748	MWD+IFR1+MS
28700.000	90.000	179.680	11063.997	142.636	0.000	140.950	-0.000	142.636	0.000	0.000	140.954	53.094	-0.744	MWD+IFR1+MS
28800.000	90.000	179.680	11063.997	143.406	0.000	141.685	-0.000	143.406	0.000	0.000	141.688	53.184	-0.740	MWD+IFR1+MS
28900.000	90.000	179.680	11063.997	144.176	0.000	142.420	-0.000	144.176	0.000	0.000	142.423	53.274	-0.736	MWD+IFR1+MS
29000.000	90.000	179.680	11063.997	144.946	0.000	143.156	-0.000	144.946	0.000	0.000	143.159	53.365	-0.732	MWD+IFR1+MS

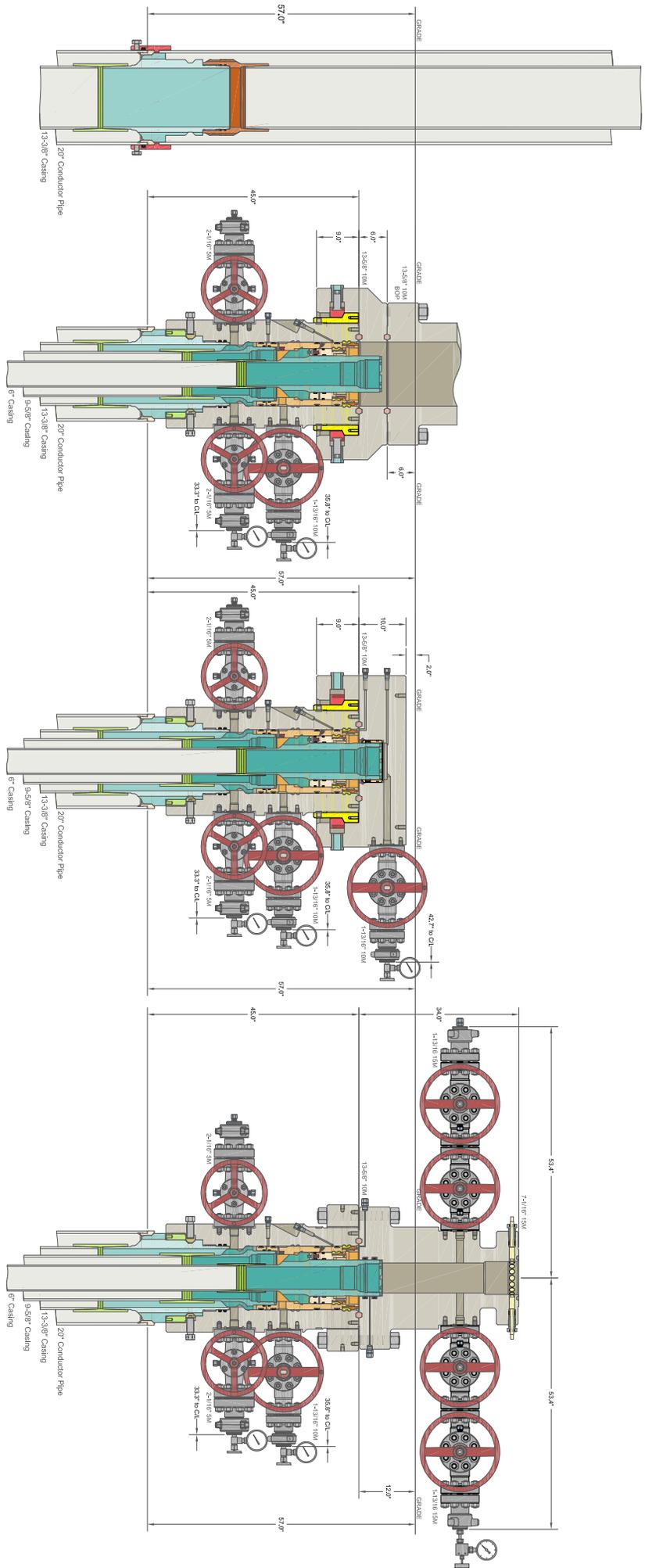
29100.000	90.000	179.680	11063.997	145.716	0.000	143.891	-0.000	145.716	0.000	0.000	143.894	53.456	-0.729	MWD+IFR1+MS
29200.000	90.000	179.680	11063.997	146.486	0.000	144.627	-0.000	146.486	0.000	0.000	144.630	53.547	-0.725	MWD+IFR1+MS
29300.000	90.000	179.680	11063.997	147.257	0.000	145.363	-0.000	147.257	0.000	0.000	145.367	53.639	-0.721	MWD+IFR1+MS
29400.000	90.000	179.680	11063.997	148.027	0.000	146.100	-0.000	148.027	0.000	0.000	146.103	53.731	-0.718	MWD+IFR1+MS
29500.000	90.000	179.680	11063.997	148.798	0.000	146.837	-0.000	148.798	0.000	0.000	146.840	53.823	-0.714	MWD+IFR1+MS
29600.000	90.000	179.680	11063.997	149.569	0.000	147.574	-0.000	149.569	0.000	0.000	147.577	53.916	-0.711	MWD+IFR1+MS
29700.000	90.000	179.680	11063.997	150.340	0.000	148.312	-0.000	150.340	0.000	0.000	148.315	54.009	-0.708	MWD+IFR1+MS
29800.000	90.000	179.680	11063.997	151.111	0.000	149.049	-0.000	151.111	0.000	0.000	149.052	54.102	-0.704	MWD+IFR1+MS
29900.000	90.000	179.680	11063.997	151.883	0.000	149.787	-0.000	151.883	0.000	0.000	149.790	54.196	-0.701	MWD+IFR1+MS
30000.000	90.000	179.680	11063.997	152.654	0.000	150.526	-0.000	152.654	0.000	0.000	150.529	54.290	-0.698	MWD+IFR1+MS
30100.000	90.000	179.680	11063.997	153.426	0.000	151.264	-0.000	153.426	0.000	0.000	151.267	54.384	-0.695	MWD+IFR1+MS
30200.000	90.000	179.680	11063.997	154.198	0.000	152.003	-0.000	154.198	0.000	0.000	152.006	54.479	-0.692	MWD+IFR1+MS
30300.000	90.000	179.680	11063.997	154.970	0.000	152.742	-0.000	154.970	0.000	0.000	152.745	54.574	-0.689	MWD+IFR1+MS
30400.000	90.000	179.680	11063.997	155.742	0.000	153.482	-0.000	155.742	0.000	0.000	153.484	54.669	-0.686	MWD+IFR1+MS
30500.000	90.000	179.680	11063.997	156.514	0.000	154.221	-0.000	156.514	0.000	0.000	154.224	54.765	-0.683	MWD+IFR1+MS
30600.000	90.000	179.680	11063.997	157.286	0.000	154.961	-0.000	157.286	0.000	0.000	154.964	54.861	-0.680	MWD+IFR1+MS
30700.000	90.000	179.680	11063.997	158.059	0.000	155.701	-0.000	158.059	0.000	0.000	155.704	54.957	-0.677	MWD+IFR1+MS
30800.000	90.000	179.680	11063.997	158.831	0.000	156.442	-0.000	158.831	0.000	0.000	156.444	55.053	-0.674	MWD+IFR1+MS
30900.000	90.000	179.680	11063.997	159.604	0.000	157.182	-0.000	159.604	0.000	0.000	157.185	55.150	-0.671	MWD+IFR1+MS
31000.000	90.000	179.680	11063.997	160.377	0.000	157.923	-0.000	160.377	0.000	0.000	157.926	55.247	-0.668	MWD+IFR1+MS
31100.000	90.000	179.680	11063.997	161.149	0.000	158.664	-0.000	161.149	0.000	0.000	158.667	55.345	-0.666	MWD+IFR1+MS
31200.000	90.000	179.680	11063.997	161.922	0.000	159.405	-0.000	161.922	0.000	0.000	159.408	55.443	-0.663	MWD+IFR1+MS
31300.000	90.000	179.680	11063.997	162.696	0.000	160.147	-0.000	162.696	0.000	0.000	160.149	55.541	-0.660	MWD+IFR1+MS
31400.000	90.000	179.680	11063.997	163.469	0.000	160.889	-0.000	163.469	0.000	0.000	160.891	55.639	-0.658	MWD+IFR1+MS
31507.865	90.000	179.680	11063.997	164.303	0.000	161.689	-0.000	164.303	0.000	0.000	161.692	55.746	-0.655	MWD+IFR1+MS
31607.863	90.000	179.680	11063.997	165.077	0.000	162.432	-0.000	165.077	0.000	0.000	162.434	55.845	-0.652	MWD+IFR1+MS

Plan Targets

Poker Lake Unit 20 DTD South 411H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 24	11197.24	440409.60	635260.80	7741.00	RECTANGLE
SHL 28	9432.34	440077.88	635241.62	5764.90	RECTANGLE
LTP 24	31507.86	419664.00	635376.70	7741.00	RECTANGLE

BHL 24	31607.89	419564.00	635377.20	7741.00 RECTANGLE
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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

(20") x 13-3/8" x 9-5/8" x 6" MBU-3T-CFL-R-DBLO-SF Wellhead
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And Drilling & Skid Configurations

DRAWN	DLE	04NOV22
APPRV		
DRAWING NO.	HBE0000833	

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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack

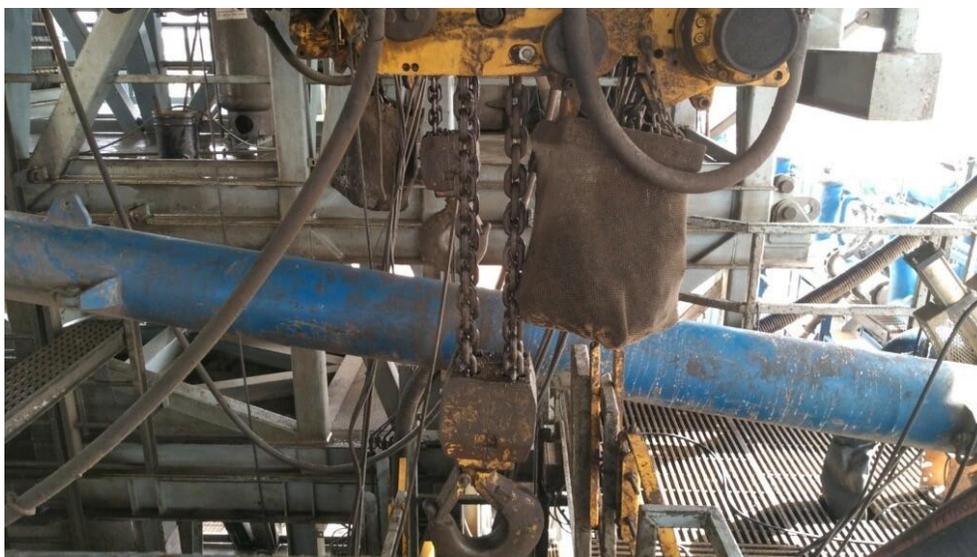


Figure 2: BOP Winch System

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

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

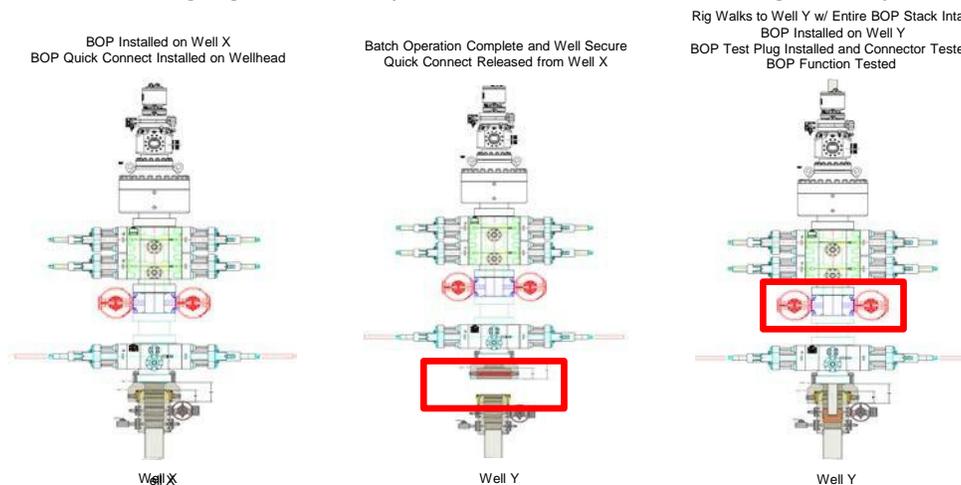
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

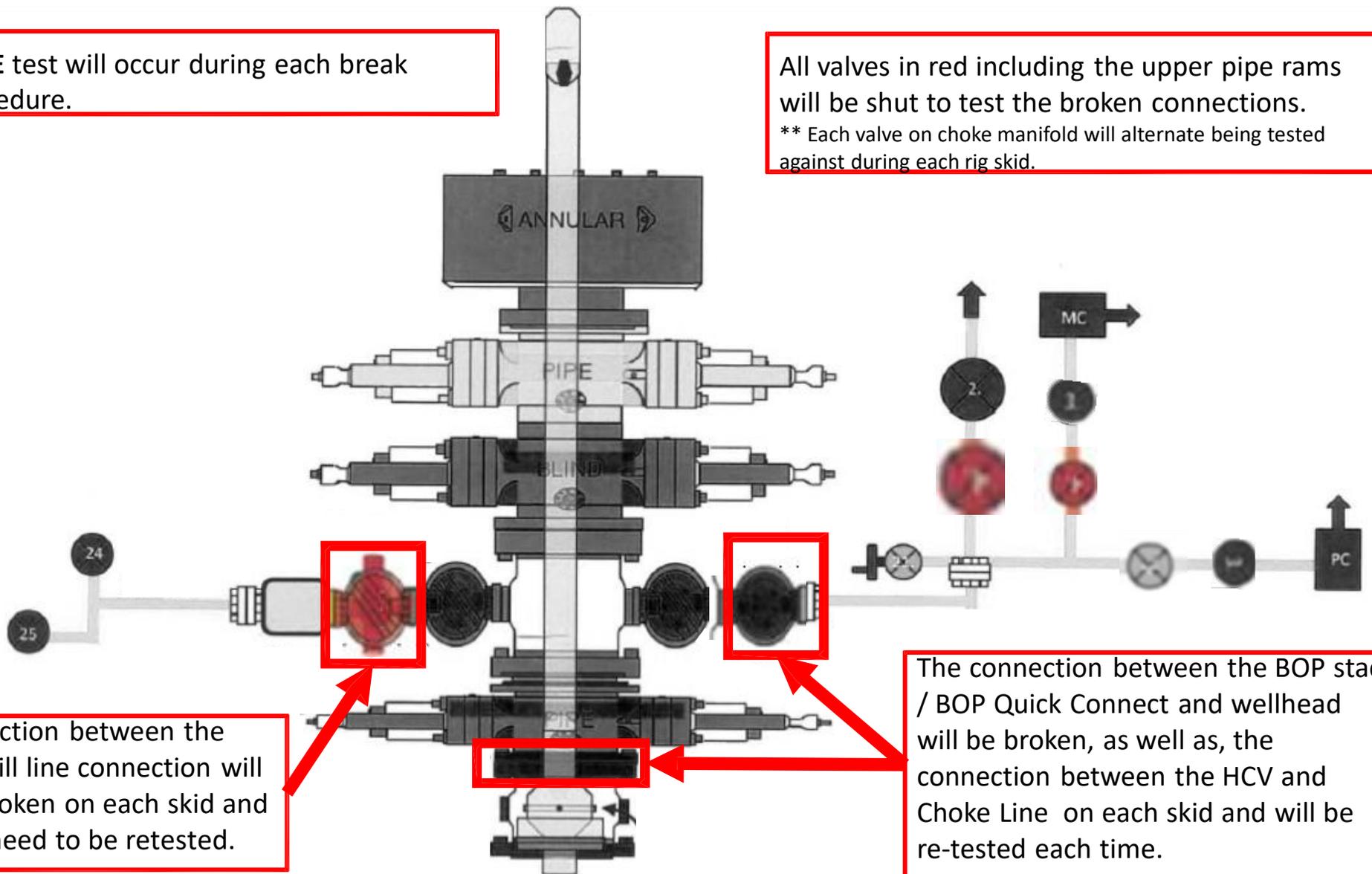
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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 skid.



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

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

10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	6.750"-8.000"	Annular	5M	-	-
Production Casing	5-1/2"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per 43.CFR.3172 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full-opening safety valve & close
3. Space out drill string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

- a. Sound alarm (alert crew)
- b. Stab crossover and full-opening safety valve and close
- c. Space out string
- d. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- e. Confirm shut-in
- f. Notify toolpusher/company representative
- g. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- h. Regroup and identify forward plan
- i. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams (HCR & choke will already be in the closed position)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

1. PRIOR to pulling last joint of drillpipe through stack:
 - a. Perform flow check. If flowing, continue to (b).
 - b. Sound alarm (alert crew)
 - c. Stab full-opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams
 - e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full-opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams
 - d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time

- h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
 - c. If impossible to pull string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram
 - f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan

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

CONDITIONS
 Action 337790

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075 Action Number: 337790 Action Type: [C-103] NOI Change of Plans (C-103A)
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CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	5/8/2024
ward.rikala	An NSP is required for this well.	5/8/2024