

Well Name: POKER LAKE UNIT 19 DTD	Well Location: T24S / R30E / SEC 19 / NENW /	County or Parish/State:
Well Number: 309H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM002860	Unit or CA Name:	Unit or CA Number: NMNM71016X
US Well Number: 3001553985	Well Status: Approved Application for Permit to Drill	Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2781304

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/22/2024

Time Sundry Submitted: 03:33

Date proposed operation will begin: 04/12/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, and proposed total depth. FROM: TO: SHL: 1123' FNL & 2411' FWL of Section 19-T24S-R30E 1051' FNL & 2455' FEL of Section 19-T24S-R30E FTP: 100' FSL & 1990' FWL of Section 18-T24S-R30E 100' FNL & 2345' FEL of Section 19-T24S-R30E LTP: 2540' FSL & 1990' FWL of Section 31-T23S-R30E 330' FSL & 2358' FEL of Section 31-T24S-R30E BHL: 2590' FSL & 1990' FWL of Section 31-T23S-R30E 230' FSL & 2358' FEL of Section 31-T24S-R30E Proposed total depth will change from 28072' MD; 9310' TVD (Bone Spring) to 25888' MD; TVD 10573' (Wolfcamp X). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

POKER_LAKE_UNIT_19_DTD_309H_Sundry_Attachments_20240322153322.pdf

Well Name: POKER LAKE UNIT 19
DTD

Well Location: T24S / R30E / SEC 19 /
NENW /

County or Parish/State:

Well Number: 309H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM002860

Unit or CA Name:

Unit or CA Number:
NMNM71016X

US Well Number: 3001553985

Well Status: Approved Application for
Permit to Drill

Operator: XTO PERMIAN
OPERATING LLC

Conditions of Approval

Additional

Sec19_24S_30E_NMP_Sundry_2781304_Poker_Lake_Unit_19_DTD_309H_COAs_20240404111126.pdf

Operator

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

Operator Electronic Signature: TERRA SEBASTIAN

Signed on: MAR 22, 2024 03:33 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Advisor

Street Address: 6401 HOLIDAY HILL ROAD SUITE 200

City: MIDLAND

State: TX

Phone: (432) 999-3107

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

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 04/05/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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

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

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)		
	Title	
Signature	Date	

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by	Title	Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Additional Remarks

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

Location of Well

- 0. SHL: NENW / 1123 FNL / 2411 FWL / TWSP: 24S / RANGE: 30E / SECTION: 19 / LAT: 32.207171 / LONG: -103.921711 (TVD: 0 feet, MD: 0 feet)
- PPP: SESW / 330 FSL / 1990 FWL / TWSP: 24S / RANGE: 30E / SECTION: 7 / LAT: 32.22547 / LONG: -103.92311 (TVD: 9310 feet, MD: 15000 feet)
- PPP: SESW / 100 FSL / 1990 FWL / TWSP: 24S / RANGE: 30E / SECTION: 18 / LAT: 32.210518 / LONG: -103.923079 (TVD: 9310 feet, MD: 9700 feet)
- PPP: NENW / 330 FSL / 1990 FWL / TWSP: 24S / RANGE: 30E / SECTION: 6 / LAT: 32.25095 / LONG: -103.92307 (TVD: 9310 feet, MD: 24300 feet)
- BHL: NESW / 2590 FSL / 1990 FWL / TWSP: 23S / RANGE: 30E / SECTION: 31 / LAT: 32.261075 / LONG: -103.92313 (TVD: 9310 feet, MD: 28072 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 19 DTD 309H
LOCATION:	Sec 19-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781304** 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 type="radio"/> Low	<input checked="" 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 checked="" 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 checked="" 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 **9-5/8** inch surface casing shall be set at approximately 430 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead

cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC.

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out.

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

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back at least **300 feet** into previous casing string (tieback increased due to not meeting 0.422" clearance requirement.) Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

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

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance

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

Offline Cementing

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

GENERAL REQUIREMENTS

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

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

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

Email **or** call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@blm.gov; (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

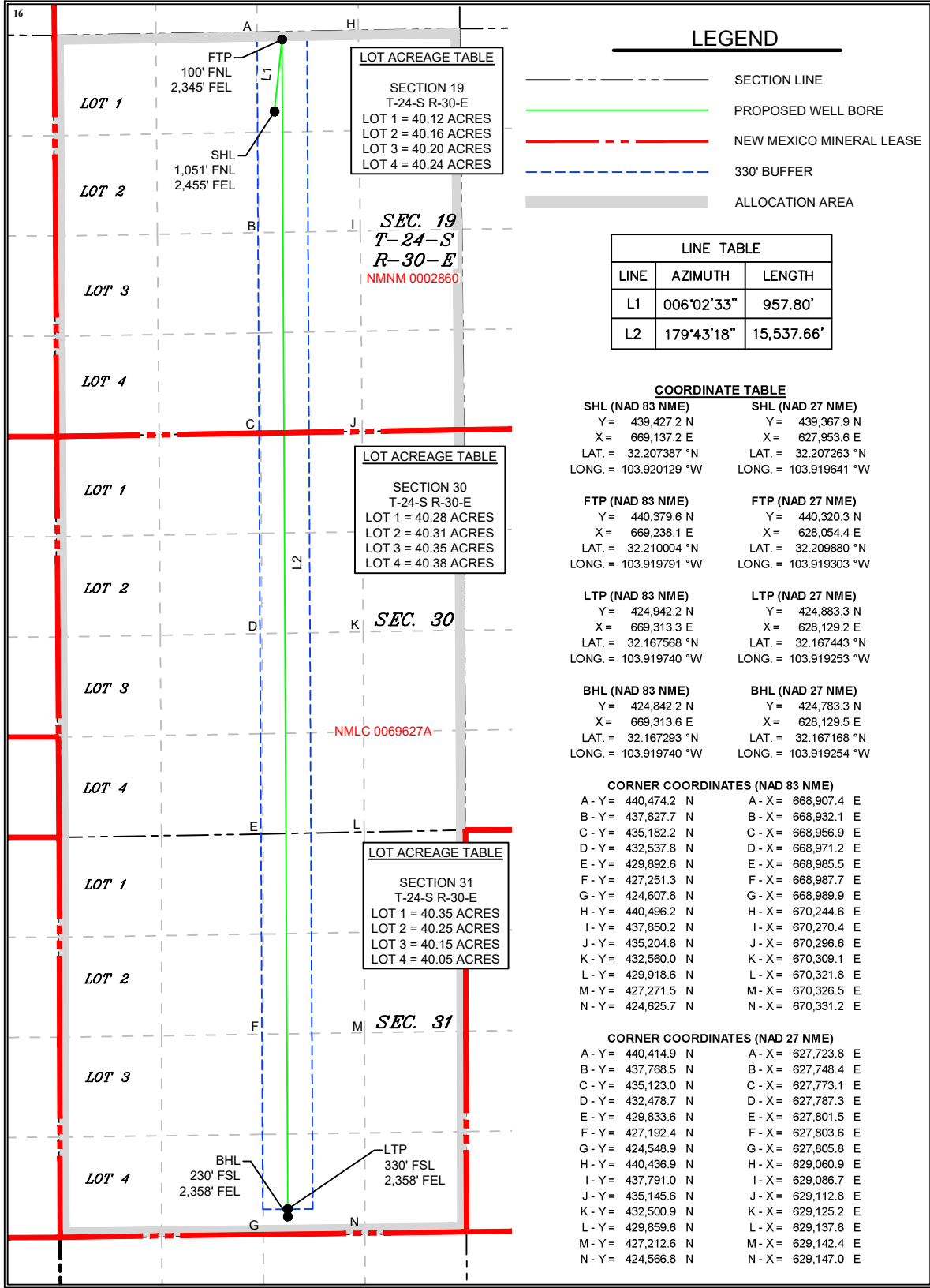
¹ API Number 30-015-53985	² Pool Code 98220	³ Pool Name Purple Sage Wolfcamp
⁴ Property Code 333976	⁵ Property Name POKER LAKE UNIT 19 DTD	⁶ Well Number 309H
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC	⁹ Elevation 3,180'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	19	24S	30E		1,051	NORTH	2,455	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	31	24S	30E		230	SOUTH	2,358	EAST	EDDY

¹² Dedicated Acres 1,922.84	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

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

Terra Sebastian 3/19/24
Signature Date

Terra Sebastian
Printed Name

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

18 SURVEYOR CERTIFICATION

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

02/09/2024

Date of Survey

Signature and Seal of
Professional Surveyor:



MARK DILLON HARP 23786
Certificate Number

RP 618.013003.05-49

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

XTO Energy Inc.

PLU 19 Dog Town Draw 309H

Projected TD: 25888.1' MD / 10573' TVD

SHL: 1051' FNL & 2455' FEL , Section 19, T24S, R30E

BHL: 230' FSL & 2358' FEL , Section 31, T24S, R30E

Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	649'	Water
Top of Salt	1052'	Water
Base of Salt	3245'	Water
Delaware	3439'	Water
Brushy Canyon	5937'	Water/Oil/Gas
Bone Spring	7233'	Water
Avalon	7403'	Water/Oil/Gas
1st Bone Spring	8219'	Water/Oil/Gas
2nd Bone Spring	9037'	Water/Oil/Gas
3rd Bone Spring	10131'	Water/Oil/Gas
Wolfcamp	10522'	Water/Oil/Gas
Wolfcamp X	10543'	Water/Oil/Gas
Target/Land Curve	10573'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 749' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9743.46' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 25888.1 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9443.46 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 749'	9.625	40	J-55	BTC	New	1.71	8.41	21.03
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.27	2.92	1.93
8.75	4000' – 9743.46'	7.625	29.7	HC L-80	Flush Joint	New	1.65	2.45	2.38
6.75	0' – 9643.46'	5.5	20	RY P-110	Semi-Premium	New	1.05	1.88	1.97
6.75	9643.46' - 25888.1'	5.5	20	RY P-110	Semi-Flush	New	1.05	1.71	1.97

- XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
- XTO requests to not utilize centralizers in the curve and lateral
- 7.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- XTO requests the option to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 11" 10M top flange x 9-5/8" bottom

B. Tubing Head: 11" 10M bottom flange x 7-1/16" 15M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 7-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 749'

Lead: 150 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 130 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: 7.625, 29.7 New casing to be set at +/- 9743.46'

1st Stage

Optional Lead: 320 sxs Class C (mixed at 10.5 ppg, 2.77 ft³/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 350 sxs Class C (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 5937

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: 670 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 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5937') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 25888.1'

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cement: 9443.46 feet

Tail: 1140 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft³/sx, 8.38 gal/sx water) Top of Cement: 9943.46 feet

Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 4162 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 9.625, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

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

hole on each of the wells.

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 749'	12.25	FW/Native	8.4-8.9	35-40	NC
749' - 9743.46'	8.75	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
9743.46' - 25888.1'	6.75	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 9.625 casing.

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 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 6488 psi.

10. Anticipated Starting Date and Duration of Operations

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

Well Plan Report - Poker Lake Unit 19 DTD South 309H

Measured Depth: 25888.10 ft

TVD RKB: 10573.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 439367.90 ft

Easting: 627953.60 ft

RKB: 3212.00 ft

Ground Level: 3180.00 ft

North Reference: Grid

Convergence Angle: 0.22 Deg

Plan Sections

Poker Lake Unit 19 DTD South 309H

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
1635.59	10.71	6.04	1632.48	49.64	5.25	2.00	0.00	2.00
6251.06	10.71	6.04	6167.52	902.76	95.55	0.00	0.00	0.00
6786.66	0.00	0.00	6700.00	952.40	100.80	-2.00	0.00	2.00
9943.46	0.00	0.00	9856.80	952.40	100.80	0.00	0.00	0.00
11068.46	90.00	179.72	10573.00	236.21	104.27	8.00	0.00	8.00
11326.66	90.00	179.72	10573.00	-21.99	105.53	0.00	0.00	0.00 LTP 17
25888.10	90.00	179.72	10573.00	-14583.26	176.18	0.00	0.00	0.00 BHL 17

Position Uncertainty

Poker Lake Unit 19 DTD South 309H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.346	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.373	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.405	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.441	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.483	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	2.528	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.577	0.000	0.000	4.384	3.491	128.744	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.419	0.000	4.228	0.000	2.630	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	6.042	1199.980	5.047	0.000	4.499	0.000	2.686	0.000	0.000	5.289	4.215	125.552	MWD+IFR1+MS
1300.000	4.000	6.042	1299.838	5.834	0.000	4.865	0.000	2.746	0.000	0.000	6.057	4.596	119.915	MWD+IFR1+MS
1400.000	6.000	6.042	1399.452	6.539	0.000	5.229	0.000	2.811	0.000	0.000	6.766	4.958	117.219	MWD+IFR1+MS
1500.000	8.000	6.042	1498.702	7.185	0.000	5.592	0.000	2.883	0.000	0.000	7.426	5.313	115.673	MWD+IFR1+MS
1600.000	10.000	6.042	1597.465	7.786	0.000	5.953	0.000	2.966	0.000	0.000	8.047	5.666	114.685	MWD+IFR1+MS
1635.593	10.712	6.042	1632.478	7.888	0.000	6.072	0.000	2.986	0.000	0.000	8.159	5.791	114.590	MWD+IFR1+MS
1700.000	10.712	6.042	1695.763	8.070	0.000	6.290	0.000	3.032	0.000	0.000	8.336	6.017	114.572	MWD+IFR1+MS
1800.000	10.712	6.042	1794.020	8.360	0.000	6.645	0.000	3.109	0.000	0.000	8.621	6.378	114.815	MWD+IFR1+MS
1900.000	10.712	6.042	1892.278	8.664	0.000	7.011	0.000	3.190	0.000	0.000	8.924	6.743	115.205	MWD+IFR1+MS
2000.000	10.712	6.042	1990.535	8.973	0.000	7.377	0.000	3.274	0.000	0.000	9.232	7.109	115.581	MWD+IFR1+MS
2100.000	10.712	6.042	2088.793	9.288	0.000	7.744	0.000	3.360	0.000	0.000	9.545	7.475	115.943	MWD+IFR1+MS
2200.000	10.712	6.042	2187.050	9.608	0.000	8.111	0.000	3.449	0.000	0.000	9.863	7.842	116.293	MWD+IFR1+MS
2300.000	10.712	6.042	2285.308	9.932	0.000	8.479	0.000	3.541	0.000	0.000	10.184	8.210	116.629	MWD+IFR1+MS
2400.000	10.712	6.042	2383.565	10.260	0.000	8.847	0.000	3.634	0.000	0.000	10.510	8.578	116.953	MWD+IFR1+MS
2500.000	10.712	6.042	2481.822	10.592	0.000	9.216	0.000	3.730	0.000	0.000	10.838	8.946	117.264	MWD+IFR1+MS
2600.000	10.712	6.042	2580.080	10.927	0.000	9.585	0.000	3.828	0.000	0.000	11.170	9.314	117.565	MWD+IFR1+MS
2700.000	10.712	6.042	2678.337	11.265	0.000	9.954	0.000	3.928	0.000	0.000	11.505	9.683	117.853	MWD+IFR1+MS
2800.000	10.712	6.042	2776.595	11.606	0.000	10.324	0.000	4.030	0.000	0.000	11.842	10.052	118.131	MWD+IFR1+MS
2900.000	10.712	6.042	2874.852	11.949	0.000	10.693	0.000	4.133	0.000	0.000	12.181	10.421	118.398	MWD+IFR1+MS

3000.000	10.712	6.042	2973.110	12.295	0.000	11.063	0.000	4.239	0.000	0.000	12.523	10.790	118.655	MWD+IFR1+MS
3100.000	10.712	6.042	3071.367	12.643	0.000	11.433	0.000	4.345	0.000	0.000	12.866	11.160	118.902	MWD+IFR1+MS
3200.000	10.712	6.042	3169.625	12.992	0.000	11.804	0.000	4.454	0.000	0.000	13.211	11.529	119.140	MWD+IFR1+MS
3300.000	10.712	6.042	3267.882	13.344	0.000	12.174	0.000	4.564	0.000	0.000	13.558	11.899	119.368	MWD+IFR1+MS
3400.000	10.712	6.042	3366.139	13.697	0.000	12.545	0.000	4.676	0.000	0.000	13.907	12.269	119.587	MWD+IFR1+MS
3500.000	10.712	6.042	3464.397	14.051	0.000	12.916	0.000	4.790	0.000	0.000	14.257	12.639	119.798	MWD+IFR1+MS
3600.000	10.712	6.042	3562.654	14.407	0.000	13.287	0.000	4.905	0.000	0.000	14.608	13.010	120.000	MWD+IFR1+MS
3700.000	10.712	6.042	3660.912	14.764	0.000	13.658	0.000	5.021	0.000	0.000	14.960	13.380	120.194	MWD+IFR1+MS
3800.000	10.712	6.042	3759.169	15.123	0.000	14.029	0.000	5.139	0.000	0.000	15.314	13.751	120.380	MWD+IFR1+MS
3900.000	10.712	6.042	3857.427	15.482	0.000	14.400	0.000	5.259	0.000	0.000	15.669	14.122	120.558	MWD+IFR1+MS
4000.000	10.712	6.042	3955.684	15.843	0.000	14.771	0.000	5.380	0.000	0.000	16.024	14.492	120.730	MWD+IFR1+MS
4100.000	10.712	6.042	4053.941	16.205	0.000	15.142	0.000	5.503	0.000	0.000	16.381	14.863	120.894	MWD+IFR1+MS
4200.000	10.712	6.042	4152.199	16.567	0.000	15.514	0.000	5.628	0.000	0.000	16.738	15.234	121.051	MWD+IFR1+MS
4300.000	10.712	6.042	4250.456	16.931	0.000	15.885	0.000	5.754	0.000	0.000	17.096	15.605	121.202	MWD+IFR1+MS
4400.000	10.712	6.042	4348.714	17.295	0.000	16.257	0.000	5.881	0.000	0.000	17.455	15.977	121.346	MWD+IFR1+MS
4500.000	10.712	6.042	4446.971	17.660	0.000	16.629	0.000	6.011	0.000	0.000	17.815	16.348	121.484	MWD+IFR1+MS
4600.000	10.712	6.042	4545.229	18.025	0.000	17.000	0.000	6.141	0.000	0.000	18.175	16.719	121.616	MWD+IFR1+MS
4700.000	10.712	6.042	4643.486	18.392	0.000	17.372	0.000	6.274	0.000	0.000	18.536	17.091	121.742	MWD+IFR1+MS
4800.000	10.712	6.042	4741.743	18.759	0.000	17.744	0.000	6.408	0.000	0.000	18.898	17.462	121.863	MWD+IFR1+MS
4900.000	10.712	6.042	4840.001	19.126	0.000	18.116	0.000	6.544	0.000	0.000	19.260	17.834	121.978	MWD+IFR1+MS
5000.000	10.712	6.042	4938.258	19.494	0.000	18.487	0.000	6.682	0.000	0.000	19.623	18.206	122.087	MWD+IFR1+MS
5100.000	10.712	6.042	5036.516	19.863	0.000	18.859	0.000	6.821	0.000	0.000	19.986	18.577	122.192	MWD+IFR1+MS
5200.000	10.712	6.042	5134.773	20.232	0.000	19.231	0.000	6.962	0.000	0.000	20.349	18.949	122.291	MWD+IFR1+MS
5300.000	10.712	6.042	5233.031	20.601	0.000	19.603	0.000	7.105	0.000	0.000	20.713	19.321	122.386	MWD+IFR1+MS
5400.000	10.712	6.042	5331.288	20.972	0.000	19.975	0.000	7.250	0.000	0.000	21.078	19.693	122.475	MWD+IFR1+MS
5500.000	10.712	6.042	5429.546	21.342	0.000	20.347	0.000	7.396	0.000	0.000	21.443	20.065	122.561	MWD+IFR1+MS
5600.000	10.712	6.042	5527.803	21.713	0.000	20.719	0.000	7.545	0.000	0.000	21.808	20.437	122.641	MWD+IFR1+MS
5700.000	10.712	6.042	5626.060	22.084	0.000	21.091	0.000	7.695	0.000	0.000	22.174	20.809	122.718	MWD+IFR1+MS
5800.000	10.712	6.042	5724.318	22.456	0.000	21.464	0.000	7.847	0.000	0.000	22.540	21.181	122.790	MWD+IFR1+MS
5900.000	10.712	6.042	5822.575	22.828	0.000	21.836	0.000	8.001	0.000	0.000	22.906	21.554	122.858	MWD+IFR1+MS
6000.000	10.712	6.042	5920.833	23.200	0.000	22.208	0.000	8.158	0.000	0.000	23.273	21.926	122.922	MWD+IFR1+MS
6100.000	10.712	6.042	6019.090	23.572	0.000	22.580	0.000	8.316	0.000	0.000	23.640	22.298	122.982	MWD+IFR1+MS
6200.000	10.712	6.042	6117.348	23.945	0.000	22.952	0.000	8.476	0.000	0.000	24.007	22.671	123.038	MWD+IFR1+MS

6251.064	10.712	6.042	6167.522	24.133	0.000	23.140	0.000	8.558	0.000	0.000	24.190	22.860	122.994	MWD+IFR1+MS
6300.000	9.733	6.042	6215.680	24.326	0.000	23.318	0.000	8.638	0.000	0.000	24.366	23.041	122.919	MWD+IFR1+MS
6400.000	7.733	6.042	6314.516	24.751	0.000	23.682	0.000	8.803	0.000	0.000	24.777	23.410	122.226	MWD+IFR1+MS
6500.000	5.733	6.042	6413.821	25.190	0.000	24.045	0.000	8.966	0.000	0.000	25.231	23.775	121.210	MWD+IFR1+MS
6600.000	3.733	6.042	6513.475	25.590	0.000	24.403	0.000	9.123	0.000	0.000	25.678	24.134	120.340	MWD+IFR1+MS
6700.000	1.733	6.042	6613.356	25.954	0.000	24.755	0.000	9.276	0.000	0.000	26.117	24.487	119.597	MWD+IFR1+MS
6786.657	0.000	0.000	6700.000	26.081	0.000	25.194	0.000	9.406	0.000	0.000	26.467	24.788	119.047	MWD+IFR1+MS
6800.000	0.000	0.000	6713.343	26.125	0.000	25.238	0.000	9.426	0.000	0.000	26.510	24.833	119.039	MWD+IFR1+MS
6900.000	0.000	0.000	6813.343	26.453	0.000	25.576	0.000	9.576	0.000	0.000	26.835	25.175	119.039	MWD+IFR1+MS
7000.000	0.000	0.000	6913.343	26.787	0.000	25.919	0.000	9.729	0.000	0.000	27.169	25.518	119.124	MWD+IFR1+MS
7100.000	0.000	0.000	7013.343	27.122	0.000	26.262	0.000	9.885	0.000	0.000	27.504	25.861	119.209	MWD+IFR1+MS
7200.000	0.000	0.000	7113.343	27.457	0.000	26.605	0.000	10.043	0.000	0.000	27.839	26.205	119.292	MWD+IFR1+MS
7300.000	0.000	0.000	7213.343	27.793	0.000	26.949	0.000	10.205	0.000	0.000	28.175	26.549	119.373	MWD+IFR1+MS
7400.000	0.000	0.000	7313.343	28.129	0.000	27.293	0.000	10.369	0.000	0.000	28.512	26.893	119.454	MWD+IFR1+MS
7500.000	0.000	0.000	7413.343	28.466	0.000	27.638	0.000	10.536	0.000	0.000	28.849	27.238	119.533	MWD+IFR1+MS
7600.000	0.000	0.000	7513.343	28.803	0.000	27.983	0.000	10.706	0.000	0.000	29.186	27.583	119.611	MWD+IFR1+MS
7700.000	0.000	0.000	7613.343	29.141	0.000	28.328	0.000	10.879	0.000	0.000	29.524	27.929	119.688	MWD+IFR1+MS
7800.000	0.000	0.000	7713.343	29.479	0.000	28.674	0.000	11.055	0.000	0.000	29.863	28.275	119.764	MWD+IFR1+MS
7900.000	0.000	0.000	7813.343	29.818	0.000	29.020	0.000	11.233	0.000	0.000	30.202	28.621	119.839	MWD+IFR1+MS
8000.000	0.000	0.000	7913.343	30.158	0.000	29.366	0.000	11.415	0.000	0.000	30.541	28.967	119.912	MWD+IFR1+MS
8100.000	0.000	0.000	8013.343	30.497	0.000	29.713	0.000	11.600	0.000	0.000	30.881	29.314	119.985	MWD+IFR1+MS
8200.000	0.000	0.000	8113.343	30.837	0.000	30.060	0.000	11.787	0.000	0.000	31.222	29.661	120.057	MWD+IFR1+MS
8300.000	0.000	0.000	8213.343	31.178	0.000	30.407	0.000	11.978	0.000	0.000	31.562	30.008	120.127	MWD+IFR1+MS
8400.000	0.000	0.000	8313.343	31.519	0.000	30.754	0.000	12.171	0.000	0.000	31.903	30.355	120.197	MWD+IFR1+MS
8500.000	0.000	0.000	8413.343	31.860	0.000	31.102	0.000	12.368	0.000	0.000	32.245	30.703	120.266	MWD+IFR1+MS
8600.000	0.000	0.000	8513.343	32.202	0.000	31.450	0.000	12.567	0.000	0.000	32.587	31.051	120.333	MWD+IFR1+MS
8700.000	0.000	0.000	8613.343	32.544	0.000	31.798	0.000	12.770	0.000	0.000	32.929	31.399	120.400	MWD+IFR1+MS
8800.000	0.000	0.000	8713.343	32.886	0.000	32.146	0.000	12.976	0.000	0.000	33.272	31.748	120.466	MWD+IFR1+MS
8900.000	0.000	0.000	8813.343	33.229	0.000	32.495	0.000	13.184	0.000	0.000	33.614	32.096	120.531	MWD+IFR1+MS
9000.000	0.000	0.000	8913.343	33.572	0.000	32.844	0.000	13.396	0.000	0.000	33.958	32.445	120.595	MWD+IFR1+MS
9100.000	0.000	0.000	9013.343	33.916	0.000	33.193	0.000	13.611	0.000	0.000	34.301	32.794	120.658	MWD+IFR1+MS
9200.000	0.000	0.000	9113.343	34.259	0.000	33.542	0.000	13.829	0.000	0.000	34.645	33.143	120.721	MWD+IFR1+MS
9300.000	0.000	0.000	9213.343	34.604	0.000	33.891	0.000	14.050	0.000	0.000	34.989	33.493	120.782	MWD+IFR1+MS

9400.000	0.000	0.000	9313.343	34.948	0.000	34.241	0.000	14.274	0.000	0.000	35.334	33.842	120.843	MWD+IFR1+MS
9500.000	0.000	0.000	9413.343	35.292	0.000	34.590	0.000	14.501	0.000	0.000	35.678	34.192	120.903	MWD+IFR1+MS
9600.000	0.000	0.000	9513.343	35.637	0.000	34.940	0.000	14.731	0.000	0.000	36.023	34.542	120.962	MWD+IFR1+MS
9700.000	0.000	0.000	9613.343	35.982	0.000	35.290	0.000	14.964	0.000	0.000	36.369	34.892	121.020	MWD+IFR1+MS
9800.000	0.000	0.000	9713.343	36.328	0.000	35.641	0.000	15.200	0.000	0.000	36.714	35.243	121.078	MWD+IFR1+MS
9900.000	0.000	0.000	9813.343	36.673	0.000	35.991	0.000	15.440	0.000	0.000	37.060	35.593	121.135	MWD+IFR1+MS
9943.457	0.000	0.000	9856.800	36.822	0.000	36.142	0.000	15.545	0.000	0.000	37.207	35.745	121.129	MWD+IFR1+MS
10000.000	4.523	179.722	9913.284	36.678	0.000	36.332	-0.000	15.680	0.000	0.000	37.404	35.938	120.691	MWD+IFR1+MS
10100.000	12.523	179.722	10012.100	36.622	0.000	36.630	-0.000	15.957	0.000	0.000	38.260	36.340	112.300	MWD+IFR1+MS
10200.000	20.523	179.722	10107.892	36.457	0.000	36.906	-0.000	16.384	0.000	0.000	39.455	36.686	105.795	MWD+IFR1+MS
10300.000	28.523	179.722	10198.797	35.785	0.000	37.156	-0.000	17.021	0.000	0.000	40.520	36.963	102.884	MWD+IFR1+MS
10400.000	36.523	179.722	10283.046	34.690	0.000	37.377	-0.000	17.908	0.000	0.000	41.414	37.194	101.409	MWD+IFR1+MS
10500.000	44.523	179.722	10358.998	33.291	0.000	37.568	-0.000	19.049	0.000	0.000	42.124	37.388	100.643	MWD+IFR1+MS
10600.000	52.523	179.722	10425.176	31.735	0.000	37.729	-0.000	20.422	0.000	0.000	42.652	37.546	100.288	MWD+IFR1+MS
10700.000	60.523	179.722	10480.291	30.210	0.000	37.860	-0.000	21.978	0.000	0.000	43.011	37.671	100.193	MWD+IFR1+MS
10800.000	68.523	179.722	10523.270	28.933	0.000	37.960	-0.000	23.661	0.000	0.000	43.227	37.764	100.264	MWD+IFR1+MS
10900.000	76.523	179.722	10553.277	28.129	0.000	38.029	-0.000	25.409	0.000	0.000	43.331	37.826	100.424	MWD+IFR1+MS
11000.000	84.523	179.722	10569.728	27.990	0.000	38.069	-0.000	27.162	0.000	0.000	43.363	37.860	100.591	MWD+IFR1+MS
11068.457	90.000	179.722	10572.997	27.794	0.000	38.077	-0.000	27.794	0.000	0.000	43.367	37.865	100.646	MWD+IFR1+MS
11100.000	90.000	179.722	10572.997	27.866	0.000	38.076	-0.000	27.866	0.000	0.000	43.368	37.864	100.660	MWD+IFR1+MS
11200.000	90.000	179.722	10572.997	28.048	0.000	38.090	-0.000	28.048	0.000	0.000	43.372	37.876	100.733	MWD+IFR1+MS
11300.000	90.000	179.722	10572.997	28.255	0.000	38.122	-0.000	28.255	0.000	0.000	43.377	37.905	100.838	MWD+IFR1+MS
11326.660	90.000	179.722	10572.997	28.312	0.000	38.132	-0.000	28.312	0.000	0.000	43.378	37.913	100.867	MWD+IFR1+MS
11400.000	90.000	179.722	10572.997	28.477	0.000	38.164	-0.000	28.477	0.000	0.000	43.383	37.943	100.961	MWD+IFR1+MS
11500.000	90.000	179.722	10572.997	28.722	0.000	38.226	-0.000	28.722	0.000	0.000	43.390	38.001	101.123	MWD+IFR1+MS
11600.000	90.000	179.722	10572.997	28.988	0.000	38.304	-0.000	28.988	0.000	0.000	43.398	38.074	101.318	MWD+IFR1+MS
11700.000	90.000	179.722	10572.997	29.272	0.000	38.397	-0.000	29.272	0.000	0.000	43.408	38.162	101.548	MWD+IFR1+MS
11800.000	90.000	179.722	10572.997	29.575	0.000	38.505	-0.000	29.575	0.000	0.000	43.419	38.264	101.816	MWD+IFR1+MS
11900.000	90.000	179.722	10572.997	29.895	0.000	38.627	-0.000	29.895	0.000	0.000	43.431	38.380	102.125	MWD+IFR1+MS
12000.000	90.000	179.722	10572.997	30.232	0.000	38.765	-0.000	30.232	0.000	0.000	43.445	38.510	102.480	MWD+IFR1+MS
12100.000	90.000	179.722	10572.997	30.585	0.000	38.917	-0.000	30.585	0.000	0.000	43.460	38.653	102.887	MWD+IFR1+MS
12200.000	90.000	179.722	10572.997	30.955	0.000	39.084	-0.000	30.955	0.000	0.000	43.478	38.810	103.352	MWD+IFR1+MS
12300.000	90.000	179.722	10572.997	31.339	0.000	39.265	-0.000	31.339	0.000	0.000	43.497	38.980	103.885	MWD+IFR1+MS

12400.000	90.000	179.722	10572.997	31.739	0.000	39.459	-0.000	31.739	0.000	0.000	43.518	39.161	104.495	MWD+IFR1+MS
12500.000	90.000	179.722	10572.997	32.152	0.000	39.668	-0.000	32.152	0.000	0.000	43.542	39.355	105.196	MWD+IFR1+MS
12600.000	90.000	179.722	10572.997	32.580	0.000	39.890	-0.000	32.580	0.000	0.000	43.569	39.561	106.004	MWD+IFR1+MS
12700.000	90.000	179.722	10572.997	33.020	0.000	40.126	-0.000	33.020	0.000	0.000	43.599	39.777	106.937	MWD+IFR1+MS
12800.000	90.000	179.722	10572.997	33.473	0.000	40.375	-0.000	33.473	0.000	0.000	43.633	40.002	108.022	MWD+IFR1+MS
12900.000	90.000	179.722	10572.997	33.938	0.000	40.636	-0.000	33.938	0.000	0.000	43.671	40.237	109.287	MWD+IFR1+MS
13000.000	90.000	179.722	10572.997	34.415	0.000	40.911	-0.000	34.415	0.000	0.000	43.716	40.479	110.772	MWD+IFR1+MS
13100.000	90.000	179.722	10572.997	34.903	0.000	41.197	-0.000	34.903	0.000	0.000	43.767	40.726	112.521	MWD+IFR1+MS
13200.000	90.000	179.722	10572.997	35.401	0.000	41.496	-0.000	35.401	0.000	0.000	43.828	40.978	114.590	MWD+IFR1+MS
13300.000	90.000	179.722	10572.997	35.910	0.000	41.807	-0.000	35.910	0.000	0.000	43.900	41.231	117.037	MWD+IFR1+MS
13400.000	90.000	179.722	10572.997	36.429	0.000	42.129	-0.000	36.429	0.000	0.000	43.986	41.481	119.925	MWD+IFR1+MS
13500.000	90.000	179.722	10572.997	36.957	0.000	42.463	-0.000	36.957	0.000	0.000	44.090	41.726	123.299	MWD+IFR1+MS
13600.000	90.000	179.722	10572.997	37.494	0.000	42.808	-0.000	37.494	0.000	0.000	44.217	41.959	127.167	MWD+IFR1+MS
13700.000	90.000	179.722	10572.997	38.039	0.000	43.163	-0.000	38.039	0.000	0.000	44.371	42.177	131.466	MWD+IFR1+MS
13800.000	90.000	179.722	10572.997	38.593	0.000	43.529	-0.000	38.593	0.000	0.000	44.557	42.374	-43.954	MWD+IFR1+MS
13900.000	90.000	179.722	10572.997	39.155	0.000	43.906	-0.000	39.155	0.000	0.000	44.776	42.548	-39.319	MWD+IFR1+MS
14000.000	90.000	179.722	10572.997	39.724	0.000	44.292	-0.000	39.724	0.000	0.000	45.031	42.698	-34.867	MWD+IFR1+MS
14100.000	90.000	179.722	10572.997	40.300	0.000	44.689	-0.000	40.300	0.000	0.000	45.317	42.826	-30.787	MWD+IFR1+MS
14200.000	90.000	179.722	10572.997	40.884	0.000	45.094	-0.000	40.884	0.000	0.000	45.634	42.935	-27.180	MWD+IFR1+MS
14300.000	90.000	179.722	10572.997	41.474	0.000	45.510	-0.000	41.474	0.000	0.000	45.976	43.027	-24.066	MWD+IFR1+MS
14400.000	90.000	179.722	10572.997	42.070	0.000	45.934	-0.000	42.070	0.000	0.000	46.341	43.106	-21.413	MWD+IFR1+MS
14500.000	90.000	179.722	10572.997	42.673	0.000	46.366	-0.000	42.673	0.000	0.000	46.726	43.176	-19.163	MWD+IFR1+MS
14600.000	90.000	179.722	10572.997	43.281	0.000	46.808	-0.000	43.281	0.000	0.000	47.127	43.237	-17.256	MWD+IFR1+MS
14700.000	90.000	179.722	10572.997	43.895	0.000	47.257	-0.000	43.895	0.000	0.000	47.543	43.292	-15.633	MWD+IFR1+MS
14800.000	90.000	179.722	10572.997	44.515	0.000	47.715	-0.000	44.515	0.000	0.000	47.972	43.343	-14.245	MWD+IFR1+MS
14900.000	90.000	179.722	10572.997	45.139	0.000	48.180	-0.000	45.139	0.000	0.000	48.414	43.390	-13.051	MWD+IFR1+MS
15000.000	90.000	179.722	10572.997	45.769	0.000	48.654	-0.000	45.769	0.000	0.000	48.866	43.434	-12.016	MWD+IFR1+MS
15100.000	90.000	179.722	10572.997	46.403	0.000	49.134	-0.000	46.403	0.000	0.000	49.329	43.477	-11.114	MWD+IFR1+MS
15200.000	90.000	179.722	10572.997	47.042	0.000	49.622	-0.000	47.042	0.000	0.000	49.801	43.517	-10.323	MWD+IFR1+MS
15300.000	90.000	179.722	10572.997	47.685	0.000	50.116	-0.000	47.685	0.000	0.000	50.282	43.556	-9.624	MWD+IFR1+MS
15400.000	90.000	179.722	10572.997	48.332	0.000	50.617	-0.000	48.332	0.000	0.000	50.771	43.594	-9.004	MWD+IFR1+MS
15500.000	90.000	179.722	10572.997	48.983	0.000	51.125	-0.000	48.983	0.000	0.000	51.268	43.631	-8.451	MWD+IFR1+MS
15600.000	90.000	179.722	10572.997	49.638	0.000	51.639	-0.000	49.638	0.000	0.000	51.773	43.667	-7.955	MWD+IFR1+MS

15700.000	90.000	179.722	10572.997	50.297	0.000	52.160	-0.000	50.297	0.000	0.000	52.285	43.704	-7.508	MWD+IFR1+MS
15800.000	90.000	179.722	10572.997	50.960	0.000	52.686	-0.000	50.960	0.000	0.000	52.803	43.739	-7.104	MWD+IFR1+MS
15900.000	90.000	179.722	10572.997	51.626	0.000	53.218	-0.000	51.626	0.000	0.000	53.329	43.775	-6.737	MWD+IFR1+MS
16000.000	90.000	179.722	10572.997	52.295	0.000	53.756	-0.000	52.295	0.000	0.000	53.860	43.811	-6.402	MWD+IFR1+MS
16100.000	90.000	179.722	10572.997	52.967	0.000	54.299	-0.000	52.967	0.000	0.000	54.397	43.846	-6.096	MWD+IFR1+MS
16200.000	90.000	179.722	10572.997	53.642	0.000	54.848	-0.000	53.642	0.000	0.000	54.941	43.882	-5.815	MWD+IFR1+MS
16300.000	90.000	179.722	10572.997	54.321	0.000	55.402	-0.000	54.321	0.000	0.000	55.489	43.918	-5.557	MWD+IFR1+MS
16400.000	90.000	179.722	10572.997	55.002	0.000	55.960	-0.000	55.002	0.000	0.000	56.044	43.954	-5.319	MWD+IFR1+MS
16500.000	90.000	179.722	10572.997	55.686	0.000	56.524	-0.000	55.686	0.000	0.000	56.603	43.990	-5.098	MWD+IFR1+MS
16600.000	90.000	179.722	10572.997	56.372	0.000	57.092	-0.000	56.372	0.000	0.000	57.167	44.026	-4.894	MWD+IFR1+MS
16700.000	90.000	179.722	10572.997	57.061	0.000	57.665	-0.000	57.061	0.000	0.000	57.737	44.063	-4.703	MWD+IFR1+MS
16800.000	90.000	179.722	10572.997	57.753	0.000	58.242	-0.000	57.753	0.000	0.000	58.311	44.100	-4.526	MWD+IFR1+MS
16900.000	90.000	179.722	10572.997	58.447	0.000	58.824	-0.000	58.447	0.000	0.000	58.889	44.137	-4.361	MWD+IFR1+MS
17000.000	90.000	179.722	10572.997	59.143	0.000	59.409	-0.000	59.143	0.000	0.000	59.472	44.174	-4.206	MWD+IFR1+MS
17100.000	90.000	179.722	10572.997	59.841	0.000	59.999	-0.000	59.841	0.000	0.000	60.059	44.212	-4.061	MWD+IFR1+MS
17200.000	90.000	179.722	10572.997	60.542	0.000	60.593	-0.000	60.542	0.000	0.000	60.650	44.250	-3.925	MWD+IFR1+MS
17300.000	90.000	179.722	10572.997	61.244	0.000	61.190	-0.000	61.244	0.000	0.000	61.245	44.289	-3.797	MWD+IFR1+MS
17400.000	90.000	179.722	10572.997	61.949	0.000	61.792	-0.000	61.949	0.000	0.000	61.844	44.328	-3.677	MWD+IFR1+MS
17500.000	90.000	179.722	10572.997	62.655	0.000	62.396	-0.000	62.655	0.000	0.000	62.447	44.368	-3.563	MWD+IFR1+MS
17600.000	90.000	179.722	10572.997	63.363	0.000	63.005	-0.000	63.363	0.000	0.000	63.054	44.407	-3.456	MWD+IFR1+MS
17700.000	90.000	179.722	10572.997	64.073	0.000	63.616	-0.000	64.073	0.000	0.000	63.663	44.448	-3.355	MWD+IFR1+MS
17800.000	90.000	179.722	10572.997	64.785	0.000	64.231	-0.000	64.785	0.000	0.000	64.277	44.488	-3.259	MWD+IFR1+MS
17900.000	90.000	179.722	10572.997	65.498	0.000	64.850	-0.000	65.498	0.000	0.000	64.893	44.530	-3.168	MWD+IFR1+MS
18000.000	90.000	179.722	10572.997	66.213	0.000	65.471	-0.000	66.213	0.000	0.000	65.513	44.571	-3.081	MWD+IFR1+MS
18100.000	90.000	179.722	10572.997	66.930	0.000	66.095	-0.000	66.930	0.000	0.000	66.136	44.613	-2.999	MWD+IFR1+MS
18200.000	90.000	179.722	10572.997	67.648	0.000	66.722	-0.000	67.648	0.000	0.000	66.762	44.656	-2.921	MWD+IFR1+MS
18300.000	90.000	179.722	10572.997	68.367	0.000	67.353	-0.000	68.367	0.000	0.000	67.391	44.699	-2.847	MWD+IFR1+MS
18400.000	90.000	179.722	10572.997	69.088	0.000	67.986	-0.000	69.088	0.000	0.000	68.022	44.742	-2.776	MWD+IFR1+MS
18500.000	90.000	179.722	10572.997	69.811	0.000	68.621	-0.000	69.811	0.000	0.000	68.657	44.786	-2.709	MWD+IFR1+MS
18600.000	90.000	179.722	10572.997	70.534	0.000	69.259	-0.000	70.534	0.000	0.000	69.294	44.830	-2.644	MWD+IFR1+MS
18700.000	90.000	179.722	10572.997	71.259	0.000	69.900	-0.000	71.259	0.000	0.000	69.933	44.875	-2.582	MWD+IFR1+MS
18800.000	90.000	179.722	10572.997	71.986	0.000	70.544	-0.000	71.986	0.000	0.000	70.576	44.920	-2.524	MWD+IFR1+MS
18900.000	90.000	179.722	10572.997	72.713	0.000	71.189	-0.000	72.713	0.000	0.000	71.220	44.966	-2.467	MWD+IFR1+MS

19000.000	90.000	179.722	10572.997	73.442	0.000	71.837	-0.000	73.442	0.000	0.000	71.868	45.012	-2.413	MWD+IFR1+MS
19100.000	90.000	179.722	10572.997	74.172	0.000	72.488	-0.000	74.172	0.000	0.000	72.517	45.058	-2.361	MWD+IFR1+MS
19200.000	90.000	179.722	10572.997	74.902	0.000	73.140	-0.000	74.902	0.000	0.000	73.169	45.105	-2.312	MWD+IFR1+MS
19300.000	90.000	179.722	10572.997	75.634	0.000	73.795	-0.000	75.634	0.000	0.000	73.823	45.153	-2.264	MWD+IFR1+MS
19400.000	90.000	179.722	10572.997	76.367	0.000	74.452	-0.000	76.367	0.000	0.000	74.479	45.201	-2.218	MWD+IFR1+MS
19500.000	90.000	179.722	10572.997	77.101	0.000	75.111	-0.000	77.101	0.000	0.000	75.137	45.250	-2.174	MWD+IFR1+MS
19600.000	90.000	179.722	10572.997	77.836	0.000	75.772	-0.000	77.836	0.000	0.000	75.797	45.299	-2.132	MWD+IFR1+MS
19700.000	90.000	179.722	10572.997	78.572	0.000	76.435	-0.000	78.572	0.000	0.000	76.459	45.348	-2.091	MWD+IFR1+MS
19800.000	90.000	179.722	10572.997	79.309	0.000	77.099	-0.000	79.309	0.000	0.000	77.124	45.398	-2.052	MWD+IFR1+MS
19900.000	90.000	179.722	10572.997	80.047	0.000	77.766	-0.000	80.047	0.000	0.000	77.790	45.448	-2.014	MWD+IFR1+MS
20000.000	90.000	179.722	10572.997	80.786	0.000	78.434	-0.000	80.786	0.000	0.000	78.457	45.499	-1.978	MWD+IFR1+MS
20100.000	90.000	179.722	10572.997	81.525	0.000	79.105	-0.000	81.525	0.000	0.000	79.127	45.550	-1.942	MWD+IFR1+MS
20200.000	90.000	179.722	10572.997	82.266	0.000	79.777	-0.000	82.266	0.000	0.000	79.798	45.602	-1.908	MWD+IFR1+MS
20300.000	90.000	179.722	10572.997	83.007	0.000	80.450	-0.000	83.007	0.000	0.000	80.471	45.654	-1.876	MWD+IFR1+MS
20400.000	90.000	179.722	10572.997	83.749	0.000	81.125	-0.000	83.749	0.000	0.000	81.146	45.707	-1.844	MWD+IFR1+MS
20500.000	90.000	179.722	10572.997	84.492	0.000	81.802	-0.000	84.492	0.000	0.000	81.822	45.760	-1.813	MWD+IFR1+MS
20600.000	90.000	179.722	10572.997	85.236	0.000	82.481	-0.000	85.236	0.000	0.000	82.500	45.814	-1.784	MWD+IFR1+MS
20700.000	90.000	179.722	10572.997	85.980	0.000	83.160	-0.000	85.980	0.000	0.000	83.180	45.868	-1.755	MWD+IFR1+MS
20800.000	90.000	179.722	10572.997	86.725	0.000	83.842	-0.000	86.725	0.000	0.000	83.861	45.923	-1.728	MWD+IFR1+MS
20900.000	90.000	179.722	10572.997	87.470	0.000	84.525	-0.000	87.470	0.000	0.000	84.543	45.978	-1.701	MWD+IFR1+MS
21000.000	90.000	179.722	10572.997	88.217	0.000	85.209	-0.000	88.217	0.000	0.000	85.227	46.033	-1.675	MWD+IFR1+MS
21100.000	90.000	179.722	10572.997	88.964	0.000	85.894	-0.000	88.964	0.000	0.000	85.912	46.089	-1.650	MWD+IFR1+MS
21200.000	90.000	179.722	10572.997	89.712	0.000	86.581	-0.000	89.712	0.000	0.000	86.598	46.146	-1.625	MWD+IFR1+MS
21300.000	90.000	179.722	10572.997	90.460	0.000	87.269	-0.000	90.460	0.000	0.000	87.286	46.203	-1.602	MWD+IFR1+MS
21400.000	90.000	179.722	10572.997	91.209	0.000	87.959	-0.000	91.209	0.000	0.000	87.975	46.260	-1.579	MWD+IFR1+MS
21500.000	90.000	179.722	10572.997	91.958	0.000	88.650	-0.000	91.958	0.000	0.000	88.666	46.318	-1.556	MWD+IFR1+MS
21600.000	90.000	179.722	10572.997	92.708	0.000	89.342	-0.000	92.708	0.000	0.000	89.357	46.376	-1.535	MWD+IFR1+MS
21700.000	90.000	179.722	10572.997	93.459	0.000	90.035	-0.000	93.459	0.000	0.000	90.050	46.435	-1.514	MWD+IFR1+MS
21800.000	90.000	179.722	10572.997	94.210	0.000	90.729	-0.000	94.210	0.000	0.000	90.744	46.494	-1.493	MWD+IFR1+MS
21900.000	90.000	179.722	10572.997	94.962	0.000	91.425	-0.000	94.962	0.000	0.000	91.439	46.554	-1.473	MWD+IFR1+MS
22000.000	90.000	179.722	10572.997	95.714	0.000	92.121	-0.000	95.714	0.000	0.000	92.136	46.614	-1.454	MWD+IFR1+MS
22100.000	90.000	179.722	10572.997	96.467	0.000	92.819	-0.000	96.467	0.000	0.000	92.833	46.675	-1.435	MWD+IFR1+MS
22200.000	90.000	179.722	10572.997	97.221	0.000	93.517	-0.000	97.221	0.000	0.000	93.531	46.736	-1.417	MWD+IFR1+MS

22300.000	90.000	179.722	10572.997	97.974	0.000	94.217	-0.000	97.974	0.000	0.000	94.231	46.797	-1.399	MWD+IFR1+MS
22400.000	90.000	179.722	10572.997	98.729	0.000	94.918	-0.000	98.729	0.000	0.000	94.931	46.859	-1.382	MWD+IFR1+MS
22500.000	90.000	179.722	10572.997	99.483	0.000	95.620	-0.000	99.483	0.000	0.000	95.633	46.921	-1.365	MWD+IFR1+MS
22600.000	90.000	179.722	10572.997	100.239	0.000	96.322	-0.000	100.239	0.000	0.000	96.335	46.984	-1.349	MWD+IFR1+MS
22700.000	90.000	179.722	10572.997	100.994	0.000	97.026	-0.000	100.994	0.000	0.000	97.039	47.047	-1.333	MWD+IFR1+MS
22800.000	90.000	179.722	10572.997	101.750	0.000	97.731	-0.000	101.750	0.000	0.000	97.743	47.111	-1.317	MWD+IFR1+MS
22900.000	90.000	179.722	10572.997	102.507	0.000	98.436	-0.000	102.507	0.000	0.000	98.448	47.175	-1.302	MWD+IFR1+MS
23000.000	90.000	179.722	10572.997	103.264	0.000	99.143	-0.000	103.264	0.000	0.000	99.155	47.240	-1.287	MWD+IFR1+MS
23100.000	90.000	179.722	10572.997	104.021	0.000	99.850	-0.000	104.021	0.000	0.000	99.862	47.305	-1.273	MWD+IFR1+MS
23200.000	90.000	179.722	10572.997	104.779	0.000	100.558	-0.000	104.779	0.000	0.000	100.570	47.370	-1.259	MWD+IFR1+MS
23300.000	90.000	179.722	10572.997	105.537	0.000	101.267	-0.000	105.537	0.000	0.000	101.278	47.436	-1.245	MWD+IFR1+MS
23400.000	90.000	179.722	10572.997	106.296	0.000	101.977	-0.000	106.296	0.000	0.000	101.988	47.502	-1.232	MWD+IFR1+MS
23500.000	90.000	179.722	10572.997	107.055	0.000	102.687	-0.000	107.055	0.000	0.000	102.698	47.569	-1.219	MWD+IFR1+MS
23600.000	90.000	179.722	10572.997	107.814	0.000	103.399	-0.000	107.814	0.000	0.000	103.410	47.636	-1.206	MWD+IFR1+MS
23700.000	90.000	179.722	10572.997	108.574	0.000	104.111	-0.000	108.574	0.000	0.000	104.121	47.704	-1.193	MWD+IFR1+MS
23800.000	90.000	179.722	10572.997	109.334	0.000	104.824	-0.000	109.334	0.000	0.000	104.834	47.772	-1.181	MWD+IFR1+MS
23900.000	90.000	179.722	10572.997	110.094	0.000	105.538	-0.000	110.094	0.000	0.000	105.548	47.840	-1.169	MWD+IFR1+MS
24000.000	90.000	179.722	10572.997	110.855	0.000	106.252	-0.000	110.855	0.000	0.000	106.262	47.909	-1.158	MWD+IFR1+MS
24100.000	90.000	179.722	10572.997	111.616	0.000	106.967	-0.000	111.616	0.000	0.000	106.977	47.978	-1.146	MWD+IFR1+MS
24200.000	90.000	179.722	10572.997	112.377	0.000	107.683	-0.000	112.377	0.000	0.000	107.692	48.048	-1.135	MWD+IFR1+MS
24300.000	90.000	179.722	10572.997	113.139	0.000	108.399	-0.000	113.139	0.000	0.000	108.409	48.118	-1.124	MWD+IFR1+MS
24400.000	90.000	179.722	10572.997	113.901	0.000	109.116	-0.000	113.901	0.000	0.000	109.126	48.189	-1.114	MWD+IFR1+MS
24500.000	90.000	179.722	10572.997	114.664	0.000	109.834	-0.000	114.664	0.000	0.000	109.843	48.259	-1.103	MWD+IFR1+MS
24600.000	90.000	179.722	10572.997	115.426	0.000	110.552	-0.000	115.426	0.000	0.000	110.561	48.331	-1.093	MWD+IFR1+MS
24700.000	90.000	179.722	10572.997	116.189	0.000	111.271	-0.000	116.189	0.000	0.000	111.280	48.403	-1.083	MWD+IFR1+MS
24800.000	90.000	179.722	10572.997	116.952	0.000	111.991	-0.000	116.952	0.000	0.000	112.000	48.475	-1.073	MWD+IFR1+MS
24900.000	90.000	179.722	10572.997	117.716	0.000	112.711	-0.000	117.716	0.000	0.000	112.720	48.547	-1.064	MWD+IFR1+MS
25000.000	90.000	179.722	10572.997	118.480	0.000	113.432	-0.000	118.480	0.000	0.000	113.441	48.620	-1.055	MWD+IFR1+MS
25100.000	90.000	179.722	10572.997	119.244	0.000	114.154	-0.000	119.244	0.000	0.000	114.162	48.694	-1.045	MWD+IFR1+MS
25200.000	90.000	179.722	10572.997	120.008	0.000	114.875	-0.000	120.008	0.000	0.000	114.884	48.767	-1.036	MWD+IFR1+MS
25300.000	90.000	179.722	10572.997	120.772	0.000	115.598	-0.000	120.772	0.000	0.000	115.606	48.842	-1.028	MWD+IFR1+MS
25400.000	90.000	179.722	10572.997	121.537	0.000	116.321	-0.000	121.537	0.000	0.000	116.329	48.916	-1.019	MWD+IFR1+MS
25500.000	90.000	179.722	10572.997	122.302	0.000	117.045	-0.000	122.302	0.000	0.000	117.053	48.991	-1.011	MWD+IFR1+MS

25600.000	90.000	179.722	10572.997	123.068	0.000	117.769	-0.000	123.068	0.000	0.000	117.777	49.067	-1.002	MWD+IFR1+MS
25700.000	90.000	179.722	10572.997	123.833	0.000	118.494	-0.000	123.833	0.000	0.000	118.501	49.142	-0.994	MWD+IFR1+MS
25800.000	90.000	179.722	10572.997	124.599	0.000	119.219	-0.000	124.599	0.000	0.000	119.226	49.218	-0.986	MWD+IFR1+MS
25888.100	90.000	179.722	10572.997	125.274	0.000	119.858	-0.000	125.274	0.000	0.000	119.865	49.286	-0.979	MWD+IFR1+MS

Plan Targets

Poker Lake Unit 19 DTD South 309H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 17	10796.75	440320.30	628054.40	7361.00	RECTANGLE
SHL 24	3623.79	439290.22	628055.34	0.00	RECTANGLE
LTP 17	25789.44	424883.30	628129.20	7361.00	RECTANGLE
BHL 17	25889.47	424783.30	628129.50	7361.00	RECTANGLE

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

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

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

Background

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

Supporting Documentation

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



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

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

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API STANDARD 53

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

Component to be Pressure Tested	Pressure Test—Low Pressure ^{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 ^a	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 ^a	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes ^a	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

^a Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

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

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

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

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

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

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

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

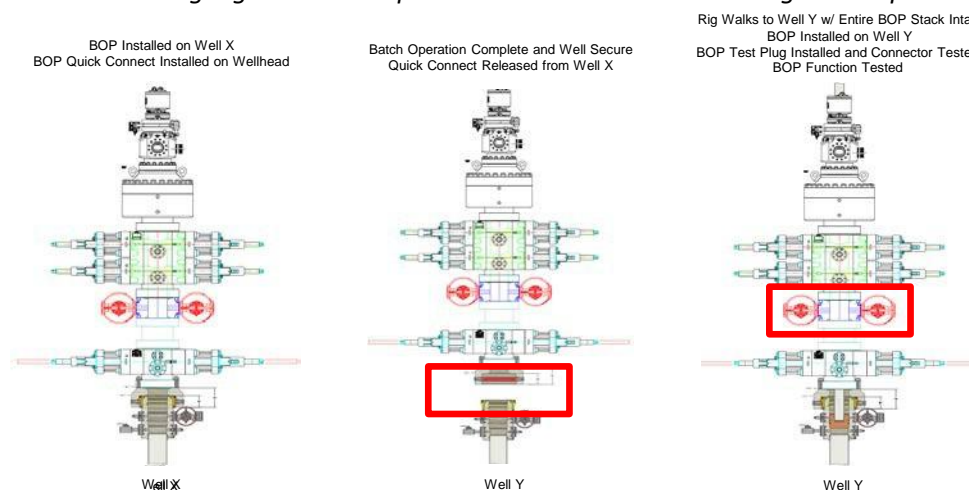
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

Procedures

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

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

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



Summary

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

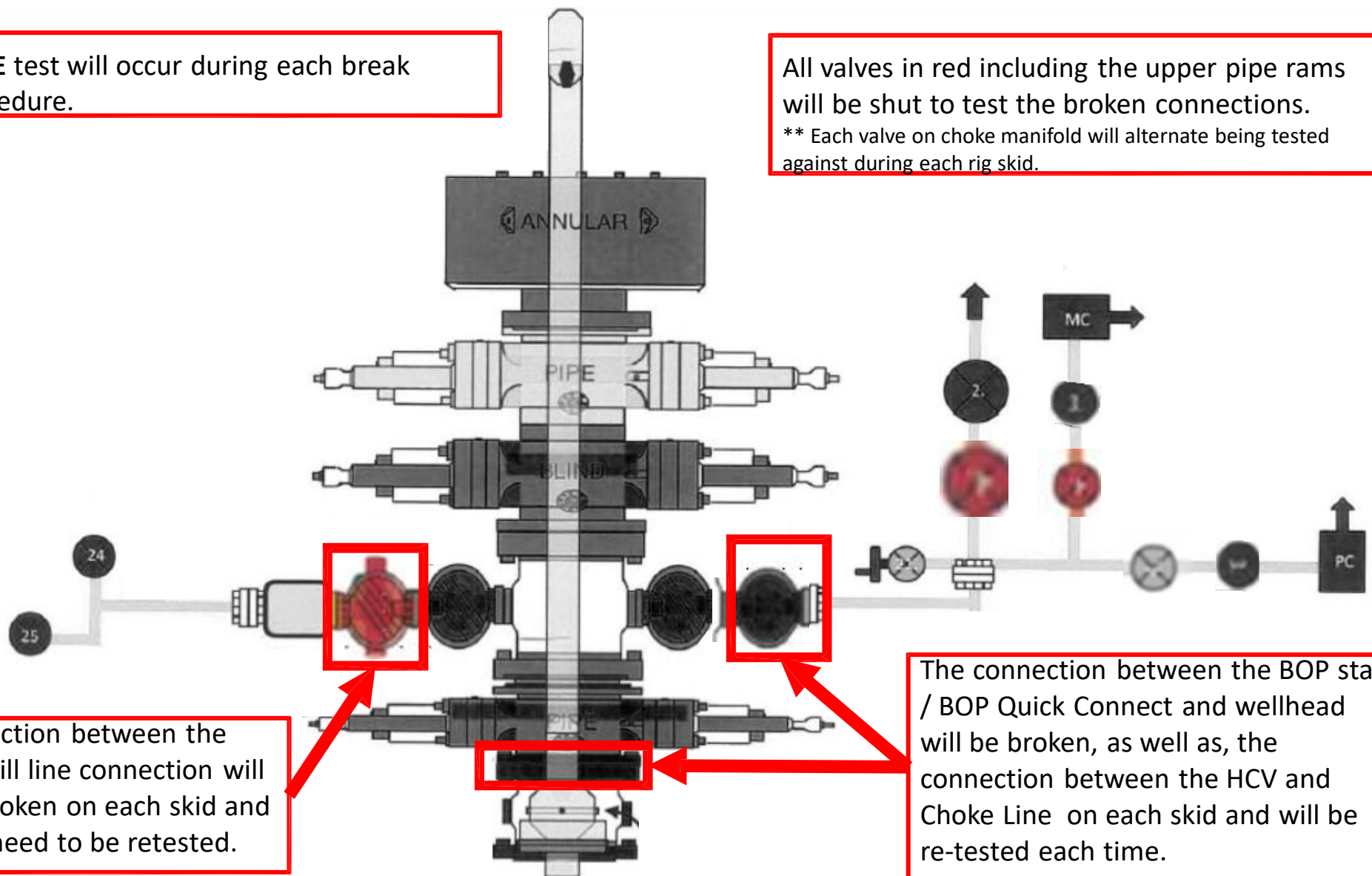
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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

1. After a full BOP test is conducted on the first well on the pad.
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4. Full BOP test will be required prior to drilling the production hole.

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

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



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

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

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.
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CONDITIONS

Action 331161

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 331161
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	4/24/2024