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

Sundry Print Report

08/02/2024

Well Name: POKER LAKE UNIT 20 DTD

Well Location: T24S / R30E / SEC 20 / NWNE / 32.207597 / -103.901489

County or Parish/State: EDDY / NM

Well Number: 322H

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM02860

Unit or CA Name: POKER LAKE UNIT

Unit or CA Number: NMNM71016X

US Well Number:

Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2781343

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/24/2024

Time Sundry Submitted: 03:04

Date proposed operation will begin: 07/01/2024

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, casing sizes, cement, proposed total depth. FROM: TO: SHL: 1027’ FNL & 230' FWL of Section 20-T24S-R30E 877' FNL & 2042' FEL of Section 20-T24S-R30E FTP: 330' FSL & 2530' FWL of Section 17-T24S-R30E 100' FNL & 2092' FEL of Section 20-T24S-R30E LTP: 330' FNL & 2530' FWL of Section 32-T23S-R30E 2334' FNL & 2094' FEL of Section 5-T25S-R30E BHL: 200' FNL & 2530' FWL of Section 32-T23S-R30E 2434' FNL & 2094' FEL of Section 5-T25S-R30E Proposed total depth will change from 32194’ MD; 10949’ TVD (Wolfcamp) to 29547’ MD; TVD 11700’ (Wolfcamp). See attached Drilling Plan for updated cement and casing program. Attachments: C-102, Drilling Plan, Directional Drilling Plan, MBS, BOP Variance, Well Control Plan

NOI Attachments

Procedure Description

PLU_20_DTD_322H_BLM_APD_Change_Sundry_attachments_20240324150431.pdf

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Conditions of Approval

Additional

Sec_20_24S_30E_NMP_Sundry_2781343_Poker_Lake_Unit_20_DTD_322H_COAs_20240404143349.pdf

Operator

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

Operator Electronic Signature: RICHARD REDUS

Signed on: MAR 24, 2024 03:04 PM

Name: XTO PERMIAN OPERATING LLC

Title: Permitting Manager

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING **State:** TX

Phone: (720) 539-1673

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

Field

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 08/01/2024

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.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool or Exploratory Area

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE 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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Additional Remarks

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

Location of Well

0. SHL: NWNE / 1027 FNL / 2041 FEL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.207597 / LONG: -103.901489 (TVD: 0 feet, MD: 0 feet)

PPP: SESW / 330 FSL / 2530 FWL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22539 / LONG: -103.90402 (TVD: 10949 feet, MD: 16700 feet)

PPP: SESW / 330 FSL / 2530 FWL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.21068 / LONG: -103.90403 (TVD: 10949 feet, MD: 11400 feet)

PPP: SESW / 330 FSL / 2530 FWL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.24013 / LONG: -103.90402 (TVD: 10949 feet, MD: 22000 feet)

BHL: NENW / 200 FNL / 2530 FWL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268036 / LONG: -103.904025 (TVD: 10949 feet, MD: 32194 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	Poker Lake Unit 20 322H
LOCATION:	Sec 20-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2781343** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No	○ Yes		
Potash / WIPP	○ None	○ Secretary	○ R-111-P	☐ WIPP
Cave / Karst	○ Low	○ Medium	○ High	○ Critical
Wellhead	○ Conventional	○ Multibowl	○ Both	○ Diverter
Cementing	☐ Primary Squeeze	☑ Cont. Squeeze	☐ EchoMeter	☐ DV Tool
Special Req	☑ Break Testing	☐ Water Disposal	☐ COM	☑ Unit
Variance	☑ Flex Hose	☐ Casing Clearance	☐ Pilot Hole	☐ Capitan Reef
Variance	☐ Four-String	☑ Offline Cementing	☐ Fluid-Filled	☐ Open Annulus
☐ **Batch APD / Sundry**				

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 700 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead

cement)

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

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

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

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

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

3. The minimum required fill of cement behind the **6** inch production casing is:

   - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance

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

Offline Cementing

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

GENERAL REQUIREMENTS

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

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

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

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

Lea County (API No. / US Well No. contains 30-025-#####)
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240; (575) 689-5981

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

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. **Wait on cement (WOC) for Potash Areas:** After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity 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] APD ID Number	[2] Pool Code	[3] Pool Name
10400089209	98220	Purple Sage; Wolfcamp (Gas)

[4] Property Code	[5] Property Name	[6] Well Number
	POKER LAKE UNIT 20 DTD	322H

[7] OGRID No.	[8] Operator Name	[9] Elevation
373075	XTO PERMIAN OPERATING, LLC	3,264'

[10] Surface Location

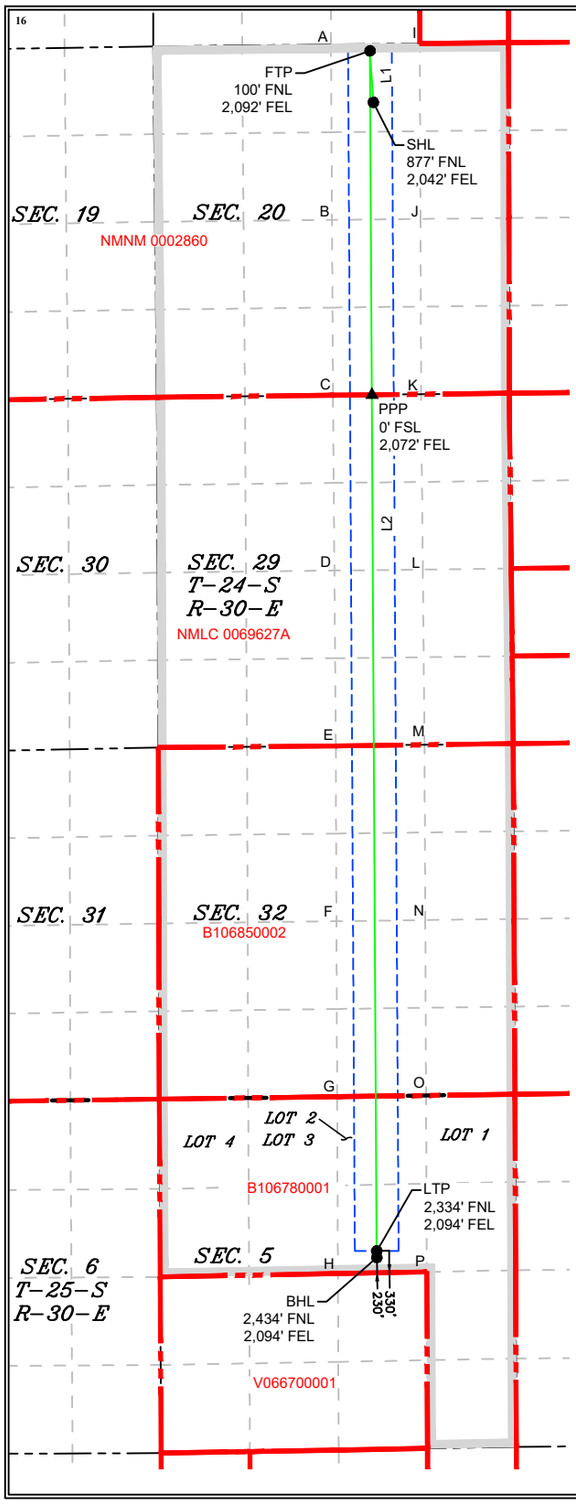
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	20	24S	30E		877	NORTH	2,042	EAST	EDDY

[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
G	5	25S	30E		2,434	NORTH	2,094	EAST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
2,321.00			

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



LEGEND

- SECTION LINE
- PROPOSED WELL BORE
- NEW MEXICO MINERAL LEASE
- 330' BUFFER
- ALLOCATION AREA

LOT ACREAGE TABLE

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

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	356°14'20"	778.01'
L2	179°40'34"	18,197.90'

COORDINATE TABLE

	SHL (NAD 83 NME)	SHL (NAD 27 NME)
Y =	439,676.1 N	439,616.8 N
X =	674,900.6 E	633,716.9 E
LAT. =	32.208009 °N	32.207885 °N
LONG. =	103.901492 °W	103.901005 °W

	FTP (NAD 83 NME)	FTP (NAD 27 NME)
Y =	440,452.4 N	440,393.1 N
X =	674,849.6 E	633,665.9 E
LAT. =	32.210144 °N	32.210019 °N
LONG. =	103.901647 °W	103.901159 °W

	PPP (NAD 83 NME)	PPP (NAD 27 NME)
Y =	435,264.4 N	435,205.2 N
X =	674,878.9 E	633,695.0 E
LAT. =	32.195882 °N	32.195758 °N
LONG. =	103.901619 °W	103.901133 °W

	LTP (NAD 83 NME)	LTP (NAD 27 NME)
Y =	422,354.8 N	422,296.0 N
X =	674,951.9 E	633,767.6 E
LAT. =	32.160395 °N	32.160270 °N
LONG. =	103.901551 °W	103.901066 °W

	BHL (NAD 83 NME)	BHL (NAD 27 NME)
Y =	422,254.8 N	422,196.0 N
X =	674,952.4 E	633,768.2 E
LAT. =	32.160120 °N	32.159995 °N
LONG. =	103.901551 °W	103.901065 °W

CORNER COORDINATES (NAD 83 NME)

A - Y =	440,546.3 N	A - X =	674,262.0 E
B - Y =	437,901.7 N	B - X =	674,277.4 E
C - Y =	435,257.7 N	C - X =	674,292.8 E
D - Y =	432,613.8 N	D - X =	674,254.9 E
E - Y =	429,970.0 N	E - X =	674,334.4 E
F - Y =	427,326.7 N	F - X =	674,344.5 E
G - Y =	424,680.6 N	G - X =	674,354.7 E
H - Y =	422,013.8 N	H - X =	674,366.7 E
I - Y =	440,560.2 N	I - X =	675,601.6 E
J - Y =	437,916.2 N	J - X =	675,611.7 E
K - Y =	435,272.8 N	K - X =	675,621.8 E
L - Y =	432,629.6 N	L - X =	675,647.0 E
M - Y =	429,987.0 N	M - X =	675,672.5 E
N - Y =	427,344.2 N	N - X =	675,684.2 E
O - Y =	424,698.7 N	O - X =	675,695.7 E
P - Y =	422,038.9 N	P - X =	675,706.9 E

CORNER COORDINATES (NAD 27 NME)

A - Y =	440,487.1 N	A - X =	633,078.3 E
B - Y =	437,842.5 N	B - X =	633,093.6 E
C - Y =	435,198.6 N	C - X =	633,108.9 E
D - Y =	432,554.7 N	D - X =	633,129.7 E
E - Y =	429,911.0 N	E - X =	633,150.4 E
F - Y =	427,267.8 N	F - X =	633,160.4 E
G - Y =	424,621.7 N	G - X =	633,170.5 E
H - Y =	421,954.9 N	H - X =	633,182.4 E
I - Y =	440,500.9 N	I - X =	634,417.9 E
J - Y =	437,857.0 N	J - X =	634,427.9 E
K - Y =	435,213.7 N	K - X =	634,437.9 E
L - Y =	432,570.5 N	L - X =	634,463.1 E
M - Y =	429,928.0 N	M - X =	634,488.4 E
N - Y =	427,285.3 N	N - X =	634,500.0 E
O - Y =	424,639.8 N	O - X =	634,511.5 E
P - Y =	421,980.1 N	P - X =	634,522.6 E

[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.

Richard L Redus 3/24/2024
Signature Date

Richard L Redus
Printed Name

richard.l.redus@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.

3/15/2024
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

RP/DB 618.013003.06-50

D:\618.013 XTO Energy - NM\003 Poker Lake Unit\06 - PLU 20 DTD - EDDY\Wells\-50 - 322H\DWG\SOUTH 322H C-102.dwg

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

XTO Energy Inc.
PLU 20 Dog Town Draw 322H
Projected TD: 29546.59' MD / 11700' TVD
SHL: 877' FNL & 2042' FEL , Section 20, T24S, R30E
BHL: 2434' FNL & 2094' FEL , Section 5, T25S, R30E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	873'	Water
Top of Salt	1276'	Water
Base of Salt	3469'	Water
Delaware	3663'	Water
Brushy Canyon	6161'	Water/Oil/Gas
Bone Spring	7457'	Water
1st Bone Spring	8443'	Water/Oil/Gas
2nd Bone Spring	9261'	Water/Oil/Gas
3rd Bone Spring	10355'	Water/Oil/Gas
Wolfcamp	10746'	Water/Oil/Gas
Wolfcamp X	10767'	Water/Oil/Gas
Wolfcamp Y	10845'	Water/Oil/Gas
Wolfcamp A	10887'	Water/Oil/Gas
Wolfcamp B	11221'	Water/Oil/Gas
Wolfcamp D	11670'	Water/Oil/Gas
Target/Land Curve	11700'	Water/Oil/Gas

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 973' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 9.625 inch casing at 10840.4' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 29546.59 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10540.4 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 973'	13.375	54.5	J-55	BTC	New	1.06	2.66	17.14
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.50	2.31	2.92
12.25	4000' – 10840.4'	9.625	40	HC L-80	BTC	New	1.09	1.61	3.35
8.5	0' – 10740.4'	6	26	P-110	Semi-Premium	New	1.17	1.88	1.55
8.5	10740.4' - 29546.59'	6	26	P-110	Semi-Premium	New	1.17	1.73	1.77

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing per this Sundry
· XTO requests to not utilize centralizers in the curve and lateral
· 9.625 Collapse analyzed using 50% evacuation based on regional experience.
· 6 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

· Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
. XTO requests the option to use 5.5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

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

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

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

4. Cement Program

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 973'

Lead: 500 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 10840.4'
1st Stage
Optional Lead: 1040 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 1350 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC: Brushy Canyon @ 6161
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: 2170 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: 0
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6161') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

Production Casing: 6, 26 New Semi-Premium, P-110 casing to be set at +/- 29546.59'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 10540.4 feet
Tail: 3150 sxs VersaCem (mixed at 14.8 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 11040.4 feet
Compressives: 12-hr = 800 psi 24 hr = 1500 psi

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 10M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 5274 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 nippling up on the 13.375, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nippling up on the 9.625, the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each week.

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

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

hole on each of the wells.

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 973'	17.5	FW/Native	8.4-8.9	35-40	NC
973' - 10840.4'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10840.4' - 29546.59'	8.5	OBM	12.9-13.4	50-60	NC - 20

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

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

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 180 to 200 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 7848 psi.

10. Anticipated Starting Date and Duration of Operations

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

Well Plan Report - Poker Lake Unit 20 DTD South 322H

Measured Depth:	29546.59 ft
TVD RKB:	11700.00 ft
Location	
Cartographic Reference System:	New Mexico East - NAD 27
Northing:	439616.80 ft
Easting:	633716.90 ft
RKB:	3296.00 ft
Ground Level:	3264.00 ft
North Reference:	Grid
Convergence Angle:	0.23 Deg

Plan Sections Poker Lake Unit 20 DTD South 322H

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00	
1527.76	8.56	356.24	1526.17	31.81	-2.09	2.00	0.00	2.00	
6328.84	8.56	356.24	6273.83	744.49	-48.91	0.00	0.00	0.00	
6756.60	0.00	0.00	6700.00	776.30	-51.00	-2.00	0.00	2.00	
11040.40	0.00	0.00	10983.80	776.30	-51.00	0.00	0.00	0.00	
12165.40	90.00	179.68	11700.00	60.11	-46.98	8.00	0.00	8.00	
29546.58	90.00	179.68	11700.00	-17320.80	50.71	0.00	0.00	0.00	LTP 17
29546.59	90.00	179.68	11700.00	-17320.80	50.71	0.00	0.00	0.00	LTP 17

Position Uncertainty Poker Lake Unit 20 DTD South 322H

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

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.347	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.373	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	2.406	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.442	0.000	0.000	3.267	2.417	128.190	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.334	0.000	3.138	0.000	2.484	0.000	0.000	3.642	2.775	128.423	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.502	0.000	2.530	0.000	0.000	4.014	3.133	128.602	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.058	0.000	3.865	0.000	2.579	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	2.632	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	356.241	1199.980	4.904	0.000	4.646	0.000	2.688	0.000	0.000	5.269	4.230	123.953	MWD+IFR1+MS
1300.000	4.000	356.241	1299.838	5.711	0.000	5.001	0.000	2.748	0.000	0.000	6.012	4.645	115.294	MWD+IFR1+MS
1400.000	6.000	356.241	1399.452	6.430	0.000	5.356	0.000	2.813	0.000	0.000	6.716	5.017	111.066	MWD+IFR1+MS
1500.000	8.000	356.241	1498.702	7.087	0.000	5.710	0.000	2.886	0.000	0.000	7.376	5.375	108.675	MWD+IFR1+MS
1527.761	8.555	356.241	1526.173	7.168	0.000	5.801	0.000	2.900	0.000	0.000	7.461	5.471	108.570	MWD+IFR1+MS
1600.000	8.555	356.241	1597.608	7.377	0.000	6.040	0.000	2.950	0.000	0.000	7.665	5.721	108.555	MWD+IFR1+MS
1700.000	8.555	356.241	1696.496	7.677	0.000	6.390	0.000	3.023	0.000	0.000	7.963	6.075	108.884	MWD+IFR1+MS
1800.000	8.555	356.241	1795.383	7.989	0.000	6.749	0.000	3.099	0.000	0.000	8.277	6.432	109.336	MWD+IFR1+MS
1900.000	8.555	356.241	1894.270	8.306	0.000	7.109	0.000	3.177	0.000	0.000	8.596	6.790	109.764	MWD+IFR1+MS
2000.000	8.555	356.241	1993.158	8.627	0.000	7.469	0.000	3.258	0.000	0.000	8.919	7.149	110.170	MWD+IFR1+MS
2100.000	8.555	356.241	2092.045	8.953	0.000	7.830	0.000	3.342	0.000	0.000	9.245	7.509	110.556	MWD+IFR1+MS
2200.000	8.555	356.241	2190.932	9.282	0.000	8.192	0.000	3.427	0.000	0.000	9.575	7.869	110.922	MWD+IFR1+MS
2300.000	8.555	356.241	2289.820	9.614	0.000	8.554	0.000	3.515	0.000	0.000	9.907	8.229	111.270	MWD+IFR1+MS
2400.000	8.555	356.241	2388.707	9.950	0.000	8.916	0.000	3.605	0.000	0.000	10.242	8.590	111.600	MWD+IFR1+MS
2500.000	8.555	356.241	2487.594	10.288	0.000	9.279	0.000	3.696	0.000	0.000	10.580	8.951	111.913	MWD+IFR1+MS
2600.000	8.555	356.241	2586.481	10.628	0.000	9.642	0.000	3.789	0.000	0.000	10.920	9.313	112.211	MWD+IFR1+MS
2700.000	8.555	356.241	2685.369	10.971	0.000	10.005	0.000	3.884	0.000	0.000	11.262	9.675	112.494	MWD+IFR1+MS
2800.000	8.555	356.241	2784.256	11.315	0.000	10.369	0.000	3.981	0.000	0.000	11.605	10.037	112.762	MWD+IFR1+MS
2900.000	8.555	356.241	2883.143	11.661	0.000	10.733	0.000	4.079	0.000	0.000	11.950	10.400	113.017	MWD+IFR1+MS

3000.000	8.555	356.241	2982.031	12.009	0.000	11.097	0.000	4.179	0.000	0.000	12.297	10.763	113.259	MWD+IFR1+MS
3100.000	8.555	356.241	3080.918	12.359	0.000	11.461	0.000	4.280	0.000	0.000	12.645	11.126	113.489	MWD+IFR1+MS
3200.000	8.555	356.241	3179.805	12.710	0.000	11.826	0.000	4.383	0.000	0.000	12.994	11.489	113.708	MWD+IFR1+MS
3300.000	8.555	356.241	3278.692	13.062	0.000	12.190	0.000	4.487	0.000	0.000	13.345	11.853	113.916	MWD+IFR1+MS
3400.000	8.555	356.241	3377.580	13.415	0.000	12.555	0.000	4.593	0.000	0.000	13.696	12.217	114.113	MWD+IFR1+MS
3500.000	8.555	356.241	3476.467	13.769	0.000	12.920	0.000	4.700	0.000	0.000	14.049	12.580	114.300	MWD+IFR1+MS
3600.000	8.555	356.241	3575.354	14.125	0.000	13.285	0.000	4.809	0.000	0.000	14.402	12.944	114.479	MWD+IFR1+MS
3700.000	8.555	356.241	3674.242	14.481	0.000	13.650	0.000	4.919	0.000	0.000	14.756	13.309	114.648	MWD+IFR1+MS
3800.000	8.555	356.241	3773.129	14.838	0.000	14.015	0.000	5.031	0.000	0.000	15.111	13.673	114.808	MWD+IFR1+MS
3900.000	8.555	356.241	3872.016	15.196	0.000	14.380	0.000	5.144	0.000	0.000	15.466	14.037	114.961	MWD+IFR1+MS
4000.000	8.555	356.241	3970.904	15.555	0.000	14.745	0.000	5.259	0.000	0.000	15.823	14.402	115.106	MWD+IFR1+MS
4100.000	8.555	356.241	4069.791	15.914	0.000	15.111	0.000	5.375	0.000	0.000	16.180	14.767	115.243	MWD+IFR1+MS
4200.000	8.555	356.241	4168.678	16.274	0.000	15.476	0.000	5.493	0.000	0.000	16.537	15.132	115.374	MWD+IFR1+MS
4300.000	8.555	356.241	4267.565	16.635	0.000	15.842	0.000	5.612	0.000	0.000	16.895	15.496	115.498	MWD+IFR1+MS
4400.000	8.555	356.241	4366.453	16.996	0.000	16.207	0.000	5.733	0.000	0.000	17.254	15.862	115.615	MWD+IFR1+MS
4500.000	8.555	356.241	4465.340	17.358	0.000	16.573	0.000	5.856	0.000	0.000	17.613	16.227	115.726	MWD+IFR1+MS
4600.000	8.555	356.241	4564.227	17.720	0.000	16.939	0.000	5.980	0.000	0.000	17.972	16.592	115.832	MWD+IFR1+MS
4700.000	8.555	356.241	4663.115	18.083	0.000	17.305	0.000	6.106	0.000	0.000	18.332	16.957	115.931	MWD+IFR1+MS
4800.000	8.555	356.241	4762.002	18.446	0.000	17.670	0.000	6.234	0.000	0.000	18.692	17.323	116.026	MWD+IFR1+MS
4900.000	8.555	356.241	4860.889	18.809	0.000	18.036	0.000	6.363	0.000	0.000	19.053	17.688	116.115	MWD+IFR1+MS
5000.000	8.555	356.241	4959.776	19.173	0.000	18.402	0.000	6.494	0.000	0.000	19.414	18.054	116.199	MWD+IFR1+MS
5100.000	8.555	356.241	5058.664	19.538	0.000	18.768	0.000	6.627	0.000	0.000	19.775	18.419	116.278	MWD+IFR1+MS
5200.000	8.555	356.241	5157.551	19.902	0.000	19.134	0.000	6.762	0.000	0.000	20.137	18.785	116.353	MWD+IFR1+MS
5300.000	8.555	356.241	5256.438	20.267	0.000	19.500	0.000	6.899	0.000	0.000	20.499	19.151	116.424	MWD+IFR1+MS
5400.000	8.555	356.241	5355.326	20.633	0.000	19.866	0.000	7.037	0.000	0.000	20.861	19.516	116.490	MWD+IFR1+MS
5500.000	8.555	356.241	5454.213	20.998	0.000	20.232	0.000	7.177	0.000	0.000	21.224	19.882	116.552	MWD+IFR1+MS
5600.000	8.555	356.241	5553.100	21.364	0.000	20.599	0.000	7.320	0.000	0.000	21.586	20.248	116.610	MWD+IFR1+MS
5700.000	8.555	356.241	5651.988	21.730	0.000	20.965	0.000	7.464	0.000	0.000	21.949	20.614	116.665	MWD+IFR1+MS
5800.000	8.555	356.241	5750.875	22.097	0.000	21.331	0.000	7.610	0.000	0.000	22.313	20.980	116.715	MWD+IFR1+MS
5900.000	8.555	356.241	5849.762	22.463	0.000	21.697	0.000	7.758	0.000	0.000	22.676	21.346	116.763	MWD+IFR1+MS
6000.000	8.555	356.241	5948.649	22.830	0.000	22.063	0.000	7.909	0.000	0.000	23.040	21.712	116.807	MWD+IFR1+MS
6100.000	8.555	356.241	6047.537	23.197	0.000	22.430	0.000	8.061	0.000	0.000	23.404	22.079	116.847	MWD+IFR1+MS
6200.000	8.555	356.241	6146.424	23.565	0.000	22.796	0.000	8.215	0.000	0.000	23.768	22.445	116.885	MWD+IFR1+MS

6300.000	8.555	356.241	6245.311	23.932	0.000	23.162	0.000	8.372	0.000	0.000	24.132	22.811	116.919	MWD+IFR1+MS
6328.836	8.555	356.241	6273.827	24.036	0.000	23.266	0.000	8.417	0.000	0.000	24.234	22.916	116.887	MWD+IFR1+MS
6400.000	7.132	356.241	6344.323	24.310	0.000	23.521	0.000	8.531	0.000	0.000	24.491	23.176	116.714	MWD+IFR1+MS
6500.000	5.132	356.241	6443.746	24.736	0.000	23.881	0.000	8.691	0.000	0.000	24.916	23.543	115.654	MWD+IFR1+MS
6600.000	3.132	356.241	6543.481	25.156	0.000	24.239	0.000	8.849	0.000	0.000	25.364	23.906	114.425	MWD+IFR1+MS
6700.000	1.132	356.241	6643.406	25.540	0.000	24.592	0.000	9.003	0.000	0.000	25.805	24.264	113.373	MWD+IFR1+MS
6756.597	0.000	0.000	6700.000	25.778	0.000	24.708	0.000	9.090	0.000	0.000	26.013	24.461	113.190	MWD+IFR1+MS
6800.000	0.000	0.000	6743.403	25.924	0.000	24.857	0.000	9.156	0.000	0.000	26.158	24.611	113.171	MWD+IFR1+MS
6900.000	0.000	0.000	6843.403	26.260	0.000	25.203	0.000	9.310	0.000	0.000	26.493	24.959	113.231	MWD+IFR1+MS
7000.000	0.000	0.000	6943.403	26.599	0.000	25.554	0.000	9.466	0.000	0.000	26.834	25.307	113.377	MWD+IFR1+MS
7100.000	0.000	0.000	7043.403	26.939	0.000	25.904	0.000	9.626	0.000	0.000	27.175	25.656	113.521	MWD+IFR1+MS
7200.000	0.000	0.000	7143.403	27.279	0.000	26.255	0.000	9.788	0.000	0.000	27.517	26.005	113.662	MWD+IFR1+MS
7300.000	0.000	0.000	7243.403	27.620	0.000	26.605	0.000	9.953	0.000	0.000	27.859	26.354	113.801	MWD+IFR1+MS
7400.000	0.000	0.000	7343.403	27.961	0.000	26.956	0.000	10.120	0.000	0.000	28.202	26.704	113.938	MWD+IFR1+MS
7500.000	0.000	0.000	7443.403	28.303	0.000	27.308	0.000	10.291	0.000	0.000	28.545	27.054	114.073	MWD+IFR1+MS
7600.000	0.000	0.000	7543.403	28.645	0.000	27.659	0.000	10.464	0.000	0.000	28.889	27.404	114.205	MWD+IFR1+MS
7700.000	0.000	0.000	7643.403	28.987	0.000	28.011	0.000	10.640	0.000	0.000	29.233	27.754	114.335	MWD+IFR1+MS
7800.000	0.000	0.000	7743.403	29.330	0.000	28.362	0.000	10.819	0.000	0.000	29.577	28.104	114.463	MWD+IFR1+MS
7900.000	0.000	0.000	7843.403	29.673	0.000	28.714	0.000	11.001	0.000	0.000	29.922	28.455	114.590	MWD+IFR1+MS
8000.000	0.000	0.000	7943.403	30.017	0.000	29.066	0.000	11.185	0.000	0.000	30.267	28.805	114.714	MWD+IFR1+MS
8100.000	0.000	0.000	8043.403	30.360	0.000	29.418	0.000	11.373	0.000	0.000	30.612	29.156	114.836	MWD+IFR1+MS
8200.000	0.000	0.000	8143.403	30.705	0.000	29.771	0.000	11.563	0.000	0.000	30.958	29.507	114.956	MWD+IFR1+MS
8300.000	0.000	0.000	8243.403	31.049	0.000	30.123	0.000	11.757	0.000	0.000	31.304	29.859	115.075	MWD+IFR1+MS
8400.000	0.000	0.000	8343.403	31.394	0.000	30.476	0.000	11.953	0.000	0.000	31.650	30.210	115.191	MWD+IFR1+MS
8500.000	0.000	0.000	8443.403	31.739	0.000	30.829	0.000	12.152	0.000	0.000	31.996	30.562	115.306	MWD+IFR1+MS
8600.000	0.000	0.000	8543.403	32.085	0.000	31.182	0.000	12.354	0.000	0.000	32.343	30.913	115.419	MWD+IFR1+MS
8700.000	0.000	0.000	8643.403	32.430	0.000	31.535	0.000	12.559	0.000	0.000	32.690	31.265	115.530	MWD+IFR1+MS
8800.000	0.000	0.000	8743.403	32.776	0.000	31.888	0.000	12.767	0.000	0.000	33.038	31.617	115.640	MWD+IFR1+MS
8900.000	0.000	0.000	8843.403	33.122	0.000	32.241	0.000	12.978	0.000	0.000	33.385	31.969	115.748	MWD+IFR1+MS
9000.000	0.000	0.000	8943.403	33.469	0.000	32.595	0.000	13.192	0.000	0.000	33.733	32.321	115.854	MWD+IFR1+MS
9100.000	0.000	0.000	9043.403	33.816	0.000	32.948	0.000	13.409	0.000	0.000	34.081	32.674	115.959	MWD+IFR1+MS
9200.000	0.000	0.000	9143.403	34.163	0.000	33.302	0.000	13.629	0.000	0.000	34.429	33.026	116.063	MWD+IFR1+MS
9300.000	0.000	0.000	9243.403	34.510	0.000	33.655	0.000	13.852	0.000	0.000	34.777	33.379	116.164	MWD+IFR1+MS

9400.000	0.000	0.000	9343.403	34.857	0.000	34.009	0.000	14.078	0.000	0.000	35.126	33.732	116.265	MWD+IFR1+MS
9500.000	0.000	0.000	9443.403	35.205	0.000	34.363	0.000	14.307	0.000	0.000	35.475	34.084	116.363	MWD+IFR1+MS
9600.000	0.000	0.000	9543.403	35.553	0.000	34.717	0.000	14.539	0.000	0.000	35.824	34.437	116.461	MWD+IFR1+MS
9700.000	0.000	0.000	9643.403	35.901	0.000	35.071	0.000	14.774	0.000	0.000	36.173	34.790	116.557	MWD+IFR1+MS
9800.000	0.000	0.000	9743.403	36.249	0.000	35.425	0.000	15.012	0.000	0.000	36.523	35.144	116.651	MWD+IFR1+MS
9900.000	0.000	0.000	9843.403	36.598	0.000	35.780	0.000	15.253	0.000	0.000	36.872	35.497	116.745	MWD+IFR1+MS
10000.000	0.000	0.000	9943.403	36.947	0.000	36.134	0.000	15.497	0.000	0.000	37.222	35.850	116.837	MWD+IFR1+MS
10100.000	0.000	0.000	10043.403	37.296	0.000	36.488	0.000	15.744	0.000	0.000	37.572	36.204	116.927	MWD+IFR1+MS
10200.000	0.000	0.000	10143.403	37.645	0.000	36.843	0.000	15.995	0.000	0.000	37.922	36.557	117.017	MWD+IFR1+MS
10300.000	0.000	0.000	10243.403	37.994	0.000	37.197	0.000	16.248	0.000	0.000	38.272	36.911	117.105	MWD+IFR1+MS
10400.000	0.000	0.000	10343.403	38.343	0.000	37.552	0.000	16.504	0.000	0.000	38.623	37.264	117.192	MWD+IFR1+MS
10500.000	0.000	0.000	10443.403	38.693	0.000	37.907	0.000	16.764	0.000	0.000	38.974	37.618	117.278	MWD+IFR1+MS
10600.000	0.000	0.000	10543.403	39.043	0.000	38.262	0.000	17.027	0.000	0.000	39.324	37.972	117.362	MWD+IFR1+MS
10700.000	0.000	0.000	10643.403	39.392	0.000	38.617	0.000	17.292	0.000	0.000	39.675	38.326	117.446	MWD+IFR1+MS
10800.000	0.000	0.000	10743.403	39.742	0.000	38.971	0.000	17.561	0.000	0.000	40.026	38.680	117.528	MWD+IFR1+MS
10900.000	0.000	0.000	10843.403	40.093	0.000	39.326	0.000	17.833	0.000	0.000	40.377	39.034	117.609	MWD+IFR1+MS
11000.000	0.000	0.000	10943.403	40.443	0.000	39.682	0.000	18.107	0.000	0.000	40.729	39.388	117.689	MWD+IFR1+MS
11040.397	0.000	0.000	10983.800	40.583	0.000	39.824	0.000	18.219	0.000	0.000	40.868	39.531	117.686	MWD+IFR1+MS
11100.000	4.768	179.678	11043.334	40.480	0.000	40.026	-0.000	18.384	0.000	0.000	41.083	39.735	117.178	MWD+IFR1+MS
11200.000	12.768	179.678	11142.085	40.421	0.000	40.329	-0.000	18.693	0.000	0.000	41.941	40.112	109.641	MWD+IFR1+MS
11300.000	20.768	179.678	11237.755	40.146	0.000	40.613	-0.000	19.131	0.000	0.000	43.082	40.442	104.220	MWD+IFR1+MS
11400.000	28.768	179.678	11328.482	39.325	0.000	40.873	-0.000	19.746	0.000	0.000	44.096	40.718	101.787	MWD+IFR1+MS
11500.000	36.768	179.678	11412.501	38.046	0.000	41.105	-0.000	20.575	0.000	0.000	44.949	40.956	100.554	MWD+IFR1+MS
11600.000	44.768	179.678	11488.175	36.428	0.000	41.309	-0.000	21.624	0.000	0.000	45.630	41.161	99.923	MWD+IFR1+MS
11700.000	52.768	179.678	11554.032	34.627	0.000	41.484	-0.000	22.880	0.000	0.000	46.138	41.332	99.643	MWD+IFR1+MS
11800.000	60.768	179.678	11608.790	32.839	0.000	41.628	-0.000	24.304	0.000	0.000	46.486	41.471	99.583	MWD+IFR1+MS
11900.000	68.768	179.678	11651.384	31.295	0.000	41.741	-0.000	25.851	0.000	0.000	46.697	41.578	99.660	MWD+IFR1+MS
12000.000	76.768	179.678	11680.984	30.243	0.000	41.824	-0.000	27.464	0.000	0.000	46.800	41.655	99.801	MWD+IFR1+MS
12100.000	84.768	179.678	11697.014	29.903	0.000	41.875	-0.000	29.089	0.000	0.000	46.833	41.703	99.928	MWD+IFR1+MS
12165.397	90.000	179.678	11699.997	29.610	0.000	41.890	-0.000	29.610	0.000	0.000	46.836	41.717	99.946	MWD+IFR1+MS
12200.000	90.000	179.678	11699.997	29.680	0.000	41.893	-0.000	29.680	0.000	0.000	46.837	41.721	99.943	MWD+IFR1+MS
12300.000	90.000	179.678	11699.997	29.840	0.000	41.918	-0.000	29.840	0.000	0.000	46.840	41.746	99.961	MWD+IFR1+MS
12400.000	90.000	179.678	11699.997	30.023	0.000	41.959	-0.000	30.023	0.000	0.000	46.844	41.787	100.009	MWD+IFR1+MS

12500.000	90.000	179.678	11699.997	30.225	0.000	42.014	-0.000	30.225	0.000	0.000	46.849	41.841	100.083	MWD+IFR1+MS
12600.000	90.000	179.678	11699.997	30.446	0.000	42.083	-0.000	30.446	0.000	0.000	46.856	41.909	100.184	MWD+IFR1+MS
12700.000	90.000	179.678	11699.997	30.686	0.000	42.165	-0.000	30.686	0.000	0.000	46.863	41.990	100.314	MWD+IFR1+MS
12800.000	90.000	179.678	11699.997	30.944	0.000	42.261	-0.000	30.944	0.000	0.000	46.871	42.084	100.475	MWD+IFR1+MS
12900.000	90.000	179.678	11699.997	31.219	0.000	42.371	-0.000	31.219	0.000	0.000	46.880	42.192	100.671	MWD+IFR1+MS
13000.000	90.000	179.678	11699.997	31.511	0.000	42.495	-0.000	31.511	0.000	0.000	46.891	42.312	100.904	MWD+IFR1+MS
13100.000	90.000	179.678	11699.997	31.821	0.000	42.631	-0.000	31.821	0.000	0.000	46.903	42.445	101.179	MWD+IFR1+MS
13200.000	90.000	179.678	11699.997	32.146	0.000	42.781	-0.000	32.146	0.000	0.000	46.916	42.591	101.501	MWD+IFR1+MS
13300.000	90.000	179.678	11699.997	32.487	0.000	42.945	-0.000	32.487	0.000	0.000	46.930	42.749	101.878	MWD+IFR1+MS
13400.000	90.000	179.678	11699.997	32.843	0.000	43.121	-0.000	32.843	0.000	0.000	46.946	42.919	102.317	MWD+IFR1+MS
13500.000	90.000	179.678	11699.997	33.214	0.000	43.310	-0.000	33.214	0.000	0.000	46.964	43.101	102.829	MWD+IFR1+MS
13600.000	90.000	179.678	11699.997	33.599	0.000	43.511	-0.000	33.599	0.000	0.000	46.984	43.294	103.429	MWD+IFR1+MS
13700.000	90.000	179.678	11699.997	33.998	0.000	43.725	-0.000	33.998	0.000	0.000	47.006	43.499	104.132	MWD+IFR1+MS
13800.000	90.000	179.678	11699.997	34.410	0.000	43.952	-0.000	34.410	0.000	0.000	47.030	43.713	104.962	MWD+IFR1+MS
13900.000	90.000	179.678	11699.997	34.835	0.000	44.190	-0.000	34.835	0.000	0.000	47.058	43.937	105.947	MWD+IFR1+MS
14000.000	90.000	179.678	11699.997	35.273	0.000	44.441	-0.000	35.273	0.000	0.000	47.089	44.170	107.124	MWD+IFR1+MS
14100.000	90.000	179.678	11699.997	35.722	0.000	44.703	-0.000	35.722	0.000	0.000	47.124	44.411	108.544	MWD+IFR1+MS
14200.000	90.000	179.678	11699.997	36.182	0.000	44.976	-0.000	36.182	0.000	0.000	47.166	44.658	110.272	MWD+IFR1+MS
14300.000	90.000	179.678	11699.997	36.654	0.000	45.261	-0.000	36.654	0.000	0.000	47.215	44.910	112.392	MWD+IFR1+MS
14400.000	90.000	179.678	11699.997	37.136	0.000	45.557	-0.000	37.136	0.000	0.000	47.274	45.163	115.013	MWD+IFR1+MS
14500.000	90.000	179.678	11699.997	37.629	0.000	45.864	-0.000	37.629	0.000	0.000	47.346	45.415	118.260	MWD+IFR1+MS
14600.000	90.000	179.678	11699.997	38.131	0.000	46.181	-0.000	38.131	0.000	0.000	47.437	45.659	122.253	MWD+IFR1+MS
14700.000	90.000	179.678	11699.997	38.643	0.000	46.509	-0.000	38.643	0.000	0.000	47.552	45.890	127.055	MWD+IFR1+MS
14800.000	90.000	179.678	11699.997	39.164	0.000	46.848	-0.000	39.164	0.000	0.000	47.698	46.101	132.574	MWD+IFR1+MS
14900.000	90.000	179.678	11699.997	39.693	0.000	47.196	-0.000	39.693	0.000	0.000	47.882	46.285	-41.511	MWD+IFR1+MS
15000.000	90.000	179.678	11699.997	40.231	0.000	47.554	-0.000	40.231	0.000	0.000	48.105	46.439	-35.684	MWD+IFR1+MS
15100.000	90.000	179.678	11699.997	40.776	0.000	47.921	-0.000	40.776	0.000	0.000	48.367	46.565	-30.390	MWD+IFR1+MS
15200.000	90.000	179.678	11699.997	41.330	0.000	48.298	-0.000	41.330	0.000	0.000	48.663	46.668	-25.865	MWD+IFR1+MS
15300.000	90.000	179.678	11699.997	41.891	0.000	48.684	-0.000	41.891	0.000	0.000	48.986	46.752	-22.135	MWD+IFR1+MS
15400.000	90.000	179.678	11699.997	42.459	0.000	49.079	-0.000	42.459	0.000	0.000	49.333	46.822	-19.110	MWD+IFR1+MS
15500.000	90.000	179.678	11699.997	43.033	0.000	49.482	-0.000	43.033	0.000	0.000	49.699	46.882	-16.660	MWD+IFR1+MS
15600.000	90.000	179.678	11699.997	43.615	0.000	49.894	-0.000	43.615	0.000	0.000	50.082	46.935	-14.667	MWD+IFR1+MS
15700.000	90.000	179.678	11699.997	44.202	0.000	50.315	-0.000	44.202	0.000	0.000	50.478	46.984	-13.029	MWD+IFR1+MS

15800.000	90.000	179.678	11699.997	44.796	0.000	50.743	-0.000	44.796	0.000	0.000	50.887	47.028	-11.671	MWD+IFR1+MS
15900.000	90.000	179.678	11699.997	45.395	0.000	51.179	-0.000	45.395	0.000	0.000	51.307	47.069	-10.531	MWD+IFR1+MS
16000.000	90.000	179.678	11699.997	46.001	0.000	51.623	-0.000	46.001	0.000	0.000	51.737	47.109	-9.566	MWD+IFR1+MS
16100.000	90.000	179.678	11699.997	46.611	0.000	52.075	-0.000	46.611	0.000	0.000	52.177	47.147	-8.741	MWD+IFR1+MS
16200.000	90.000	179.678	11699.997	47.226	0.000	52.533	-0.000	47.226	0.000	0.000	52.626	47.184	-8.028	MWD+IFR1+MS
16300.000	90.000	179.678	11699.997	47.847	0.000	52.999	-0.000	47.847	0.000	0.000	53.083	47.220	-7.408	MWD+IFR1+MS
16400.000	90.000	179.678	11699.997	48.472	0.000	53.472	-0.000	48.472	0.000	0.000	53.549	47.256	-6.865	MWD+IFR1+MS
16500.000	90.000	179.678	11699.997	49.102	0.000	53.951	-0.000	49.102	0.000	0.000	54.022	47.291	-6.386	MWD+IFR1+MS
16600.000	90.000	179.678	11699.997	49.736	0.000	54.437	-0.000	49.736	0.000	0.000	54.502	47.327	-5.962	MWD+IFR1+MS
16700.000	90.000	179.678	11699.997	50.375	0.000	54.929	-0.000	50.375	0.000	0.000	54.989	47.362	-5.582	MWD+IFR1+MS
16800.000	90.000	179.678	11699.997	51.017	0.000	55.428	-0.000	51.017	0.000	0.000	55.483	47.397	-5.242	MWD+IFR1+MS
16900.000	90.000	179.678	11699.997	51.664	0.000	55.932	-0.000	51.664	0.000	0.000	55.984	47.432	-4.936	MWD+IFR1+MS
17000.000	90.000	179.678	11699.997	52.314	0.000	56.443	-0.000	52.314	0.000	0.000	56.490	47.468	-4.659	MWD+IFR1+MS
17100.000	90.000	179.678	11699.997	52.968	0.000	56.959	-0.000	52.968	0.000	0.000	57.003	47.504	-4.407	MWD+IFR1+MS
17200.000	90.000	179.678	11699.997	53.625	0.000	57.481	-0.000	53.625	0.000	0.000	57.522	47.540	-4.178	MWD+IFR1+MS
17300.000	90.000	179.678	11699.997	54.286	0.000	58.008	-0.000	54.286	0.000	0.000	58.046	47.576	-3.968	MWD+IFR1+MS
17400.000	90.000	179.678	11699.997	54.950	0.000	58.540	-0.000	54.950	0.000	0.000	58.576	47.613	-3.775	MWD+IFR1+MS
17500.000	90.000	179.678	11699.997	55.618	0.000	59.078	-0.000	55.618	0.000	0.000	59.111	47.650	-3.598	MWD+IFR1+MS
17600.000	90.000	179.678	11699.997	56.288	0.000	59.620	-0.000	56.288	0.000	0.000	59.652	47.687	-3.435	MWD+IFR1+MS
17700.000	90.000	179.678	11699.997	56.961	0.000	60.167	-0.000	56.961	0.000	0.000	60.197	47.725	-3.284	MWD+IFR1+MS
17800.000	90.000	179.678	11699.997	57.637	0.000	60.719	-0.000	57.637	0.000	0.000	60.748	47.763	-3.144	MWD+IFR1+MS
17900.000	90.000	179.678	11699.997	58.316	0.000	61.276	-0.000	58.316	0.000	0.000	61.303	47.802	-3.013	MWD+IFR1+MS
18000.000	90.000	179.678	11699.997	58.997	0.000	61.837	-0.000	58.997	0.000	0.000	61.862	47.841	-2.892	MWD+IFR1+MS
18100.000	90.000	179.678	11699.997	59.681	0.000	62.403	-0.000	59.681	0.000	0.000	62.426	47.881	-2.779	MWD+IFR1+MS
18200.000	90.000	179.678	11699.997	60.367	0.000	62.972	-0.000	60.367	0.000	0.000	62.995	47.921	-2.674	MWD+IFR1+MS
18300.000	90.000	179.678	11699.997	61.056	0.000	63.546	-0.000	61.056	0.000	0.000	63.567	47.961	-2.575	MWD+IFR1+MS
18400.000	90.000	179.678	11699.997	61.747	0.000	64.124	-0.000	61.747	0.000	0.000	64.144	48.002	-2.482	MWD+IFR1+MS
18500.000	90.000	179.678	11699.997	62.440	0.000	64.706	-0.000	62.440	0.000	0.000	64.725	48.044	-2.395	MWD+IFR1+MS
18600.000	90.000	179.678	11699.997	63.136	0.000	65.291	-0.000	63.136	0.000	0.000	65.309	48.086	-2.313	MWD+IFR1+MS
18700.000	90.000	179.678	11699.997	63.833	0.000	65.880	-0.000	63.833	0.000	0.000	65.898	48.128	-2.236	MWD+IFR1+MS
18800.000	90.000	179.678	11699.997	64.533	0.000	66.473	-0.000	64.533	0.000	0.000	66.489	48.171	-2.163	MWD+IFR1+MS
18900.000	90.000	179.678	11699.997	65.234	0.000	67.069	-0.000	65.234	0.000	0.000	67.085	48.215	-2.095	MWD+IFR1+MS
19000.000	90.000	179.678	11699.997	65.937	0.000	67.669	-0.000	65.937	0.000	0.000	67.684	48.259	-2.030	MWD+IFR1+MS

19100.000	90.000	179.678	11699.997	66.642	0.000	68.272	-0.000	66.642	0.000	0.000	68.286	48.304	-1.968	MWD+IFR1+MS
19200.000	90.000	179.678	11699.997	67.349	0.000	68.878	-0.000	67.349	0.000	0.000	68.892	48.349	-1.910	MWD+IFR1+MS
19300.000	90.000	179.678	11699.997	68.058	0.000	69.488	-0.000	68.058	0.000	0.000	69.501	48.394	-1.855	MWD+IFR1+MS
19400.000	90.000	179.678	11699.997	68.768	0.000	70.100	-0.000	68.768	0.000	0.000	70.112	48.440	-1.803	MWD+IFR1+MS
19500.000	90.000	179.678	11699.997	69.480	0.000	70.716	-0.000	69.480	0.000	0.000	70.727	48.487	-1.753	MWD+IFR1+MS
19600.000	90.000	179.678	11699.997	70.193	0.000	71.334	-0.000	70.193	0.000	0.000	71.345	48.534	-1.705	MWD+IFR1+MS
19700.000	90.000	179.678	11699.997	70.908	0.000	71.955	-0.000	70.908	0.000	0.000	71.966	48.582	-1.660	MWD+IFR1+MS
19800.000	90.000	179.678	11699.997	71.625	0.000	72.579	-0.000	71.625	0.000	0.000	72.589	48.630	-1.617	MWD+IFR1+MS
19900.000	90.000	179.678	11699.997	72.342	0.000	73.206	-0.000	72.342	0.000	0.000	73.216	48.679	-1.576	MWD+IFR1+MS
20000.000	90.000	179.678	11699.997	73.061	0.000	73.835	-0.000	73.061	0.000	0.000	73.844	48.728	-1.537	MWD+IFR1+MS
20100.000	90.000	179.678	11699.997	73.782	0.000	74.467	-0.000	73.782	0.000	0.000	74.476	48.778	-1.500	MWD+IFR1+MS
20200.000	90.000	179.678	11699.997	74.504	0.000	75.101	-0.000	74.504	0.000	0.000	75.110	48.828	-1.464	MWD+IFR1+MS
20300.000	90.000	179.678	11699.997	75.227	0.000	75.738	-0.000	75.227	0.000	0.000	75.746	48.879	-1.430	MWD+IFR1+MS
20400.000	90.000	179.678	11699.997	75.951	0.000	76.377	-0.000	75.951	0.000	0.000	76.385	48.930	-1.397	MWD+IFR1+MS
20500.000	90.000	179.678	11699.997	76.677	0.000	77.018	-0.000	76.677	0.000	0.000	77.026	48.982	-1.366	MWD+IFR1+MS
20600.000	90.000	179.678	11699.997	77.403	0.000	77.662	-0.000	77.403	0.000	0.000	77.669	49.034	-1.336	MWD+IFR1+MS
20700.000	90.000	179.678	11699.997	78.131	0.000	78.308	-0.000	78.131	0.000	0.000	78.315	49.087	-1.307	MWD+IFR1+MS
20800.000	90.000	179.678	11699.997	78.860	0.000	78.956	-0.000	78.860	0.000	0.000	78.962	49.141	-1.279	MWD+IFR1+MS
20900.000	90.000	179.678	11699.997	79.590	0.000	79.606	-0.000	79.590	0.000	0.000	79.612	49.195	-1.253	MWD+IFR1+MS
21000.000	90.000	179.678	11699.997	80.321	0.000	80.258	-0.000	80.321	0.000	0.000	80.264	49.249	-1.227	MWD+IFR1+MS
21100.000	90.000	179.678	11699.997	81.053	0.000	80.912	-0.000	81.053	0.000	0.000	80.918	49.304	-1.203	MWD+IFR1+MS
21200.000	90.000	179.678	11699.997	81.786	0.000	81.568	-0.000	81.786	0.000	0.000	81.574	49.359	-1.179	MWD+IFR1+MS
21300.000	90.000	179.678	11699.997	82.519	0.000	82.226	-0.000	82.519	0.000	0.000	82.231	49.415	-1.157	MWD+IFR1+MS
21400.000	90.000	179.678	11699.997	83.254	0.000	82.886	-0.000	83.254	0.000	0.000	82.891	49.472	-1.135	MWD+IFR1+MS
21500.000	90.000	179.678	11699.997	83.990	0.000	83.547	-0.000	83.990	0.000	0.000	83.552	49.529	-1.114	MWD+IFR1+MS
21600.000	90.000	179.678	11699.997	84.727	0.000	84.211	-0.000	84.727	0.000	0.000	84.216	49.586	-1.093	MWD+IFR1+MS
21700.000	90.000	179.678	11699.997	85.464	0.000	84.876	-0.000	85.464	0.000	0.000	84.880	49.644	-1.074	MWD+IFR1+MS
21800.000	90.000	179.678	11699.997	86.202	0.000	85.542	-0.000	86.202	0.000	0.000	85.547	49.703	-1.055	MWD+IFR1+MS
21900.000	90.000	179.678	11699.997	86.941	0.000	86.211	-0.000	86.941	0.000	0.000	86.215	49.762	-1.037	MWD+IFR1+MS
22000.000	90.000	179.678	11699.997	87.681	0.000	86.881	-0.000	87.681	0.000	0.000	86.885	49.821	-1.019	MWD+IFR1+MS
22100.000	90.000	179.678	11699.997	88.422	0.000	87.552	-0.000	88.422	0.000	0.000	87.556	49.881	-1.002	MWD+IFR1+MS
22200.000	90.000	179.678	11699.997	89.163	0.000	88.225	-0.000	89.163	0.000	0.000	88.229	49.942	-0.986	MWD+IFR1+MS
22300.000	90.000	179.678	11699.997	89.906	0.000	88.900	-0.000	89.906	0.000	0.000	88.904	50.003	-0.970	MWD+IFR1+MS

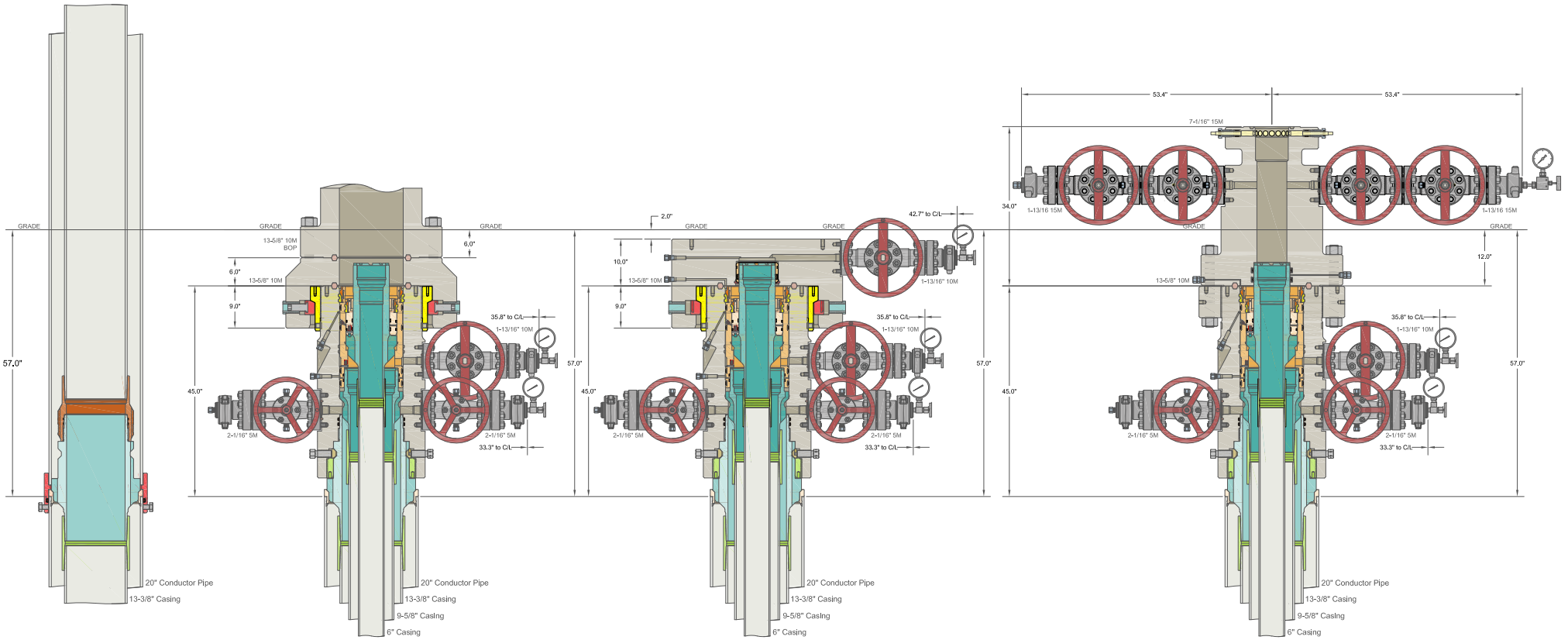
22400.000	90.000	179.678	11699.997	90.648	0.000	89.576	-0.000	90.648	0.000	0.000	89.580	50.065	-0.955	MWD+IFR1+MS
22500.000	90.000	179.678	11699.997	91.392	0.000	90.253	-0.000	91.392	0.000	0.000	90.257	50.127	-0.940	MWD+IFR1+MS
22600.000	90.000	179.678	11699.997	92.136	0.000	90.932	-0.000	92.136	0.000	0.000	90.936	50.189	-0.925	MWD+IFR1+MS
22700.000	90.000	179.678	11699.997	92.881	0.000	91.613	-0.000	92.881	0.000	0.000	91.616	50.252	-0.911	MWD+IFR1+MS
22800.000	90.000	179.678	11699.997	93.627	0.000	92.294	-0.000	93.627	0.000	0.000	92.297	50.316	-0.898	MWD+IFR1+MS
22900.000	90.000	179.678	11699.997	94.373	0.000	92.977	-0.000	94.373	0.000	0.000	92.980	50.380	-0.885	MWD+IFR1+MS
23000.000	90.000	179.678	11699.997	95.120	0.000	93.661	-0.000	95.120	0.000	0.000	93.664	50.444	-0.872	MWD+IFR1+MS
23100.000	90.000	179.678	11699.997	95.867	0.000	94.347	-0.000	95.867	0.000	0.000	94.350	50.509	-0.860	MWD+IFR1+MS
23200.000	90.000	179.678	11699.997	96.615	0.000	95.033	-0.000	96.615	0.000	0.000	95.036	50.574	-0.848	MWD+IFR1+MS
23300.000	90.000	179.678	11699.997	97.364	0.000	95.721	-0.000	97.364	0.000	0.000	95.724	50.640	-0.837	MWD+IFR1+MS
23400.000	90.000	179.678	11699.997	98.113	0.000	96.410	-0.000	98.113	0.000	0.000	96.413	50.707	-0.826	MWD+IFR1+MS
23500.000	90.000	179.678	11699.997	98.863	0.000	97.100	-0.000	98.863	0.000	0.000	97.103	50.774	-0.815	MWD+IFR1+MS
23600.000	90.000	179.678	11699.997	99.613	0.000	97.791	-0.000	99.613	0.000	0.000	97.794	50.841	-0.804	MWD+IFR1+MS
23700.000	90.000	179.678	11699.997	100.364	0.000	98.484	-0.000	100.364	0.000	0.000	98.486	50.909	-0.794	MWD+IFR1+MS
23800.000	90.000	179.678	11699.997	101.115	0.000	99.177	-0.000	101.115	0.000	0.000	99.180	50.977	-0.784	MWD+IFR1+MS
23900.000	90.000	179.678	11699.997	101.867	0.000	99.872	-0.000	101.867	0.000	0.000	99.874	51.046	-0.774	MWD+IFR1+MS
24000.000	90.000	179.678	11699.997	102.619	0.000	100.567	-0.000	102.619	0.000	0.000	100.570	51.115	-0.765	MWD+IFR1+MS
24100.000	90.000	179.678	11699.997	103.372	0.000	101.264	-0.000	103.372	0.000	0.000	101.266	51.185	-0.756	MWD+IFR1+MS
24200.000	90.000	179.678	11699.997	104.126	0.000	101.961	-0.000	104.126	0.000	0.000	101.963	51.255	-0.747	MWD+IFR1+MS
24300.000	90.000	179.678	11699.997	104.879	0.000	102.660	-0.000	104.879	0.000	0.000	102.662	51.326	-0.739	MWD+IFR1+MS
24400.000	90.000	179.678	11699.997	105.633	0.000	103.359	-0.000	105.633	0.000	0.000	103.361	51.397	-0.730	MWD+IFR1+MS
24500.000	90.000	179.678	11699.997	106.388	0.000	104.060	-0.000	106.388	0.000	0.000	104.062	51.468	-0.722	MWD+IFR1+MS
24600.000	90.000	179.678	11699.997	107.143	0.000	104.761	-0.000	107.143	0.000	0.000	104.763	51.540	-0.714	MWD+IFR1+MS
24700.000	90.000	179.678	11699.997	107.899	0.000	105.463	-0.000	107.899	0.000	0.000	105.465	51.613	-0.706	MWD+IFR1+MS
24800.000	90.000	179.678	11699.997	108.655	0.000	106.166	-0.000	108.655	0.000	0.000	106.168	51.686	-0.699	MWD+IFR1+MS
24900.000	90.000	179.678	11699.997	109.411	0.000	106.870	-0.000	109.411	0.000	0.000	106.872	51.759	-0.691	MWD+IFR1+MS
25000.000	90.000	179.678	11699.997	110.168	0.000	107.575	-0.000	110.168	0.000	0.000	107.577	51.833	-0.684	MWD+IFR1+MS
25100.000	90.000	179.678	11699.997	110.925	0.000	108.281	-0.000	110.925	0.000	0.000	108.282	51.907	-0.677	MWD+IFR1+MS
25200.000	90.000	179.678	11699.997	111.682	0.000	108.987	-0.000	111.682	0.000	0.000	108.989	51.982	-0.671	MWD+IFR1+MS
25300.000	90.000	179.678	11699.997	112.440	0.000	109.694	-0.000	112.440	0.000	0.000	109.696	52.057	-0.664	MWD+IFR1+MS
25400.000	90.000	179.678	11699.997	113.198	0.000	110.402	-0.000	113.198	0.000	0.000	110.404	52.133	-0.658	MWD+IFR1+MS
25500.000	90.000	179.678	11699.997	113.957	0.000	111.111	-0.000	113.957	0.000	0.000	111.112	52.209	-0.651	MWD+IFR1+MS
25600.000	90.000	179.678	11699.997	114.716	0.000	111.820	-0.000	114.716	0.000	0.000	111.822	52.286	-0.645	MWD+IFR1+MS

25700.000	90.000	179.678	11699.997	115.475	0.000	112.531	-0.000	115.475	0.000	0.000	112.532	52.363	-0.639	MWD+IFR1+MS
25800.000	90.000	179.678	11699.997	116.235	0.000	113.242	-0.000	116.235	0.000	0.000	113.243	52.440	-0.633	MWD+IFR1+MS
25900.000	90.000	179.678	11699.997	116.995	0.000	113.953	-0.000	116.995	0.000	0.000	113.955	52.518	-0.628	MWD+IFR1+MS
26000.000	90.000	179.678	11699.997	117.755	0.000	114.666	-0.000	117.755	0.000	0.000	114.667	52.596	-0.622	MWD+IFR1+MS
26100.000	90.000	179.678	11699.997	118.515	0.000	115.379	-0.000	118.515	0.000	0.000	115.380	52.675	-0.617	MWD+IFR1+MS
26200.000	90.000	179.678	11699.997	119.276	0.000	116.092	-0.000	119.276	0.000	0.000	116.094	52.754	-0.611	MWD+IFR1+MS
26300.000	90.000	179.678	11699.997	120.038	0.000	116.807	-0.000	120.038	0.000	0.000	116.808	52.833	-0.606	MWD+IFR1+MS
26400.000	90.000	179.678	11699.997	120.799	0.000	117.522	-0.000	120.799	0.000	0.000	117.523	52.913	-0.601	MWD+IFR1+MS
26500.000	90.000	179.678	11699.997	121.561	0.000	118.237	-0.000	121.561	0.000	0.000	118.238	52.994	-0.596	MWD+IFR1+MS
26600.000	90.000	179.678	11699.997	122.323	0.000	118.954	-0.000	122.323	0.000	0.000	118.955	53.075	-0.591	MWD+IFR1+MS
26700.000	90.000	179.678	11699.997	123.085	0.000	119.670	-0.000	123.085	0.000	0.000	119.671	53.156	-0.587	MWD+IFR1+MS
26800.000	90.000	179.678	11699.997	123.848	0.000	120.388	-0.000	123.848	0.000	0.000	120.389	53.238	-0.582	MWD+IFR1+MS
26900.000	90.000	179.678	11699.997	124.611	0.000	121.106	-0.000	124.611	0.000	0.000	121.107	53.320	-0.578	MWD+IFR1+MS
27000.000	90.000	179.678	11699.997	125.374	0.000	121.825	-0.000	125.374	0.000	0.000	121.826	53.402	-0.573	MWD+IFR1+MS
27100.000	90.000	179.678	11699.997	126.138	0.000	122.544	-0.000	126.138	0.000	0.000	122.545	53.485	-0.569	MWD+IFR1+MS
27200.000	90.000	179.678	11699.997	126.901	0.000	123.264	-0.000	126.901	0.000	0.000	123.264	53.569	-0.565	MWD+IFR1+MS
27300.000	90.000	179.678	11699.997	127.665	0.000	123.984	-0.000	127.665	0.000	0.000	123.985	53.652	-0.561	MWD+IFR1+MS
27400.000	90.000	179.678	11699.997	128.430	0.000	124.705	-0.000	128.430	0.000	0.000	124.706	53.736	-0.557	MWD+IFR1+MS
27500.000	90.000	179.678	11699.997	129.194	0.000	125.426	-0.000	129.194	0.000	0.000	125.427	53.821	-0.553	MWD+IFR1+MS
27600.000	90.000	179.678	11699.997	129.959	0.000	126.148	-0.000	129.959	0.000	0.000	126.149	53.906	-0.549	MWD+IFR1+MS
27700.000	90.000	179.678	11699.997	130.724	0.000	126.870	-0.000	130.724	0.000	0.000	126.871	53.991	-0.545	MWD+IFR1+MS
27800.000	90.000	179.678	11699.997	131.489	0.000	127.593	-0.000	131.489	0.000	0.000	127.594	54.077	-0.541	MWD+IFR1+MS
27900.000	90.000	179.678	11699.997	132.255	0.000	128.317	-0.000	132.255	0.000	0.000	128.318	54.163	-0.538	MWD+IFR1+MS
28000.000	90.000	179.678	11699.997	133.020	0.000	129.041	-0.000	133.020	0.000	0.000	129.041	54.250	-0.534	MWD+IFR1+MS
28100.000	90.000	179.678	11699.997	133.786	0.000	129.765	-0.000	133.786	0.000	0.000	129.766	54.337	-0.531	MWD+IFR1+MS
28200.000	90.000	179.678	11699.997	134.552	0.000	130.490	-0.000	134.552	0.000	0.000	130.491	54.424	-0.527	MWD+IFR1+MS
28300.000	90.000	179.678	11699.997	135.318	0.000	131.215	-0.000	135.318	0.000	0.000	131.216	54.512	-0.524	MWD+IFR1+MS
28400.000	90.000	179.678	11699.997	136.085	0.000	131.941	-0.000	136.085	0.000	0.000	131.942	54.600	-0.521	MWD+IFR1+MS
28500.000	90.000	179.678	11699.997	136.852	0.000	132.667	-0.000	136.852	0.000	0.000	132.668	54.688	-0.517	MWD+IFR1+MS
28600.000	90.000	179.678	11699.997	137.619	0.000	133.394	-0.000	137.619	0.000	0.000	133.394	54.777	-0.514	MWD+IFR1+MS
28700.000	90.000	179.678	11699.997	138.386	0.000	134.121	-0.000	138.386	0.000	0.000	134.122	54.867	-0.511	MWD+IFR1+MS
28800.000	90.000	179.678	11699.997	139.153	0.000	134.848	-0.000	139.153	0.000	0.000	134.849	54.956	-0.508	MWD+IFR1+MS
28900.000	90.000	179.678	11699.997	139.921	0.000	135.576	-0.000	139.921	0.000	0.000	135.577	55.046	-0.505	MWD+IFR1+MS

29000.000	90.000	179.678	11699.997	140.688	0.000	136.305	-0.000	140.688	0.000	0.000	136.305	55.137	-0.502	MWD+IFR1+MS
29100.000	90.000	179.678	11699.997	141.456	0.000	137.033	-0.000	141.456	0.000	0.000	137.034	55.227	-0.500	MWD+IFR1+MS
29200.000	90.000	179.678	11699.997	142.224	0.000	137.763	-0.000	142.224	0.000	0.000	137.763	55.319	-0.497	MWD+IFR1+MS
29300.000	90.000	179.678	11699.997	142.993	0.000	138.492	-0.000	142.993	0.000	0.000	138.493	55.410	-0.494	MWD+IFR1+MS
29400.000	90.000	179.678	11699.997	143.761	0.000	139.222	-0.000	143.761	0.000	0.000	139.223	55.502	-0.491	MWD+IFR1+MS
29500.000	90.000	179.678	11699.997	144.530	0.000	139.952	-0.000	144.530	0.000	0.000	139.953	55.594	-0.489	MWD+IFR1+MS
29546.581	90.000	179.678	11699.997	144.887	0.000	140.292	-0.000	144.887	0.000	0.000	140.293	55.637	-0.488	MWD+IFR1+MS
29546.586	90.000	179.678	11699.997	144.887	0.000	140.292	-0.000	144.887	0.000	0.000	140.293	55.637	-0.488	MWD+IFR1+MS

Plan Targets Poker Lake Unit 20 DTD South 322H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 17	11896.68	440393.10	633665.90	8404.00	RECTANGLE
SHL 15	12419.82	439582.81	633630.31	8298.70	RECTANGLE
LTP 17	29546.59	422296.00	633767.60	8404.00	RECTANGLE
BHL 17	29646.59	422196.00	633768.20	8404.00	RECTANGLE



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

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

DRAWN	DLE	04NOV22
APPRV		

DRAWING NO. HBE0000833

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

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

Background

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

Supporting Documentation

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

Figure 1: Winch System attached to BOP Stack

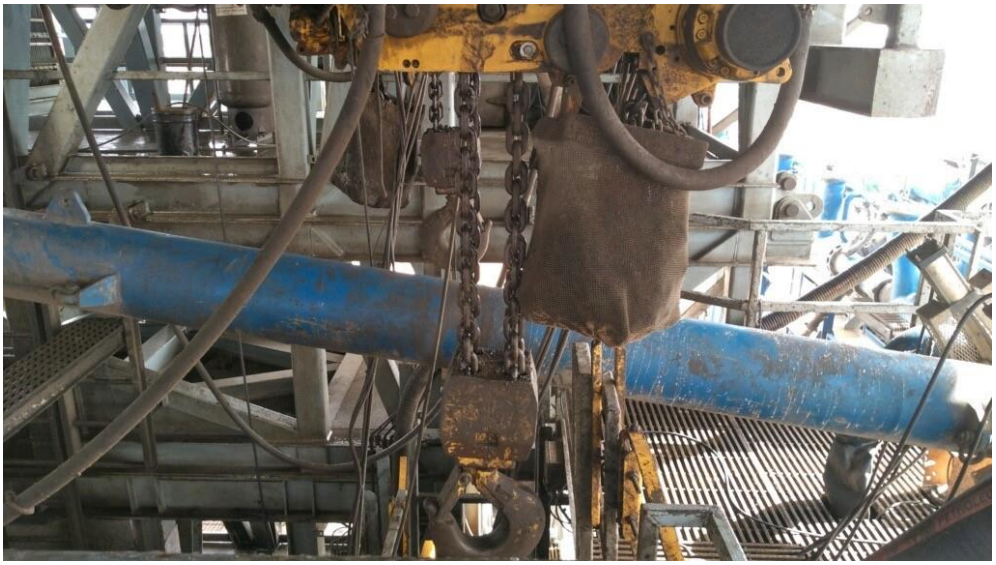


Figure 2: BOP Winch System

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

62 API STANDARD 53

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

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

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

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

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

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

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

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

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

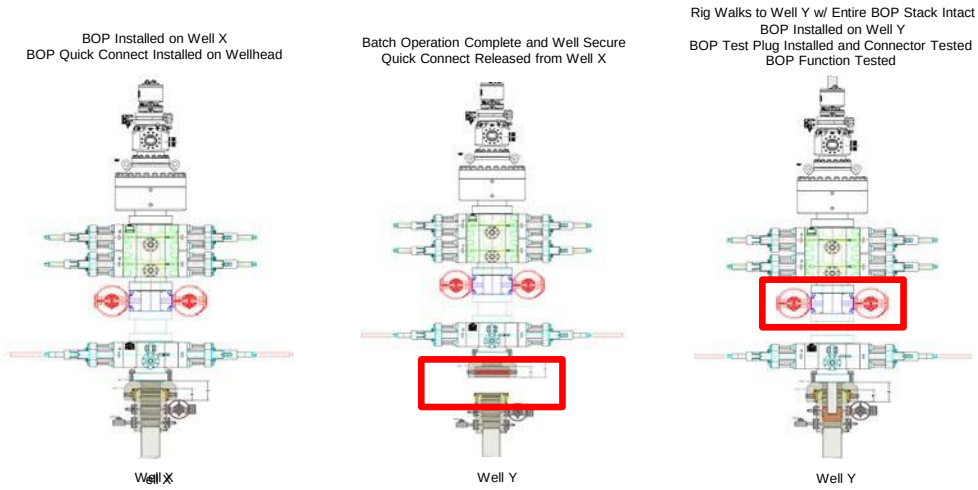
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often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

Procedures

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

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

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



Summary

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

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

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

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

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

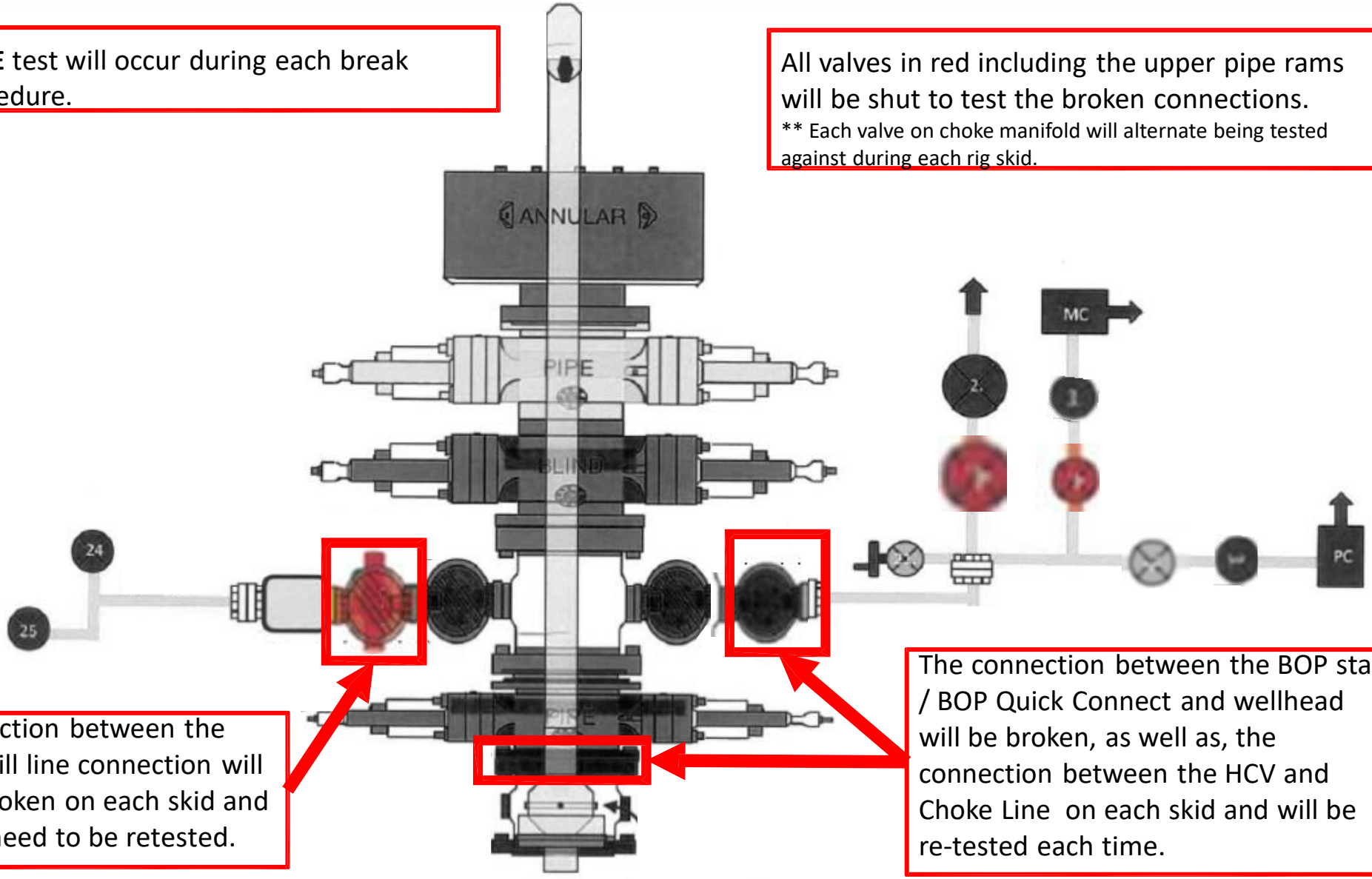
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.

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

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

All valves in red including the upper pipe rams will be shut to test the broken connections.

** Each valve on choke manifold will alternate being tested against during each rig skid.



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

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

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

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 369840

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 369840
	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.	8/7/2024