

Well Name: POKER LAKE UNIT 17 TWR	Well Location: T24S / R31E / SEC 20 / NWNE /	County or Parish/State:
Well Number: 509H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC061705B	Unit or CA Name:	Unit or CA Number: NMNM71016X
US Well Number:	Well Status: Approved Application for Permit to Drill	Operator: XTO PERMIAN OPERATING LLC

Notice of Intent

Sundry ID: 2760412

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 11/08/2023	Time Sundry Submitted: 07:40
Date proposed operation will begin: 11/27/2023	

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make changes to the Approved APD (10400091047) as follows: Surface Hole Location Change, First and Last Take Point Changes, Bottom Hole Location Change, Drilling Plan Change, Directional Plan Change, Casing/Cement Change. SHL: FROM: 695' FNL & 1619' FEL TO: 620' FNL & 1558' FEL of Section 20-T24S-R31E FTP: FROM: 100' FNL & 2200' FEL TO: 100' FNL & 1270' FEL of Section 20-T24S-R31E LTP: FROM: 100' FSL & 2200' FEL TO: 100' FSL & 1270' FEL of Section 29-T24S-R31E BHL: FROM: 50' FSL & 2200' FEL TO: 50' FSL & 1270' FEL of Section 29-T24S-R31E Casing/Cement design: weight from 23# to 20#. Attachments: C102 Drilling Program Directional Plan MBS

NOI Attachments

Procedure Description

PLU_17_TWR_509H_Sundry_Attachments_20231108073929.pdf

Received by OCD: 12/28/2023 4:06:28 PM

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Conditions of Approval

Additional

Sec_20_24S_30E_NMP_Sundry_2760412_Poker_Lake_Unit_17_TWR_509H_COAs_20231211143253.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: RANELL (RUSTY) KLEIN

Signed on: NOV 08, 2023 07:39 AM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Analyst

Street Address: 6401 HOLIDAY HILL ROAD BLDG 5

City: MIDLANDState: TX

Phone: (432) 620-6700

Email address: RANELL.KLEIN@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: 12/28/2023

Signature: Chris Walls

Form 3160-5
(June 2019)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No. **NMLC061705B**

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator **XTO PERMIAN OPERATING LLC**3a. Address **6401 HOLIDAY HILL ROAD BLDG 5, MIDLAND,** 3b. Phone No. (include area code)
(432) 683-22774. Location of Well (Footage, Sec., T., R., M., or Survey Description)
SEC 20/T24S/R31E/NMP7. If Unit of CA/Agreement, Name and/or No.
NMNM71016X8. Well Name and No. **POKER LAKE UNIT 17 TWR/509H**

9. API Well No.

10. Field and Pool or Exploratory Area
WILDCAT/Bone Spring11. Country or Parish, State
EDDY/NM**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA**

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

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

XTO Permian Operating, LLC. respectfully requests approval to make changes to the Approved APD (10400091047) as follows: Surface Hole Location Change, First and Last Take Point Changes, Bottom Hole Location Change, Drilling Plan Change, Directional Plan Change, Casing/Cement Change.

SHL: FROM: 695 FNL & 1619 FEL TO: 620 FNL & 1558 FEL of Section 20-T24S-R31E

FTP: FROM: 100 FNL & 2200 FEL TO: 100 FNL & 1270 FEL of Section 20-T24S-R31E

LTP: FROM: 100 FSL & 2200 FEL TO: 100 FSL & 1270 FEL of Section 29-T24S-R31E

BHL: FROM: 50 FSL & 2200 FEL TO: 50 FSL & 1270 FEL of Section 29-T24S-R31E

Casing/Cement design: weight from 23# to 20#.

Attachments:

Continued on page 3 additional information

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) RANELL (RUSTY) KLEIN / Ph: (432) 620-6700	Title Regulatory Analyst
Signature (Electronic Submission)	Date 11/08/2023

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved	Title Petroleum Engineer	Date 12/28/2023
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office CARLSBAD	

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Additional Remarks

C102
Drilling Program
Directional Plan
MBS

Location of Well

0. SHL: NWNE / 695 FNL / 1619 FEL / TWSP: 24S / RANGE: 31E / SECTION: 20 / LAT: 32.208169 / LONG: -103.796527 (TVD: 0 feet, MD: 0 feet)
PPP: NWSE / 330 FNL / 2200 FEL / TWSP: 24S / RANGE: 31E / SECTION: 20 / LAT: 32.200315 / LONG: -103.798391 (TVD: 10302 feet, MD: 13500 feet)
PPP: NWNE / 100 FNL / 2200 FEL / TWSP: 24S / RANGE: 31E / SECTION: 20 / LAT: 32.209802 / LONG: -103.798408 (TVD: 10302 feet, MD: 10800 feet)
PPP: NWNE / 330 FNL / 2200 FEL / TWSP: 24S / RANGE: 31E / SECTION: 29 / LAT: 32.190342 / LONG: -103.798379 (TVD: 10302 feet, MD: 16100 feet)
BHL: SWSE / 50 FSL / 2200 FEL / TWSP: 24S / RANGE: 31E / SECTION: 29 / LAT: 32.181178 / LONG: -103.798366 (TVD: 10302 feet, MD: 21152 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy Incorporated
WELL NAME & NO.:	Poker Lake Unit 17 TWR 509H
LOCATION:	Sec 20-24S-30E-NMP
COUNTY:	Eddy County, New Mexico

*Engineering changes addressed through **Sundry 27620412** on 12/11/2023. Any previous COAs not addressed within the updated COAs still apply.*

COA

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

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **9-5/8** inch surface casing shall be set at approximately 730 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after

- completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 6892'**
 - b. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

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

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

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

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

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- Cement should tie-back at least **300 feet** (cement tieback increased due to operator not meeting 0.422" clearance requirement per 43 CFR 3172) into previous casing string. Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

C. PRESSURE CONTROL

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

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance

- BOPE Break Testing is **ONLY** permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is **NOT** permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum

Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.

- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

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

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.

- Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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

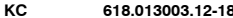
APD ID
10400091047

¹ API Number 30-015-	² Pool Code 96403	³ Pool Name Wildcat; Bone Spring
⁴ Property Code	⁵ Property Name POKER LAKE UNIT 17 TWR	
⁷ OGRID No. 373075	⁸ Operator Name XTO PERMIAN OPERATING, LLC.	⁶ Well Number 509H
		⁹ Elevation 3,519'

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	31E		620	NORTH	1,558	EAST	EDDY

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	29	24S	31E		50	SOUTH	1,270	EAST	EDDY

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.



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

XTO Energy Inc.

PLU 17 Twin Wells Ranch 509H

Projected TD: 21034.06' MD / 10858' TVD

SHL: 620' FNL & 1558' FEL , Section 20, T24S, R31E

BHL: 50' FSL & 1270' FEL , Section 29, T24S, R31E

Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	630'	Water
Top of Salt	983'	Water
Base of Salt	4147'	Water
Delaware	4361'	Water
Brushy Canyon	6892'	Water/Oil/Gas
Bone Spring	8219'	Water
1st Bone Spring	9216'	Water/Oil/Gas
2nd Bone Spring	9983'	Water/Oil/Gas
3rd Bone Spring	10708'	Water/Oil/Gas
Target/Land Curve	10858'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9.625 inch casing @ 730' (253' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9295.8' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 21034.06 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 8995.8 feet).

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 730'	9.625	40	J-55	BTC	New	1.37	8.62	21.58
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.03	2.52	2.02
8.75	4000' – 9295.8'	7.625	29.7	HC L-80	Flush Joint	New	1.47	1.98	2.58
6.75	0' – 9195.8'	5.5	20	RY P-110	Semi-Premium	New	1.26	1.86	2.25
6.75	9195.8' - 21034.06'	5.5	20	RY P-110	Semi-Flush	New	1.26	1.57	2.25

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

Wellhead:

Permanent Wellhead – Multibowl System

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

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

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

4. Cement Program

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 730'

Lead: 140 sxs EconoCem-HLTRRC (mixed at 10.5 ppg, 1.87 ft³/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

Top of Cement: Surface

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

2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9295.8'

1st Stage

Optional Lead: 370 sxs Class C (mixed at 10.5 ppg, 2.77 ft³/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 220 sxs Class C (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6892

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: 780 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)

Top of Cement: 0

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

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6892') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

Production Casing: 5.5, 20 New Semi-Flush, RY P-110 casing to be set at +/- 21034.06'

Lead: 20 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cement: 8995.8 feet

Tail: 820 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft³/sx, 8.38 gal/sx water) Top of Cement: 9495.8 feet

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

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

5. Pressure Control Equipment

Once the permanent WH is installed on the 9.625 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 4669 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

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

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

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

hole on each of the wells.

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 730'	12.25	FW/Native	8.4-8.9	35-40	NC
730' - 9295.8'	8.75	FW / Cut Brine / Direct Emulsion	10.2-10.7	30-32	NC
9295.8' - 21034.06'	6.75	OBM	12.5-13	50-60	NC - 20

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

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

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 7058 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 - 509H

Measured Depth: 21838.00 ft

TVD RKB: 10858.00 ft

LocationCartographic Reference System: New Mexico East -
NAD 27

Northing: 439896.90 ft

Easting: 666241.30 ft

RKB: 3551.00 ft

Ground Level: 3519.00 ft

North Reference: Grid

Convergence Angle: 0.29 Deg

Site: A

Slot: 509H

Plan Sections 509H

Measured				TVD			Build	Turn	Dogleg		
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Target		
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)			
0.00	0.00	0.00	0.00	-0.00	0.00	0.00	0.00	0.00			
1200.00	0.00	0.00	1200.00	-0.00	0.00	0.00	0.00	0.00			
1948.79	14.98	12.77	1940.30	94.90	21.51	2.00	0.00	2.00			
6109.52	14.98	12.77	5959.70	1143.49	259.16	0.00	0.00	0.00			
6858.31	0.00	0.00	6700.00	1238.38	280.66	-2.00	0.00	2.00			
10300.11	0.00	0.00	10141.80	1238.38	280.66	0.00	0.00	0.00			
11425.11	90.00	179.65	10858.00	522.20	285.10	8.00	0.00	8.00	FTP 15		
21788.41	90.00	179.65	10858.00	-9840.90	349.30	0.00	0.00	0.00	LTP 15		
21838.37	90.00	179.65	10858.00	-9890.86	349.61	0.00	0.00	0.00	BHL 15		

Position Uncertainty 509H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.260	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	0.000	0.000	1.259	0.627	122.728	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.326	0.000	0.000	1.698	0.986	125.475	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.348	0.000	0.000	2.108	1.343	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.375	0.000	0.000	2.503	1.701	127.421	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.408	0.000	0.000	2.888	2.059	127.870	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.446	0.000	0.000	3.267	2.417	128.192	MWD+IFR1+MS
800.000	0.000	0.000	800.000	3.333	0.000	3.138	0.000	2.488	0.000	0.000	3.642	2.774	128.446	MWD+IFR1+MS
900.000	0.000	0.000	900.000	3.696	0.000	3.501	0.000	2.534	0.000	0.000	4.014	3.132	128.582	MWD+IFR1+MS
1000.000	0.000	0.000	1000.000	4.057	0.000	3.865	0.000	2.584	0.000	0.000	4.384	3.491	128.759	MWD+IFR1+MS
1100.000	0.000	0.000	1100.000	4.418	0.000	4.227	0.000	2.638	0.000	0.000	4.752	3.849	128.868	MWD+IFR1+MS
1200.000	0.000	0.000	1200.000	4.779	0.000	4.589	0.000	2.695	0.000	0.000	5.119	4.207	128.956	MWD+IFR1+MS
1300.000	1.999	12.760	1299.980	5.305	0.000	4.765	0.000	2.755	0.000	0.000	5.651	4.566	126.932	MWD+IFR1+MS
1400.000	4.000	12.760	1399.838	5.825	0.000	5.137	0.000	2.819	0.000	0.000	6.406	4.931	123.389	MWD+IFR1+MS
1500.000	6.000	12.760	1499.452	6.220	0.000	5.506	0.000	2.887	0.000	0.000	7.101	5.289	121.603	MWD+IFR1+MS
1600.000	7.999	12.760	1598.702	6.507	0.000	5.872	0.000	2.962	0.000	0.000	7.750	5.643	120.573	MWD+IFR1+MS
1700.000	10.000	12.760	1697.465	6.693	0.000	6.237	0.000	3.047	0.000	0.000	8.361	5.996	119.883	MWD+IFR1+MS
1800.000	11.990	12.760	1795.623	6.787	0.000	6.601	0.000	3.143	0.000	0.000	8.942	6.350	119.414	MWD+IFR1+MS
1900.000	14.000	12.760	1893.055	6.783	0.000	6.967	0.000	3.251	0.000	0.000	9.497	6.706	119.062	MWD+IFR1+MS
1948.700	14.970	12.760	1940.297	6.676	0.000	7.136	0.000	3.288	0.000	0.000	9.661	6.880	118.979	MWD+IFR1+MS
2000.000	14.970	12.760	1989.764	6.769	0.000	7.313	0.000	3.330	0.000	0.000	9.800	7.064	118.954	MWD+IFR1+MS
2100.000	14.970	12.760	2086.367	6.952	0.000	7.674	0.000	3.418	0.000	0.000	10.077	7.432	119.080	MWD+IFR1+MS
2200.000	14.970	12.760	2182.971	7.148	0.000	8.049	0.000	3.513	0.000	0.000	10.372	7.809	119.373	MWD+IFR1+MS
2300.000	14.970	12.760	2279.574	7.347	0.000	8.426	0.000	3.610	0.000	0.000	10.672	8.187	119.682	MWD+IFR1+MS
2400.000	14.970	12.760	2376.178	7.552	0.000	8.805	0.000	3.711	0.000	0.000	10.980	8.568	119.956	MWD+IFR1+MS
2500.000	14.970	12.760	2472.781	7.760	0.000	9.185	0.000	3.814	0.000	0.000	11.293	8.949	120.237	MWD+IFR1+MS
2600.000	14.970	12.760	2569.385	7.969	0.000	9.567	0.000	3.920	0.000	0.000	11.607	9.331	120.572	MWD+IFR1+MS
2700.000	14.970	12.760	2665.988	8.183	0.000	9.946	0.000	4.030	0.000	0.000	11.928	9.712	120.803	MWD+IFR1+MS
2800.000	14.970	12.760	2762.592	8.400	0.000	10.330	0.000	4.141	0.000	0.000	12.253	10.097	121.085	MWD+IFR1+MS
2900.000	14.970	12.760	2859.195	8.620	0.000	10.719	0.000	4.256	0.000	0.000	12.583	10.486	121.410	MWD+IFR1+MS

3000.000	14.970	12.760	2955.798	8.841	0.000	11.104	0.000	4.371	0.000	0.000	12.916	10.871	121.681	MWD+IFR1+MS
3100.000	14.970	12.760	3052.402	9.068	0.000	11.494	0.000	4.490	0.000	0.000	13.254	11.262	121.943	MWD+IFR1+MS
3200.000	14.970	12.760	3149.005	9.293	0.000	11.879	0.000	4.610	0.000	0.000	13.592	11.647	122.203	MWD+IFR1+MS
3300.000	14.970	12.760	3245.609	9.521	0.000	12.268	0.000	4.732	0.000	0.000	13.933	12.036	122.508	MWD+IFR1+MS
3400.000	14.970	12.760	3342.212	9.753	0.000	12.657	0.000	4.856	0.000	0.000	14.278	12.427	122.754	MWD+IFR1+MS
3500.000	14.970	12.760	3438.816	9.984	0.000	13.046	0.000	4.982	0.000	0.000	14.624	12.815	123.055	MWD+IFR1+MS
3600.000	14.970	12.760	3535.419	10.218	0.000	13.439	0.000	5.110	0.000	0.000	14.975	13.208	123.345	MWD+IFR1+MS
3700.000	14.970	12.760	3632.023	10.452	0.000	13.828	0.000	5.238	0.000	0.000	15.324	13.597	123.633	MWD+IFR1+MS
3800.000	14.970	12.760	3728.626	10.690	0.000	14.221	0.000	5.369	0.000	0.000	15.678	13.989	123.919	MWD+IFR1+MS
3900.000	14.970	12.760	3825.230	10.926	0.000	14.613	0.000	5.502	0.000	0.000	16.031	14.380	124.252	MWD+IFR1+MS
4000.000	14.970	12.760	3921.833	11.165	0.000	15.005	0.000	5.636	0.000	0.000	16.388	14.772	124.526	MWD+IFR1+MS
4100.000	14.970	12.760	4018.437	11.406	0.000	15.397	0.000	5.771	0.000	0.000	16.746	15.164	124.799	MWD+IFR1+MS
4200.000	14.970	12.760	4115.040	11.647	0.000	15.789	0.000	5.908	0.000	0.000	17.106	15.556	125.070	MWD+IFR1+MS
4300.000	14.970	12.760	4211.644	11.890	0.000	16.183	0.000	6.047	0.000	0.000	17.468	15.949	125.390	MWD+IFR1+MS
4400.000	14.970	12.760	4308.247	12.133	0.000	16.575	0.000	6.188	0.000	0.000	17.829	16.341	125.651	MWD+IFR1+MS
4500.000	14.970	12.760	4404.851	12.376	0.000	16.969	0.000	6.329	0.000	0.000	18.192	16.734	125.964	MWD+IFR1+MS
4600.000	14.970	12.760	4501.454	12.621	0.000	17.363	0.000	6.473	0.000	0.000	18.557	17.127	126.276	MWD+IFR1+MS
4700.000	14.970	12.760	4598.058	12.868	0.000	17.756	0.000	6.617	0.000	0.000	18.924	17.521	126.530	MWD+IFR1+MS
4800.000	14.970	12.760	4694.661	13.114	0.000	18.150	0.000	6.764	0.000	0.000	19.290	17.914	126.834	MWD+IFR1+MS
4900.000	14.970	12.760	4791.264	13.361	0.000	18.546	0.000	6.912	0.000	0.000	19.658	18.308	127.190	MWD+IFR1+MS
5000.000	14.970	12.760	4887.868	13.610	0.000	18.939	0.000	7.061	0.000	0.000	20.027	18.701	127.438	MWD+IFR1+MS
5100.000	14.970	12.760	4984.471	13.858	0.000	19.334	0.000	7.212	0.000	0.000	20.396	19.095	127.790	MWD+IFR1+MS
5200.000	14.970	12.760	5081.075	14.108	0.000	19.729	0.000	7.365	0.000	0.000	20.767	19.489	128.085	MWD+IFR1+MS
5300.000	14.970	12.760	5177.678	14.358	0.000	20.124	0.000	7.519	0.000	0.000	21.139	19.883	128.378	MWD+IFR1+MS
5400.000	14.970	12.760	5274.282	14.609	0.000	20.519	0.000	7.675	0.000	0.000	21.511	20.277	128.672	MWD+IFR1+MS
5500.000	14.970	12.760	5370.885	14.861	0.000	20.915	0.000	7.832	0.000	0.000	21.885	20.672	129.016	MWD+IFR1+MS
5600.000	14.970	12.760	5467.489	15.112	0.000	21.309	0.000	7.991	0.000	0.000	22.258	21.066	129.304	MWD+IFR1+MS
5700.000	14.970	12.760	5564.092	15.364	0.000	21.706	0.000	8.151	0.000	0.000	22.632	21.461	129.645	MWD+IFR1+MS
5800.000	14.970	12.760	5660.696	15.617	0.000	22.101	0.000	8.313	0.000	0.000	23.007	21.855	129.986	MWD+IFR1+MS
5900.000	14.970	12.760	5757.299	15.870	0.000	22.497	0.000	8.477	0.000	0.000	23.383	22.250	130.325	MWD+IFR1+MS
6000.000	14.970	12.760	5853.903	16.123	0.000	22.893	0.000	8.643	0.000	0.000	23.758	22.644	130.662	MWD+IFR1+MS
6109.500	14.970	12.760	5959.703	16.403	0.000	23.328	0.000	8.827	0.000	0.000	24.174	23.076	131.066	MWD+IFR1+MS
6200.000	13.160	12.760	6047.464	17.776	0.000	23.684	0.000	8.982	0.000	0.000	24.538	23.430	131.052	MWD+IFR1+MS

6300.000	11.160	12.760	6145.213	19.302	0.000	24.066	0.000	9.158	0.000	0.000	24.989	23.817	129.918	MWD+IFR1+MS
6400.000	9.166	12.760	6243.638	20.797	0.000	24.442	0.000	9.324	0.000	0.000	25.445	24.196	128.811	MWD+IFR1+MS
6500.000	7.166	12.760	6342.619	22.259	0.000	24.808	0.000	9.481	0.000	0.000	25.893	24.564	127.833	MWD+IFR1+MS
6600.000	5.166	12.760	6442.036	23.686	0.000	25.164	0.000	9.631	0.000	0.000	26.332	24.922	126.928	MWD+IFR1+MS
6700.000	3.166	12.760	6541.766	25.075	0.000	25.511	0.000	9.773	0.000	0.000	26.762	25.270	126.154	MWD+IFR1+MS
6800.000	1.166	12.760	6641.690	26.426	0.000	25.848	0.000	9.911	0.000	0.000	27.182	25.607	125.454	MWD+IFR1+MS
6858.300	0.000	0.000	6700.000	26.868	0.000	26.336	0.000	9.989	0.000	0.000	27.384	25.800	125.187	MWD+IFR1+MS
6900.000	0.000	0.000	6741.686	27.000	0.000	26.469	0.000	10.045	0.000	0.000	27.513	25.935	125.157	MWD+IFR1+MS
7000.000	0.000	0.000	6841.686	27.318	0.000	26.788	0.000	10.178	0.000	0.000	27.825	26.261	125.082	MWD+IFR1+MS
7100.000	0.000	0.000	6941.686	27.641	0.000	27.113	0.000	10.315	0.000	0.000	28.145	26.589	125.083	MWD+IFR1+MS
7200.000	0.000	0.000	7041.686	27.964	0.000	27.437	0.000	10.459	0.000	0.000	28.466	26.917	125.050	MWD+IFR1+MS
7300.000	0.000	0.000	7141.686	28.288	0.000	27.763	0.000	10.602	0.000	0.000	28.787	27.246	125.048	MWD+IFR1+MS
7400.000	0.000	0.000	7241.686	28.611	0.000	28.089	0.000	10.747	0.000	0.000	29.108	27.574	125.049	MWD+IFR1+MS
7500.000	0.000	0.000	7341.686	28.938	0.000	28.417	0.000	10.900	0.000	0.000	29.432	27.905	125.017	MWD+IFR1+MS
7600.000	0.000	0.000	7441.686	29.264	0.000	28.745	0.000	11.050	0.000	0.000	29.756	28.236	125.016	MWD+IFR1+MS
7700.000	0.000	0.000	7541.686	29.591	0.000	29.074	0.000	11.207	0.000	0.000	30.080	28.567	125.017	MWD+IFR1+MS
7800.000	0.000	0.000	7641.686	29.918	0.000	29.404	0.000	11.367	0.000	0.000	30.406	28.900	125.016	MWD+IFR1+MS
7900.000	0.000	0.000	7741.686	30.247	0.000	29.734	0.000	11.528	0.000	0.000	30.732	29.233	124.984	MWD+IFR1+MS
8000.000	0.000	0.000	7841.686	30.576	0.000	30.065	0.000	11.692	0.000	0.000	31.059	29.566	124.986	MWD+IFR1+MS
8100.000	0.000	0.000	7941.686	30.906	0.000	30.396	0.000	11.862	0.000	0.000	31.386	29.900	124.955	MWD+IFR1+MS
8200.000	0.000	0.000	8041.686	31.236	0.000	30.728	0.000	12.029	0.000	0.000	31.714	30.234	124.955	MWD+IFR1+MS
8300.000	0.000	0.000	8141.686	31.567	0.000	31.061	0.000	12.202	0.000	0.000	32.044	30.570	124.954	MWD+IFR1+MS
8400.000	0.000	0.000	8241.686	31.890	0.000	31.394	0.000	12.381	0.000	0.000	32.367	30.902	125.100	MWD+IFR1+MS
8500.000	0.000	0.000	8341.686	32.218	0.000	31.718	0.000	12.562	0.000	0.000	32.691	31.230	124.983	MWD+IFR1+MS
8600.000	0.000	0.000	8441.686	32.558	0.000	32.062	0.000	12.744	0.000	0.000	33.030	31.576	125.040	MWD+IFR1+MS
8700.000	0.000	0.000	8541.686	32.894	0.000	32.388	0.000	12.931	0.000	0.000	33.360	31.908	124.813	MWD+IFR1+MS
8800.000	0.000	0.000	8641.686	33.226	0.000	32.726	0.000	13.122	0.000	0.000	33.692	32.247	124.870	MWD+IFR1+MS
8900.000	0.000	0.000	8741.686	33.556	0.000	33.061	0.000	13.312	0.000	0.000	34.021	32.582	124.926	MWD+IFR1+MS
9000.000	0.000	0.000	8841.686	33.897	0.000	33.392	0.000	13.509	0.000	0.000	34.356	32.919	124.705	MWD+IFR1+MS
9100.000	0.000	0.000	8941.686	34.234	0.000	33.734	0.000	13.708	0.000	0.000	34.693	33.263	124.761	MWD+IFR1+MS
9200.000	0.000	0.000	9041.686	34.569	0.000	34.073	0.000	13.910	0.000	0.000	35.026	33.603	124.816	MWD+IFR1+MS
9300.000	0.000	0.000	9141.686	34.900	0.000	34.409	0.000	14.117	0.000	0.000	35.357	33.940	124.873	MWD+IFR1+MS
9400.000	0.000	0.000	9241.686	35.242	0.000	34.742	0.000	14.325	0.000	0.000	35.694	34.278	124.656	MWD+IFR1+MS

9500.000	0.000	0.000	9341.686	35.581	0.000	35.086	0.000	14.536	0.000	0.000	36.032	34.622	124.711	MWD+IFR1+MS
9600.000	0.000	0.000	9441.686	35.917	0.000	35.426	0.000	14.751	0.000	0.000	36.367	34.964	124.767	MWD+IFR1+MS
9700.000	0.000	0.000	9541.686	36.249	0.000	35.763	0.000	14.970	0.000	0.000	36.699	35.302	124.821	MWD+IFR1+MS
9800.000	0.000	0.000	9641.686	36.592	0.000	36.097	0.000	15.192	0.000	0.000	37.037	35.641	124.609	MWD+IFR1+MS
9900.000	0.000	0.000	9741.686	36.932	0.000	36.442	0.000	15.414	0.000	0.000	37.376	35.986	124.665	MWD+IFR1+MS
10000.000	0.000	0.000	9841.686	37.269	0.000	36.783	0.000	15.643	0.000	0.000	37.713	36.328	124.718	MWD+IFR1+MS
10100.000	0.000	0.000	9941.686	37.603	0.000	37.121	0.000	15.875	0.000	0.000	38.046	36.667	124.771	MWD+IFR1+MS
10200.000	0.000	0.000	10041.686	37.947	0.000	37.470	0.000	16.109	0.000	0.000	38.390	37.017	124.825	MWD+IFR1+MS
10300.000	0.000	0.000	10141.803	38.288	0.000	37.802	0.000	16.346	0.000	0.000	38.726	37.354	124.619	MWD+IFR1+MS
10400.000	7.990	179.600	10241.362	43.575	0.000	38.127	-0.000	16.592	0.000	0.000	39.196	37.745	120.233	MWD+IFR1+MS
10500.000	15.990	179.600	10339.101	48.597	0.000	38.415	-0.000	16.920	0.000	0.000	40.355	38.164	109.143	MWD+IFR1+MS
10600.000	23.990	179.600	10433.000	52.310	0.000	38.676	-0.000	17.418	0.000	0.000	41.448	38.471	104.528	MWD+IFR1+MS
10700.000	31.990	179.600	10521.230	54.560	0.000	38.896	-0.000	18.138	0.000	0.000	42.385	38.710	102.292	MWD+IFR1+MS
10800.000	39.990	179.600	10602.076	55.301	0.000	39.102	-0.000	19.110	0.000	0.000	43.162	38.924	101.127	MWD+IFR1+MS
10900.000	47.990	179.600	10673.963	54.498	0.000	39.268	-0.000	20.330	0.000	0.000	43.748	39.091	100.545	MWD+IFR1+MS
11000.000	55.990	179.600	10735.492	52.237	0.000	39.421	-0.000	21.762	0.000	0.000	44.173	39.240	100.329	MWD+IFR1+MS
11100.000	63.990	179.600	10785.465	48.615	0.000	39.536	-0.000	23.358	0.000	0.000	44.438	39.348	100.344	MWD+IFR1+MS
11200.000	71.980	179.600	10822.911	43.797	0.000	39.625	-0.000	25.060	0.000	0.000	44.591	39.429	100.495	MWD+IFR1+MS
11300.000	79.980	179.600	10847.099	37.873	0.000	39.688	-0.000	26.803	0.000	0.000	44.644	39.483	100.751	MWD+IFR1+MS
11400.000	87.980	179.600	10857.560	30.901	0.000	39.726	-0.000	28.531	0.000	0.000	44.662	39.513	100.968	MWD+IFR1+MS
11425.000	90.000	179.600	10858.000	28.615	0.000	39.726	-0.000	28.615	0.000	0.000	44.663	39.512	100.999	MWD+IFR1+MS
11500.000	90.000	179.600	10858.000	28.780	0.000	39.739	-0.000	28.780	0.000	0.000	44.667	39.521	101.116	MWD+IFR1+MS
11600.000	90.000	179.600	10858.000	28.998	0.000	39.789	-0.000	28.998	0.000	0.000	44.673	39.565	101.340	MWD+IFR1+MS
11700.000	90.000	179.600	10858.000	29.237	0.000	39.840	-0.000	29.237	0.000	0.000	44.679	39.608	101.567	MWD+IFR1+MS
11800.000	90.000	179.600	10858.000	29.494	0.000	39.928	-0.000	29.494	0.000	0.000	44.686	39.688	101.882	MWD+IFR1+MS
11900.000	90.000	179.600	10858.000	29.771	0.000	40.028	-0.000	29.771	0.000	0.000	44.695	39.779	102.236	MWD+IFR1+MS
12000.000	90.000	179.600	10858.000	30.065	0.000	40.153	-0.000	30.065	0.000	0.000	44.716	39.893	102.631	MWD+IFR1+MS
12100.000	90.000	179.600	10858.000	30.376	0.000	40.290	-0.000	30.376	0.000	0.000	44.727	40.019	103.104	MWD+IFR1+MS
12200.000	90.000	179.600	10858.000	30.705	0.000	40.451	-0.000	30.705	0.000	0.000	44.740	40.166	103.667	MWD+IFR1+MS
12300.000	90.000	179.600	10858.000	31.050	0.000	40.624	-0.000	31.050	0.000	0.000	44.765	40.324	104.263	MWD+IFR1+MS
12400.000	90.000	179.600	10858.000	31.410	0.000	40.820	-0.000	31.410	0.000	0.000	44.783	40.503	105.012	MWD+IFR1+MS
12500.000	90.000	179.600	10858.000	31.780	0.000	41.028	-0.000	31.780	0.000	0.000	44.813	40.692	105.817	MWD+IFR1+MS
12600.000	90.000	179.600	10858.000	32.171	0.000	41.259	-0.000	32.171	0.000	0.000	44.836	40.899	106.819	MWD+IFR1+MS

12700.000	90.000	179.600	10858.000	32.573	0.000	41.501	-0.000	32.573	0.000	0.000	44.873	41.115	107.916	MWD+IFR1+MS
12800.000	90.000	179.600	10858.000	33.000	0.000	41.765	-0.000	33.000	0.000	0.000	44.915	41.348	109.228	MWD+IFR1+MS
12900.000	90.000	179.600	10858.000	33.422	0.000	42.052	-0.000	33.422	0.000	0.000	44.955	41.594	110.875	MWD+IFR1+MS
13000.000	90.000	179.600	10858.000	33.867	0.000	42.348	-0.000	33.867	0.000	0.000	45.011	41.845	112.717	MWD+IFR1+MS
13100.000	90.000	179.600	10858.000	34.322	0.000	42.666	-0.000	34.322	0.000	0.000	45.079	42.106	114.943	MWD+IFR1+MS
13200.000	90.000	179.600	10858.000	34.799	0.000	42.993	-0.000	34.799	0.000	0.000	45.158	42.365	117.531	MWD+IFR1+MS
13300.000	90.000	179.600	10858.000	35.270	0.000	43.341	-0.000	35.270	0.000	0.000	45.256	42.625	120.653	MWD+IFR1+MS
13400.000	90.000	179.600	10858.000	35.763	0.000	43.697	-0.000	35.763	0.000	0.000	45.373	42.875	124.220	MWD+IFR1+MS
13500.000	90.000	179.600	10858.000	36.263	0.000	44.073	-0.000	36.263	0.000	0.000	45.520	43.115	128.354	MWD+IFR1+MS
13600.000	90.000	179.600	10858.000	36.770	0.000	44.457	-0.000	36.770	0.000	0.000	45.697	43.334	132.819	MWD+IFR1+MS
13700.000	90.000	179.600	10858.000	37.296	0.000	44.861	-0.000	37.296	0.000	0.000	45.913	43.531	-42.442	MWD+IFR1+MS
13800.000	90.000	179.600	10858.000	37.829	0.000	45.282	-0.000	37.829	0.000	0.000	46.172	43.705	-37.687	MWD+IFR1+MS
13900.000	90.000	179.600	10858.000	38.367	0.000	45.711	-0.000	38.367	0.000	0.000	46.468	43.849	-33.289	MWD+IFR1+MS
14000.000	90.000	179.600	10858.000	38.910	0.000	46.158	-0.000	38.910	0.000	0.000	46.804	43.970	-29.304	MWD+IFR1+MS
14100.000	90.000	179.600	10858.000	39.459	0.000	46.611	-0.000	39.459	0.000	0.000	47.170	44.079	-25.956	MWD+IFR1+MS
14200.000	90.000	179.600	10858.000	40.025	0.000	47.080	-0.000	40.025	0.000	0.000	47.567	44.164	-22.980	MWD+IFR1+MS
14300.000	90.000	179.600	10858.000	40.596	0.000	47.556	-0.000	40.596	0.000	0.000	47.985	44.243	-20.562	MWD+IFR1+MS
14400.000	90.000	179.600	10858.000	41.170	0.000	48.048	-0.000	41.170	0.000	0.000	48.428	44.303	-18.441	MWD+IFR1+MS
14500.000	90.000	179.600	10858.000	41.761	0.000	48.545	-0.000	41.761	0.000	0.000	48.885	44.365	-16.694	MWD+IFR1+MS
14600.000	90.000	179.600	10858.000	42.344	0.000	49.057	-0.000	42.344	0.000	0.000	49.364	44.410	-15.165	MWD+IFR1+MS
14700.000	90.000	179.600	10858.000	42.942	0.000	49.585	-0.000	42.942	0.000	0.000	49.863	44.460	-13.871	MWD+IFR1+MS
14800.000	90.000	179.600	10858.000	43.543	0.000	50.116	-0.000	43.543	0.000	0.000	50.370	44.496	-12.744	MWD+IFR1+MS
14900.000	90.000	179.600	10858.000	44.159	0.000	50.652	-0.000	44.159	0.000	0.000	50.885	44.539	-11.797	MWD+IFR1+MS
15000.000	90.000	179.600	10858.000	44.766	0.000	51.202	-0.000	44.766	0.000	0.000	51.417	44.579	-10.957	MWD+IFR1+MS
15100.000	90.000	179.600	10858.000	45.387	0.000	51.766	-0.000	45.387	0.000	0.000	51.965	44.617	-10.218	MWD+IFR1+MS
15200.000	90.000	179.600	10858.000	46.011	0.000	52.333	-0.000	46.011	0.000	0.000	52.518	44.653	-9.564	MWD+IFR1+MS
15300.000	90.000	179.600	10858.000	46.637	0.000	52.912	-0.000	46.637	0.000	0.000	53.084	44.677	-8.964	MWD+IFR1+MS
15400.000	90.000	179.600	10858.000	47.276	0.000	53.505	-0.000	47.276	0.000	0.000	53.665	44.710	-8.440	MWD+IFR1+MS
15500.000	90.000	179.600	10858.000	47.906	0.000	54.090	-0.000	47.906	0.000	0.000	54.241	44.742	-7.982	MWD+IFR1+MS
15600.000	90.000	179.600	10858.000	48.549	0.000	54.697	-0.000	48.549	0.000	0.000	54.839	44.785	-7.558	MWD+IFR1+MS
15700.000	90.000	179.600	10858.000	49.193	0.000	55.306	-0.000	49.193	0.000	0.000	55.440	44.815	-7.175	MWD+IFR1+MS
15800.000	90.000	179.600	10858.000	49.850	0.000	55.918	-0.000	49.850	0.000	0.000	56.044	44.844	-6.829	MWD+IFR1+MS
15900.000	90.000	179.600	10858.000	50.498	0.000	56.549	-0.000	50.498	0.000	0.000	56.669	44.874	-6.504	MWD+IFR1+MS

16000.000	90.000	179.600	10858.000	51.157	0.000	57.174	-0.000	51.157	0.000	0.000	57.287	44.902	-6.214	MWD+IFR1+MS
16100.000	90.000	179.600	10858.000	51.817	0.000	57.809	-0.000	51.817	0.000	0.000	57.917	44.940	-5.954	MWD+IFR1+MS
16200.000	90.000	179.600	10858.000	52.488	0.000	58.454	-0.000	52.488	0.000	0.000	58.557	44.968	-5.703	MWD+IFR1+MS
16300.000	90.000	179.600	10858.000	53.151	0.000	59.101	-0.000	53.151	0.000	0.000	59.198	44.995	-5.473	MWD+IFR1+MS
16400.000	90.000	179.600	10858.000	53.824	0.000	59.757	-0.000	53.824	0.000	0.000	59.851	45.032	-5.265	MWD+IFR1+MS
16500.000	90.000	179.600	10858.000	54.498	0.000	60.423	-0.000	54.498	0.000	0.000	60.512	45.059	-5.063	MWD+IFR1+MS
16600.000	90.000	179.600	10858.000	55.172	0.000	61.090	-0.000	55.172	0.000	0.000	61.175	45.096	-4.882	MWD+IFR1+MS
16700.000	90.000	179.600	10858.000	55.857	0.000	61.757	-0.000	55.857	0.000	0.000	61.839	45.132	-4.715	MWD+IFR1+MS
16800.000	90.000	179.600	10858.000	56.542	0.000	62.434	-0.000	56.542	0.000	0.000	62.512	45.158	-4.554	MWD+IFR1+MS
16900.000	90.000	179.600	10858.000	57.228	0.000	63.119	-0.000	57.228	0.000	0.000	63.194	45.194	-4.405	MWD+IFR1+MS
17000.000	90.000	179.600	10858.000	57.914	0.000	63.804	-0.000	57.914	0.000	0.000	63.877	45.230	-4.265	MWD+IFR1+MS
17100.000	90.000	179.600	10858.000	58.600	0.000	64.498	-0.000	58.600	0.000	0.000	64.568	45.266	-4.133	MWD+IFR1+MS
17200.000	90.000	179.600	10858.000	59.296	0.000	65.192	-0.000	59.296	0.000	0.000	65.259	45.290	-4.007	MWD+IFR1+MS
17300.000	90.000	179.600	10858.000	59.992	0.000	65.894	-0.000	59.992	0.000	0.000	65.959	45.326	-3.890	MWD+IFR1+MS
17400.000	90.000	179.600	10858.000	60.688	0.000	66.596	-0.000	60.688	0.000	0.000	66.659	45.361	-3.781	MWD+IFR1+MS
17500.000	90.000	179.600	10858.000	61.384	0.000	67.306	-0.000	61.384	0.000	0.000	67.366	45.396	-3.676	MWD+IFR1+MS
17600.000	90.000	179.600	10858.000	62.089	0.000	68.023	-0.000	62.089	0.000	0.000	68.081	45.431	-3.577	MWD+IFR1+MS
17700.000	90.000	179.600	10858.000	62.793	0.000	68.740	-0.000	62.793	0.000	0.000	68.796	45.466	-3.484	MWD+IFR1+MS
17800.000	90.000	179.600	10858.000	63.498	0.000	69.456	-0.000	63.498	0.000	0.000	69.510	45.512	-3.395	MWD+IFR1+MS
17900.000	90.000	179.600	10858.000	64.203	0.000	70.180	-0.000	64.203	0.000	0.000	70.232	45.546	-3.311	MWD+IFR1+MS
18000.000	90.000	179.600	10858.000	64.908	0.000	70.910	-0.000	64.908	0.000	0.000	70.960	45.581	-3.230	MWD+IFR1+MS
18100.000	90.000	179.600	10858.000	65.620	0.000	71.639	-0.000	65.620	0.000	0.000	71.689	45.615	-3.154	MWD+IFR1+MS
18200.000	90.000	179.600	10858.000	66.332	0.000	72.376	-0.000	66.332	0.000	0.000	72.423	45.660	-3.083	MWD+IFR1+MS
18300.000	90.000	179.600	10858.000	67.045	0.000	73.111	-0.000	67.045	0.000	0.000	73.157	45.694	-3.012	MWD+IFR1+MS
18400.000	90.000	179.600	10858.000	67.764	0.000	73.853	-0.000	67.764	0.000	0.000	73.898	45.740	-2.946	MWD+IFR1+MS
18500.000	90.000	179.600	10858.000	68.476	0.000	74.601	-0.000	68.476	0.000	0.000	74.644	45.773	-2.882	MWD+IFR1+MS
18600.000	90.000	179.600	10858.000	69.195	0.000	75.348	-0.000	69.195	0.000	0.000	75.390	45.818	-2.821	MWD+IFR1+MS
18700.000	90.000	179.600	10858.000	69.914	0.000	76.094	-0.000	69.914	0.000	0.000	76.135	45.852	-2.763	MWD+IFR1+MS
18800.000	90.000	179.600	10858.000	70.640	0.000	76.846	-0.000	70.640	0.000	0.000	76.886	45.897	-2.708	MWD+IFR1+MS
18900.000	90.000	179.600	10858.000	71.358	0.000	77.604	-0.000	71.358	0.000	0.000	77.643	45.941	-2.654	MWD+IFR1+MS
19000.000	90.000	179.600	10858.000	72.083	0.000	78.360	-0.000	72.083	0.000	0.000	78.398	45.986	-2.603	MWD+IFR1+MS
19100.000	90.000	179.600	10858.000	72.808	0.000	79.123	-0.000	72.808	0.000	0.000	79.160	46.019	-2.553	MWD+IFR1+MS
19200.000	90.000	179.600	10858.000	73.532	0.000	79.884	-0.000	73.532	0.000	0.000	79.920	46.064	-2.506	MWD+IFR1+MS

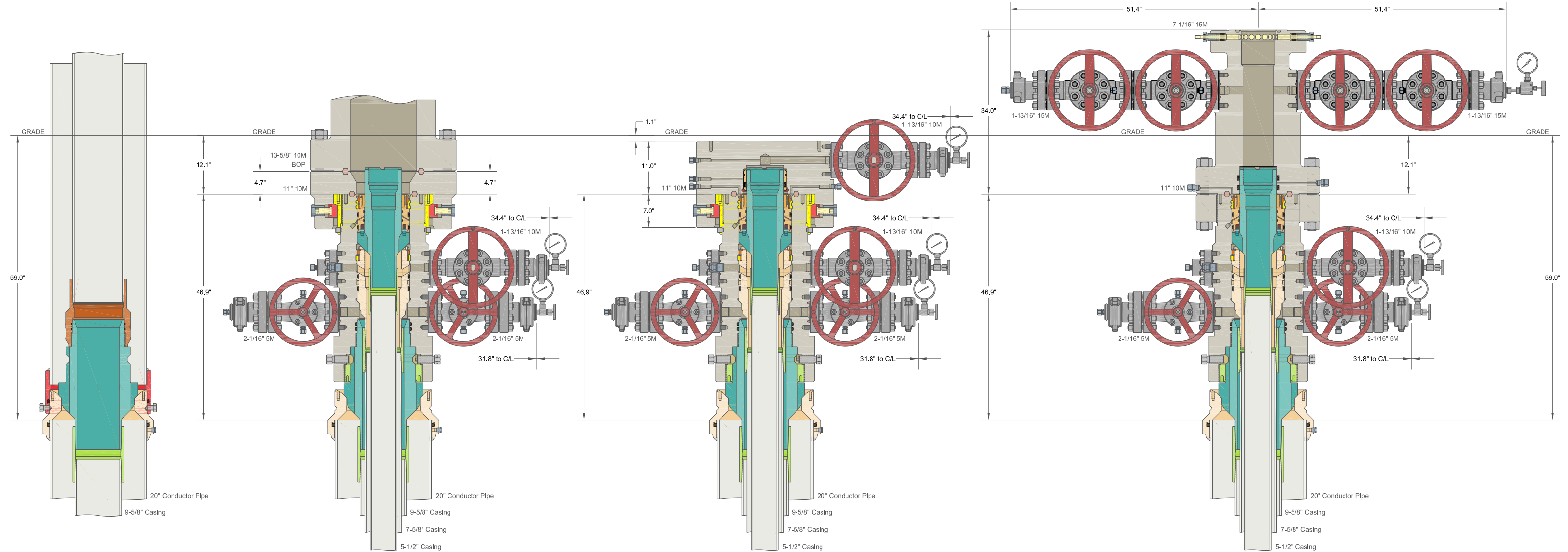
19300.000	90.000	179.600	10858.000	74.263	0.000	80.650	-0.000	74.263	0.000	0.000	80.685	46.108	-2.461	MWD+IFR1+MS
19400.000	90.000	179.600	10858.000	74.993	0.000	81.415	-0.000	74.993	0.000	0.000	81.449	46.152	-2.417	MWD+IFR1+MS
19500.000	90.000	179.600	10858.000	75.723	0.000	82.185	-0.000	75.723	0.000	0.000	82.219	46.196	-2.375	MWD+IFR1+MS
19600.000	90.000	179.600	10858.000	76.453	0.000	82.961	-0.000	76.453	0.000	0.000	82.993	46.240	-2.334	MWD+IFR1+MS
19700.000	90.000	179.600	10858.000	77.182	0.000	83.735	-0.000	77.182	0.000	0.000	83.766	46.284	-2.294	MWD+IFR1+MS
19800.000	90.000	179.600	10858.000	77.917	0.000	84.513	-0.000	77.917	0.000	0.000	84.544	46.328	-2.257	MWD+IFR1+MS
19900.000	90.000	179.600	10858.000	78.651	0.000	85.291	-0.000	78.651	0.000	0.000	85.321	46.382	-2.221	MWD+IFR1+MS
20000.000	90.000	179.600	10858.000	79.385	0.000	86.067	-0.000	79.385	0.000	0.000	86.097	46.426	-2.185	MWD+IFR1+MS
20100.000	90.000	179.600	10858.000	80.119	0.000	86.854	-0.000	80.119	0.000	0.000	86.883	46.469	-2.151	MWD+IFR1+MS
20200.000	90.000	179.600	10858.000	80.858	0.000	87.633	-0.000	80.858	0.000	0.000	87.662	46.524	-2.118	MWD+IFR1+MS
20300.000	90.000	179.600	10858.000	81.597	0.000	88.423	-0.000	81.597	0.000	0.000	88.451	46.567	-2.087	MWD+IFR1+MS
20400.000	90.000	179.600	10858.000	82.335	0.000	89.211	-0.000	82.335	0.000	0.000	89.238	46.611	-2.056	MWD+IFR1+MS
20500.000	90.000	179.600	10858.000	83.072	0.000	89.998	-0.000	83.072	0.000	0.000	90.024	46.665	-2.026	MWD+IFR1+MS
20600.000	90.000	179.600	10858.000	83.815	0.000	90.789	-0.000	83.815	0.000	0.000	90.815	46.719	-1.997	MWD+IFR1+MS
20700.000	90.000	179.600	10858.000	84.558	0.000	91.584	-0.000	84.558	0.000	0.000	91.610	46.762	-1.969	MWD+IFR1+MS
20800.000	90.000	179.600	10858.000	85.299	0.000	92.378	-0.000	85.299	0.000	0.000	92.403	46.816	-1.942	MWD+IFR1+MS
20900.000	90.000	179.600	10858.000	86.041	0.000	93.176	-0.000	86.041	0.000	0.000	93.200	46.869	-1.916	MWD+IFR1+MS
21000.000	90.000	179.600	10858.000	86.781	0.000	93.972	-0.000	86.781	0.000	0.000	93.996	46.913	-1.890	MWD+IFR1+MS
21100.000	90.000	179.600	10858.000	87.527	0.000	94.772	-0.000	87.527	0.000	0.000	94.795	46.966	-1.865	MWD+IFR1+MS
21200.000	90.000	179.600	10858.000	88.272	0.000	95.571	-0.000	88.272	0.000	0.000	95.594	47.020	-1.842	MWD+IFR1+MS
21300.000	90.000	179.600	10858.000	89.017	0.000	96.373	-0.000	89.017	0.000	0.000	96.396	47.073	-1.818	MWD+IFR1+MS
21400.000	90.000	179.600	10858.000	89.761	0.000	97.174	-0.000	89.761	0.000	0.000	97.196	47.126	-1.795	MWD+IFR1+MS
21500.000	90.000	179.600	10858.000	90.510	0.000	97.979	-0.000	90.510	0.000	0.000	98.000	47.180	-1.773	MWD+IFR1+MS
21600.000	90.000	179.600	10858.000	91.258	0.000	98.787	-0.000	91.258	0.000	0.000	98.808	47.233	-1.752	MWD+IFR1+MS
21700.000	90.000	179.600	10858.000	92.005	0.000	99.594	-0.000	92.005	0.000	0.000	99.614	47.286	-1.731	MWD+IFR1+MS
21788.000	90.000	179.600	10858.000	92.666	0.000	100.264	-0.000	92.666	0.000	0.000	100.285	47.339	-1.715	MWD+IFR1+MS
21800.000	90.000	179.600	10858.000	92.752	0.000	100.364	-0.000	92.752	0.000	0.000	100.384	47.339	-1.712	MWD+IFR1+MS
21838.000	90.000	179.600	10858.000	93.038	0.000	100.662	-0.000	93.038	0.000	0.000	100.683	47.360	-1.705	MWD+IFR1+MS

Plan Targets

509H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 15	11425.11	440419.10	666526.40	7307.00	RECTANGLE

LTP 15	21788.41	430056.00	666590.60	7307.00	RECTANGLE
BHL 15	21838.04	430006.00	666590.90	7307.00	RECTANGLE



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

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 298267

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 298267
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply.	12/29/2023