

Well Name: JRU APACHE U FEDERAL COM	Well Location: T22S / R30E / SEC 24 / NENE / 32.383801 / -103.828919	County or Parish/State: EDDY / NM
Well Number: 708H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM89051	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2834135

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 01/28/2025	Time Sundry Submitted: 11:08
Date proposed operation will begin: 02/07/2025	

Procedure Description: JRU APACHE U FEDERAL COM 708H APD ID# 10400081579 SUNDRY LANGUAGE XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, KOP, FTP, LTP, BHL, casing design, cement program, mud circulation system and proposed total depth. FROM: TO: SHL: 381' FNL & 1029' FEL OF SECTION 24-T22S-R30E 380' FNL & 949' FEL OF SECTION 24-T22S-R30E KOP: 381' FNL & 1029' FEL OF SECTION 24-T22S-R30E 610' FNL & 330' FEL OF SECTION 24-T22S-R30E FTP: 330' FSL & 330' FEL OF SECTION 13-T22S-R30E 610' FNL & 330' FEL OF SECTION 24-T22S-R30E LTP: 330' FSL & 2540' FEL OF SECTION 14-T22S-R30E 610' FNL & 2579' FEL OF SECTION 23-T22S-R30E BHL: 330' FSL & 2590' FEL OF SECTION 14-T22S-R30E 610' FNL & 2629' FEL OF SECTION 23-T22S-R30E The proposed total depth is changing from 17703' MD/9532' TVD to 17185.75' MD/9809' TVD There are no changes requested to the facilities/surface usage that was approved along with the APD. See attached drilling program for the updated casing design, cement program and the mud circulation system. Attachments: C-102, Drilling Program, Directional Plan, Choke Manifold Diagram, BOP Diagram, Spec documents for Non-API Casing, MBS diagram, Well Bore Diagram.

NOI Attachments

Procedure Description

Sundry_Attachments___James_Ranch_Unit_Apache_708H_20250128110802.pdf

Received by OCD: 3/7/2025 10:01:59 AM

Page 2 of 35

Well Name: JRU APACHE U FEDERAL COM	Well Location: T22S / R30E / SEC 24 / NENE / 32.383801 / -103.828919	County or Parish/State: EDDY / NM
Well Number: 708H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM89051	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional
JRU_Apache_U_Fed_Com_708H_COA_20250226165351.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: SRINIVAS LAGHUVARAPU
Signed on: JAN 28, 2025 09:34 AM
Name: XTO PERMIAN OPERATING LLC
Title: REGULATORY ANALYST
Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY
City: SPRING State: TX
Phone: (720) 539-1673
Email address: SRINIVAS.N.LAGHUVARAPU@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: 02/28/2025
Signature: Chris Walls

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No.
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> 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			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

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

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Additional Remarks

LTP: 330' FSL & 2540' FEL OF SECTION 14-T22S-R30E 610' FNL & 2579' FEL OF SECTION 23-T22S-R30E

BHL: 330' FSL & 2590' FEL OF SECTION 14-T22S-R30E 610' FNL & 2629' FEL OF SECTION 23-T22S-R30E

The proposed total depth is changing from 17703 MD/9532 TVD to 17185.75 MD/9809 TVD

There are no changes requested to the facilities/surface usage that was approved along with the APD.

See attached drilling program for the updated casing design, cement program and the mud circulation system.

Attachments: C-102, Drilling Program, Directional Plan, Choke Manifold Diagram, BOP Diagram, Spec documents for Non-API Casing, MBS diagram, Well Bore Diagram.

Location of Well

0. SHL: NENE / 381 FNL / 1029 FEL / TWSP: 22S / RANGE: 30E / SECTION: 24 / LAT: 32.383801 / LONG: -103.828919 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 332 FSL / 1334 FWL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.385773 / LONG: -103.838557 (TVD: 9572 feet, MD: 14200 feet)

PPP: SESE / 330 FSL / 330 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.385754 / LONG: -103.826654 (TVD: 9617 feet, MD: 10200 feet)

BHL: SWSE / 330 FSL / 2590 FEL / TWSP: 22S / RANGE: 30E / SECTION: 14 / LAT: 32.385791 / LONG: -103.85127 (TVD: 9532 feet, MD: 17703 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	NMNM89051
LOCATION:	Sec. 24, T.22 S, R 30 E
COUNTY:	Eddy County, New Mexico ▼
WELL NAME & NO.:	JRU Apache U Fed Com 708H
SURFACE HOLE FOOTAGE:	380'/N & 949'/E
BOTTOM HOLE FOOTAGE:	610'/N & 2629'/E

Changes approved through engineering via **Sundry 2834135** on 2-26-2025. Any previous COAs not addressed within the updated COAs still apply.

COA

H ₂ S	<input checked="" type="radio"/> No		<input type="radio"/> Yes	
Potash / WIPP	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-Q	<input checked="" type="checkbox"/> Open Annulus <input checked="" type="checkbox"/> WIPP
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

A. HYDROGEN SULFIDE

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

APD is within the R-111-Q defined boundary. Operator must follow all procedures and requirements listed within the updated order.

B. CASING

1. The **9-5/8** inch surface casing shall be set at approximately **673** 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:
 - 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.**
 3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
 - Cement should tie-back **500 feet** into the previous casing but not higher than USGS Marker Bed No. 126. **Operator must verify top of cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. Operator shall provide method of verification.
- ❖ **A monitored open annulus will be incorporated during completion by leaving the Intermediate Casing x Production Casing annulus un-cemented and monitored inside the Intermediate String.** Operator must follow monitoring requirements listed within R-111-Q. Tieback requirements shall be met within **180 days**.

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)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR 3171 and 3172.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

WIPP Requirements

The proposed surface well or bottom hole is located within 330 feet of the WIPP Land Withdrawal Area boundary. As a result, the operator is required to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management Engineering Department and the U.S. Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum, the depth of any excess mud returns (brine flows), the rate of penetration and a clearly marked

section showing the deviation for each 500-foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Any oil and gas well operator drilling within one mile of the WIPP Boundary must notify WIPP as soon as possible if any of the following conditions are encountered during oil and gas operations: R-111-Q Amendment - Notification to Operators (Potash)

- a) Indication of any well collision event,
- b) Suspected well fluid flow (oil, gas, or produced water) outside of casing,
- c) Sustained annulus pressure between the 1st intermediate and next innermost casing string in excess of 500 psi above the baseline pressure of the well, or above 1500 psi total,
- d) Increasing pressure buildup rates (psi/day) across multiple successive bleed-off cycles on the annulus between the 1st intermediate and next innermost casing during well production, or
- e) Sustained losses in excess of 50% through the salt formation during drilling.

The operator can email the required information to OilGasReports@wipp.ws. Attached files must not be greater than 20 MB. Call WIPP Tech Support at 575-234-7422, during the hours 7:00am to 4:30pm, if there are any issues sending to this address.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted **Choose an item.** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Offline Cementing

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

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

Casing Clearance

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

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

Casing Clearance

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

GENERAL REQUIREMENTS

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

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

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;
[BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's

requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve

open. (only applies to single stage cement jobs, prior to the cement setting up.)

- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- vii. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Approved by Zota Stevens on 2/26/2025
575-234-5998 / zstevens@blm.gov

C-102 Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
			<input checked="" type="checkbox"/> Amended Report
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION			
API Number 30-015-	Pool Code 40295	Pool Name Los Medanos; Bone Spring	
Property Code	Property Name JRU Apache U Federal Com	Well Number 708H	
OGRID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,375'	
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

Surface Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	24	22S	30E		380 FNL	949 FEL	32.383805	-103.828660	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	23	22S	30E		610 FNL	2,629 FEL	32.383208	-103.851405	EDDY


Dedicated Acres 240.00	Infill or Defining Well DEFINING	Defining Well API	Overlapping Spacing Unit (Y/N) Y	Consolidation Code U
Order Numbers. R-279-C			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	24	22S	30E		610 FNL	330 FEL	32.383170	-103.826655	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	24	22S	30E		610 FNL	330 FEL	32.383170	-103.826655	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	23	22S	30E		610 FNL	2,579 FEL	32.383208	-103.851243	EDDY

Unitized Area of Area of Interest NMMN-070965X	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,375'
--	--	-----------------------------------

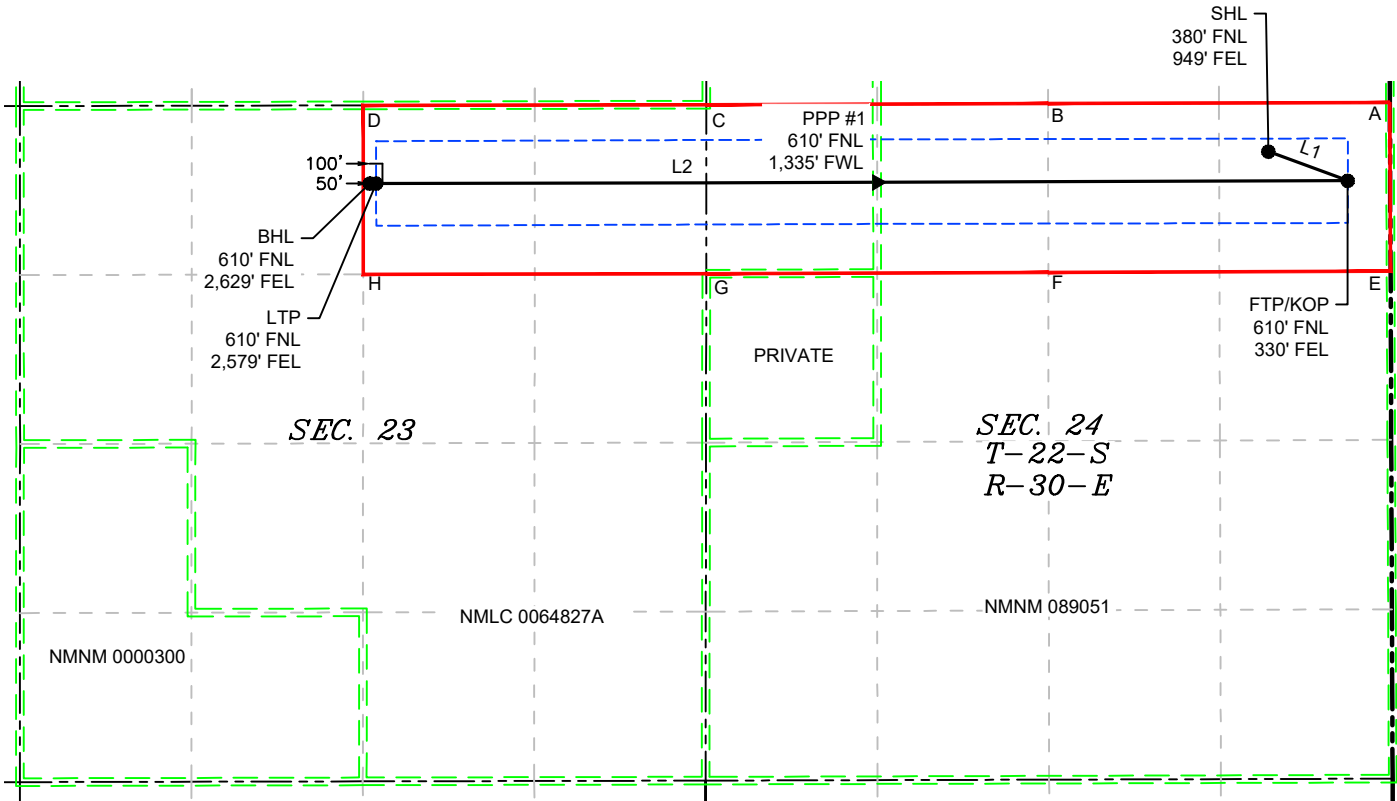
<div>OPERATOR CERTIFICATIONS</div> <div><p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</i></p><p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p><div><div>Srinivas Naveen</div><div>1/3/25</div></div><div>SignatureDate</div><div>Srinivas Naveen Laghuvarapu</div><div>Printed Name</div><div>srinivas.n.laghuvarapu@exxonmobil.com</div><div>Email Address</div></div>	<div>SURVEYOR CERTIFICATIONS</div> <div><p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i></p><div><div></div><div>Signature and Seal of Professional Surveyor</div></div><div><div>MARK DILLON HARP 23786</div><div>12/9/2024</div></div><div>Certificate NumberDate of Survey</div><div>KT618.013002.10-36</div></div>
--	--

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

ACREAGE DEDICATION PLATS

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

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



LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	110°10'28.65"	660.44
L2	269°50'14.30"	7,640.22

LEGEND

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

COORDINATE TABLE

SHL (NAD 83 NME)			SHL (NAD 27 NME)		
Y =	503,727.1	N	Y =	503,666.5	N
X =	697,125.9	E	X =	655,944.4	E
LAT. =	32.383805	°N	LAT. =	32.383682	°N
LONG. =	103.828660	°W	LONG. =	103.828166	°W
FTP/KOP (NAD 83 NME)			FTP/KOP (NAD 27 NME)		
Y =	503,499.3	N	Y =	503,438.8	N
X =	697,745.9	E	X =	656,564.3	E
LAT. =	32.383170	°N	LAT. =	32.383048	°N
LONG. =	103.826655	°W	LONG. =	103.826162	°W
PPP #1 (NAD 83 NME)			PPP #1 (NAD 83 NME)		
Y =	503,487.6	N	Y =	503,427.0	N
X =	694,069.7	E	X =	652,888.2	E
LAT. =	32.383186	°N	LAT. =	32.383063	°N
LONG. =	103.838564	°W	LONG. =	103.838070	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	503,477.7	N	Y =	503,417.1	N
X =	690,155.7	E	X =	648,974.1	E
LAT. =	32.383208	°N	LAT. =	32.383085	°N
LONG. =	103.851243	°W	LONG. =	103.850749	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	503,477.6	N	Y =	503,417.0	N
X =	690,105.7	E	X =	648,924.1	E
LAT. =	32.383208	°N	LAT. =	32.383085	°N
LONG. =	103.851405	°W	LONG. =	103.850911	°W

CORNER COORDINATES (NAD 83 NME)

A - Y =	504,110.5	N	A - X =	698,073.3	E
B - Y =	504,101.3	N	B - X =	695,403.9	E
C - Y =	504,092.8	N	C - X =	692,735.3	E
D - Y =	504,087.6	N	D - X =	690,056.2	E
E - Y =	504,081.7	N	E - X =	687,374.1	E
F - Y =	502,793.0	N	F - X =	698,078.8	E
G - Y =	502,783.1	N	G - X =	695,405.9	E
H - Y =	502,773.8	N	H - X =	692,733.8	E
I - Y =	502,768.1	N	I - X =	690,055.0	E
J - Y =	502,762.3	N	J - X =	687,374.3	E

CORNER COORDINATES (NAD 27 NME)

A - Y =	504,049.9	N	A - X =	656,891.7	E
B - Y =	504,040.7	N	B - X =	654,222.4	E
C - Y =	504,032.2	N	C - X =	651,553.8	E
D - Y =	504,026.9	N	D - X =	648,874.7	E
E - Y =	504,021.0	N	E - X =	646,192.7	E
F - Y =	502,732.5	N	F - X =	656,897.2	E
G - Y =	502,722.6	N	G - X =	654,224.3	E
H - Y =	502,713.2	N	H - X =	651,552.3	E
I - Y =	502,707.5	N	I - X =	648,873.4	E
J - Y =	502,701.6	N	J - X =	646,192.8	E

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

XTO Energy Inc.

JRU Apache U Federal Com 708H

Projected TD: 17185.75' MD / 9809' TVD

SHL: 380' FNL & 949' FEL , Section 24, T22S, R30E

BHL: 610' FNL & 2629' FEL , Section 23, T22S, 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	483'	Water
Top of Salt	773'	Water
MB 126	1467'	Water
Base of Salt	3628'	Water
Delaware	3886'	Water/Oil/Gas
Brushy Canyon	6629'	Water
Bone Spring	7765'	Water/Oil/Gas
Avalon	7841'	Water/Oil/Gas
1st Bone Spring	8685'	Water/Oil/Gas
2nd Bone Spring	9271'	Water/Oil/Gas
Target/Land Curve	9809'	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 surface casing casing @ 673' (100' 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 3871' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 17185.75 MD/TD and 5.5 inch production casing will be set at TD.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 673'	9.625	40	J-55	BTC	New	3.72	9.35	23.40
8.75	0' – 3871'	7.625	29.7	RY P-110	Flush Joint	New	3.81	2.87	4.85
6.75	0' – 3771'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.26	6.22	2.53
6.75	3771' - 17185.75'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.26	2.39	2.53

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing

Wellhead:

Permanent Wellhead
Multibowl System for 3 String desing as per attachement.

4. Cement Program

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.

Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 673'

Lead: 120 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

1St Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 3871'

Lead: 190 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface
Tail: 30 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC:@ 3571
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

Production Casing: 5.5, 20 New Semi-Flush / Talon, RY P-110 casing to be set at +/- 17185.75'

Lead: 100 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water)	Top of Cement:	6629 feet
Tail: 570 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water)	Top of Cement:	9136.72 feet
Compressives:	12-hr = 800 psi	24 hr = 1500 psi

5. Pressure Control Equipment

Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of 5M Hydril and 10M 3-Ram BOP.

All BOP testing will be done by an independent service company. Operator will test as per CFR43-3172

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold.

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 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.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Additional Comments
0' - 673'	12.25	FW/Native	8.4-8.9	35-40	NC	Fresh water or native water
673' - 3871'	8.75	Saturated brine for salt	9.5-10.5	30-32	NC	Fully saturated salt across salado
3871' - 17185.75'	6.75	OBM	9.1-9.6	50-60	NC - 20	N/A

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

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

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 165 to 185 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.

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

Measured Depth: 17185.75 ft

TVD RKB: 9809.00 ft

Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 503666.50 ft

Easting: 655944.40 ft

RKB: 3407.00 ft

Ground Level: 3375.00 ft

North Reference: Grid

Convergence Angle: 0.27 Deg

Site: H

Slot: James Ranch Unit
Apache 708H

Plan Sections

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	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	
4091.01	7.82	110.17	4089.80	-9.19	25.01	2.00	0.00	2.00	
8552.91	7.82	110.17	8510.20	-218.51	594.89	0.00	0.00	0.00	
8943.92	0.00	0.00	8900.00	-227.70	619.90	-2.00	0.00	2.00	
9136.72	0.00	0.00	9092.80	-227.70	619.90	0.00	0.00	0.00	
10261.72	90.00	269.84	9809.00	-229.75	-96.29	8.00	0.00	8.00	
17135.69	90.00	269.84	9809.00	-249.43	-6970.24	0.00	0.00	0.00	LTP 1
17185.75	90.00	269.84	9809.00	-249.57	-7020.30	0.00	0.00	0.00	BHL 1

Position Uncertainty

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

Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.347	0.000	0.000	2.108	1.344	126.713	MWD+IFR1+MS
500.000	0.000	0.000	500.000	2.240	0.000	2.034	0.000	2.374	0.000	0.000	2.503	1.701	127.419	MWD+IFR1+MS
600.000	0.000	0.000	600.000	2.607	0.000	2.405	0.000	2.407	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	2.444	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	2.486	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	2.532	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	2.581	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	2.635	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	0.000	0.000	1200.000	4.779	0.000	4.589	0.000	2.691	0.000	0.000	5.119	4.207	128.954	MWD+IFR1+MS
1300.000	0.000	0.000	1300.000	5.140	0.000	4.950	0.000	2.751	0.000	0.000	5.484	4.565	129.034	MWD+IFR1+MS
1400.000	0.000	0.000	1400.000	5.500	0.000	5.311	0.000	2.814	0.000	0.000	5.849	4.924	129.102	MWD+IFR1+MS
1500.000	0.000	0.000	1500.000	5.860	0.000	5.672	0.000	2.879	0.000	0.000	6.213	5.282	129.161	MWD+IFR1+MS
1600.000	0.000	0.000	1600.000	6.219	0.000	6.032	0.000	2.946	0.000	0.000	6.577	5.640	129.212	MWD+IFR1+MS
1700.000	0.000	0.000	1700.000	6.579	0.000	6.392	0.000	3.016	0.000	0.000	6.939	5.999	129.257	MWD+IFR1+MS
1800.000	0.000	0.000	1800.000	6.938	0.000	6.752	0.000	3.088	0.000	0.000	7.302	6.357	129.297	MWD+IFR1+MS
1900.000	0.000	0.000	1900.000	7.298	0.000	7.112	0.000	3.161	0.000	0.000	7.664	6.715	129.333	MWD+IFR1+MS
2000.000	0.000	0.000	2000.000	7.657	0.000	7.471	0.000	3.237	0.000	0.000	8.026	7.074	129.365	MWD+IFR1+MS
2100.000	0.000	0.000	2100.000	8.016	0.000	7.831	0.000	3.314	0.000	0.000	8.387	7.432	129.394	MWD+IFR1+MS
2200.000	0.000	0.000	2200.000	8.375	0.000	8.190	0.000	3.393	0.000	0.000	8.748	7.791	129.420	MWD+IFR1+MS
2300.000	0.000	0.000	2300.000	8.734	0.000	8.550	0.000	3.473	0.000	0.000	9.109	8.149	129.444	MWD+IFR1+MS
2400.000	0.000	0.000	2400.000	9.093	0.000	8.909	0.000	3.555	0.000	0.000	9.470	8.507	129.466	MWD+IFR1+MS
2500.000	0.000	0.000	2500.000	9.452	0.000	9.268	0.000	3.638	0.000	0.000	9.831	8.866	129.486	MWD+IFR1+MS
2600.000	0.000	0.000	2600.000	9.811	0.000	9.627	0.000	3.722	0.000	0.000	10.191	9.224	129.505	MWD+IFR1+MS
2700.000	0.000	0.000	2700.000	10.170	0.000	9.986	0.000	3.808	0.000	0.000	10.552	9.583	129.522	MWD+IFR1+MS
2800.000	0.000	0.000	2800.000	10.529	0.000	10.345	0.000	3.896	0.000	0.000	10.912	9.941	129.538	MWD+IFR1+MS
2900.000	0.000	0.000	2900.000	10.888	0.000	10.705	0.000	3.984	0.000	0.000	11.272	10.299	129.552	MWD+IFR1+MS
3000.000	0.000	0.000	3000.000	11.247	0.000	11.063	0.000	4.074	0.000	0.000	11.632	10.658	129.566	MWD+IFR1+MS

3100.000	0.000	0.000	3100.000	11.606	0.000	11.422	0.000	4.165	0.000	0.000	11.992	11.016	129.579	MWD+IFR1+MS
3200.000	0.000	0.000	3200.000	11.965	0.000	11.781	0.000	4.258	0.000	0.000	12.352	11.375	129.591	MWD+IFR1+MS
3300.000	0.000	0.000	3300.000	12.323	0.000	12.140	0.000	4.352	0.000	0.000	12.712	11.733	129.603	MWD+IFR1+MS
3400.000	0.000	0.000	3400.000	12.682	0.000	12.499	0.000	4.447	0.000	0.000	13.071	12.092	129.613	MWD+IFR1+MS
3500.000	0.000	0.000	3500.000	13.041	0.000	12.858	0.000	4.543	0.000	0.000	13.431	12.450	129.623	MWD+IFR1+MS
3600.000	0.000	0.000	3600.000	13.400	0.000	13.217	0.000	4.641	0.000	0.000	13.790	12.809	129.633	MWD+IFR1+MS
3700.000	0.000	0.000	3700.000	13.758	0.000	13.576	0.000	4.741	0.000	0.000	14.150	13.167	129.642	MWD+IFR1+MS
3800.000	2.000	110.169	3799.980	13.680	0.000	14.372	-0.000	4.841	0.000	0.000	14.484	13.569	130.952	MWD+IFR1+MS
3900.000	4.000	110.169	3899.838	14.180	0.000	14.702	-0.000	4.944	0.000	0.000	14.800	14.106	132.530	MWD+IFR1+MS
4000.000	6.000	110.169	3999.452	14.654	0.000	15.034	-0.000	5.049	0.000	0.000	15.121	14.629	-44.799	MWD+IFR1+MS
4091.012	7.820	110.169	4089.799	15.036	0.000	15.335	-0.000	5.146	0.000	0.000	15.415	15.063	-41.242	MWD+IFR1+MS
4100.000	7.820	110.169	4098.703	15.065	0.000	15.364	-0.000	5.154	0.000	0.000	15.444	15.093	-41.252	MWD+IFR1+MS
4200.000	7.820	110.169	4197.773	15.390	0.000	15.691	-0.000	5.261	0.000	0.000	15.763	15.423	-42.406	MWD+IFR1+MS
4300.000	7.820	110.169	4296.843	15.724	0.000	16.028	-0.000	5.370	0.000	0.000	16.086	15.768	-44.459	MWD+IFR1+MS
4400.000	7.820	110.169	4395.913	16.060	0.000	16.366	-0.000	5.482	0.000	0.000	16.412	16.114	133.301	MWD+IFR1+MS
4500.000	7.820	110.169	4494.983	16.397	0.000	16.706	-0.000	5.595	0.000	0.000	16.741	16.459	130.883	MWD+IFR1+MS
4600.000	7.820	110.169	4594.053	16.736	0.000	17.047	-0.000	5.710	0.000	0.000	17.073	16.804	128.309	MWD+IFR1+MS
4700.000	7.820	110.169	4693.123	17.077	0.000	17.389	-0.000	5.827	0.000	0.000	17.407	17.149	125.614	MWD+IFR1+MS
4800.000	7.820	110.169	4792.193	17.418	0.000	17.732	-0.000	5.947	0.000	0.000	17.744	17.494	122.845	MWD+IFR1+MS
4900.000	7.820	110.169	4891.263	17.761	0.000	18.077	-0.000	6.068	0.000	0.000	18.084	17.839	120.058	MWD+IFR1+MS
5000.000	7.820	110.169	4990.333	18.105	0.000	18.422	-0.000	6.191	0.000	0.000	18.426	18.183	117.310	MWD+IFR1+MS
5100.000	7.820	110.169	5089.403	18.450	0.000	18.768	-0.000	6.317	0.000	0.000	18.770	18.527	114.654	MWD+IFR1+MS
5200.000	7.820	110.169	5188.473	18.796	0.000	19.116	-0.000	6.444	0.000	0.000	19.116	18.871	112.134	MWD+IFR1+MS
5300.000	7.820	110.169	5287.543	19.143	0.000	19.464	-0.000	6.574	0.000	0.000	19.464	19.215	109.779	MWD+IFR1+MS
5400.000	7.820	110.169	5386.613	19.490	0.000	19.813	-0.000	6.705	0.000	0.000	19.814	19.560	107.607	MWD+IFR1+MS
5500.000	7.820	110.169	5485.683	19.839	0.000	20.163	-0.000	6.839	0.000	0.000	20.164	19.904	105.624	MWD+IFR1+MS
5600.000	7.820	110.169	5584.753	20.189	0.000	20.513	-0.000	6.975	0.000	0.000	20.517	20.249	103.825	MWD+IFR1+MS
5700.000	7.820	110.169	5683.823	20.539	0.000	20.865	-0.000	7.113	0.000	0.000	20.870	20.594	102.203	MWD+IFR1+MS
5800.000	7.820	110.169	5782.893	20.890	0.000	21.217	-0.000	7.254	0.000	0.000	21.224	20.940	100.743	MWD+IFR1+MS
5900.000	7.820	110.169	5881.963	21.241	0.000	21.569	-0.000	7.396	0.000	0.000	21.579	21.286	99.433	MWD+IFR1+MS
6000.000	7.820	110.169	5981.033	21.594	0.000	21.922	-0.000	7.541	0.000	0.000	21.935	21.632	98.258	MWD+IFR1+MS
6100.000	7.820	110.169	6080.103	21.947	0.000	22.276	-0.000	7.688	0.000	0.000	22.292	21.979	97.203	MWD+IFR1+MS
6200.000	7.820	110.169	6179.173	22.300	0.000	22.630	-0.000	7.837	0.000	0.000	22.649	22.327	96.255	MWD+IFR1+MS

6300.000	7.820	110.169	6278.243	22.654	0.000	22.985	-0.000	7.989	0.000	0.000	23.006	22.675	95.403	MWD+IFR1+MS
6400.000	7.820	110.169	6377.313	23.009	0.000	23.340	-0.000	8.143	0.000	0.000	23.365	23.024	94.636	MWD+IFR1+MS
6500.000	7.820	110.169	6476.383	23.364	0.000	23.696	-0.000	8.299	0.000	0.000	23.723	23.373	93.944	MWD+IFR1+MS
6600.000	7.820	110.169	6575.453	23.720	0.000	24.052	-0.000	8.458	0.000	0.000	24.082	23.723	93.319	MWD+IFR1+MS
6700.000	7.820	110.169	6674.523	24.076	0.000	24.409	-0.000	8.619	0.000	0.000	24.442	24.073	92.753	MWD+IFR1+MS
6800.000	7.820	110.169	6773.593	24.432	0.000	24.766	-0.000	8.783	0.000	0.000	24.802	24.424	92.241	MWD+IFR1+MS
6900.000	7.820	110.169	6872.663	24.789	0.000	25.124	-0.000	8.949	0.000	0.000	25.162	24.775	91.777	MWD+IFR1+MS
7000.000	7.820	110.169	6971.733	25.147	0.000	25.482	-0.000	9.117	0.000	0.000	25.522	25.127	91.355	MWD+IFR1+MS
7100.000	7.820	110.169	7070.803	25.504	0.000	25.840	-0.000	9.288	0.000	0.000	25.883	25.480	90.971	MWD+IFR1+MS
7200.000	7.820	110.169	7169.873	25.863	0.000	26.198	-0.000	9.461	0.000	0.000	26.244	25.832	90.621	MWD+IFR1+MS
7300.000	7.820	110.169	7268.943	26.221	0.000	26.557	-0.000	9.637	0.000	0.000	26.606	26.186	90.303	MWD+IFR1+MS
7400.000	7.820	110.169	7368.013	26.580	0.000	26.917	-0.000	9.816	0.000	0.000	26.967	26.539	90.013	MWD+IFR1+MS
7500.000	7.820	110.169	7467.083	26.939	0.000	27.276	-0.000	9.997	0.000	0.000	27.329	26.894	89.748	MWD+IFR1+MS
7600.000	7.820	110.169	7566.153	27.299	0.000	27.636	-0.000	10.180	0.000	0.000	27.691	27.248	89.506	MWD+IFR1+MS
7700.000	7.820	110.169	7665.223	27.659	0.000	27.996	-0.000	10.366	0.000	0.000	28.053	27.603	89.285	MWD+IFR1+MS
7800.000	7.820	110.169	7764.293	28.019	0.000	28.357	-0.000	10.555	0.000	0.000	28.415	27.959	89.084	MWD+IFR1+MS
7900.000	7.820	110.169	7863.363	28.379	0.000	28.717	-0.000	10.746	0.000	0.000	28.778	28.315	88.900	MWD+IFR1+MS
8000.000	7.820	110.169	7962.433	28.740	0.000	29.078	-0.000	10.940	0.000	0.000	29.141	28.671	88.732	MWD+IFR1+MS
8100.000	7.820	110.169	8061.503	29.101	0.000	29.440	-0.000	11.136	0.000	0.000	29.504	29.027	88.579	MWD+IFR1+MS
8200.000	7.820	110.169	8160.573	29.462	0.000	29.801	-0.000	11.335	0.000	0.000	29.867	29.384	88.440	MWD+IFR1+MS
8300.000	7.820	110.169	8259.643	29.824	0.000	30.163	-0.000	11.537	0.000	0.000	30.230	29.741	88.313	MWD+IFR1+MS
8400.000	7.820	110.169	8358.713	30.185	0.000	30.525	-0.000	11.742	0.000	0.000	30.593	30.099	88.198	MWD+IFR1+MS
8500.000	7.820	110.169	8457.783	30.547	0.000	30.887	-0.000	11.949	0.000	0.000	30.957	30.457	88.093	MWD+IFR1+MS
8552.910	7.820	110.169	8510.201	30.737	0.000	31.076	-0.000	12.059	0.000	0.000	31.146	30.646	88.213	MWD+IFR1+MS
8600.000	6.878	110.169	8556.903	30.929	0.000	31.244	-0.000	12.159	0.000	0.000	31.313	30.814	88.268	MWD+IFR1+MS
8700.000	4.878	110.169	8656.372	31.356	0.000	31.601	-0.000	12.372	0.000	0.000	31.682	31.200	85.793	MWD+IFR1+MS
8800.000	2.878	110.169	8756.138	31.784	0.000	31.956	-0.000	12.586	0.000	0.000	32.069	31.603	80.619	MWD+IFR1+MS
8900.000	0.878	110.169	8856.079	32.174	0.000	32.308	-0.000	12.799	0.000	0.000	32.460	31.993	75.334	MWD+IFR1+MS
8943.922	0.000	0.000	8900.000	32.580	0.000	32.177	0.000	12.893	0.000	0.000	32.609	32.147	75.268	MWD+IFR1+MS
9000.000	0.000	0.000	8956.078	32.772	0.000	32.367	0.000	13.013	0.000	0.000	32.801	32.338	75.560	MWD+IFR1+MS
9100.000	0.000	0.000	9056.078	33.115	0.000	32.708	0.000	13.230	0.000	0.000	33.141	32.682	76.156	MWD+IFR1+MS
9136.722	0.000	0.000	9092.800	33.240	0.000	32.833	0.000	13.310	0.000	0.000	33.265	32.807	76.276	MWD+IFR1+MS
9200.000	5.062	269.836	9155.995	32.812	-0.000	33.449	0.000	13.448	0.000	0.000	33.478	33.056	74.396	MWD+IFR1+MS

9300.000	13.062	269.836	9254.667	33.126	-0.000	33.763	0.000	13.717	0.000	0.000	34.262	33.713	17.354	MWD+IFR1+MS
9400.000	21.062	269.836	9350.188	33.344	-0.000	34.064	0.000	14.172	0.000	0.000	35.636	34.031	8.003	MWD+IFR1+MS
9500.000	29.062	269.836	9440.699	33.073	-0.000	34.348	0.000	14.874	0.000	0.000	36.834	34.314	6.378	MWD+IFR1+MS
9600.000	37.062	269.836	9524.439	32.385	-0.000	34.613	0.000	15.859	0.000	0.000	37.827	34.576	5.816	MWD+IFR1+MS
9700.000	45.062	269.836	9599.778	31.375	-0.000	34.860	0.000	17.122	0.000	0.000	38.611	34.819	5.634	MWD+IFR1+MS
9800.000	53.062	269.836	9665.248	30.167	-0.000	35.090	0.000	18.625	0.000	0.000	39.193	35.045	5.658	MWD+IFR1+MS
9900.000	61.062	269.836	9719.577	28.915	-0.000	35.306	0.000	20.308	0.000	0.000	39.589	35.256	5.826	MWD+IFR1+MS
10000.000	69.062	269.836	9761.706	27.801	-0.000	35.509	0.000	22.108	0.000	0.000	39.827	35.454	6.109	MWD+IFR1+MS
10100.000	77.062	269.836	9790.816	27.020	-0.000	35.701	0.000	23.957	0.000	0.000	39.944	35.640	6.480	MWD+IFR1+MS
10200.000	85.062	269.836	9806.339	26.751	-0.000	35.881	0.000	25.794	0.000	0.000	39.982	35.814	6.901	MWD+IFR1+MS
10261.722	90.000	269.836	9808.997	26.299	0.000	35.982	0.000	26.299	0.000	0.000	39.987	35.912	7.137	MWD+IFR1+MS
10300.000	90.000	269.836	9808.997	26.384	0.000	36.044	0.000	26.384	0.000	0.000	39.990	35.973	7.288	MWD+IFR1+MS
10400.000	90.000	269.836	9808.997	26.559	0.000	36.235	0.000	26.559	0.000	0.000	39.997	36.158	7.759	MWD+IFR1+MS
10500.000	90.000	269.836	9808.997	26.759	0.000	36.462	0.000	26.759	0.000	0.000	40.005	36.378	8.353	MWD+IFR1+MS
10600.000	90.000	269.836	9808.997	26.981	0.000	36.721	0.000	26.981	0.000	0.000	40.016	36.630	9.102	MWD+IFR1+MS
10700.000	90.000	269.836	9808.997	27.223	0.000	37.013	0.000	27.223	0.000	0.000	40.030	36.911	10.061	MWD+IFR1+MS
10800.000	90.000	269.836	9808.997	27.486	0.000	37.337	0.000	27.486	0.000	0.000	40.047	37.221	11.314	MWD+IFR1+MS
10900.000	90.000	269.836	9808.997	27.769	0.000	37.690	0.000	27.769	0.000	0.000	40.070	37.556	12.996	MWD+IFR1+MS
11000.000	90.000	269.836	9808.997	28.071	0.000	38.074	0.000	28.071	0.000	0.000	40.101	37.914	15.335	MWD+IFR1+MS
11100.000	90.000	269.836	9808.997	28.391	0.000	38.487	0.000	28.391	0.000	0.000	40.144	38.288	18.724	MWD+IFR1+MS
11200.000	90.000	269.836	9808.997	28.729	0.000	38.927	0.000	28.729	0.000	0.000	40.211	38.667	23.842	MWD+IFR1+MS
11300.000	90.000	269.836	9808.997	29.084	0.000	39.394	0.000	29.084	0.000	0.000	40.322	39.030	31.686	MWD+IFR1+MS
11400.000	90.000	269.836	9808.997	29.456	0.000	39.888	0.000	29.456	0.000	0.000	40.512	39.341	42.732	MWD+IFR1+MS
11500.000	90.000	269.836	9808.997	29.844	0.000	40.406	0.000	29.844	0.000	0.000	40.815	39.564	54.767	MWD+IFR1+MS
11600.000	90.000	269.836	9808.997	30.248	0.000	40.949	0.000	30.248	0.000	0.000	41.227	39.703	64.334	MWD+IFR1+MS
11700.000	90.000	269.836	9808.997	30.666	0.000	41.515	0.000	30.666	0.000	0.000	41.717	39.788	70.740	MWD+IFR1+MS
11800.000	90.000	269.836	9808.997	31.098	0.000	42.103	0.000	31.098	0.000	0.000	42.259	39.844	74.929	MWD+IFR1+MS
11900.000	90.000	269.836	9808.997	31.544	0.000	42.713	0.000	31.544	0.000	0.000	42.838	39.884	77.765	MWD+IFR1+MS
12000.000	90.000	269.836	9808.997	32.003	0.000	43.343	0.000	32.003	0.000	0.000	43.446	39.916	79.772	MWD+IFR1+MS
12100.000	90.000	269.836	9808.997	32.474	0.000	43.992	0.000	32.474	0.000	0.000	44.080	39.942	81.253	MWD+IFR1+MS
12200.000	90.000	269.836	9808.997	32.958	0.000	44.660	0.000	32.958	0.000	0.000	44.737	39.966	82.383	MWD+IFR1+MS
12300.000	90.000	269.836	9808.997	33.452	0.000	45.347	0.000	33.452	0.000	0.000	45.413	39.987	83.269	MWD+IFR1+MS
12400.000	90.000	269.836	9808.997	33.958	0.000	46.050	0.000	33.958	0.000	0.000	46.109	40.007	83.982	MWD+IFR1+MS

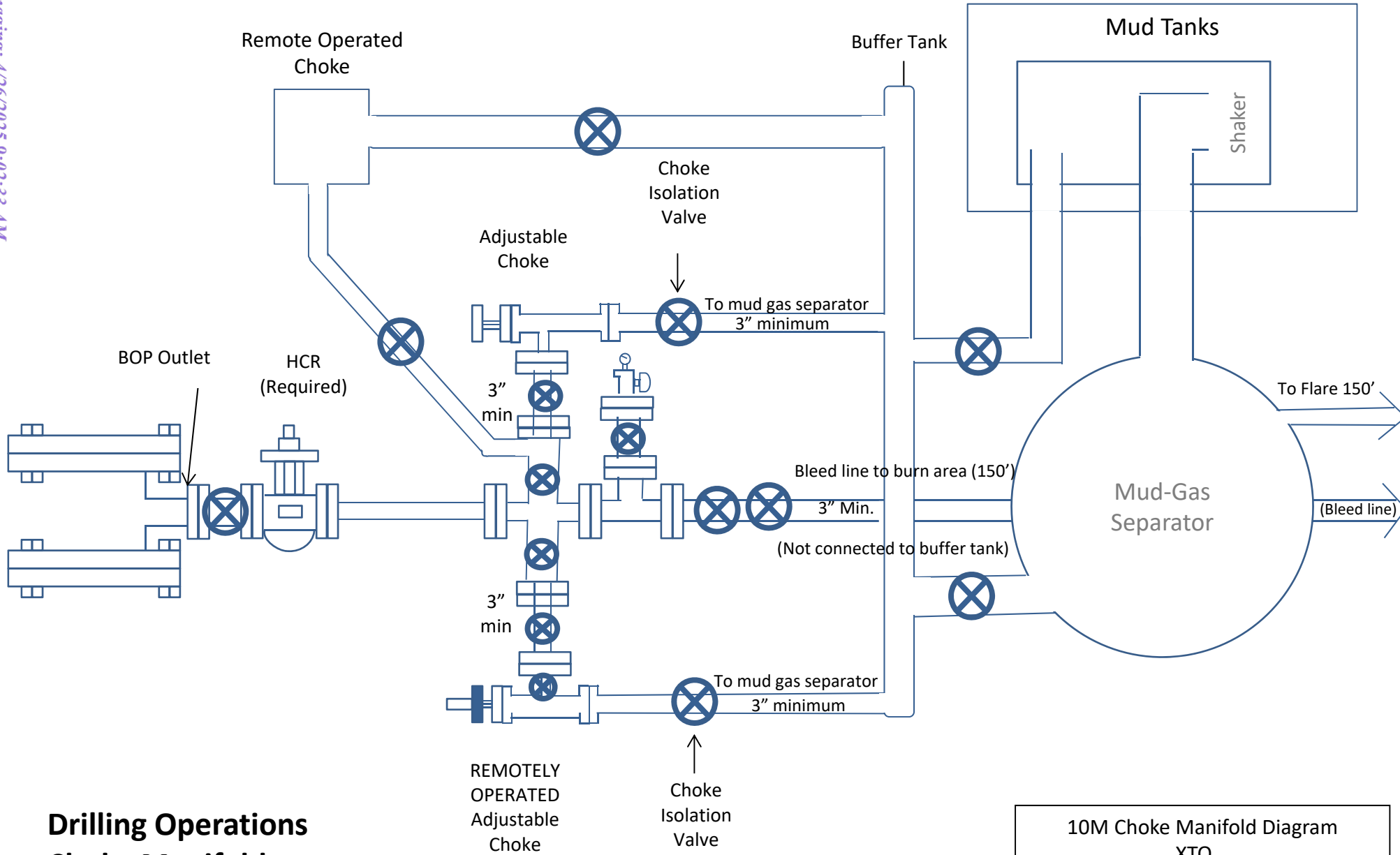
12500.000	90.000	269.836	9808.997	34.474	0.000	46.769	0.000	34.474	0.000	0.000	46.823	40.026	84.566	MWD+IFR1+MS
12600.000	90.000	269.836	9808.997	35.001	0.000	47.504	0.000	35.001	0.000	0.000	47.553	40.045	85.052	MWD+IFR1+MS
12700.000	90.000	269.836	9808.997	35.536	0.000	48.254	0.000	35.536	0.000	0.000	48.298	40.064	85.462	MWD+IFR1+MS
12800.000	90.000	269.836	9808.997	36.081	0.000	49.019	0.000	36.081	0.000	0.000	49.059	40.082	85.813	MWD+IFR1+MS
12900.000	90.000	269.836	9808.997	36.635	0.000	49.796	0.000	36.635	0.000	0.000	49.833	40.101	86.116	MWD+IFR1+MS
13000.000	90.000	269.836	9808.997	37.197	0.000	50.587	0.000	37.197	0.000	0.000	50.621	40.120	86.380	MWD+IFR1+MS
13100.000	90.000	269.836	9808.997	37.766	0.000	51.390	0.000	37.766	0.000	0.000	51.421	40.139	86.612	MWD+IFR1+MS
13200.000	90.000	269.836	9808.997	38.344	0.000	52.204	0.000	38.344	0.000	0.000	52.234	40.158	86.817	MWD+IFR1+MS
13300.000	90.000	269.836	9808.997	38.928	0.000	53.030	0.000	38.928	0.000	0.000	53.058	40.177	87.000	MWD+IFR1+MS
13400.000	90.000	269.836	9808.997	39.520	0.000	53.867	0.000	39.520	0.000	0.000	53.893	40.197	87.163	MWD+IFR1+MS
13500.000	90.000	269.836	9808.997	40.118	0.000	54.713	0.000	40.118	0.000	0.000	54.738	40.217	87.311	MWD+IFR1+MS
13600.000	90.000	269.836	9808.997	40.723	0.000	55.570	0.000	40.723	0.000	0.000	55.593	40.238	87.444	MWD+IFR1+MS
13700.000	90.000	269.836	9808.997	41.333	0.000	56.435	0.000	41.333	0.000	0.000	56.457	40.259	87.565	MWD+IFR1+MS
13800.000	90.000	269.836	9808.997	41.950	0.000	57.310	0.000	41.950	0.000	0.000	57.331	40.280	87.675	MWD+IFR1+MS
13900.000	90.000	269.836	9808.997	42.572	0.000	58.193	0.000	42.572	0.000	0.000	58.213	40.302	87.776	MWD+IFR1+MS
14000.000	90.000	269.836	9808.997	43.199	0.000	59.084	0.000	43.199	0.000	0.000	59.103	40.324	87.869	MWD+IFR1+MS
14100.000	90.000	269.836	9808.997	43.831	0.000	59.983	0.000	43.831	0.000	0.000	60.001	40.347	87.955	MWD+IFR1+MS
14200.000	90.000	269.836	9808.997	44.469	0.000	60.889	0.000	44.469	0.000	0.000	60.906	40.370	88.034	MWD+IFR1+MS
14300.000	90.000	269.836	9808.997	45.110	0.000	61.802	0.000	45.110	0.000	0.000	61.819	40.394	88.107	MWD+IFR1+MS
14400.000	90.000	269.836	9808.997	45.757	0.000	62.722	0.000	45.757	0.000	0.000	62.738	40.418	88.175	MWD+IFR1+MS
14500.000	90.000	269.836	9808.997	46.407	0.000	63.649	0.000	46.407	0.000	0.000	63.664	40.443	88.238	MWD+IFR1+MS
14600.000	90.000	269.836	9808.997	47.062	0.000	64.582	0.000	47.062	0.000	0.000	64.596	40.468	88.297	MWD+IFR1+MS
14700.000	90.000	269.836	9808.997	47.721	0.000	65.520	0.000	47.721	0.000	0.000	65.534	40.494	88.352	MWD+IFR1+MS
14800.000	90.000	269.836	9808.997	48.383	0.000	66.464	0.000	48.383	0.000	0.000	66.477	40.520	88.404	MWD+IFR1+MS
14900.000	90.000	269.836	9808.997	49.049	0.000	67.414	0.000	49.049	0.000	0.000	67.427	40.546	88.452	MWD+IFR1+MS
15000.000	90.000	269.836	9808.997	49.718	0.000	68.369	0.000	49.718	0.000	0.000	68.381	40.574	88.498	MWD+IFR1+MS
15100.000	90.000	269.836	9808.997	50.391	0.000	69.329	0.000	50.391	0.000	0.000	69.340	40.601	88.540	MWD+IFR1+MS
15200.000	90.000	269.836	9808.997	51.067	0.000	70.293	0.000	51.067	0.000	0.000	70.305	40.629	88.581	MWD+IFR1+MS
15300.000	90.000	269.836	9808.997	51.746	0.000	71.263	0.000	51.746	0.000	0.000	71.273	40.658	88.619	MWD+IFR1+MS
15400.000	90.000	269.836	9808.997	52.428	0.000	72.236	0.000	52.428	0.000	0.000	72.247	40.687	88.655	MWD+IFR1+MS
15500.000	90.000	269.836	9808.997	53.113	0.000	73.214	0.000	53.113	0.000	0.000	73.224	40.717	88.689	MWD+IFR1+MS
15600.000	90.000	269.836	9808.997	53.800	0.000	74.196	0.000	53.800	0.000	0.000	74.206	40.747	88.722	MWD+IFR1+MS
15700.000	90.000	269.836	9808.997	54.491	0.000	75.182	0.000	54.491	0.000	0.000	75.191	40.777	88.753	MWD+IFR1+MS

15800.000	90.000	269.836	9808.997	55.183	0.000	76.171	0.000	55.183	0.000	0.000	76.181	40.809	88.782	MWD+IFR1+MS
15900.000	90.000	269.836	9808.997	55.878	0.000	77.164	0.000	55.878	0.000	0.000	77.173	40.840	88.810	MWD+IFR1+MS
16000.000	90.000	269.836	9808.997	56.576	0.000	78.161	0.000	56.576	0.000	0.000	78.170	40.872	88.836	MWD+IFR1+MS
16100.000	90.000	269.836	9808.997	57.276	0.000	79.161	0.000	57.276	0.000	0.000	79.169	40.905	88.862	MWD+IFR1+MS
16200.000	90.000	269.836	9808.997	57.978	0.000	80.164	0.000	57.978	0.000	0.000	80.172	40.938	88.886	MWD+IFR1+MS
16300.000	90.000	269.836	9808.997	58.682	0.000	81.171	0.000	58.682	0.000	0.000	81.178	40.972	88.909	MWD+IFR1+MS
16400.000	90.000	269.836	9808.997	59.388	0.000	82.180	0.000	59.388	0.000	0.000	82.187	41.006	88.931	MWD+IFR1+MS
16500.000	90.000	269.836	9808.997	60.096	0.000	83.192	0.000	60.096	0.000	0.000	83.199	41.040	88.952	MWD+IFR1+MS
16600.000	90.000	269.836	9808.997	60.806	0.000	84.207	0.000	60.806	0.000	0.000	84.214	41.076	88.972	MWD+IFR1+MS
16700.000	90.000	269.836	9808.997	61.517	0.000	85.224	0.000	61.517	0.000	0.000	85.231	41.111	88.992	MWD+IFR1+MS
16800.000	90.000	269.836	9808.997	62.231	0.000	86.244	0.000	62.231	0.000	0.000	86.251	41.147	89.010	MWD+IFR1+MS
16900.000	90.000	269.836	9808.997	62.946	0.000	87.267	0.000	62.946	0.000	0.000	87.274	41.184	89.028	MWD+IFR1+MS
17000.000	90.000	269.836	9808.997	63.663	0.000	88.292	0.000	63.663	0.000	0.000	88.299	41.221	89.045	MWD+IFR1+MS
17100.000	90.000	269.836	9808.997	64.381	0.000	89.319	0.000	64.381	0.000	0.000	89.326	41.259	89.062	MWD+IFR1+MS
17135.695	90.000	269.836	9808.997	64.637	0.000	89.686	0.000	64.637	0.000	0.000	89.692	41.272	89.067	MWD+IFR1+MS
17185.754	90.000	269.836	9808.997	64.996	0.000	90.200	0.000	64.996	0.000	0.000	90.206	41.291	89.075	MWD+IFR1+MS

Plan Targets

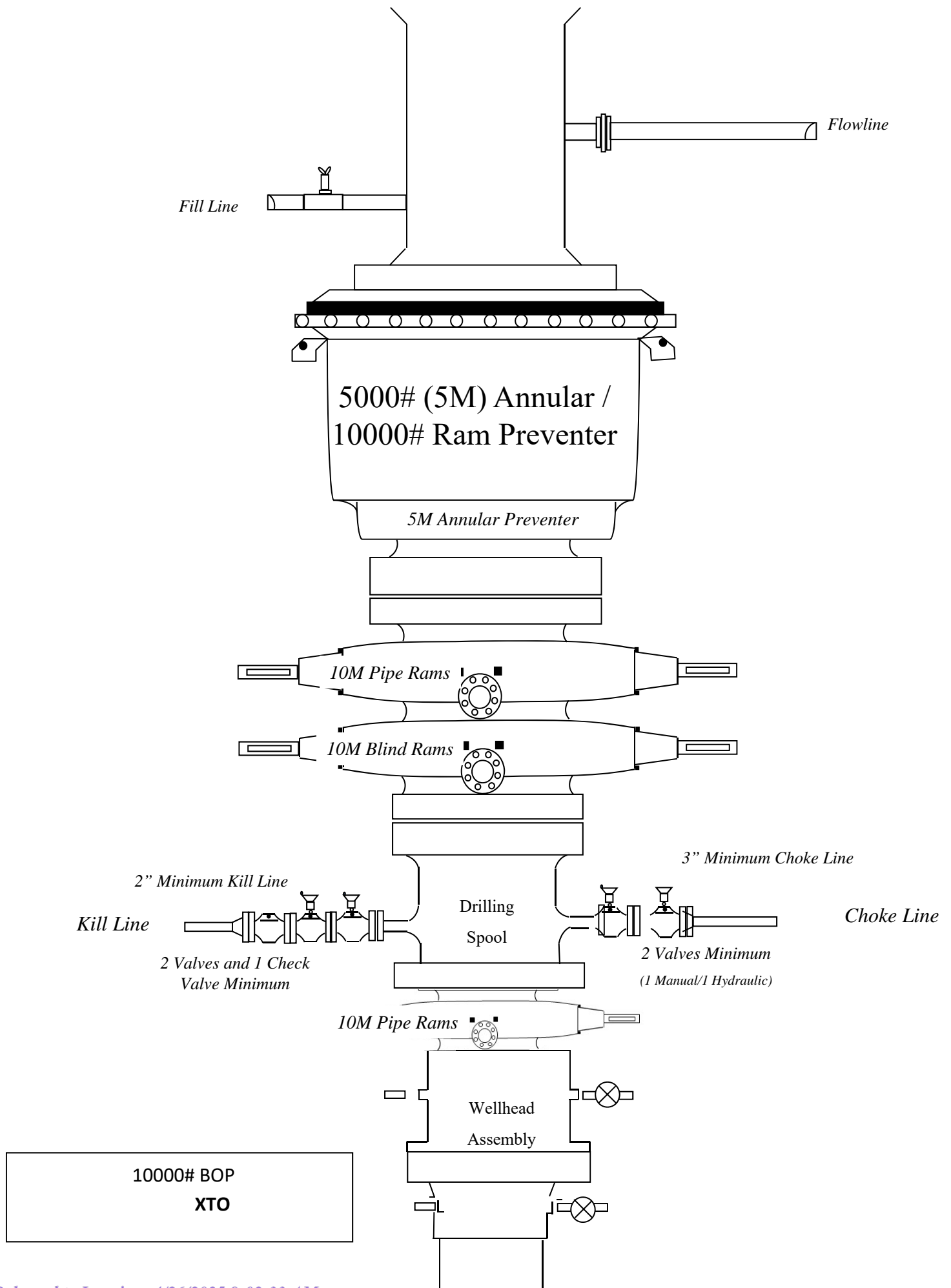
Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 1	9996.66	503438.80	656564.30	6402.00	CIRCLE
LTP 1	17135.76	503417.10	648974.10	6402.00	CIRCLE
BHL 1	17185.82	503417.00	648924.10	6402.00	CIRCLE

Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



Drilling Operations Choke Manifold 10M Service

10M Choke Manifold Diagram
XTO





U. S. Steel Tubular Products

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-FREEDOM HTQ[®]

11/8/2023 1:08:50 PM



MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ [®]		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-FREEDOM HTQ [®]		--
Outside Diameter	5.500	6.300	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	Pipe	USS-FREEDOM HTQ [®]		--
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	Pipe	USS-FREEDOM HTQ [®]		--
Minimum Collapse Pressure	11,100	11,100	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	641,000	lb	--
Compression Rating	--	641,000	lb	--
Reference Length [4]	--	21,370	ft	--
Maximum Uniaxial Bend Rating [2]	--	91.7	deg/100 ft	--
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ [®]		--
Make-Up Loss	--	4.13	in.	--
Minimum Make-Up Torque [3]	--	15,000	ft-lb	--
Maximum Make-Up Torque [3]	--	21,000	ft-lb	--
Maximum Operating Torque[3]	--	29,500	ft-lb	--

UNCONTROLLED

Notes

1.

Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2.

Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3.

Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4.

Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380


1-877-893-9461
connections@uss.com
www.usstubular.com



U. S. Steel Tubular Products

11/29/2021 4:16:04 PM

5.500" 20.00lb/ft (0.361" Wall) P110 RY USS-TALON HTQ™ RD

				
MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	11,100	11,100	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	641,000	lb	--
Compression Rating	--	641,000	lb	--
Reference Length	--	21,370	ft	[5]
Maximum Uniaxial Bend Rating	--	91.7	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	17,000	ft-lb	[4]
Maximum Make-Up Torque	--	20,000	ft-lb	[4]
Maximum Operating Torque	--	39,500	ft-lb	[4]

UNCONTROLLED

Notes

- Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- Uniaxial bend rating shown is structural only.
- Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- Coupling must meet minimum mechanical properties of the pipe.

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

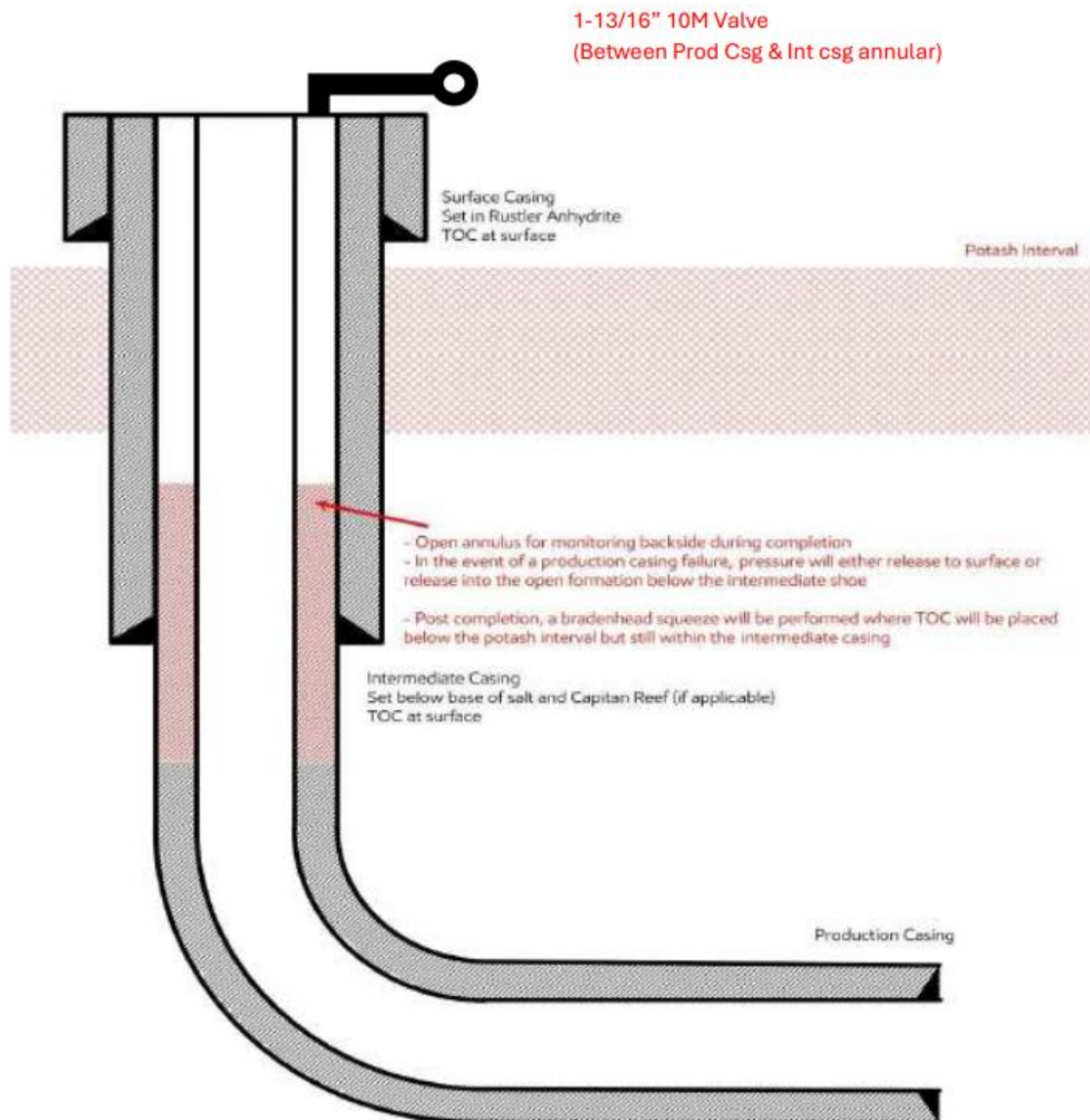
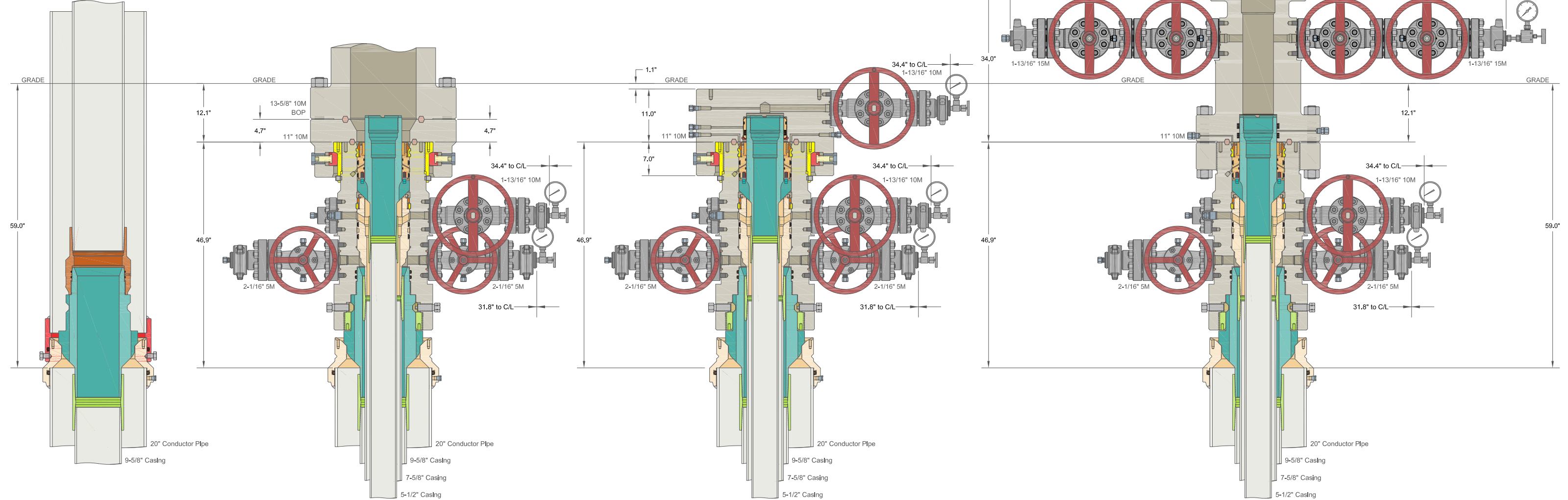


Figure B – 3 String Design – Open Production Casing Annulus (Updated May 2024):

XTO is aware of the R-111-Q update & will comply with these requirements including (but not limited to):

1. Alignment with KPLA requirements per schematic above, leaving open annulus for pressure monitoring during frac and utilizing new casing that meets API standards
2. Contingency plans in place to divert formation fluids away from salt interval in event of production casing failure
3. TOC in the annulus between intermediate & production casing string shall stand uncemented at least 500 feet below the intermediate casing shoe
4. Bradenhead squeeze to be completed within 180 days after hydraulic frac operations have been concluded to ensure at least a 500 feet tie-back has been established inside salt string but with top below MB 126



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	

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

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 440298

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 440298
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Operator must comply with all of the R-111-Q requirements.	4/26/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	4/26/2025