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

Sundry Print Report

03/07/2025

Well Name: JRU APACHE U FEDERAL COM

Well Location: T22S / R30E / SEC 13 / NESE / 32.391685 / -103.828589

County or Parish/State: EDDY / NM

Well Number: 704H

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: 2834132

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/28/2025

Time Sundry Submitted: 09:26

Date proposed operation will begin: 02/07/2025

Procedure Description: JRU APACHE U FEDERAL COM 704H APD ID# 10400081662 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: 2487' FSL & 928' FEL OF SECTION 13-T22S-R30E 2547' FSL & 967' FEL OF SECTION 13-T22S-R30E KOP: 2487' FSL & 928' FEL OF SECTION 13-T22S-R30E 808' FNL & 330' FEL OF SECTION 13-T22S-R30E FTP: 2310' FNL & 330' FEL OF SECTION 13-T22S-R30E 808' FNL & 330' FEL OF SECTION 13-T22S-R30E LTP: 2310' FNL & 100' FWL OF SECTION 14-T22S-R30E 808' FNL & 100' FWL OF SECTION 14-T22S-R30E BHL: 2310' FNL & 50' FWL OF SECTION 14-T22S-R30E 808' FNL & 50' FWL OF SECTION 14-T22S-R30E The proposed total depth is changing from 20356' MD/9503' TVD to 20843.43' MD/10412' 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 and MBS diagram

NOI Attachments

Procedure Description

Sundry_Attachments___James_Ranch_Unit_Apache_704H_20250128092401.pdf

Well Name: JRU APACHE U FEDERAL COM

Well Location: T22S / R30E / SEC 13 / NESE / 32.391685 / -103.828589

County or Parish/State: EDDY / NM

Well Number: 704H

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

James_Ranch_Unit_Apache_904H_COA_20250226151808.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 09:25 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

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

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.

2. Name of Operator

9. API Well No.

3a. Address

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

10. Field and Pool or Exploratory Area

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

11. Country or Parish, State

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

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

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

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

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Information

Additional Remarks

BHL: 2310' FNL & 50' FWL OF SECTION 14-T22S-R30E 808' FNL & 50' FWL OF SECTION 14-T22S-R30E

The proposed total depth is changing from 20356 MD/9503 TVD to 20843.43 MD/10412 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 and MBS diagram

Location of Well

0. SHL: NESE / 2487 FSL / 928 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.391685 / LONG: -103.828589 (TVD: 0 feet, MD: 0 feet)
PPP: SENW / 2306 FNL / 1336 FWL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.393037 / LONG: -103.838569 (TVD: 9555 feet, MD: 14100 feet)
PPP: SENE / 2310 FNL / 330 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.393023 / LONG: -103.826651 (TVD: 9588 feet, MD: 10100 feet)
BHL: SWNW / 2310 FNL / 50 FWL / TWSP: 22S / RANGE: 30E / SECTION: 14 / LAT: 32.393058 / LONG: -103.86008 (TVD: 9503 feet, MD: 20356 feet)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	**NMNM89051**
LOCATION:	Sec. 13, T.22 S, R 30 E
COUNTY:	Eddy County, New Mexico
WELL NAME & NO.:	James Ranch Unit Apache 904H
SURFACE HOLE FOOTAGE:	440'/N & 948'/E
BOTTOM HOLE FOOTAGE:	1600'/N & 2629'/E

*Changes approved through engineering via **Sundry 2827621** on 2-26-2025_. Any previous COAs not addressed within the updated COAs still apply.*

COA

H_2S	○ No		○ Yes	
Potash / WIPP	○ None	○ Secretary	◉ R-111-Q	☑ Open Annulus
	3-String Design: Open Production Casing Annulus			☑ WIPP
Cave / Karst	○ Low	◉ Medium	○ High	○ Critical
Wellhead	○ Conventional	◉ Multibowl	○ Both	○ Diverter
Cementing	☑ Primary Squeeze	☐ Cont. Squeeze	☑ EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	☐ COM	☑ Unit
Waste Prev.	○ Self-Certification	○ Waste Min. Plan	◉ APD Submitted prior to 06/10/2024	
Additional Language	☑ Flex Hose	☑ Casing Clearance	☐ Pilot Hole	☑ Break Testing
	☑ Four-String	☑ Offline Cementing	☐ 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 **13-3/8** inch surface casing shall be set at approximately **752** 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 **9-5/8** inch 1st 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, or potash.

3. The minimum required fill of cement behind the **7-5/8** inch 2nd 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 7766'.**

    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, or potash.**

Operator has proposed to pump down Intermediate 1 X Intermediate 2 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 Intermediate 1 casing to tieback requirements listed above 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. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- ❖ **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.**

Operator has proposed to pump down **intermediate x production** annulus post completion. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the production 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 during second stage bradenhead when running Echo-meter if cement is required to surface. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Operator has proposed an open annulus completion in R-111-Q. Operator shall provide a method of verification pre-completion top of cement. **Submit results to the BLM. Pressure monitoring device and Pressure Safety Valves must be installed at surface on both the intermediate annulus and the production annulus for the life of the well.**

In the event of a casing failure during completion, the operator must contact the BLM at (575-706-2779) and (575-361-2822 Eddy County).

a. **Cement per R-111-Q requirements.** Submit results to the BLM. If cement does not circulate, contact the appropriate BLM office. **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.**

- ❖ **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.**

4. 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.

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).

    1. 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. **(This is not necessary for secondary recovery unit wells)**

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 (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 **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 Production 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**; (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: ☐ Initial Submittal ☒ Amended Report ☐ As Drilled

WELL LOCATION INFORMATION

API Number	Pool Code	Pool Name
30-015-	40295	LOS MEDANOS, BONE SPRING

Property Code	Property Name	Well Number
	JRU Apache U Federal Com	704H

OGRID No.	Operator Name	Ground Level Elevation
373075	XTO PERMIAN OPERATING, LLC.	3,348'

Surface Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Mineral Owner: ☐ State ☐ Fee ☐ Tribal ☒ Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	13	22S	30E		2,547 FSL	967 FEL	32.391852	-103.828716	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	14	22S	30E		808 FNL	50 FWL	32.397189	-103.860075	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidation Code
320.00	DEFINING		Y	U

Order Numbers. R-279-C

Well Setbacks are under Common Ownership: ☒ Yes ☐ No

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	13	22S	30E		808 FNL	330 FEL	32.397153	-103.826650	EDDY

First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	13	22S	30E		808 FNL	330 FEL	32.397153	-103.826650	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
D	14	22S	30E		808 FNL	100 FWL	32.397189	-103.859913	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : ☒ Horizontal ☐ Vertical	Ground Elevation
NMNM-070965X		3,348'

OPERATOR CERTIFICATIONS

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.

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.

Srinivas Naveen 1/3/25

Signature Date

Srinivas Naveen Laghuvarapu

Printed Name

srinivas.n.laghuvarapu@exxonmobil.com

Email Address

SURVEYOR CERTIFICATIONS

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

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786 — Certificate Number

12/9/2024 — Date of Survey

DN

618.013002.10-32

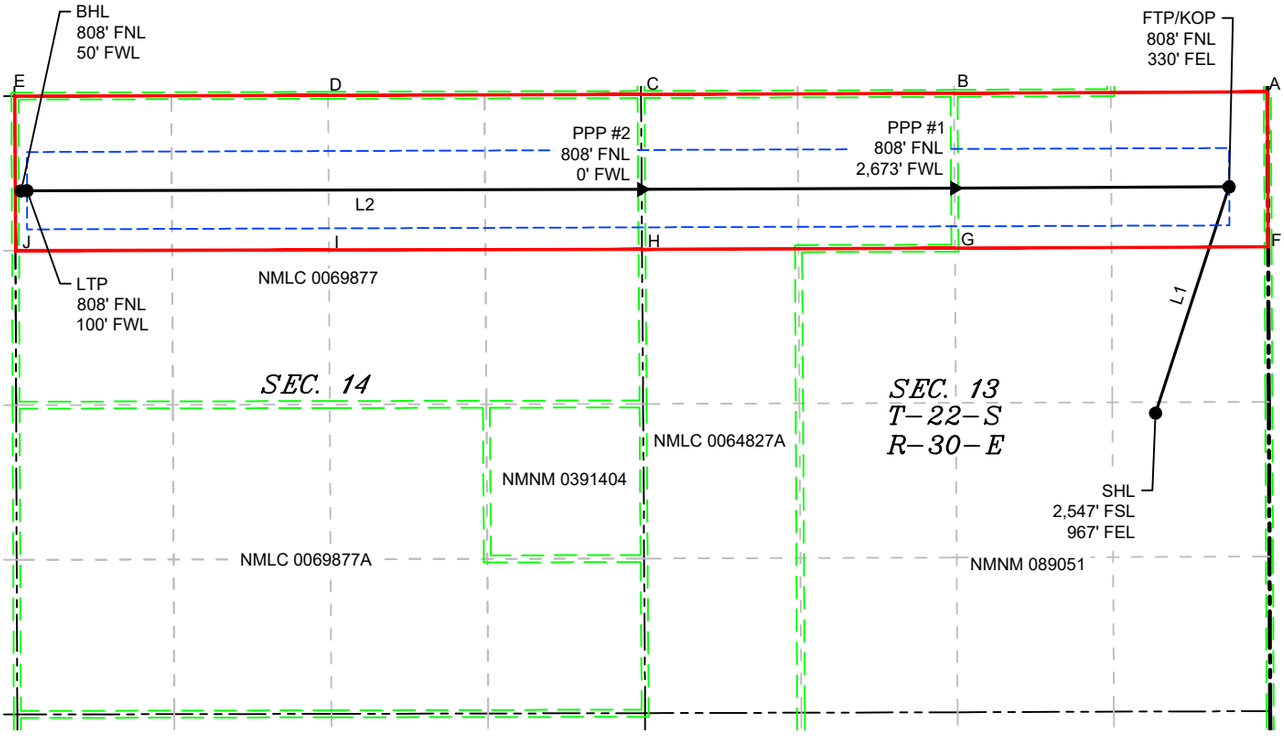
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\002 James Ranch Unit\.10 - APACHE DI - EDDY\Wells\-32 - 704H\DWG\APACHE 704H C-102.dwg

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	018°01'30.85"	2,031.07
L2	269°48'41.62"	10,316.84

LEGEND

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

COORDINATE TABLE

SHL (NAD 83 NME)			FTP/KOP (NAD 83 NME)			PPP1 (NAD 83 NME)			PPP2 (NAD 83 NME)			LTP (NAD 83 NME)		
Y =	506,654.6	N	Y =	508,586.0	N	Y =	508,574.9	N	Y =	508,564.8	N	Y =	508,552.2	N
X =	697,094.9	E	X =	697,723.4	E	X =	695,378.8	E	X =	692,705.7	E	X =	687,456.6	E
LAT. =	32.391852	°N	LAT. =	32.397153	°N	LAT. =	32.397152	°N	LAT. =	32.397159	°N	LAT. =	32.397189	°N
LONG. =	103.828716	°W	LONG. =	103.826650	°W	LONG. =	103.834246	°W	LONG. =	103.842907	°W	LONG. =	103.859913	°W

BHL (NAD 83 NME)		
Y =	508,552.1	N
X =	687,406.6	E
LAT. =	32.397189	°N
LONG. =	103.860075	°W

SHL (NAD 27 NME)			FTP/KOP (NAD 27 NME)			PPP1 (NAD 83 NME)			PPP2 (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	506,593.9	N	Y =	508,525.3	N	Y =	508,514.2	N	Y =	508,504.1	N	Y =	508,491.4	N
X =	655,913.5	E	X =	656,542.0	E	X =	654,197.4	E	X =	651,524.4	E	X =	646,275.3	E
LAT. =	32.391729	°N	LAT. =	32.397030	°N	LAT. =	32.397030	°N	LAT. =	32.397036	°N	LAT. =	32.397066	°N
LONG. =	103.828222	°W	LONG. =	103.826156	°W	LONG. =	103.833752	°W	LONG. =	103.842412	°W	LONG. =	103.859418	°W

BHL (NAD 27 NME)		
Y =	508,491.3	N
X =	646,225.3	E
LAT. =	32.397067	°N
LONG. =	103.859580	°W

CORNER COORDINATES (NAD 83 NME)					
A - Y =	509,395.5	N	A - X =	698,049.7	E
B - Y =	509,382.9	N	B - X =	695,374.2	E
C - Y =	509,372.8	N	C - X =	692,700.3	E
D - Y =	509,366.4	N	D - X =	690,027.8	E
E - Y =	509,359.9	N	E - X =	687,353.5	E
F - Y =	508,072.9	N	F - X =	698,055.8	E
G - Y =	508,062.1	N	G - X =	695,381.7	E
H - Y =	508,052.6	N	H - X =	692,709.2	E
I - Y =	508,046.7	N	I - X =	690,034.9	E
J - Y =	508,040.4	N	J - X =	687,358.6	E

CORNER COORDINATES (NAD 27 NME)					
A - Y =	509,334.8	N	A - X =	656,868.3	E
B - Y =	509,322.2	N	B - X =	654,192.9	E
C - Y =	509,312.1	N	C - X =	651,519.0	E
D - Y =	509,305.6	N	D - X =	648,846.5	E
E - Y =	509,299.2	N	E - X =	646,172.2	E
F - Y =	508,012.2	N	F - X =	656,874.3	E
G - Y =	508,001.4	N	G - X =	654,200.3	E
H - Y =	507,991.9	N	H - X =	651,527.8	E
I - Y =	507,986.0	N	I - X =	648,853.5	E
J - Y =	507,979.7	N	J - X =	646,177.3	E

DN 618.013002.10-32

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

XTO Energy Inc.
JRU Apache U Federal Com 704H
Projected TD: 20843.43' MD / 10412' TVD
SHL: 2547' FSL & 967' FEL , Section 13, T22S, R30E
BHL: 808' FNL & 50' FWL , Section 14, 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	456'	Water
Top of Salt	756'	Water
MB 126	1440'	Water
Base of Salt	3608'	Water
Delaware	3869'	Water
Brushy Canyon	6377'	Water/Oil/Gas
Bone Spring	7786'	Water
1st Bone Spring Ss	8633'	Water/Oil/Gas
2nd Bone Spring Ss	9241'	Water/Oil/Gas
3rd Bone Spring Sh	9857'	Water/Oil/Gas
Target/Land Curve	10412'	Water/Oil/Gas

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 731' (25' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 3708' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 7.625 inch casing at 9495.8'. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 20843.43 MD/TD and 5.5 inch production casing will be set at TD.

3. Casing Design

Hole Size	TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 731'	13.375	54.5	J-55	BTC	New	2.46	3.50	22.82
12.25	0' – 3708'	9.625	40	J-55	BTC	New	1.68	2.44	4.25
8.75	0' – 3808'	7.625	29.7	RY P-110	Flush Joint	New	2.93	3.00	1.98
8.75	3808' – 9495.8'	7.625	29.7	HC L-80	Flush Joint	New	2.13	3.38	2.40
6.75	0' – 9395.8'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.26	2.23	2.19
6.75	9395.8' - 20843.43'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.26	2.01	6.15

· 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 4 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: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 731'

Lead: 320 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 250 psi 24 hr = 500 psi

Due to the high probability of not getting cement to surface during conventional top-out jobs in the area, ~10-20 ppb gravel will be added on the backside of the 1" to get cement to surface, if required.

1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3708'

Lead: 1530 sxs Class C (mixed at 12.9 ppg, 1.39 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 +/- 9495.8'
Tail: 150 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
TOC:@ 7786
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage
Tail: 580 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Top of Cement: 3208
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated (TOC:@ 7786') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to 3208 (~500' inside 1st Intermediate csg string but below MB126 @ 1440 ').

XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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 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 / Talon, RY P-110 casing to be set at +/- 20843.43'

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 8995.8 feet
Tail: 770 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 10117.86 feet
Compressives: 12-hr = 1375 psi 24 hr = 2285 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 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 both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

A break testing 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	Viscosity	Fluid Loss	Comments
			(ppg)	(sec/qt)	(cc)	
0' - 731'	17.5	FW/Native	8.5-9	35-40	NC	Fresh water or native water
731' - 3708'	12.25	Sat Brine	10-10.5	30-32	NC	Fully Saturated salt across salado
3708' to 9495.8'	8.75	BDE/OBM or FW/Brine	9-9.5	30-32	NC	Depending on well conditions
9495.8' to 20843.43'	6.75	OBM	10.2-10.7	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 brine solution. A saturated salt brine will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

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

8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 5523 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

Measured Depth:	20843.43 ft	**Site:**	C
TVD RKB:	10412.00 ft	**Slot:**	James Ranch Unit Apache 704H
Location			
Cartographic Reference System:	New Mexico East - NAD 27		
Northing:	506593.90 ft		
Easting:	655913.50 ft		
RKB:	3380.00 ft		
Ground Level:	3348.00 ft		
North Reference:	Grid		
Convergence Angle:	0.27 Deg		

Plan Sections

Measured Depth (ft)	Inclination (Deg)	Azimuth (Deg)	TVD RKB (ft)	Y Offset (ft)	X Offset (ft)	Build Rate (Deg/100ft)	Turn Rate (Deg/100ft)	Dogleg Rate (Deg/100ft)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00	
4995.14	25.90	18.03	4951.47	273.68	89.06	2.00	0.00	2.00	
8326.92	25.90	18.03	7948.53	1657.72	539.44	0.00	0.00	0.00	
9622.06	0.00	0.00	9200.00	1931.40	628.50	-2.00	0.00	2.00	
10117.86	0.00	0.00	9695.80	1931.40	628.50	0.00	0.00	0.00	
11242.86	90.00	269.81	10412.00	1929.04	-87.69	8.00	0.00	8.00	
20793.41	90.00	269.81	10412.00	1897.53	-9638.19	0.00	0.00	0.00	LTP 6
20843.43	90.00	269.81	10412.00	1897.37	-9688.21	0.00	0.00	0.00	BHL 6

Position Uncertainty

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

Depth (ft)	Inclination (°)	Azimuth (°)	RKB (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	Error (ft)	Bias (ft)	of Bias (ft)	Error (ft)	Error (ft)	Azimuth (°)	Used
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	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	2.406	0.000	0.000	2.888	2.059	127.873	MWD+IFR1+MS
700.000	0.000	0.000	700.000	2.971	0.000	2.773	0.000	2.444	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	2.485	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	2.531	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	2.634	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	2.750	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	2.813	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	2.878	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	2.945	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	3.015	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	3.086	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	3.160	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	3.236	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	3.313	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	3.391	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	3.472	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	3.554	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	3.637	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	3.895	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	4.544	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	4.642	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	18.025	3799.980	14.434	0.000	13.666	0.000	4.842	0.000	0.000	14.574	13.525	129.159	MWD+IFR1+MS
3900.000	4.000	18.025	3899.838	14.931	0.000	14.029	0.000	4.945	0.000	0.000	15.097	13.883	127.936	MWD+IFR1+MS
4000.000	6.000	18.025	3999.452	15.401	0.000	14.391	0.000	5.050	0.000	0.000	15.610	14.239	127.047	MWD+IFR1+MS
4100.000	8.000	18.025	4098.702	15.847	0.000	14.750	0.000	5.159	0.000	0.000	16.112	14.593	126.377	MWD+IFR1+MS
4200.000	10.000	18.025	4197.465	16.268	0.000	15.108	0.000	5.274	0.000	0.000	16.603	14.945	125.860	MWD+IFR1+MS
4300.000	12.000	18.025	4295.623	16.665	0.000	15.464	0.000	5.395	0.000	0.000	17.084	15.295	125.455	MWD+IFR1+MS
4400.000	14.000	18.025	4393.055	17.039	0.000	15.819	0.000	5.524	0.000	0.000	17.554	15.644	125.136	MWD+IFR1+MS
4500.000	16.000	18.025	4489.643	17.389	0.000	16.172	0.000	5.662	0.000	0.000	18.014	15.992	124.887	MWD+IFR1+MS
4600.000	18.000	18.025	4585.268	17.717	0.000	16.524	0.000	5.810	0.000	0.000	18.464	16.339	124.695	MWD+IFR1+MS
4700.000	20.000	18.025	4679.816	18.024	0.000	16.876	0.000	5.969	0.000	0.000	18.905	16.685	124.553	MWD+IFR1+MS
4800.000	22.000	18.025	4773.169	18.310	0.000	17.227	0.000	6.141	0.000	0.000	19.336	17.032	124.456	MWD+IFR1+MS
4900.000	24.000	18.025	4865.215	18.576	0.000	17.579	0.000	6.326	0.000	0.000	19.757	17.378	124.400	MWD+IFR1+MS
4995.140	25.903	18.025	4951.471	18.797	0.000	17.913	0.000	6.508	0.000	0.000	20.139	17.708	124.385	MWD+IFR1+MS
5000.000	25.903	18.025	4955.843	18.813	0.000	17.930	0.000	6.510	0.000	0.000	20.155	17.725	124.375	MWD+IFR1+MS
5100.000	25.903	18.025	5045.796	19.139	0.000	18.278	0.000	6.653	0.000	0.000	20.448	18.077	124.473	MWD+IFR1+MS
5200.000	25.903	18.025	5135.750	19.477	0.000	18.637	0.000	6.805	0.000	0.000	20.754	18.435	124.710	MWD+IFR1+MS
5300.000	25.903	18.025	5225.704	19.821	0.000	19.001	0.000	6.964	0.000	0.000	21.065	18.798	124.953	MWD+IFR1+MS
5400.000	25.903	18.025	5315.657	20.171	0.000	19.368	0.000	7.128	0.000	0.000	21.380	19.164	125.204	MWD+IFR1+MS
5500.000	25.903	18.025	5405.611	20.525	0.000	19.738	0.000	7.297	0.000	0.000	21.700	19.534	125.462	MWD+IFR1+MS
5600.000	25.903	18.025	5495.565	20.884	0.000	20.112	0.000	7.472	0.000	0.000	22.023	19.907	125.727	MWD+IFR1+MS
5700.000	25.903	18.025	5585.518	21.247	0.000	20.488	0.000	7.651	0.000	0.000	22.350	20.282	126.000	MWD+IFR1+MS
5800.000	25.903	18.025	5675.472	21.615	0.000	20.868	0.000	7.835	0.000	0.000	22.681	20.661	126.282	MWD+IFR1+MS
5900.000	25.903	18.025	5765.425	21.987	0.000	21.250	0.000	8.023	0.000	0.000	23.015	21.042	126.572	MWD+IFR1+MS
6000.000	25.903	18.025	5855.379	22.363	0.000	21.635	0.000	8.215	0.000	0.000	23.352	21.426	126.870	MWD+IFR1+MS
6100.000	25.903	18.025	5945.333	22.742	0.000	22.022	0.000	8.411	0.000	0.000	23.693	21.812	127.178	MWD+IFR1+MS
6200.000	25.903	18.025	6035.286	23.125	0.000	22.411	0.000	8.610	0.000	0.000	24.037	22.200	127.495	MWD+IFR1+MS

6300.000	25.903	18.025	6125.240	23.511	0.000	22.803	0.000	8.814	0.000	0.000	24.384	22.590	127.822	MWD+IFR1+MS
6400.000	25.903	18.025	6215.194	23.900	0.000	23.197	0.000	9.020	0.000	0.000	24.733	22.983	128.160	MWD+IFR1+MS
6500.000	25.903	18.025	6305.147	24.292	0.000	23.593	0.000	9.230	0.000	0.000	25.086	23.377	128.508	MWD+IFR1+MS
6600.000	25.903	18.025	6395.101	24.687	0.000	23.991	0.000	9.443	0.000	0.000	25.441	23.773	128.866	MWD+IFR1+MS
6700.000	25.903	18.025	6485.055	25.085	0.000	24.390	0.000	9.660	0.000	0.000	25.799	24.171	129.236	MWD+IFR1+MS
6800.000	25.903	18.025	6575.008	25.486	0.000	24.791	0.000	9.879	0.000	0.000	26.159	24.570	129.618	MWD+IFR1+MS
6900.000	25.903	18.025	6664.962	25.888	0.000	25.194	0.000	10.101	0.000	0.000	26.522	24.971	130.012	MWD+IFR1+MS
7000.000	25.903	18.025	6754.916	26.294	0.000	25.599	0.000	10.326	0.000	0.000	26.887	25.374	130.419	MWD+IFR1+MS
7100.000	25.903	18.025	6844.869	26.701	0.000	26.005	0.000	10.553	0.000	0.000	27.254	25.777	130.839	MWD+IFR1+MS
7200.000	25.903	18.025	6934.823	27.111	0.000	26.412	0.000	10.783	0.000	0.000	27.623	26.182	131.272	MWD+IFR1+MS
7300.000	25.903	18.025	7024.776	27.522	0.000	26.821	0.000	11.016	0.000	0.000	27.995	26.589	131.719	MWD+IFR1+MS
7400.000	25.903	18.025	7114.730	27.936	0.000	27.231	0.000	11.251	0.000	0.000	28.369	26.996	132.180	MWD+IFR1+MS
7500.000	25.903	18.025	7204.684	28.352	0.000	27.642	0.000	11.488	0.000	0.000	28.744	27.404	132.656	MWD+IFR1+MS
7600.000	25.903	18.025	7294.637	28.769	0.000	28.054	0.000	11.728	0.000	0.000	29.122	27.814	133.147	MWD+IFR1+MS
7700.000	25.903	18.025	7384.591	29.188	0.000	28.468	0.000	11.970	0.000	0.000	29.501	28.224	133.654	MWD+IFR1+MS
7800.000	25.903	18.025	7474.545	29.608	0.000	28.882	0.000	12.214	0.000	0.000	29.882	28.636	134.176	MWD+IFR1+MS
7900.000	25.903	18.025	7564.498	30.031	0.000	29.298	0.000	12.461	0.000	0.000	30.265	29.048	134.715	MWD+IFR1+MS
8000.000	25.903	18.025	7654.452	30.454	0.000	29.714	0.000	12.710	0.000	0.000	30.650	29.461	-44.730	MWD+IFR1+MS
8100.000	25.903	18.025	7744.406	30.880	0.000	30.132	0.000	12.960	0.000	0.000	31.036	29.875	-44.158	MWD+IFR1+MS
8200.000	25.903	18.025	7834.359	31.306	0.000	30.550	0.000	13.213	0.000	0.000	31.424	30.290	-43.569	MWD+IFR1+MS
8300.000	25.903	18.025	7924.313	31.734	0.000	30.969	0.000	13.468	0.000	0.000	31.813	30.705	-42.962	MWD+IFR1+MS
8326.921	25.903	18.025	7948.529	31.848	0.000	31.081	0.000	13.537	0.000	0.000	31.916	30.817	-42.840	MWD+IFR1+MS
8400.000	24.441	18.025	8014.667	32.306	0.000	31.383	0.000	13.725	0.000	0.000	32.201	31.119	-42.580	MWD+IFR1+MS
8500.000	22.441	18.025	8106.409	32.949	0.000	31.797	0.000	13.997	0.000	0.000	32.636	31.533	-42.910	MWD+IFR1+MS
8600.000	20.441	18.025	8199.483	33.568	0.000	32.207	0.000	14.264	0.000	0.000	33.088	31.944	-43.547	MWD+IFR1+MS
8700.000	18.441	18.025	8293.777	34.141	0.000	32.611	0.000	14.518	0.000	0.000	33.538	32.350	-44.228	MWD+IFR1+MS
8800.000	16.441	18.025	8389.175	34.668	0.000	33.009	0.000	14.760	0.000	0.000	33.986	32.749	-44.926	MWD+IFR1+MS
8900.000	14.441	18.025	8485.560	35.148	0.000	33.400	0.000	14.992	0.000	0.000	34.429	33.142	134.380	MWD+IFR1+MS
9000.000	12.441	18.025	8582.816	35.579	0.000	33.784	0.000	15.213	0.000	0.000	34.868	33.528	133.708	MWD+IFR1+MS
9100.000	10.441	18.025	8680.824	35.963	0.000	34.159	0.000	15.426	0.000	0.000	35.300	33.905	133.070	MWD+IFR1+MS
9200.000	8.441	18.025	8779.464	36.297	0.000	34.527	0.000	15.632	0.000	0.000	35.724	34.274	132.476	MWD+IFR1+MS
9300.000	6.441	18.025	8878.617	36.583	0.000	34.886	0.000	15.830	0.000	0.000	36.140	34.634	131.933	MWD+IFR1+MS
9400.000	4.441	18.025	8978.162	36.820	0.000	35.236	0.000	16.024	0.000	0.000	36.548	34.984	131.446	MWD+IFR1+MS

9500.000	2.441	18.025	9077.976	37.008	0.000	35.577	0.000	16.213	0.000	0.000	36.945	35.325	131.015	MWD+IFR1+MS
9600.000	0.441	18.025	9177.939	37.147	0.000	35.909	0.000	16.399	0.000	0.000	37.331	35.657	130.642	MWD+IFR1+MS
9622.061	0.000	0.000	9200.000	36.700	0.000	36.446	0.000	16.439	0.000	0.000	37.399	35.728	130.640	MWD+IFR1+MS
9700.000	0.000	0.000	9277.939	36.943	0.000	36.693	0.000	16.584	0.000	0.000	37.637	35.980	130.650	MWD+IFR1+MS
9800.000	0.000	0.000	9377.939	37.258	0.000	37.013	0.000	16.772	0.000	0.000	37.948	36.305	130.702	MWD+IFR1+MS
9900.000	0.000	0.000	9477.939	37.575	0.000	37.334	0.000	16.965	0.000	0.000	38.262	36.630	130.759	MWD+IFR1+MS
10000.000	0.000	0.000	9577.939	37.892	0.000	37.656	0.000	17.160	0.000	0.000	38.576	36.956	130.816	MWD+IFR1+MS
10100.000	0.000	0.000	9677.939	38.210	0.000	37.979	0.000	17.359	0.000	0.000	38.891	37.282	130.873	MWD+IFR1+MS
10117.861	0.000	0.000	9695.800	38.266	0.000	38.036	0.000	17.395	0.000	0.000	38.946	37.340	130.879	MWD+IFR1+MS
10200.000	6.571	269.811	9777.759	37.916	-0.000	38.510	0.000	17.564	0.000	0.000	39.229	37.681	133.065	MWD+IFR1+MS
10300.000	14.571	269.811	9875.982	38.022	-0.000	38.800	0.000	17.839	0.000	0.000	39.972	38.396	-30.365	MWD+IFR1+MS
10400.000	22.571	269.811	9970.698	37.784	-0.000	39.079	0.000	18.285	0.000	0.000	40.969	38.893	-17.392	MWD+IFR1+MS
10500.000	30.571	269.811	10060.063	37.071	-0.000	39.344	0.000	18.960	0.000	0.000	41.928	39.247	-10.995	MWD+IFR1+MS
10600.000	38.571	269.811	10142.339	35.975	-0.000	39.594	0.000	19.895	0.000	0.000	42.751	39.538	-7.596	MWD+IFR1+MS
10700.000	46.571	269.811	10215.923	34.617	-0.000	39.827	0.000	21.090	0.000	0.000	43.407	39.793	-5.635	MWD+IFR1+MS
10800.000	54.571	269.811	10279.383	33.145	-0.000	40.045	0.000	22.515	0.000	0.000	43.893	40.022	-4.498	MWD+IFR1+MS
10900.000	62.571	269.811	10331.485	31.743	-0.000	40.249	0.000	24.120	0.000	0.000	44.219	40.231	-3.938	MWD+IFR1+MS
11000.000	70.571	269.811	10371.214	30.612	-0.000	40.439	0.000	25.844	0.000	0.000	44.411	40.422	-3.869	MWD+IFR1+MS
11100.000	78.571	269.811	10397.796	29.955	-0.000	40.616	0.000	27.622	0.000	0.000	44.501	40.595	-4.285	MWD+IFR1+MS
11200.000	86.571	269.811	10410.715	29.931	-0.000	40.778	0.000	29.394	0.000	0.000	44.532	40.747	-5.205	MWD+IFR1+MS
11242.861	90.000	269.811	10411.997	29.652	0.000	40.839	0.000	29.652	0.000	0.000	44.539	40.802	-5.759	MWD+IFR1+MS
11300.000	90.000	269.811	10411.997	29.843	0.000	40.924	0.000	29.843	0.000	0.000	44.550	40.877	-6.566	MWD+IFR1+MS
11400.000	90.000	269.811	10411.997	30.150	0.000	41.100	0.000	30.150	0.000	0.000	44.573	41.030	-8.098	MWD+IFR1+MS
11500.000	90.000	269.811	10411.997	30.476	0.000	41.307	0.000	30.476	0.000	0.000	44.602	41.208	-9.818	MWD+IFR1+MS
11600.000	90.000	269.811	10411.997	30.819	0.000	41.544	0.000	30.819	0.000	0.000	44.640	41.408	-11.780	MWD+IFR1+MS
11700.000	90.000	269.811	10411.997	31.177	0.000	41.809	0.000	31.177	0.000	0.000	44.687	41.627	-14.048	MWD+IFR1+MS
11800.000	90.000	269.811	10411.997	31.551	0.000	42.102	0.000	31.551	0.000	0.000	44.748	41.862	-16.704	MWD+IFR1+MS
11900.000	90.000	269.811	10411.997	31.940	0.000	42.423	0.000	31.940	0.000	0.000	44.825	42.107	-19.839	MWD+IFR1+MS
12000.000	90.000	269.811	10411.997	32.343	0.000	42.771	0.000	32.343	0.000	0.000	44.924	42.358	-23.539	MWD+IFR1+MS
12100.000	90.000	269.811	10411.997	32.761	0.000	43.146	0.000	32.761	0.000	0.000	45.053	42.606	-27.860	MWD+IFR1+MS
12200.000	90.000	269.811	10411.997	33.191	0.000	43.546	0.000	33.191	0.000	0.000	45.219	42.844	-32.773	MWD+IFR1+MS
12300.000	90.000	269.811	10411.997	33.634	0.000	43.971	0.000	33.634	0.000	0.000	45.429	43.061	-38.112	MWD+IFR1+MS
12400.000	90.000	269.811	10411.997	34.090	0.000	44.420	0.000	34.090	0.000	0.000	45.691	43.252	-43.579	MWD+IFR1+MS

12500.000	90.000	269.811	10411.997	34.557	0.000	44.893	0.000	34.557	0.000	0.000	46.007	43.414	131.176	MWD+IFR1+MS
12600.000	90.000	269.811	10411.997	35.036	0.000	45.388	0.000	35.036	0.000	0.000	46.374	43.547	126.428	MWD+IFR1+MS
12700.000	90.000	269.811	10411.997	35.526	0.000	45.906	0.000	35.526	0.000	0.000	46.788	43.655	122.307	MWD+IFR1+MS
12800.000	90.000	269.811	10411.997	36.026	0.000	46.445	0.000	36.026	0.000	0.000	47.244	43.743	118.820	MWD+IFR1+MS
12900.000	90.000	269.811	10411.997	36.536	0.000	47.004	0.000	36.536	0.000	0.000	47.737	43.816	115.902	MWD+IFR1+MS
13000.000	90.000	269.811	10411.997	37.055	0.000	47.583	0.000	37.055	0.000	0.000	48.262	43.877	113.465	MWD+IFR1+MS
13100.000	90.000	269.811	10411.997	37.584	0.000	48.182	0.000	37.584	0.000	0.000	48.816	43.929	111.420	MWD+IFR1+MS
13200.000	90.000	269.811	10411.997	38.122	0.000	48.799	0.000	38.122	0.000	0.000	49.395	43.974	109.693	MWD+IFR1+MS
13300.000	90.000	269.811	10411.997	38.668	0.000	49.433	0.000	38.668	0.000	0.000	49.998	44.014	108.222	MWD+IFR1+MS
13400.000	90.000	269.811	10411.997	39.222	0.000	50.085	0.000	39.222	0.000	0.000	50.622	44.050	106.957	MWD+IFR1+MS
13500.000	90.000	269.811	10411.997	39.784	0.000	50.753	0.000	39.784	0.000	0.000	51.266	44.083	105.859	MWD+IFR1+MS
13600.000	90.000	269.811	10411.997	40.354	0.000	51.437	0.000	40.354	0.000	0.000	51.929	44.113	104.900	MWD+IFR1+MS
13700.000	90.000	269.811	10411.997	40.930	0.000	52.136	0.000	40.930	0.000	0.000	52.610	44.142	104.054	MWD+IFR1+MS
13800.000	90.000	269.811	10411.997	41.514	0.000	52.850	0.000	41.514	0.000	0.000	53.306	44.170	103.304	MWD+IFR1+MS
13900.000	90.000	269.811	10411.997	42.104	0.000	53.577	0.000	42.104	0.000	0.000	54.019	44.196	102.634	MWD+IFR1+MS
14000.000	90.000	269.811	10411.997	42.700	0.000	54.318	0.000	42.700	0.000	0.000	54.746	44.222	102.031	MWD+IFR1+MS
14100.000	90.000	269.811	10411.997	43.302	0.000	55.072	0.000	43.302	0.000	0.000	55.487	44.247	101.486	MWD+IFR1+MS
14200.000	90.000	269.811	10411.997	43.910	0.000	55.838	0.000	43.910	0.000	0.000	56.242	44.271	100.991	MWD+IFR1+MS
14300.000	90.000	269.811	10411.997	44.524	0.000	56.616	0.000	44.524	0.000	0.000	57.009	44.296	100.540	MWD+IFR1+MS
14400.000	90.000	269.811	10411.997	45.142	0.000	57.405	0.000	45.142	0.000	0.000	57.788	44.320	100.126	MWD+IFR1+MS
14500.000	90.000	269.811	10411.997	45.766	0.000	58.206	0.000	45.766	0.000	0.000	58.579	44.344	99.745	MWD+IFR1+MS
14600.000	90.000	269.811	10411.997	46.395	0.000	59.016	0.000	46.395	0.000	0.000	59.381	44.369	99.393	MWD+IFR1+MS
14700.000	90.000	269.811	10411.997	47.029	0.000	59.837	0.000	47.029	0.000	0.000	60.193	44.393	99.067	MWD+IFR1+MS
14800.000	90.000	269.811	10411.997	47.667	0.000	60.667	0.000	47.667	0.000	0.000	61.016	44.417	98.765	MWD+IFR1+MS
14900.000	90.000	269.811	10411.997	48.309	0.000	61.507	0.000	48.309	0.000	0.000	61.848	44.442	98.482	MWD+IFR1+MS
15000.000	90.000	269.811	10411.997	48.955	0.000	62.355	0.000	48.955	0.000	0.000	62.689	44.467	98.219	MWD+IFR1+MS
15100.000	90.000	269.811	10411.997	49.606	0.000	63.212	0.000	49.606	0.000	0.000	63.539	44.492	97.972	MWD+IFR1+MS
15200.000	90.000	269.811	10411.997	50.260	0.000	64.077	0.000	50.260	0.000	0.000	64.398	44.517	97.740	MWD+IFR1+MS
15300.000	90.000	269.811	10411.997	50.918	0.000	64.950	0.000	50.918	0.000	0.000	65.265	44.543	97.522	MWD+IFR1+MS
15400.000	90.000	269.811	10411.997	51.580	0.000	65.831	0.000	51.580	0.000	0.000	66.139	44.569	97.316	MWD+IFR1+MS
15500.000	90.000	269.811	10411.997	52.245	0.000	66.718	0.000	52.245	0.000	0.000	67.022	44.595	97.121	MWD+IFR1+MS
15600.000	90.000	269.811	10411.997	52.913	0.000	67.613	0.000	52.913	0.000	0.000	67.911	44.622	96.938	MWD+IFR1+MS
15700.000	90.000	269.811	10411.997	53.584	0.000	68.514	0.000	53.584	0.000	0.000	68.807	44.649	96.763	MWD+IFR1+MS

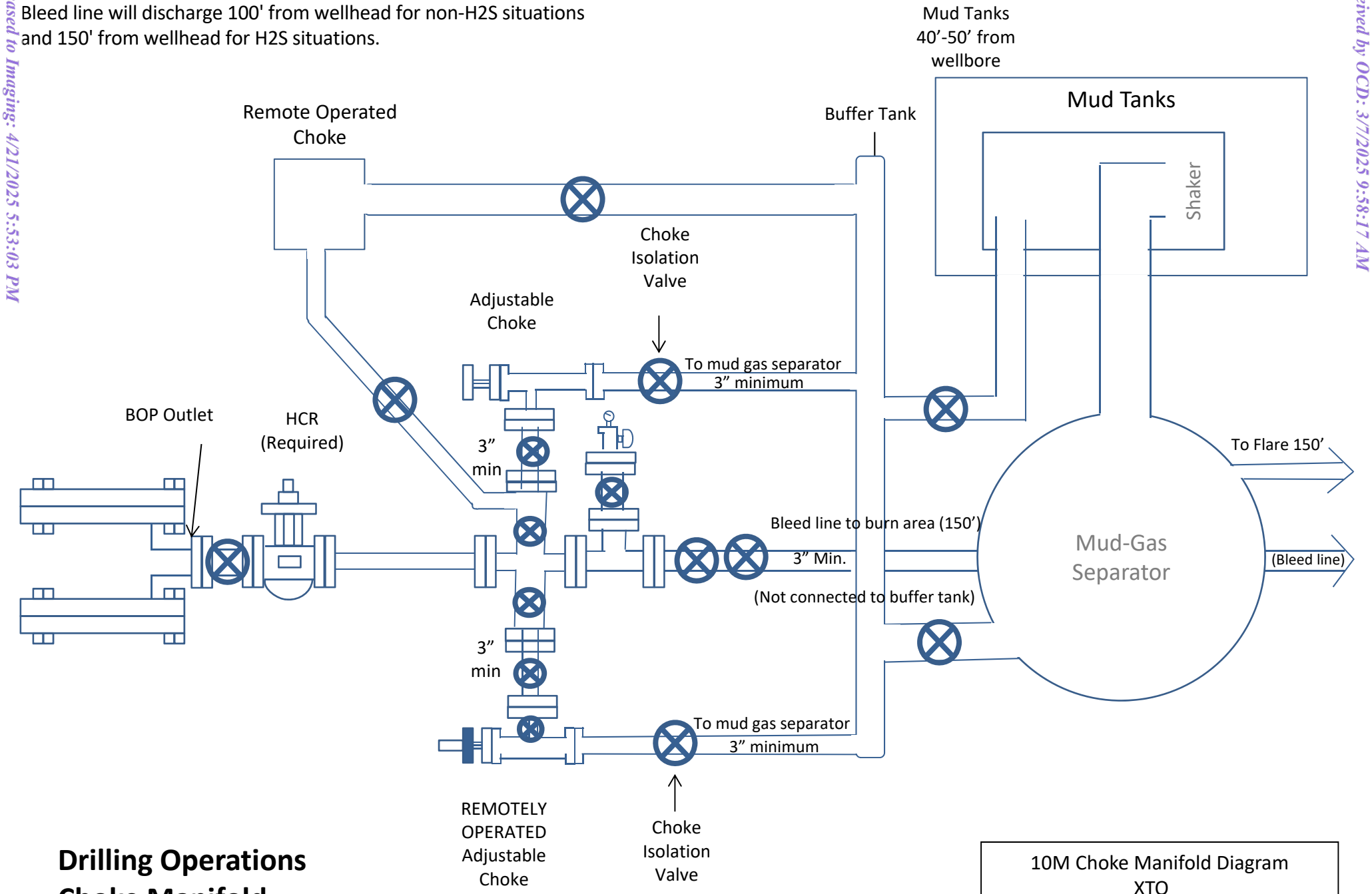
15800.000	90.000	269.811	10411.997	54.259	0.000	69.422	0.000	54.259	0.000	0.000	69.710	44.676	96.598	MWD+IFR1+MS
15900.000	90.000	269.811	10411.997	54.936	0.000	70.336	0.000	54.936	0.000	0.000	70.619	44.704	96.441	MWD+IFR1+MS
16000.000	90.000	269.811	10411.997	55.616	0.000	71.256	0.000	55.616	0.000	0.000	71.534	44.732	96.291	MWD+IFR1+MS
16100.000	90.000	269.811	10411.997	56.299	0.000	72.181	0.000	56.299	0.000	0.000	72.455	44.761	96.148	MWD+IFR1+MS
16200.000	90.000	269.811	10411.997	56.985	0.000	73.112	0.000	56.985	0.000	0.000	73.381	44.790	96.012	MWD+IFR1+MS
16300.000	90.000	269.811	10411.997	57.673	0.000	74.048	0.000	57.673	0.000	0.000	74.313	44.819	95.882	MWD+IFR1+MS
16400.000	90.000	269.811	10411.997	58.363	0.000	74.990	0.000	58.363	0.000	0.000	75.251	44.849	95.757	MWD+IFR1+MS
16500.000	90.000	269.811	10411.997	59.056	0.000	75.936	0.000	59.056	0.000	0.000	76.193	44.880	95.638	MWD+IFR1+MS
16600.000	90.000	269.811	10411.997	59.751	0.000	76.887	0.000	59.751	0.000	0.000	77.140	44.910	95.524	MWD+IFR1+MS
16700.000	90.000	269.811	10411.997	60.448	0.000	77.842	0.000	60.448	0.000	0.000	78.092	44.942	95.414	MWD+IFR1+MS
16800.000	90.000	269.811	10411.997	61.148	0.000	78.802	0.000	61.148	0.000	0.000	79.048	44.973	95.309	MWD+IFR1+MS
16900.000	90.000	269.811	10411.997	61.849	0.000	79.766	0.000	61.849	0.000	0.000	80.008	45.006	95.207	MWD+IFR1+MS
17000.000	90.000	269.811	10411.997	62.553	0.000	80.734	0.000	62.553	0.000	0.000	80.973	45.038	95.110	MWD+IFR1+MS
17100.000	90.000	269.811	10411.997	63.258	0.000	81.706	0.000	63.258	0.000	0.000	81.942	45.071	95.016	MWD+IFR1+MS
17200.000	90.000	269.811	10411.997	63.966	0.000	82.682	0.000	63.966	0.000	0.000	82.914	45.105	94.926	MWD+IFR1+MS
17300.000	90.000	269.811	10411.997	64.675	0.000	83.662	0.000	64.675	0.000	0.000	83.891	45.139	94.838	MWD+IFR1+MS
17400.000	90.000	269.811	10411.997	65.385	0.000	84.645	0.000	65.385	0.000	0.000	84.871	45.174	94.754	MWD+IFR1+MS
17500.000	90.000	269.811	10411.997	66.098	0.000	85.631	0.000	66.098	0.000	0.000	85.854	45.209	94.673	MWD+IFR1+MS
17600.000	90.000	269.811	10411.997	66.812	0.000	86.621	0.000	66.812	0.000	0.000	86.841	45.244	94.594	MWD+IFR1+MS
17700.000	90.000	269.811	10411.997	67.527	0.000	87.613	0.000	67.527	0.000	0.000	87.831	45.280	94.519	MWD+IFR1+MS
17800.000	90.000	269.811	10411.997	68.245	0.000	88.609	0.000	68.245	0.000	0.000	88.824	45.316	94.445	MWD+IFR1+MS
17900.000	90.000	269.811	10411.997	68.963	0.000	89.608	0.000	68.963	0.000	0.000	89.820	45.353	94.374	MWD+IFR1+MS
18000.000	90.000	269.811	10411.997	69.683	0.000	90.610	0.000	69.683	0.000	0.000	90.819	45.391	94.305	MWD+IFR1+MS
18100.000	90.000	269.811	10411.997	70.405	0.000	91.614	0.000	70.405	0.000	0.000	91.821	45.428	94.238	MWD+IFR1+MS
18200.000	90.000	269.811	10411.997	71.127	0.000	92.622	0.000	71.127	0.000	0.000	92.826	45.467	94.174	MWD+IFR1+MS
18300.000	90.000	269.811	10411.997	71.852	0.000	93.631	0.000	71.852	0.000	0.000	93.833	45.506	94.111	MWD+IFR1+MS
18400.000	90.000	269.811	10411.997	72.577	0.000	94.644	0.000	72.577	0.000	0.000	94.843	45.545	94.050	MWD+IFR1+MS
18500.000	90.000	269.811	10411.997	73.303	0.000	95.658	0.000	73.303	0.000	0.000	95.856	45.584	93.991	MWD+IFR1+MS
18600.000	90.000	269.811	10411.997	74.031	0.000	96.675	0.000	74.031	0.000	0.000	96.870	45.625	93.933	MWD+IFR1+MS
18700.000	90.000	269.811	10411.997	74.760	0.000	97.695	0.000	74.760	0.000	0.000	97.887	45.665	93.877	MWD+IFR1+MS
18800.000	90.000	269.811	10411.997	75.490	0.000	98.716	0.000	75.490	0.000	0.000	98.907	45.706	93.823	MWD+IFR1+MS
18900.000	90.000	269.811	10411.997	76.221	0.000	99.740	0.000	76.221	0.000	0.000	99.928	45.748	93.770	MWD+IFR1+MS
19000.000	90.000	269.811	10411.997	76.953	0.000	100.766	0.000	76.953	0.000	0.000	100.952	45.790	93.719	MWD+IFR1+MS

19100.000	90.000	269.811	10411.997	77.687	0.000	101.794	0.000	77.687	0.000	0.000	101.978	45.833	93.668	MWD+IFR1+MS
19200.000	90.000	269.811	10411.997	78.421	0.000	102.823	0.000	78.421	0.000	0.000	103.006	45.876	93.620	MWD+IFR1+MS
19300.000	90.000	269.811	10411.997	79.156	0.000	103.855	0.000	79.156	0.000	0.000	104.035	45.919	93.572	MWD+IFR1+MS
19400.000	90.000	269.811	10411.997	79.892	0.000	104.888	0.000	79.892	0.000	0.000	105.067	45.963	93.526	MWD+IFR1+MS
19500.000	90.000	269.811	10411.997	80.629	0.000	105.924	0.000	80.629	0.000	0.000	106.100	46.008	93.481	MWD+IFR1+MS
19600.000	90.000	269.811	10411.997	81.367	0.000	106.961	0.000	81.367	0.000	0.000	107.135	46.053	93.437	MWD+IFR1+MS
19700.000	90.000	269.811	10411.997	82.106	0.000	107.999	0.000	82.106	0.000	0.000	108.172	46.098	93.394	MWD+IFR1+MS
19800.000	90.000	269.811	10411.997	82.845	0.000	109.040	0.000	82.845	0.000	0.000	109.211	46.144	93.352	MWD+IFR1+MS
19900.000	90.000	269.811	10411.997	83.586	0.000	110.082	0.000	83.586	0.000	0.000	110.251	46.190	93.311	MWD+IFR1+MS
20000.000	90.000	269.811	10411.997	84.327	0.000	111.125	0.000	84.327	0.000	0.000	111.293	46.237	93.271	MWD+IFR1+MS
20100.000	90.000	269.811	10411.997	85.069	0.000	112.170	0.000	85.069	0.000	0.000	112.336	46.284	93.232	MWD+IFR1+MS
20200.000	90.000	269.811	10411.997	85.812	0.000	113.216	0.000	85.812	0.000	0.000	113.381	46.332	93.193	MWD+IFR1+MS
20300.000	90.000	269.811	10411.997	86.555	0.000	114.264	0.000	86.555	0.000	0.000	114.427	46.380	93.156	MWD+IFR1+MS
20400.000	90.000	269.811	10411.997	87.300	0.000	115.314	0.000	87.300	0.000	0.000	115.475	46.429	93.120	MWD+IFR1+MS
20500.000	90.000	269.811	10411.997	88.045	0.000	116.364	0.000	88.045	0.000	0.000	116.524	46.478	93.084	MWD+IFR1+MS
20600.000	90.000	269.811	10411.997	88.790	0.000	117.416	0.000	88.790	0.000	0.000	117.574	46.527	93.049	MWD+IFR1+MS
20700.000	90.000	269.811	10411.997	89.537	0.000	118.469	0.000	89.537	0.000	0.000	118.626	46.577	93.015	MWD+IFR1+MS
20793.413	90.000	269.811	10411.997	90.234	0.000	119.454	0.000	90.234	0.000	0.000	119.609	46.624	92.984	MWD+IFR1+MS
20800.000	90.000	269.811	10411.997	90.283	0.000	119.523	0.000	90.283	0.000	0.000	119.678	46.628	92.982	MWD+IFR1+MS
20843.426	90.000	269.811	10411.997	90.607	0.000	119.980	0.000	90.607	0.000	0.000	120.135	46.650	92.967	MWD+IFR1+MS

Plan Targets

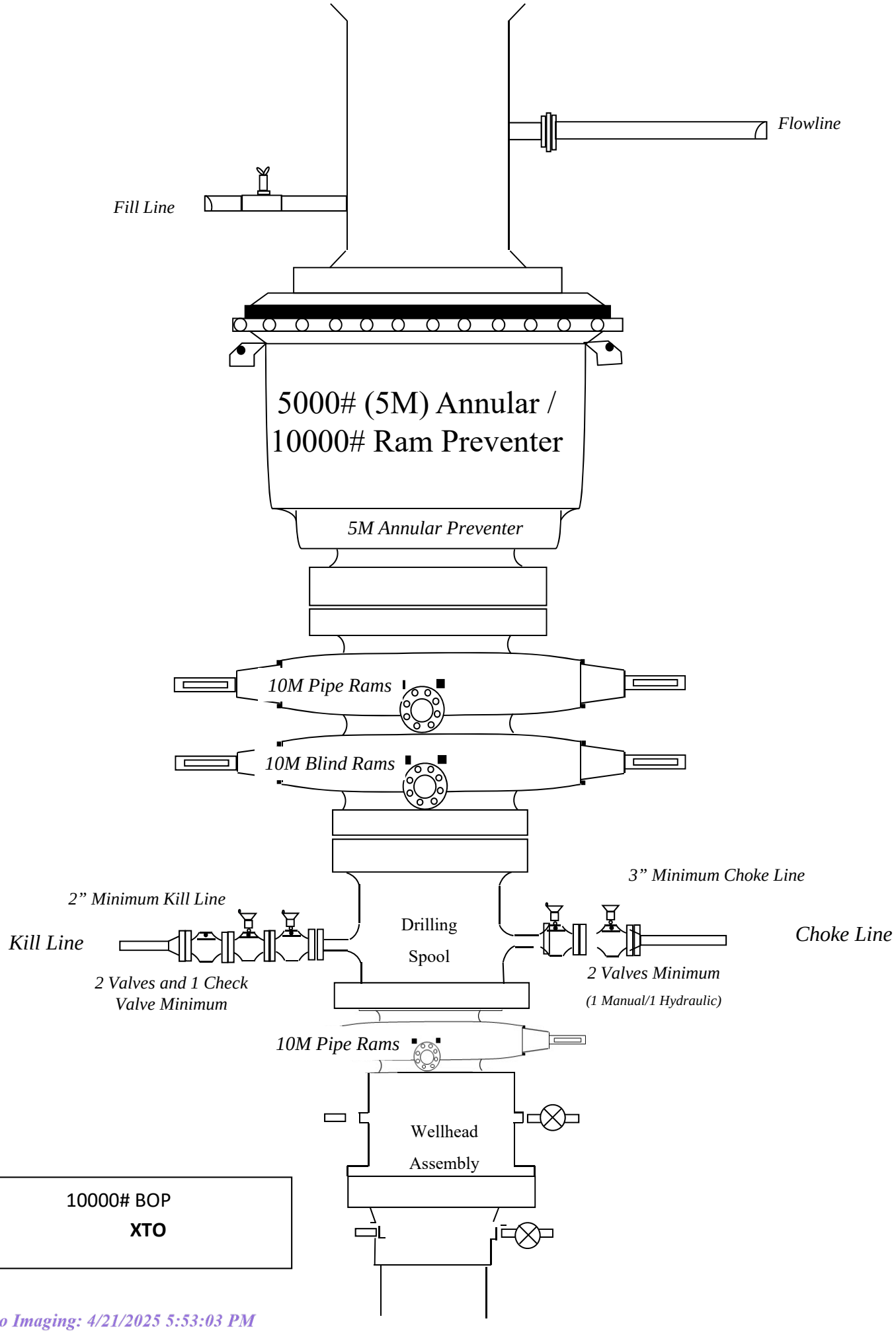
Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 6	10997.58	508525.30	656542.00	7032.00	CIRCLE
LTP 6	20793.45	508491.40	646275.30	7032.00	CIRCLE
BHL 6	20843.42	508491.30	646225.30	7032.00	CIRCLE

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



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U. S. Steel Tubular Products

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

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	--

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.

U. S. Steel Tubular Products
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Spring, Texas 77380

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U. S. Steel Tubular Products

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

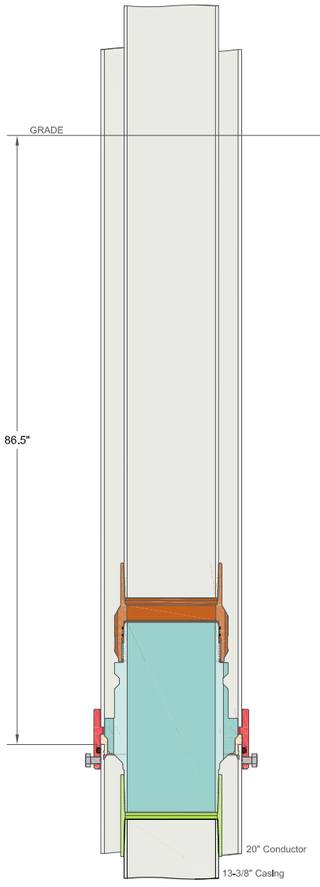
MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-TALON HTQ™ RD**		**--**
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	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]

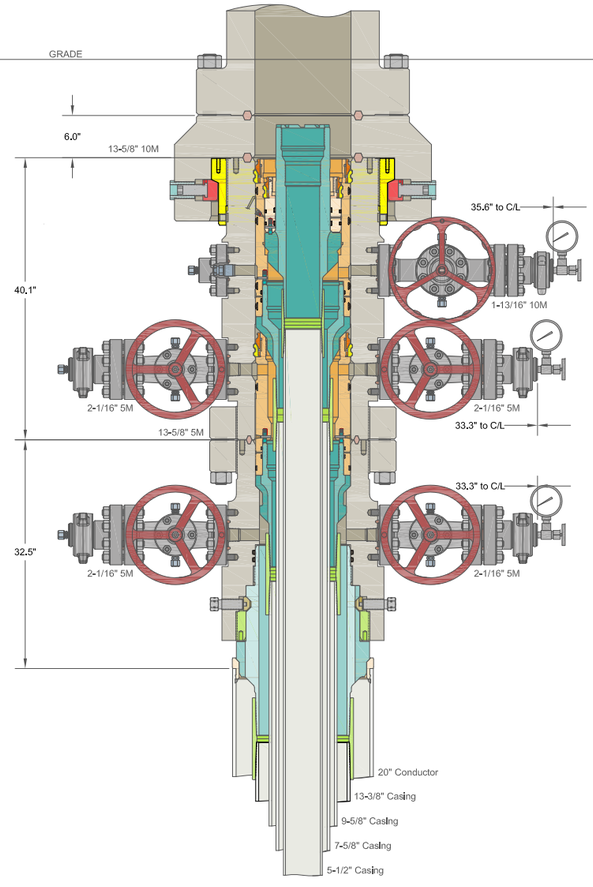
Notes

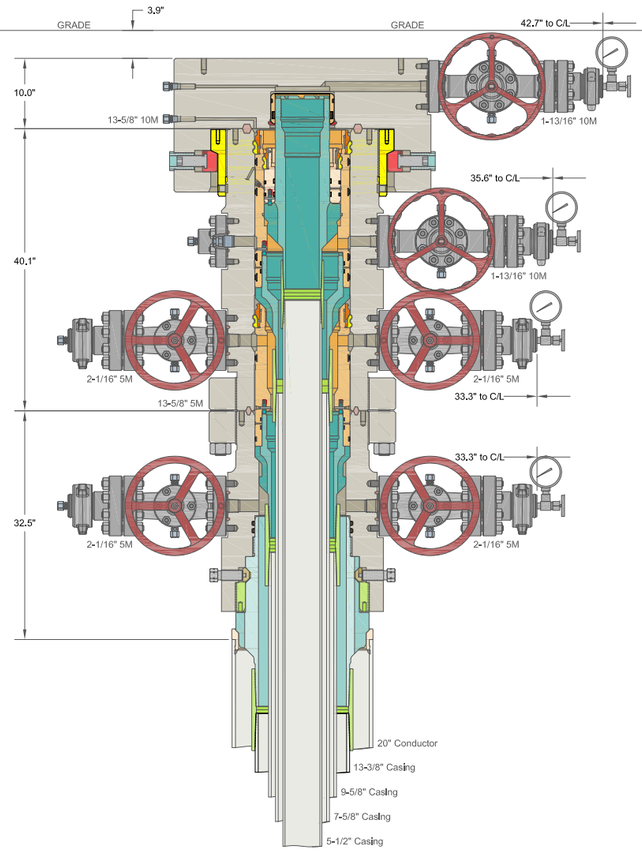
1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bend rating shown is structural only.
4. 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.).
5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
6. Coupling must meet minimum mechanical properties of the pipe.

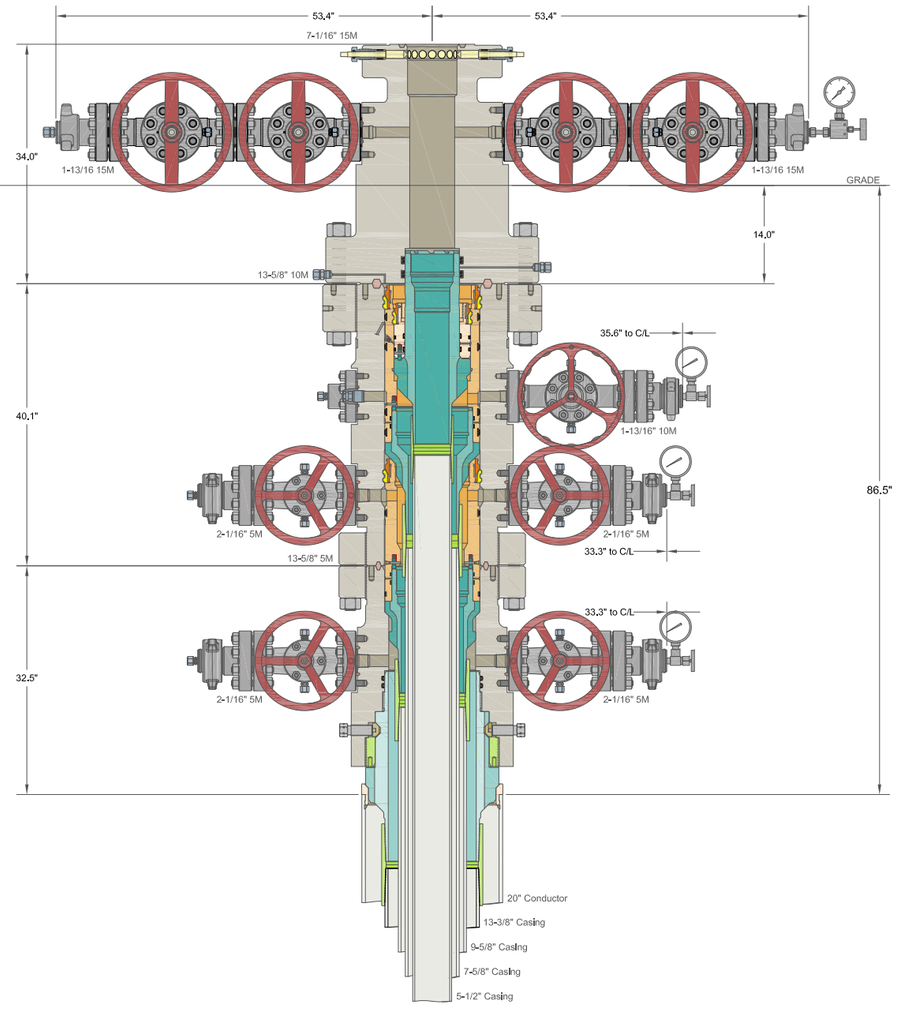
U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

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









ALL DIMENSIONS APPROXIMA

CACTUS WELLHEAD LLC

(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And Drilling & Skid Configurations

XTO ENERGY INC
DELAWARE BASIN

DRAWN	VJK	31MAR22
APPRV		

DRAWING NO. SDT-3301

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

Operator:	OGRID:
XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	373075
	Action Number: 440293
	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.	4/21/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	4/21/2025