

Well Name: JRU APACHE FEDERAL COM	Well Location: T22S / R30E / SEC 13 / NESE / 32.391844 / -103.828229	County or Parish/State: EDDY / NM
Well Number: 901H	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: 2830921

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 01/09/2025	Time Sundry Submitted: 01:29
Date proposed operation will begin: 01/17/2025	

**Procedure Description:** JRU APACHE FEDERAL COM 901H APD ID# 10400085291 SUNDRY LANGUAGE XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include name of the well, SHL, KOP, FTP, LTP, BHL, casing design, cement program, mud circulation system and proposed total depth. The API number for the well is 30-015-55834. The name of the well is changing from “JRU Apache Federal Com 901H” to “James Ranch Unit Apache 901H”. FROM: TO: SHL: 2545' FSL & 817' FEL OF SECTION 13-T22S-R30E 2457' FSL & 969' FEL OF SECTION 13-T22S-R30E KOP: 2545' FSL & 817' FEL OF SECTION 13-T22S-R30E 2128' FNL & 330' FEL OF SECTION 13-T22S-R30E FTP: 990' FNL & 330' FEL OF SECTION 13-T22S-R30E 2128' FNL & 330' FEL OF SECTION 13-T22S-R30E LTP: 990' FNL & 100' FWL OF SECTION 14-T22S-R30E 2128' FNL & 100' FWL OF SECTION 14-T22S-R30E BHL: 990' FNL & 50' FWL OF SECTION 14-T22S-R30E 2128' FNL & 50' FWL OF SECTION 14-T22S-R30E The proposed total depth is changing from 21832' MD/10839' TVD to 20989.31' MD/10889' 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, MBS diagram, R-111-Q Well Bore Diagram and BOP Break Testing Variance.

NOI Attachments

Procedure Description

Sundry\_Attachments\_\_\_James\_Ranch\_Unit\_Apache\_901H\_20250203063432.pdf

Received by OCD: 3/7/2025 10:06:13 AM

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Conditions of Approval

Additional  
James\_Ranch\_Unit\_Apache\_901H\_COA\_20250225070523.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: FEB 03, 2025 06:35 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
<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> <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

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		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	

<b>THE SPACE FOR FEDERAL OR STATE OFFICE USE</b>		
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

KOP: 2545' FSL & 817' FEL OF SECTION 13-T22S-R30E 2128' FNL & 330' FEL OF SECTION 13-T22S-R30E

FTP: 990' FNL & 330' FEL OF SECTION 13-T22S-R30E 2128' FNL & 330' FEL OF SECTION 13-T22S-R30E

LTP: 990' FNL & 100' FWL OF SECTION 14-T22S-R30E 2128' FNL & 100' FWL OF SECTION 14-T22S-R30E

BHL: 990' FNL & 50' FWL OF SECTION 14-T22S-R30E 2128' FNL & 50' FWL OF SECTION 14-T22S-R30E

The proposed total depth is changing from 21832 MD/10839 TVD to 20989.31 MD/10889 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, MBS diagram, R-111-Q Well Bore Diagram and BOP Break Testing Variance.

### Location of Well

0. SHL: NESE / 2545 FSL / 817 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.391844 / LONG: -103.828229 ( TVD: 0 feet, MD: 0 feet )

PPP: NWNE / 987 FNL / 2673 FWL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.39666 / LONG: -103.834246 ( TVD: 10912 feet, MD: 14200 feet )

PPP: NENE / 990 FNL / 330 FEL / TWSP: 22S / RANGE: 30E / SECTION: 13 / LAT: 32.396652 / LONG: -103.82665 ( TVD: 10937 feet, MD: 11600 feet )

BHL: NWNW / 990 FNL / 50 FWL / TWSP: 22S / RANGE: 30E / SECTION: 14 / LAT: 32.396686 / LONG: -103.860082 ( TVD: 10839 feet, MD: 21832 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO
<b>LEASE NO.:</b>	NMNM89051
<b>LOCATION:</b>	Sec. 13, T.22 S, R 30 E
<b>COUNTY:</b>	Eddy County, New Mexico ▼
<b>WELL NAME &amp; NO.:</b>	James Ranch Unit Apache 901H
<b>SURFACE HOLE FOOTAGE:</b>	2457'/S & 969'/E
<b>BOTTOM HOLE FOOTAGE:</b>	2128'/N & 50'/W

*Changes approved through engineering via **Sundry 2830921** on 2-25-2025\_. Any previous COAs not addressed within the updated COAs still apply.*

COA

H <sub>2</sub> S	<input checked="" type="radio"/> No		<input type="radio"/> Yes	
<b>Potash / WIPP</b>	<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
	<b>3-String Design: Open Production Casing Annulus</b>			
<b>Cave / Karst</b>	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Waste Prev.</b>	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
<b>Additional Language</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input checked="" type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S 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 **700** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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 1<sup>st</sup> 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 2<sup>nd</sup> 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 7786'**.
  - 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](mailto: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](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 2<sup>nd</sup> 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 2<sup>nd</sup> 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 2/25/2025**  
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 <b>30-015-</b>	Pool Code <b>40295</b>	Pool Name <b>LOS MEDANOS, BONE SPRING</b>	
Property Code	Property Name <b>JAMES RANCH UNIT APACHE</b>	Well Number <b>901H</b>	
OGRID No. <b>373075</b>	Operator Name <b>XTO PERMIAN OPERATING, LLC.</b>	Ground Level Elevation <b>3,348'</b>	
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
I	13	22S	30E		2,457 FSL	969 FEL	32.391605	-103.828721	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	14	22S	30E		2,128 FNL	50 FWL	32.393561	-103.860077	EDDY


Dedicated Acres <b>320.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>U</b>
Order Numbers. <b>R-279-C</b>			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
H	13	22S	30E		2,128 FNL	330 FEL	32.393524	-103.826651	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
H	13	22S	30E		2,128 FNL	330 FEL	32.393524	-103.826651	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
E	14	22S	30E		2,128 FNL	100 FWL	32.393561	-103.859915	EDDY

Unitized Area of Area of Interest <b>NMMN-070965X</b>	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,348'</b>
----------------------------------------------------------	------------------------------------------------------------------------------------------------------	-----------------------------------

<div>OPERATOR CERTIFICATIONS</div> <div>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.</div> <div>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.</div> <div><div>Srinivas Naveen</div><div>1/2/2025</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>SURVEYOR CERTIFICATIONS</div> <div>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</div> <div><div><div>MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR</div><div></div></div></div> <div>Signature and Seal of Professional Surveyor</div> <div>MARK DILLON HARP 2378612/9/2024</div> <div>Certificate NumberDate of Survey</div> <div>KT618.013002.10-44</div>
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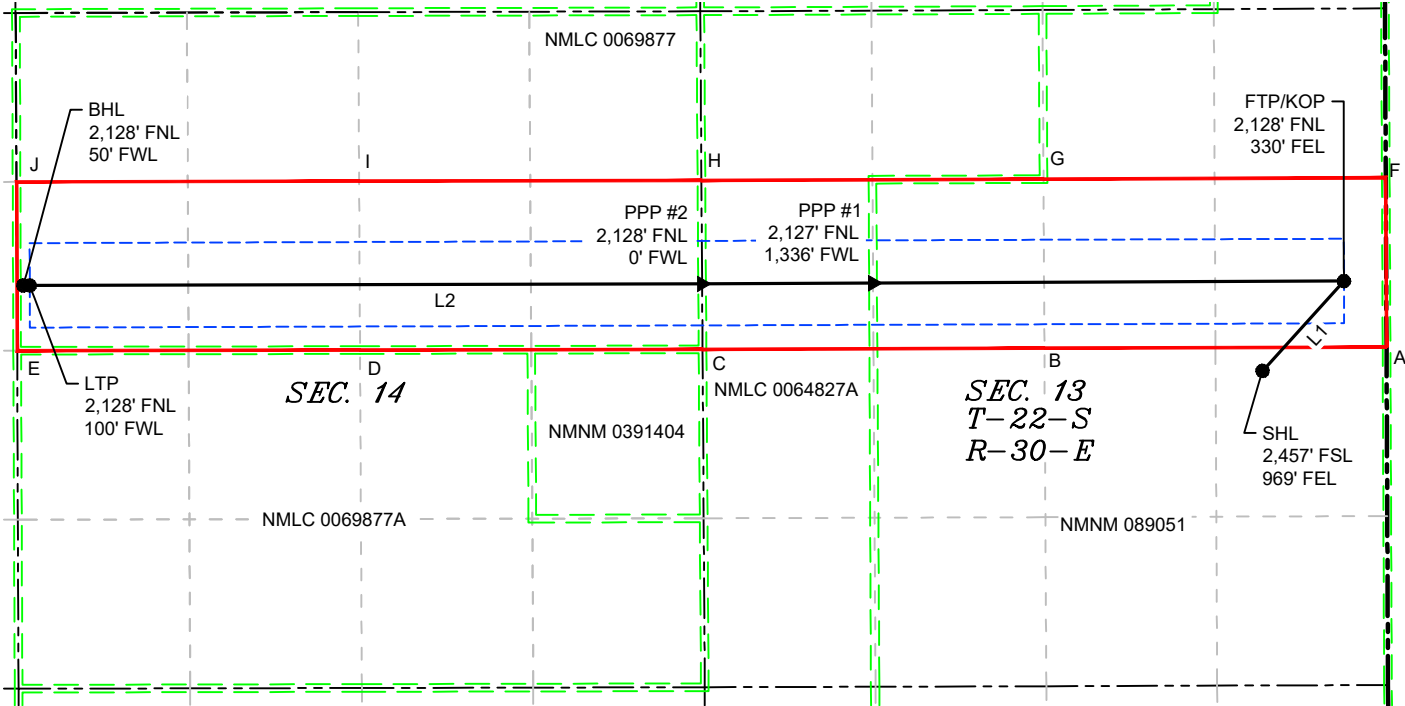
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



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	042°11'06.94"	946.57
L2	269°48'41.58"	10,317.68

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 =	506,564.6	N	Y =	507,266.0	N	Y =	507,250.5	N	Y =	507,244.9	N	Y =	507,232.2	N
X =	697,093.8	E	X =	697,729.4	E	X =	694,050.3	E	X =	692,714.6	E	X =	687,461.8	E
LAT. =	32.391605	°N	LAT. =	32.393524	°N	LAT. =	32.393529	°N	LAT. =	32.393530	°N	LAT. =	32.393561	°N
LONG. =	103.828721	°W	LONG. =	103.826651	°W	LONG. =	103.838570	°W	LONG. =	103.842898	°W	LONG. =	103.859915	°W
						BHL (NAD 83 NME)								
						Y =	507,232.1	N						
						X =	687,411.8	E						
						LAT. =	32.393561	°N						
						LONG. =	103.860077	°W						
SHL (NAD 27 NME)			FTP/KOP (NAD 27 NME)			PPP1 (NAD 83 NME)			PPP2 (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	506,504.0	N	Y =	507,205.3	N	Y =	507,189.8	N	Y =	507,184.1	N	Y =	507,171.5	N
X =	655,912.3	E	X =	656,548.0	E	X =	652,868.9	E	X =	651,533.2	E	X =	646,280.4	E
LAT. =	32.391482	°N	LAT. =	32.393402	°N	LAT. =	32.393406	°N	LAT. =	32.393408	°N	LAT. =	32.393438	°N
LONG. =	103.828227	°W	LONG. =	103.826157	°W	LONG. =	103.838076	°W	LONG. =	103.842403	°W	LONG. =	103.859420	°W
						BHL (NAD 27 NME)								
						Y =	507,171.4	N						
						X =	646,230.4	E						
						LAT. =	32.393438	°N						
						LONG. =	103.859582	°W						
CORNER COORDINATES (NAD 83 NME)						CORNER COORDINATES (NAD 27 NME)								
A - Y =	506,750.2	N	A - X =	698,061.8	E				A - Y =	506,689.5	N	A - X =	656,880.3	E
B - Y =	506,741.3	N	B - X =	695,389.1	E				B - Y =	506,680.6	N	B - X =	654,207.6	E
C - Y =	506,732.3	N	C - X =	692,717.9	E				C - Y =	506,671.6	N	C - X =	651,536.5	E
D - Y =	506,727.2	N	D - X =	690,042.0	E				D - Y =	506,666.5	N	D - X =	648,860.6	E
E - Y =	506,721.9	N	E - X =	687,363.8	E				E - Y =	506,661.2	N	E - X =	646,182.4	E
F - Y =	508,072.9	N	F - X =	698,055.8	E				F - Y =	508,012.2	N	F - X =	656,874.3	E
G - Y =	508,062.1	N	G - X =	695,381.7	E				G - Y =	508,001.4	N	G - X =	654,200.3	E
H - Y =	508,052.6	N	H - X =	692,709.2	E				H - Y =	507,991.9	N	H - X =	651,527.8	E
I - Y =	508,046.7	N	I - X =	690,034.9	E				I - Y =	507,986.0	N	I - X =	648,853.5	E
J - Y =	508,040.4	N	J - X =	687,358.6	E				J - Y =	507,979.7	N	J - X =	646,177.3	E

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

XTO Energy Inc.  
JAMES RANCH UNIT APACHE 901H  
Projected TD: 20989.31' MD / 10889' TVD  
SHL: 2457' FSL & 969' FEL , Section 13, T22S, R30E  
BHL: 2128' 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	10889'	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 9972.8'. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 20989.31 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	1.60	2.44	4.25
8.75	0' – 3808'	7.625	29.7	RY P-110	Flush Joint	New	2.80	3.00	1.88
8.75	3808' – 9972.8'	7.625	29.7	HC L-80	Flush Joint	New	2.04	3.22	2.22
6.75	0' – 9872.8'	5.5	20	RY P-110	Semi-Premium / Freedom	New	1.26	2.12	2.17
6.75	9872.8' - 20989.31'	5.5	20	RY P-110	Semi-Flush / Talon	New	1.26	1.92	6.57

· 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 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Tail: 300 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 250 psi 24 hr = 500 psi

**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 ft<sup>3</sup>/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/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 +/- 9972.8'**

Tail: 200 sxs Class C (mixed at 14.8 ppg, 1.35 ft<sup>3</sup>/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 ft<sup>3</sup>/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 +/- 20989.31'**

**Lead: 30 sxs NeoCem** (mixed at 11.5 ppg, 2.69 ft<sup>3</sup>/sx, 15.00 gal/sx water) Top of Cement: 9472.8 feet  
**Tail: 770 sxs VersaCem** (mixed at 13.2 ppg, 1.51 ft<sup>3</sup>/sx, 8.38 gal/sx water) Top of Cement: 10262.84 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 CFR 43-3172

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 9972.8'	8.75	BDE/OBM or FW/Brine	9-9.5	30-32	NC	Depending on well conditions
9972.8' to 20989.31'	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 175 to 195 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 5776 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 - James Ranch Unit Apache 901H

Measured Depth: 20989.31 ft

TVD RKB: 10889.00 ft

### Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 506504.00 ft

Easting: 655912.30 ft

RKB: 3380.00 ft

Ground Level: 3348.00 ft

North Reference: Grid

Convergence Angle: 0.27 Deg

Site: C

Slot: James Ranch Unit  
Apache 901H

### Plan Sections James Ranch Unit Apache 901H

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	
4265.50	11.31	42.19	4261.84	41.22	37.36	2.00	0.00	2.00	
8524.54	11.31	42.19	8438.16	660.08	598.34	0.00	0.00	0.00	
9090.04	0.00	0.00	9000.00	701.30	635.70	-2.00	0.00	2.00	
10262.84	0.00	0.00	10172.80	701.30	635.70	0.00	0.00	0.00	
11387.84	90.00	269.81	10889.00	698.94	-80.49	8.00	0.00	8.00	
20939.92	90.00	269.81	10889.00	667.43	-9632.52	0.00	0.00	0.00	LTP 23
20989.31	90.00	269.81	10889.00	667.27	-9681.91	0.00	0.00	0.00	BHL 23

### Position Uncertainty James Ranch Unit Apache 901H

Measured	TVD	Highside	Lateral	Vertical	Magnitude	Semi-major	Semi-minor	Semi-minor	Tool
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Depth	Inclination	Azimuth	RKB	Error	Bias	Error	Bias	Error	Bias	of Bias	Error	Error	Azimuth	Used
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+MS
100.000	0.000	0.000	100.000	0.700	0.000	0.350	0.000	2.300	0.000	0.000	0.751	0.220	112.264	MWD+IFR1+MS
200.000	0.000	0.000	200.000	1.112	0.000	0.861	0.000	2.310	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	42.191	3799.980	14.560	0.000	13.529	0.000	4.842	0.000	0.000	14.568	13.528	130.714	MWD+IFR1+MS
3900.000	4.000	42.191	3899.838	15.047	0.000	13.894	0.000	4.945	0.000	0.000	15.078	13.894	133.130	MWD+IFR1+MS
4000.000	6.000	42.191	3999.452	15.508	0.000	14.259	0.000	5.050	0.000	0.000	15.580	14.256	134.889	MWD+IFR1+MS
4100.000	8.000	42.191	4098.702	15.946	0.000	14.622	0.000	5.159	0.000	0.000	16.074	14.615	-43.787	MWD+IFR1+MS
4200.000	10.000	42.191	4197.465	16.359	0.000	14.984	0.000	5.274	0.000	0.000	16.559	14.971	-42.762	MWD+IFR1+MS
4265.501	11.310	42.191	4261.836	16.557	0.000	15.216	0.000	5.345	0.000	0.000	16.813	15.202	-42.561	MWD+IFR1+MS
4300.000	11.310	42.191	4295.665	16.669	0.000	15.337	0.000	5.381	0.000	0.000	16.923	15.323	-42.590	MWD+IFR1+MS
4400.000	11.310	42.191	4393.723	16.994	0.000	15.692	0.000	5.493	0.000	0.000	17.242	15.678	-42.568	MWD+IFR1+MS
4500.000	11.310	42.191	4491.781	17.327	0.000	16.054	0.000	5.608	0.000	0.000	17.569	16.040	-42.336	MWD+IFR1+MS
4600.000	11.310	42.191	4589.839	17.661	0.000	16.417	0.000	5.725	0.000	0.000	17.899	16.402	-42.106	MWD+IFR1+MS
4700.000	11.310	42.191	4687.897	17.998	0.000	16.781	0.000	5.844	0.000	0.000	18.230	16.765	-41.879	MWD+IFR1+MS
4800.000	11.310	42.191	4785.955	18.337	0.000	17.145	0.000	5.966	0.000	0.000	18.563	17.128	-41.656	MWD+IFR1+MS
4900.000	11.310	42.191	4884.013	18.677	0.000	17.510	0.000	6.091	0.000	0.000	18.898	17.492	-41.435	MWD+IFR1+MS
5000.000	11.310	42.191	4982.071	19.019	0.000	17.875	0.000	6.217	0.000	0.000	19.235	17.856	-41.217	MWD+IFR1+MS
5100.000	11.310	42.191	5080.129	19.363	0.000	18.240	0.000	6.346	0.000	0.000	19.573	18.221	-41.002	MWD+IFR1+MS
5200.000	11.310	42.191	5178.187	19.708	0.000	18.606	0.000	6.477	0.000	0.000	19.912	18.586	-40.791	MWD+IFR1+MS
5300.000	11.310	42.191	5276.245	20.055	0.000	18.973	0.000	6.611	0.000	0.000	20.253	18.951	-40.583	MWD+IFR1+MS
5400.000	11.310	42.191	5374.303	20.403	0.000	19.340	0.000	6.747	0.000	0.000	20.595	19.317	-40.378	MWD+IFR1+MS
5500.000	11.310	42.191	5472.361	20.752	0.000	19.707	0.000	6.885	0.000	0.000	20.939	19.684	-40.176	MWD+IFR1+MS
5600.000	11.310	42.191	5570.419	21.103	0.000	20.074	0.000	7.025	0.000	0.000	21.284	20.051	-39.978	MWD+IFR1+MS
5700.000	11.310	42.191	5668.477	21.454	0.000	20.442	0.000	7.168	0.000	0.000	21.630	20.418	-39.783	MWD+IFR1+MS
5800.000	11.310	42.191	5766.535	21.807	0.000	20.810	0.000	7.313	0.000	0.000	21.976	20.785	-39.591	MWD+IFR1+MS
5900.000	11.310	42.191	5864.593	22.161	0.000	21.179	0.000	7.460	0.000	0.000	22.324	21.153	-39.403	MWD+IFR1+MS
6000.000	11.310	42.191	5962.651	22.516	0.000	21.548	0.000	7.610	0.000	0.000	22.673	21.521	-39.219	MWD+IFR1+MS
6100.000	11.310	42.191	6060.709	22.872	0.000	21.917	0.000	7.762	0.000	0.000	23.023	21.890	-39.038	MWD+IFR1+MS
6200.000	11.310	42.191	6158.767	23.228	0.000	22.286	0.000	7.917	0.000	0.000	23.374	22.258	-38.861	MWD+IFR1+MS

6300.000	11.310	42.191	6256.825	23.586	0.000	22.656	0.000	8.074	0.000	0.000	23.726	22.627	-38.687	MWD+IFR1+MS
6400.000	11.310	42.191	6354.883	23.945	0.000	23.025	0.000	8.233	0.000	0.000	24.078	22.997	-38.518	MWD+IFR1+MS
6500.000	11.310	42.191	6452.941	24.304	0.000	23.395	0.000	8.394	0.000	0.000	24.432	23.366	-38.352	MWD+IFR1+MS
6600.000	11.310	42.191	6550.999	24.664	0.000	23.766	0.000	8.558	0.000	0.000	24.786	23.736	-38.190	MWD+IFR1+MS
6700.000	11.310	42.191	6649.058	25.025	0.000	24.136	0.000	8.724	0.000	0.000	25.141	24.106	-38.032	MWD+IFR1+MS
6800.000	11.310	42.191	6747.116	25.386	0.000	24.507	0.000	8.893	0.000	0.000	25.496	24.476	-37.877	MWD+IFR1+MS
6900.000	11.310	42.191	6845.174	25.748	0.000	24.877	0.000	9.064	0.000	0.000	25.852	24.846	-37.727	MWD+IFR1+MS
7000.000	11.310	42.191	6943.232	26.111	0.000	25.248	0.000	9.238	0.000	0.000	26.209	25.216	-37.581	MWD+IFR1+MS
7100.000	11.310	42.191	7041.290	26.474	0.000	25.619	0.000	9.414	0.000	0.000	26.567	25.587	-37.438	MWD+IFR1+MS
7200.000	11.310	42.191	7139.348	26.838	0.000	25.991	0.000	9.592	0.000	0.000	26.925	25.958	-37.300	MWD+IFR1+MS
7300.000	11.310	42.191	7237.406	27.203	0.000	26.362	0.000	9.773	0.000	0.000	27.283	26.329	-37.166	MWD+IFR1+MS
7400.000	11.310	42.191	7335.464	27.568	0.000	26.734	0.000	9.956	0.000	0.000	27.643	26.700	-37.036	MWD+IFR1+MS
7500.000	11.310	42.191	7433.522	27.933	0.000	27.105	0.000	10.142	0.000	0.000	28.002	27.072	-36.911	MWD+IFR1+MS
7600.000	11.310	42.191	7531.580	28.299	0.000	27.477	0.000	10.330	0.000	0.000	28.362	27.443	-36.789	MWD+IFR1+MS
7700.000	11.310	42.191	7629.638	28.666	0.000	27.849	0.000	10.521	0.000	0.000	28.723	27.815	-36.672	MWD+IFR1+MS
7800.000	11.310	42.191	7727.696	29.033	0.000	28.221	0.000	10.714	0.000	0.000	29.084	28.187	-36.559	MWD+IFR1+MS
7900.000	11.310	42.191	7825.754	29.401	0.000	28.594	0.000	10.910	0.000	0.000	29.446	28.559	-36.450	MWD+IFR1+MS
8000.000	11.310	42.191	7923.812	29.769	0.000	28.966	0.000	11.108	0.000	0.000	29.808	28.931	-36.346	MWD+IFR1+MS
8100.000	11.310	42.191	8021.870	30.137	0.000	29.338	0.000	11.309	0.000	0.000	30.171	29.303	-36.246	MWD+IFR1+MS
8200.000	11.310	42.191	8119.928	30.506	0.000	29.711	0.000	11.512	0.000	0.000	30.534	29.675	-36.151	MWD+IFR1+MS
8300.000	11.310	42.191	8217.986	30.875	0.000	30.084	0.000	11.718	0.000	0.000	30.897	30.048	-36.060	MWD+IFR1+MS
8400.000	11.310	42.191	8316.044	31.244	0.000	30.456	0.000	11.927	0.000	0.000	31.261	30.421	-35.973	MWD+IFR1+MS
8500.000	11.310	42.191	8414.102	31.614	0.000	30.829	0.000	12.138	0.000	0.000	31.625	30.793	-35.891	MWD+IFR1+MS
8524.538	11.310	42.191	8438.164	31.704	0.000	30.919	0.000	12.190	0.000	0.000	31.713	30.884	-35.953	MWD+IFR1+MS
8600.000	9.801	42.191	8512.347	32.044	0.000	31.196	0.000	12.352	0.000	0.000	31.990	31.162	-36.095	MWD+IFR1+MS
8700.000	7.801	42.191	8611.164	32.516	0.000	31.564	0.000	12.570	0.000	0.000	32.411	31.527	-36.109	MWD+IFR1+MS
8800.000	5.801	42.191	8710.455	32.966	0.000	31.930	0.000	12.788	0.000	0.000	32.848	31.889	-36.048	MWD+IFR1+MS
8900.000	3.801	42.191	8810.100	33.375	0.000	32.291	0.000	13.003	0.000	0.000	33.281	32.247	-35.980	MWD+IFR1+MS
9000.000	1.801	42.191	8909.975	33.742	0.000	32.648	0.000	13.217	0.000	0.000	33.708	32.600	-35.900	MWD+IFR1+MS
9090.040	0.000	0.000	9000.000	33.333	0.000	33.655	0.000	13.408	0.000	0.000	34.059	32.919	-36.780	MWD+IFR1+MS
9100.000	0.000	0.000	9009.960	33.367	0.000	33.689	0.000	13.430	0.000	0.000	34.093	32.954	-36.794	MWD+IFR1+MS
9200.000	0.000	0.000	9109.960	33.712	0.000	34.026	0.000	13.644	0.000	0.000	34.428	33.302	-36.909	MWD+IFR1+MS
9300.000	0.000	0.000	9209.960	34.062	0.000	34.368	0.000	13.861	0.000	0.000	34.771	33.650	-37.076	MWD+IFR1+MS

9400.000	0.000	0.000	9309.960	34.411	0.000	34.710	0.000	14.081	0.000	0.000	35.114	33.999	-37.241	MWD+IFR1+MS
9500.000	0.000	0.000	9409.960	34.761	0.000	35.052	0.000	14.304	0.000	0.000	35.458	34.347	-37.404	MWD+IFR1+MS
9600.000	0.000	0.000	9509.960	35.111	0.000	35.395	0.000	14.531	0.000	0.000	35.802	34.696	-37.566	MWD+IFR1+MS
9700.000	0.000	0.000	9609.960	35.461	0.000	35.738	0.000	14.760	0.000	0.000	36.146	35.045	-37.726	MWD+IFR1+MS
9800.000	0.000	0.000	9709.960	35.812	0.000	36.081	0.000	14.993	0.000	0.000	36.490	35.394	-37.884	MWD+IFR1+MS
9900.000	0.000	0.000	9809.960	36.162	0.000	36.425	0.000	15.229	0.000	0.000	36.835	35.744	-38.041	MWD+IFR1+MS
10000.000	0.000	0.000	9909.960	36.513	0.000	36.768	0.000	15.468	0.000	0.000	37.180	36.093	-38.195	MWD+IFR1+MS
10100.000	0.000	0.000	10009.960	36.863	0.000	37.112	0.000	15.709	0.000	0.000	37.526	36.443	-38.348	MWD+IFR1+MS
10200.000	0.000	0.000	10109.960	37.214	0.000	37.457	0.000	15.955	0.000	0.000	37.871	36.792	-38.500	MWD+IFR1+MS
10262.840	0.000	0.000	10172.800	37.433	0.000	37.672	0.000	16.110	0.000	0.000	38.085	37.012	-38.573	MWD+IFR1+MS
10300.000	2.973	269.811	10209.944	37.655	-0.000	37.554	0.000	16.202	0.000	0.000	38.207	37.141	-38.488	MWD+IFR1+MS
10400.000	10.973	269.811	10309.123	37.703	-0.000	37.874	0.000	16.472	0.000	0.000	38.849	37.644	-25.957	MWD+IFR1+MS
10500.000	18.973	269.811	10405.650	37.768	-0.000	38.186	0.000	16.873	0.000	0.000	40.003	38.103	-12.150	MWD+IFR1+MS
10600.000	26.973	269.811	10497.644	37.288	-0.000	38.483	0.000	17.466	0.000	0.000	41.096	38.446	-6.839	MWD+IFR1+MS
10700.000	34.973	269.811	10583.316	36.336	-0.000	38.763	0.000	18.296	0.000	0.000	42.035	38.746	-4.239	MWD+IFR1+MS
10800.000	42.973	269.811	10660.997	35.012	-0.000	39.024	0.000	19.377	0.000	0.000	42.795	39.016	-2.739	MWD+IFR1+MS
10900.000	50.973	269.811	10729.176	33.449	-0.000	39.266	0.000	20.688	0.000	0.000	43.372	39.263	-1.795	MWD+IFR1+MS
11000.000	58.973	269.811	10786.526	31.817	-0.000	39.491	0.000	22.190	0.000	0.000	43.776	39.490	-1.191	MWD+IFR1+MS
11100.000	66.973	269.811	10831.930	30.320	-0.000	39.699	0.000	23.828	0.000	0.000	44.027	39.698	-0.837	MWD+IFR1+MS
11200.000	74.973	269.811	10864.505	29.187	-0.000	39.891	0.000	25.542	0.000	0.000	44.156	39.890	-0.703	MWD+IFR1+MS
11300.000	82.973	269.811	10883.617	28.637	-0.000	40.065	0.000	27.273	0.000	0.000	44.202	40.065	-0.795	MWD+IFR1+MS
11387.840	90.000	269.811	10888.997	28.465	0.000	40.201	0.000	28.465	0.000	0.000	44.208	40.200	-1.084	MWD+IFR1+MS
11400.000	90.000	269.811	10888.997	28.489	0.000	40.218	0.000	28.489	0.000	0.000	44.209	40.217	-1.137	MWD+IFR1+MS
11500.000	90.000	269.811	10888.997	28.664	0.000	40.381	0.000	28.664	0.000	0.000	44.212	40.379	-1.592	MWD+IFR1+MS
11600.000	90.000	269.811	10888.997	28.864	0.000	40.577	0.000	28.864	0.000	0.000	44.216	40.573	-2.100	MWD+IFR1+MS
11700.000	90.000	269.811	10888.997	29.083	0.000	40.804	0.000	29.083	0.000	0.000	44.221	40.797	-2.683	MWD+IFR1+MS
11800.000	90.000	269.811	10888.997	29.322	0.000	41.059	0.000	29.322	0.000	0.000	44.228	41.049	-3.370	MWD+IFR1+MS
11900.000	90.000	269.811	10888.997	29.580	0.000	41.344	0.000	29.580	0.000	0.000	44.237	41.329	-4.205	MWD+IFR1+MS
12000.000	90.000	269.811	10888.997	29.856	0.000	41.657	0.000	29.856	0.000	0.000	44.247	41.636	-5.258	MWD+IFR1+MS
12100.000	90.000	269.811	10888.997	30.150	0.000	41.997	0.000	30.150	0.000	0.000	44.261	41.967	-6.646	MWD+IFR1+MS
12200.000	90.000	269.811	10888.997	30.462	0.000	42.364	0.000	30.462	0.000	0.000	44.280	42.322	-8.575	MWD+IFR1+MS
12300.000	90.000	269.811	10888.997	30.790	0.000	42.758	0.000	30.790	0.000	0.000	44.306	42.695	-11.447	MWD+IFR1+MS
12400.000	90.000	269.811	10888.997	31.135	0.000	43.177	0.000	31.135	0.000	0.000	44.346	43.080	-16.104	MWD+IFR1+MS

12500.000	90.000	269.811	10888.997	31.495	0.000	43.621	0.000	31.495	0.000	0.000	44.420	43.458	-24.347	MWD+IFR1+MS
12600.000	90.000	269.811	10888.997	31.871	0.000	44.089	0.000	31.871	0.000	0.000	44.571	43.783	-38.603	MWD+IFR1+MS
12700.000	90.000	269.811	10888.997	32.261	0.000	44.580	0.000	32.261	0.000	0.000	44.862	43.991	124.636	MWD+IFR1+MS
12800.000	90.000	269.811	10888.997	32.666	0.000	45.094	0.000	32.666	0.000	0.000	45.279	44.097	113.292	MWD+IFR1+MS
12900.000	90.000	269.811	10888.997	33.084	0.000	45.629	0.000	33.084	0.000	0.000	45.768	44.153	106.999	MWD+IFR1+MS
13000.000	90.000	269.811	10888.997	33.515	0.000	46.186	0.000	33.515	0.000	0.000	46.298	44.189	103.322	MWD+IFR1+MS
13100.000	90.000	269.811	10888.997	33.959	0.000	46.763	0.000	33.959	0.000	0.000	46.859	44.216	100.974	MWD+IFR1+MS
13200.000	90.000	269.811	10888.997	34.416	0.000	47.359	0.000	34.416	0.000	0.000	47.444	44.238	99.359	MWD+IFR1+MS
13300.000	90.000	269.811	10888.997	34.884	0.000	47.974	0.000	34.884	0.000	0.000	48.051	44.258	98.183	MWD+IFR1+MS
13400.000	90.000	269.811	10888.997	35.363	0.000	48.607	0.000	35.363	0.000	0.000	48.679	44.277	97.289	MWD+IFR1+MS
13500.000	90.000	269.811	10888.997	35.853	0.000	49.258	0.000	35.853	0.000	0.000	49.325	44.294	96.586	MWD+IFR1+MS
13600.000	90.000	269.811	10888.997	36.353	0.000	49.925	0.000	36.353	0.000	0.000	49.988	44.312	96.017	MWD+IFR1+MS
13700.000	90.000	269.811	10888.997	36.863	0.000	50.609	0.000	36.863	0.000	0.000	50.668	44.329	95.547	MWD+IFR1+MS
13800.000	90.000	269.811	10888.997	37.383	0.000	51.308	0.000	37.383	0.000	0.000	51.364	44.346	95.152	MWD+IFR1+MS
13900.000	90.000	269.811	10888.997	37.912	0.000	52.021	0.000	37.912	0.000	0.000	52.076	44.364	94.814	MWD+IFR1+MS
14000.000	90.000	269.811	10888.997	38.449	0.000	52.749	0.000	38.449	0.000	0.000	52.801	44.382	94.522	MWD+IFR1+MS
14100.000	90.000	269.811	10888.997	38.995	0.000	53.490	0.000	38.995	0.000	0.000	53.541	44.400	94.266	MWD+IFR1+MS
14200.000	90.000	269.811	10888.997	39.549	0.000	54.245	0.000	39.549	0.000	0.000	54.294	44.418	94.040	MWD+IFR1+MS
14300.000	90.000	269.811	10888.997	40.111	0.000	55.012	0.000	40.111	0.000	0.000	55.059	44.437	93.839	MWD+IFR1+MS
14400.000	90.000	269.811	10888.997	40.680	0.000	55.791	0.000	40.680	0.000	0.000	55.837	44.457	93.659	MWD+IFR1+MS
14500.000	90.000	269.811	10888.997	41.256	0.000	56.581	0.000	41.256	0.000	0.000	56.626	44.477	93.496	MWD+IFR1+MS
14600.000	90.000	269.811	10888.997	41.839	0.000	57.382	0.000	41.839	0.000	0.000	57.426	44.497	93.348	MWD+IFR1+MS
14700.000	90.000	269.811	10888.997	42.429	0.000	58.195	0.000	42.429	0.000	0.000	58.237	44.518	93.213	MWD+IFR1+MS
14800.000	90.000	269.811	10888.997	43.024	0.000	59.017	0.000	43.024	0.000	0.000	59.058	44.539	93.089	MWD+IFR1+MS
14900.000	90.000	269.811	10888.997	43.626	0.000	59.849	0.000	43.626	0.000	0.000	59.889	44.561	92.975	MWD+IFR1+MS
15000.000	90.000	269.811	10888.997	44.233	0.000	60.690	0.000	44.233	0.000	0.000	60.730	44.584	92.869	MWD+IFR1+MS
15100.000	90.000	269.811	10888.997	44.846	0.000	61.540	0.000	44.846	0.000	0.000	61.579	44.607	92.771	MWD+IFR1+MS
15200.000	90.000	269.811	10888.997	45.464	0.000	62.399	0.000	45.464	0.000	0.000	62.437	44.630	92.680	MWD+IFR1+MS
15300.000	90.000	269.811	10888.997	46.088	0.000	63.265	0.000	46.088	0.000	0.000	63.303	44.654	92.595	MWD+IFR1+MS
15400.000	90.000	269.811	10888.997	46.716	0.000	64.140	0.000	46.716	0.000	0.000	64.177	44.678	92.515	MWD+IFR1+MS
15500.000	90.000	269.811	10888.997	47.349	0.000	65.023	0.000	47.349	0.000	0.000	65.059	44.703	92.441	MWD+IFR1+MS
15600.000	90.000	269.811	10888.997	47.986	0.000	65.912	0.000	47.986	0.000	0.000	65.948	44.729	92.370	MWD+IFR1+MS
15700.000	90.000	269.811	10888.997	48.628	0.000	66.809	0.000	48.628	0.000	0.000	66.844	44.755	92.304	MWD+IFR1+MS



15800.000	90.000	269.811	10888.997	49.273	0.000	67.712	0.000	49.273	0.000	0.000	67.746	44.782	92.241	MWD+IFR1+MS
15900.000	90.000	269.811	10888.997	49.923	0.000	68.622	0.000	49.923	0.000	0.000	68.656	44.809	92.182	MWD+IFR1+MS
16000.000	90.000	269.811	10888.997	50.577	0.000	69.538	0.000	50.577	0.000	0.000	69.571	44.837	92.126	MWD+IFR1+MS
16100.000	90.000	269.811	10888.997	51.234	0.000	70.460	0.000	51.234	0.000	0.000	70.492	44.865	92.072	MWD+IFR1+MS
16200.000	90.000	269.811	10888.997	51.895	0.000	71.387	0.000	51.895	0.000	0.000	71.419	44.894	92.022	MWD+IFR1+MS
16300.000	90.000	269.811	10888.997	52.559	0.000	72.320	0.000	52.559	0.000	0.000	72.352	44.923	91.973	MWD+IFR1+MS
16400.000	90.000	269.811	10888.997	53.227	0.000	73.258	0.000	53.227	0.000	0.000	73.290	44.953	91.927	MWD+IFR1+MS
16500.000	90.000	269.811	10888.997	53.897	0.000	74.202	0.000	53.897	0.000	0.000	74.233	44.984	91.883	MWD+IFR1+MS
16600.000	90.000	269.811	10888.997	54.571	0.000	75.150	0.000	54.571	0.000	0.000	75.180	45.014	91.841	MWD+IFR1+MS
16700.000	90.000	269.811	10888.997	55.248	0.000	76.103	0.000	55.248	0.000	0.000	76.133	45.046	91.801	MWD+IFR1+MS
16800.000	90.000	269.811	10888.997	55.927	0.000	77.061	0.000	55.927	0.000	0.000	77.090	45.078	91.762	MWD+IFR1+MS
16900.000	90.000	269.811	10888.997	56.609	0.000	78.023	0.000	56.609	0.000	0.000	78.052	45.111	91.725	MWD+IFR1+MS
17000.000	90.000	269.811	10888.997	57.294	0.000	78.989	0.000	57.294	0.000	0.000	79.017	45.144	91.690	MWD+IFR1+MS
17100.000	90.000	269.811	10888.997	57.981	0.000	79.959	0.000	57.981	0.000	0.000	79.987	45.177	91.656	MWD+IFR1+MS
17200.000	90.000	269.811	10888.997	58.671	0.000	80.933	0.000	58.671	0.000	0.000	80.961	45.212	91.623	MWD+IFR1+MS
17300.000	90.000	269.811	10888.997	59.363	0.000	81.911	0.000	59.363	0.000	0.000	81.938	45.246	91.591	MWD+IFR1+MS
17400.000	90.000	269.811	10888.997	60.058	0.000	82.892	0.000	60.058	0.000	0.000	82.919	45.282	91.561	MWD+IFR1+MS
17500.000	90.000	269.811	10888.997	60.754	0.000	83.877	0.000	60.754	0.000	0.000	83.904	45.318	91.531	MWD+IFR1+MS
17600.000	90.000	269.811	10888.997	61.453	0.000	84.865	0.000	61.453	0.000	0.000	84.892	45.354	91.503	MWD+IFR1+MS
17700.000	90.000	269.811	10888.997	62.154	0.000	85.857	0.000	62.154	0.000	0.000	85.883	45.391	91.476	MWD+IFR1+MS
17800.000	90.000	269.811	10888.997	62.857	0.000	86.852	0.000	62.857	0.000	0.000	86.878	45.428	91.449	MWD+IFR1+MS
17900.000	90.000	269.811	10888.997	63.562	0.000	87.850	0.000	63.562	0.000	0.000	87.875	45.466	91.424	MWD+IFR1+MS
18000.000	90.000	269.811	10888.997	64.268	0.000	88.850	0.000	64.268	0.000	0.000	88.875	45.505	91.399	MWD+IFR1+MS
18100.000	90.000	269.811	10888.997	64.977	0.000	89.854	0.000	64.977	0.000	0.000	89.879	45.544	91.375	MWD+IFR1+MS
18200.000	90.000	269.811	10888.997	65.687	0.000	90.860	0.000	65.687	0.000	0.000	90.885	45.583	91.352	MWD+IFR1+MS
18300.000	90.000	269.811	10888.997	66.398	0.000	91.869	0.000	66.398	0.000	0.000	91.894	45.623	91.329	MWD+IFR1+MS
18400.000	90.000	269.811	10888.997	67.112	0.000	92.881	0.000	67.112	0.000	0.000	92.905	45.664	91.307	MWD+IFR1+MS
18500.000	90.000	269.811	10888.997	67.827	0.000	93.895	0.000	67.827	0.000	0.000	93.919	45.705	91.286	MWD+IFR1+MS
18600.000	90.000	269.811	10888.997	68.543	0.000	94.911	0.000	68.543	0.000	0.000	94.935	45.747	91.266	MWD+IFR1+MS
18700.000	90.000	269.811	10888.997	69.261	0.000	95.930	0.000	69.261	0.000	0.000	95.954	45.789	91.246	MWD+IFR1+MS
18800.000	90.000	269.811	10888.997	69.981	0.000	96.951	0.000	69.981	0.000	0.000	96.974	45.831	91.226	MWD+IFR1+MS
18900.000	90.000	269.811	10888.997	70.702	0.000	97.975	0.000	70.702	0.000	0.000	97.997	45.875	91.207	MWD+IFR1+MS
19000.000	90.000	269.811	10888.997	71.424	0.000	99.000	0.000	71.424	0.000	0.000	99.023	45.918	91.189	MWD+IFR1+MS

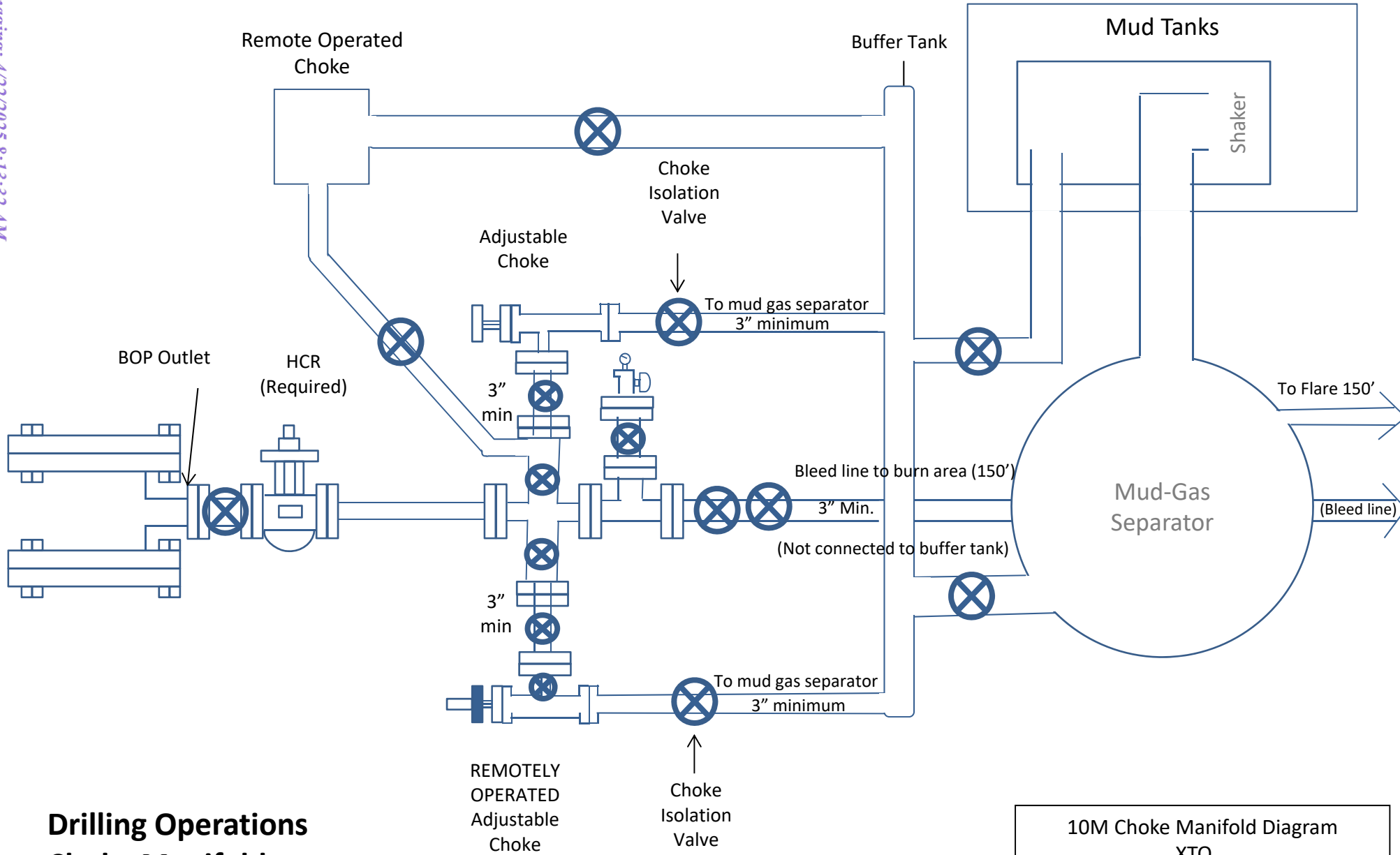
19100.000	90.000	269.811	10888.997	72.147	0.000	100.028	0.000	72.147	0.000	0.000	100.050	45.963	91.171	MWD+IFR1+MS
19200.000	90.000	269.811	10888.997	72.872	0.000	101.057	0.000	72.872	0.000	0.000	101.079	46.007	91.154	MWD+IFR1+MS
19300.000	90.000	269.811	10888.997	73.598	0.000	102.088	0.000	73.598	0.000	0.000	102.110	46.052	91.137	MWD+IFR1+MS
19400.000	90.000	269.811	10888.997	74.325	0.000	103.122	0.000	74.325	0.000	0.000	103.143	46.098	91.120	MWD+IFR1+MS
19500.000	90.000	269.811	10888.997	75.053	0.000	104.157	0.000	75.053	0.000	0.000	104.178	46.145	91.104	MWD+IFR1+MS
19600.000	90.000	269.811	10888.997	75.783	0.000	105.194	0.000	75.783	0.000	0.000	105.215	46.191	91.089	MWD+IFR1+MS
19700.000	90.000	269.811	10888.997	76.513	0.000	106.232	0.000	76.513	0.000	0.000	106.253	46.239	91.073	MWD+IFR1+MS
19800.000	90.000	269.811	10888.997	77.245	0.000	107.272	0.000	77.245	0.000	0.000	107.293	46.286	91.059	MWD+IFR1+MS
19900.000	90.000	269.811	10888.997	77.978	0.000	108.314	0.000	77.978	0.000	0.000	108.335	46.335	91.044	MWD+IFR1+MS
20000.000	90.000	269.811	10888.997	78.711	0.000	109.358	0.000	78.711	0.000	0.000	109.378	46.383	91.030	MWD+IFR1+MS
20100.000	90.000	269.811	10888.997	79.446	0.000	110.403	0.000	79.446	0.000	0.000	110.423	46.433	91.016	MWD+IFR1+MS
20200.000	90.000	269.811	10888.997	80.182	0.000	111.449	0.000	80.182	0.000	0.000	111.469	46.483	91.002	MWD+IFR1+MS
20300.000	90.000	269.811	10888.997	80.918	0.000	112.497	0.000	80.918	0.000	0.000	112.517	46.533	90.989	MWD+IFR1+MS
20400.000	90.000	269.811	10888.997	81.656	0.000	113.546	0.000	81.656	0.000	0.000	113.566	46.584	90.976	MWD+IFR1+MS
20500.000	90.000	269.811	10888.997	82.394	0.000	114.597	0.000	82.394	0.000	0.000	114.616	46.635	90.964	MWD+IFR1+MS
20600.000	90.000	269.811	10888.997	83.133	0.000	115.649	0.000	83.133	0.000	0.000	115.668	46.687	90.951	MWD+IFR1+MS
20700.000	90.000	269.811	10888.997	83.873	0.000	116.702	0.000	83.873	0.000	0.000	116.721	46.739	90.939	MWD+IFR1+MS
20800.000	90.000	269.811	10888.997	84.614	0.000	117.757	0.000	84.614	0.000	0.000	117.776	46.792	90.927	MWD+IFR1+MS
20900.000	90.000	269.811	10888.997	85.355	0.000	118.812	0.000	85.355	0.000	0.000	118.831	46.845	90.916	MWD+IFR1+MS
20939.920	90.000	269.811	10888.997	85.651	0.000	119.233	0.000	85.651	0.000	0.000	119.252	46.866	90.911	MWD+IFR1+MS
20989.308	90.000	269.811	10888.997	86.017	0.000	119.755	0.000	86.017	0.000	0.000	119.773	46.893	90.906	MWD+IFR1+MS

## Plan Targets

James Ranch Unit Apache 901H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 23	11098.19	507205.30	656548.00	7509.00	CIRCLE
LTP 23	20939.30	507171.50	646280.40	7509.00	CIRCLE
BHL 23	20989.30	507171.40	646230.40	7509.00	CIRCLE

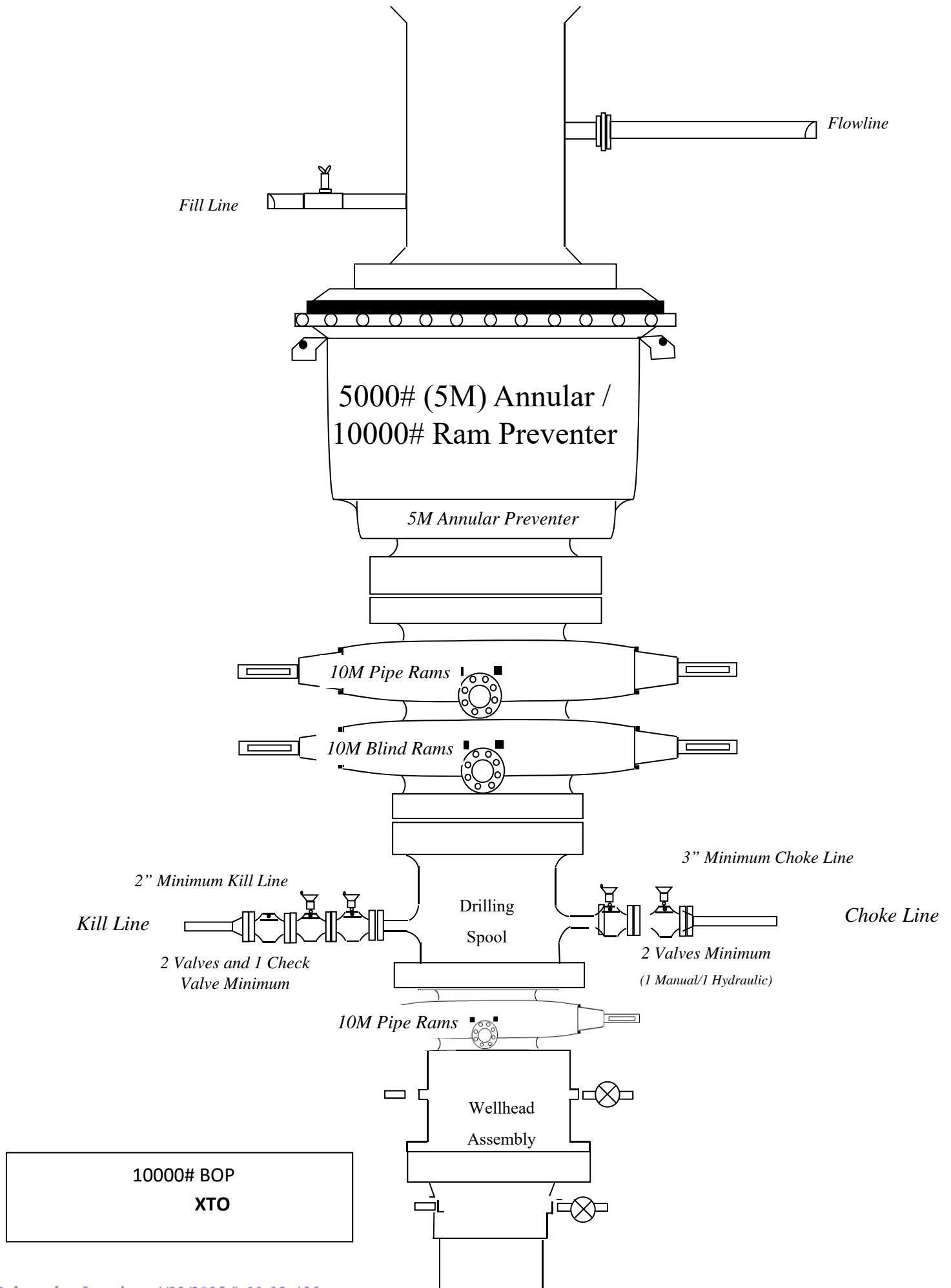
Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.

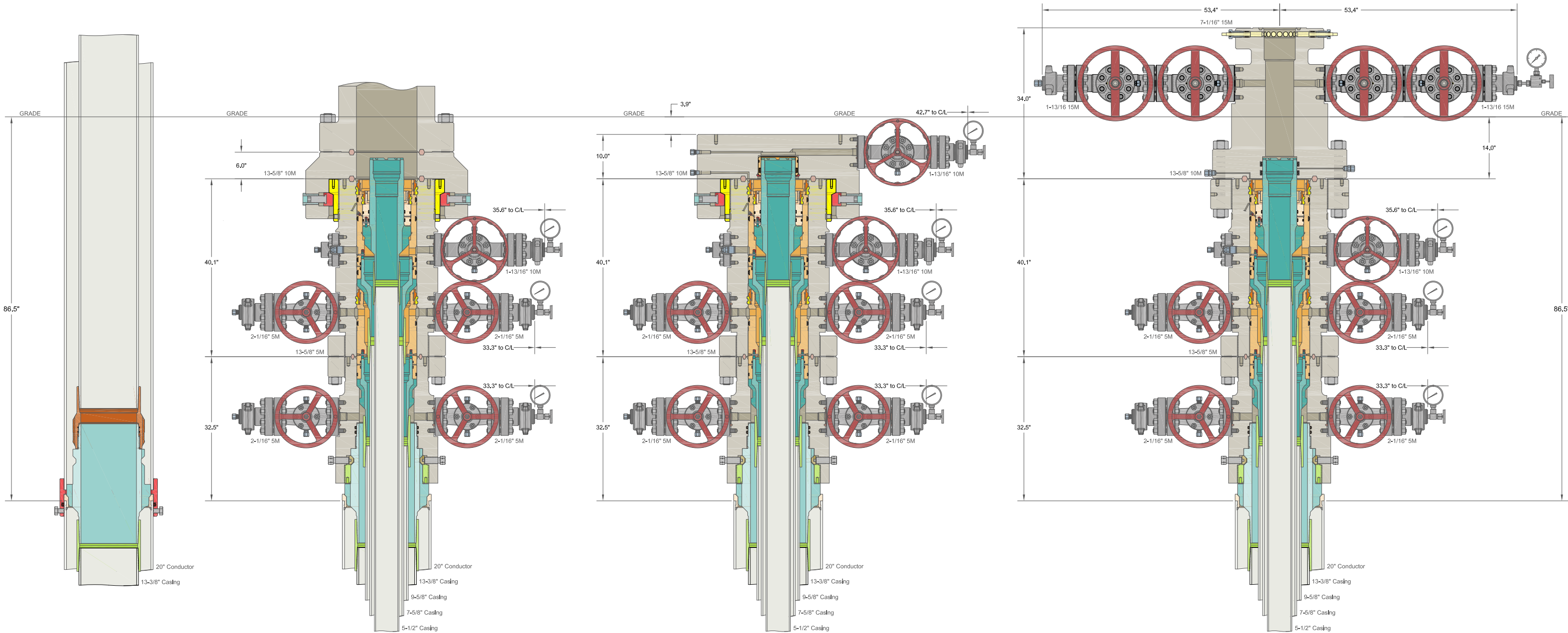


## Drilling Operations Choke Manifold 10M Service

10M Choke Manifold Diagram  
XTO

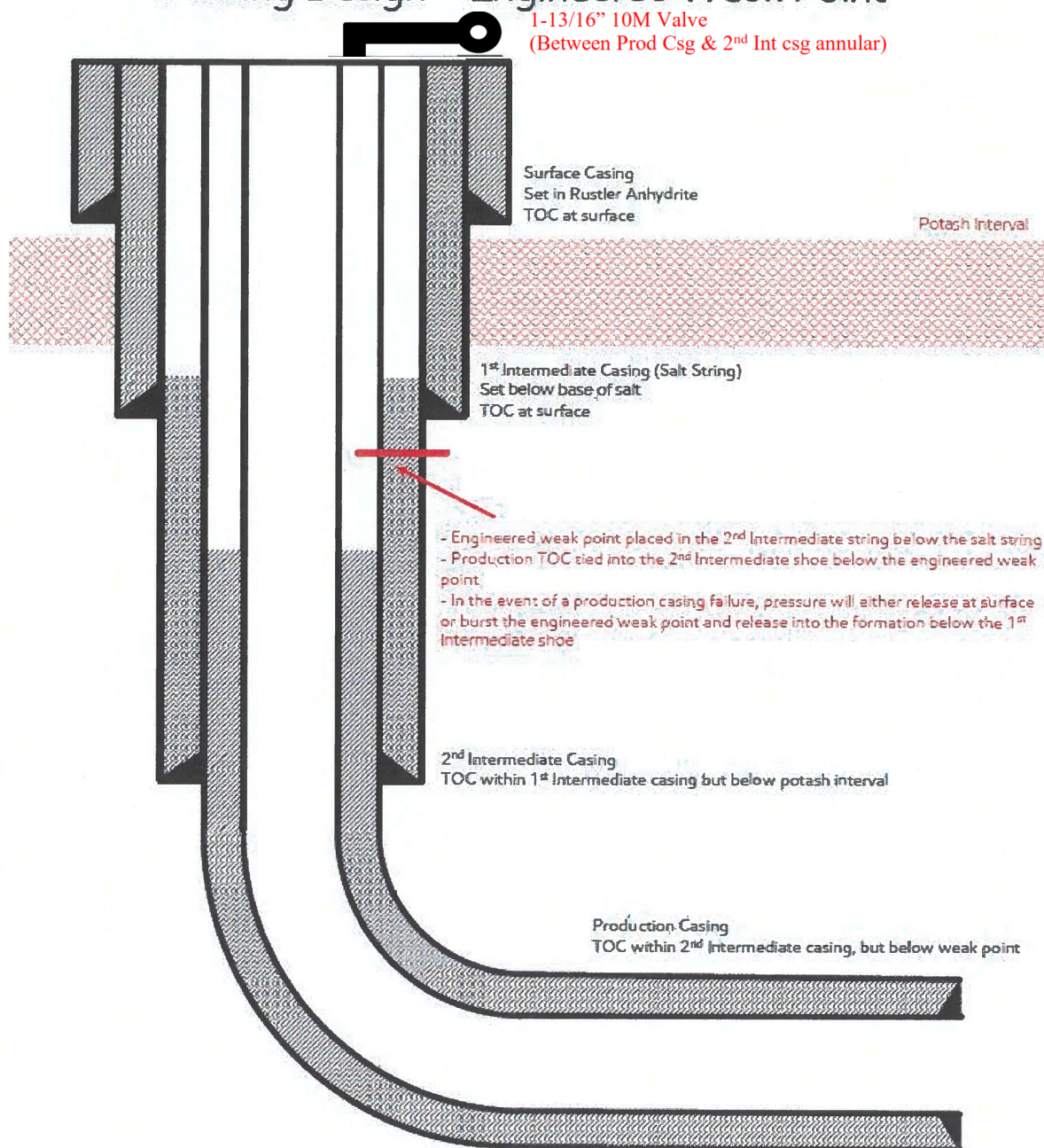






ALL DIMENSIONS APPROXIMATE			
CACTUS WELLHEAD LLC			
(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations			
XTO ENERGY INC DELAWARE BASIN		31MAR22	
DRAWN	VJK		
APPRV			
DRAWING NO.		SDT-3301	

## 4-String Design – Engineered Weak Point



[Figure F] 4 String – 2<sup>nd</sup> Intermediate casing engineered weak point

31592723\_v1

Update May 2024:

XTO is aware of the R111-Q update and 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) Bradenhead squeeze to be completed within 180 days to tie back TOC to salt string at least 500ft but with top below Marker Bed 126
- 4) Production cement to be tied back no less than 500ft inside previous casing shoe



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

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

**Background**

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

**Supporting Documentation**

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

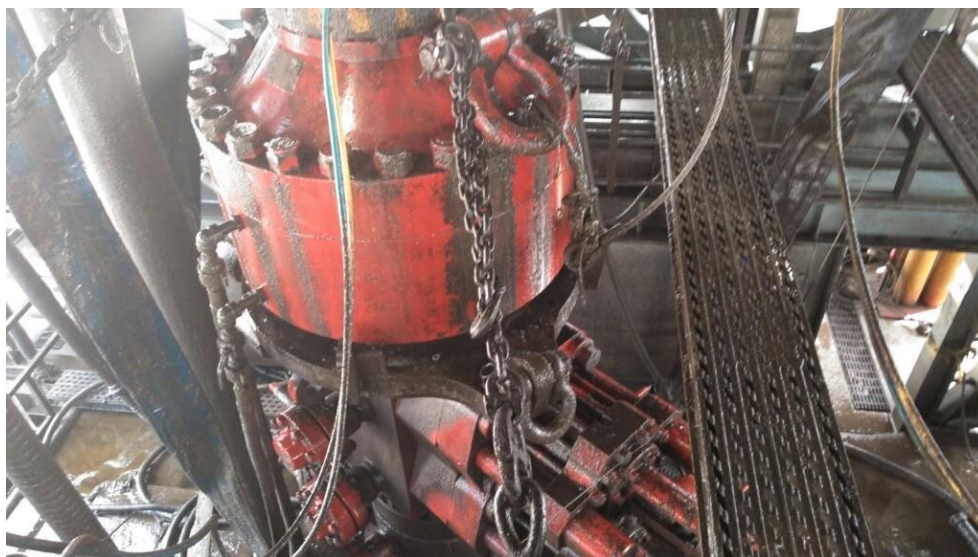


Figure 1: Winch System attached to BOP Stack

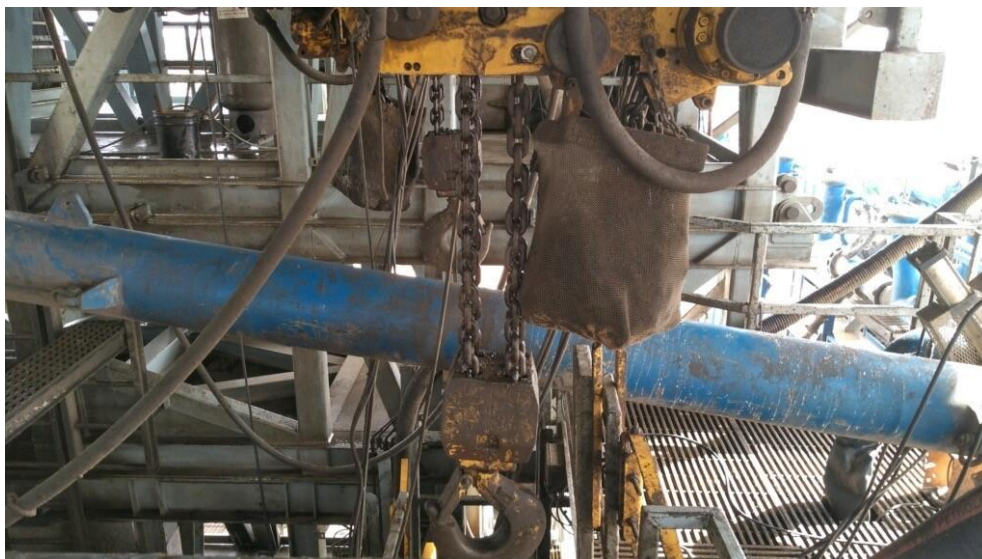


Figure 2: BOP Winch System

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

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API STANDARD 53

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

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

<sup>a</sup> Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

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

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

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

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

<sup>e</sup> Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

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

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

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

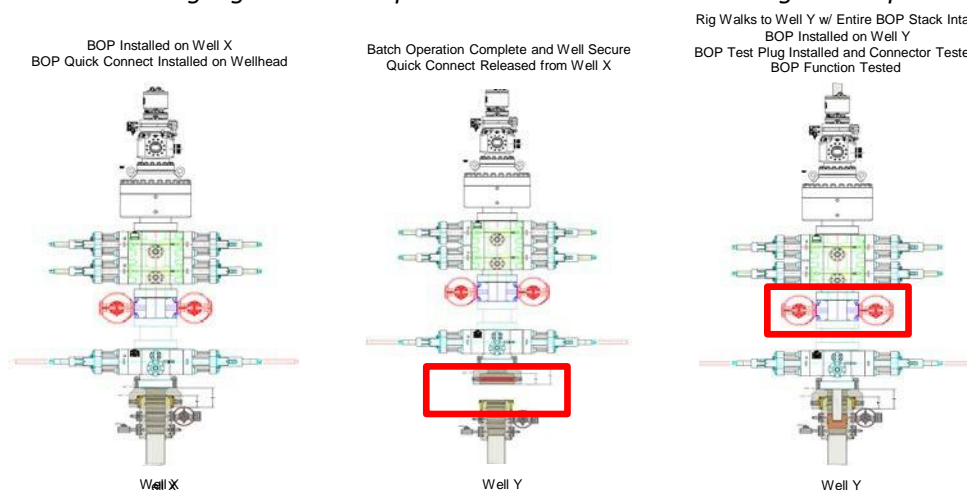
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

### **Procedures**

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

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

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



### Summary

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

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

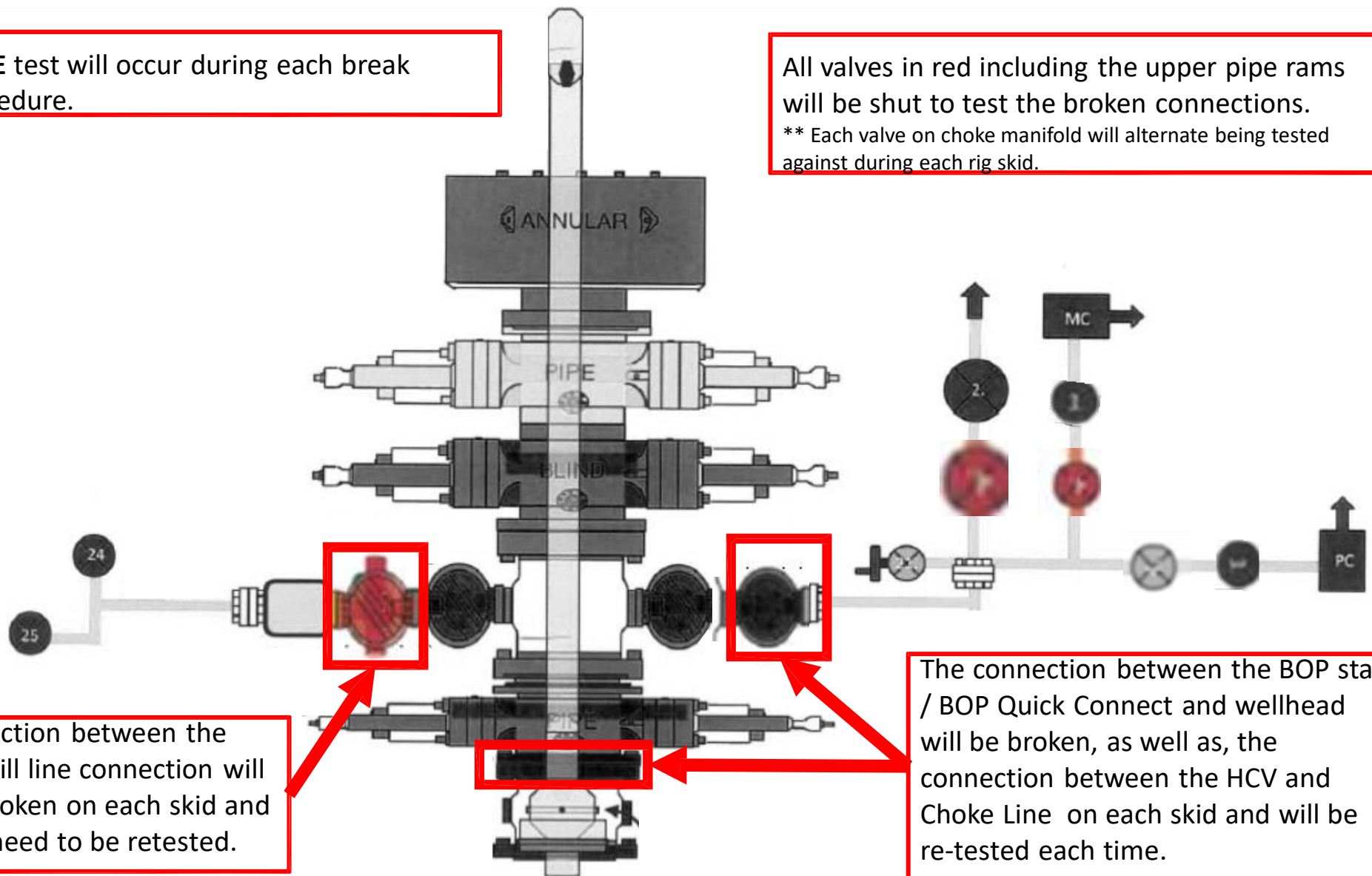
Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met:

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



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

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



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

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



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 440306

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 440306
	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.	4/22/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	4/22/2025