

Well Name: BIG EDDY UNIT BB HUX	Well Location: T20S / R32E / SEC 22 / NWSW / 32.555055 / -103.760966	County or Parish/State: EDDY / NM
Well Number: 202H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMLC065752A	Unit or CA Name: BIG EDDY	Unit or CA Number: NMNM68294X
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Notice of Intent

Sundry ID: 2817554

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 10/17/2024	Time Sundry Submitted: 01:27
Date proposed operation will begin: 10/17/2024	

Procedure Description: XTO Permian Operating, LLC. respectfully requests approval to make the following changes to the approved APD. Changes to include SHL, FTP, LTP, BHL, Casing sizes, Cement, Proposed total Depth, and formation (Pool). FROM: TO: SHL: 1290' FSL & 520' FWL OF SECTION 22-T20S-R32E 490' FSL & 855' FWL OF SECTION 22-T20S-R32E KOP: 1290' FSL & 520' FWL OF SECTION 22-T20S-R32E 1419' FSL & 616' FWL OF SECTION 22-T20S-R32E FTP: 1980' FSL & 100' FEL OF SECTION 21-T20S-R32E 1420' FSL & 100' FEL OF SECTION 21-T20S-R32E LTP: 1980' FSL & 100' FWL OF SECTION 19-T20S-R32E 1420' FSL & 100' FWL OF SECTION 19-T20S-R32E BHL: 1980' FSL & 50' FWL OF SECTION 19-T20S-R32E 1420' FSL & 50' FWL OF SECTION 19-T20S-R32E The proposed total depth & the formation (pool) are changing from 24231' MD; 8142' TVD, Bone Spring (Salt Lake) to 27209.3' MD; 10906' TVD, Wolfcamp (Purple Sage). A saturated salt mud will be utilized while drilling through the salt formations. XTO Permian Operating, LLC. respectfully requests permission for a primary and a contingency drilling program for this well. Primary will be a 4-string design & the contingency will be a 5-string design that will be used in case of wellbore instability. See attached drilling program for the primary & contingency design with updated casing design and cement program Attachments: C-102, Choke Manifold Diagram, BOP Diagram, Diverter Diagram, Drilling Program (Primary 4-string design), Drilling Program (Contingency 5-string design), Directional Plan, Non-API Spec documents for Production Casing, MBS Diagram (Primary 4-string design), MBS Diagram (Contingency 5-string design) Well bore diagram (Primary 4-string design), Well bore diagram (Contingency 5-string design), Flex Hose Variance, Spudder Rig Request.

Received by OCD: 11/13/2024 8:17:33 AM

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NOI Attachments

Procedure Description

Sundry_Attachments___Nov_1___HUX_202H_20241101161647.pdf

Conditions of Approval

Additional

BEU_BB_Hux_202H_COA_20241112161405.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: JENA AUSTIN

Signed on: NOV 01, 2024 04:17 PM

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Analyst

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRINGState: TX

Phone: (346) 335-5295

Email address: JENA.N.AUSTIN@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: 11/12/2024

Signature: Chris Walls

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <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
		7. If Unit of CA/Agreement, Name and/or No.

SUBMIT IN TRIPLICATE - Other instructions on page 2		8. Well Name and No.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		9. API Well No.
2. Name of Operator	3a. Address	10. Field and Pool or Exploratory Area
3b. Phone No. (include area code)		11. Country or Parish, State
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

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

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

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

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Additional Remarks

The proposed total depth & the formation (pool) are changing from 24231 MD; 8142 TVD, Bone Spring (Salt Lake) to 27209.3 MD; 10906 TVD, Wolfcamp (Purple Sage).

A saturated salt mud will be utilized while drilling through the salt formations.

XTO Permian Operating, LLC. respectfully requests permission for a primary and a contingency drilling program for this well. Primary will be a 4-string design & the contingency will be a 5-string design that will be used in case of wellbore instability.

See attached drilling program for the primary & contingency design with updated casing design and cement program

Attachments: C-102, Choke Manifold Diagram, BOP Diagram, Diverter Diagram, Drilling Program (Primary 4-string design), Drilling Program (Contingency 5-string design), Directional Plan, Non-API Spec documents for Production Casing, MBS Diagram (Primary 4-string design), MBS Diagram (Contingency 5-string design) Well bore diagram (Primary 4-string design), Well bore diagram (Contingency 5-string design), Flex Hose Variance, Spudder Rig Request.

Location of Well

0. SHL: NWSW / 1290 FSL / 520 FWL / TWSP: 20S / RANGE: 32E / SECTION: 22 / LAT: 32.555055 / LONG: -103.760966 (TVD: 0 feet, MD: 0 feet)

PPP: NESE / 1980 FSL / 100 FWL / TWSP: 20S / RANGE: 32E / SECTION: 21 / LAT: 32.556902 / LONG: -103.762976 (TVD: 8142 feet, MD: 8511 feet)

BHL: LOT 3 / 1980 FSL / 100 FWL / TWSP: 20S / RANGE: 32E / SECTION: 19 / LAT: 32.557001 / LONG: -103.813997 (TVD: 8065 feet, MD: 24231 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO
LEASE NO.:	NMLC065752A
LOCATION:	Sec. 22, T.20 S, R 32 E
COUNTY:	Lea County, New Mexico ▼
WELL NAME & NO.:	Big Eddy Unit BB Hux 202H
SURFACE HOLE FOOTAGE:	490'/S & 855'/W
BOTTOM HOLE FOOTAGE:	1420'/S & 50'/W

Changes approved through engineering via **Sundry 2817554** on 11-12-2024. Any previous COAs not addressed within the updated COAs still apply.

COA

H ₂ S	<input checked="" type="radio"/> No		<input type="radio"/> Yes	
Potash / WIPP	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-Q	<input checked="" type="checkbox"/> Open Annulus 4-String Design: Open 1st Int x Production Casing (ICP 2 above Relief Zone) <input type="checkbox"/> WIPP
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input checked="" type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input checked="" type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	

A. HYDROGEN SULFIDE

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

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

B. CASING

- The **20** inch surface casing shall be set at approximately **1080** feet (a minimum of **25 feet (Lea 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 **13-3/8** inch 1st Intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
3. The minimum required fill of cement behind the **9-5/8** inch 2nd Intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
(Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the Capitan interval)
 - Switch to freshwater mud to protect the Capitan Reef and use freshwater mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
 - Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
4. The minimum required fill of cement behind the **6** 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 is approved for 5 string contingency plan.

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 **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 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)**

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 (575-689-5981 Lea 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 Lea County Petroleum Engineering Inspection Staff:

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

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

A. CASING

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

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

B. PRESSURE CONTROL

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

Approved by Zota Stevens on 11/12/2024
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	
		APD ID# 10400065151	
		Submittal Type:	<input type="checkbox"/> Initial Submittal
<input checked="" type="checkbox"/> Amended Report			
		<input type="checkbox"/> As Drilled	

WELL LOCATION INFORMATION			
API Number 30-025-	Pool Code 98220	Pool Name Purple Sage; Wolfcamp	
Property Code	Property Name BIG EDDY UNIT BB HUX	Well Number 202H	
OGRID No. 373075	Operator Name XTO PERMIAN OPERATING, LLC.	Ground Level Elevation 3,529'	
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
M	22	20S	32E		490 FSL	855 FWL	32.552805	-103.759881	LEA

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	19	20S	32E	3	1,420 FSL	50 FWL	32.555462	-103.813998	LEA



Dedicated Acres 959.32	Infill or Defining Well DEFINING	Defining Well API	Overlapping Spacing Unit (Y/N) N	Consolidation Code U
Order Numbers.			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
L	22	20S	32E		1,419 FSL	616 FWL	32.555358	-103.760653	LEA

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
I	21	20S	32E		1,420 FSL	100 FEL	32.555363	-103.762978	LEA

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	19	20S	32E	3	1,420 FSL	100 FWL	32.555461	-103.813835	LEA

Unitized Area of Area of Interest NMNM105467880	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 3,529'
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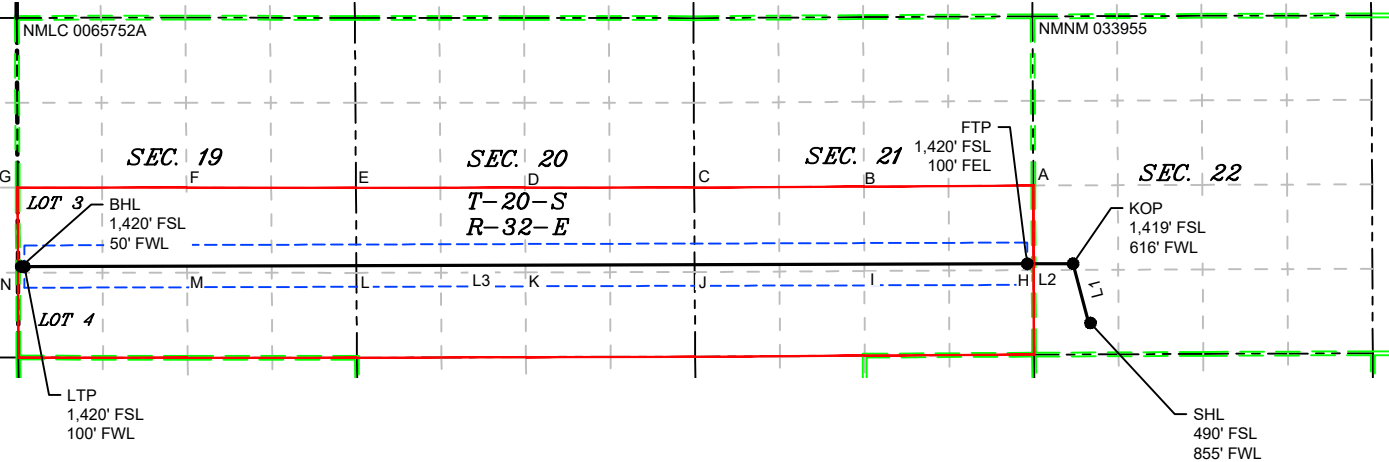
<div>OPERATOR CERTIFICATIONS</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land 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>Srinivas Naveen 3/19/2024</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>Signature and Seal of Professional Surveyor</div> <div></div> <div>MARK DILLON HARP 237869/18/2024</div> <div>Certificate NumberDate of Survey</div> <div>DN618.013004.01-09</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	345°19'35"	958.93'
L2	269°50'05"	716.30'
L3	269°50'16"	15,719.94'

LOT ACREAGE TABLE	
SECTION 19	
T-20-S, R-32-E	
LOT 3 = 39.64 ACRES	
LOT 4 = 39.68 ACRES	

LEGEND

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

COORDINATE TABLE					
SHL (NAD 83 NME)			SHL (NAD 27 NME)		
Y =	565,316.9	N	Y =	565,255.3	N
X =	718,027.3	E	X =	676,847.5	E
LAT. =	32.552805	°N	LAT. =	32.552684	°N
LONG. =	103.759881	°W	LONG. =	103.759382	°W
KOP (NAD 83 NME)			KOP (NAD 27 NME)		
Y =	566,244.6	N	Y =	566,182.9	N
X =	717,784.4	E	X =	676,604.6	E
LAT. =	32.555358	°N	LAT. =	32.555238	°N
LONG. =	103.760653	°W	LONG. =	103.760154	°W
FTP (NAD 83 NME)			FTP (NAD 27 NME)		
Y =	566,242.5	N	Y =	566,180.9	N
X =	717,068.1	E	X =	675,888.4	E
LAT. =	32.555363	°N	LAT. =	32.555243	°N
LONG. =	103.762978	°W	LONG. =	103.762479	°W
LTP (NAD 83 NME)			LTP (NAD 27 NME)		
Y =	566,197.9	N	Y =	566,136.1	N
X =	701,398.2	E	X =	660,218.7	E
LAT. =	32.555461	°N	LAT. =	32.555340	°N
LONG. =	103.813835	°W	LONG. =	103.813335	°W
BHL (NAD 83 NME)			BHL (NAD 27 NME)		
Y =	566,198.0	N	Y =	566,136.2	N
X =	701,348.2	E	X =	660,168.7	E
LAT. =	32.555462	°N	LAT. =	32.555341	°N
LONG. =	103.813998	°W	LONG. =	103.813497	°W

CORNER COORDINATES (NAD 83 NME)					
A - Y =	564,823.1	N	A - X =	717,174.3	E
B - Y =	564,807.6	N	B - X =	714,528.5	E
C - Y =	564,790.6	N	C - X =	711,880.0	E
D - Y =	564,785.5	N	D - X =	709,235.4	E
E - Y =	564,772.5	N	E - X =	706,593.8	E
F - Y =	564,772.1	N	F - X =	703,949.2	E
G - Y =	564,778.1	N	G - X =	701,304.8	E
H - Y =	566,143.6	N	H - X =	717,168.5	E
I - Y =	566,128.3	N	I - X =	714,522.2	E
J - Y =	566,112.3	N	J - X =	711,871.8	E
K - Y =	566,108.2	N	K - X =	709,227.5	E
L - Y =	566,100.1	N	L - X =	706,585.9	E
M - Y =	566,101.1	N	M - X =	703,940.2	E
N - Y =	566,105.2	N	N - X =	701,298.7	E
CORNER COORDINATES (NAD 27 NME)					
A - Y =	564,761.5	N	A - X =	675,994.5	E
B - Y =	564,746.0	N	B - X =	673,348.7	E
C - Y =	564,728.9	N	C - X =	670,700.2	E
D - Y =	564,723.9	N	D - X =	668,055.7	E
E - Y =	564,710.8	N	E - X =	665,414.1	E
F - Y =	564,710.3	N	F - X =	662,769.6	E
G - Y =	564,716.4	N	G - X =	660,125.2	E
H - Y =	566,081.9	N	H - X =	675,988.8	E
I - Y =	566,066.6	N	I - X =	673,342.5	E
J - Y =	566,050.6	N	J - X =	670,692.2	E
K - Y =	566,046.5	N	K - X =	668,047.9	E
L - Y =	566,038.4	N	L - X =	665,406.3	E
M - Y =	566,039.3	N	M - X =	662,760.7	E
N - Y =	566,043.5	N	N - X =	660,119.1	E

DN

618.013004.01-09

P:\618.013 XTO Energy - NM\004 Big Eddy Unit - Eddy Lea\01 - BEU DI BLUEBIRD - LEA\Wells\--09 - HUX 202H\DWG\HUX 202H C-102.dwg

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

XTO Energy Inc.
BIG EDDY UNIT BB HUX 202H
Projected TD: 27209.3' MD / 10906' TVD
SHL: 490' FSL & 855' FWL , Section 22, T20S, R32E
BHL: 1420' FSL & 50' FWL , Section 19, T20S, R32E
Lea 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	966'	Water
Top of Salt	1337'	Water
Base of Salt	2701'	Water
Capitan	3011'	Water
Delaware	4981'	Water/Oil/Gas
Brushy Canyon	6221'	Water
Bone Spring	7731'	Water/Oil/Gas
1st Bone Spring Ss	8789'	Water/Oil/Gas
2nd Bone Spring Ss	9321'	Water/Oil/Gas
3rd Bone Spring Ss	10536'	Water/Oil/Gas
Wolfcamp	10821'	Water/Oil/Gas
Wolfcamp X	10843'	Water/Oil/Gas
Wolfcamp Y	10901'	Water/Oil/Gas
Target/Land Curve	10906'	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 fresh water sands will be protected by setting surface casing above Top of Salt and circulating cement back to surface. The salt will be isolated by setting first intermediate casing below base of salt and circulating cement to surface. The second intermediate will isolate the Capitan Reef up ~ 75' inside Delaware formation and cemented to surface. A 8.5/8.75inch curve and lateral hole will be drilled to TD and 6 inch production casing will be set at TD cemented in one stage with estimated TOC ~7700 ft (Base of Brushy Canyon)

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
24	0' – 1237'	20	94	J-55	BTC	New	2.51	0.97	9.26
17.5	0' – 2801'	13.375	54.5	J-55	BTC	New	2.57	1.33	5.95
12.25	0' – 2901'	9.625	40	HC L-80	BTC	New	1.39	3.38	4.55
12.25	2901' – 5031'	9.625	40	HC L-80	BTC	New	1.39	5.84	10.75
8.75 – 8.5	0' – 27209.3'	6	26	P-110	Tenaris Hydril Wedge	New	1.17	2.08	2.67

XTO will keep surface casing fluid filled to meet BLM's collapse requirement.

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

Wellhead:

Permanent Wellhead

Multibowl System for 4 String desing as per attachment.

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: 20, 94 New BTC, J-55 casing to be set at +/- 1237'

Optional Lead: 960 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 420 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 250 psi 24 hr = 500 psi

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

1st Intermediate Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 2801'

Lead: 1380 sxs Class C (mixed at 12.6 ppg, 1.88 ft3/sx, 10.13 gal/sx water)
Tail: 230 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Top of Cement: Surface
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, 40 New casing to be set at +/- 5031'

Lead: 670 sxs Class C (mixed at 12.8 ppg, 1.88 ft3/sx, 15.59 gal/sx water)
TOC: 0'
Tail: 640 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
TOC: Capitan Reef @ 3011
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a single stage cement job on the second intermediate casing string, with slurries pumped conventionally with the first slurry top of cement at Capitan Reef (3011') and the second slurry performed with planned cement from the Capitan Reef to surface.

Production Casing: 6, 26 New Tenaris Hydril Wedge, P-110 casing to be set at +/- 27209.3'

Optional Lead: 190 sxs NeoCem (mixed at 12.8 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of 7731 feet
Tail: 2060 sxs VersaCem (mixed at 14.5 ppg, 1.61 ft3/sx, 8.38 gal/sx water) Top of Cement: 10364.52 feet
Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests to pump a single stage cement job on the 6" Production casing string pumped conventionally, with calculated top of cement at 7731' (Base of Brushy Canyon).

In case the initial cement job do not reach the desired top of cement, a post completion bradenhead squeeze will be performed to tied back the 2nd intermediate x production casing annulus TOC into the 2nd intermediate shoe but below of potash interval

5. Pressure Control Equipment

Operator request a variance to utilize a temporary blowout preventer equipment "BOP" (Diverter) to drill 1st intermediate section. This temporary diverter consist of a 21 1/4" minimum 2M Hydrill. Once the casing is run and cemented, and the wellhead (MBS) is installed and tested, the full BOP system with Hydrill and rams will be installed before continue drilling the 2nd intermediate and production sections or enter in a oil and gas interval.

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 BLM CFR43-3172

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

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Additional Comments
0' - 1237'	24	FW/Native	8.3-8.8	35-40	NC	Fresh water or native water
1237' - 2801'	17.5	Sat Salt Brine	10-11	30-32	NC	Fully saturated brine across salado / salt
2801' to 5031'	12.25	FW	8.3-8.8	30-32	NC	FW across Cap Reef
5031' to 27209.3'	8.75 – 8.5	OBM	9-12	50-60	NC - 20	OBM or Brine depending well conditions.

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 , a fully saturated 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 EDR 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 20 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing where necessary. Otherwise, gamma ray will be utilized while actively drilling.

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 6522 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.

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

XTO Energy Inc.
BIG EDDY UNIT BB HUX 202H
Projected TD: 27209' MD / 10906' TVD
SHL: 490' FSL & 855' FWL , Section 22, T20S, R32E
BHL: 1420' FSL & 50' FWL , Section 19, T20S, R32E
Lea 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	966'	Water
Top of Salt	1337'	Water
Base of Salt	2701'	Water
Capitan	3011'	Water
Delaware	4981'	Water/Oil/Gas
Brushy Canyon	6221'	Water
Bone Spring	7731'	Water/Oil/Gas
1st Bone Spring Ss	8789'	Water/Oil/Gas
2nd Bone Spring Ss	9321'	Water/Oil/Gas
3rd Bone Spring Ss	10536'	Water/Oil/Gas
Wolfcamp	10821'	Water/Oil/Gas
Wolfcamp X	10843'	Water/Oil/Gas
Wolfcamp Y	10901'	Water/Oil/Gas
Target/Land Curve	10906'	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 fresh water sands will be protected by setting surface casing above Top of Salt and circulating cement back to surface. The salt will be isolated by setting first intermediate casing below base of salt and circulating cement to surface. The second intermediate will isolate the Capitan Reef up ~ 75' inside Delaware formation and cemented to surface. The 3rd Intermediate csg will isolate DMG to Wolfcamp A circulating cement to ~300' inside Int 2 csg. A 6.75 inch curve and lateral hole will be drilled to TD and 5.5 inch production casing will be set at TD cemented in one stage with estimated TOC ~500ft inside previous casing string.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
24	0' – 1237'	20	94	J-55	BTC	New	2.51	0.97	9.26
17.5	0' – 2801'	13.375	54.5	J-55	BTC	New	2.57	1.33	5.95
12.25	0' – 2901'	9.625	40	HC L-80	BTC	New	1.89	3.38	4.55
12.25	2901' – 5031'	9.625	40	HC L-80	BTC	New	1.89	5.84	10.75
8.75 – 8.5	0' - 5181	7.625	29.7	RYP-110	Flush Joint	New	1.90	4.45	1.85
8.75 – 8.5	5181' – 10165'	7.625	29.7	HC L-80	Flush Joint	New	1.38	2.45	2.74
6.75	0' – 10065'	5.5	20	RY P-110	Semi-Premium/Freedom HTQ	New	1.05	1.62	1.89
6.75	10065' - 27209'	5.5	20	RY P-110	Semi-Flush/Talon HTQ	New	1.05	1.51	4.69

XTO will keep surface casing fluid filled to meet BLM's collapse requirement.

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

Wellhead:

XTO will use a Multibowl System for 5 String design as per attachment.

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: 20, New casing to be set at +/- 1237'

Optional Lead: 960 sxs EconoCem-HLTRRC (mixed at 12.8 ppg, 1.87 ft³/sx, 10.13 gal/sx water)
 Tail: 420 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 250 psi 24 hr = 500 psi

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

1st Intermediate Casing: 13.375, New casing to be set at +/- 2801'

Lead: 1380 sxs Class C (mixed at 12.6 ppg, 1.88 ft³/sx, 10.13 gal/sx water)
 Tail: 230 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft³/sx, 6.39 gal/sx water)
 Top of Cement: Surface
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9.625, New casing to be set at +/- 5031'

Lead: 670 sxs Class C (mixed at 12.8 ppg, 1.88 ft³/sx, 10.13 gal/sx water)
 TOC: 0'
 Tail: 640 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 TOC: Capitan Reef @ 3011
 Compressives: 12-hr = 900 psi 24 hr = 1500 psi

3rd Intermediate Casing: 7.625, New casing to be set at +/- 10165'

Optional Lead: 220 sxs Class C (mixed at 12.8 ppg, 1.88 ft³/sx, 15.59 gal/sx water)
 TOC @ 4731' ~ 300' inside 2nd Intermediate csg
 Tail: 100 sxs Class C (mixed at 14.8 ppg, 1.33 ft³/sx, 6.39 gal/sx water)
 TOC @ ~ 8700'
 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO Request to pump an optional Lead slurry if well conditions dictate in an attempt to bring cement inside the 2nd intermediate casing with primary job, if cement reaches the desired height, the BLM will be notified and the second stage bradenhead Squeeze will be negated.

XTO requests to pump the 7-5/8" intermediate casing string with the first stage being pumped conventionally with 1 or 2 slurries with the calculated TOC @ 4731' ~300 ft inside 2nd intermediate casing.

XTO Request the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval of BLM, when unplanned remediation is needed and batch drilling is approved.

Production Casing: 5.5, New casing to be set at +/- 27209'

Optional Lead: 20 sxs NeoCem (mixed at 12.8 ppg, 2.69 ft³/sx, 15.00 gal/sx water) Top of Cem 9665 feet
 Tail: 1000 sxs VersaCem (mixed at 14.5 ppg, 1.61 ft³/sx, 8.38 gal/sx water) Top of Cement: 10365 feet
 Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests to pump a single stage cement job on the 5.5" Production casing string pumped conventionally, with calculated top of cement at ~500' feet inside Intermediate 3 casing string.

5. Pressure Control Equipment

Operator request a variance to utilize a temporary blowout preventer equipment "BOP" (Diverter) to drill 1st intermediate section. This temporary diverter consist of a 21 1/4" minimum 2M Hydrill. Once the casing is run and cemented, and the wellhead (MBS) is installed and tested, the full BOP system with Hydrill and rams will be installed before continue drilling the 2nd intermediate and production sections or enter in a oil and gas interval.

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

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

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

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

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)	Additional Comments
0' - 1237'	24	FW/Native	8.3-8.8	35-40	NC	Fresh water or native water
1237' - 2801'	17.5	Sat salt brine	10-10.5	30-32	NC	Fully saturated brine across salado / salt
2801' to 5031'	12.25	FW	8.3-8.8	30-32	NC	FW across Cap Reef
5031' to 10165'	8.75 – 8.5	Cut Brine / OBM	10-11.5	50-60	NC - 20	OBM or cut brine depending well conditions.
10165' to 27209'	8.5 - 6.75	Cut Brine / OBM	11.5-13.5	50-60	NC - 20	OBM or cut brine depending well conditions.

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 a fully saturated brine 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. An EDR (Electronic Drilling Recorder) 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 20 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing where necessary. Otherwise, gamma ray will be utilized while actively drilling.

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 7372 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 - Big Eddy Unit BB HUX 202H

Measured Depth: 27209.30 ft

TVD RKB: 10906.00 ft

Location

Cartographic
Reference System: New Mexico East -
NAD 27

Northing: 565255.30 ft

Easting: 676847.50 ft

RKB: 3561.00 ft

Ground Level: 3529.00 ft

North Reference: Grid

Convergence Angle: 0.31 Deg

Plan Sections

Big Eddy Unit BB HUX 202H

Measured				TVD				Build	Turn	Dogleg		
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate	Rate	Rate	Target	
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
4384.29	25.69	345.33	4341.70	273.85	-71.71	2.00	0.00	0.00	0.00	2.00		
5290.43	25.69	345.33	5158.30	653.80	-171.20	0.00	0.00	0.00	0.00	0.00		
6574.72	0.00	0.00	6400.00	927.65	-242.91	-2.00	0.00	0.00	0.00	2.00		
10364.52	0.00	0.00	10189.80	927.65	-242.91	0.00	0.00	0.00	0.00	0.00		
11489.52	90.00	269.84	10906.00	925.60	-959.10	8.00	0.00	0.00	0.00	8.00	FTP 202H	
27159.28	90.00	269.84	10906.00	880.80	-16628.80	0.00	0.00	0.00	0.00	0.00	LTP 202H	
27209.30	90.00	269.84	10906.00	880.66	-16678.81	0.00	0.00	0.00	0.00	0.00	BHL 202H	

Position Uncertainty

Big Eddy Unit BB HUX 202H

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	2.326	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	2.348	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	2.375	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	2.408	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	2.446	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	2.488	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	2.534	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	2.585	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	2.639	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	2.696	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	2.756	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	2.819	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	2.884	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	2.952	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	3.022	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	3.094	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	3.168	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	3.243	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	3.320	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	3.399	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	3.479	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	3.561	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	3.644	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	3.728	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	3.814	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	3.901	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	3.989	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	4.078	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	4.169	0.000	0.000	11.992	11.016	129.579	MWD+IFR1+MS
3200.000	2.000	345.326	3199.980	11.784	0.000	12.023	0.000	4.260	0.000	0.000	12.398	11.395	127.046	MWD+IFR1+MS
3300.000	4.000	345.326	3299.838	12.335	0.000	12.373	0.000	4.353	0.000	0.000	12.883	11.827	120.693	MWD+IFR1+MS
3400.000	6.000	345.326	3399.452	12.857	0.000	12.722	0.000	4.449	0.000	0.000	13.378	12.231	115.561	MWD+IFR1+MS
3500.000	8.000	345.326	3498.702	13.352	0.000	13.070	0.000	4.550	0.000	0.000	13.876	12.615	111.593	MWD+IFR1+MS
3600.000	10.000	345.326	3597.465	13.822	0.000	13.417	0.000	4.656	0.000	0.000	14.372	12.985	108.567	MWD+IFR1+MS
3700.000	12.000	345.326	3695.623	14.267	0.000	13.763	0.000	4.769	0.000	0.000	14.861	13.347	106.252	MWD+IFR1+MS
3800.000	14.000	345.326	3793.055	14.688	0.000	14.109	0.000	4.891	0.000	0.000	15.344	13.702	104.469	MWD+IFR1+MS
3900.000	16.000	345.326	3889.643	15.087	0.000	14.454	0.000	5.022	0.000	0.000	15.818	14.053	103.084	MWD+IFR1+MS
4000.000	18.000	345.326	3985.268	15.464	0.000	14.799	0.000	5.165	0.000	0.000	16.283	14.400	102.005	MWD+IFR1+MS
4100.000	20.000	345.326	4079.816	15.820	0.000	15.145	0.000	5.320	0.000	0.000	16.739	14.746	101.164	MWD+IFR1+MS
4200.000	22.000	345.326	4173.169	16.157	0.000	15.492	0.000	5.489	0.000	0.000	17.186	15.091	100.516	MWD+IFR1+MS
4300.000	24.000	345.326	4265.215	16.475	0.000	15.840	0.000	5.672	0.000	0.000	17.624	15.436	100.027	MWD+IFR1+MS
4384.289	25.686	345.326	4341.701	16.690	0.000	16.132	0.000	5.818	0.000	0.000	17.955	15.726	99.845	MWD+IFR1+MS
4400.000	25.686	345.326	4355.860	16.741	0.000	16.185	0.000	5.834	0.000	0.000	18.004	15.780	99.864	MWD+IFR1+MS
4500.000	25.686	345.326	4445.978	17.072	0.000	16.532	0.000	5.971	0.000	0.000	18.306	16.126	100.190	MWD+IFR1+MS
4600.000	25.686	345.326	4536.096	17.415	0.000	16.891	0.000	6.117	0.000	0.000	18.624	16.479	100.649	MWD+IFR1+MS
4700.000	25.686	345.326	4626.215	17.765	0.000	17.255	0.000	6.270	0.000	0.000	18.947	16.835	101.118	MWD+IFR1+MS
4800.000	25.686	345.326	4716.333	18.120	0.000	17.622	0.000	6.428	0.000	0.000	19.274	17.196	101.598	MWD+IFR1+MS
4900.000	25.686	345.326	4806.452	18.480	0.000	17.994	0.000	6.591	0.000	0.000	19.606	17.560	102.087	MWD+IFR1+MS
5000.000	25.686	345.326	4896.570	18.846	0.000	18.369	0.000	6.759	0.000	0.000	19.943	17.928	102.587	MWD+IFR1+MS
5100.000	25.686	345.326	4986.689	19.216	0.000	18.747	0.000	6.932	0.000	0.000	20.283	18.298	103.097	MWD+IFR1+MS
5200.000	25.686	345.326	5076.807	19.590	0.000	19.129	0.000	7.110	0.000	0.000	20.628	18.672	103.616	MWD+IFR1+MS
5290.427	25.686	345.326	5158.299	19.930	0.000	19.475	0.000	7.273	0.000	0.000	20.940	19.012	104.068	MWD+IFR1+MS
5300.000	25.494	345.326	5166.933	19.984	0.000	19.511	0.000	7.291	0.000	0.000	20.972	19.048	104.105	MWD+IFR1+MS
5400.000	23.494	345.326	5257.928	20.570	0.000	19.891	0.000	7.490	0.000	0.000	21.343	19.426	104.235	MWD+IFR1+MS
5500.000	21.494	345.326	5350.315	21.222	0.000	20.278	0.000	7.724	0.000	0.000	21.794	19.811	103.772	MWD+IFR1+MS
5600.000	19.494	345.326	5443.981	21.843	0.000	20.665	0.000	7.941	0.000	0.000	22.247	20.197	103.278	MWD+IFR1+MS
5700.000	17.494	345.326	5538.812	22.432	0.000	21.050	0.000	8.143	0.000	0.000	22.702	20.582	102.766	MWD+IFR1+MS
5800.000	15.494	345.326	5634.692	22.988	0.000	21.432	0.000	8.332	0.000	0.000	23.156	20.964	102.247	MWD+IFR1+MS
5900.000	13.494	345.326	5731.504	23.510	0.000	21.810	0.000	8.509	0.000	0.000	23.608	21.344	101.730	MWD+IFR1+MS
6000.000	11.494	345.326	5829.131	23.998	0.000	22.185	0.000	8.674	0.000	0.000	24.058	21.720	101.224	MWD+IFR1+MS
6100.000	9.494	345.326	5927.453	24.451	0.000	22.555	0.000	8.830	0.000	0.000	24.503	22.092	100.736	MWD+IFR1+MS

6200.000	7.494	345.326	6026.351	24.869	0.000	22.920	0.000	8.977	0.000	0.000	24.944	22.458	100.270	MWD+IFR1+MS
6300.000	5.494	345.326	6125.704	25.252	0.000	23.279	0.000	9.117	0.000	0.000	25.378	22.818	99.830	MWD+IFR1+MS
6400.000	3.494	345.326	6225.392	25.598	0.000	23.632	0.000	9.251	0.000	0.000	25.806	23.173	99.420	MWD+IFR1+MS
6500.000	1.494	345.326	6325.292	25.908	0.000	23.980	0.000	9.381	0.000	0.000	26.226	23.522	99.042	MWD+IFR1+MS
6574.716	0.000	0.000	6400.000	26.437	0.000	23.846	0.000	9.475	0.000	0.000	26.500	23.775	99.017	MWD+IFR1+MS
6600.000	0.000	0.000	6425.284	26.515	0.000	23.932	0.000	9.507	0.000	0.000	26.578	23.861	99.032	MWD+IFR1+MS
6700.000	0.000	0.000	6525.284	26.822	0.000	24.272	0.000	9.635	0.000	0.000	26.887	24.201	99.132	MWD+IFR1+MS
6800.000	0.000	0.000	6625.284	27.135	0.000	24.618	0.000	9.765	0.000	0.000	27.201	24.544	99.319	MWD+IFR1+MS
6900.000	0.000	0.000	6725.284	27.449	0.000	24.963	0.000	9.898	0.000	0.000	27.517	24.888	99.504	MWD+IFR1+MS
7000.000	0.000	0.000	6825.284	27.764	0.000	25.310	0.000	10.034	0.000	0.000	27.834	25.232	99.690	MWD+IFR1+MS
7100.000	0.000	0.000	6925.284	28.080	0.000	25.656	0.000	10.173	0.000	0.000	28.152	25.577	99.874	MWD+IFR1+MS
7200.000	0.000	0.000	7025.284	28.397	0.000	26.003	0.000	10.314	0.000	0.000	28.471	25.922	100.057	MWD+IFR1+MS
7300.000	0.000	0.000	7125.284	28.715	0.000	26.350	0.000	10.459	0.000	0.000	28.791	26.267	100.240	MWD+IFR1+MS
7400.000	0.000	0.000	7225.284	29.034	0.000	26.698	0.000	10.606	0.000	0.000	29.112	26.612	100.422	MWD+IFR1+MS
7500.000	0.000	0.000	7325.284	29.354	0.000	27.045	0.000	10.756	0.000	0.000	29.434	26.958	100.603	MWD+IFR1+MS
7600.000	0.000	0.000	7425.284	29.674	0.000	27.394	0.000	10.909	0.000	0.000	29.757	27.304	100.783	MWD+IFR1+MS
7700.000	0.000	0.000	7525.284	29.996	0.000	27.742	0.000	11.066	0.000	0.000	30.080	27.650	100.963	MWD+IFR1+MS
7800.000	0.000	0.000	7625.284	30.318	0.000	28.090	0.000	11.225	0.000	0.000	30.405	27.997	101.141	MWD+IFR1+MS
7900.000	0.000	0.000	7725.284	30.642	0.000	28.439	0.000	11.387	0.000	0.000	30.730	28.344	101.319	MWD+IFR1+MS
8000.000	0.000	0.000	7825.284	30.966	0.000	28.788	0.000	11.552	0.000	0.000	31.056	28.691	101.495	MWD+IFR1+MS
8100.000	0.000	0.000	7925.284	31.290	0.000	29.138	0.000	11.720	0.000	0.000	31.383	29.038	101.671	MWD+IFR1+MS
8200.000	0.000	0.000	8025.284	31.616	0.000	29.487	0.000	11.891	0.000	0.000	31.710	29.385	101.846	MWD+IFR1+MS
8300.000	0.000	0.000	8125.284	31.942	0.000	29.837	0.000	12.066	0.000	0.000	32.039	29.733	102.020	MWD+IFR1+MS
8400.000	0.000	0.000	8225.284	32.269	0.000	30.187	0.000	12.243	0.000	0.000	32.367	30.081	102.193	MWD+IFR1+MS
8500.000	0.000	0.000	8325.284	32.596	0.000	30.537	0.000	12.423	0.000	0.000	32.697	30.429	102.366	MWD+IFR1+MS
8600.000	0.000	0.000	8425.284	32.925	0.000	30.887	0.000	12.607	0.000	0.000	33.027	30.777	102.537	MWD+IFR1+MS
8700.000	0.000	0.000	8525.284	33.253	0.000	31.238	0.000	12.794	0.000	0.000	33.358	31.126	102.708	MWD+IFR1+MS
8800.000	0.000	0.000	8625.284	33.583	0.000	31.588	0.000	12.984	0.000	0.000	33.689	31.475	102.877	MWD+IFR1+MS
8900.000	0.000	0.000	8725.284	33.913	0.000	31.939	0.000	13.177	0.000	0.000	34.021	31.823	103.046	MWD+IFR1+MS
9000.000	0.000	0.000	8825.284	34.243	0.000	32.290	0.000	13.373	0.000	0.000	34.354	32.173	103.213	MWD+IFR1+MS
9100.000	0.000	0.000	8925.284	34.574	0.000	32.641	0.000	13.572	0.000	0.000	34.687	32.522	103.380	MWD+IFR1+MS
9200.000	0.000	0.000	9025.284	34.906	0.000	32.993	0.000	13.774	0.000	0.000	35.021	32.871	103.546	MWD+IFR1+MS
9300.000	0.000	0.000	9125.284	35.238	0.000	33.344	0.000	13.980	0.000	0.000	35.355	33.221	103.711	MWD+IFR1+MS

9400.000	0.000	0.000	9225.284	35.571	0.000	33.696	0.000	14.189	0.000	0.000	35.689	33.570	103.875	MWD+IFR1+MS
9500.000	0.000	0.000	9325.284	35.904	0.000	34.048	0.000	14.401	0.000	0.000	36.025	33.920	104.038	MWD+IFR1+MS
9600.000	0.000	0.000	9425.284	36.238	0.000	34.399	0.000	14.616	0.000	0.000	36.360	34.270	104.200	MWD+IFR1+MS
9700.000	0.000	0.000	9525.284	36.572	0.000	34.752	0.000	14.835	0.000	0.000	36.696	34.620	104.361	MWD+IFR1+MS
9800.000	0.000	0.000	9625.284	36.907	0.000	35.104	0.000	15.056	0.000	0.000	37.033	34.970	104.521	MWD+IFR1+MS
9900.000	0.000	0.000	9725.284	37.242	0.000	35.456	0.000	15.281	0.000	0.000	37.370	35.321	104.680	MWD+IFR1+MS
10000.000	0.000	0.000	9825.284	37.577	0.000	35.808	0.000	15.509	0.000	0.000	37.707	35.671	104.839	MWD+IFR1+MS
10100.000	0.000	0.000	9925.284	37.913	0.000	36.161	0.000	15.740	0.000	0.000	38.045	36.022	104.996	MWD+IFR1+MS
10200.000	0.000	0.000	10025.284	38.249	0.000	36.514	0.000	15.975	0.000	0.000	38.383	36.373	105.152	MWD+IFR1+MS
10300.000	0.000	0.000	10125.284	38.586	0.000	36.866	0.000	16.212	0.000	0.000	38.722	36.724	105.308	MWD+IFR1+MS
10364.519	0.000	0.000	10189.803	38.802	0.000	37.092	0.000	16.368	0.000	0.000	38.938	36.949	105.365	MWD+IFR1+MS
10400.000	2.838	269.836	10225.269	37.217	-0.000	38.915	0.000	16.453	0.000	0.000	39.053	37.074	105.376	MWD+IFR1+MS
10500.000	10.838	269.836	10324.477	37.680	-0.000	39.238	0.000	16.724	0.000	0.000	39.399	37.900	109.171	MWD+IFR1+MS
10600.000	18.838	269.836	10421.064	38.176	-0.000	39.565	0.000	17.131	0.000	0.000	39.888	39.102	129.833	MWD+IFR1+MS
10700.000	26.838	269.836	10513.149	38.106	-0.000	39.889	0.000	17.738	0.000	0.000	40.751	39.774	-20.121	MWD+IFR1+MS
10800.000	34.838	269.836	10598.941	37.523	-0.000	40.207	0.000	18.588	0.000	0.000	41.713	40.165	-9.556	MWD+IFR1+MS
10900.000	42.838	269.836	10676.769	36.504	-0.000	40.516	0.000	19.690	0.000	0.000	42.539	40.496	-5.733	MWD+IFR1+MS
11000.000	50.838	269.836	10745.120	35.153	-0.000	40.815	0.000	21.024	0.000	0.000	43.187	40.804	-4.002	MWD+IFR1+MS
11100.000	58.838	269.836	10802.661	33.606	-0.000	41.103	0.000	22.549	0.000	0.000	43.658	41.096	-3.227	MWD+IFR1+MS
11200.000	66.838	269.836	10848.274	32.030	-0.000	41.381	0.000	24.207	0.000	0.000	43.969	41.374	-3.070	MWD+IFR1+MS
11300.000	74.838	269.836	10881.071	30.629	-0.000	41.646	0.000	25.938	0.000	0.000	44.145	41.638	-3.462	MWD+IFR1+MS
11400.000	82.838	269.836	10900.413	29.618	-0.000	41.898	0.000	27.683	0.000	0.000	44.225	41.884	-4.459	MWD+IFR1+MS
11489.519	90.000	269.836	10906.000	28.950	0.000	42.106	0.000	28.950	0.000	0.000	44.251	42.084	-5.963	MWD+IFR1+MS
11500.000	90.000	269.836	10906.000	28.974	0.000	42.129	0.000	28.974	0.000	0.000	44.254	42.105	-6.173	MWD+IFR1+MS
11600.000	90.000	269.836	10906.000	29.179	0.000	42.370	0.000	29.179	0.000	0.000	44.278	42.328	-8.467	MWD+IFR1+MS
11700.000	90.000	269.836	10906.000	29.408	0.000	42.641	0.000	29.408	0.000	0.000	44.311	42.573	-11.437	MWD+IFR1+MS
11800.000	90.000	269.836	10906.000	29.655	0.000	42.940	0.000	29.655	0.000	0.000	44.357	42.832	-15.417	MWD+IFR1+MS
11900.000	90.000	269.836	10906.000	29.922	0.000	43.266	0.000	29.922	0.000	0.000	44.427	43.097	-20.904	MWD+IFR1+MS
12000.000	90.000	269.836	10906.000	30.206	0.000	43.618	0.000	30.206	0.000	0.000	44.534	43.350	-28.409	MWD+IFR1+MS
12100.000	90.000	269.836	10906.000	30.508	0.000	43.996	0.000	30.508	0.000	0.000	44.700	43.571	-37.846	MWD+IFR1+MS
12200.000	90.000	269.836	10906.000	30.827	0.000	44.400	0.000	30.827	0.000	0.000	44.942	43.742	132.256	MWD+IFR1+MS
12300.000	90.000	269.836	10906.000	31.163	0.000	44.828	0.000	31.163	0.000	0.000	45.261	43.861	123.820	MWD+IFR1+MS
12400.000	90.000	269.836	10906.000	31.514	0.000	45.280	0.000	31.514	0.000	0.000	45.641	43.942	117.525	MWD+IFR1+MS

12500.000	90.000	269.836	10906.000	31.881	0.000	45.755	0.000	31.881	0.000	0.000	46.069	44.000	113.014	MWD+IFR1+MS
12600.000	90.000	269.836	10906.000	32.263	0.000	46.252	0.000	32.263	0.000	0.000	46.534	44.043	109.749	MWD+IFR1+MS
12700.000	90.000	269.836	10906.000	32.659	0.000	46.771	0.000	32.659	0.000	0.000	47.030	44.078	107.320	MWD+IFR1+MS
12800.000	90.000	269.836	10906.000	33.069	0.000	47.311	0.000	33.069	0.000	0.000	47.553	44.108	105.456	MWD+IFR1+MS
12900.000	90.000	269.836	10906.000	33.492	0.000	47.872	0.000	33.492	0.000	0.000	48.099	44.134	103.985	MWD+IFR1+MS
13000.000	90.000	269.836	10906.000	33.929	0.000	48.452	0.000	33.929	0.000	0.000	48.668	44.158	102.796	MWD+IFR1+MS
13100.000	90.000	269.836	10906.000	34.377	0.000	49.050	0.000	34.377	0.000	0.000	49.258	44.181	101.814	MWD+IFR1+MS
13200.000	90.000	269.836	10906.000	34.838	0.000	49.667	0.000	34.838	0.000	0.000	49.868	44.203	100.989	MWD+IFR1+MS
13300.000	90.000	269.836	10906.000	35.310	0.000	50.302	0.000	35.310	0.000	0.000	50.496	44.224	100.284	MWD+IFR1+MS
13400.000	90.000	269.836	10906.000	35.793	0.000	50.953	0.000	35.793	0.000	0.000	51.141	44.245	99.675	MWD+IFR1+MS
13500.000	90.000	269.836	10906.000	36.287	0.000	51.621	0.000	36.287	0.000	0.000	51.804	44.266	99.143	MWD+IFR1+MS
13600.000	90.000	269.836	10906.000	36.790	0.000	52.304	0.000	36.790	0.000	0.000	52.482	44.287	98.672	MWD+IFR1+MS
13700.000	90.000	269.836	10906.000	37.304	0.000	53.002	0.000	37.304	0.000	0.000	53.176	44.308	98.254	MWD+IFR1+MS
13800.000	90.000	269.836	10906.000	37.827	0.000	53.715	0.000	37.827	0.000	0.000	53.885	44.329	97.878	MWD+IFR1+MS
13900.000	90.000	269.836	10906.000	38.358	0.000	54.441	0.000	38.358	0.000	0.000	54.608	44.351	97.538	MWD+IFR1+MS
14000.000	90.000	269.836	10906.000	38.898	0.000	55.181	0.000	38.898	0.000	0.000	55.345	44.372	97.230	MWD+IFR1+MS
14100.000	90.000	269.836	10906.000	39.447	0.000	55.933	0.000	39.447	0.000	0.000	56.094	44.395	96.949	MWD+IFR1+MS
14200.000	90.000	269.836	10906.000	40.003	0.000	56.698	0.000	40.003	0.000	0.000	56.856	44.417	96.690	MWD+IFR1+MS
14300.000	90.000	269.836	10906.000	40.567	0.000	57.474	0.000	40.567	0.000	0.000	57.630	44.440	96.452	MWD+IFR1+MS
14400.000	90.000	269.836	10906.000	41.138	0.000	58.262	0.000	41.138	0.000	0.000	58.415	44.464	96.232	MWD+IFR1+MS
14500.000	90.000	269.836	10906.000	41.716	0.000	59.061	0.000	41.716	0.000	0.000	59.211	44.488	96.027	MWD+IFR1+MS
14600.000	90.000	269.836	10906.000	42.301	0.000	59.870	0.000	42.301	0.000	0.000	60.018	44.512	95.837	MWD+IFR1+MS
14700.000	90.000	269.836	10906.000	42.892	0.000	60.689	0.000	42.892	0.000	0.000	60.835	44.537	95.659	MWD+IFR1+MS
14800.000	90.000	269.836	10906.000	43.489	0.000	61.518	0.000	43.489	0.000	0.000	61.661	44.563	95.492	MWD+IFR1+MS
14900.000	90.000	269.836	10906.000	44.092	0.000	62.356	0.000	44.092	0.000	0.000	62.497	44.589	95.336	MWD+IFR1+MS
15000.000	90.000	269.836	10906.000	44.701	0.000	63.203	0.000	44.701	0.000	0.000	63.342	44.615	95.189	MWD+IFR1+MS
15100.000	90.000	269.836	10906.000	45.315	0.000	64.058	0.000	45.315	0.000	0.000	64.195	44.642	95.050	MWD+IFR1+MS
15200.000	90.000	269.836	10906.000	45.935	0.000	64.921	0.000	45.935	0.000	0.000	65.056	44.669	94.918	MWD+IFR1+MS
15300.000	90.000	269.836	10906.000	46.559	0.000	65.793	0.000	46.559	0.000	0.000	65.926	44.697	94.794	MWD+IFR1+MS
15400.000	90.000	269.836	10906.000	47.188	0.000	66.671	0.000	47.188	0.000	0.000	66.803	44.726	94.676	MWD+IFR1+MS
15500.000	90.000	269.836	10906.000	47.822	0.000	67.557	0.000	47.822	0.000	0.000	67.687	44.755	94.564	MWD+IFR1+MS
15600.000	90.000	269.836	10906.000	48.460	0.000	68.450	0.000	48.460	0.000	0.000	68.578	44.784	94.458	MWD+IFR1+MS
15700.000	90.000	269.836	10906.000	49.103	0.000	69.350	0.000	49.103	0.000	0.000	69.476	44.814	94.356	MWD+IFR1+MS

15800.000	90.000	269.836	10906.000	49.749	0.000	70.256	0.000	49.749	0.000	0.000	70.381	44.845	94.260	MWD+IFR1+MS
15900.000	90.000	269.836	10906.000	50.399	0.000	71.169	0.000	50.399	0.000	0.000	71.292	44.876	94.167	MWD+IFR1+MS
16000.000	90.000	269.836	10906.000	51.054	0.000	72.087	0.000	51.054	0.000	0.000	72.208	44.907	94.079	MWD+IFR1+MS
16100.000	90.000	269.836	10906.000	51.711	0.000	73.011	0.000	51.711	0.000	0.000	73.131	44.939	93.994	MWD+IFR1+MS
16200.000	90.000	269.836	10906.000	52.373	0.000	73.941	0.000	52.373	0.000	0.000	74.059	44.972	93.913	MWD+IFR1+MS
16300.000	90.000	269.836	10906.000	53.038	0.000	74.875	0.000	53.038	0.000	0.000	74.992	45.005	93.835	MWD+IFR1+MS
16400.000	90.000	269.836	10906.000	53.705	0.000	75.815	0.000	53.705	0.000	0.000	75.931	45.039	93.760	MWD+IFR1+MS
16500.000	90.000	269.836	10906.000	54.377	0.000	76.760	0.000	54.377	0.000	0.000	76.874	45.073	93.688	MWD+IFR1+MS
16600.000	90.000	269.836	10906.000	55.051	0.000	77.710	0.000	55.051	0.000	0.000	77.822	45.107	93.619	MWD+IFR1+MS
16700.000	90.000	269.836	10906.000	55.728	0.000	78.664	0.000	55.728	0.000	0.000	78.775	45.143	93.553	MWD+IFR1+MS
16800.000	90.000	269.836	10906.000	56.407	0.000	79.623	0.000	56.407	0.000	0.000	79.733	45.178	93.488	MWD+IFR1+MS
16900.000	90.000	269.836	10906.000	57.090	0.000	80.586	0.000	57.090	0.000	0.000	80.694	45.215	93.427	MWD+IFR1+MS
17000.000	90.000	269.836	10906.000	57.775	0.000	81.553	0.000	57.775	0.000	0.000	81.660	45.252	93.367	MWD+IFR1+MS
17100.000	90.000	269.836	10906.000	58.462	0.000	82.524	0.000	58.462	0.000	0.000	82.630	45.289	93.309	MWD+IFR1+MS
17200.000	90.000	269.836	10906.000	59.152	0.000	83.498	0.000	59.152	0.000	0.000	83.603	45.327	93.253	MWD+IFR1+MS
17300.000	90.000	269.836	10906.000	59.845	0.000	84.477	0.000	59.845	0.000	0.000	84.580	45.365	93.200	MWD+IFR1+MS
17400.000	90.000	269.836	10906.000	60.539	0.000	85.459	0.000	60.539	0.000	0.000	85.561	45.404	93.147	MWD+IFR1+MS
17500.000	90.000	269.836	10906.000	61.236	0.000	86.444	0.000	61.236	0.000	0.000	86.546	45.443	93.097	MWD+IFR1+MS
17600.000	90.000	269.836	10906.000	61.935	0.000	87.433	0.000	61.935	0.000	0.000	87.533	45.483	93.048	MWD+IFR1+MS
17700.000	90.000	269.836	10906.000	62.636	0.000	88.425	0.000	62.636	0.000	0.000	88.524	45.524	93.001	MWD+IFR1+MS
17800.000	90.000	269.836	10906.000	63.339	0.000	89.420	0.000	63.339	0.000	0.000	89.518	45.565	92.955	MWD+IFR1+MS
17900.000	90.000	269.836	10906.000	64.043	0.000	90.418	0.000	64.043	0.000	0.000	90.515	45.606	92.910	MWD+IFR1+MS
18000.000	90.000	269.836	10906.000	64.750	0.000	91.419	0.000	64.750	0.000	0.000	91.515	45.648	92.867	MWD+IFR1+MS
18100.000	90.000	269.836	10906.000	65.458	0.000	92.423	0.000	65.458	0.000	0.000	92.518	45.690	92.825	MWD+IFR1+MS
18200.000	90.000	269.836	10906.000	66.169	0.000	93.429	0.000	66.169	0.000	0.000	93.523	45.733	92.784	MWD+IFR1+MS
18300.000	90.000	269.836	10906.000	66.880	0.000	94.438	0.000	66.880	0.000	0.000	94.532	45.777	92.744	MWD+IFR1+MS
18400.000	90.000	269.836	10906.000	67.594	0.000	95.450	0.000	67.594	0.000	0.000	95.542	45.821	92.705	MWD+IFR1+MS
18500.000	90.000	269.836	10906.000	68.309	0.000	96.464	0.000	68.309	0.000	0.000	96.556	45.865	92.668	MWD+IFR1+MS
18600.000	90.000	269.836	10906.000	69.025	0.000	97.481	0.000	69.025	0.000	0.000	97.571	45.910	92.631	MWD+IFR1+MS
18700.000	90.000	269.836	10906.000	69.743	0.000	98.500	0.000	69.743	0.000	0.000	98.589	45.956	92.596	MWD+IFR1+MS
18800.000	90.000	269.836	10906.000	70.463	0.000	99.521	0.000	70.463	0.000	0.000	99.609	46.002	92.561	MWD+IFR1+MS
18900.000	90.000	269.836	10906.000	71.183	0.000	100.544	0.000	71.183	0.000	0.000	100.632	46.048	92.527	MWD+IFR1+MS
19000.000	90.000	269.836	10906.000	71.905	0.000	101.569	0.000	71.905	0.000	0.000	101.656	46.095	92.494	MWD+IFR1+MS

19100.000	90.000	269.836	10906.000	72.629	0.000	102.597	0.000	72.629	0.000	0.000	102.683	46.143	92.462	MWD+IFR1+MS
19200.000	90.000	269.836	10906.000	73.353	0.000	103.626	0.000	73.353	0.000	0.000	103.712	46.191	92.431	MWD+IFR1+MS
19300.000	90.000	269.836	10906.000	74.079	0.000	104.658	0.000	74.079	0.000	0.000	104.742	46.239	92.400	MWD+IFR1+MS
19400.000	90.000	269.836	10906.000	74.806	0.000	105.691	0.000	74.806	0.000	0.000	105.775	46.288	92.370	MWD+IFR1+MS
19500.000	90.000	269.836	10906.000	75.535	0.000	106.726	0.000	75.535	0.000	0.000	106.809	46.338	92.341	MWD+IFR1+MS
19600.000	90.000	269.836	10906.000	76.264	0.000	107.763	0.000	76.264	0.000	0.000	107.845	46.388	92.312	MWD+IFR1+MS
19700.000	90.000	269.836	10906.000	76.994	0.000	108.801	0.000	76.994	0.000	0.000	108.883	46.438	92.285	MWD+IFR1+MS
19800.000	90.000	269.836	10906.000	77.726	0.000	109.842	0.000	77.726	0.000	0.000	109.922	46.489	92.257	MWD+IFR1+MS
19900.000	90.000	269.836	10906.000	78.459	0.000	110.883	0.000	78.459	0.000	0.000	110.963	46.540	92.231	MWD+IFR1+MS
20000.000	90.000	269.836	10906.000	79.192	0.000	111.927	0.000	79.192	0.000	0.000	112.006	46.592	92.205	MWD+IFR1+MS
20100.000	90.000	269.836	10906.000	79.927	0.000	112.972	0.000	79.927	0.000	0.000	113.050	46.645	92.179	MWD+IFR1+MS
20200.000	90.000	269.836	10906.000	80.662	0.000	114.018	0.000	80.662	0.000	0.000	114.096	46.697	92.154	MWD+IFR1+MS
20300.000	90.000	269.836	10906.000	81.398	0.000	115.066	0.000	81.398	0.000	0.000	115.143	46.751	92.130	MWD+IFR1+MS
20400.000	90.000	269.836	10906.000	82.136	0.000	116.115	0.000	82.136	0.000	0.000	116.192	46.804	92.106	MWD+IFR1+MS
20500.000	90.000	269.836	10906.000	82.874	0.000	117.166	0.000	82.874	0.000	0.000	117.242	46.859	92.083	MWD+IFR1+MS
20600.000	90.000	269.836	10906.000	83.613	0.000	118.218	0.000	83.613	0.000	0.000	118.293	46.913	92.060	MWD+IFR1+MS
20700.000	90.000	269.836	10906.000	84.353	0.000	119.271	0.000	84.353	0.000	0.000	119.346	46.969	92.038	MWD+IFR1+MS
20800.000	90.000	269.836	10906.000	85.093	0.000	120.326	0.000	85.093	0.000	0.000	120.399	47.024	92.016	MWD+IFR1+MS
20900.000	90.000	269.836	10906.000	85.835	0.000	121.381	0.000	85.835	0.000	0.000	121.455	47.080	91.994	MWD+IFR1+MS
21000.000	90.000	269.836	10906.000	86.577	0.000	122.438	0.000	86.577	0.000	0.000	122.511	47.137	91.973	MWD+IFR1+MS
21100.000	90.000	269.836	10906.000	87.320	0.000	123.496	0.000	87.320	0.000	0.000	123.568	47.194	91.953	MWD+IFR1+MS
21200.000	90.000	269.836	10906.000	88.063	0.000	124.556	0.000	88.063	0.000	0.000	124.627	47.252	91.932	MWD+IFR1+MS
21300.000	90.000	269.836	10906.000	88.808	0.000	125.616	0.000	88.808	0.000	0.000	125.687	47.310	91.913	MWD+IFR1+MS
21400.000	90.000	269.836	10906.000	89.553	0.000	126.678	0.000	89.553	0.000	0.000	126.748	47.368	91.893	MWD+IFR1+MS
21500.000	90.000	269.836	10906.000	90.299	0.000	127.740	0.000	90.299	0.000	0.000	127.810	47.427	91.874	MWD+IFR1+MS
21600.000	90.000	269.836	10906.000	91.045	0.000	128.804	0.000	91.045	0.000	0.000	128.873	47.486	91.855	MWD+IFR1+MS
21700.000	90.000	269.836	10906.000	91.792	0.000	129.868	0.000	91.792	0.000	0.000	129.937	47.546	91.837	MWD+IFR1+MS
21800.000	90.000	269.836	10906.000	92.540	0.000	130.934	0.000	92.540	0.000	0.000	131.002	47.607	91.819	MWD+IFR1+MS
21900.000	90.000	269.836	10906.000	93.288	0.000	132.000	0.000	93.288	0.000	0.000	132.068	47.667	91.801	MWD+IFR1+MS
22000.000	90.000	269.836	10906.000	94.037	0.000	133.068	0.000	94.037	0.000	0.000	133.135	47.728	91.784	MWD+IFR1+MS
22100.000	90.000	269.836	10906.000	94.786	0.000	134.136	0.000	94.786	0.000	0.000	134.203	47.790	91.767	MWD+IFR1+MS
22200.000	90.000	269.836	10906.000	95.536	0.000	135.205	0.000	95.536	0.000	0.000	135.271	47.852	91.750	MWD+IFR1+MS
22300.000	90.000	269.836	10906.000	96.287	0.000	136.275	0.000	96.287	0.000	0.000	136.341	47.915	91.733	MWD+IFR1+MS

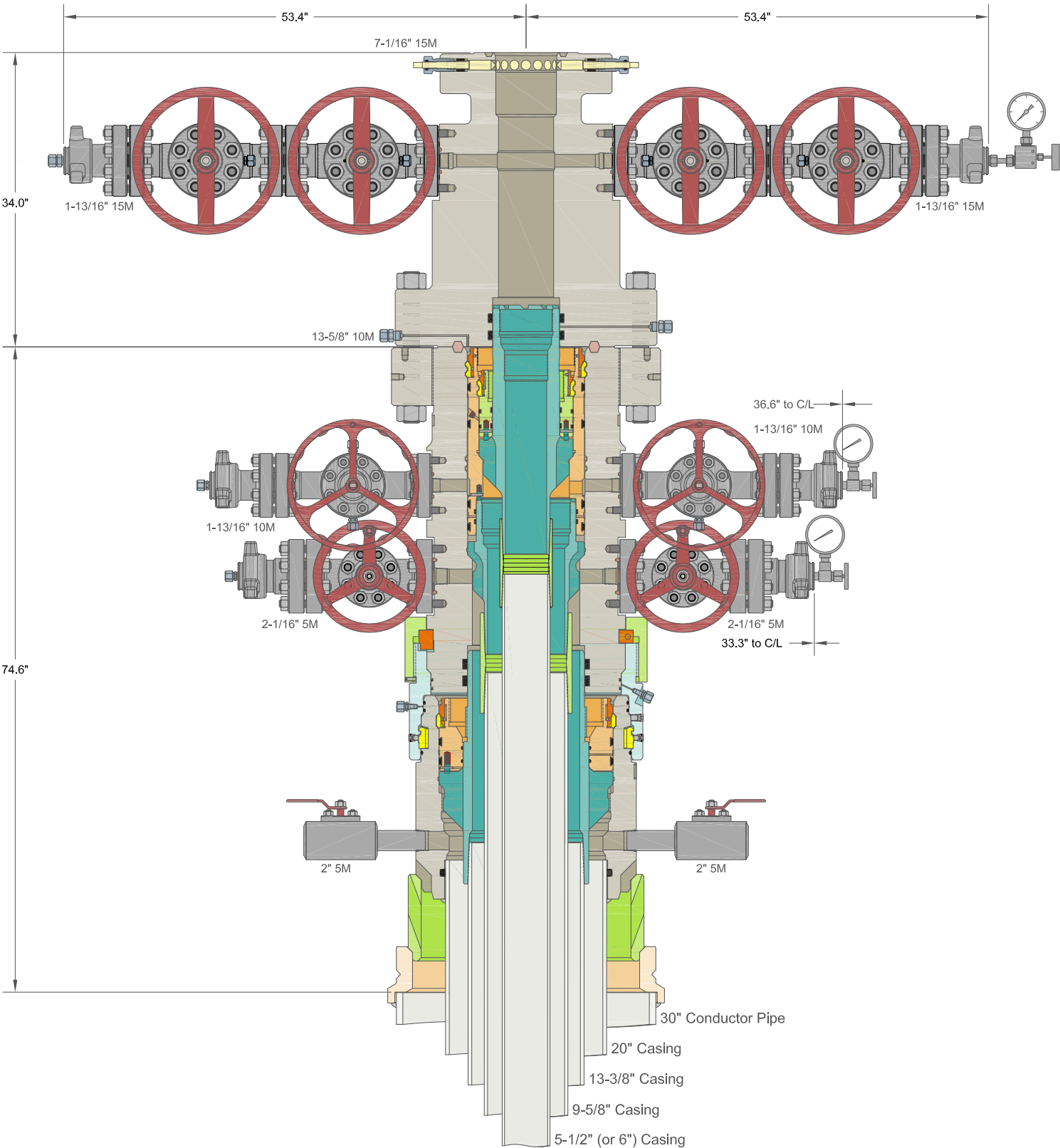
22400.000	90.000	269.836	10906.000	97.038	0.000	137.346	0.000	97.038	0.000	0.000	137.411	47.978	91.717	MWD+IFR1+MS
22500.000	90.000	269.836	10906.000	97.789	0.000	138.418	0.000	97.789	0.000	0.000	138.483	48.041	91.701	MWD+IFR1+MS
22600.000	90.000	269.836	10906.000	98.542	0.000	139.491	0.000	98.542	0.000	0.000	139.555	48.105	91.685	MWD+IFR1+MS
22700.000	90.000	269.836	10906.000	99.294	0.000	140.564	0.000	99.294	0.000	0.000	140.628	48.169	91.670	MWD+IFR1+MS
22800.000	90.000	269.836	10906.000	100.047	0.000	141.638	0.000	100.047	0.000	0.000	141.701	48.234	91.655	MWD+IFR1+MS
22900.000	90.000	269.836	10906.000	100.801	0.000	142.713	0.000	100.801	0.000	0.000	142.776	48.299	91.640	MWD+IFR1+MS
23000.000	90.000	269.836	10906.000	101.555	0.000	143.789	0.000	101.555	0.000	0.000	143.851	48.364	91.625	MWD+IFR1+MS
23100.000	90.000	269.836	10906.000	102.310	0.000	144.865	0.000	102.310	0.000	0.000	144.927	48.430	91.611	MWD+IFR1+MS
23200.000	90.000	269.836	10906.000	103.065	0.000	145.942	0.000	103.065	0.000	0.000	146.003	48.497	91.597	MWD+IFR1+MS
23300.000	90.000	269.836	10906.000	103.820	0.000	147.020	0.000	103.820	0.000	0.000	147.081	48.564	91.583	MWD+IFR1+MS
23400.000	90.000	269.836	10906.000	104.576	0.000	148.098	0.000	104.576	0.000	0.000	148.159	48.631	91.569	MWD+IFR1+MS
23500.000	90.000	269.836	10906.000	105.332	0.000	149.177	0.000	105.332	0.000	0.000	149.238	48.699	91.556	MWD+IFR1+MS
23600.000	90.000	269.836	10906.000	106.089	0.000	150.257	0.000	106.089	0.000	0.000	150.317	48.767	91.542	MWD+IFR1+MS
23700.000	90.000	269.836	10906.000	106.846	0.000	151.338	0.000	106.846	0.000	0.000	151.397	48.835	91.529	MWD+IFR1+MS
23800.000	90.000	269.836	10906.000	107.604	0.000	152.419	0.000	107.604	0.000	0.000	152.477	48.904	91.516	MWD+IFR1+MS
23900.000	90.000	269.836	10906.000	108.362	0.000	153.500	0.000	108.362	0.000	0.000	153.559	48.974	91.504	MWD+IFR1+MS
24000.000	90.000	269.836	10906.000	109.120	0.000	154.582	0.000	109.120	0.000	0.000	154.640	49.043	91.491	MWD+IFR1+MS
24100.000	90.000	269.836	10906.000	109.879	0.000	155.665	0.000	109.879	0.000	0.000	155.723	49.114	91.479	MWD+IFR1+MS
24200.000	90.000	269.836	10906.000	110.638	0.000	156.748	0.000	110.638	0.000	0.000	156.806	49.184	91.467	MWD+IFR1+MS
24300.000	90.000	269.836	10906.000	111.397	0.000	157.832	0.000	111.397	0.000	0.000	157.889	49.255	91.455	MWD+IFR1+MS
24400.000	90.000	269.836	10906.000	112.157	0.000	158.917	0.000	112.157	0.000	0.000	158.973	49.327	91.443	MWD+IFR1+MS
24500.000	90.000	269.836	10906.000	112.917	0.000	160.002	0.000	112.917	0.000	0.000	160.058	49.398	91.431	MWD+IFR1+MS
24600.000	90.000	269.836	10906.000	113.677	0.000	161.087	0.000	113.677	0.000	0.000	161.143	49.471	91.420	MWD+IFR1+MS
24700.000	90.000	269.836	10906.000	114.438	0.000	162.173	0.000	114.438	0.000	0.000	162.229	49.543	91.409	MWD+IFR1+MS
24800.000	90.000	269.836	10906.000	115.199	0.000	163.260	0.000	115.199	0.000	0.000	163.315	49.616	91.398	MWD+IFR1+MS
24900.000	90.000	269.836	10906.000	115.960	0.000	164.347	0.000	115.960	0.000	0.000	164.402	49.690	91.387	MWD+IFR1+MS
25000.000	90.000	269.836	10906.000	116.722	0.000	165.434	0.000	116.722	0.000	0.000	165.489	49.764	91.376	MWD+IFR1+MS
25100.000	90.000	269.836	10906.000	117.484	0.000	166.522	0.000	117.484	0.000	0.000	166.576	49.838	91.365	MWD+IFR1+MS
25200.000	90.000	269.836	10906.000	118.246	0.000	167.611	0.000	118.246	0.000	0.000	167.664	49.912	91.355	MWD+IFR1+MS
25300.000	90.000	269.836	10906.000	119.009	0.000	168.700	0.000	119.009	0.000	0.000	168.753	49.987	91.344	MWD+IFR1+MS
25400.000	90.000	269.836	10906.000	119.772	0.000	169.789	0.000	119.772	0.000	0.000	169.842	50.063	91.334	MWD+IFR1+MS
25500.000	90.000	269.836	10906.000	120.535	0.000	170.879	0.000	120.535	0.000	0.000	170.931	50.138	91.324	MWD+IFR1+MS
25600.000	90.000	269.836	10906.000	121.298	0.000	171.969	0.000	121.298	0.000	0.000	172.021	50.215	91.314	MWD+IFR1+MS

25700.000	90.000	269.836	10906.000	122.062	0.000	173.060	0.000	122.062	0.000	0.000	173.112	50.291	91.304	MWD+IFR1+MS
25800.000	90.000	269.836	10906.000	122.826	0.000	174.151	0.000	122.826	0.000	0.000	174.202	50.368	91.295	MWD+IFR1+MS
25900.000	90.000	269.836	10906.000	123.590	0.000	175.242	0.000	123.590	0.000	0.000	175.294	50.445	91.285	MWD+IFR1+MS
26000.000	90.000	269.836	10906.000	124.355	0.000	176.334	0.000	124.355	0.000	0.000	176.385	50.523	91.276	MWD+IFR1+MS
26100.000	90.000	269.836	10906.000	125.119	0.000	177.426	0.000	125.119	0.000	0.000	177.477	50.601	91.266	MWD+IFR1+MS
26200.000	90.000	269.836	10906.000	125.884	0.000	178.519	0.000	125.884	0.000	0.000	178.569	50.680	91.257	MWD+IFR1+MS
26300.000	90.000	269.836	10906.000	126.650	0.000	179.612	0.000	126.650	0.000	0.000	179.662	50.758	91.248	MWD+IFR1+MS
26400.000	90.000	269.836	10906.000	127.415	0.000	180.705	0.000	127.415	0.000	0.000	180.755	50.838	91.239	MWD+IFR1+MS
26500.000	90.000	269.836	10906.000	128.181	0.000	181.799	0.000	128.181	0.000	0.000	181.849	50.917	91.230	MWD+IFR1+MS
26600.000	90.000	269.836	10906.000	128.947	0.000	182.893	0.000	128.947	0.000	0.000	182.942	50.997	91.222	MWD+IFR1+MS
26700.000	90.000	269.836	10906.000	129.713	0.000	183.987	0.000	129.713	0.000	0.000	184.036	51.077	91.213	MWD+IFR1+MS
26800.000	90.000	269.836	10906.000	130.479	0.000	185.082	0.000	130.479	0.000	0.000	185.131	51.158	91.204	MWD+IFR1+MS
26900.000	90.000	269.836	10906.000	131.246	0.000	186.177	0.000	131.246	0.000	0.000	186.226	51.239	91.196	MWD+IFR1+MS
27000.000	90.000	269.836	10906.000	132.013	0.000	187.273	0.000	132.013	0.000	0.000	187.321	51.320	91.188	MWD+IFR1+MS
27100.000	90.000	269.836	10906.000	132.780	0.000	188.369	0.000	132.780	0.000	0.000	188.417	51.402	91.179	MWD+IFR1+MS
27159.283	90.000	269.836	10906.000	133.234	0.000	189.018	0.000	133.234	0.000	0.000	189.066	51.451	91.175	MWD+IFR1+MS
27209.296	90.000	269.836	10906.000	133.617	0.000	189.565	0.000	133.617	0.000	0.000	189.613	51.492	91.171	MWD+IFR1+MS

Plan Targets

Big Eddy Unit BB HUX 202H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 202H	11489.46	566180.90	675888.40	7345.00	CIRCLE
LTP 202H	27159.28	566136.10	660218.70	7345.00	CIRCLE
BHL 202H	27209.28	566136.20	660168.70	7345.00	CIRCLE



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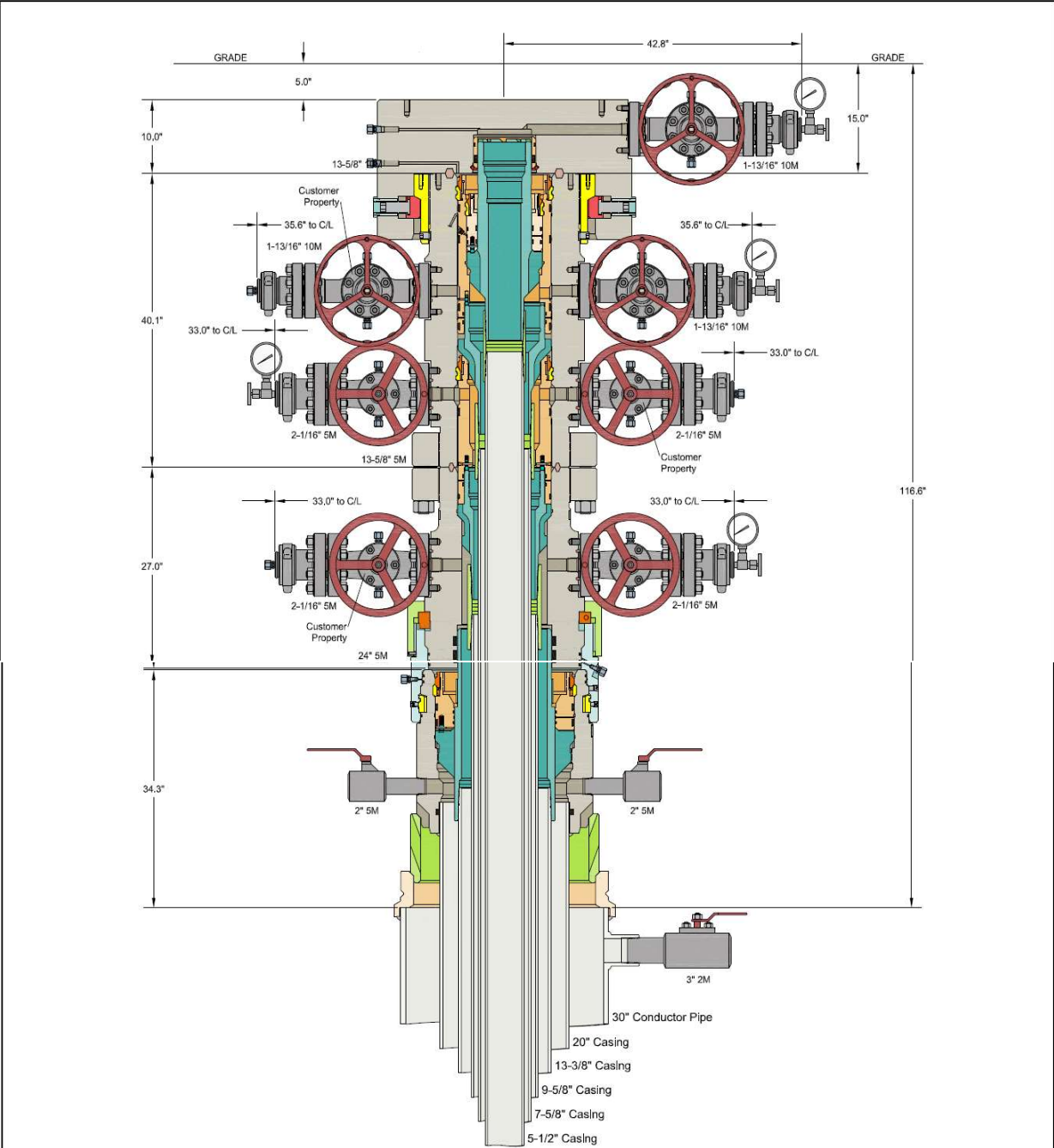
ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

XTO ENERGY INC
DELAWARE BASIN

30" x 20" x 13-3/8" x 9-5/8" x 5-1/2" (or 6") CRC / MBU-3T-CFL
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And 13-3/8", 9-5/8" & 5-1/2" (or 6") Pin Bottom Casing Hangers

DRAWN	DLE	25MAR24
APPRV		
DRAWING NO.	HBE0000801	

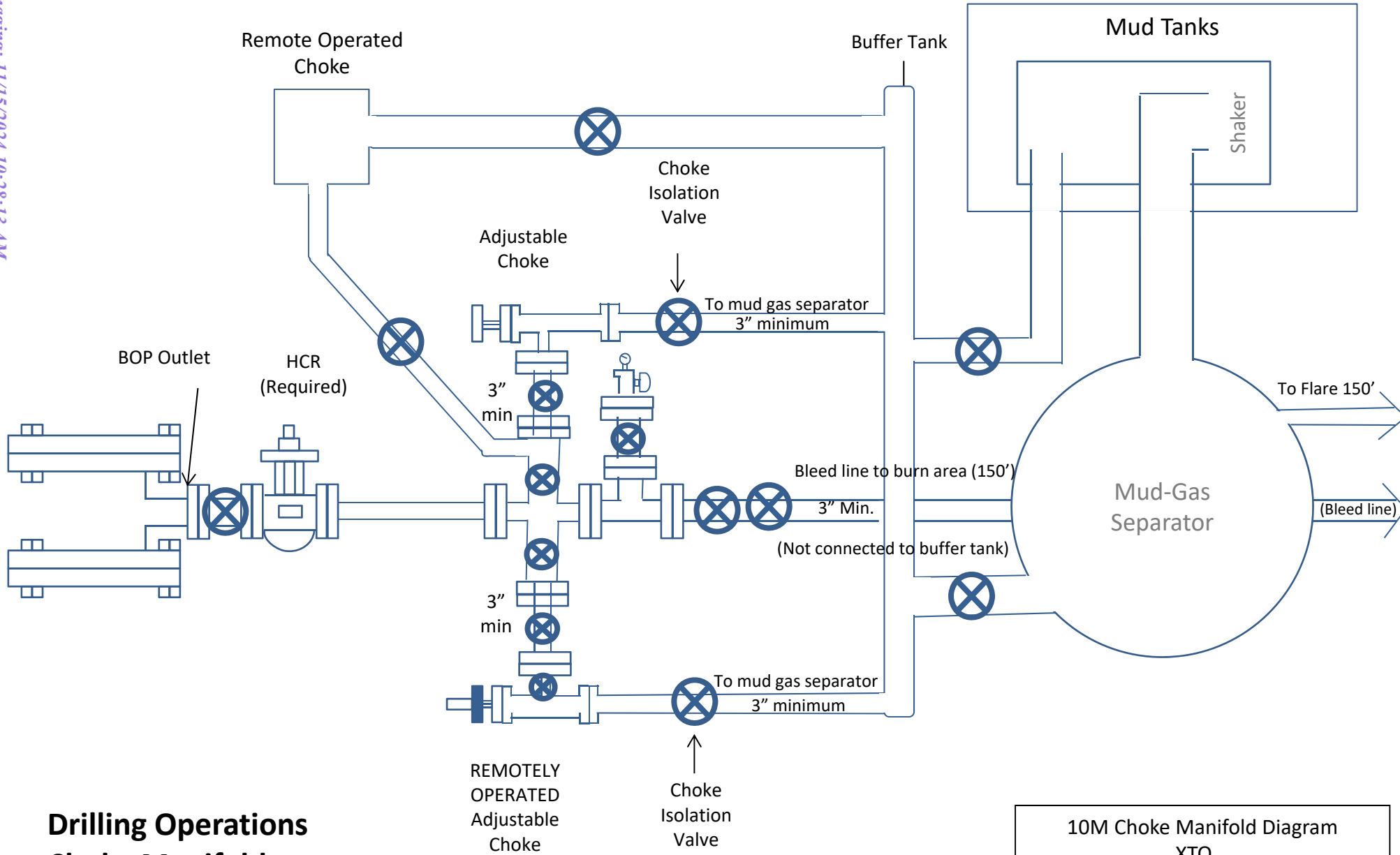


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ALL DIMENSIONS APPROXIMATE

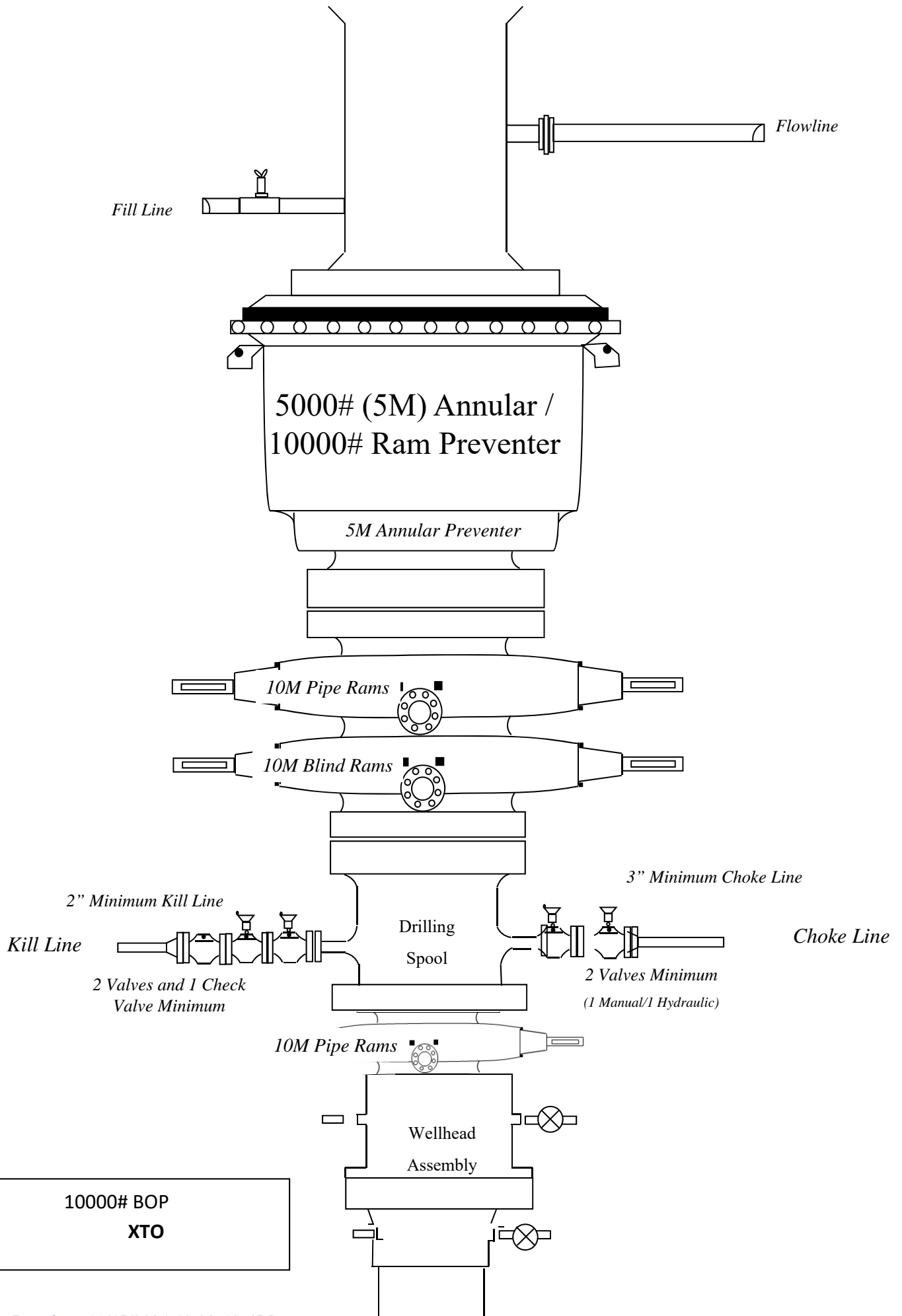
CACTUS WELLHEAD LLC			
30" x 20" x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" CRC/MBU-4T-CFL With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And 13-3/8", 9-5/8", 7-5/8" & 5-1/2" Mandrel Casing Hangers	DRAWN	DLE	20FEB24
	APPRV		
	DRAWING NO. HBE0001163		

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





TenarisHydril Wedge 461®



Coupling	Pipe Body
Grade: P110-CY	Grade: P110-CY
Body: White	1st Band: White
1st Band: Grey	2nd Band: Grey
2nd Band: -	3rd Band: -
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	6.000 in.	Wall Thickness	0.438 in.	Grade	P110-CY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	6.000 in.	Wall Thickness	0.438 in.	Body Yield Strength	842 x1000 lb
Nominal Weight	26.00 lb/ft	Plain End Weight	26.04 lb/ft	Min. Internal Yield Pressure	14,050 psi
Drift	4.999 in.	OD Tolerance	API	SMYS	110,000 psi
Nominal ID	5.124 in.			Collapse Pressure	13,680 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	6.800 in.	Tension Efficiency	100 %	Minimum	20,000 ft-lb
Coupling Length	8.914 in.	Joint Yield Strength	842 x1000 lb	Optimum	21,000 ft-lb
Connection ID	5.170 in.	Internal Pressure Capacity	14,050 psi	Maximum	25,200 ft-lb
Make-up Loss	4.375 in.	Compression Efficiency	100 %	Operation Limit Torques	
Threads per inch	3.40	Compression Strength	842 x1000 lb	Operating Torque	52,000 ft-lb
Connection OD Option	Regular	Max. Allowable Bending	84.03 °/100 ft	Yield Torque	61,000 ft-lb
		External Pressure Capacity	13,680 psi	Buck-On	
		Coupling Face Load	306,000 lb	Minimum	25,200 ft-lb
				Maximum	26,700 ft-lb

Notes

In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable

For the latest performance data, always visit our website: www.tenaris.com
For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

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PIII/CI



U. S. Steel Tubular Products

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

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

UNCONTROLLED

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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Spring, Texas 77380

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www.usstubular.com



U. S. Steel Tubular Products

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

11/29/2021 4:16:04 PM

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

UNCONTROLLED

Notes

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

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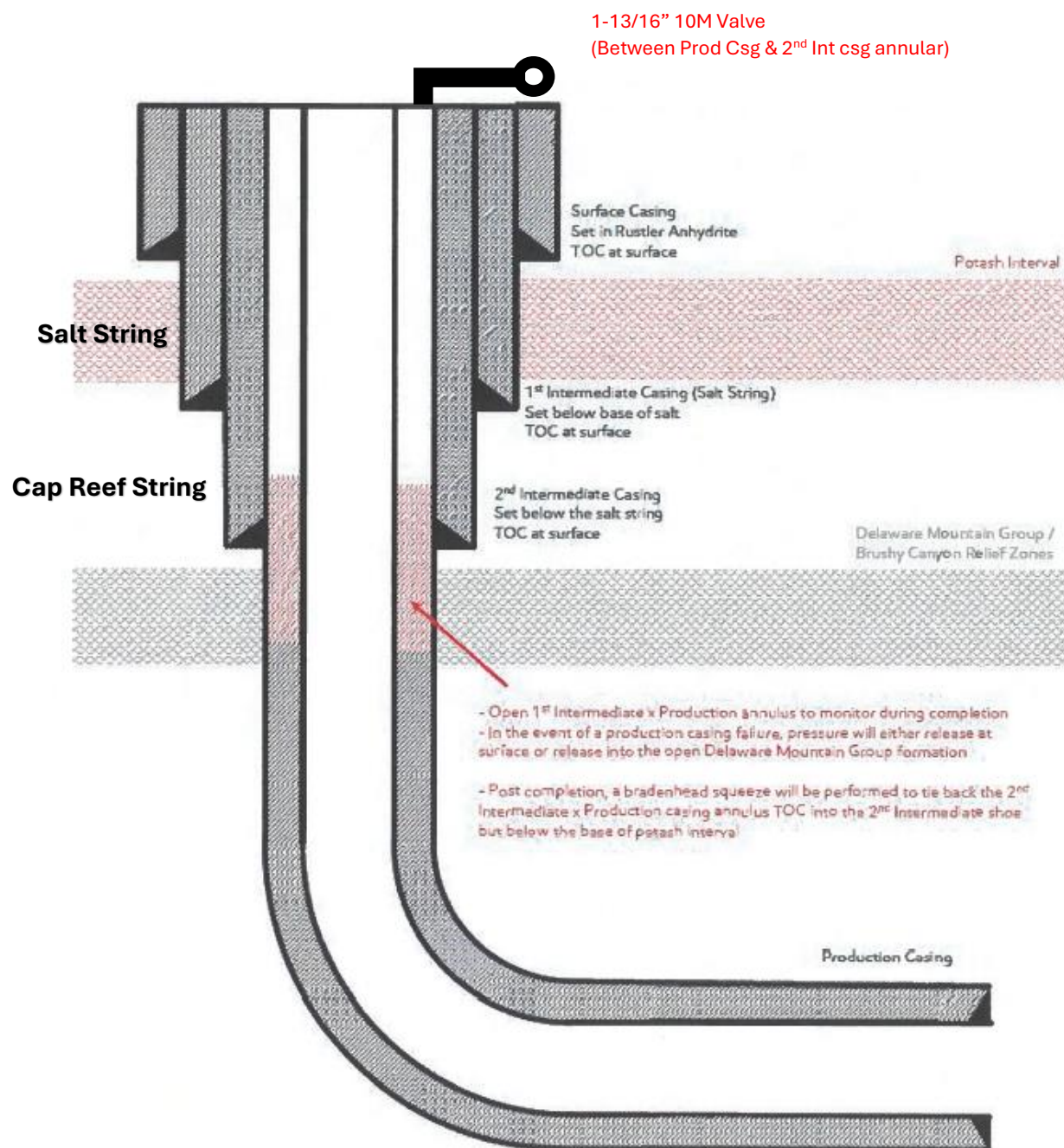
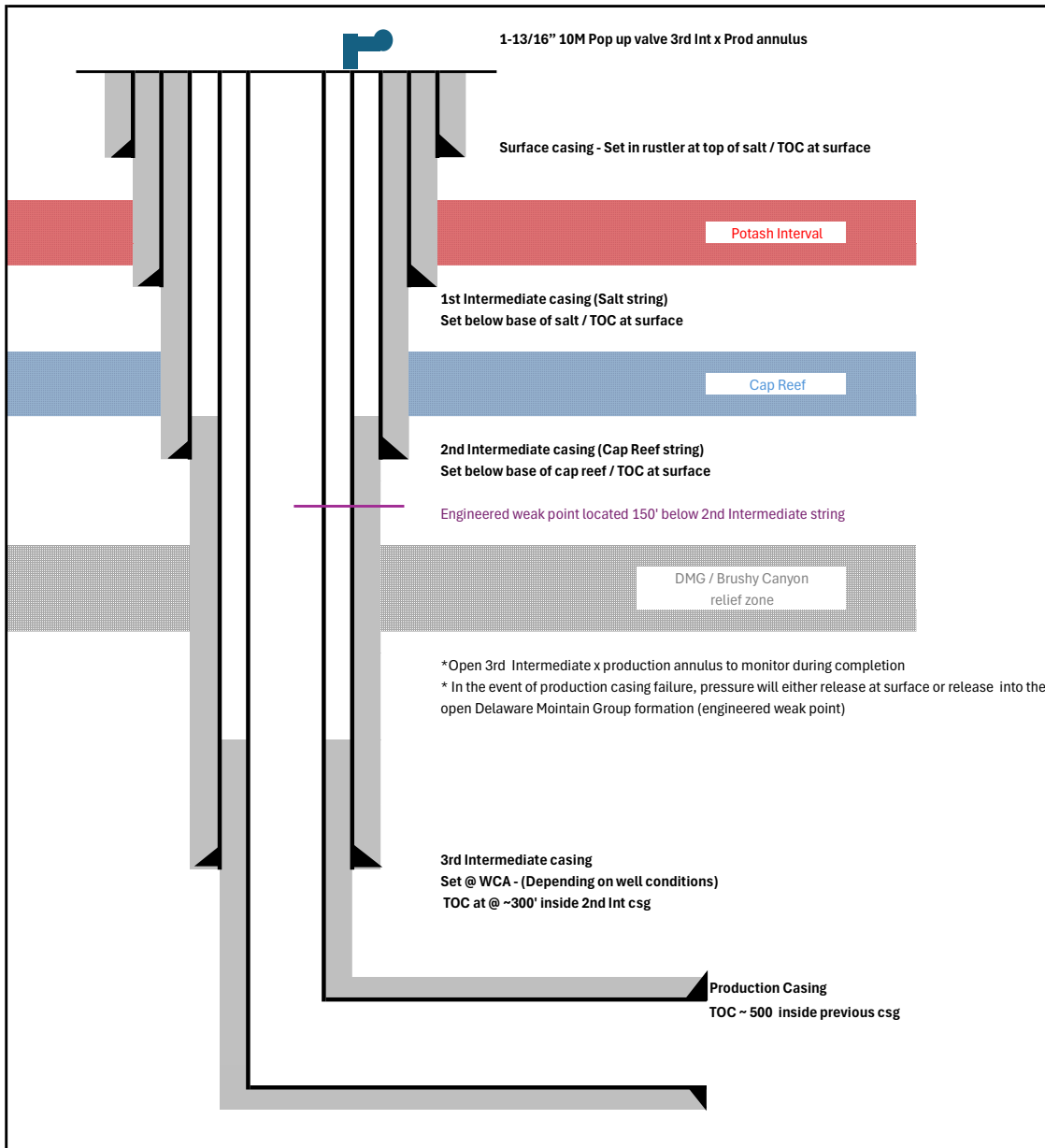


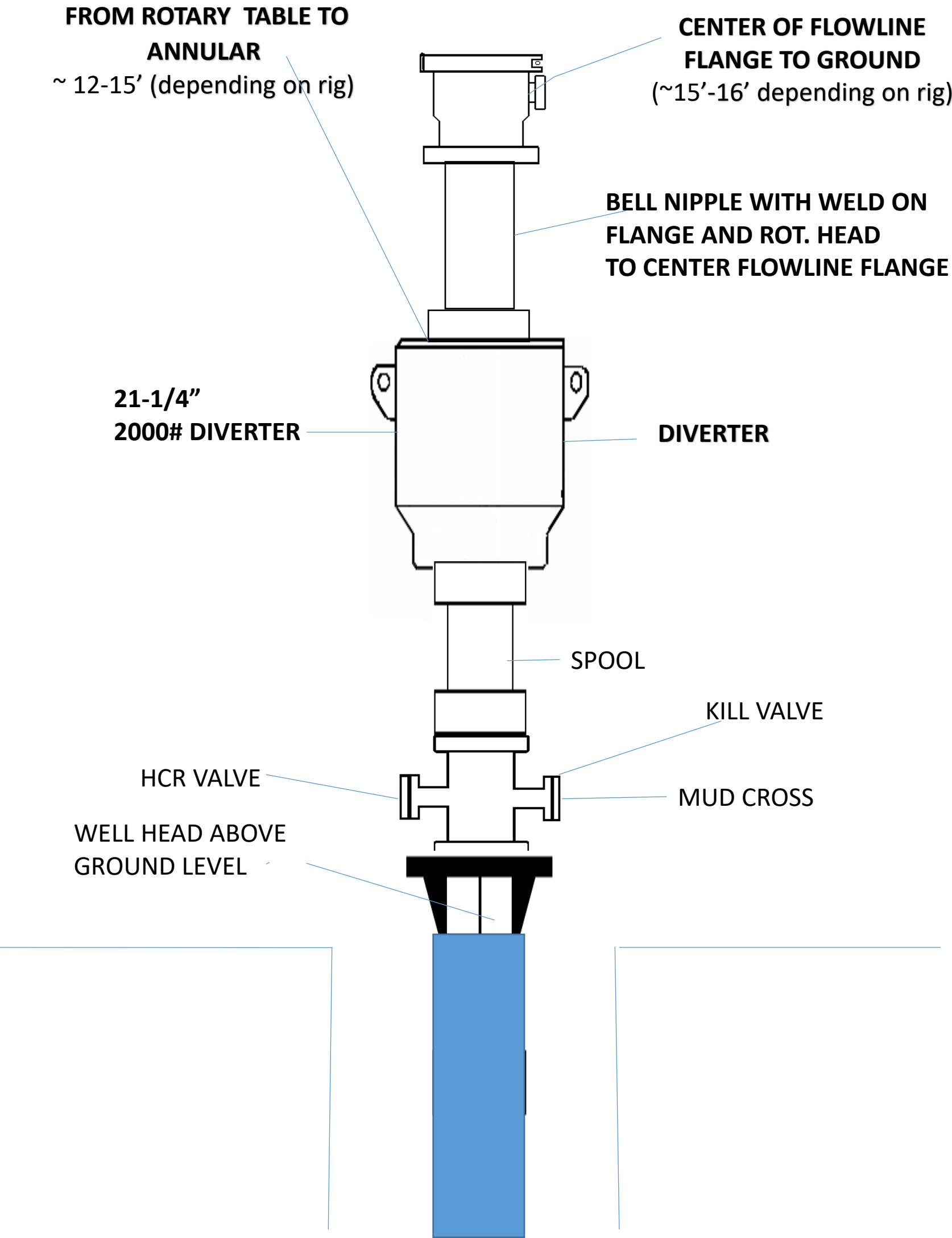
Figure E – Potash + Cap Reef (2 Int Csg at top of DMG)

Updated May 2024:

XTO is aware of the R-111-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 even 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





XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.

**BLACK GOLD®**

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*NEW CHOKE HOSE
INSTALLED 02-10-2024*

CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER: NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA
CUSTOMER P.O.#: 15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)
CUSTOMER P/N: IMR RETEST SN 74621 ASSET #66-1531

PART DESCRIPTION: RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES

SALES ORDER #: 529480
QUANTITY: 1
SERIAL #: 74621 H3-012524-1

SIGNATURE:*F. Cismos***TITLE:****QUALITY ASSURANCE****DATE:****1/25/2024**



H3-15/16

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

TEST OBJECT

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

TEST INFORMATION

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2: 3.0 x 4-1/16 10K

Part number:

Description:

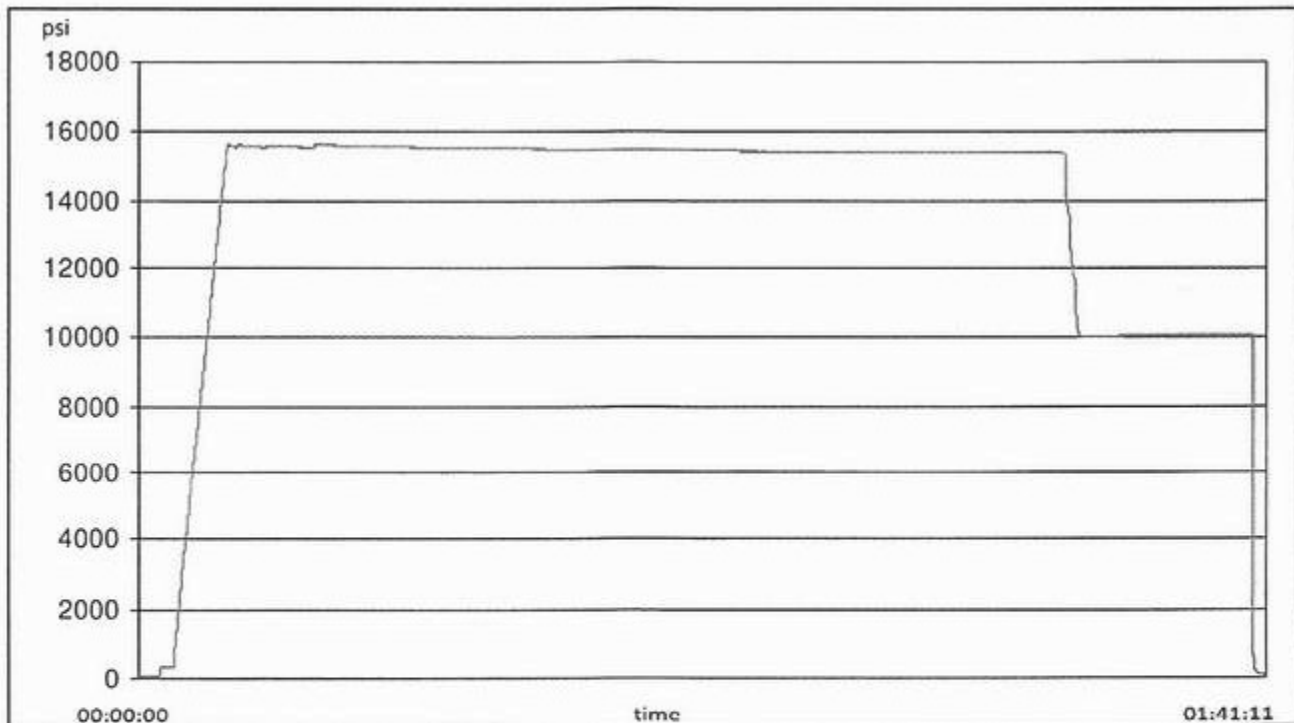
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





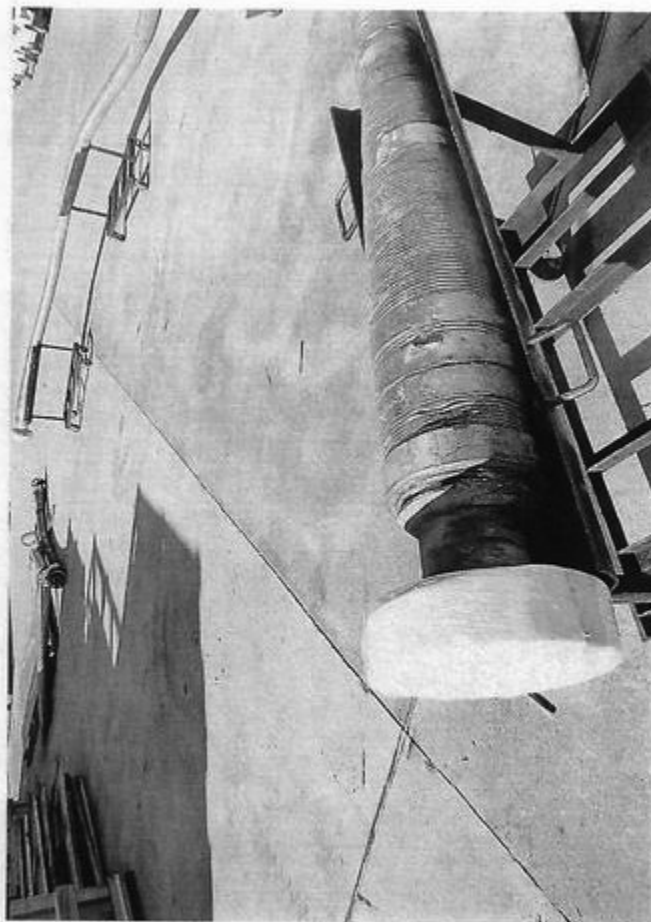
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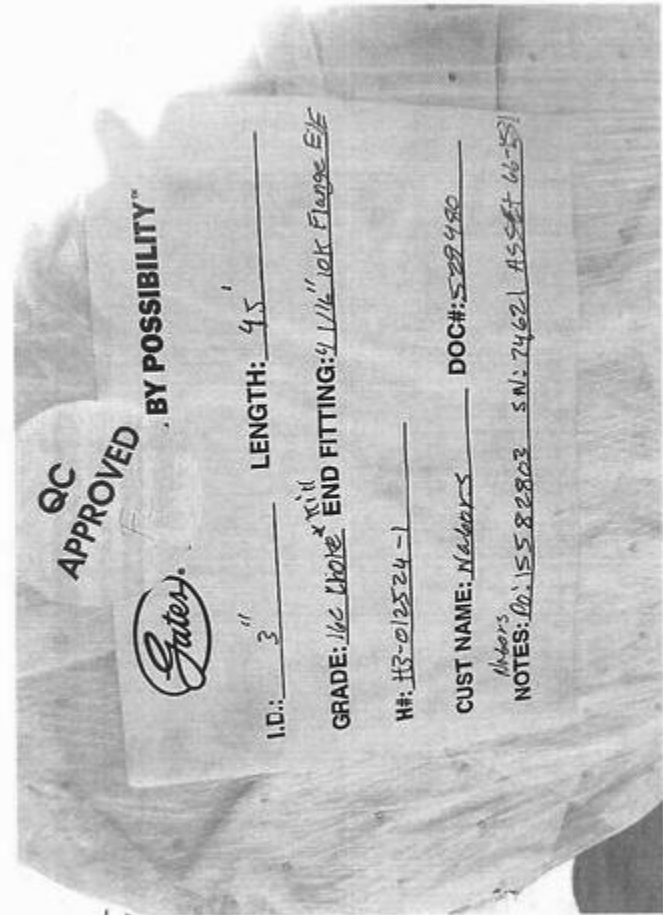
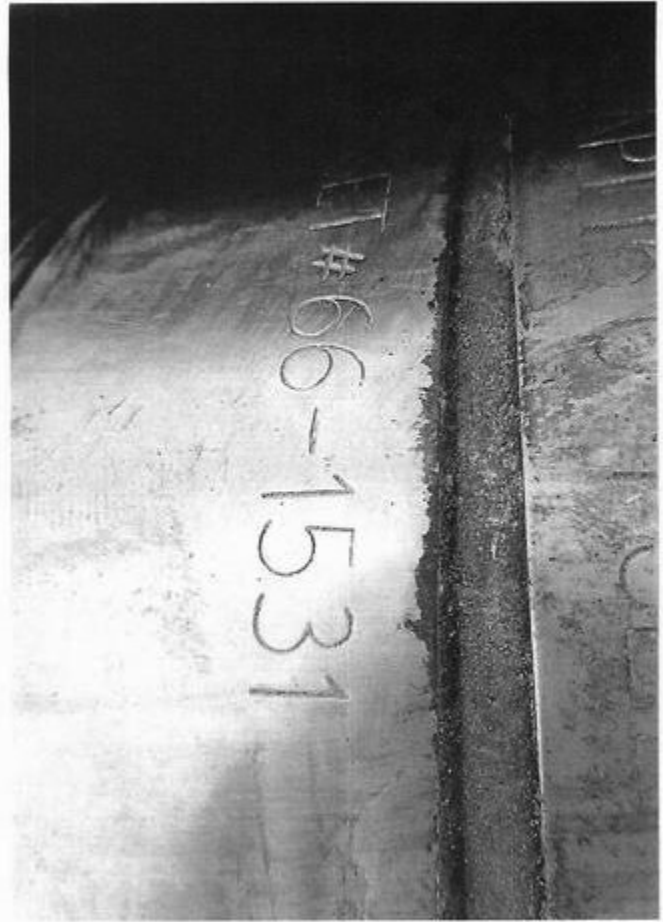
TEST REPORT

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16

Comment

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10,000 PSI Annular BOP Variance Request

Mewbourne Oil Company request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

12-1/4" Intermediate Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	8.000"-9.625"	Annular	5M	-	-
Intermediate Casing	9.625"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

8-3/4" Production Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Jars	6.500"	Annular	5M	-	-
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-
Mud Motor	6.750"-8.000"	Annular	5M	-	-
Production Casing	7"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

6-1/8" Lateral Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
DCs and MWD tools	4.750"-5.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Mud Motor	4.750"-5.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Production Casing	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Upper 3.5"-5.5" VBR	10M 10M
Open-Hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the Mewbourne Oil Company drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full-opening safety valve & close
3. Space out drill string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

1. Sound alarm (alert crew)
2. Stab crossover and full-opening safety valve and close
3. Space out string
4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams (HCR & choke will already be in the closed position)
3. Confirm shut-in
4. Notify toolpusher/company representative
5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

1. PRIOR to pulling last joint of drillpipe through stack:
 - a. Perform flow check. If flowing, continue to (b).
 - b. Sound alarm (alert crew)
 - c. Stab full-opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams
 - e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full-opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams
 - d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP & SICP

- ii. Pit gain
 - iii. Time
 - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
 - c. If impossible to pull string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram
 - f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan

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

CONDITIONS

Action 402773

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 402773
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	PLEASE NOTE CORRECTION OF POOL TO SALT LAKE;WOLFCAMP [53570]	11/15/2024
pkautz	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	11/15/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing.	11/15/2024