

<b>Well Name:</b> POKER LAKE UNIT 20 DTD	<b>Well Location:</b> T24S / R30E / SEC 20 / NENW / 32.207914 / -103.907829	<b>County or Parish/State:</b> EDDY / NM
<b>Well Number:</b> 122H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	<b>Allottee or Tribe Name:</b>
<b>Lease Number:</b> NMNM02860	<b>Unit or CA Name:</b> POKER LAKE UNIT	<b>Unit or CA Number:</b> NMNM71016X
<b>US Well Number:</b>	<b>Operator:</b> XTO PERMIAN OPERATING LLC	

Notice of Intent

**Sundry ID:** 2776479

**Type of Submission:** Notice of Intent

**Type of Action:** APD Change

**Date Sundry Submitted:** 02/23/2024

**Time Sundry Submitted:** 08:25

**Date proposed operation will begin:** 07/09/2024

**Procedure Description:** XTO Permian Operating LLC Respectfully submits a NOI to Change APD for the above well. We are changing the following for the well: Casing design, cement design, SHL, FTP, LTP, BHL, and proposed total depth. SHL: F/ 899' FNL & 1350' FWL Sec 20, T-24S, R-30E TO: 939' FNL & 1350' FWL Sec 20, T-24S, R-30E FTP: F/ 100' FSL & 770' FWL TO: 100' FNL & 586' FWL PPP: F/ TO: 0' FSL & 562' FWL LTP: F/ 330' FNL & 770' FWL TO: 2347' FNL & 586' FWL BHL: F/ 200' FNL & 770' FWL Sec 32, T-23S, R-30E TO: 2447' FNL & 586' FWL Sec 5, T-25S, R-30E Proposed TD: F/ 32,009' MD; 10,875' TVD (Wolfcamp) TO: 29,724' MD; 11,689' TVD (Wolfcamp) Attachments: C-102 Drilling Plan Directional Plan MBS Diagram

NOI Attachments

**Procedure Description**

Poker\_Lake\_Unit\_20\_DTD\_122H\_Attachments\_20240223082400.pdf

Received by OCD: 5/8/2024 1:05:03 PM

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Well Name: POKER LAKE UNIT 20 DTD	Well Location: T24S / R30E / SEC 20 / NENW / 32.207914 / -103.907829	County or Parish/State: EDDY / NM
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Lease Number: NMNM02860	Unit or CA Name: POKER LAKE UNIT	Unit or CA Number: NMNM71016X
US Well Number:	Operator: XTO PERMIAN OPERATING LLC	

Conditions of Approval

Additional

Sec\_20\_24S\_30E\_NMP\_Sundry\_2776479\_Poker\_Lake\_Unit\_20\_DTD\_122H\_COAs\_20240404151651.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: SAMANTHA WEIS	Signed on: FEB 23, 2024 08:20 AM
Name: XTO PERMIAN OPERATING LLC	
Title: Permitting Advisor	
Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY	
City: SPRING	State: TX
Phone: (832) 625-7361	
Email address: SAMANTHA.R.BARTNIK@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: 05/08/2024
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**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE** - Other instructions on page 2

### 1. Type of Well

☐ Oil Well      ☐ Gas Well      ☐ Other

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2. Name of Operator

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3a. Address

3b. Phone No. (include area code)

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

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
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8. Well Name and No.
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9. API Well No.	
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10. Field and Pool or Exploratory Area

11. Country or Parish, State
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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"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Subsequent Report	<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"/> Final Abandonment Notice	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be 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 recompleation 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**

- Drilling Plan
- Directional Plan
- MBS Diagram

**Location of Well**

- 0. SHL: NENW / 899 FNL / 1350 FWL / TWSP: 24S / RANGE: 30E / SECTION: 20 / LAT: 32.207914 / LONG: -103.907829 ( TVD: 0 feet, MD: 0 feet )
- PPP: SWSW / 330 FSL / 770 FWL / TWSP: 24S / RANGE: 30E / SECTION: 8 / LAT: 32.22539 / LONG: -103.90973 ( TVD: 10875 feet, MD: 16600 feet )
- PPP: SWSW / 100 FSL / 770 FWL / TWSP: 24S / RANGE: 30E / SECTION: 17 / LAT: 32.210649 / LONG: -103.909721 ( TVD: 10875 feet, MD: 11300 feet )
- PPP: SWSW / 330 FSL / 770 FWL / TWSP: 24S / RANGE: 30E / SECTION: 5 / LAT: 32.24002 / LONG: -103.90973 ( TVD: 10875 feet, MD: 21900 feet )
- BHL: NWNW / 200 FNL / 770 FWL / TWSP: 23S / RANGE: 30E / SECTION: 32 / LAT: 32.268013 / LONG: -103.909719 ( TVD: 10875 feet, MD: 32009 feet )

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	Poker Lake Unit 20 122H
<b>LOCATION:</b>	Sec 20-24S-30E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2776479** on 04/04/2024. Any previous COAs not addressed within the updated COAs still apply.*

### COA

<b>H<sub>2</sub>S</b>	<input checked="" type="radio"/> No	<input type="radio"/> Yes		
<b>Potash / WIPP</b>	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P	<input type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
<b>Variance</b>	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> <b>Batch APD / Sundry</b>				

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 700 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. ***Set depth adjusted per BLM geologist.***
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead

- cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch 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.**

**Operator has proposed to pump down 13-3/8" X 9-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to the BLM.**

**If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.**

3. The minimum required fill of cement behind the **6** inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

### **C. PRESSURE CONTROL**

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

### **D. SPECIAL REQUIREMENT (S)**



### **Unit Wells**

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

### **Commercial Well Determination**

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

### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (**Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP**)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### **Offline Cementing**

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

## **GENERAL REQUIREMENTS**

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

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

**Eddy County (API No. / US Well No. contains 30-015-#####)**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
BLM NM CFO DrillingNotifications@blm.gov; (575) 361-2822



**Lea County (API No. / US Well No. contains 30-025-#####)**

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

**A. CASING**

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

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

**B. PRESSURE CONTROL**

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

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

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

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

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

D. **WASTE MATERIAL AND FLUIDS:** All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

APD ID # 10400089231

MARK DILLON HARP 23786  
 Certificate Number

RP 618.013003.06-36

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

XTO Energy Inc.  
PLU 20 Dog Town Draw 122H  
Projected TD: 29724.06' MD / 11689' TVD  
SHL: 939' FNL & 1350' FWL , Section 20, T24S, R30E  
BHL: 2447' FNL & 586' FWL , Section 5, T25S, R30E  
Eddy County, NM

**1. Geologic Name of Surface Formation**

A. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	783'	Water
Top of Salt	1186'	Water
Base of Salt	3379'	Water
Delaware	3573'	Water
Brushy Canyon	6071'	Water/Oil/Gas
Bone Spring	7367'	Water
1st Bone Spring	8353'	Water/Oil/Gas
2nd Bone Spring	9171'	Water/Oil/Gas
3rd Bone Spring	10265'	Water/Oil/Gas
Wolfcamp	10656'	Water/Oil/Gas
Wolfcamp X	10677'	Water/Oil/Gas
Wolfcamp Y	10755'	Water/Oil/Gas
Wolfcamp A	10797'	Water/Oil/Gas
Wolfcamp B	11131'	Water/Oil/Gas
Wolfcamp D	11580'	Water/Oil/Gas
Wolfcamp E	11639'	Water/Oil/Gas
<b>Target/Land Curve</b>	<b>11689'</b>	<b>Water/Oil/Gas</b>

\*\*\* Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8 inch casing @ 883' (303' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 9.625 inch casing at 10895.57' and cemented to surface. A 8.5 inch curve and 8.5 inch lateral hole will be drilled to 29724.06 MD/TD and 6 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10595.57 feet).

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 883'	13-3/8	68	J-55	BTC	New	1.33	5.06	17.80
12.25	0' – 4000'	9.625	40	HC P-110	BTC	New	1.50	2.31	2.90
12.25	4000' – 10895.57'	9.625	40	HC L-80	BTC	New	1.09	1.61	3.32
8.5	0' – 10795.57'	6	26	P-110	Semi-Premium	New	1.17	1.87	1.55
8.5	10795.57' - 29724.06'	6	26	P-110	Semi-Premium	New	1.17	1.73	1.76

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



**Wellhead:**

*Permanent Wellhead – Multibowl System*

A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom (or equivalent)

B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange (or equivalent)

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

#### 4. Cement Program

**Surface Casing: 13-3/8, 68 New BTC, J-55 casing to be set at +/- 883'**

#VALUE!

#VALUE!

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 +/- 10895.57'**

##### 1st Stage

Optional Lead: 1020 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Surface

Tail: 1390 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 6071

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

##### 2nd Stage

Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water)

Tail: 2140 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)

Top of Cement: 0

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

XTO requests to pump a two stage cement job on the 9-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6071') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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

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

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

**Production Casing: 6, 26 New Semi-Premium, P-110 casing to be set at +/- 29724.06'**

Lead: 40 sxs NeoCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement: 10595.57 feet

Tail: 3170 sxs VersaCem (mixed at 14.5 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement: 11095.57 feet

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

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

## 5. Pressure Control Equipment

Once the permanent WH is installed on the 13-3/8 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 5269 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13-3/8, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nipping up on the 9.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each week.

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

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

on each of the wells.

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

## 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 883'	17.5	FW/Native	8.4-8.9	35-40	NC
883' - 10895.57'	12.25	FW / Cut Brine / Direct Emulsion	8.8-9.3	30-32	NC
10895.57' - 29724.06'	8.5	OBM	12.9-13.4	50-60	NC - 20

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

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

## 7. Auxiliary Well Control and Monitoring Equipment

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- H2S monitors will be on location when drilling below the 13-3/8 casing.

## 8. Logging, Coring and Testing Program

Open hole logging will not be done on this well.

## 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 180 to 200 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 7841 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 - Poker Lake Unit 20 DTD South 122H

Measured Depth: 29724.06 ft

TVD RKB: 11689.00 ft

### Location

Cartographic Reference System: New Mexico East - NAD 27

Northing: 439534.30 ft

Easting: 631757.50 ft

RKB: 3251.00 ft

Ground Level: 3219.00 ft

North Reference: Grid

Convergence Angle: 0.23 Deg

### Plan Sections

Poker Lake Unit 20 DTD South 122H

Measured		TVD		Build		Turn	Dogleg	
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
1745.06	12.90	317.08	1739.62	52.96	-49.24	2.00	0.00	2.00
6177.71	12.90	317.08	6060.38	777.74	-723.16	0.00	0.00	0.00
6822.77	0.00	0.00	6700.00	830.70	-772.40	-2.00	0.00	2.00
11095.57	0.00	0.00	10972.80	830.70	-772.40	0.00	0.00	0.00
12220.57	90.00	179.68	11689.00	114.51	-768.38	8.00	0.00	8.00
29623.86	90.00	179.68	11689.00	-17288.50	-670.57	0.00	0.00	0.00 LTP 1
29724.06	90.00	179.68	11689.00	-17388.70	-670.01	0.00	0.00	0.00 BHL 1

### Position Uncertainty

Poker Lake Unit 20 DTD South 122H

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	2.309	0.000	0.000	1.259	0.627	122.711	MWD+IFR1+MS
300.000	0.000	0.000	300.000	1.497	0.000	1.271	0.000	2.325	0.000	0.000	1.698	0.986	125.469	MWD+IFR1+MS
400.000	0.000	0.000	400.000	1.871	0.000	1.658	0.000	2.346	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	2.373	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	2.405	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	2.442	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	2.483	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	2.529	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	2.578	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	2.631	0.000	0.000	4.752	3.849	128.859	MWD+IFR1+MS
1200.000	2.000	317.083	1199.980	4.385	0.000	5.081	0.000	2.687	0.000	0.000	5.137	4.321	121.274	MWD+IFR1+MS
1300.000	4.000	317.083	1299.838	5.265	0.000	5.411	0.000	2.747	0.000	0.000	5.666	4.996	98.072	MWD+IFR1+MS
1400.000	6.000	317.083	1399.452	6.032	0.000	5.744	0.000	2.812	0.000	0.000	6.329	5.432	82.158	MWD+IFR1+MS
1500.000	8.000	317.083	1498.702	6.724	0.000	6.080	0.000	2.885	0.000	0.000	7.001	5.790	75.195	MWD+IFR1+MS
1600.000	10.000	317.083	1597.465	7.361	0.000	6.419	0.000	2.967	0.000	0.000	7.644	6.129	71.762	MWD+IFR1+MS
1700.000	12.000	317.083	1695.623	7.954	0.000	6.761	0.000	3.062	0.000	0.000	8.254	6.464	69.809	MWD+IFR1+MS
1745.059	12.901	317.083	1739.622	8.095	0.000	6.908	0.000	3.091	0.000	0.000	8.410	6.613	69.686	MWD+IFR1+MS
1800.000	12.901	317.083	1793.176	8.254	0.000	7.086	0.000	3.132	0.000	0.000	8.566	6.794	69.799	MWD+IFR1+MS
1900.000	12.901	317.083	1890.652	8.547	0.000	7.427	0.000	3.214	0.000	0.000	8.859	7.131	70.337	MWD+IFR1+MS
2000.000	12.901	317.083	1988.127	8.856	0.000	7.782	0.000	3.300	0.000	0.000	9.172	7.476	71.065	MWD+IFR1+MS
2100.000	12.901	317.083	2085.603	9.172	0.000	8.139	0.000	3.390	0.000	0.000	9.491	7.823	71.769	MWD+IFR1+MS
2200.000	12.901	317.083	2183.079	9.493	0.000	8.498	0.000	3.483	0.000	0.000	9.815	8.173	72.449	MWD+IFR1+MS
2300.000	12.901	317.083	2280.554	9.819	0.000	8.860	0.000	3.579	0.000	0.000	10.144	8.525	73.106	MWD+IFR1+MS
2400.000	12.901	317.083	2378.030	10.149	0.000	9.223	0.000	3.677	0.000	0.000	10.477	8.879	73.740	MWD+IFR1+MS
2500.000	12.901	317.083	2475.506	10.484	0.000	9.588	0.000	3.778	0.000	0.000	10.814	9.235	74.351	MWD+IFR1+MS
2600.000	12.901	317.083	2572.981	10.823	0.000	9.955	0.000	3.881	0.000	0.000	11.154	9.593	74.941	MWD+IFR1+MS
2700.000	12.901	317.083	2670.457	11.166	0.000	10.323	0.000	3.987	0.000	0.000	11.498	9.952	75.510	MWD+IFR1+MS
2800.000	12.901	317.083	2767.933	11.511	0.000	10.692	0.000	4.094	0.000	0.000	11.844	10.313	76.059	MWD+IFR1+MS
2900.000	12.901	317.083	2865.408	11.860	0.000	11.062	0.000	4.204	0.000	0.000	12.193	10.674	76.588	MWD+IFR1+MS

3000.000	12.901	317.083	2962.884	12.211	0.000	11.433	0.000	4.315	0.000	0.000	12.544	11.037	77.098	MWD+IFR1+MS
3100.000	12.901	317.083	3060.360	12.564	0.000	11.805	0.000	4.429	0.000	0.000	12.898	11.401	77.590	MWD+IFR1+MS
3200.000	12.901	317.083	3157.835	12.920	0.000	12.177	0.000	4.544	0.000	0.000	13.253	11.765	78.065	MWD+IFR1+MS
3300.000	12.901	317.083	3255.311	13.277	0.000	12.551	0.000	4.661	0.000	0.000	13.610	12.131	78.522	MWD+IFR1+MS
3400.000	12.901	317.083	3352.787	13.637	0.000	12.925	0.000	4.779	0.000	0.000	13.969	12.497	78.963	MWD+IFR1+MS
3500.000	12.901	317.083	3450.262	13.998	0.000	13.299	0.000	4.900	0.000	0.000	14.330	12.864	79.389	MWD+IFR1+MS
3600.000	12.901	317.083	3547.738	14.361	0.000	13.675	0.000	5.022	0.000	0.000	14.692	13.232	79.799	MWD+IFR1+MS
3700.000	12.901	317.083	3645.214	14.726	0.000	14.050	0.000	5.145	0.000	0.000	15.055	13.600	80.195	MWD+IFR1+MS
3800.000	12.901	317.083	3742.689	15.091	0.000	14.426	0.000	5.271	0.000	0.000	15.420	13.969	80.577	MWD+IFR1+MS
3900.000	12.901	317.083	3840.165	15.459	0.000	14.803	0.000	5.397	0.000	0.000	15.786	14.339	80.946	MWD+IFR1+MS
4000.000	12.901	317.083	3937.641	15.827	0.000	15.180	0.000	5.526	0.000	0.000	16.152	14.708	81.302	MWD+IFR1+MS
4100.000	12.901	317.083	4035.116	16.196	0.000	15.557	0.000	5.656	0.000	0.000	16.520	15.079	81.645	MWD+IFR1+MS
4200.000	12.901	317.083	4132.592	16.567	0.000	15.935	0.000	5.787	0.000	0.000	16.889	15.450	81.977	MWD+IFR1+MS
4300.000	12.901	317.083	4230.068	16.938	0.000	16.313	0.000	5.920	0.000	0.000	17.258	15.821	82.297	MWD+IFR1+MS
4400.000	12.901	317.083	4327.543	17.310	0.000	16.691	0.000	6.055	0.000	0.000	17.629	16.192	82.607	MWD+IFR1+MS
4500.000	12.901	317.083	4425.019	17.683	0.000	17.070	0.000	6.191	0.000	0.000	18.000	16.564	82.906	MWD+IFR1+MS
4600.000	12.901	317.083	4522.495	18.057	0.000	17.449	0.000	6.329	0.000	0.000	18.372	16.937	83.195	MWD+IFR1+MS
4700.000	12.901	317.083	4619.970	18.432	0.000	17.828	0.000	6.468	0.000	0.000	18.744	17.309	83.474	MWD+IFR1+MS
4800.000	12.901	317.083	4717.446	18.807	0.000	18.207	0.000	6.610	0.000	0.000	19.117	17.682	83.744	MWD+IFR1+MS
4900.000	12.901	317.083	4814.922	19.184	0.000	18.586	0.000	6.752	0.000	0.000	19.491	18.056	84.005	MWD+IFR1+MS
5000.000	12.901	317.083	4912.397	19.560	0.000	18.966	0.000	6.897	0.000	0.000	19.865	18.429	84.258	MWD+IFR1+MS
5100.000	12.901	317.083	5009.873	19.938	0.000	19.346	0.000	7.043	0.000	0.000	20.240	18.803	84.502	MWD+IFR1+MS
5200.000	12.901	317.083	5107.349	20.315	0.000	19.726	0.000	7.190	0.000	0.000	20.615	19.177	84.738	MWD+IFR1+MS
5300.000	12.901	317.083	5204.824	20.694	0.000	20.106	0.000	7.340	0.000	0.000	20.991	19.552	84.966	MWD+IFR1+MS
5400.000	12.901	317.083	5302.300	21.073	0.000	20.487	0.000	7.491	0.000	0.000	21.367	19.926	85.187	MWD+IFR1+MS
5500.000	12.901	317.083	5399.776	21.452	0.000	20.867	0.000	7.644	0.000	0.000	21.743	20.301	85.401	MWD+IFR1+MS
5600.000	12.901	317.083	5497.251	21.832	0.000	21.248	0.000	7.798	0.000	0.000	22.120	20.676	85.608	MWD+IFR1+MS
5700.000	12.901	317.083	5594.727	22.212	0.000	21.629	0.000	7.955	0.000	0.000	22.498	21.051	85.808	MWD+IFR1+MS
5800.000	12.901	317.083	5692.203	22.592	0.000	22.010	0.000	8.113	0.000	0.000	22.875	21.426	86.001	MWD+IFR1+MS
5900.000	12.901	317.083	5789.678	22.973	0.000	22.391	0.000	8.273	0.000	0.000	23.253	21.802	86.189	MWD+IFR1+MS
6000.000	12.901	317.083	5887.154	23.355	0.000	22.772	0.000	8.435	0.000	0.000	23.632	22.178	86.370	MWD+IFR1+MS
6100.000	12.901	317.083	5984.630	23.736	0.000	23.153	0.000	8.598	0.000	0.000	24.010	22.554	86.546	MWD+IFR1+MS
6177.711	12.901	317.083	6060.378	24.031	0.000	23.447	0.000	8.727	0.000	0.000	24.300	22.846	86.658	MWD+IFR1+MS



6200.000	12.455	317.083	6082.124	24.122	0.000	23.530	0.000	8.764	0.000	0.000	24.382	22.929	86.682	MWD+IFR1+MS
6300.000	10.455	317.083	6180.127	24.550	0.000	23.902	0.000	8.932	0.000	0.000	24.777	23.309	86.126	MWD+IFR1+MS
6400.000	8.455	317.083	6278.764	25.011	0.000	24.273	0.000	9.102	0.000	0.000	25.226	23.694	84.571	MWD+IFR1+MS
6500.000	6.455	317.083	6377.913	25.434	0.000	24.636	0.000	9.264	0.000	0.000	25.668	24.070	83.151	MWD+IFR1+MS
6600.000	4.455	317.083	6477.455	25.818	0.000	24.992	0.000	9.419	0.000	0.000	26.103	24.437	81.865	MWD+IFR1+MS
6700.000	2.455	317.083	6577.268	26.163	0.000	25.340	0.000	9.569	0.000	0.000	26.530	24.796	80.708	MWD+IFR1+MS
6800.000	0.455	317.083	6677.231	26.469	0.000	25.681	0.000	9.714	0.000	0.000	26.948	25.145	79.674	MWD+IFR1+MS
6822.769	0.000	0.000	6700.000	26.965	0.000	25.281	0.000	9.747	0.000	0.000	27.021	25.221	79.686	MWD+IFR1+MS
6900.000	0.000	0.000	6777.231	27.212	0.000	25.536	0.000	9.857	0.000	0.000	27.265	25.479	79.847	MWD+IFR1+MS
7000.000	0.000	0.000	6877.231	27.533	0.000	25.872	0.000	10.004	0.000	0.000	27.583	25.818	80.139	MWD+IFR1+MS
7100.000	0.000	0.000	6977.231	27.857	0.000	26.209	0.000	10.152	0.000	0.000	27.903	26.160	80.476	MWD+IFR1+MS
7200.000	0.000	0.000	7077.231	28.181	0.000	26.547	0.000	10.304	0.000	0.000	28.224	26.502	80.812	MWD+IFR1+MS
7300.000	0.000	0.000	7177.231	28.506	0.000	26.886	0.000	10.459	0.000	0.000	28.546	26.844	81.148	MWD+IFR1+MS
7400.000	0.000	0.000	7277.231	28.833	0.000	27.225	0.000	10.617	0.000	0.000	28.868	27.187	81.484	MWD+IFR1+MS
7500.000	0.000	0.000	7377.231	29.160	0.000	27.565	0.000	10.777	0.000	0.000	29.192	27.530	81.821	MWD+IFR1+MS
7600.000	0.000	0.000	7477.231	29.487	0.000	27.905	0.000	10.941	0.000	0.000	29.517	27.873	82.156	MWD+IFR1+MS
7700.000	0.000	0.000	7577.231	29.815	0.000	28.245	0.000	11.107	0.000	0.000	29.842	28.217	82.492	MWD+IFR1+MS
7800.000	0.000	0.000	7677.231	30.144	0.000	28.586	0.000	11.276	0.000	0.000	30.169	28.560	82.827	MWD+IFR1+MS
7900.000	0.000	0.000	7777.231	30.474	0.000	28.928	0.000	11.449	0.000	0.000	30.496	28.904	83.161	MWD+IFR1+MS
8000.000	0.000	0.000	7877.231	30.804	0.000	29.269	0.000	11.624	0.000	0.000	30.824	29.249	83.495	MWD+IFR1+MS
8100.000	0.000	0.000	7977.231	31.135	0.000	29.612	0.000	11.803	0.000	0.000	31.153	29.593	83.828	MWD+IFR1+MS
8200.000	0.000	0.000	8077.231	31.467	0.000	29.954	0.000	11.984	0.000	0.000	31.483	29.938	84.160	MWD+IFR1+MS
8300.000	0.000	0.000	8177.231	31.799	0.000	30.297	0.000	12.169	0.000	0.000	31.813	30.283	84.491	MWD+IFR1+MS
8400.000	0.000	0.000	8277.231	32.132	0.000	30.640	0.000	12.357	0.000	0.000	32.144	30.628	84.821	MWD+IFR1+MS
8500.000	0.000	0.000	8377.231	32.465	0.000	30.984	0.000	12.547	0.000	0.000	32.476	30.973	85.150	MWD+IFR1+MS
8600.000	0.000	0.000	8477.231	32.799	0.000	31.328	0.000	12.741	0.000	0.000	32.808	31.319	85.478	MWD+IFR1+MS
8700.000	0.000	0.000	8577.231	33.133	0.000	31.672	0.000	12.938	0.000	0.000	33.141	31.664	85.805	MWD+IFR1+MS
8800.000	0.000	0.000	8677.231	33.468	0.000	32.017	0.000	13.138	0.000	0.000	33.474	32.010	86.131	MWD+IFR1+MS
8900.000	0.000	0.000	8777.231	33.803	0.000	32.362	0.000	13.341	0.000	0.000	33.809	32.356	86.455	MWD+IFR1+MS
9000.000	0.000	0.000	8877.231	34.139	0.000	32.707	0.000	13.547	0.000	0.000	34.143	32.702	86.777	MWD+IFR1+MS
9100.000	0.000	0.000	8977.231	34.475	0.000	33.053	0.000	13.757	0.000	0.000	34.479	33.049	87.098	MWD+IFR1+MS
9200.000	0.000	0.000	9077.231	34.812	0.000	33.398	0.000	13.969	0.000	0.000	34.815	33.395	87.418	MWD+IFR1+MS
9300.000	0.000	0.000	9177.231	35.149	0.000	33.744	0.000	14.185	0.000	0.000	35.151	33.742	87.736	MWD+IFR1+MS

9400.000	0.000	0.000	9277.231	35.486	0.000	34.091	0.000	14.403	0.000	0.000	35.488	34.089	88.052	MWD+IFR1+MS
9500.000	0.000	0.000	9377.231	35.824	0.000	34.437	0.000	14.625	0.000	0.000	35.825	34.436	88.366	MWD+IFR1+MS
9600.000	0.000	0.000	9477.231	36.163	0.000	34.784	0.000	14.850	0.000	0.000	36.163	34.783	88.678	MWD+IFR1+MS
9700.000	0.000	0.000	9577.231	36.501	0.000	35.131	0.000	15.079	0.000	0.000	36.502	35.130	88.989	MWD+IFR1+MS
9800.000	0.000	0.000	9677.231	36.840	0.000	35.478	0.000	15.310	0.000	0.000	36.841	35.478	89.297	MWD+IFR1+MS
9900.000	0.000	0.000	9777.231	37.180	0.000	35.826	0.000	15.545	0.000	0.000	37.180	35.826	89.604	MWD+IFR1+MS
10000.000	0.000	0.000	9877.231	37.520	0.000	36.173	0.000	15.782	0.000	0.000	37.520	36.173	89.908	MWD+IFR1+MS
10100.000	0.000	0.000	9977.231	37.860	0.000	36.521	0.000	16.023	0.000	0.000	37.860	36.521	90.210	MWD+IFR1+MS
10200.000	0.000	0.000	10077.231	38.200	0.000	36.869	0.000	16.267	0.000	0.000	38.200	36.869	90.511	MWD+IFR1+MS
10300.000	0.000	0.000	10177.231	38.541	0.000	37.218	0.000	16.514	0.000	0.000	38.541	37.217	90.809	MWD+IFR1+MS
10400.000	0.000	0.000	10277.231	38.882	0.000	37.566	0.000	16.765	0.000	0.000	38.883	37.566	91.104	MWD+IFR1+MS
10500.000	0.000	0.000	10377.231	39.224	0.000	37.915	0.000	17.018	0.000	0.000	39.224	37.914	91.398	MWD+IFR1+MS
10600.000	0.000	0.000	10477.231	39.565	0.000	38.263	0.000	17.275	0.000	0.000	39.566	38.262	91.689	MWD+IFR1+MS
10700.000	0.000	0.000	10577.231	39.907	0.000	38.613	0.000	17.535	0.000	0.000	39.909	38.611	91.977	MWD+IFR1+MS
10800.000	0.000	0.000	10677.231	40.250	0.000	38.962	0.000	17.798	0.000	0.000	40.252	38.960	92.264	MWD+IFR1+MS
10900.000	0.000	0.000	10777.231	40.592	0.000	39.311	0.000	18.064	0.000	0.000	40.595	39.308	92.548	MWD+IFR1+MS
11000.000	0.000	0.000	10877.231	40.935	0.000	39.661	0.000	18.334	0.000	0.000	40.938	39.657	92.829	MWD+IFR1+MS
11095.569	0.000	0.000	10972.800	41.263	0.000	39.994	0.000	18.594	0.000	0.000	41.266	39.991	93.080	MWD+IFR1+MS
11100.000	0.354	179.678	10977.231	41.257	0.000	40.010	-0.000	18.606	0.000	0.000	41.280	40.005	93.083	MWD+IFR1+MS
11200.000	8.354	179.678	11076.861	41.087	0.000	40.319	-0.000	18.888	0.000	0.000	41.854	40.313	93.271	MWD+IFR1+MS
11300.000	16.354	179.678	11174.466	41.051	0.000	40.612	-0.000	19.249	0.000	0.000	43.095	40.601	93.496	MWD+IFR1+MS
11400.000	24.354	179.678	11268.146	40.428	0.000	40.883	-0.000	19.758	0.000	0.000	44.198	40.866	93.682	MWD+IFR1+MS
11500.000	32.354	179.678	11356.077	39.296	0.000	41.127	-0.000	20.463	0.000	0.000	45.141	41.105	93.866	MWD+IFR1+MS
11600.000	40.354	179.678	11436.548	37.762	0.000	41.344	-0.000	21.389	0.000	0.000	45.910	41.316	94.050	MWD+IFR1+MS
11700.000	48.354	179.678	11507.993	35.965	0.000	41.531	-0.000	22.533	0.000	0.000	46.503	41.498	94.227	MWD+IFR1+MS
11800.000	56.354	179.678	11569.021	34.088	0.000	41.689	-0.000	23.871	0.000	0.000	46.928	41.651	94.384	MWD+IFR1+MS
11900.000	64.354	179.678	11618.444	32.351	0.000	41.816	-0.000	25.359	0.000	0.000	47.202	41.775	94.501	MWD+IFR1+MS
12000.000	72.354	179.678	11655.300	31.003	0.000	41.912	-0.000	26.946	0.000	0.000	47.351	41.870	94.548	MWD+IFR1+MS
12100.000	80.354	179.678	11678.873	30.290	0.000	41.977	-0.000	28.576	0.000	0.000	47.410	41.936	94.487	MWD+IFR1+MS
12200.000	88.354	179.678	11688.702	30.392	0.000	42.011	-0.000	30.195	0.000	0.000	47.418	41.974	94.274	MWD+IFR1+MS
12220.569	90.000	179.678	11688.997	30.250	0.000	42.013	-0.000	30.250	0.000	0.000	47.418	41.976	94.204	MWD+IFR1+MS
12300.000	90.000	179.678	11688.997	30.402	0.000	42.023	-0.000	30.402	0.000	0.000	47.417	41.991	93.930	MWD+IFR1+MS
12400.000	90.000	179.678	11688.997	30.595	0.000	42.052	-0.000	30.595	0.000	0.000	47.415	42.025	93.593	MWD+IFR1+MS

12500.000	90.000	179.678	11688.997	30.809	0.000	42.096	-0.000	30.809	0.000	0.000	47.415	42.073	93.261	MWD+IFR1+MS
12600.000	90.000	179.678	11688.997	31.041	0.000	42.153	-0.000	31.041	0.000	0.000	47.416	42.135	92.931	MWD+IFR1+MS
12700.000	90.000	179.678	11688.997	31.290	0.000	42.224	-0.000	31.290	0.000	0.000	47.417	42.210	92.601	MWD+IFR1+MS
12800.000	90.000	179.678	11688.997	31.558	0.000	42.310	-0.000	31.558	0.000	0.000	47.420	42.298	92.268	MWD+IFR1+MS
12900.000	90.000	179.678	11688.997	31.842	0.000	42.408	-0.000	31.842	0.000	0.000	47.424	42.400	91.930	MWD+IFR1+MS
13000.000	90.000	179.678	11688.997	32.143	0.000	42.521	-0.000	32.143	0.000	0.000	47.428	42.515	91.584	MWD+IFR1+MS
13100.000	90.000	179.678	11688.997	32.461	0.000	42.646	-0.000	32.461	0.000	0.000	47.434	42.643	91.227	MWD+IFR1+MS
13200.000	90.000	179.678	11688.997	32.794	0.000	42.785	-0.000	32.794	0.000	0.000	47.440	42.783	90.856	MWD+IFR1+MS
13300.000	90.000	179.678	11688.997	33.142	0.000	42.938	-0.000	33.142	0.000	0.000	47.448	42.937	90.467	MWD+IFR1+MS
13400.000	90.000	179.678	11688.997	33.505	0.000	43.103	-0.000	33.505	0.000	0.000	47.456	43.103	90.054	MWD+IFR1+MS
13500.000	90.000	179.678	11688.997	33.882	0.000	43.281	-0.000	33.882	0.000	0.000	47.466	43.281	89.612	MWD+IFR1+MS
13600.000	90.000	179.678	11688.997	34.273	0.000	43.472	-0.000	34.273	0.000	0.000	47.477	43.472	89.134	MWD+IFR1+MS
13700.000	90.000	179.678	11688.997	34.678	0.000	43.676	-0.000	34.678	0.000	0.000	47.489	43.675	88.609	MWD+IFR1+MS
13800.000	90.000	179.678	11688.997	35.095	0.000	43.892	-0.000	35.095	0.000	0.000	47.502	43.889	88.027	MWD+IFR1+MS
13900.000	90.000	179.678	11688.997	35.525	0.000	44.120	-0.000	35.525	0.000	0.000	47.517	44.115	87.371	MWD+IFR1+MS
14000.000	90.000	179.678	11688.997	35.967	0.000	44.361	-0.000	35.967	0.000	0.000	47.533	44.351	86.623	MWD+IFR1+MS
14100.000	90.000	179.678	11688.997	36.420	0.000	44.613	-0.000	36.420	0.000	0.000	47.551	44.598	85.752	MWD+IFR1+MS
14200.000	90.000	179.678	11688.997	36.885	0.000	44.876	-0.000	36.885	0.000	0.000	47.572	44.856	84.721	MWD+IFR1+MS
14300.000	90.000	179.678	11688.997	37.360	0.000	45.152	-0.000	37.360	0.000	0.000	47.595	45.122	83.473	MWD+IFR1+MS
14400.000	90.000	179.678	11688.997	37.845	0.000	45.438	-0.000	37.845	0.000	0.000	47.621	45.397	81.925	MWD+IFR1+MS
14500.000	90.000	179.678	11688.997	38.341	0.000	45.736	-0.000	38.341	0.000	0.000	47.653	45.678	79.953	MWD+IFR1+MS
14600.000	90.000	179.678	11688.997	38.846	0.000	46.044	-0.000	38.846	0.000	0.000	47.692	45.964	77.364	MWD+IFR1+MS
14700.000	90.000	179.678	11688.997	39.360	0.000	46.363	-0.000	39.360	0.000	0.000	47.741	46.250	73.858	MWD+IFR1+MS
14800.000	90.000	179.678	11688.997	39.883	0.000	46.692	-0.000	39.883	0.000	0.000	47.806	46.531	68.993	MWD+IFR1+MS
14900.000	90.000	179.678	11688.997	40.414	0.000	47.031	-0.000	40.414	0.000	0.000	47.900	46.795	62.249	MWD+IFR1+MS
15000.000	90.000	179.678	11688.997	40.954	0.000	47.381	-0.000	40.954	0.000	0.000	48.037	47.026	53.476	MWD+IFR1+MS
15100.000	90.000	179.678	11688.997	41.501	0.000	47.740	-0.000	41.501	0.000	0.000	48.232	47.208	43.730	MWD+IFR1+MS
15200.000	90.000	179.678	11688.997	42.056	0.000	48.108	-0.000	42.056	0.000	0.000	48.488	47.340	34.951	MWD+IFR1+MS
15300.000	90.000	179.678	11688.997	42.618	0.000	48.486	-0.000	42.618	0.000	0.000	48.793	47.433	28.202	MWD+IFR1+MS
15400.000	90.000	179.678	11688.997	43.187	0.000	48.873	-0.000	43.187	0.000	0.000	49.132	47.502	23.340	MWD+IFR1+MS
15500.000	90.000	179.678	11688.997	43.763	0.000	49.269	-0.000	43.763	0.000	0.000	49.496	47.555	19.845	MWD+IFR1+MS
15600.000	90.000	179.678	11688.997	44.345	0.000	49.673	-0.000	44.345	0.000	0.000	49.877	47.600	17.274	MWD+IFR1+MS
15700.000	90.000	179.678	11688.997	44.933	0.000	50.086	-0.000	44.933	0.000	0.000	50.273	47.639	15.327	MWD+IFR1+MS

15800.000	90.000	179.678	11688.997	45.528	0.000	50.507	-0.000	45.528	0.000	0.000	50.682	47.675	13.809	MWD+IFR1+MS
15900.000	90.000	179.678	11688.997	46.127	0.000	50.937	-0.000	46.127	0.000	0.000	51.101	47.709	12.597	MWD+IFR1+MS
16000.000	90.000	179.678	11688.997	46.733	0.000	51.374	-0.000	46.733	0.000	0.000	51.530	47.741	11.607	MWD+IFR1+MS
16100.000	90.000	179.678	11688.997	47.344	0.000	51.818	-0.000	47.344	0.000	0.000	51.968	47.772	10.783	MWD+IFR1+MS
16200.000	90.000	179.678	11688.997	47.959	0.000	52.270	-0.000	47.959	0.000	0.000	52.414	47.803	10.086	MWD+IFR1+MS
16300.000	90.000	179.678	11688.997	48.580	0.000	52.729	-0.000	48.580	0.000	0.000	52.869	47.833	9.489	MWD+IFR1+MS
16400.000	90.000	179.678	11688.997	49.205	0.000	53.196	-0.000	49.205	0.000	0.000	53.331	47.864	8.971	MWD+IFR1+MS
16500.000	90.000	179.678	11688.997	49.835	0.000	53.669	-0.000	49.835	0.000	0.000	53.801	47.894	8.516	MWD+IFR1+MS
16600.000	90.000	179.678	11688.997	50.469	0.000	54.149	-0.000	50.469	0.000	0.000	54.278	47.925	8.114	MWD+IFR1+MS
16700.000	90.000	179.678	11688.997	51.108	0.000	54.635	-0.000	51.108	0.000	0.000	54.761	47.956	7.755	MWD+IFR1+MS
16800.000	90.000	179.678	11688.997	51.750	0.000	55.128	-0.000	51.750	0.000	0.000	55.252	47.987	7.433	MWD+IFR1+MS
16900.000	90.000	179.678	11688.997	52.396	0.000	55.627	-0.000	52.396	0.000	0.000	55.748	48.019	7.141	MWD+IFR1+MS
17000.000	90.000	179.678	11688.997	53.046	0.000	56.132	-0.000	53.046	0.000	0.000	56.251	48.051	6.875	MWD+IFR1+MS
17100.000	90.000	179.678	11688.997	53.700	0.000	56.642	-0.000	53.700	0.000	0.000	56.760	48.083	6.633	MWD+IFR1+MS
17200.000	90.000	179.678	11688.997	54.357	0.000	57.159	-0.000	54.357	0.000	0.000	57.275	48.116	6.410	MWD+IFR1+MS
17300.000	90.000	179.678	11688.997	55.017	0.000	57.681	-0.000	55.017	0.000	0.000	57.795	48.149	6.204	MWD+IFR1+MS
17400.000	90.000	179.678	11688.997	55.681	0.000	58.208	-0.000	55.681	0.000	0.000	58.321	48.183	6.013	MWD+IFR1+MS
17500.000	90.000	179.678	11688.997	56.348	0.000	58.741	-0.000	56.348	0.000	0.000	58.852	48.218	5.836	MWD+IFR1+MS
17600.000	90.000	179.678	11688.997	57.018	0.000	59.279	-0.000	57.018	0.000	0.000	59.389	48.252	5.671	MWD+IFR1+MS
17700.000	90.000	179.678	11688.997	57.690	0.000	59.821	-0.000	57.690	0.000	0.000	59.930	48.288	5.516	MWD+IFR1+MS
17800.000	90.000	179.678	11688.997	58.366	0.000	60.369	-0.000	58.366	0.000	0.000	60.477	48.323	5.371	MWD+IFR1+MS
17900.000	90.000	179.678	11688.997	59.044	0.000	60.921	-0.000	59.044	0.000	0.000	61.028	48.360	5.234	MWD+IFR1+MS
18000.000	90.000	179.678	11688.997	59.725	0.000	61.478	-0.000	59.725	0.000	0.000	61.583	48.397	5.106	MWD+IFR1+MS
18100.000	90.000	179.678	11688.997	60.408	0.000	62.039	-0.000	60.408	0.000	0.000	62.143	48.434	4.984	MWD+IFR1+MS
18200.000	90.000	179.678	11688.997	61.094	0.000	62.605	-0.000	61.094	0.000	0.000	62.708	48.472	4.869	MWD+IFR1+MS
18300.000	90.000	179.678	11688.997	61.782	0.000	63.174	-0.000	61.782	0.000	0.000	63.277	48.510	4.760	MWD+IFR1+MS
18400.000	90.000	179.678	11688.997	62.472	0.000	63.748	-0.000	62.472	0.000	0.000	63.850	48.549	4.656	MWD+IFR1+MS
18500.000	90.000	179.678	11688.997	63.165	0.000	64.326	-0.000	63.165	0.000	0.000	64.427	48.589	4.557	MWD+IFR1+MS
18600.000	90.000	179.678	11688.997	63.859	0.000	64.908	-0.000	63.859	0.000	0.000	65.008	48.629	4.463	MWD+IFR1+MS
18700.000	90.000	179.678	11688.997	64.556	0.000	65.494	-0.000	64.556	0.000	0.000	65.592	48.670	4.373	MWD+IFR1+MS
18800.000	90.000	179.678	11688.997	65.255	0.000	66.083	-0.000	65.255	0.000	0.000	66.181	48.711	4.287	MWD+IFR1+MS
18900.000	90.000	179.678	11688.997	65.956	0.000	66.676	-0.000	65.956	0.000	0.000	66.773	48.752	4.205	MWD+IFR1+MS
19000.000	90.000	179.678	11688.997	66.658	0.000	67.272	-0.000	66.658	0.000	0.000	67.368	48.795	4.126	MWD+IFR1+MS



19100.000	90.000	179.678	11688.997	67.363	0.000	67.872	-0.000	67.363	0.000	0.000	67.967	48.838	4.050	MWD+IFR1+MS
19200.000	90.000	179.678	11688.997	68.069	0.000	68.475	-0.000	68.069	0.000	0.000	68.569	48.881	3.977	MWD+IFR1+MS
19300.000	90.000	179.678	11688.997	68.777	0.000	69.081	-0.000	68.777	0.000	0.000	69.175	48.925	3.907	MWD+IFR1+MS
19400.000	90.000	179.678	11688.997	69.486	0.000	69.690	-0.000	69.486	0.000	0.000	69.784	48.969	3.840	MWD+IFR1+MS
19500.000	90.000	179.678	11688.997	70.197	0.000	70.303	-0.000	70.197	0.000	0.000	70.395	49.014	3.775	MWD+IFR1+MS
19600.000	90.000	179.678	11688.997	70.910	0.000	70.918	-0.000	70.910	0.000	0.000	71.010	49.060	3.713	MWD+IFR1+MS
19700.000	90.000	179.678	11688.997	71.624	0.000	71.536	-0.000	71.624	0.000	0.000	71.628	49.106	3.652	MWD+IFR1+MS
19800.000	90.000	179.678	11688.997	72.340	0.000	72.157	-0.000	72.340	0.000	0.000	72.248	49.153	3.594	MWD+IFR1+MS
19900.000	90.000	179.678	11688.997	73.057	0.000	72.781	-0.000	73.057	0.000	0.000	72.871	49.200	3.537	MWD+IFR1+MS
20000.000	90.000	179.678	11688.997	73.775	0.000	73.408	-0.000	73.775	0.000	0.000	73.497	49.247	3.483	MWD+IFR1+MS
20100.000	90.000	179.678	11688.997	74.495	0.000	74.037	-0.000	74.495	0.000	0.000	74.126	49.296	3.430	MWD+IFR1+MS
20200.000	90.000	179.678	11688.997	75.216	0.000	74.669	-0.000	75.216	0.000	0.000	74.757	49.345	3.379	MWD+IFR1+MS
20300.000	90.000	179.678	11688.997	75.939	0.000	75.303	-0.000	75.939	0.000	0.000	75.390	49.394	3.329	MWD+IFR1+MS
20400.000	90.000	179.678	11688.997	76.662	0.000	75.940	-0.000	76.662	0.000	0.000	76.026	49.444	3.281	MWD+IFR1+MS
20500.000	90.000	179.678	11688.997	77.387	0.000	76.579	-0.000	77.387	0.000	0.000	76.665	49.494	3.234	MWD+IFR1+MS
20600.000	90.000	179.678	11688.997	78.113	0.000	77.220	-0.000	78.113	0.000	0.000	77.305	49.545	3.189	MWD+IFR1+MS
20700.000	90.000	179.678	11688.997	78.840	0.000	77.863	-0.000	78.840	0.000	0.000	77.948	49.597	3.144	MWD+IFR1+MS
20800.000	90.000	179.678	11688.997	79.568	0.000	78.509	-0.000	79.568	0.000	0.000	78.593	49.649	3.102	MWD+IFR1+MS
20900.000	90.000	179.678	11688.997	80.297	0.000	79.157	-0.000	80.297	0.000	0.000	79.241	49.701	3.060	MWD+IFR1+MS
21000.000	90.000	179.678	11688.997	81.028	0.000	79.807	-0.000	81.028	0.000	0.000	79.890	49.754	3.019	MWD+IFR1+MS
21100.000	90.000	179.678	11688.997	81.759	0.000	80.459	-0.000	81.759	0.000	0.000	80.541	49.808	2.980	MWD+IFR1+MS
21200.000	90.000	179.678	11688.997	82.491	0.000	81.113	-0.000	82.491	0.000	0.000	81.195	49.862	2.941	MWD+IFR1+MS
21300.000	90.000	179.678	11688.997	83.224	0.000	81.769	-0.000	83.224	0.000	0.000	81.850	49.917	2.904	MWD+IFR1+MS
21400.000	90.000	179.678	11688.997	83.958	0.000	82.427	-0.000	83.958	0.000	0.000	82.507	49.972	2.867	MWD+IFR1+MS
21500.000	90.000	179.678	11688.997	84.694	0.000	83.086	-0.000	84.694	0.000	0.000	83.167	50.027	2.832	MWD+IFR1+MS
21600.000	90.000	179.678	11688.997	85.429	0.000	83.748	-0.000	85.429	0.000	0.000	83.827	50.084	2.797	MWD+IFR1+MS
21700.000	90.000	179.678	11688.997	86.166	0.000	84.411	-0.000	86.166	0.000	0.000	84.490	50.140	2.763	MWD+IFR1+MS
21800.000	90.000	179.678	11688.997	86.904	0.000	85.076	-0.000	86.904	0.000	0.000	85.155	50.198	2.730	MWD+IFR1+MS
21900.000	90.000	179.678	11688.997	87.642	0.000	85.742	-0.000	87.642	0.000	0.000	85.821	50.255	2.697	MWD+IFR1+MS
22000.000	90.000	179.678	11688.997	88.382	0.000	86.411	-0.000	88.382	0.000	0.000	86.488	50.314	2.666	MWD+IFR1+MS
22100.000	90.000	179.678	11688.997	89.122	0.000	87.080	-0.000	89.122	0.000	0.000	87.158	50.372	2.635	MWD+IFR1+MS
22200.000	90.000	179.678	11688.997	89.862	0.000	87.752	-0.000	89.862	0.000	0.000	87.829	50.432	2.604	MWD+IFR1+MS
22300.000	90.000	179.678	11688.997	90.604	0.000	88.425	-0.000	90.604	0.000	0.000	88.501	50.491	2.575	MWD+IFR1+MS

22400.000	90.000	179.678	11688.997	91.346	0.000	89.099	-0.000	91.346	0.000	0.000	89.175	50.552	2.546	MWD+IFR1+MS
22500.000	90.000	179.678	11688.997	92.089	0.000	89.775	-0.000	92.089	0.000	0.000	89.850	50.613	2.518	MWD+IFR1+MS
22600.000	90.000	179.678	11688.997	92.833	0.000	90.453	-0.000	92.833	0.000	0.000	90.527	50.674	2.490	MWD+IFR1+MS
22700.000	90.000	179.678	11688.997	93.577	0.000	91.131	-0.000	93.577	0.000	0.000	91.206	50.736	2.463	MWD+IFR1+MS
22800.000	90.000	179.678	11688.997	94.322	0.000	91.811	-0.000	94.322	0.000	0.000	91.885	50.798	2.436	MWD+IFR1+MS
22900.000	90.000	179.678	11688.997	95.068	0.000	92.493	-0.000	95.068	0.000	0.000	92.566	50.861	2.410	MWD+IFR1+MS
23000.000	90.000	179.678	11688.997	95.814	0.000	93.176	-0.000	95.814	0.000	0.000	93.248	50.924	2.385	MWD+IFR1+MS
23100.000	90.000	179.678	11688.997	96.561	0.000	93.860	-0.000	96.561	0.000	0.000	93.932	50.988	2.360	MWD+IFR1+MS
23200.000	90.000	179.678	11688.997	97.308	0.000	94.545	-0.000	97.308	0.000	0.000	94.617	51.052	2.335	MWD+IFR1+MS
23300.000	90.000	179.678	11688.997	98.056	0.000	95.231	-0.000	98.056	0.000	0.000	95.303	51.117	2.311	MWD+IFR1+MS
23400.000	90.000	179.678	11688.997	98.805	0.000	95.919	-0.000	98.805	0.000	0.000	95.990	51.182	2.287	MWD+IFR1+MS
23500.000	90.000	179.678	11688.997	99.554	0.000	96.608	-0.000	99.554	0.000	0.000	96.679	51.248	2.264	MWD+IFR1+MS
23600.000	90.000	179.678	11688.997	100.304	0.000	97.298	-0.000	100.304	0.000	0.000	97.368	51.314	2.242	MWD+IFR1+MS
23700.000	90.000	179.678	11688.997	101.054	0.000	97.989	-0.000	101.054	0.000	0.000	98.059	51.381	2.219	MWD+IFR1+MS
23800.000	90.000	179.678	11688.997	101.805	0.000	98.681	-0.000	101.805	0.000	0.000	98.751	51.448	2.198	MWD+IFR1+MS
23900.000	90.000	179.678	11688.997	102.556	0.000	99.375	-0.000	102.556	0.000	0.000	99.444	51.516	2.176	MWD+IFR1+MS
24000.000	90.000	179.678	11688.997	103.308	0.000	100.069	-0.000	103.308	0.000	0.000	100.138	51.584	2.155	MWD+IFR1+MS
24100.000	90.000	179.678	11688.997	104.060	0.000	100.764	-0.000	104.060	0.000	0.000	100.833	51.652	2.134	MWD+IFR1+MS
24200.000	90.000	179.678	11688.997	104.813	0.000	101.461	-0.000	104.813	0.000	0.000	101.529	51.721	2.114	MWD+IFR1+MS
24300.000	90.000	179.678	11688.997	105.566	0.000	102.158	-0.000	105.566	0.000	0.000	102.226	51.791	2.094	MWD+IFR1+MS
24400.000	90.000	179.678	11688.997	106.320	0.000	102.856	-0.000	106.320	0.000	0.000	102.924	51.861	2.074	MWD+IFR1+MS
24500.000	90.000	179.678	11688.997	107.074	0.000	103.556	-0.000	107.074	0.000	0.000	103.622	51.932	2.055	MWD+IFR1+MS
24600.000	90.000	179.678	11688.997	107.828	0.000	104.256	-0.000	107.828	0.000	0.000	104.322	52.003	2.036	MWD+IFR1+MS
24700.000	90.000	179.678	11688.997	108.583	0.000	104.957	-0.000	108.583	0.000	0.000	105.023	52.074	2.017	MWD+IFR1+MS
24800.000	90.000	179.678	11688.997	109.339	0.000	105.659	-0.000	109.339	0.000	0.000	105.725	52.146	1.999	MWD+IFR1+MS
24900.000	90.000	179.678	11688.997	110.094	0.000	106.362	-0.000	110.094	0.000	0.000	106.427	52.218	1.981	MWD+IFR1+MS
25000.000	90.000	179.678	11688.997	110.851	0.000	107.066	-0.000	110.851	0.000	0.000	107.131	52.291	1.963	MWD+IFR1+MS
25100.000	90.000	179.678	11688.997	111.607	0.000	107.771	-0.000	111.607	0.000	0.000	107.835	52.364	1.946	MWD+IFR1+MS
25200.000	90.000	179.678	11688.997	112.364	0.000	108.476	-0.000	112.364	0.000	0.000	108.540	52.438	1.929	MWD+IFR1+MS
25300.000	90.000	179.678	11688.997	113.122	0.000	109.182	-0.000	113.122	0.000	0.000	109.246	52.512	1.912	MWD+IFR1+MS
25400.000	90.000	179.678	11688.997	113.879	0.000	109.889	-0.000	113.879	0.000	0.000	109.953	52.587	1.895	MWD+IFR1+MS
25500.000	90.000	179.678	11688.997	114.637	0.000	110.597	-0.000	114.637	0.000	0.000	110.660	52.662	1.879	MWD+IFR1+MS
25600.000	90.000	179.678	11688.997	115.396	0.000	111.306	-0.000	115.396	0.000	0.000	111.369	52.737	1.862	MWD+IFR1+MS

25700.000	90.000	179.678	11688.997	116.155	0.000	112.015	-0.000	116.155	0.000	0.000	112.078	52.813	1.847	MWD+IFR1+MS
25800.000	90.000	179.678	11688.997	116.914	0.000	112.725	-0.000	116.914	0.000	0.000	112.787	52.890	1.831	MWD+IFR1+MS
25900.000	90.000	179.678	11688.997	117.673	0.000	113.436	-0.000	117.673	0.000	0.000	113.498	52.966	1.815	MWD+IFR1+MS
26000.000	90.000	179.678	11688.997	118.433	0.000	114.148	-0.000	118.433	0.000	0.000	114.209	53.044	1.800	MWD+IFR1+MS
26100.000	90.000	179.678	11688.997	119.193	0.000	114.860	-0.000	119.193	0.000	0.000	114.921	53.121	1.785	MWD+IFR1+MS
26200.000	90.000	179.678	11688.997	119.954	0.000	115.573	-0.000	119.954	0.000	0.000	115.633	53.199	1.771	MWD+IFR1+MS
26300.000	90.000	179.678	11688.997	120.715	0.000	116.286	-0.000	120.715	0.000	0.000	116.347	53.278	1.756	MWD+IFR1+MS
26400.000	90.000	179.678	11688.997	121.476	0.000	117.000	-0.000	121.476	0.000	0.000	117.061	53.357	1.742	MWD+IFR1+MS
26500.000	90.000	179.678	11688.997	122.237	0.000	117.715	-0.000	122.237	0.000	0.000	117.775	53.436	1.728	MWD+IFR1+MS
26600.000	90.000	179.678	11688.997	122.999	0.000	118.431	-0.000	122.999	0.000	0.000	118.490	53.516	1.714	MWD+IFR1+MS
26700.000	90.000	179.678	11688.997	123.761	0.000	119.147	-0.000	123.761	0.000	0.000	119.206	53.597	1.700	MWD+IFR1+MS
26800.000	90.000	179.678	11688.997	124.523	0.000	119.864	-0.000	124.523	0.000	0.000	119.923	53.677	1.686	MWD+IFR1+MS
26900.000	90.000	179.678	11688.997	125.285	0.000	120.581	-0.000	125.285	0.000	0.000	120.640	53.758	1.673	MWD+IFR1+MS
27000.000	90.000	179.678	11688.997	126.048	0.000	121.299	-0.000	126.048	0.000	0.000	121.357	53.840	1.660	MWD+IFR1+MS
27100.000	90.000	179.678	11688.997	126.811	0.000	122.017	-0.000	126.811	0.000	0.000	122.075	53.922	1.647	MWD+IFR1+MS
27200.000	90.000	179.678	11688.997	127.575	0.000	122.737	-0.000	127.575	0.000	0.000	122.794	54.004	1.634	MWD+IFR1+MS
27300.000	90.000	179.678	11688.997	128.338	0.000	123.456	-0.000	128.338	0.000	0.000	123.514	54.087	1.621	MWD+IFR1+MS
27400.000	90.000	179.678	11688.997	129.102	0.000	124.176	-0.000	129.102	0.000	0.000	124.234	54.170	1.609	MWD+IFR1+MS
27500.000	90.000	179.678	11688.997	129.866	0.000	124.897	-0.000	129.866	0.000	0.000	124.954	54.254	1.597	MWD+IFR1+MS
27600.000	90.000	179.678	11688.997	130.630	0.000	125.618	-0.000	130.630	0.000	0.000	125.675	54.338	1.584	MWD+IFR1+MS
27700.000	90.000	179.678	11688.997	131.395	0.000	126.340	-0.000	131.395	0.000	0.000	126.396	54.422	1.573	MWD+IFR1+MS
27800.000	90.000	179.678	11688.997	132.160	0.000	127.062	-0.000	132.160	0.000	0.000	127.118	54.507	1.561	MWD+IFR1+MS
27900.000	90.000	179.678	11688.997	132.925	0.000	127.785	-0.000	132.925	0.000	0.000	127.841	54.592	1.549	MWD+IFR1+MS
28000.000	90.000	179.678	11688.997	133.690	0.000	128.509	-0.000	133.690	0.000	0.000	128.564	54.678	1.537	MWD+IFR1+MS
28100.000	90.000	179.678	11688.997	134.456	0.000	129.232	-0.000	134.456	0.000	0.000	129.287	54.764	1.526	MWD+IFR1+MS
28200.000	90.000	179.678	11688.997	135.221	0.000	129.957	-0.000	135.221	0.000	0.000	130.011	54.850	1.515	MWD+IFR1+MS
28300.000	90.000	179.678	11688.997	135.987	0.000	130.681	-0.000	135.987	0.000	0.000	130.736	54.937	1.504	MWD+IFR1+MS
28400.000	90.000	179.678	11688.997	136.753	0.000	131.407	-0.000	136.753	0.000	0.000	131.461	55.024	1.493	MWD+IFR1+MS
28500.000	90.000	179.678	11688.997	137.520	0.000	132.132	-0.000	137.520	0.000	0.000	132.186	55.112	1.482	MWD+IFR1+MS
28600.000	90.000	179.678	11688.997	138.286	0.000	132.858	-0.000	138.286	0.000	0.000	132.912	55.200	1.471	MWD+IFR1+MS
28700.000	90.000	179.678	11688.997	139.053	0.000	133.585	-0.000	139.053	0.000	0.000	133.638	55.288	1.461	MWD+IFR1+MS
28800.000	90.000	179.678	11688.997	139.820	0.000	134.312	-0.000	139.820	0.000	0.000	134.365	55.377	1.450	MWD+IFR1+MS
28900.000	90.000	179.678	11688.997	140.587	0.000	135.039	-0.000	140.587	0.000	0.000	135.092	55.466	1.440	MWD+IFR1+MS

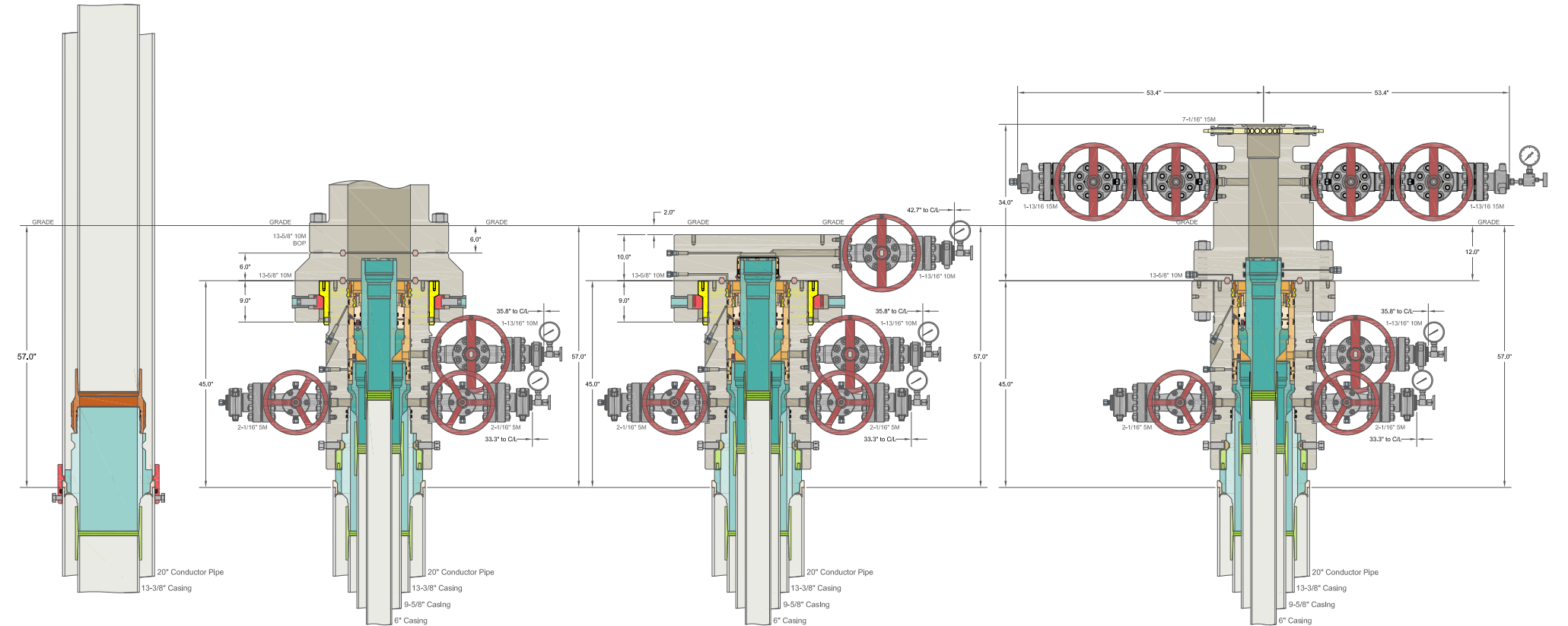


29000.000	90.000	179.678	11688.997	141.355	0.000	135.767	-0.000	141.355	0.000	0.000	135.820	55.556	1.430	MWD+IFR1+MS
29100.000	90.000	179.678	11688.997	142.122	0.000	136.495	-0.000	142.122	0.000	0.000	136.548	55.646	1.420	MWD+IFR1+MS
29200.000	90.000	179.678	11688.997	142.890	0.000	137.224	-0.000	142.890	0.000	0.000	137.276	55.736	1.410	MWD+IFR1+MS
29300.000	90.000	179.678	11688.997	143.658	0.000	137.953	-0.000	143.658	0.000	0.000	138.005	55.827	1.400	MWD+IFR1+MS
29400.000	90.000	179.678	11688.997	144.426	0.000	138.682	-0.000	144.426	0.000	0.000	138.734	55.918	1.390	MWD+IFR1+MS
29500.000	90.000	179.678	11688.997	145.194	0.000	139.412	-0.000	145.194	0.000	0.000	139.464	56.009	1.381	MWD+IFR1+MS
29600.000	90.000	179.678	11688.997	145.963	0.000	140.142	-0.000	145.963	0.000	0.000	140.194	56.101	1.371	MWD+IFR1+MS
29623.855	90.000	179.678	11688.997	146.146	0.000	140.316	-0.000	146.146	0.000	0.000	140.367	56.123	1.369	MWD+IFR1+MS
29700.000	90.000	179.678	11688.997	146.730	0.000	140.871	-0.000	146.730	0.000	0.000	140.923	56.193	1.362	MWD+IFR1+MS
29724.063	90.000	179.678	11688.997	146.915	0.000	141.047	-0.000	146.915	0.000	0.000	141.098	56.215	1.359	MWD+IFR1+MS

## Plan Targets

Poker Lake Unit 20 DTD South 122H

Target Name	Measured Depth (ft)	Grid Northing (ft)	Grid Easting (ft)	TVD MSL (ft)	Target Shape
FTP 1	12000.82	440365.00	630985.10	8438.00	RECTANGLE
SHL 4	11034.32	439534.22	631757.37	6516.94	RECTANGLE
LTP 1	29624.06	422245.60	631086.90	8438.00	RECTANGLE
BHL 1	29724.06	422145.60	631087.40	8438.00	RECTANGLE



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		XTO ENERGY INC DELAWARE BASIN	
(20") x 13-3/8" x 9-5/8" x 6" MBU-3T-CFL-R-DBLO-SF Wellhead With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations		DRAWN	DLE
		APPRV	04NOV22
		DRAWING NO.	HBE0000833

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
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Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 342108

CONDITIONS

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 342108
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	All original COA's still apply. Additionally, if cement is not circulated to surface during cementing operations, then a CBL is required.	6/7/2024