<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210 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

Form C-101 August 1, 2011

Permit 296979

| APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZON | ΙE |
|---|----|
|---|----|

| 1. Operator Name and Address |                       | 2. OGRID Number |  |  |
|------------------------------|-----------------------|-----------------|--|--|
| XTO ENERGY, INC              |                       | 5380            |  |  |
| 6401 Holiday Hill Road       |                       | 3. API Number   |  |  |
| Midland, TX 79707            |                       | 30-015-48543    |  |  |
| 4. Property Code             | 5. Property Name      | 6. Well No.     |  |  |
| 317788                       | REMUDA SOUTH 25 STATE | 708H            |  |  |

7. Surface Location

| UL - Lot Section |    | Township | Range | Lot Idn Feet From |      | N/S Line Feet From |     | E/W Line | County |
|------------------|----|----------|-------|-------------------|------|--------------------|-----|----------|--------|
| Н                | 25 | 23S      | 29E   | Н                 | 2385 | N                  | 660 | E        | Eddy   |

8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet From | N/S Line | Feet From | E/W Line | County |  |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|--------|--|
| M        | 31      | 23S      | 30E   | 4       | 200       | S        | 250       | W        | Eddy   |  |

#### 9. Pool Information

| FORTY NINER RIDGE BONE SPRING, WEST 96526 |
|---|
|---|

Additional Well Information

| 11. Work Type         | 12. Well Type      | 13. Cable/Rotary                       | 14. Lease Type | 15. Ground Level Elevation        |
|-----------------------|--------------------|--|----------------|-----------------------------------|
| New Well              | OIL                |  | State          | 3096                              |
| 16. Multiple          | 17. Proposed Depth | 18. Formation                          | 19. Contractor | 20. Spud Date                     |
| N                     | 16980              | Bone Spring                            |                | 9/8/2021                          |
| Depth to Ground water |                    | Distance from nearest fresh water well |                | Distance to nearest surface water |
|                       |                    |  |                |                                   |

## ■ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

| 2111 topocca cacing and committee regiani |      |                  |             |                  |               |                 |               |  |  |
|---|------|------------------|-------------|------------------|---------------|-----------------|---------------|--|--|
|   | Type | Hole Size        | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |  |  |
|   | Surf | 17.5 13.375 54.5 |             | 54.5             | 319           | 320             | 0             |  |  |
|   | Int1 | 12.25            | 9.625       | 40               | 3219          | 1440            | 0             |  |  |
|   | Int2 | 8.75 7.625       |             | 29.7             | 7650          | 630             | 0             |  |  |
|   | Prod | 6.75             | 5           | 18               | 16980         | 840             | 7150          |  |  |

# Casing/Cement Program: Additional Comments

The well will include a tapered string. See attached drilling program for additional casing/cmt information associated with the well.

22. Proposed Blowout Prevention Program

| Туре       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Double Ram | 3000             | 3000          | Cameron      |

| knowledge and be | elief.                               | true and complete to the best of my NMAC ⊠ and/or 19.15.14.9 (B) NMAC |                                 | OIL CONSERVATIO                      | ON DIVISION |  |
|------------------|--------------------------------------|---|---------------------------------|--------------------------------------|-------------|--|
| Printed Name:    | Electronically filed by Tiffany Yand | еу  | Approved By:                    | Kurt Simmons                         |             |  |
| Title:           | Production Analyst                   |   | Title:                          | Petroleum Specialist - A             |             |  |
| Email Address:   | tiffany.yancey@exxonmobil.com        |   | Approved Date:                  | 6/21/2021 Expiration Date: 6/21/2023 |             |  |
| Date:            | 6/12/2021                            | Phone: 432-215-8939   | Conditions of Approval Attached |                                      |             |  |

District I

District III

1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II

811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico

# Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| <sup>1</sup> API Numbe     | er    | <sup>2</sup> Pool Code                     | <sup>3</sup> Pool Name   |                        |
|----------------------------|-------|--|--------------------------|------------------------|
| 30-015-                    |       | 96526 Forty-Niner Ridge; Bone Spring, West |                          |                        |
| <sup>4</sup> Property Code |       | 5 P1                                       | <sup>6</sup> Well Number |                        |
|                            |       |  | SOUTH 25 STATE           | 708H                   |
| <sup>7</sup> OGRID No.     |       | 8 O  | perator Name             | <sup>9</sup> Elevation |
| 005380                     | XTO E |  | ENERGY, INC.             | 3,096'                 |

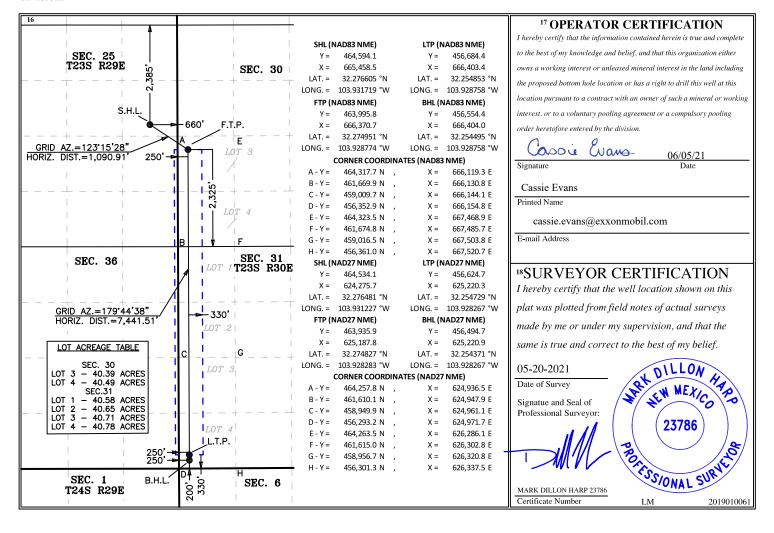
# <sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| Н             | 25      | 23 S     | 29 E  |         | 2,385         | NORTH            | 660           | EAST           | EDDY   |

#### 11 Rottom Hole Location If Different From Surface

| Bottom Hole Location if Different 140m Surface |             |               |               |            |               |                  |               |                |        |
|--|-------------|---------------|---------------|------------|---------------|------------------|---------------|----------------|--------|
| UL or lot no.                                  | Section     | Township      | Range         | Lot Idn    | Feet from the | North/South line | Feet from the | East/West line | County |
| 4  | 31          | 23 S          | 30 E          |            | 200           | SOUTH            | 250           | WEST           | EDDY   |
| <sup>12</sup> Dedicated Acres                  | 13 Joint of | r Infill 14 ( | Consolidation | Code 15 Or | der No.       |                  |               |                |        |
| 240  |             |               |               |            |               |                  |               |                |        |

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



| Intent   | :  | As Dril      | ed         |          |           |         |         |       |         |       |         |         |            |              |  |
|----------|--|--------------|------------|----------|-----------|---------|---------|-------|---------|-------|---------|---------|------------|--------------|--|
| API#     |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
| Opei     | rator Nar  | ne:          |            |          |           | Prop    | perty N | ame:  |         |       |         |         |            | Well Number  |  |
|          |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
|          |  |              |            |          |           | l       |         |       |         |       |         |         |            |              |  |
| Kick C   | off Point  | (KOP)        |            |          |           |         |         |       |         |       |         |         |            |              |  |
| UL       | Cick Off Point (KOP)  UL Section Township Range Lot Feet From N/S Feet From E/W County |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
| Latitu   | de   |              |            |          | Longitu   | ıde     |         |       |         |       |         |         | NAD        |              |  |
|          |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
| First T  | ake Poin   | t (FTP)      |            |          |           |         |         |       |         |       |         |         |            |              |  |
| UL       | Section  | Township     | Range      | Lot      | Feet      |         | From N  | I/S   | Feet    |       | Fron    | n E/W   | County     |              |  |
| Latitu   | de   |              |            |          | Longitu   | ıde     |         |       |         |       |         |         | NAD        |              |  |
| Lact T   | ake Poin   | + /I TD\     |            |          |           |         |         |       |         |       |         |         |            |              |  |
| UL       | Section  | Township     | Range      | Lot      | Feet      | Fror    | m N/S   | Feet  |         | From  | E/W     | Count   | :y         |              |  |
| Latitu   | de   |              |            |          | Longitu   | ıde     |         |       |         |       |         | NAD     |            |              |  |
|          |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
|          |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
| Is this  | well the   | defining w   | ell for th | ne Hori: | zontal Sp | pacing  | g Unit? |       |         |       |         |         |            |              |  |
| Is this  | well an i  | infill well? |            |          | 7         |         |         |       |         |       |         |         |            |              |  |
| 15 (1115 | Well dir.  |              |            |          | _         |         |         |       |         |       |         |         |            |              |  |
|          | l is yes pl<br>ng Unit.  | ease provi   | de API if  | availak  | ole, Opei | rator I | Name    | and w | vell ni | umbei | r for I | Definir | ng well fo | r Horizontal |  |
| API#     |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |
| Opei     | rator Nar  | ne:          | l          |          |           | Prop    | perty N | ame:  |         |       |         |         |            | Well Number  |  |
|          |  |              |            |          |           |         |         |       |         |       |         |         |            |              |  |

KZ 06/29/2018

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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**

Form APD Comments

Permit 296979

#### PERMIT COMMENTS

| Operator Name and Address: | API Number:                 |
|----------------------------|-----------------------------|
| XTO ENERGY, INC [5380]     | 30-015-48543                |
| 6401 Holiday Hill Road     | Well:                       |
| Midland, TX 79707          | REMUDA SOUTH 25 STATE #708H |

| Created   | Comment  | Comment   | ĺ |
|-----------|--|-----------|---|
| Ву        |  | Date      | į |
| cevans    | The well will include a tapered string. See attached drilling program for additional casing/cmt information associated with the well.                | 6/7/2021  | j |
| kpickford | This APD has been rejected due to being an incomplete submission. The submission is missing the "Natural Gas Management Plan" which has replaced the | 6/10/2021 | İ |
|           | "Gas Capture Plan". See OCD Notice "Waste Rule C129 NGMP Final Forms" dated May 21, 2021 for further details.  | ĺ         | İ |

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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

Form APD Conditions

Permit 296979

## PERMIT CONDITIONS OF APPROVAL

| Operator Name and Address: | API Number:                 |
|----------------------------|-----------------------------|
| XTO ENERGY, INC [5380]     | 30-015-48543                |
| 6401 Holiday Hill Road     | Well:                       |
| Midland, TX 79707          | REMUDA SOUTH 25 STATE #708H |

| OCD<br>Reviewer | Condition  |
|-----------------|--|
| ksimmons        | Notify OCD 24 hours prior to casing & cement   |
| ksimmons        | Will require a File As Drilled C-102 and a Directional Survey with the C-104   |
| ksimmons        | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud   |
| kpickford       | Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string |
| kpickford       | Cement is required to circulate on both surface and intermediate1 strings of casing  |
| kpickford       | Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system                  |
| kpickford       | The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud   |

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

XTO Energy Inc.
Remuda South 25 State 708H
Projected TD: 16980' MD / 9216' TVD
SHL: 2385' FNL & 660' FEL , Section 25, T23S, R29E
BHL: 200' FSL & 250' FWL , Section 31, T23S, 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            | 69'              | Water         |
| Salado             | 269'             | Water         |
| Top of Salt        | 550'             | Water         |
| Base of Salt       | 3119'            | Water         |
| Delaware           | 3336'            | Water         |
| Brushy Canyon      | 5778'            | Water/Oil/Gas |
| Bone Spring        | 7048'            | Water         |
| 1st Bone Spring Ss | 8095'            | Water/Oil/Gas |
| 2nd Bone Spring Ss | 8936'            | Water/Oil/Gas |
| Target/Land Curve  | 9226'            | Water/Oil/Gas |

<sup>\*\*\*</sup> Hydrocarbons @ Brushy Canyon

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 319' (50' below top of Salado) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 3219' and circulating cement to surface. The second intermediate will isolate from the salt down to the next casing seat by setting 7.625 inch casing at 7650' and cemented to 200' inside the previous casing string. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 16980 MD/TD and 5.5 x 5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 7150 feet ) per Potash regulations.

# 3. Casing Design

| Hole Size | Depth          | OD Csg | Weight | Grade    | Collar       | New/Used | SF<br>Burst | SF<br>Collapse | SF<br>Tension |
|-----------|----------------|--------|--------|----------|--------------|----------|-------------|----------------|---------------|
| 17.5      | 0' – 319'      | 13.375 | 54.5   | J-55     | втс          | New      | 2.84        | 8.11           | 49.06         |
| 12.25     | 0' – 3219'     | 9.625  | 40     | J-55     | втс          | New      | 1.92        | 2.62           | 4.89          |
| 8.75      | 0' – 3319'     | 7.625  | 29.7   | RY P-110 | Flush Joint  | New      | 3.42        | 3.30           | 2.46          |
| 8.75      | 3319' – 7650'  | 7.625  | 29.7   | HC L-80  | Flush Joint  | New      | 2.49        | 2.77           | 3.16          |
| 6.75      | 0' – 7550'     | 5.5    | 20     | RY P-110 | Semi-Premium | New      | 1.05        | 2.83           | 2.65          |
| 6.75      | 7550' - 9000'  | 5.5    | 23     | RY P-110 | Semi-Flush   | New      | 1.21        | 3.11           | 6.65          |
| 6.75      | 9000' - 16980' | 5      | 18     | RY P-110 | Semi-Premium | New      | 1.16        | 2.81           | 10.04         |

- · XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry
- · XTO requests to not utilize centralizers in the curve and lateral
- $\cdot$  9.625 Collapse analyzed using 50% evacuation based on regional experience.
- · 7.625 Collapse analyzed using 50% evacuation based on regional experience.
- 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- · Test on 2M annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- · XTO requests the option to use 5" BTC Float equipment for the the production casing

# Wellhead:

Permanent Wellhead - Multibowl System

<sup>\*\*\*</sup> Groundwater depth 40' (per NM State Engineers Office).

- A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom
- B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange
  - · Wellhead will be installed by manufacturer's representatives.
  - · Manufacturer will monitor welding process to ensure appropriate temperature of seal.
  - · Operator will test the 7-5/8" casing per BLM Onshore Order 2
  - · Wellhead Manufacturer representative will not be present for BOP test plug installation

## 4. Cement Program

Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 319'

Tail: 320 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Top of Cement: Surface

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

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

## 1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 3219'

Lead: 1310 sxs Class C (mixed at 12.9 ppg, 1.39 ft3/sx, 10.13 gal/sx water)

Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

Top of Cement: Surface

Compressives: 12-hr = 900 psi 24 hr = 1500 psi

# 2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 7650'

1st Stage

Optional Lead: 160 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: 2719

Tail: 170 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)

TOC: Brushy Canyon @ 5778

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: 300 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 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5778') 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 include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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

XTO requests 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: 5, 18 New Semi-Premium, RY P-110 casing to be set at +/- 16980'

Lead: 60 sxs Class C (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water) Top of Cement:

Tail: 780 sxs Class C (mixed at 13.2 ppg, 1.51 ft3/sx, 8.38 gal/sx water) Top of Cement:

Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

XTO requests the option to offline cement and remediate (if needed) all 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 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP. MASP should not exceed 2768 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 nippling up on the 13.375, 3M bradenhead and flange, the BOP test will be limited to 3000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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      | Viscosity | Fluid Loss |
|-----------------|-----------|-------------------|---------|-----------|------------|
| INTERVAL        | Hole Size | Mud Type          | (ppg)   | (sec/qt)  | (cc)       |
| 0' - 319'       | 17.5      | FW/Native         | 8.4-8.9 | 35-40     | NC         |
| 319' - 3219'    | 12.25     | Brine             | 10-10.5 | 30-32     | NC         |
| 3219' to 7650'  | 8.75      | FW / Cut<br>Brine | 9.4-9.9 | 30-32     | NC         |
| 7650' to 16980' | 6.75      | ОВМ               | 10-10.5 | 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 13-3/8" surface casing with brine solution. A 9.8 ppg - 10.2 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

# 7. Auxiliary Well Control and Monitoring Equipment

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

## 8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

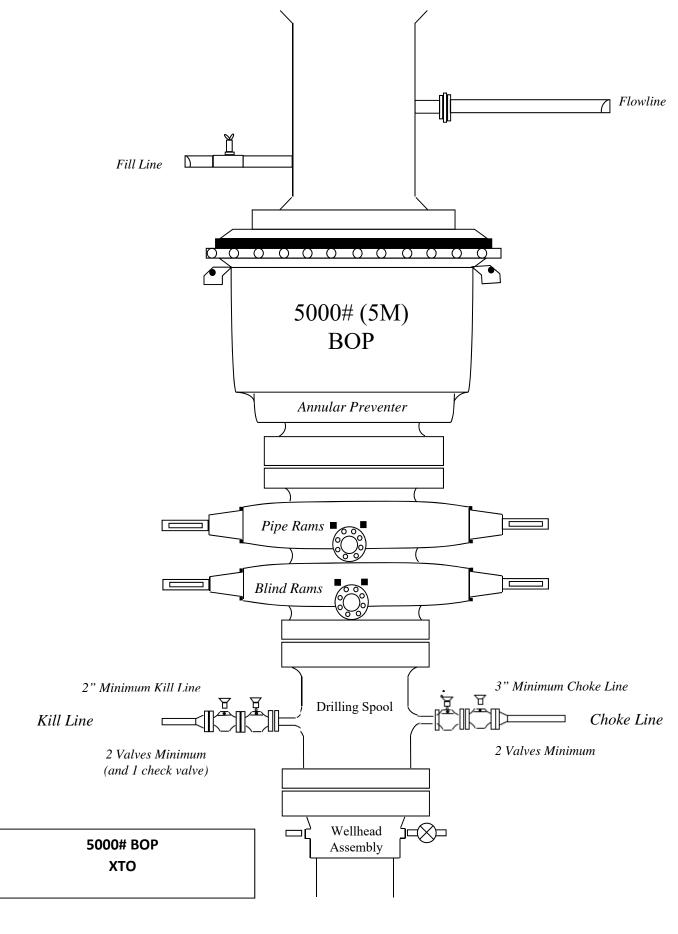
Open hole logging will not be done on this well.

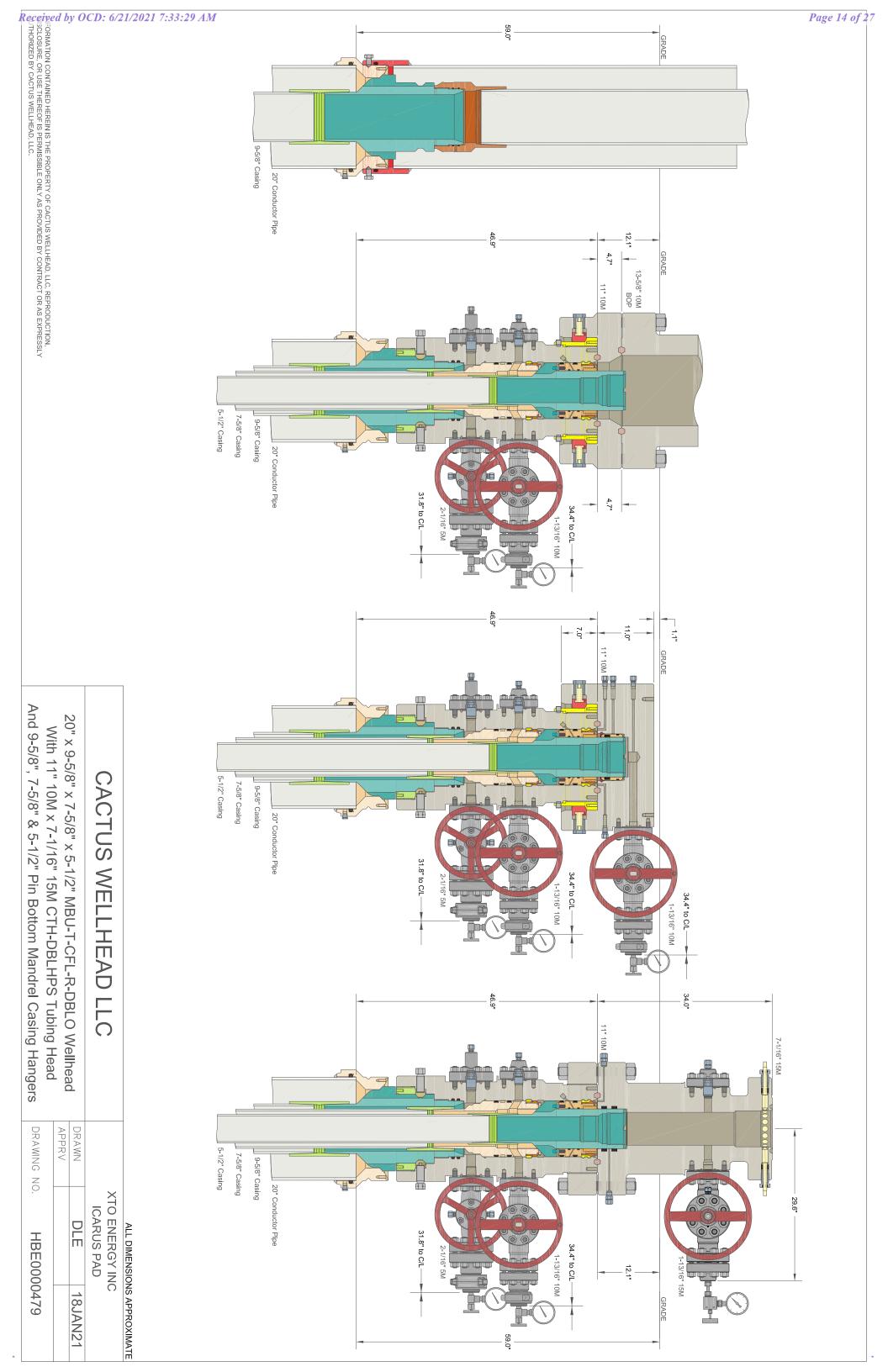
# 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 160 to 180 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 4798 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 - Remuda 708H

Measured Depth:

16980.14 ft

**TVD RKB:** 9216.00 ft

Location

Cartographi New Mexico East - NAD System: 27

Northing: 464534.10 ft

Easting: 624275.70 ft
RKB: 3126.00 ft
Ground
Level: 03096.00 ft
North
Reference: Convergenc
e Angle: Remuda SSite: 25 State
705H-709H

Slot: Remuda 708H

| Plan     | Remuda      |         |         |          |          |             |             |                    |
|----------|-------------|---------|---------|----------|----------|-------------|-------------|--------------------|
| Sections | 708H        |         |         |          |          |             |             |                    |
| 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        | 0           | 0       | 0       | 0        | 0        | 0           | 0           | 0                  |
| 3700     | 0           | 0       | 3700    | 0        | 0        | 0           | 0           | 0                  |
| 4100     | 8           | 130     | 4098.7  | -17.92   | 21.36    | 2           | 0           | 2                  |
| 5100     | 8           | 130     | 5088.97 | -107.38  | 127.97   | 0           | 0           | 0                  |
| 5448.11  | 10.89       | 90.18   | 5432.68 | -123.07  | 179.48   | 0.83        | -11.44      | 2                  |
| 8738.91  | 10.89       | 90.18   | 8664.19 | -124.97  | 801.27   | 0           | 0           | 0                  |
| 9638.86  | 90.08       | 179.74  | 9226    | -698.2   | 912.1    | 8.8         | 9.95        | 10 FTP 4           |
| 16980.14 | 90.08       | 179.74  | 9216    | -8039.4  | 945.2    | 0           | 0           | 0 BHL 4            |

| Position<br>Uncertainty | Remuda<br>708H |         |      |          |      |         |      |          |      |          |            |            |                     |
|-------------------------|----------------|---------|------|----------|------|---------|------|----------|------|----------|------------|------------|---------------------|
| Measured                |                |         | TVD  | Highside |      | Lateral |      | Vertical | М    | agnitude | Semi-major | Semi-minor | Semi-minor Tool     |
| Depth                   | Inclination    | Azimuth | RKB  | Error    | Bias | Error   | Bias | Error    | Bias | of Bias  | Error      | Error      | Azimuth Used        |
| (ft)                    | (°)            | (°)     | (ft) | (ft)     | (ft) | (ft)    | (ft) | (ft)     | (ft) | (ft)     | (ft)       | (ft)       | (°)                 |
| 0                       | 0              | 0       | 0    | 0        | 0    | 0       | 0    | 2.297    | 0    | 0        | 0          | 0          | 0 MWD+IFR1+<br>MS   |
| 100                     | 0              | 0       | 100  | 0.468    | 0    | 0.468   | 0    | 2.299    | 0    | 0        | 0.556      | 0.358      | 135 MWD+IFR1+<br>MS |
| 200                     | 0              | 0       | 200  | 0.983    | 0    | 0.983   | 0    | 2.307    | 0    | 0        | 1.191      | 0.717      | 135 MWD+IFR1+<br>MS |
| 300                     | 0              | 0       | 300  | 1.403    | 0    | 1.403   | 0    | 2.321    | 0    | 0        | 1.668      | 1.075      | 135 MWD+IFR1+<br>MS |
| 400                     | 0              | 0       | 400  | 1.797    | 0    | 1.797   | 0    | 2.34     | 0    | 0        | 2.099      | 1.434      | 135 MWD+IFR1+<br>MS |
| 500                     | 0              | 0       | 500  | 2.179    | 0    | 2.179   | 0    | 2.364    | 0    | 0        | 2.507      | 1.792      | 135 MWD+IFR1+<br>MS |
| 600                     | 0              | 0       | 600  | 2.554    | 0    | 2.554   | 0    | 2.394    | 0    | 0        | 2.902      | 2.151      | 135 MWD+IFR1+<br>MS |
| 700                     | 0              | 0       | 700  | 2.925    | 0    | 2.925   | 0    | 2.428    | 0    | 0        | 3.289      | 2.509      | 135 MWD+IFR1+<br>MS |
| 800                     | 0              | 0       | 800  | 3.293    | 0    | 3.293   | 0    | 2.467    | 0    | 0        | 3.669      | 2.868      | 135 MWD+IFR1+<br>MS |
| 900                     | 0              | 0       | 900  | 3.659    | 0    | 3.659   | 0    | 2.511    | 0    | 0        | 4.046      | 3.226      | 135 MWD+IFR1+<br>MS |
| 1000                    | 0              | 0       | 1000 | 4.024    | 0    | 4.024   | 0    | 2.56     | 0    | 0        | 4.42       | 3.585      | 135 MWD+IFR1+<br>MS |
| 1100                    | 0              | 0       | 1100 | 4.388    | 0    | 4.388   | 0    | 2.613    | 0    | 0        | 4.791      | 3.943      | 135 MWD+IFR1+<br>MS |
| 1200                    | 0              | 0       | 1200 | 4.751    | 0    | 4.751   | 0    | 2.67     | 0    | 0        | 5.161      | 4.302      | 135 MWD+IFR1+<br>MS |

| 1300     | 0      | 0       | 1300     | 5.113  | 0 | 5.113  | 0 | 2.731 | 0 | 0 | 5.529  | 4.66   | 135 MWD+IFR1+<br>MS                   |
|----------|--------|---------|----------|--------|---|--------|---|-------|---|---|--------|--------|---------------------------------------|
| 1400     | 0      | 0       | 1400     | 5.475  | 0 | 5.475  | 0 | 2.797 | 0 | 0 | 5.896  | 5.019  | 135 MWD+IFR1+<br>MS                   |
| 1500     | 0      | 0       | 1500     | 5.836  | 0 | 5.836  | 0 | 2.866 | 0 | 0 | 6.262  | 5.377  | 135 MWD+IFR1+<br>MS                   |
| 1600     | 0      | 0       | 1600     | 6.197  | 0 | 6.197  | 0 | 2.939 | 0 | 0 | 6.627  | 5.736  | 135 MWD+IFR1+<br>MS                   |
| 1700     | 0      | 0       | 1700     | 6.558  | 0 | 6.558  | 0 | 3.016 | 0 | 0 | 6.992  | 6.094  | 135 MWD+IFR1+<br>MS                   |
| 1800     | 0      | 0       | 1800     | 6.919  | 0 | 6.919  | 0 | 3.096 | 0 | 0 | 7.356  | 6.452  | 135 MWD+IFR1+<br>MS                   |
| 1900     | 0      | 0       | 1900     | 7.279  | 0 | 7.279  | 0 | 3.179 | 0 | 0 | 7.719  | 6.811  | 135 MWD+IFR1+<br>MS                   |
| 2000     | 0      | 0       | 2000     | 7.639  | 0 | 7.639  | 0 | 3.266 | 0 | 0 | 8.082  | 7.169  | 135 MWD+IFR1+<br>MS                   |
| 2100     | 0      | 0       | 2100     | 7.999  | 0 | 7.999  | 0 | 3.355 | 0 | 0 | 8.444  | 7.528  | 135 MWD+IFR1+<br>MS                   |
| 2200     | 0      | 0       | 2200     | 8.359  | 0 | 8.359  | 0 | 3.448 | 0 | 0 | 8.807  | 7.886  | 135 MWD+IFR1+<br>MS                   |
| 2300     | 0      | 0       | 2300     | 8.719  | 0 | 8.719  | 0 | 3.544 | 0 | 0 | 9.169  | 8.245  | 135 MWD+IFR1+<br>MS                   |
| 2400     | 0      | 0       | 2400     | 9.079  | 0 | 9.079  | 0 | 3.643 | 0 | 0 | 9.53   | 8.603  | 135 MWD+IFR1+<br>MS                   |
| 2500     | 0      | 0       | 2500     | 9.438  | 0 | 9.438  | 0 | 3.745 | 0 | 0 | 9.892  | 8.962  | 135 MWD+IFR1+<br>MS                   |
| 2600     | 0      | 0       | 2600     | 9.798  | 0 | 9.798  | 0 | 3.849 | 0 | 0 | 10.253 | 9.32   | 135 MS                                |
| 2700     | 0      | 0       | 2700     | 10.157 | 0 | 10.157 | 0 | 3.956 | 0 | 0 | 10.614 | 9.679  | 135 MWD+IFR1+<br>MS                   |
| 2800     | 0      | 0       | 2800     | 10.516 | 0 | 10.516 | 0 | 4.066 | 0 | 0 | 10.975 | 10.037 | 135 MS                                |
| 2900     | 0      | 0       | 2900     | 10.876 | 0 | 10.876 | 0 | 4.179 | 0 | 0 | 11.335 | 10.396 | 135 MS                                |
| 3000     | 0      | 0       | 3000     | 11.235 | 0 | 11.235 | 0 | 4.295 | 0 | 0 | 11.696 | 10.754 | 135 MWD+IFR1+                         |
| 3100     | 0      | 0       | 3100     | 11.594 | 0 | 11.594 | 0 | 4.413 | 0 | 0 | 12.056 | 11.113 | MS<br>MWD+IFR1+                       |
| 3200     | 0      | 0       | 3200     | 11.953 | 0 | 11.953 | 0 | 4.534 | 0 | 0 | 12.417 | 11.471 | MS<br>MWD+IFR1+                       |
| 3300     | 0      | 0       | 3300     | 12.312 | 0 | 12.312 | 0 | 4.657 | 0 | 0 | 12.777 | 11.83  | MS<br>MWD+IFR1+                       |
| 3400     | 0      | 0       | 3400     | 12.671 | 0 | 12.671 | 0 | 4.783 | 0 | 0 | 13.137 | 12.188 | MS<br>MWD+IFR1+                       |
| 3500     | 0      | 0       | 3500     | 13.031 | 0 | 13.031 | 0 | 4.912 | 0 | 0 | 13.497 | 12.547 | MWD+IFR1+                             |
| 3600     | 0      | 0       | 3600     | 13.39  | 0 | 13.39  | 0 | 5.043 | 0 | 0 | 13.857 | 12.905 | MS<br>MWD+IFR1+                       |
| 3700     | 0      | 0       | 3700     | 13.749 | 0 | 13.749 | 0 | 5.177 | 0 | 0 | 14.217 | 13.263 | MS<br>MWD+IFR1+                       |
| 3800     | 2      | 130     | 3799.98  | 13.66  | 0 | 14.531 | 0 | 5.313 | 0 | 0 | 14.54  | 13.658 | MS<br>MWD+IFR1+                       |
| 3900     | 4      | 130     | 3899.838 | 14.159 | 0 | 14.852 | 0 | 5.452 | 0 | 0 | 14.854 | 14.185 | IVIS<br>133 055 MWD+IFR1+             |
| 4000     | 6      | 130     | 3999.452 | 14.634 | 0 | 15.174 | 0 | 5.595 | 0 | 0 | 15.174 | 14.696 | 128 591 MWD+IFR1+                     |
| 4100     | 8      | 130     | 4098.702 | 15.085 | 0 | 15.496 | 0 | 5.742 | 0 | 0 | 15.506 | 15.183 | MS<br>119 804 MWD+IFR1+               |
| 4200     | 8      | 130     | 4197.728 | 15.473 | 0 | 15.82  | 0 | 5.889 | 0 | 0 | 15.845 | 15.553 | 112 876 MWD+IFR1+                     |
| 4300     | 8      | 130     | 4296.755 | 15.804 | 0 | 16.146 | 0 | 6.039 | 0 | 0 | 16.176 | 15.876 | MS<br>MWD+IFR1+                       |
| 4400     | 8      | 130     | 4395.782 | 16.137 | 0 | 16.473 | 0 | 6.191 | 0 | 0 | 16.509 | 16.2   | MS<br>MWD+IFR1+                       |
|          | _      |         |          |        |   |        |   |       | - |   |        |        | MS<br>MWD+IFR1+                       |
| 4500     | 8      | 130     | 4494.809 | 16.472 | 0 | 16.802 | 0 | 6.346 | 0 | 0 | 16.844 | 16.526 | 108.592 MS<br>MS<br>MWD+IFR1+         |
| 4600     | 8      | 130     | 4593.836 | 16.808 | 0 | 17.133 | 0 | 6.504 | 0 | 0 | 17.181 | 16.853 | 107.398 MS<br>MS<br>MWD+IFR1+         |
| 4700     | 8      | 130     | 4692.862 | 17.146 | 0 | 17.464 | 0 | 6.665 | 0 | 0 | 17.518 | 17.181 | 106.301 MS<br>MS<br>105.303 MWD+IFR1+ |
| 4800     | 8      | 130     | 4791.889 | 17.485 | 0 | 17.798 | 0 | 6.828 | 0 | 0 | 17.858 | 17.511 | MS<br>MWD+IFR1+                       |
| 4900     | 8      | 130     | 4890.916 | 17.825 | 0 | 18.132 | 0 | 6.995 | 0 | 0 | 18.198 | 17.843 | MS<br>MS                              |
| 5000     | 8      | 130     | 4989.943 | 18.167 | 0 | 18.468 | 0 | 7.164 | 0 | 0 | 18.54  | 18.175 | 103.498<br>MS<br>MWD+IFR1+            |
| 5100     | 8      | 130     | 5088.97  | 18.509 | 0 | 18.805 | 0 | 7.335 | 0 | 0 | 18.883 | 18.509 | MS<br>MWD+IFR1+                       |
| 5200     | 8.357  | 116.129 | 5187.962 | 18.781 | 0 | 19.253 | 0 | 7.51  | 0 | 0 | 19.278 | 18.844 | 101.954<br>MS<br>MWD+IFR1+            |
| 5300     | 9.144  | 104.01  | 5286.806 | 19.065 | 0 | 19.746 | 0 | 7.686 | 0 | 0 | 19.748 | 19.182 | 100.413<br>MS<br>MWD+IFR1+            |
| 5400     | 10.263 | 94.149  | 5385.381 | 19.374 | 0 | 20.19  | 0 | 7.865 | 0 | 0 | 20.19  | 19.542 | 95.842<br>MS<br>MWD+IFR1+             |
| 5448.113 | 10.891 | 90.175  | 5432.677 | 19.517 | 0 | 20.355 | 0 | 7.951 | 0 | 0 | 20.36  | 19.712 | 95.059<br>MS<br>MWD+IEP1+             |
| 5500     | 10.891 | 90.175  | 5483.629 | 19.697 | 0 | 20.529 | 0 | 8.045 | 0 | 0 | 20.533 | 19.891 | MS<br>MWD+IEP1+                       |
| 5600     | 10.891 | 90.175  | 5581.828 | 20.048 | 0 | 20.865 | 0 | 8.23  | 0 | 0 | 20.868 | 20.237 | MS<br>MWD+IFR1+                       |
| 5700     | 10.891 | 90.175  | 5680.026 | 20.403 | 0 | 21.206 | 0 | 8.418 | 0 | 0 | 21.208 | 20.587 | 93.314 MS                             |
| 5800     | 10.891 | 90.175  | 5778.225 | 20.759 | 0 | 21.548 | 0 | 8.609 | 0 | 0 | 21.549 | 20.939 | 92.39 MWD+IFR1+<br>MS                 |
| 5900     | 10.891 | 90.175  | 5876.424 | 21.117 | 0 | 21.892 | 0 | 8.803 | 0 | 0 | 21.892 | 21.291 | 91.462 MWD+IFR1+<br>MS                |
| 6000     | 10.891 | 90.175  | 5974.622 | 21.475 | 0 | 22.236 | 0 | 9     | 0 | 0 | 22.236 | 21.644 | 90.533 MWD+IFR1+<br>MS                |
|          |        |         |          |        |   |        |   |       |   |   |        |        |                                       |

| 6100     | 10.891 | 90.175  | 6072.821 | 21.834           | 0 | 22.581           | 0 | 9.2              | 0 | 0 | 22.581 | 21.997           | 89.604 MWD+IFR1+<br>MS                |
|----------|--------|---------|----------|------------------|---|------------------|---|------------------|---|---|--------|------------------|---------------------------------------|
| 6200     | 10.891 | 90.175  | 6171.02  | 22.194           | 0 | 22.927           | 0 | 9.402            | 0 | 0 | 22.928 | 22.351           | 88.675 MWD+IFR1+<br>MS                |
| 6300     | 10.891 | 90.175  | 6269.218 | 22.554           | 0 | 23.274           | 0 | 9.608            | 0 | 0 | 23.275 | 22.705           | 87.749 MWD+IFR1+<br>MS                |
| 6400     | 10.891 | 90.175  | 6367.417 | 22.915           | 0 | 23.622           | 0 | 9.816            | 0 | 0 | 23.624 | 23.06            | 86.826 MWD+IFR1+<br>MS                |
| 6500     | 10.891 | 90.175  | 6465.616 | 23.277           | 0 | 23.971           | 0 | 10.027           | 0 | 0 | 23.974 | 23.415           | 85.908 MWD+IFR1+<br>MS                |
| 6600     | 10.891 | 90.175  | 6563.814 | 23.64            | 0 | 24.32            | 0 | 10.24            | 0 | 0 | 24.325 | 23.77            | 84.996 MWD+IFR1+<br>MS                |
| 6700     | 10.891 | 90.175  | 6662.013 | 24.003           | 0 | 24.671           | 0 | 10.457           | 0 | 0 | 24.677 | 24.126           | 84.091 MWD+IFR1+<br>MS                |
| 6800     | 10.891 | 90.175  | 6760.212 | 24.367           | 0 | 25.021           | 0 | 10.676           | 0 | 0 | 25.029 | 24.483           | 83.194 MWD+IFR1+<br>MS                |
| 6900     | 10.891 | 90.175  | 6858.41  | 24.731           | 0 | 25.373           | 0 | 10.898           | 0 | 0 | 25.383 | 24.839           | 82.307 MWD+IFR1+<br>MS                |
| 7000     | 10.891 | 90.175  | 6956.609 | 25.096           | 0 | 25.725           | 0 | 11.123           | 0 | 0 | 25.738 | 25.197           | 81.429 MWD+IFR1+<br>MS                |
| 7100     | 10.891 | 90.175  | 7054.808 | 25.462           | 0 | 26.078           | 0 | 11.35            | 0 | 0 | 26.093 | 25.554           | 80.562 MWD+IFR1+<br>MS                |
| 7200     | 10.891 | 90.175  | 7153.007 | 25.828           | 0 | 26.431           | 0 | 11.58            | 0 | 0 | 26.449 | 25.912           | 79.707 MWD+IFR1+<br>MS                |
| 7300     | 10.891 | 90.175  | 7251.205 | 26.194           | 0 | 26.786           | 0 | 11.813           | 0 | 0 | 26.806 | 26.27            | 78.863 MWD+IFR1+<br>MS                |
| 7400     | 10.891 | 90.175  | 7349.404 | 26.561           | 0 | 27.14            | 0 | 12.049           | 0 | 0 | 27.163 | 26.629           | 78.032 MWD+IFR1+<br>MS                |
| 7500     | 10.891 | 90.175  | 7447.603 | 26.928           | 0 | 27.495           | 0 | 12.288           | 0 | 0 | 27.522 | 26.988           | 77.214 MWD+IFR1+<br>MS                |
| 7600     | 10.891 | 90.175  | 7545.801 | 27.296           | 0 | 27.851           | 0 | 12.529           | 0 | 0 | 27.881 | 27.347           | 76.41 MS                              |
| 7700     | 10.891 | 90.175  | 7644     | 27.664           | 0 | 28.207           | 0 | 12.773           | 0 | 0 | 28.24  | 27.707           | 75.619 MWD+IFR1+<br>MS                |
| 7800     | 10.891 | 90.175  | 7742.199 | 28.033           | 0 | 28.563           | 0 | 13.02            | 0 | 0 | 28.6   | 28.067           | 74.842 MWD+IFR1+<br>MS                |
| 7900     | 10.891 | 90.175  | 7840.397 | 28.402           | 0 | 28.92            | 0 | 13.269           | 0 | 0 | 28.961 | 28.427           | 74.079 MWD+IFR1+<br>MS                |
| 8000     | 10.891 | 90.175  | 7938.596 | 28.771           | 0 | 29.278           | 0 | 13.521           | 0 | 0 | 29.322 | 28.787           | 73.33 MWD+IFR1+<br>MS                 |
| 8100     | 10.891 | 90.175  | 8036.795 | 29.141           | 0 | 29.636           | 0 | 13.776           | 0 | 0 | 29.684 | 29.148           | 72.595 MWD+IFR1+<br>MS                |
| 8200     | 10.891 | 90.175  | 8134.993 | 29.511           | 0 | 29.994           | 0 | 14.034           | 0 | 0 | 30.047 | 29.509           | 71.874 MWD+IFR1+<br>MS                |
| 8300     | 10.891 | 90.175  | 8233.192 | 29.881           | 0 | 30.353           | 0 | 14.294           | 0 | 0 | 30.409 | 29.871           | 71 166 MWD+IFR1+                      |
| 8400     | 10.891 | 90.175  | 8331.391 | 30.251           | 0 | 30.712           | 0 | 14.557           | 0 | 0 | 30.773 | 30.232           | MS<br>MWD+IFR1+<br>70.472             |
| 8500     | 10.891 | 90.175  | 8429.59  | 30.622           | 0 | 31.071           | 0 | 14.823           | 0 | 0 | 31.137 | 30.594           | MS<br>MWD+IFR1+<br>69.792             |
| 8600     | 10.891 | 90.175  | 8527.788 | 30.994           | 0 | 31.431           | 0 | 15.092           | 0 | 0 | 31.501 | 30.956           | MS<br>MWD+IFR1+<br>69.125             |
| 8700     | 10.891 | 90.175  | 8625.987 | 31.365           | 0 | 31.791           | 0 | 15.363           | 0 | 0 | 31.865 | 31.319           | MS<br>MWD+IFR1+                       |
| 8738.909 | 10.891 | 90.175  | 8664.195 | 31.508           | 0 | 31.93            | 0 | 15.469           | 0 | 0 | 32.004 | 31.459           | MS<br>MWD+IFR1+<br>68.351             |
| 8800     | 12.511 | 119.599 | 8724.067 | 31.892           | 0 | 31.973           | 0 | 15.636           | 0 | 0 | 32.283 | 31.705           | 72.366 MS                             |
| 8900     | 19.434 | 146.678 | 8820.276 | 32.36            | 0 | 33.111           | 0 | 15.978           | 0 | 0 | 34.059 | 32.22            | MS<br>MWD+IFR1+                       |
| 9000     | 28.219 | 158.715 | 8911.716 | 33.108           | 0 | 33.938           | 0 | 16.66            | 0 | 0 | 36.407 | 32.572           | MS<br>MWD+IFR1+                       |
| 9100     | 37.581 | 165.248 | 8995.611 | 33.388           | 0 | 34.217           | 0 | 17.838           | 0 | 0 | 38.141 | 32.882           | MS<br>MWD+IFR1+<br>104.572            |
| 9200     | 47.176 | 169.454 | 9069.41  | 33.062           | 0 | 34.375           | 0 | 19.508           | 0 | 0 | 39.42  | 33.16            | MS<br>MWD+IFR1+<br>104.604            |
| 9300     | 56.882 | 172.516 | 9130.872 | 32.273           | 0 | 34.498           | 0 | 21.576           | 0 | 0 | 40.314 | 33.401           | MS<br>MWD+IFR1+                       |
| 9400     | 66.648 | 174.962 | 9178.129 | 31.258           | 0 | 34.598           | 0 | 23.907           | 0 | 0 | 40.879 | 33.604           | MS<br>MWD+IFR1+                       |
| 9500     | 76.447 | 177.068 | 9209.745 | 30.308           | 0 | 34.673           | 0 | 26.355           | 0 | 0 | 41.182 | 33.773           | MS<br>106 52 MWD+IFR1+                |
| 9600     | 86.262 | 179.006 | 9224.76  | 29.738           | 0 | 34.715           | 0 | 28.786           | 0 | 0 | 41.307 | 33.914           | MS<br>107.337 MWD+IFR1+               |
| 9638.856 | 90.078 | 179.742 | 9226     | 28.982           | 0 | 34.699           | 0 | 29.001           | 0 | 0 | 41.325 | 33.944           | MS<br>107 533 MWD+IFR1+               |
| 9700     | 90.078 | 179.742 | 9225.917 | 29.103           | 0 | 34.761           | 0 | 29.122           | 0 | 0 | 41.348 | 33.984           | MWD+IFR1+                             |
| 9800     | 90.078 | 179.742 | 9225.78  | 29.26            | 0 | 34.873           | 0 | 29.279           | 0 | 0 | 41.388 | 34.059           | MS MWD+IFR1+                          |
| 9900     | 90.078 | 179.742 | 9225.644 | 29.44            | 0 | 34.999           | 0 | 29.458           | 0 | 0 | 41.43  | 34.147           | MS<br>MWD+IFR1+<br>108.833            |
| 10000    | 90.078 | 179.742 | 9225.508 |                  | 0 |                  | 0 |                  | 0 | 0 | 41.476 |                  | MS<br>MWD+IFR1+                       |
| 10100    | 90.078 | 179.742 | 9225.308 | 29.639<br>29.857 | 0 | 35.137<br>35.287 | 0 | 29.657<br>29.876 | 0 | 0 | 41.476 | 34.245<br>34.352 | 109.389<br>MS<br>MWD+IFR1+            |
|          | 90.078 | 179.742 | 9225.372 |                  | 0 | 35.287           | 0 | 30.113           | 0 | 0 |        |                  | IVIS<br>MWD+IFR1+                     |
| 10200    | 90.078 | 179.742 | 9225.236 | 30.095           | 0 | 35.449           | 0 | 30.113           | 0 | 0 | 41.576 | 34.469           | 110.604 MS<br>MS<br>111.268 MWD+IFR1+ |
| 10300    |        |         |          | 30.35            |   |                  |   |                  |   |   | 41.632 | 34.594           | MWD+IEP1+                             |
| 10400    | 90.078 | 179.742 | 9224.963 | 30.624           | 0 | 35.809           | 0 | 30.642           | 0 | 0 | 41.691 | 34.729           | MS<br>MWD+IFR1+                       |
| 10500    | 90.078 | 179.742 | 9224.827 | 30.915           | 0 | 36.005           | 0 | 30.933           | 0 | 0 | 41.755 | 34.871           | 112.722<br>MS<br>MWD+IFR1+            |
| 10600    | 90.078 | 179.742 | 9224.691 | 31.224           | 0 | 36.214           | 0 | 31.241           | 0 | 0 | 41.823 | 35.021           | MS<br>MWD+IFR1+                       |
| 10700    | 90.078 | 179.742 | 9224.555 | 31.548           | 0 | 36.433           | 0 | 31.566           | 0 | 0 | 41.896 | 35.178           | 114.359 MS                            |
|          |        |         |          |                  |   |                  |   |                  |   |   |        |                  |                                       |

| 108 | 00 90.078 | 179.742   | 9224.418 | 31.889 | 0 | 36.663 | 0 | 31.906 | 0 | 0 | 41.974 | 35.342 | 115.253 MWD+IFR<br>MS         | 1+ |
|-----|-----------|-----------|----------|--------|---|--------|---|--------|---|---|--------|--------|-------------------------------|----|
| 109 | 00 90.078 | 179.742   | 9224.282 | 32.246 | 0 | 36.903 | 0 | 32.262 | 0 | 0 | 42.058 | 35.511 | 116.201 MWD+IFR<br>MS         |    |
| 110 | 00 90.078 | 179.742   | 9224.146 | 32.617 | 0 | 37.154 | 0 | 32.633 | 0 | 0 | 42.147 | 35.686 | 117.205 MWD+IFR<br>MS         | 1+ |
| 111 | 00 90.078 | 179.742   | 9224.01  | 33.003 | 0 | 37.416 | 0 | 33.019 | 0 | 0 | 42.244 | 35.865 | 118.267 MWD+IFR<br>MS         | 1+ |
| 112 | 00 90.078 | 179.742   | 9223.873 | 33.402 | 0 | 37.687 | 0 | 33.419 | 0 | 0 | 42.347 | 36.048 | 119.39 MWD+IFR<br>MS          | 1+ |
| 113 | 00 90.078 | 179.742   | 9223.737 | 33.816 | 0 | 37.968 | 0 | 33.832 | 0 | 0 | 42.458 | 36.234 | 120.573 MWD+IFR<br>MS         | 1+ |
| 114 | 00 90.078 | 179.742   | 9223.601 | 34.242 | 0 | 38.258 | 0 | 34.258 | 0 | 0 | 42.577 | 36.422 | 121.817 MWD+IFR<br>MS         | 1+ |
| 115 | 00 90.078 | 179.742   | 9223.465 | 34.681 | 0 | 38.558 | 0 | 34.696 | 0 | 0 | 42.705 | 36.612 | 123.123 MWD+IFR<br>MS         | 1+ |
| 116 | 00 90.078 | 179.742   | 9223.329 | 35.132 | 0 | 38.867 | 0 | 35.147 | 0 | 0 | 42.842 | 36.803 | 124.487 MWD+IFR               | 1+ |
| 117 | 00 90.078 | 179.742   | 9223.192 | 35.594 | 0 | 39.185 | 0 | 35.609 | 0 | 0 | 42.989 | 36.993 | 125.909 MWD+IFR<br>MS         | 1+ |
| 118 | 00 90.078 | 179.742   | 9223.056 | 36.068 | 0 | 39.512 | 0 | 36.082 | 0 | 0 | 43.147 | 37.182 | 127.382 MWD+IFR<br>MS         | 1+ |
| 119 | 00 90.078 | 179.742   | 9222.92  | 36.552 | 0 | 39.847 | 0 | 36.566 | 0 | 0 | 43.316 | 37.369 | 128.903 MWD+IFR<br>MS         | 1+ |
| 120 | 00 90.078 | 179.742   | 9222.784 | 37.046 | 0 | 40.191 | 0 | 37.061 | 0 | 0 | 43.497 | 37.553 | 130.463 MWD+IFR               | 1+ |
| 121 | 00 90.078 | 3 179.742 | 9222.648 | 37.551 | 0 | 40.542 | 0 | 37.565 | 0 | 0 | 43.691 | 37.734 | 132.056 MWD+IFR               | 1+ |
| 122 | 00 90.078 | 3 179.742 | 9222.511 | 38.065 | 0 | 40.902 | 0 | 38.079 | 0 | 0 | 43.897 | 37.911 | 133.67 MWD+IFR                | 1+ |
| 123 | 00 90.078 | 3 179.742 | 9222.375 | 38.588 | 0 | 41.269 | 0 | 38.602 | 0 | 0 | 44.117 | 38.083 | -44.703 MS                    | 1+ |
| 124 | 00 90.078 | 3 179.742 | 9222.239 | 39.12  | 0 | 41.643 | 0 | 39.133 | 0 | 0 | 44.35  | 38.25  | -43 075 MWD+IFR               | 1+ |
| 125 | 00 90.078 | 3 179.742 | 9222.103 | 39.66  | 0 | 42.025 | 0 | 39.673 | 0 | 0 | 44.596 | 38.411 | -41.457 MS                    | 1+ |
| 126 | 00 90.078 | 3 179.742 | 9221.966 | 40.208 | 0 | 42.414 | 0 | 40.222 | 0 | 0 | 44.856 | 38.567 | -39.857 MS                    | 1+ |
| 127 | 00 90.078 | 3 179.742 | 9221.83  | 40.764 | 0 | 42.809 | 0 | 40.777 | 0 | 0 | 45.13  | 38.717 | -38.287 MS                    | 1+ |
| 128 |           | 3 179.742 | 9221.694 | 41.328 | 0 | 43.212 | 0 | 41.341 | 0 | 0 | 45.417 | 38.861 | MS<br>-36 754 MWD+IFR         | 1+ |
| 129 |           |           | 9221.558 | 41.898 | 0 | 43.62  | 0 | 41.911 | 0 | 0 | 45.717 | 39     | MS<br>MWD+IFR                 | 1+ |
| 130 |           |           | 9221.422 | 42.476 | 0 | 44.036 | 0 | 42.488 | 0 | 0 | 46.03  | 39.132 | -33 829 MWD+IFR               | 1+ |
| 131 |           |           | 9221.285 | 43.06  | 0 | 44.457 | 0 | 43.072 | 0 | 0 | 46.355 | 39.259 | MS<br>MWD+IFR                 | 1+ |
| 132 |           |           | 9221.149 | 43.65  | 0 | 44.884 | 0 | 43.662 | 0 | 0 | 46.693 | 39.381 | MS<br>-31 123 MWD+IFR         | 1+ |
| 133 |           |           | 9221.013 | 44.246 | 0 | 45.317 | 0 | 44.258 | 0 | 0 | 47.042 | 39.498 | -29.859 MS                    | 1+ |
| 134 |           |           | 9220.877 | 44.848 | 0 | 45.756 | 0 | 44.86  | 0 | 0 | 47.402 | 39.611 | -28.656 MS                    | 1+ |
| 135 |           |           | 9220.741 | 45.456 | 0 | 46.2   | 0 | 45.468 | 0 | 0 | 47.772 | 39.719 | -27.513 MS                    | 1+ |
| 136 |           |           | 9220.604 | 46.069 | 0 | 46.649 | 0 | 46.081 | 0 | 0 | 48.153 | 39.823 | -26.43 MS                     | 1+ |
| 137 |           |           | 9220.468 | 46.687 | 0 | 47.104 | 0 | 46.699 | 0 | 0 | 48.543 | 39.923 | -25.404 MS<br>-25.404 MWD+IFR | 1+ |
|     |           |           | 9220.332 |        |   |        | 0 |        |   | 0 |        |        | MS<br>MWD+IFR                 | 1+ |
| 138 |           |           |          | 47.311 | 0 | 47.563 |   | 47.322 | 0 |   | 48.943 | 40.02  | -24.434 MS<br>MS<br>MWD+IFR   | 1+ |
| 139 |           |           | 9220.196 | 47.938 | 0 | 48.028 | 0 | 47.949 | 0 | 0 | 49.351 | 40.114 | -23.518 MS<br>MS<br>MWD+IFR   | 1+ |
| 140 |           |           | 9220.059 | 48.571 | 0 | 48.497 | 0 | 48.582 | 0 | 0 | 49.768 | 40.206 | -22.653 MS<br>MS<br>MWD+IFR   | 1+ |
| 141 |           |           | 9219.923 | 49.208 | 0 | 48.971 | 0 | 49.218 | 0 | 0 | 50.192 | 40.294 | -21.836 MS<br>MS<br>MWD+IFR   | 1+ |
| 142 |           |           | 9219.787 | 49.849 | 0 | 49.449 | 0 | 49.859 | 0 | 0 | 50.625 | 40.381 | -21.064<br>MS<br>MWD+IFR      |    |
| 143 |           |           | 9219.651 | 50.494 | 0 | 49.932 | 0 | 50.504 | 0 | 0 | 51.064 | 40.465 | -20.336<br>MS<br>MWD+IFR      |    |
| 144 |           |           | 9219.515 | 51.143 | 0 | 50.419 | 0 | 51.153 | 0 | 0 | 51.51  | 40.548 | -19.048<br>MS<br>MWD+IFR      |    |
| 145 |           |           | 9219.378 | 51.796 | 0 | 50.909 | 0 | 51.806 | 0 | 0 | 51.962 | 40.629 | -18.998<br>MS<br>MWD+IFR      |    |
| 146 |           |           | 9219.242 | 52.452 | 0 | 51.404 | 0 | 52.462 | 0 | 0 | 52.421 | 40.708 | -18.383 MS<br>MS<br>MWD+IFR   |    |
| 147 | 00 90.078 | 179.742   | 9219.106 | 53.112 | 0 | 51.903 | 0 | 53.122 | 0 | 0 | 52.886 | 40.786 | -17.802 MS<br>MS<br>MWD+IFR   |    |
| 148 | 00 90.078 | 179.742   | 9218.97  | 53.775 | 0 | 52.405 | 0 | 53.785 | 0 | 0 | 53.356 | 40.863 | -17.252<br>MS                 |    |
| 149 | 00 90.078 | 179.742   | 9218.833 | 54.442 | 0 | 52.912 | 0 | 54.451 | 0 | 0 | 53.832 | 40.939 | -16.731 MS                    |    |
| 150 | 00 90.078 | 179.742   | 9218.697 | 55.111 | 0 | 53.421 | 0 | 55.121 | 0 | 0 | 54.313 | 41.014 | -16.236 MWD+IFR               |    |
| 151 | 00 90.078 | 179.742   | 9218.561 | 55.784 | 0 | 53.934 | 0 | 55.793 | 0 | 0 | 54.799 | 41.088 | -15.768 MWD+IFR               |    |
| 152 | 00 90.078 | 179.742   | 9218.425 | 56.459 | 0 | 54.451 | 0 | 56.468 | 0 | 0 | 55.289 | 41.162 | -15.322 MWD+IFR<br>MS         |    |
| 153 | 00 90.078 | 179.742   | 9218.289 | 57.137 | 0 | 54.97  | 0 | 57.146 | 0 | 0 | 55.784 | 41.235 | -14.899 MWD+IFR<br>MS         |    |
| 154 | 00 90.078 | 179.742   | 9218.152 | 57.818 | 0 | 55.493 | 0 | 57.827 | 0 | 0 | 56.284 | 41.308 | -14.497 MS                    |    |
| 155 | 00 90.078 | 179.742   | 9218.016 | 58.502 | 0 | 56.019 | 0 | 58.511 | 0 | 0 | 56.788 | 41.38  | -14.114 MS                    |    |
| 156 | 00 90.078 | 179.742   | 9217.88  | 59.188 | 0 | 56.548 | 0 | 59.197 | 0 | 0 | 57.296 | 41.452 | -13.75 MWD+IFR<br>MS          | 1+ |
|     |           |           |          |        |   |        |   |        |   |   |        |        |                               |    |

| 15700     | 90.078 | 179.742 | 9217.744 | 59.877 | 0 | 57.079 | 0 | 59.885 | 0 | 0 | 57.807 | 41.524 | -13.402 MWD+IFR1+<br>MS |
|-----------|--------|---------|----------|--------|---|--------|---|--------|---|---|--------|--------|-------------------------|
| 15800     | 90.078 | 179.742 | 9217.608 | 60.567 | 0 | 57.614 | 0 | 60.576 | 0 | 0 | 58.323 | 41.595 | -13.07 MWD+IFR1+<br>MS  |
| 15900     | 90.078 | 179.742 | 9217.471 | 61.261 | 0 | 58.151 | 0 | 61.269 | 0 | 0 | 58.842 | 41.666 | -12.754 MWD+IFR1+<br>MS |
| 16000     | 90.078 | 179.742 | 9217.335 | 61.956 | 0 | 58.691 | 0 | 61.964 | 0 | 0 | 59.365 | 41.737 | -12.451 MWD+IFR1+<br>MS |
| 16100     | 90.078 | 179.742 | 9217.199 | 62.653 | 0 | 59.234 | 0 | 62.661 | 0 | 0 | 59.891 | 41.809 | -12.162 MWD+IFR1+<br>MS |
| 16200     | 90.078 | 179.742 | 9217.063 | 63.353 | 0 | 59.779 | 0 | 63.361 | 0 | 0 | 60.42  | 41.88  | -11.885 MWD+IFR1+<br>MS |
| 16300     | 90.078 | 179.742 | 9216.926 | 64.054 | 0 | 60.326 | 0 | 64.062 | 0 | 0 | 60.952 | 41.951 | -11.62 MWD+IFR1+<br>MS  |
| 16400     | 90.078 | 179.742 | 9216.79  | 64.758 | 0 | 60.876 | 0 | 64.765 | 0 | 0 | 61.487 | 42.022 | -11.365 MWD+IFR1+<br>MS |
| 16500     | 90.078 | 179.742 | 9216.654 | 65.463 | 0 | 61.428 | 0 | 65.47  | 0 | 0 | 62.026 | 42.093 | -11.121 MWD+IFR1+<br>MS |
| 16600     | 90.078 | 179.742 | 9216.518 | 66.17  | 0 | 61.983 | 0 | 66.177 | 0 | 0 | 62.567 | 42.165 | -10.887 MWD+IFR1+<br>MS |
| 16700     | 90.078 | 179.742 | 9216.382 | 66.878 | 0 | 62.54  | 0 | 66.886 | 0 | 0 | 63.11  | 42.236 | -10.663 MWD+IFR1+<br>MS |
| 16800     | 90.078 | 179.742 | 9216.245 | 67.589 | 0 | 63.098 | 0 | 67.596 | 0 | 0 | 63.657 | 42.308 | -10.447 MWD+IFR1+<br>MS |
| 16900     | 90.078 | 179.742 | 9216.109 | 68.301 | 0 | 63.659 | 0 | 68.308 | 0 | 0 | 64.206 | 42.38  | -10.239 MWD+IFR1+<br>MS |
| 16980.138 | 90.078 | 179.742 | 9216     | 68.872 | 0 | 64.109 | 0 | 68.879 | 0 | 0 | 64.647 | 42.438 | -10.079 MWD+IFR1+<br>MS |

| Plan Targets   | Remuda<br>708H    |                  |              |                      |  |
|----------------|-------------------|------------------|--------------|----------------------|--|
|                | Measured<br>Depth | Grid<br>Northing | Grid Easting | TVD MSL Target Shape |  |
| Target<br>Name | (ft)              | (ft)             | (ft)         | (ft)                 |  |
| KOP 4          | 8850.31           | 464408.9         | 625187.8     | 5527 CIRCLE          |  |
| FTP 4          | 9638.85           | 463835.9         | 625187.8     | 6100 CIRCLE          |  |
| BHL 4          | 16980.14          | 456494.7         | 625220.9     | 6090 CIRCLE          |  |



# **HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN**

# **Assumed 100 ppm ROE = 3000'**

100 ppm H2S concentration shall trigger activation of this plan.

# **Emergency Procedures**

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - o Detection of H<sub>2</sub>S, and
  - o Measures for protection against the gas,
  - o Equipment used for protection and emergency response.

# **Ignition of Gas source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

# Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

| Common Name      | Chemical<br>Formula | Specific Gravity | Threshold Limit | Hazardous Limit | Lethal Concentration |
|------------------|---------------------|------------------|-----------------|-----------------|----------------------|
| Hydrogen Sulfide | H <sub>2</sub> S    | 1.189 Air = I    | 10 ppm          | 100 ppm/hr      | 600 ppm              |
| Sulfur Dioxide   | SO <sub>2</sub>     | 2.21 Air = I     | 2 ppm           | N/A             | 1000 ppm             |

# **Contacting Authorities**

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

# **CARLSBAD OFFICE – EDDY & LEA COUNTIES**

| 3104 E. Greene St., Carlsbad, NM 88220<br>Carlsbad, NM   | 575-887-7329  |
|--|---|
| XTO PERSONNEL: Kendall Decker, Drilling Manager Milton Turman, Drilling Superintendent Jeff Raines, Construction Foreman Toady Sanders, EH & S Manager Wes McSpadden, Production Foreman | 903-521-6477<br>817-524-5107<br>432-557-3159<br>903-520-1601<br>575-441-1147        |
| SHERIFF DEPARTMENTS: Eddy County Lea County  | 575-887-7551<br>575-396-3611  |
| NEW MEXICO STATE POLICE:   | 575-392-5588  |
| FIRE DEPARTMENTS: Carlsbad Eunice Hobbs Jal Lovington  | 911<br>575-885-2111<br>575-394-2111<br>575-397-9308<br>575-395-2221<br>575-396-2359 |
| HOSPITALS: Carlsbad Medical Emergency Eunice Medical Emergency Hobbs Medical Emergency Jal Medical Emergency Lovington Medical Emergency   | 911<br>575-885-2111<br>575-394-2112<br>575-397-9308<br>575-395-2221<br>575-396-2359 |
| AGENT NOTIFICATIONS: For Lea County: Bureau of Land Management – Hobbs New Mexico Oil Conservation Division – Hobbs  | 575-393-3612<br>575-393-6161  |
| For Eddy County: Bureau of Land Management - Carlsbad New Mexico Oil Conservation Division - Artesia   | 575-234-5972<br>575-748-1283  |

# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

# NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

# <u>Section 1 – Plan Description</u> Effective May 25, 2021

| I. Operator: _XTO Energ  | y, Inc     |                          | OGRI                     | <b>D:</b> 005380                         | Date                                   | e: _06_/_04_/_2021                     |
|--|------------|--------------------------|--------------------------|--|--|--|
| II. Type: ⊠ Original □   | Amendmen   | at due to □ 19.1         | 5.27.9.D(6)(a) NMA       | .C □ 19.15.27.9.D(6                      | )(b) NMAC □ Othe                       | r.                                     |
| If Other, please describe: _   |            |                          |                          |  |  |  |
| III. Well(s): Provide the fobe recompleted from a sing                         |            |                          |                          |  | ells proposed to be d                  | rilled or proposed to                  |
| Well Name  | API        | ULSTR                    | Footages                 | Anticipated Oil BBL/D                    | Anticipated Gas<br>MCF/D               | Anticipated<br>Produced Water<br>BBL/D |
| Remuda South 25 State 705H   |            | H-25-23S-29E             | 2385' FNL & 750' FEI     | 1500                                     | 2600                                   | 1000                                   |
| Remuda South 25 State 706H   |            | H-25-23S-29E             | 2385' FNL & 720' FEI     | 1500                                     | 2600                                   | 1000                                   |
| Remuda South 25 State 707H   |            | H-25-23S-29E             | 2385' FNL & 690' FEI     |  | 2600                                   | 1000                                   |
| Remuda South 25 State 708H   |            | H-25-23S-29E             | 2385' FNL & 660' FEI     |  | 2600                                   | 1000                                   |
| Remuda South 25 State 709H   |            | H-25-23S-29E             | 2385' FNL & 630' FEI     |  | 2600                                   | 1000                                   |
| IV. Central Delivery Point V. Anticipated Schedule: proposed to be recompleted | Provide th | —<br>e following info    | rmation for each nev     | w or recompleted we                      | <b>L</b>                               | 27.9(D)(1) NMAC]                       |
| *** ** **  | API        | Spud Date                | TD Reached               | Completion                               | Initial Flow Back                      | First Production                       |
| Well Name  |            | 1                        | Date                     | Commencement                             | Date                                   | Date                                   |
| Well Name  |            |                          |                          |  |  |  |
| Well Name  |            |                          | 2                        |  |  |  |
|  |            | 08/09/2021               |                          | Date                                     | Not Yet Scheduled                      | Not Yet Scheduled                      |
| Remuda South 25 State 705H Remuda South 25 State 706H                          |            | 08/09/2021<br>08/24/2021 | 08/24/2021               |  | Not Yet Scheduled<br>Not Yet Scheduled | Not Yet Scheduled Not Yet Scheduled    |
| Remuda South 25 State 705H<br>Remuda South 25 State 706H                       |            | 08/24/2021               | 08/24/2021<br>09/08/2021 | Date Not Yet Scheduled Not Yet Scheduled | Not Yet Scheduled                      | Not Yet Scheduled                      |
| Remuda South 25 State 705H   |            |                          | 08/24/2021               | Date<br>Not Yet Scheduled                |  |  |

- VII. Operational Practices: 

  Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: 

Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

|  |  |   | Enhanced Plan<br>E APRIL 1, 2022  |   |  |
|--|--|---|---|---|--|
|  | 2022, an operator tha complete this section.                             | t is not in compliance                            | with its statewide natural ga   | as capture requ                           | airement for the applicable                    |
|  | es that it is not require<br>t for the applicable rep                    |   | tion because Operator is in o   | compliance wi                             | th its statewide natural gas                   |
| IX. Anticipated Na   | tural Gas Production   | 1:  |   |   |  |
| W  | Vell   | API   | Anticipated Average<br>Natural Gas Rate MCF/D   |   | pated Volume of Natural for the First Year MCF |
|  |  |   |   |   |  |
| X. Natural Gas Ga  | thering System (NGC  | GS):  |   |   |  |
| Operator   | System   | ULSTR of Tie-in                                   | Anticipated Gathering<br>Start Date   | Maximum Daily Capacity tem Segment Tie-in |  |
|  |  |   |   |   |  |
| production operation the segment or portion XII. Line Capacity | ns to the existing or plain of the natural gas gov. The natural gas gath | anned interconnect of t<br>gathering system(s) to | ocation of the well(s), the and the natural gas gathering systewhich the well(s) will be consuming will not have capacity to go tion. | em(s), and the nected.                    | maximum daily capacity of                      |
|  |  |   | at its existing well(s) connect<br>meet anticipated increases in  |   |  |
| ☐ Attach Operator  | 's plan to manage prod   | uction in response to t                           | he increased line pressure.   |   |  |
| Section 2 as provide   | ed in Paragraph (2) of S   |   | uant to Section 71-2-8 NMS 27.9 NMAC, and attaches a fion.  |   |  |
|  |  |   |   |   |  |
|  |  |   |   |   |  |

# Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

- $\Box$  Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or
- ☑ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

  If Operator checks this box, Operator will select one of the following:

Well Shut-In. ⊠ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ⊠ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- **(b)** power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

# **Section 4 - Notices**

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

| Signature:  |
|---|
| Printed Name: Cassie Evans  |
| Title: Regulatory Analyst   |
| E-mail Address: cassie.evans@exxonmobil.com                                     |
| Date: 06/04/2021  |
| Phone: 432.218.3671   |
| OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) |
| Approved By:  |
| Title:  |
| Approval Date:  |
| Conditions of Approval:   |
|   |
|   |
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|   |

# **VI. Separation Equipment:**

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

# **VII. Operational Practices:**

## 1. Subsection B.

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

## 2. Subsection C.

During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

#### 3. Subsection D.

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

 Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

#### 4. Subsection E.

- All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste
- Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

#### 5. Subsection F.

- Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
- Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

# **VIII. Best Management Practices:**

- 1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- 2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
- 3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
- 4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
- 5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
- 6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
- 7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
- 8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.