

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**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.*

FORM APPROVED  
OMB NO. 1004-0137  
Expires: January 31, 2018

5. Lease Serial No.  
NMNM35607

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.  
*Ross Draw 25 36 Fed Com 102H*

8. Well Name and No.  
ROSS DRAW 25 36 FED COM 102H

9. API Well No.  
30-015-45585-00-X1

10. Field and Pool or Exploratory Area  
PURPLE SAGE-WOLFCAMP (GAS)

11. County or Parish, State  
EDDY COUNTY, NM

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

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

2. Name of Operator  
XTO ENERGY INCORPORATED

Contact: KELLY KARDOS  
E-Mail: kelly\_kardos@xtoenergy.com

3a. Address  
6401 HOLIDAY HILL ROAD BLDG 5  
MIDLAND, TX 79707

3b. Phone No. (include area code)  
Ph: 432-620-4374

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 25 T26S R29E NENW 170FNL 2070FWL  
32.019577 N Lat, 103.938972 W Lon

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 performed 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 recompleat 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 determined that the site is ready for final inspection.

XTO Energy Inc. requests permission to make the following changes to the approved APD:

1. Change name to Ross Draw 25-36 Fed Com 102H - *324930*
2. Change formation to Purple Sage; Wolfcamp
2. Change BHL from 170'FSL & 2190'FWL to 200'FSL & 1594'FWL
5. Drilling Program/Directional Plan

Attachments:

1. C102 & Supplement

*See 2nd page*

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #451354 verified by the BLM Well Information System  
For XTO ENERGY INCORPORATED, sent to the Carlsbad  
Committed to AFMS for processing by PRISCILLA PEREZ on 01/29/2019 (19PP0798SE)**

Name (Printed/Typed) KELLY KARDOS

Title REGULATORY COORDINATOR

Signature (Electronic Submission)

Date 01/22/2019

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By ZOTA STEVENS

Title PETROLEUM ENGINEER

Date 02/21/2019

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 Carlsbad

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)

**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

*RWP 2-25-19*

**Additional data for EC transaction #451354 that would not fit on the form**

**32. Additional remarks, continued**

2. Drilling Program
3. BOP/CM/FH
4. Directional Plan
5. GCP

\*Sundry originally submitted on 1/9/19. BLM rejected on 1/22/19 due to system failure and unable to upload attachments. Requested sundry be re-submitted.

## Revisions to Operator-Submitted EC Data for Sundry Notice #451354

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM35607	NMNM35607
Agreement:		
Operator:	XTO ENERGY INC. 6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707 Ph: 432-620-4374	XTO ENERGY INCORPORATED 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 Ph: 432.683 2277
Admin Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com  Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com  Ph: 432-620-4374
Tech Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com  Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com  Ph: 432-620-4374
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	BRUSHY DRAW; WOLFCAMP	PURPLE SAGE-WOLFCAMP (GAS)
Well/Facility:	ROSS DRAW 25 FED WX 22H Sec 25 T26S R29E Mer NMP NENW 170FNL 271FWL	ROSS DRAW 25 36 FED COM 102H Sec 25 T26S R29E NENW 170FNL 2070FWL 32.019577 N Lat, 103.938972 W Lon

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>XTO ENERGY, INC</b>
<b>LEASE NO.:</b>	<b>NMNM35607</b>
<b>WELL NAME &amp; NO.:</b>	<b>ROSS DRAW 25-35 FED COM 102H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>170' FNL &amp; 2071' FWL</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>200' FNL &amp; 1594' FWL</b>
<b>LOCATION:</b>	<b>Section25; T26S; R29E NMP</b>
<b>COUNTY:</b>	<b>EDDY, NEW MEXICO</b>

COA

**All previous COAs still apply expect the following:**

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP

## A. Hydrogen Sulfide

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 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 350 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of 8 hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing shall be set at approximately **3150 ft** is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the 7 inch production casing is:

- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the 4-1/2 inch production liner is:

- Cement should tie-back 100' into the previous casing. 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. 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.

## 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)

☒ Chaves and Roosevelt Counties

Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.

During office hours call (575) 627-0272.

After office hours call (575)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)  
393-3612

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 Onshore Oil and Gas Order No. 2 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 (one log per well pad is acceptable) 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
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. 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 OOGO2.III.A.2.i must be followed.
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 when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.
- 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. 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.
- f. 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. This test shall be performed prior to the test at full stack pressure.
- g. 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 Onshore Order No. 2.

### **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.

#### **Waste Minimization Plan (WMP)**

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

**ZS 021919**

District I  
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 Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 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

FEB 25 2019

RECEIVED

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-45585	<sup>2</sup> Pool Code 98220	<sup>3</sup> Pool Name PURPLE SAGE; WOLFCAMP
<sup>4</sup> Property Code 324930	<sup>5</sup> Property Name ROSS DRAW 25-36 FED COM	<sup>6</sup> Well Number 102H
<sup>7</sup> OGRID No. 005380	<sup>8</sup> Operator Name XTO ENERGY, INC.	<sup>9</sup> Elevation 2,959

<sup>10</sup> Surface Location

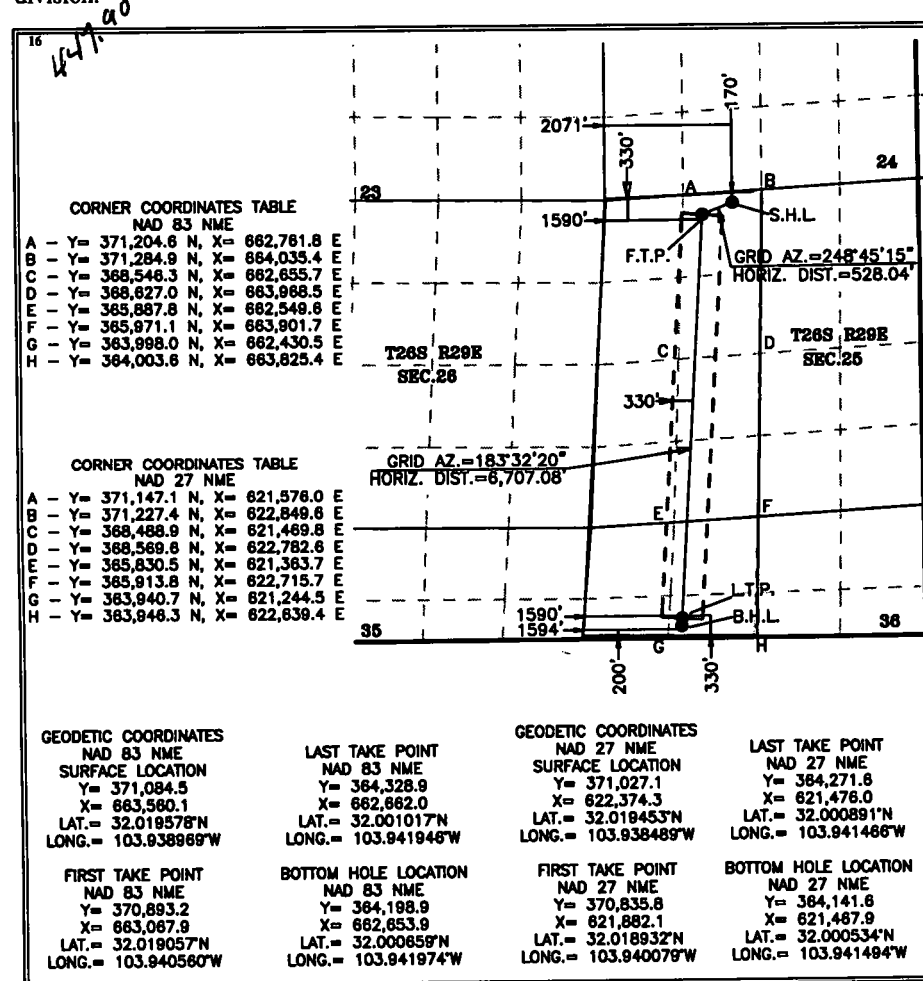
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	26 S	29 E		170	NORTH	2,071	WEST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 F	36	26 S	29 E	A	200	SOUTH	1,594	WEST	EDDY

<sup>12</sup> Dedicated Acres 847.9	<sup>13</sup> Joint or Infill 449.90	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
--	---	----------------------------------	-------------------------

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.



<sup>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kelly Kardos 01-09-19  
Signature Date

Kelly Kardos

Printed Name

kelly\_kardos@xtoenergy.com

E-mail Address

<sup>18</sup> SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

12-18-2018

Date of Survey

Signature and Seal of  
Professional Surveyor:



MARK DILLON HARP 23786  
Certificate Number

JC

2018112761

RWP 2-25-19

Intent ☒ As Drilled ☐

**FEB 25 2019**

API #  
**30-015-45585**

**RECEIVED**

Operator Name: <b>XTO Energy Inc.</b>	Property Name: <b>Ross Draw 25-36 Fed Com</b>	Well Number <b>102H</b>
--	--	----------------------------

**Kick Off Point (KOP)**

UL <b>C</b>	Section <b>25</b>	Township <b>26S</b>	Range <b>29E</b>	Lot	Feet <b>170</b>	From N/S <b>North</b>	Feet <b>2071</b>	From E/W <b>West</b>	County <b>Eddy</b>
Latitude <b>32.019578</b>					Longitude <b>-103.938969</b>			NAD <b>NAD83</b>	

**First Take Point (FTP)**

UL <b>C</b>	Section <b>25</b>	Township <b>26S</b>	Range <b>29E</b>	Lot	Feet <b>330</b>	From N/S <b>North</b>	Feet <b>1590</b>	From E/W <b>West</b>	County <b>Eddy</b>
Latitude <b>32.019057</b>					Longitude <b>-103.940560</b>			NAD <b>NAD83</b>	

**Last Take Point (LTP)**

UL	Section <b>36</b>	Township <b>26S</b>	Range <b>29E</b>	Lot <b>2</b>	Feet <b>330</b>	From N/S <b>South</b>	Feet <b>1590</b>	From E/W <b>West</b>	County <b>Eddy</b>
Latitude <b>32.001017</b>					Longitude <b>-103.941946</b>			NAD <b>NAD83</b>	

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**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original  
to Appropriate  
District Office

**NM OIL CONSERVATION  
ARTESIA DISTRICT**

**FEB 25 2019**

**GAS CAPTURE PLAN**

Date: 01/09/2019

**RECEIVED**

☐ Original Operator & OGRID No.: XTO Energy, Inc. [005380] \_\_\_\_\_  
☒ Amended - Reason for Amendment: Name Change \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

**Well(s)/Production Facility – Ross Draw 25 Northeast**

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Ross Draw 25-36 Fed Com 102H	30-015-45585	C-25-26S-29E	170'FNL & 2071'FWEL	2500	Flared/Sold	CTB to be connected to P/L

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to ETC and will be connected to ETC low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. XTO ENERGY, INC. provides (periodically) to ETC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, XTO ENERGY, INC. and ETC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ETC's Processing Plant located in Sec. 25 Twn. 26S, Rng. 29E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on ETC's system at that time. Based on current information, it is XTO ENERGY, INC.'s belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

**Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

XTO Energy Inc.  
Ross Draw 25-36 FED 102H  
Projected TD: 17011' MD / 10225' TVD  
SHL: 170' FNL & 2071' FWL , Section 25, T26S, R29E  
BHL: 200' FSL & 1594' FWL , Section 36, T26S, R29E  
Eddy County, NM

**1. Geologic Name of Surface Formation**

A. Permian

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	507'	Water
Top of Salt	1350'	Water
Base of Salt	2981'	Water
Delaware	3156'	Water
Bone Spring	6907'	Water/Oil/Gas
1st Bone Spring Ss	7881'	Water/Oil/Gas
2nd Bone Spring Ss	8752'	Water/Oil/Gas
3rd Bone Spring Ss	9756'	Water/Oil/Gas
Wolfcamp Y	10210'	Water/Oil/Gas
Target/Land Curve	10225'	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

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

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13-3/8 inch casing @ 560' (-53' into the Rustler) and circulating cement back to surface. The salt will be isolated by setting 9-5/8 inch casing at 3040' and circulating cement to surface. An 8-3/4 inch vertical and curve hole will be drilled and 7 inch casing run and cemented 500' into the 9-5/8 inch casing. A 6-1/8 inch curve and lateral hole will be drilled to MD/TD and 4-1/2 inch liner will be set at TD and cemented back 250' into the 7 inch casing shoe.

**3. Casing Design**

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 560'	13-3/8"	48	STC	H-40	New	1.83	3.00	11.98
12-1/4"	0' – 3040'	9-5/8"	36	LTC	J-55	New	1.31	2.11	4.14
8-3/4"	0' – 10576'	7"	29	LTC	P-110	New	1.18	1.73	2.60
6-1/8"	9663' – 17011'	4-1/2"	13.5	BTC	P-110	New	1.31	2.56	2.44

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 9-5/8" & 4-1/2" Collapse analyzed using 50% evacuation based on regional experience.
- 4-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

**WELLHEAD:**

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

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

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

#### 4. Cement Program

*Surface Casing: 13-3/8", 48 New H-40, STC casing to be set at +/- 560'*

Lead: 190 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft<sup>3</sup>/sx, 10.13 gal/sx water)

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

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

*Intermediate Casing: 9-5/8", 36 New J-55, LTC casing to be set at +/- 3040'*

Lead: 840 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft<sup>3</sup>/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)

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

*2nd Intermediate Casing: 7", 29 New P-110, LTC casing to be set at +/- 10576'*

Lead: 960 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft<sup>3</sup>/sx, 9.61 gal/sx water)

Tail: 60 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft<sup>3</sup>/sx, 6.39 gal/sx water)

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

*Production Liner: 4-1/2", 13.5 New P-110, BTC casing to be set at +/- 17011'*

Tail: 620 sxs VersaCem (mixed at 13.2 ppg, 1.33 ft<sup>3</sup>/sx, 8.38 gal/sx water)

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

#### 5. Pressure Control Equipment

The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 4131 psi.

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 13-5/8" 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When the 9-5/8" and 7" casing is set, the packoff seals 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 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.

## 6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' to 560'	17-1/2"	FW/Native	8.4-8.8	35-40	NC
560' to 3040'	12-1/4"	Brine/Gel Sweeps	9.8-10.2	30-32	NC
3040' to 10576'	8-3/4"	FW / Cut Brine	8.6-9.5	29-32	NC - 20
10576' to 17011'	6-1/8"	FW / Cut Brine / Polymer	11.7-12	32-50	20-Aug

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 9.8ppg-10.2ppg 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 13-3/8" casing.

## 8. Logging, Coring and Testing Program

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

Open hole logging will include quad combo.

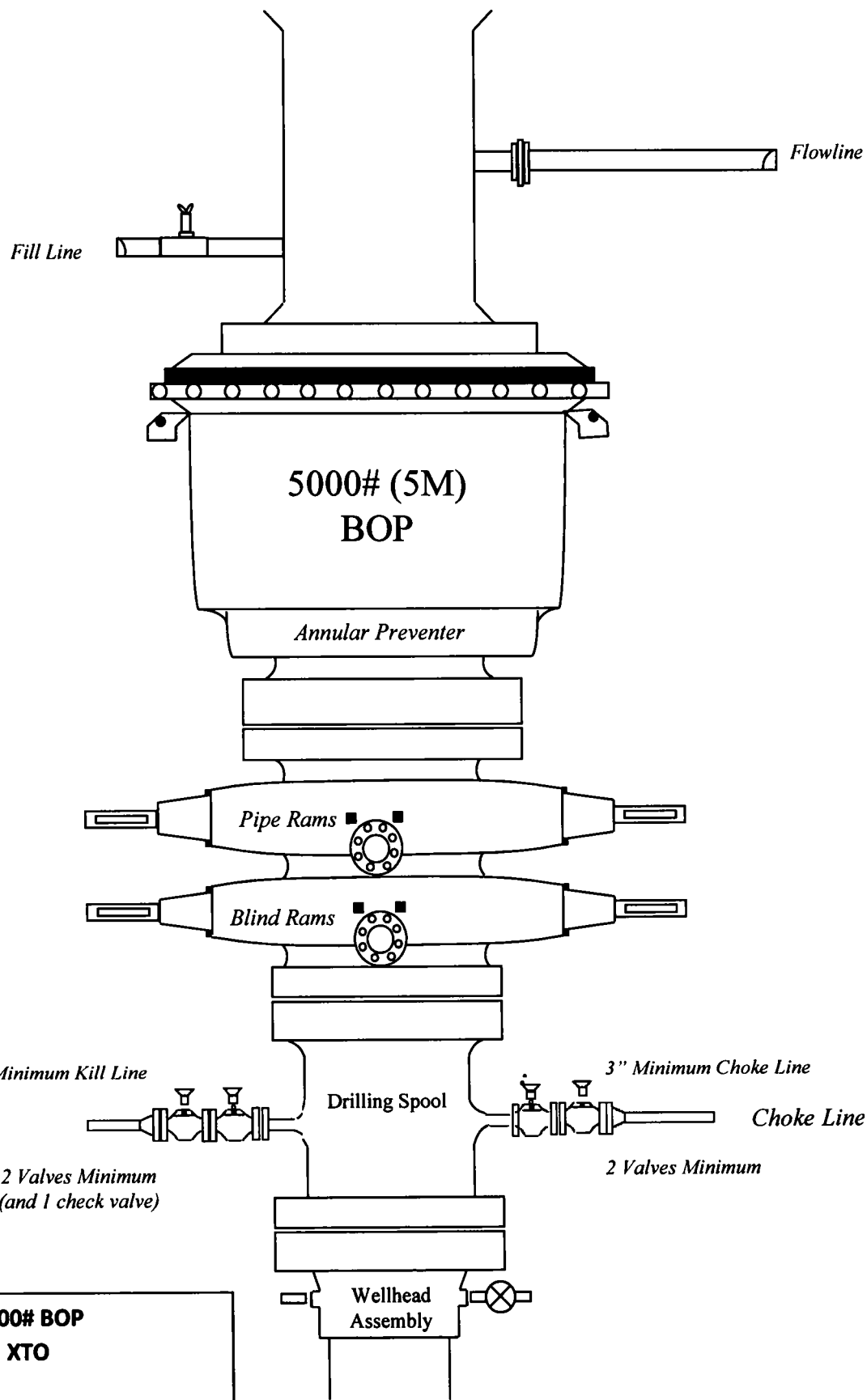
## 9. Abnormal Pressures and Temperatures / Potential Hazards

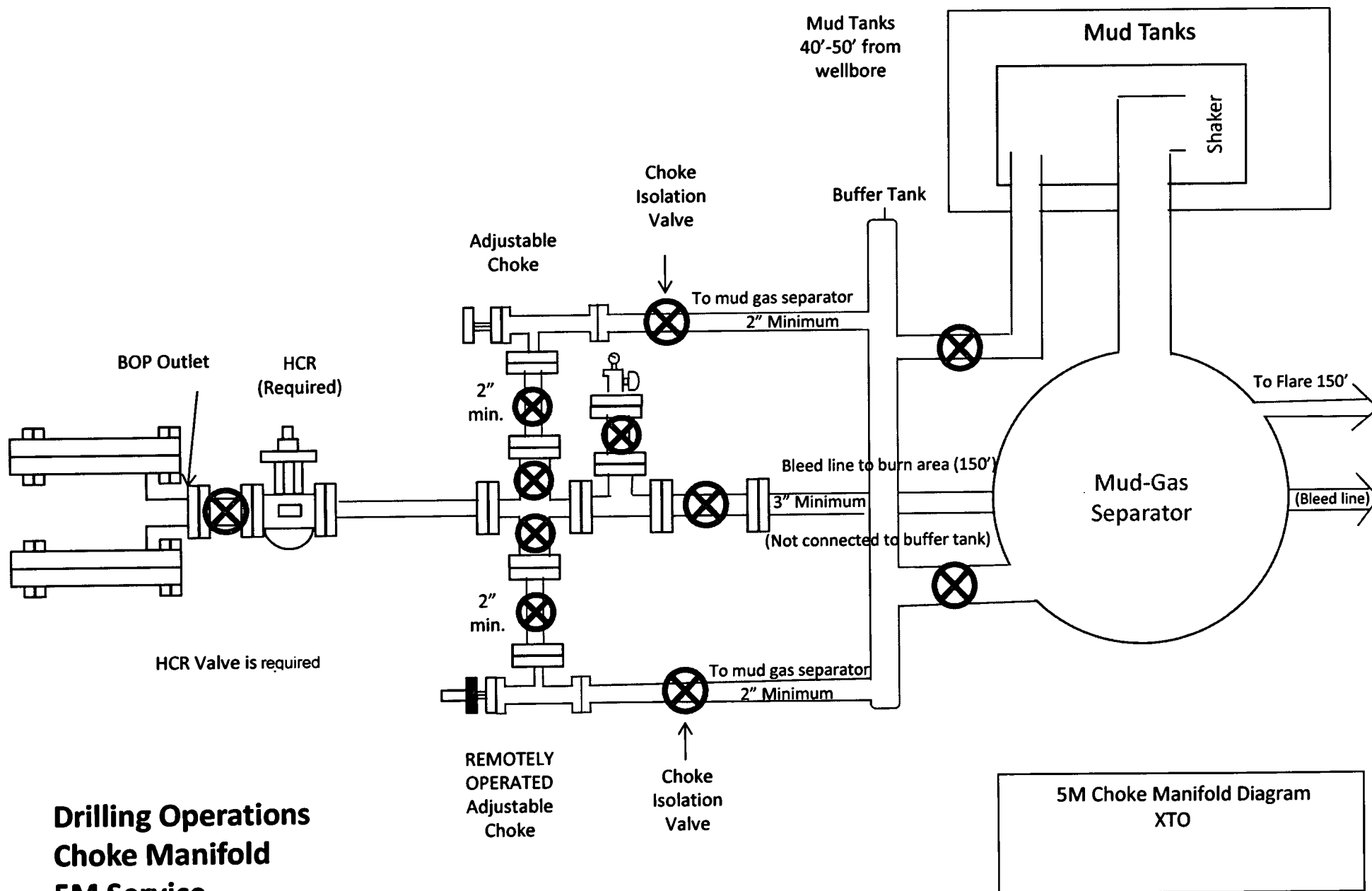
None Anticipated. BHT of 145 to 165 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. 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 6380 psi.

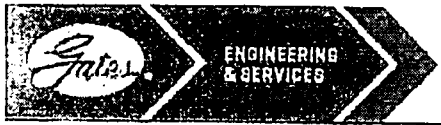
## 10. Anticipated Starting Date and Duration of Operations

Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.









GATES E & S NORTH AMERICA, INC  
DU-TEX  
134 44TH STREET  
CORPUS CHRISTI, TEXAS 78405

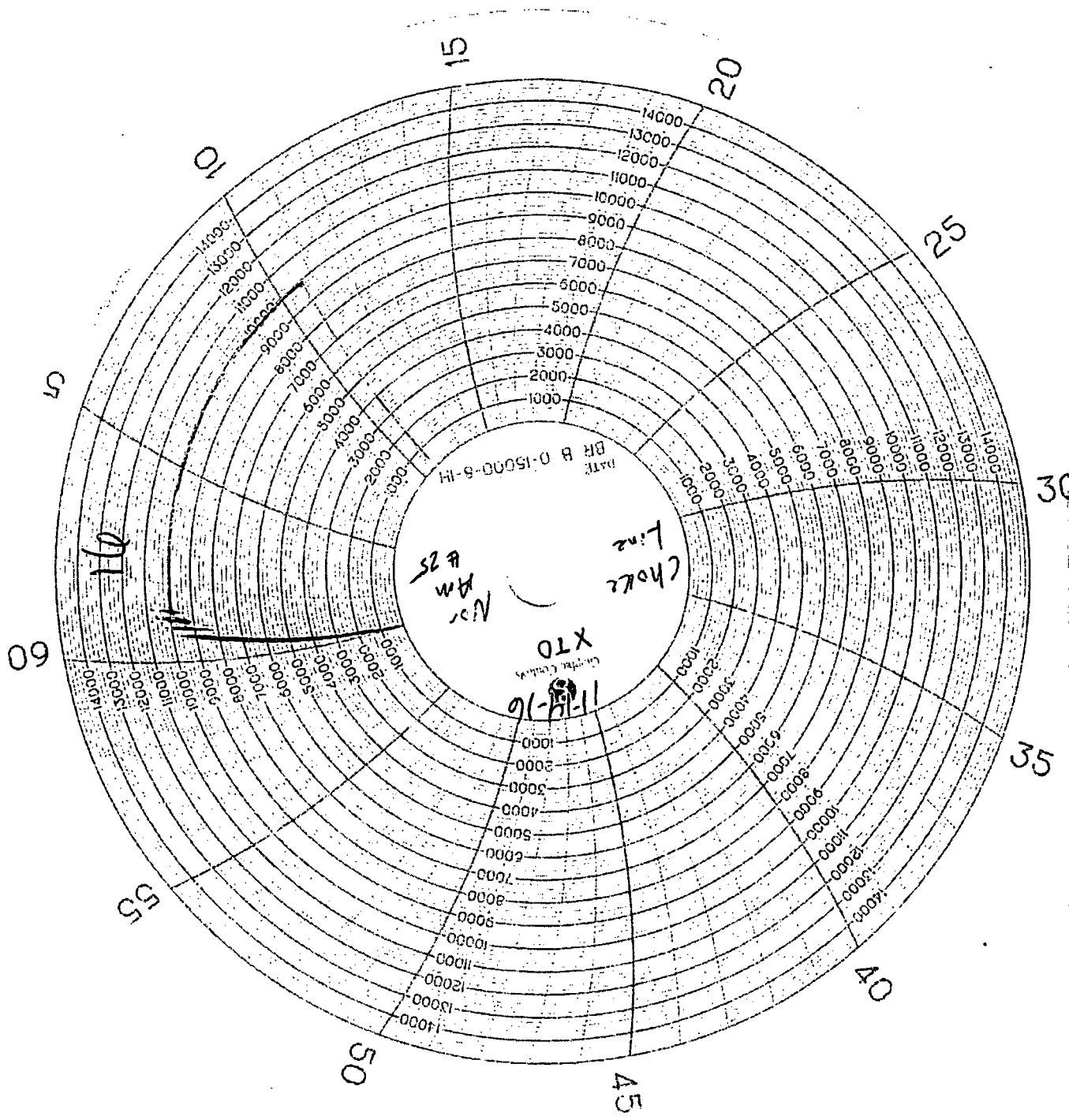
PHONE: 361-887-9807  
FAX: 361-887-0812  
EMAIL: crpe&s@gates.com  
WEB: www.gates.com

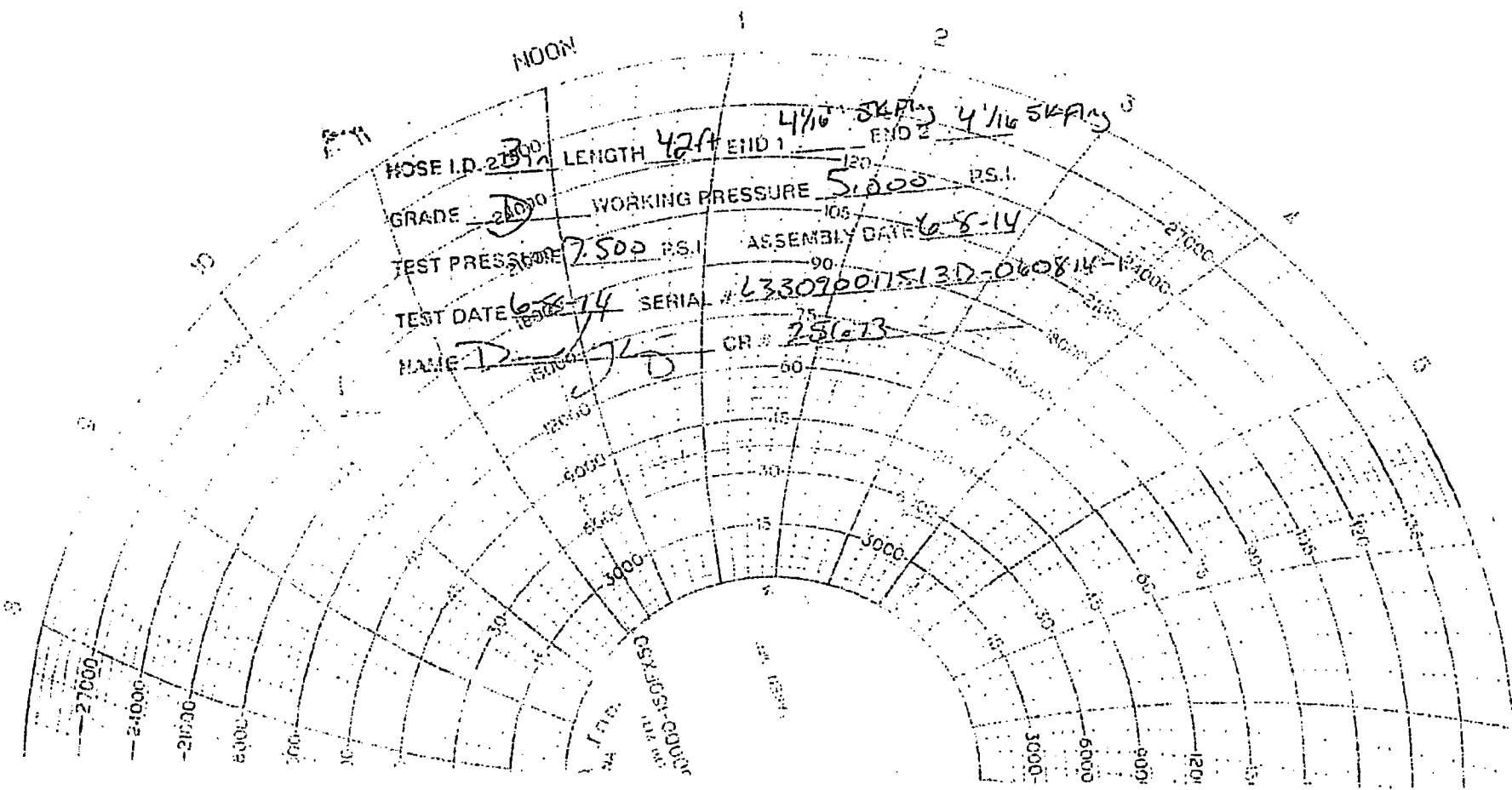
### GRADE D PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA
Product Description:	FD3.0-12.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:	QUALITY	Technical Supervisor :	PRODUCTION
Date :	6/8/2014	Date :	6/8/2014
Signature :		Signature :	





HOSE I.D. 2 3/4" LENGTH 42ft END 1 4 1/16 SKAF END 2 4 1/16 SKAF  
GRADE D WORKING PRESSURE 5,000 PS.I.  
TEST PRESSURE 7,500 PS.I. ASSEMBLY DATE 6-8-14  
TEST DATE 6-8-14 SERIAL # 63309001513D-060814-1  
NAME D. J. L. CR # 25613

# XTO Energy

Project: Eddy County, NM (NAD27) NMEZ US  
 Site: Ross Draw 25-36 Pad  
 Well: ROSS DRAW 25-36 FED 102H  
 Wellbore: ROSS DRAW 25-36 FED 102H  
 Design: Plan #1

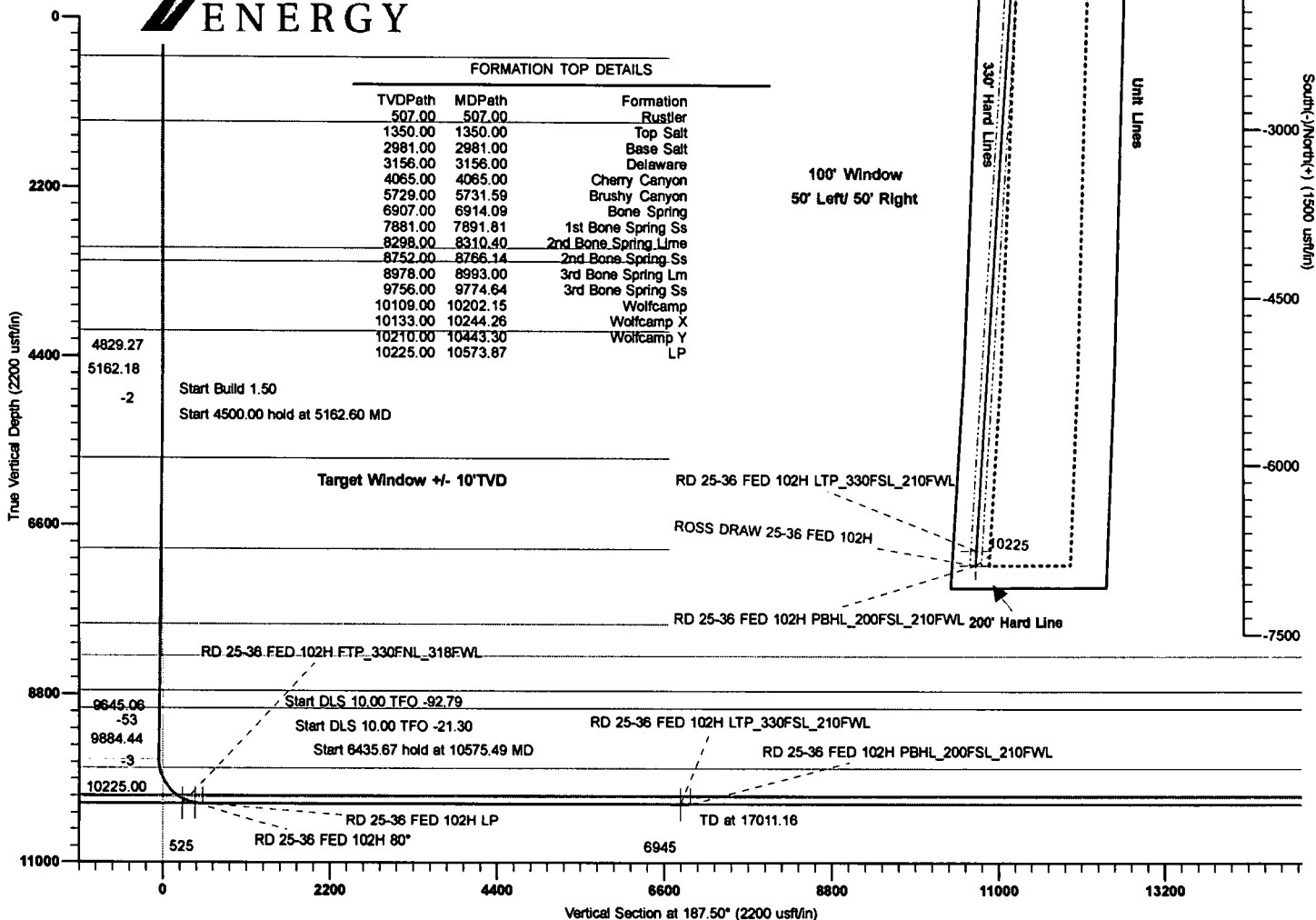
2960+24 @ 2984.00usft (Hercules)  
 NAD 1927 (NADCON CONUS)



Azimuths to Grid North  
 True North: -0.21°  
 Magnetic North: 6.73°

Magnetic Field  
 Strength: 47623.0nT  
 Dip Angle: 59.80°  
 Date: 2019/01/01  
 Model: IGRF2015

To convert a Magnetic Direction to a Grid Direction, Add 6.73°



Plan: Plan #1 (ROSS DRAW 25-36 FED 102H/ROSS DRAW 25-36 FED 102H)

Created By: Mekka Williams  
 eSomina Well Design  
 mekka@esominawell.com  
 20:37, January 02 2019

**TRUE PERFORMANCE DIRECTIONAL DRILLING**  
 5075 E 52nd Street, Odessa, Texas 79762  
 281.222.8366



# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

<b>Project</b>	Eddy County, NM (NAD27) NMEZ US		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

Site		Ross Draw 25-36 Pad			
Site Position:		Northing:	371,027.10 usft	Latitude:	32.0194530
From:	Map	Easting:	622,374.30 usft	Longitude:	-103.9384887
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.21 °

Well	ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL					
Well Position	+N/-S	0.00 usft	Northing:	371,027.10 usft	Latitude:	32.0194530
	+E/-W	0.00 usft	Easting:	622,374.30 usft	Longitude:	-103.9384887
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	2,960.00 usft

<b>Wellbore</b>	ROSS DRAW 25-36 FED 102H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	2019/01/01	6.94	59.80	47,623

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	187.50	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,829.27	0.00	0.00	4,829.27	0.00	0.00	0.00	0.00	0.00	0.00	
5,162.60	5.00	285.00	5,162.18	3.76	-14.04	1.50	1.50	0.00	285.00	
9,662.60	5.00	285.00	9,645.06	105.27	-392.88	0.00	0.00	0.00	0.00	
9,910.32	25.00	203.00	9,884.44	59.16	-424.25	10.00	8.07	-33.10	-92.79	
10,575.49	90.00	183.54	10,225.00	-462.08	-509.47	10.00	9.77	-2.93	-21.30	
17,011.17	90.00	183.54	10,225.00	-6,885.50	-906.40	0.00	0.00	0.00	0.00	RD 25-36 FED 102H

# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
507.00	0.00	0.00	507.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Rustler</b>									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Top Salt</b>									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,981.00	0.00	0.00	2,981.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Base Salt</b>									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,156.00	0.00	0.00	3,156.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Delaware</b>									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,065.00	0.00	0.00	4,065.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Cherry Canyon</b>									
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00



# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,829.27	0.00	0.00	4,829.27	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	1.06	285.00	4,900.00	0.17	-0.63	-0.09	1.50	1.50	0.00
5,000.00	2.56	285.00	4,999.94	0.99	-3.68	-0.50	1.50	1.50	0.00
5,100.00	4.06	285.00	5,099.77	2.48	-9.26	-1.25	1.50	1.50	0.00
5,162.60	5.00	285.00	5,162.18	3.76	-14.04	-1.90	1.50	1.50	0.00
5,200.00	5.00	285.00	5,199.43	4.61	-17.19	-2.32	0.00	0.00	0.00
5,300.00	5.00	285.00	5,299.05	6.86	-25.61	-3.46	0.00	0.00	0.00
5,400.00	5.00	285.00	5,398.67	9.12	-34.03	-4.60	0.00	0.00	0.00
5,500.00	5.00	285.00	5,498.29	11.37	-42.44	-5.74	0.00	0.00	0.00
5,600.00	5.00	285.00	5,597.91	13.63	-50.86	-6.87	0.00	0.00	0.00
5,700.00	5.00	285.00	5,697.53	15.88	-59.28	-8.01	0.00	0.00	0.00
5,731.59	5.00	285.00	5,729.00	16.60	-61.94	-8.37	0.00	0.00	0.00
<b>Brushy Canyon</b>									
5,800.00	5.00	285.00	5,797.15	18.14	-67.70	-9.15	0.00	0.00	0.00
5,900.00	5.00	285.00	5,896.77	20.40	-76.12	-10.29	0.00	0.00	0.00
6,000.00	5.00	285.00	5,996.39	22.65	-84.54	-11.42	0.00	0.00	0.00
6,100.00	5.00	285.00	6,096.01	24.91	-92.96	-12.56	0.00	0.00	0.00
6,200.00	5.00	285.00	6,195.63	27.16	-101.37	-13.70	0.00	0.00	0.00
6,300.00	5.00	285.00	6,295.25	29.42	-109.79	-14.84	0.00	0.00	0.00
6,400.00	5.00	285.00	6,394.87	31.67	-118.21	-15.98	0.00	0.00	0.00
6,500.00	5.00	285.00	6,494.49	33.93	-126.63	-17.11	0.00	0.00	0.00
6,600.00	5.00	285.00	6,594.11	36.19	-135.05	-18.25	0.00	0.00	0.00
6,700.00	5.00	285.00	6,693.73	38.44	-143.47	-19.39	0.00	0.00	0.00
6,800.00	5.00	285.00	6,793.35	40.70	-151.89	-20.53	0.00	0.00	0.00
6,900.00	5.00	285.00	6,892.97	42.95	-160.30	-21.66	0.00	0.00	0.00
6,914.09	5.00	285.00	6,907.00	43.27	-161.49	-21.82	0.00	0.00	0.00
<b>Bone Spring</b>									
7,000.00	5.00	285.00	6,992.59	45.21	-168.72	-22.80	0.00	0.00	0.00
7,100.00	5.00	285.00	7,092.20	47.46	-177.14	-23.94	0.00	0.00	0.00
7,200.00	5.00	285.00	7,191.82	49.72	-185.56	-25.08	0.00	0.00	0.00
7,300.00	5.00	285.00	7,291.44	51.98	-193.98	-26.22	0.00	0.00	0.00
7,400.00	5.00	285.00	7,391.06	54.23	-202.40	-27.35	0.00	0.00	0.00
7,500.00	5.00	285.00	7,490.68	56.49	-210.82	-28.49	0.00	0.00	0.00
7,600.00	5.00	285.00	7,590.30	58.74	-219.23	-29.63	0.00	0.00	0.00
7,700.00	5.00	285.00	7,689.92	61.00	-227.65	-30.77	0.00	0.00	0.00
7,800.00	5.00	285.00	7,789.54	63.26	-236.07	-31.90	0.00	0.00	0.00
7,891.81	5.00	285.00	7,881.00	65.33	-243.80	-32.95	0.00	0.00	0.00
<b>1st Bone Spring Ss</b>									
7,900.00	5.00	285.00	7,889.16	65.51	-244.49	-33.04	0.00	0.00	0.00
8,000.00	5.00	285.00	7,988.78	67.77	-252.91	-34.18	0.00	0.00	0.00
8,100.00	5.00	285.00	8,088.40	70.02	-261.33	-35.32	0.00	0.00	0.00
8,200.00	5.00	285.00	8,188.02	72.28	-269.75	-36.45	0.00	0.00	0.00
8,300.00	5.00	285.00	8,287.64	74.53	-278.16	-37.59	0.00	0.00	0.00
8,310.40	5.00	285.00	8,298.00	74.77	-279.04	-37.71	0.00	0.00	0.00
<b>2nd Bone Spring Lime</b>									

# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,400.00	5.00	285.00	8,387.26	76.79	-286.58	-38.73	0.00	0.00	0.00
8,500.00	5.00	285.00	8,486.88	79.05	-295.00	-39.87	0.00	0.00	0.00
8,600.00	5.00	285.00	8,586.50	81.30	-303.42	-41.01	0.00	0.00	0.00
8,700.00	5.00	285.00	8,686.12	83.56	-311.84	-42.14	0.00	0.00	0.00
8,766.14	5.00	285.00	8,752.00	85.05	-317.41	-42.90	0.00	0.00	0.00
<b>2nd Bone Spring Ss</b>									
8,800.00	5.00	285.00	8,785.74	85.81	-320.26	-43.28	0.00	0.00	0.00
8,900.00	5.00	285.00	8,885.36	88.07	-328.68	-44.42	0.00	0.00	0.00
8,993.00	5.00	285.00	8,978.00	90.17	-336.51	-45.48	0.00	0.00	0.00
<b>3rd Bone Spring Lm</b>									
9,000.00	5.00	285.00	8,984.97	90.32	-337.09	-45.56	0.00	0.00	0.00
9,100.00	5.00	285.00	9,084.59	92.58	-345.51	-46.69	0.00	0.00	0.00
9,200.00	5.00	285.00	9,184.21	94.84	-353.93	-47.83	0.00	0.00	0.00
9,300.00	5.00	285.00	9,283.83	97.09	-362.35	-48.97	0.00	0.00	0.00
9,400.00	5.00	285.00	9,383.45	99.35	-370.77	-50.11	0.00	0.00	0.00
9,500.00	5.00	285.00	9,483.07	101.60	-379.19	-51.25	0.00	0.00	0.00
9,600.00	5.00	285.00	9,582.69	103.86	-387.61	-52.38	0.00	0.00	0.00
9,662.60	5.00	285.00	9,645.06	105.27	-392.88	-53.10	0.00	0.00	0.00
9,700.00	6.09	247.14	9,682.29	104.92	-396.28	-52.30	10.00	2.92	-101.24
9,750.00	9.85	222.43	9,731.81	100.73	-401.61	-47.46	10.00	7.50	-49.42
9,774.64	12.03	216.41	9,756.00	97.11	-404.56	-43.48	10.00	8.87	-24.46
<b>3rd Bone Spring Ss</b>									
9,800.00	14.37	212.14	9,780.69	92.32	-407.80	-38.30	10.00	9.24	-16.83
9,850.00	19.14	206.79	9,828.56	79.74	-414.80	-24.92	10.00	9.52	-10.70
9,900.00	23.99	203.52	9,875.05	63.09	-422.56	-7.40	10.00	9.71	-6.53
9,910.32	25.00	203.00	9,884.44	59.16	-424.25	-3.29	10.00	9.78	-5.07
9,950.00	28.73	200.00	9,919.83	42.47	-430.79	14.11	10.00	9.40	-7.56
10,000.00	33.50	197.11	9,962.63	17.98	-438.96	39.47	10.00	9.55	-5.78
10,050.00	38.33	194.87	10,003.11	-10.22	-447.01	68.47	10.00	9.65	-4.48
10,100.00	43.19	193.06	10,040.97	-41.89	-454.86	100.89	10.00	9.72	-3.61
10,150.00	48.07	191.56	10,075.93	-76.80	-462.46	136.50	10.00	9.77	-3.01
10,200.00	52.97	190.27	10,107.71	-114.68	-469.75	175.01	10.00	9.80	-2.58
10,202.15	53.18	190.22	10,109.00	-116.37	-470.05	176.73	10.00	9.81	-2.40
<b>Wolfcamp</b>									
10,244.26	57.32	189.26	10,133.00	-150.47	-475.90	211.30	10.00	9.82	-2.28
<b>Wolfcamp X</b>									
10,250.00	57.88	189.13	10,136.07	-155.25	-476.67	216.14	10.00	9.83	-2.15
10,300.00	62.80	188.12	10,160.81	-198.20	-483.17	259.57	10.00	9.84	-2.04
10,350.00	67.73	187.18	10,181.72	-243.20	-489.21	304.96	10.00	9.86	-1.86
10,400.00	72.67	186.32	10,198.65	-289.90	-494.73	351.99	10.00	9.87	-1.74
10,443.30	76.94	185.60	10,210.00	-331.45	-499.07	393.75	10.00	9.87	-1.65
<b>Wolfcamp Y</b>									
10,450.00	77.60	185.49	10,211.48	-337.95	-499.70	400.28	10.00	9.88	-1.61
10,500.00	82.54	184.70	10,220.10	-387.00	-504.07	449.47	10.00	9.88	-1.58
10,550.00	87.48	183.93	10,224.44	-436.65	-507.82	499.19	10.00	9.88	-1.55
10,573.87	89.84	183.56	10,225.00	-460.46	-509.37	523.00	10.00	9.88	-1.54
<b>LP</b>									
10,575.49	90.00	183.54	10,225.00	-462.08	-509.47	524.82	10.00	9.88	-1.54
10,600.00	90.00	183.54	10,225.00	-486.54	-510.99	549.07	0.00	0.00	0.00
10,700.00	90.00	183.54	10,225.00	-586.35	-517.15	648.83	0.00	0.00	0.00
10,800.00	90.00	183.54	10,225.00	-686.16	-523.32	748.59	0.00	0.00	0.00
10,900.00	90.00	183.54	10,225.00	-785.97	-529.49	848.35	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Bulld Rate (°/100ft)	Turn Rate (°/100ft)
11,000.00	90.00	183.54	10,225.00	-885.78	-535.66	948.11	0.00	0.00	0.00
11,100.00	90.00	183.54	10,225.00	-985.59	-541.82	1,047.87	0.00	0.00	0.00
11,200.00	90.00	183.54	10,225.00	-1,085.40	-547.99	1,147.63	0.00	0.00	0.00
11,300.00	90.00	183.54	10,225.00	-1,185.21	-554.16	1,247.40	0.00	0.00	0.00
11,400.00	90.00	183.54	10,225.00	-1,285.02	-560.33	1,347.16	0.00	0.00	0.00
11,500.00	90.00	183.54	10,225.00	-1,384.83	-566.49	1,446.92	0.00	0.00	0.00
11,600.00	90.00	183.54	10,225.00	-1,484.64	-572.66	1,546.68	0.00	0.00	0.00
11,700.00	90.00	183.54	10,225.00	-1,584.45	-578.83	1,646.44	0.00	0.00	0.00
11,800.00	90.00	183.54	10,225.00	-1,684.26	-585.00	1,746.20	0.00	0.00	0.00
11,900.00	90.00	183.54	10,225.00	-1,784.07	-591.16	1,845.96	0.00	0.00	0.00
12,000.00	90.00	183.54	10,225.00	-1,883.88	-597.33	1,945.72	0.00	0.00	0.00
12,100.00	90.00	183.54	10,225.00	-1,983.69	-603.50	2,045.48	0.00	0.00	0.00
12,200.00	90.00	183.54	10,225.00	-2,083.49	-609.67	2,145.24	0.00	0.00	0.00
12,300.00	90.00	183.54	10,225.00	-2,183.30	-615.83	2,245.00	0.00	0.00	0.00
12,400.00	90.00	183.54	10,225.00	-2,283.11	-622.00	2,344.76	0.00	0.00	0.00
12,500.00	90.00	183.54	10,225.00	-2,382.92	-628.17	2,444.53	0.00	0.00	0.00
12,600.00	90.00	183.54	10,225.00	-2,482.73	-634.34	2,544.29	0.00	0.00	0.00
12,700.00	90.00	183.54	10,225.00	-2,582.54	-640.51	2,644.05	0.00	0.00	0.00
12,800.00	90.00	183.54	10,225.00	-2,682.35	-646.67	2,743.81	0.00	0.00	0.00
12,900.00	90.00	183.54	10,225.00	-2,782.16	-652.84	2,843.57	0.00	0.00	0.00
13,000.00	90.00	183.54	10,225.00	-2,881.97	-659.01	2,943.33	0.00	0.00	0.00
13,100.00	90.00	183.54	10,225.00	-2,981.78	-665.18	3,043.09	0.00	0.00	0.00
13,200.00	90.00	183.54	10,225.00	-3,081.59	-671.34	3,142.85	0.00	0.00	0.00
13,300.00	90.00	183.54	10,225.00	-3,181.40	-677.51	3,242.61	0.00	0.00	0.00
13,400.00	90.00	183.54	10,225.00	-3,281.21	-683.68	3,342.37	0.00	0.00	0.00
13,500.00	90.00	183.54	10,225.00	-3,381.02	-689.85	3,442.13	0.00	0.00	0.00
13,600.00	90.00	183.54	10,225.00	-3,480.83	-696.01	3,541.90	0.00	0.00	0.00
13,700.00	90.00	183.54	10,225.00	-3,580.64	-702.18	3,641.66	0.00	0.00	0.00
13,800.00	90.00	183.54	10,225.00	-3,680.45	-708.35	3,741.42	0.00	0.00	0.00
13,900.00	90.00	183.54	10,225.00	-3,780.26	-714.52	3,841.18	0.00	0.00	0.00
14,000.00	90.00	183.54	10,225.00	-3,880.07	-720.68	3,940.94	0.00	0.00	0.00
14,100.00	90.00	183.54	10,225.00	-3,979.88	-726.85	4,040.70	0.00	0.00	0.00
14,200.00	90.00	183.54	10,225.00	-4,079.69	-733.02	4,140.46	0.00	0.00	0.00
14,300.00	90.00	183.54	10,225.00	-4,179.50	-739.19	4,240.22	0.00	0.00	0.00
14,400.00	90.00	183.54	10,225.00	-4,279.31	-745.35	4,339.98	0.00	0.00	0.00
14,500.00	90.00	183.54	10,225.00	-4,379.12	-751.52	4,439.74	0.00	0.00	0.00
14,600.00	90.00	183.54	10,225.00	-4,478.93	-757.69	4,539.50	0.00	0.00	0.00
14,700.00	90.00	183.54	10,225.00	-4,578.74	-763.86	4,639.26	0.00	0.00	0.00
14,800.00	90.00	183.54	10,225.00	-4,678.54	-770.02	4,739.03	0.00	0.00	0.00
14,900.00	90.00	183.54	10,225.00	-4,778.35	-776.19	4,838.79	0.00	0.00	0.00
15,000.00	90.00	183.54	10,225.00	-4,878.16	-782.36	4,938.55	0.00	0.00	0.00
15,100.00	90.00	183.54	10,225.00	-4,977.97	-788.53	5,038.31	0.00	0.00	0.00
15,200.00	90.00	183.54	10,225.00	-5,077.78	-794.69	5,138.07	0.00	0.00	0.00
15,300.00	90.00	183.54	10,225.00	-5,177.59	-800.86	5,237.83	0.00	0.00	0.00
15,400.00	90.00	183.54	10,225.00	-5,277.40	-807.03	5,337.59	0.00	0.00	0.00
15,500.00	90.00	183.54	10,225.00	-5,377.21	-813.20	5,437.35	0.00	0.00	0.00
15,600.00	90.00	183.54	10,225.00	-5,477.02	-819.37	5,537.11	0.00	0.00	0.00
15,700.00	90.00	183.54	10,225.00	-5,576.83	-825.53	5,636.87	0.00	0.00	0.00
15,800.00	90.00	183.54	10,225.00	-5,676.64	-831.70	5,736.63	0.00	0.00	0.00
15,900.00	90.00	183.54	10,225.00	-5,776.45	-837.87	5,836.40	0.00	0.00	0.00
16,000.00	90.00	183.54	10,225.00	-5,876.26	-844.04	5,936.16	0.00	0.00	0.00
16,100.00	90.00	183.54	10,225.00	-5,976.07	-850.20	6,035.92	0.00	0.00	0.00
16,200.00	90.00	183.54	10,225.00	-6,075.88	-856.37	6,135.68	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
16,300.00	90.00	183.54	10,225.00	-6,175.69	-862.54	6,235.44	0.00	0.00	0.00
16,400.00	90.00	183.54	10,225.00	-6,275.50	-868.71	6,335.20	0.00	0.00	0.00
16,500.00	90.00	183.54	10,225.00	-6,375.31	-874.87	6,434.96	0.00	0.00	0.00
16,600.00	90.00	183.54	10,225.00	-6,475.12	-881.04	6,534.72	0.00	0.00	0.00
16,700.00	90.00	183.54	10,225.00	-6,574.93	-887.21	6,634.48	0.00	0.00	0.00
16,800.00	90.00	183.54	10,225.00	-6,674.74	-893.38	6,734.24	0.00	0.00	0.00
16,900.00	90.00	183.54	10,225.00	-6,774.55	-899.54	6,834.00	0.00	0.00	0.00
17,000.00	90.00	183.54	10,225.00	-6,874.36	-905.71	6,933.76	0.00	0.00	0.00
17,011.17	90.00	183.54	10,225.00	-6,885.50	-906.40	6,944.90	0.00	0.00	0.00

## Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RD 25-36 FED 102H SH - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	371,027.10	622,374.30	32.0194530	-103.9384887
RD 25-36 FED 102H 80' - plan hits target center - Point	0.00	0.01	10,216.19	-361.67	-501.90	370,665.43	621,872.40	32.0184638	-103.9401123
RD 25-36 FED 102H FT - plan misses target center by 60.93usft at 10321.74usft MD (10170.38 TVD, -217.53 N, -485.86 E) - Point	0.00	0.00	10,225.00	-191.30	-492.20	370,835.80	621,882.10	32.0189321	-103.9400790
RD 25-36 FED 102H PB - plan hits target center - Rectangle (sides W100.00 H6,707.00 D0.00)	0.00	0.00	10,225.00	-6,885.50	-906.40	364,141.60	621,467.90	32.0005337	-103.9414937
RD 25-36 FED 102H LP - plan hits target center - Point	0.00	0.00	10,225.00	-462.08	-509.47	370,565.02	621,864.83	32.0181879	-103.9401379
RD 25-36 FED 102H LTI - plan misses target center by 0.07usft at 16880.91usft MD (10225.00 TVD, -6755.50 N, -898.37 E) - Point	0.00	0.00	10,225.00	-6,755.50	-898.30	364,271.60	621,476.00	32.0008910	-103.9414661

# Planning Report

<b>Database:</b>	TP_EDM	<b>Local Co-ordinate Reference:</b>	Well ROSS DRAW 25-36 FED 102H - Slot RD 25-36 FED 102H SHL
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Project:</b>	Eddy County, NM (NAD27) NMEZ US	<b>MD Reference:</b>	2960+24 @ 2984.00usft (Hercules)
<b>Site:</b>	Ross Draw 25-36 Pad	<b>North Reference:</b>	Grid
<b>Well:</b>	ROSS DRAW 25-36 FED 102H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ROSS DRAW 25-36 FED 102H		
<b>Design:</b>	Plan #1		

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
507.00	507.00	Rustler			
1,350.00	1,350.00	Top Salt			
2,981.00	2,981.00	Base Salt			
3,156.00	3,156.00	Delaware			
4,065.00	4,065.00	Cherry Canyon			
5,731.59	5,729.00	Brushy Canyon			
6,914.09	6,907.00	Bone Spring			
7,891.81	7,881.00	1st Bone Spring Ss			
8,310.40	8,298.00	2nd Bone Spring Lime			
8,766.14	8,752.00	2nd Bone Spring Ss			
8,993.00	8,978.00	3rd Bone Spring Lm			
9,774.64	9,756.00	3rd Bone Spring Ss			
10,202.15	10,109.00	Wolfcamp			
10,244.26	10,133.00	Wolfcamp X			
10,443.30	10,210.00	Wolfcamp Y			
10,573.87	10,225.00	LP			