

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTEMNRD-OCD ARTESIA
REC'D: 6/22/2020FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMNM136870
2. Name of Operator XTO ENERGY INCORPORATED		6. If Indian, Allottee or Tribe Name
Contact: KELLY KARDOS E-Mail: kelly_kardos@xtoenergy.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707	3b. Phone No. (include area code) Ph: 432-620-4374	8. Well Name and No. CORRAL CANYON 9-4 FEDERAL 161H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 9 T25S R29E NWSW 2021FSL 365FWL 32.142876 N Lat, 103.996880 W Lon		9. API Well No. 30-015-47115-00-X1
		10. Field and Pool or Exploratory Area PURPLE SAGE WOLFCAMP
		11. County or Parish, State EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ 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 APD:

Change BHL from 200FNL & 330FWL to 200FNL & 380FWL

Attachments:
C102 & Supplement
Directional Plan

14. I hereby certify that the foregoing is true and correct. Electronic Submission #518737 verified by the BLM Well Information System For XTO ENERGY INCORPORATED, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER SANCHEZ on 06/22/2020 (20JAS0138SE)	
Name (Printed/Typed) KELLY KARDOS	Title REGULATORY COORDINATOR
Signature (Electronic Submission)	Date 06/12/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JENNIFER SANCHEZ	Title PETROLEUM ENGINEER	Date 06/22/2020
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 ****

Revisions to Operator-Submitted EC Data for Sundry Notice #518737

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM136870	NMNM136870
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:	PURPLE SAGE WOLFCAMP	
Well/Facility:	CORRAL CANYON 9-4 FEDERAL 161H Sec 9 T25S R29E Mer NMP NWSW 2021FSL 365FWL	CORRAL CANYON 9-4 FEDERAL 161H Sec 9 T25S R29E NWSW 2021FSL 365FWL 32.142876 N Lat, 103.996880 W Lon

Kardos, Kelly

From: j1sanchez@blm.gov
Sent: Monday, June 22, 2020 8:20 AM
To: Kardos, Kelly
Cc: j1sanchez@blm.gov
Subject: Well CORRAL CANYON 9-4 FEDERAL 161H
Attachments: EC518737.pdf

Categories: External Sender

External Email - Think Before You Click

COAs from EC#516680 stil apply.

The sundry for Change to Original APD you submitted has been approved by the BLM. Your original Electronic Commerce (EC) transmission was assigned ID 518737. Please be sure to open and save all attachments to this message, since they contain important information.

PECOS DISTRICT

DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy, Inc.
LEASE NO.:	NMNM-136870
WELL NAME & NO.:	Corral Canyon 9-4 Federal 161H
SURFACE HOLE FOOTAGE:	2021' FSL & 0365' FWL
BOTTOM HOLE FOOTAGE:	0200' FNL & 0330' FWL Sec. 04, T. 25 S., R. 29 E.
LOCATION:	Section 09, T. 25 S., R. 29 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	☐ Yes	☒ No	
Potash	☒ None	☐ Secretary	☐ R-111-P
Cave/Karst Potential	☐ Low	☒ Medium	☐ High
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☒ Flex Hose	☐ Other
Wellhead	☐ Conventional	☒ Multibowl	☐ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

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.

Medium Cave/Karst

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

B. CASING

1. The **11-3/4** inch surface casing shall be set at approximately **691** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - 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.

8-5/8" Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. DV tool must be 50 feet below previous shoe and minimum of 200 feet above current shoe. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool:
 - Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**
- ❖ 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 5-1/2 inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M) psi. Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

BOP Break Testing Variance

- Shell testing is not approved for any portion of the hole with a MASP of 5000 psi or greater.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOP Break Testing operations.
- A full BOP test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOP test will be required.

GENERAL REQUIREMENTS

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

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

☒ Eddy County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - 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 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 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.
3. 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.
4. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
5. 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.
6. 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.

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. 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.
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. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer.
 - c. 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.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - 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 if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- 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.

JAM 0602020

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
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47115		² Pool Code		³ Pool Name	
⁴ Property Code 328244		⁵ Property Name CORRAL CANYON 9-4 FED			⁶ Well Number 161H
⁷ OGRID No. 005380		⁸ Operator Name XTO ENERGY, INC.			⁹ Elevation 3,006'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	9	25 S	29 E		2,021	SOUTH	365	WEST	EDDY

¹¹ 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
L4	4	25 S	29 E		200	NORTH	380	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

¹⁶ SEC. 32 T24S R29E SEC. 5 SEC. 4 T25S R29E SEC. 8 SEC. 9 GRID AZ.=359°46'14" HORIZ. DIST.=7,412.92' LOT ACREAGE TABLE LOT 2 - 39.92 ACRES LOT 3 - 39.85 ACRES LOT 4 - 39.79 ACRES GRID AZ.=00°47'04" HORIZ. DIST.=972.73'	GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y= 415,818.3 X= 604,289.0 LAT.= 32.142753°N LONG.= 103.996389°W FIRST TAKE POINT NAD 27 NME Y= 416,790.8 X= 604,302.5 LAT.= 32.145426°N LONG.= 103.996336°W	GEODETIC COORDINATES NAD 83 NME SURFACE LOCATION Y= 415,876.8 X= 645,473.2 LAT.= 32.142877°N LONG.= 103.996877°W FIRST TAKE POINT NAD 83 NME Y= 416,849.4 X= 645,486.5 LAT.= 32.145550°N LONG.= 103.996824°W	¹⁷ 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 Signature _____ Date _____ Printed Name _____ E-mail Address _____
	CORNER COORDINATES TABLE NAD 27 NME A - Y= 416,448.1 N, X= 603,922.8 E B - Y= 416,453.5 N, X= 605,250.9 E C - Y= 419,098.9 N, X= 603,919.2 E D - Y= 419,106.1 N, X= 605,247.1 E E - Y= 421,752.6 N, X= 603,906.0 E F - Y= 421,759.8 N, X= 605,230.4 E G - Y= 424,400.2 N, X= 603,891.7 E H - Y= 424,412.4 N, X= 605,213.3 E	CORNER COORDINATES TABLE NAD 83 NME A - Y= 416,506.6 N, X= 645,107.0 E B - Y= 416,512.0 N, X= 646,435.1 E C - Y= 419,157.4 N, X= 645,103.3 E D - Y= 419,164.6 N, X= 646,431.2 E E - Y= 421,811.2 N, X= 645,090.1 E F - Y= 421,818.4 N, X= 646,414.5 E G - Y= 424,458.8 N, X= 645,075.7 E H - Y= 424,471.0 N, X= 646,397.3 E	¹⁸ 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. 06-08-2020 Date of Survey Signature and Seal of Professional Surveyor: MARK DILLON HARP 23786 Certificate Number
	LAST TAKE POINT NAD 27 NME Y= 424,073.4 X= 604,273.7 LAT.= 32.165446°N LONG.= 103.996355°W BOTTOM HOLE LOCATION NAD 27 NME Y= 424,203.4 X= 604,273.0 LAT.= 32.165803°N LONG.= 103.996356°W	LAST TAKE POINT NAD 83 NME Y= 424,132.3 X= 645,457.5 LAT.= 32.165570°N LONG.= 103.996844°W BOTTOM HOLE LOCATION NAD 83 NME Y= 424,262.3 X= 645,456.8 LAT.= 32.165928°N LONG.= 103.996845°W	
	AW 2018010261		

rwp 6/22/2020

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

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

First Take Point (FTP)

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

Last Take Point (LTP)

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

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

Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number



XTO Energy Inc.

Eddy County, NM (NAD27)

SEC 9 - T25S - 29E

CORRAL CANYON 9-4 FED 161H

OH - HZ

Plan: #1 (06.11.20)

Standard Planning Report

11 June, 2020



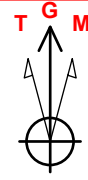


Project: Eddy County, NM (NAD27)
Site: SEC 9 - T25S - 29E
Well: CORRAL CANYON 9-4 FED 161H
Wellbore: OH - HZ
Plan: #1 (06.11.20)

WELL DETAILS: CORRAL CANYON 9-4 FED 161H

27" KB @ 3033.00usft (Precision 580)
Ground Level: 3006.00
Gravity: 0.99846

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	415818.30	604289.00	32.142753	-103.996389
US State Plane 1927 (Exact solution)					
New Mexico East 3001					



Total Azimuth to Grid North
True North: -0.18°
Magnetic North: 6.64°

Magnetic Field
Strength: 47773.8nT
Dip Angle: 59.83°
Date: 6/3/2020
Model: HDGM_FILE

SECTION DETAILS

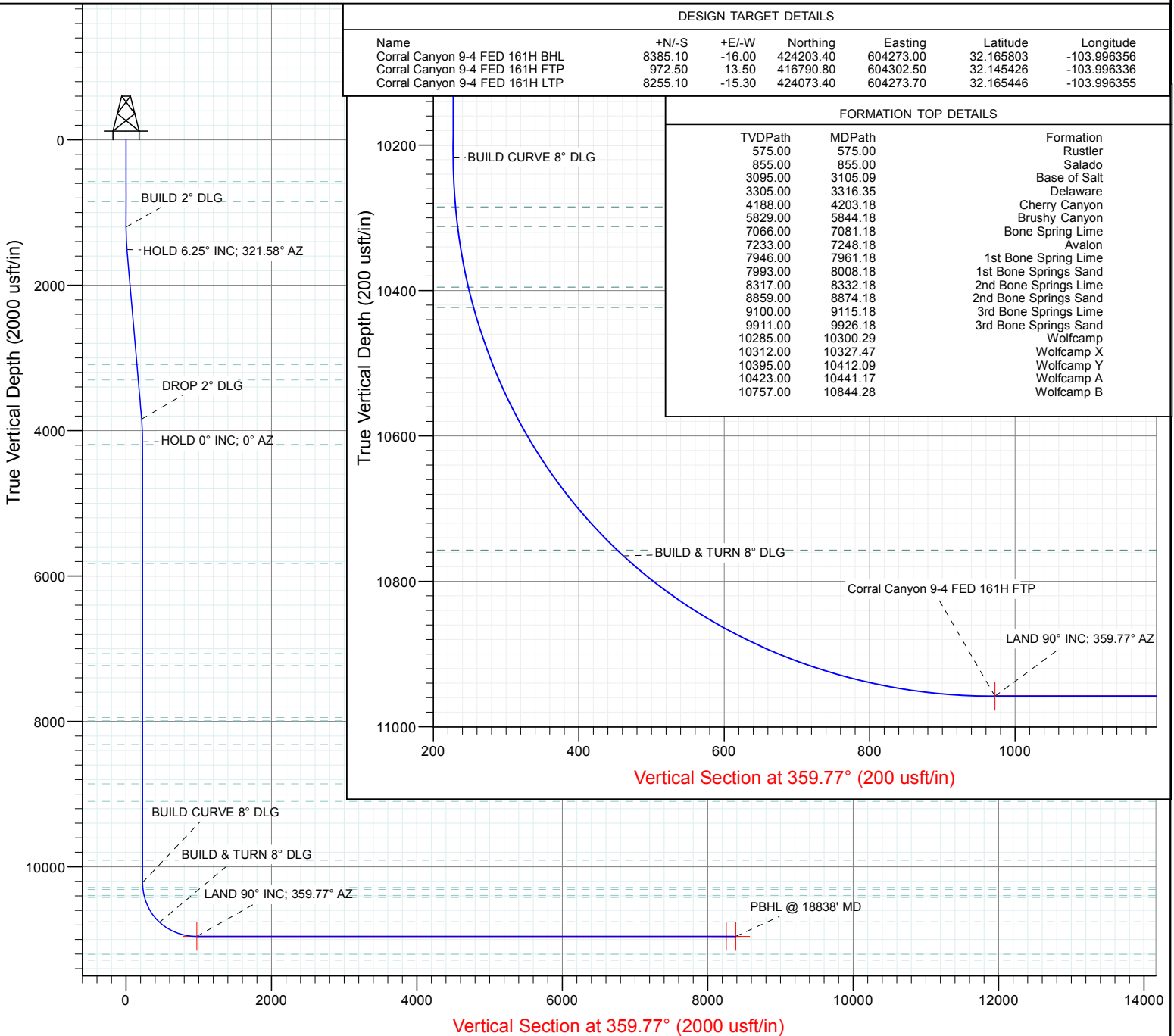
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	BUILD 2° DLG
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	HOLD 6.25° INC; 321.58° AZ
1512.58	6.25	321.58	1511.96	13.35	-10.59	2.00	321.58	13.39	DROP 2° DLG
3857.61	6.25	321.58	3843.04	213.41	-169.27	0.00	0.00	214.09	HOLD 0° INC; 0° AZ
4170.18	0.00	0.00	4155.00	226.76	-179.86	2.00	180.00	227.48	BUILD CURVE 8° DLG
10231.43	0.00	0.00	10216.25	226.76	-179.86	0.00	0.00	227.48	BUILD & TURN 8° DLG
10856.43	50.00	23.60	10764.89	461.20	-77.44	8.00	23.60	461.50	LAND 90° INC; 359.77° AZ
11425.35	90.00	359.77	10958.00	972.50	13.50	8.00	-34.49	972.44	PBHL @ 18838' MD
18838.00	90.00	359.77	10958.00	8385.10	-16.00	0.00	0.00	8385.10	

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Corral Canyon 9-4 FED 161H BHL	8385.10	-16.00	424203.40	604273.00	32.165803	-103.996356
Corral Canyon 9-4 FED 161H FTP	972.50	13.50	416790.80	604302.50	32.145426	-103.996336
Corral Canyon 9-4 FED 161H LTP	8255.10	-15.30	424073.40	604273.70	32.165446	-103.996355

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
575.00	575.00	Rustler
855.00	855.00	Salado
3095.00	3105.09	Base of Salt
3305.00	3316.35	Delaware
4188.00	4203.18	Cherry Canyon
5829.00	5844.18	Brushy Canyon
7066.00	7081.18	Bone Spring Lime
7233.00	7248.18	Avalon
7946.00	7961.18	1st Bone Spring Lime
7993.00	8008.18	1st Bone Springs Sand
8317.00	8332.18	2nd Bone Springs Lime
8859.00	8874.18	2nd Bone Springs Sand
9100.00	9115.18	3rd Bone Springs Lime
9911.00	9926.18	3rd Bone Springs Sand
10285.00	10300.29	Wolfcamp
10312.00	10327.47	Wolfcamp X
10395.00	10412.09	Wolfcamp Y
10423.00	10441.17	Wolfcamp A
10757.00	10844.28	Wolfcamp B



Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

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

Site		SEC 9 - T25S - 29E, Gravity: 0.99846			
Site Position:		Northing:	415,788.30 usft	Latitude:	32.142670
From:	Map	Easting:	604,290.20 usft	Longitude:	-103.996386
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.18 °

Well	CORRAL CANYON 9-4 FED 161H					
Well Position	+N/-S	0.00 usft	Northing:	415,818.30 usft	Latitude:	32.142753
	+E/-W	0.00 usft	Easting:	604,289.00 usft	Longitude:	-103.996389
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,006.00 usft

Wellbore	OH - HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM_FILE	6/3/2020	6.82	59.83	47,773.80000000

Design	#1 (06.11.20)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.77

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
1,512.58	6.25	321.58	1,511.96	13.35	-10.59	2.00	2.00	0.00	321.58	
3,857.61	6.25	321.58	3,843.04	213.41	-169.27	0.00	0.00	0.00	0.00	
4,170.18	0.00	0.00	4,155.00	226.76	-179.86	2.00	-2.00	0.00	180.00	
10,231.43	0.00	0.00	10,216.25	226.76	-179.86	0.00	0.00	0.00	0.00	
10,856.43	50.00	23.60	10,764.89	461.20	-77.44	8.00	8.00	0.00	23.60	
11,425.35	90.00	359.77	10,958.00	972.50	13.50	8.00	7.03	-4.19	-34.49	
18,838.00	90.00	359.77	10,958.00	8,385.10	-16.00	0.00	0.00	0.00	0.00	Corral Canyon 9-4 I

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
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	
200.00	0.00	0.00	200.00	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	
400.00	0.00	0.00	400.00	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	
600.00	0.00	0.00	600.00	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	
800.00	0.00	0.00	800.00	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	
1,000.00	0.00	0.00	1,000.00	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	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	BUILD 2° DLG
1,300.00	2.00	321.58	1,299.98	1.37	-1.08	1.37	2.00	2.00	
1,400.00	4.00	321.58	1,399.84	5.47	-4.34	5.48	2.00	2.00	
1,500.00	6.00	321.58	1,499.45	12.30	-9.75	12.33	2.00	2.00	
1,512.58	6.25	321.58	1,511.96	13.35	-10.59	13.39	2.00	2.00	HOLD 6.25° INC; 321.58° AZ
1,600.00	6.25	321.58	1,598.86	20.81	-16.50	20.87	0.00	0.00	
1,700.00	6.25	321.58	1,698.27	29.34	-23.27	29.43	0.00	0.00	
1,800.00	6.25	321.58	1,797.67	37.87	-30.04	37.99	0.00	0.00	
1,900.00	6.25	321.58	1,897.08	46.40	-36.80	46.55	0.00	0.00	
2,000.00	6.25	321.58	1,996.48	54.93	-43.57	55.11	0.00	0.00	
2,100.00	6.25	321.58	2,095.89	63.46	-50.34	63.66	0.00	0.00	
2,200.00	6.25	321.58	2,195.29	71.99	-57.10	72.22	0.00	0.00	
2,300.00	6.25	321.58	2,294.70	80.53	-63.87	80.78	0.00	0.00	
2,400.00	6.25	321.58	2,394.10	89.06	-70.64	89.34	0.00	0.00	
2,500.00	6.25	321.58	2,493.51	97.59	-77.40	97.90	0.00	0.00	
2,600.00	6.25	321.58	2,592.91	106.12	-84.17	106.46	0.00	0.00	
2,700.00	6.25	321.58	2,692.32	114.65	-90.94	115.02	0.00	0.00	
2,800.00	6.25	321.58	2,791.72	123.18	-97.71	123.57	0.00	0.00	
2,900.00	6.25	321.58	2,891.13	131.71	-104.47	132.13	0.00	0.00	
3,000.00	6.25	321.58	2,990.54	140.25	-111.24	140.69	0.00	0.00	
3,100.00	6.25	321.58	3,089.94	148.78	-118.01	149.25	0.00	0.00	
3,200.00	6.25	321.58	3,189.35	157.31	-124.77	157.81	0.00	0.00	
3,300.00	6.25	321.58	3,288.75	165.84	-131.54	166.37	0.00	0.00	
3,400.00	6.25	321.58	3,388.16	174.37	-138.31	174.93	0.00	0.00	
3,500.00	6.25	321.58	3,487.56	182.90	-145.07	183.48	0.00	0.00	
3,600.00	6.25	321.58	3,586.97	191.44	-151.84	192.04	0.00	0.00	
3,700.00	6.25	321.58	3,686.37	199.97	-158.61	200.60	0.00	0.00	
3,800.00	6.25	321.58	3,785.78	208.50	-165.38	209.16	0.00	0.00	
3,857.61	6.25	321.58	3,843.05	213.41	-169.27	214.09	0.00	0.00	DROP 2° DLG
3,900.00	5.40	321.58	3,885.22	216.79	-171.95	217.47	2.00	-2.00	
4,000.00	3.40	321.58	3,984.92	222.80	-176.72	223.51	2.00	-2.00	
4,100.00	1.40	321.58	4,084.82	226.09	-179.33	226.80	2.00	-2.00	
4,170.18	0.00	321.58	4,155.00	226.76	-179.86	227.48	2.00	-2.00	HOLD 0° INC; 0° AZ
4,200.00	0.00	0.00	4,184.82	226.76	-179.86	227.48	0.00	0.00	
4,300.00	0.00	0.00	4,284.82	226.76	-179.86	227.48	0.00	0.00	
4,400.00	0.00	0.00	4,384.82	226.76	-179.86	227.48	0.00	0.00	
4,500.00	0.00	0.00	4,484.82	226.76	-179.86	227.48	0.00	0.00	
4,600.00	0.00	0.00	4,584.82	226.76	-179.86	227.48	0.00	0.00	
4,700.00	0.00	0.00	4,684.82	226.76	-179.86	227.48	0.00	0.00	
4,800.00	0.00	0.00	4,784.82	226.76	-179.86	227.48	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,900.00	0.00	0.00	4,884.82	226.76	-179.86	227.48	0.00	0.00	
5,000.00	0.00	0.00	4,984.82	226.76	-179.86	227.48	0.00	0.00	
5,100.00	0.00	0.00	5,084.82	226.76	-179.86	227.48	0.00	0.00	
5,200.00	0.00	0.00	5,184.82	226.76	-179.86	227.48	0.00	0.00	
5,300.00	0.00	0.00	5,284.82	226.76	-179.86	227.48	0.00	0.00	
5,400.00	0.00	0.00	5,384.82	226.76	-179.86	227.48	0.00	0.00	
5,500.00	0.00	0.00	5,484.82	226.76	-179.86	227.48	0.00	0.00	
5,600.00	0.00	0.00	5,584.82	226.76	-179.86	227.48	0.00	0.00	
5,700.00	0.00	0.00	5,684.82	226.76	-179.86	227.48	0.00	0.00	
5,800.00	0.00	0.00	5,784.82	226.76	-179.86	227.48	0.00	0.00	
5,900.00	0.00	0.00	5,884.82	226.76	-179.86	227.48	0.00	0.00	
6,000.00	0.00	0.00	5,984.82	226.76	-179.86	227.48	0.00	0.00	
6,100.00	0.00	0.00	6,084.82	226.76	-179.86	227.48	0.00	0.00	
6,200.00	0.00	0.00	6,184.82	226.76	-179.86	227.48	0.00	0.00	
6,300.00	0.00	0.00	6,284.82	226.76	-179.86	227.48	0.00	0.00	
6,400.00	0.00	0.00	6,384.82	226.76	-179.86	227.48	0.00	0.00	
6,500.00	0.00	0.00	6,484.82	226.76	-179.86	227.48	0.00	0.00	
6,600.00	0.00	0.00	6,584.82	226.76	-179.86	227.48	0.00	0.00	
6,700.00	0.00	0.00	6,684.82	226.76	-179.86	227.48	0.00	0.00	
6,800.00	0.00	0.00	6,784.82	226.76	-179.86	227.48	0.00	0.00	
6,900.00	0.00	0.00	6,884.82	226.76	-179.86	227.48	0.00	0.00	
7,000.00	0.00	0.00	6,984.82	226.76	-179.86	227.48	0.00	0.00	
7,100.00	0.00	0.00	7,084.82	226.76	-179.86	227.48	0.00	0.00	
7,200.00	0.00	0.00	7,184.82	226.76	-179.86	227.48	0.00	0.00	
7,300.00	0.00	0.00	7,284.82	226.76	-179.86	227.48	0.00	0.00	
7,400.00	0.00	0.00	7,384.82	226.76	-179.86	227.48	0.00	0.00	
7,500.00	0.00	0.00	7,484.82	226.76	-179.86	227.48	0.00	0.00	
7,600.00	0.00	0.00	7,584.82	226.76	-179.86	227.48	0.00	0.00	
7,700.00	0.00	0.00	7,684.82	226.76	-179.86	227.48	0.00	0.00	
7,800.00	0.00	0.00	7,784.82	226.76	-179.86	227.48	0.00	0.00	
7,900.00	0.00	0.00	7,884.82	226.76	-179.86	227.48	0.00	0.00	
8,000.00	0.00	0.00	7,984.82	226.76	-179.86	227.48	0.00	0.00	
8,100.00	0.00	0.00	8,084.82	226.76	-179.86	227.48	0.00	0.00	
8,200.00	0.00	0.00	8,184.82	226.76	-179.86	227.48	0.00	0.00	
8,300.00	0.00	0.00	8,284.82	226.76	-179.86	227.48	0.00	0.00	
8,400.00	0.00	0.00	8,384.82	226.76	-179.86	227.48	0.00	0.00	
8,500.00	0.00	0.00	8,484.82	226.76	-179.86	227.48	0.00	0.00	
8,600.00	0.00	0.00	8,584.82	226.76	-179.86	227.48	0.00	0.00	
8,700.00	0.00	0.00	8,684.82	226.76	-179.86	227.48	0.00	0.00	
8,800.00	0.00	0.00	8,784.82	226.76	-179.86	227.48	0.00	0.00	
8,900.00	0.00	0.00	8,884.82	226.76	-179.86	227.48	0.00	0.00	
9,000.00	0.00	0.00	8,984.82	226.76	-179.86	227.48	0.00	0.00	
9,100.00	0.00	0.00	9,084.82	226.76	-179.86	227.48	0.00	0.00	
9,200.00	0.00	0.00	9,184.82	226.76	-179.86	227.48	0.00	0.00	
9,300.00	0.00	0.00	9,284.82	226.76	-179.86	227.48	0.00	0.00	
9,400.00	0.00	0.00	9,384.82	226.76	-179.86	227.48	0.00	0.00	
9,500.00	0.00	0.00	9,484.82	226.76	-179.86	227.48	0.00	0.00	
9,600.00	0.00	0.00	9,584.82	226.76	-179.86	227.48	0.00	0.00	
9,700.00	0.00	0.00	9,684.82	226.76	-179.86	227.48	0.00	0.00	
9,800.00	0.00	0.00	9,784.82	226.76	-179.86	227.48	0.00	0.00	
9,900.00	0.00	0.00	9,884.82	226.76	-179.86	227.48	0.00	0.00	
10,000.00	0.00	0.00	9,984.82	226.76	-179.86	227.48	0.00	0.00	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
10,100.00	0.00	0.00	10,084.82	226.76	-179.86	227.48	0.00	0.00	
10,200.00	0.00	0.00	10,184.82	226.76	-179.86	227.48	0.00	0.00	
10,231.43	0.00	0.00	10,216.25	226.76	-179.86	227.48	0.00	0.00	BUILD CURVE 8° DLG
10,300.00	5.49	23.60	10,284.71	229.77	-178.55	230.48	8.00	8.00	
10,400.00	13.49	23.60	10,383.26	244.85	-171.95	245.54	8.00	8.00	
10,500.00	21.49	23.60	10,478.57	272.36	-159.94	273.00	8.00	8.00	
10,600.00	29.49	23.60	10,568.76	311.76	-142.72	312.33	8.00	8.00	
10,700.00	37.49	23.60	10,652.10	362.28	-120.65	362.76	8.00	8.00	
10,800.00	45.49	23.60	10,726.95	422.93	-94.15	423.31	8.00	8.00	
10,856.43	50.00	23.60	10,764.89	461.19	-77.44	461.50	8.00	8.00	BUILD & TURN 8° DLG
10,900.00	52.90	21.13	10,792.04	492.70	-64.49	492.96	8.00	6.66	
11,000.00	59.72	16.10	10,847.50	571.52	-38.10	571.66	8.00	6.82	
11,100.00	66.71	11.73	10,892.55	658.11	-16.76	658.17	8.00	6.99	
11,200.00	73.81	7.81	10,926.32	750.80	-0.87	750.80	8.00	7.10	
11,300.00	80.97	4.16	10,948.14	847.78	9.25	847.74	8.00	7.16	
11,400.00	88.17	0.65	10,957.59	947.16	13.41	947.10	8.00	7.20	
11,425.35	90.00	359.77	10,958.00	972.51	13.50	972.45	8.00	7.21	LAND 90° INC; 359.77° AZ
11,500.00	90.00	359.77	10,958.00	1,047.16	13.21	1,047.10	0.00	0.00	
11,600.00	90.00	359.77	10,958.00	1,147.16	12.81	1,147.10	0.00	0.00	
11,700.00	90.00	359.77	10,958.00	1,247.16	12.41	1,247.10	0.00	0.00	
11,800.00	90.00	359.77	10,958.00	1,347.16	12.01	1,347.10	0.00	0.00	
11,900.00	90.00	359.77	10,958.00	1,447.15	11.61	1,447.10	0.00	0.00	
12,000.00	90.00	359.77	10,958.00	1,547.15	11.22	1,547.10	0.00	0.00	
12,100.00	90.00	359.77	10,958.00	1,647.15	10.82	1,647.10	0.00	0.00	
12,200.00	90.00	359.77	10,958.00	1,747.15	10.42	1,747.10	0.00	0.00	
12,300.00	90.00	359.77	10,958.00	1,847.15	10.02	1,847.10	0.00	0.00	
12,400.00	90.00	359.77	10,958.00	1,947.15	9.62	1,947.10	0.00	0.00	
12,500.00	90.00	359.77	10,958.00	2,047.15	9.23	2,047.10	0.00	0.00	
12,600.00	90.00	359.77	10,958.00	2,147.15	8.83	2,147.10	0.00	0.00	
12,700.00	90.00	359.77	10,958.00	2,247.15	8.43	2,247.10	0.00	0.00	
12,800.00	90.00	359.77	10,958.00	2,347.15	8.03	2,347.10	0.00	0.00	
12,900.00	90.00	359.77	10,958.00	2,447.15	7.63	2,447.10	0.00	0.00	
13,000.00	90.00	359.77	10,958.00	2,547.15	7.24	2,547.10	0.00	0.00	
13,100.00	90.00	359.77	10,958.00	2,647.14	6.84	2,647.10	0.00	0.00	
13,200.00	90.00	359.77	10,958.00	2,747.14	6.44	2,747.10	0.00	0.00	
13,300.00	90.00	359.77	10,958.00	2,847.14	6.04	2,847.10	0.00	0.00	
13,400.00	90.00	359.77	10,958.00	2,947.14	5.64	2,947.10	0.00	0.00	
13,500.00	90.00	359.77	10,958.00	3,047.14	5.25	3,047.10	0.00	0.00	
13,600.00	90.00	359.77	10,958.00	3,147.14	4.85	3,147.10	0.00	0.00	
13,700.00	90.00	359.77	10,958.00	3,247.14	4.45	3,247.10	0.00	0.00	
13,800.00	90.00	359.77	10,958.00	3,347.14	4.05	3,347.10	0.00	0.00	
13,900.00	90.00	359.77	10,958.00	3,447.14	3.65	3,447.10	0.00	0.00	
14,000.00	90.00	359.77	10,958.00	3,547.14	3.26	3,547.10	0.00	0.00	
14,100.00	90.00	359.77	10,958.00	3,647.14	2.86	3,647.10	0.00	0.00	
14,200.00	90.00	359.77	10,958.00	3,747.14	2.46	3,747.10	0.00	0.00	
14,300.00	90.00	359.77	10,958.00	3,847.14	2.06	3,847.10	0.00	0.00	
14,400.00	90.00	359.77	10,958.00	3,947.13	1.66	3,947.10	0.00	0.00	
14,500.00	90.00	359.77	10,958.00	4,047.13	1.27	4,047.10	0.00	0.00	
14,600.00	90.00	359.77	10,958.00	4,147.13	0.87	4,147.10	0.00	0.00	
14,700.00	90.00	359.77	10,958.00	4,247.13	0.47	4,247.10	0.00	0.00	
14,800.00	90.00	359.77	10,958.00	4,347.13	0.07	4,347.10	0.00	0.00	
14,900.00	90.00	359.77	10,958.00	4,447.13	-0.33	4,447.10	0.00	0.00	

Database: USA EDM 5000 Multi Users DB
Company: XTO Energy Inc.
Project: Eddy County, NM (NAD27)
Site: SEC 9 - T25S - 29E
Well: CORRAL CANYON 9-4 FED 161H
Wellbore: OH - HZ
Design: #1 (06.11.20)

Local Co-ordinate Reference: Well CORRAL CANYON 9-4 FED 161H
TVD Reference: 27' KB @ 3033.00usft (Precision 580)
MD Reference: 27' KB @ 3033.00usft (Precision 580)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
15,000.00	90.00	359.77	10,958.00	4,547.13	-0.72	4,547.10	0.00	0.00	
15,100.00	90.00	359.77	10,958.00	4,647.13	-1.12	4,647.10	0.00	0.00	
15,200.00	90.00	359.77	10,958.00	4,747.13	-1.52	4,747.10	0.00	0.00	
15,300.00	90.00	359.77	10,958.00	4,847.13	-1.92	4,847.10	0.00	0.00	
15,400.00	90.00	359.77	10,958.00	4,947.13	-2.32	4,947.10	0.00	0.00	
15,500.00	90.00	359.77	10,958.00	5,047.13	-2.71	5,047.10	0.00	0.00	
15,600.00	90.00	359.77	10,958.00	5,147.13	-3.11	5,147.10	0.00	0.00	
15,700.00	90.00	359.77	10,958.00	5,247.12	-3.51	5,247.10	0.00	0.00	
15,800.00	90.00	359.77	10,958.00	5,347.12	-3.91	5,347.10	0.00	0.00	
15,900.00	90.00	359.77	10,958.00	5,447.12	-4.31	5,447.10	0.00	0.00	
16,000.00	90.00	359.77	10,958.00	5,547.12	-4.70	5,547.10	0.00	0.00	
16,100.00	90.00	359.77	10,958.00	5,647.12	-5.10	5,647.10	0.00	0.00	
16,200.00	90.00	359.77	10,958.00	5,747.12	-5.50	5,747.10	0.00	0.00	
16,300.00	90.00	359.77	10,958.00	5,847.12	-5.90	5,847.10	0.00	0.00	
16,400.00	90.00	359.77	10,958.00	5,947.12	-6.30	5,947.10	0.00	0.00	
16,500.00	90.00	359.77	10,958.00	6,047.12	-6.69	6,047.10	0.00	0.00	
16,600.00	90.00	359.77	10,958.00	6,147.12	-7.09	6,147.10	0.00	0.00	
16,700.00	90.00	359.77	10,958.00	6,247.12	-7.49	6,247.10	0.00	0.00	
16,800.00	90.00	359.77	10,958.00	6,347.12	-7.89	6,347.10	0.00	0.00	
16,900.00	90.00	359.77	10,958.00	6,447.11	-8.29	6,447.10	0.00	0.00	
17,000.00	90.00	359.77	10,958.00	6,547.11	-8.68	6,547.10	0.00	0.00	
17,100.00	90.00	359.77	10,958.00	6,647.11	-9.08	6,647.10	0.00	0.00	
17,200.00	90.00	359.77	10,958.00	6,747.11	-9.48	6,747.10	0.00	0.00	
17,300.00	90.00	359.77	10,958.00	6,847.11	-9.88	6,847.10	0.00	0.00	
17,400.00	90.00	359.77	10,958.00	6,947.11	-10.28	6,947.10	0.00	0.00	
17,500.00	90.00	359.77	10,958.00	7,047.11	-10.67	7,047.10	0.00	0.00	
17,600.00	90.00	359.77	10,958.00	7,147.11	-11.07	7,147.10	0.00	0.00	
17,700.00	90.00	359.77	10,958.00	7,247.11	-11.47	7,247.10	0.00	0.00	
17,800.00	90.00	359.77	10,958.00	7,347.11	-11.87	7,347.10	0.00	0.00	
17,900.00	90.00	359.77	10,958.00	7,447.11	-12.27	7,447.10	0.00	0.00	
18,000.00	90.00	359.77	10,958.00	7,547.11	-12.66	7,547.10	0.00	0.00	
18,100.00	90.00	359.77	10,958.00	7,647.11	-13.06	7,647.10	0.00	0.00	
18,200.00	90.00	359.77	10,958.00	7,747.10	-13.46	7,747.10	0.00	0.00	
18,300.00	90.00	359.77	10,958.00	7,847.10	-13.86	7,847.10	0.00	0.00	
18,400.00	90.00	359.77	10,958.00	7,947.10	-14.26	7,947.10	0.00	0.00	
18,500.00	90.00	359.77	10,958.00	8,047.10	-14.65	8,047.10	0.00	0.00	
18,600.00	90.00	359.77	10,958.00	8,147.10	-15.05	8,147.10	0.00	0.00	
18,700.00	90.00	359.77	10,958.00	8,247.10	-15.45	8,247.10	0.00	0.00	
18,800.00	90.00	359.77	10,958.00	8,347.10	-15.85	8,347.10	0.00	0.00	
18,838.00	90.00	359.77	10,958.00	8,385.10	-16.00	8,385.10	0.00	0.00	PBHL @ 18838' MD

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

Targets

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Corral Canyon 9-4 FE	- plan hits target center - Rectangle (sides W7,413.00 H70.00 D0.00)	0.00	359.77	10,958.00	8,385.10	-16.00	424,203.40	604,273.00	32.165803	-103.996356
Corral Canyon 9-4 FE	- plan misses target center by 0.18usft at 18708.00usft MD (10958.00 TVD, 8255.10 N, -15.48 E) - Point	0.00	0.00	10,958.00	8,255.10	-15.30	424,073.40	604,273.70	32.165446	-103.996355
Corral Canyon 9-4 FE	- plan hits target center - Point	0.00	0.00	10,958.00	972.50	13.50	416,790.80	604,302.50	32.145426	-103.996336

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
18,718.15	10,958.00	20" Casing	20	24

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
575.00	575.00	Rustler		0.00	
855.00	855.00	Salado		0.00	
3,105.09	3,095.00	Base of Salt		0.00	
3,316.35	3,305.00	Delaware		0.00	
4,203.18	4,188.00	Cherry Canyon		0.00	
5,844.18	5,829.00	Brushy Canyon		0.00	
7,081.18	7,066.00	Bone Spring Lime		0.00	
7,248.18	7,233.00	Avalon		0.00	
7,961.18	7,946.00	1st Bone Spring Lime		0.00	
8,008.18	7,993.00	1st Bone Springs Sand		0.00	
8,332.18	8,317.00	2nd Bone Springs Lime		0.00	
8,874.18	8,859.00	2nd Bone Springs Sand		0.00	
9,115.18	9,100.00	3rd Bone Springs Lime		0.00	
9,926.18	9,911.00	3rd Bone Springs Sand		0.00	
10,300.29	10,285.00	Wolfcamp		0.00	
10,327.47	10,312.00	Wolfcamp X		0.00	
10,412.09	10,395.00	Wolfcamp Y		0.00	
10,441.17	10,423.00	Wolfcamp A		0.00	
10,844.28	10,757.00	Wolfcamp B		0.00	

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well CORRAL CANYON 9-4 FED 161H
Company:	XTO Energy Inc.	TVD Reference:	27' KB @ 3033.00usft (Precision 580)
Project:	Eddy County, NM (NAD27)	MD Reference:	27' KB @ 3033.00usft (Precision 580)
Site:	SEC 9 - T25S - 29E	North Reference:	Grid
Well:	CORRAL CANYON 9-4 FED 161H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH - HZ		
Design:	#1 (06.11.20)		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,200.00	1,200.00	0.00	0.00	BUILD 2° DLG
1,512.58	1,511.96	13.35	-10.59	HOLD 6.25° INC; 321.58° AZ
3,857.61	3,843.05	213.41	-169.27	DROP 2° DLG
4,170.18	4,155.00	226.76	-179.86	HOLD 0° INC; 0° AZ
10,231.43	10,216.25	226.76	-179.86	BUILD CURVE 8° DLG
10,856.43	10,764.89	461.19	-77.44	BUILD & TURN 8° DLG
11,425.35	10,958.00	972.51	13.50	LAND 90° INC; 359.77° AZ
18,838.00	10,958.00	8,385.10	-16.00	PBHL @ 18838' MD