RECEIVED

NOV 08 2018

Form 3160-3
(June 2015)

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

UNITED STATES DISTRICT II-ARTESIA O.C.D.
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM136870

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
CORRAL CANYON FEDERAL
12H 314121

2. Name of Operator
XTO ENERGY INCORPORATED 5380

9. API Well No.
30-015-45428

3a. Address
2277 Springwoods Village Parkway Spring TX 77389

3b. Phone No. *(include area code)*
(432)620-6700

10. Field and Pool, or Exploratory 96217
CORRAAL CANYON / WILLOW LAKE; B

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENE / 185 FNL / 835 FEL / LAT 32.151454 / LONG -103.966439
At proposed prod. zone SESE / 200 FSL / 660 FEL / LAT 32.123318 / LONG -103.965866

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 10 / T25S / R29E / NMP

14. Distance in miles and direction from nearest town or post office*
8.3 miles

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
185 feet

16. No of acres in lease
1280

17. Spacing Unit dedicated to this well
320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
50 feet

19. Proposed Depth
8868 feet / 18880 feet

20. BLM/BIA Bond No. in file
FED: UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3035 feet

22. Approximate date work will start*
06/05/2018

23. Estimated duration
25 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Stephanie Rabadue / Ph: (432)620-6714	10/05/2017

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/06/2018

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/06/2018 RWP 11-9-18

INSTRUCTIONS

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

ITEM 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160
PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.
ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.
EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: NENE / 185 FNL / 835 FEL / TWSP: 25S / RANGE: 29E / SECTION: 10 / LAT: 32.151454 / LONG: -103.966439 (TVD: 0 feet, MD: 0 feet)
   PPP: NENE / 330 FNL / 660 FEL / TWSP: 25S / RANGE: 29E / SECTION: 10 / LAT: 32.151057 / LONG: -103.965873 (TVD: 8768 feet, MD: 8852 feet)
   BHL: SESE / 200 FSL / 660 FEL / TWSP: 25S / RANGE: 29E / SECTION: 15 / LAT: 32.123318 / LONG: -103.965866 (TVD: 8868 feet, MD: 18880 feet)

BLM Point of Contact

Name: Priscilla Perez
Title: Legal Instruments Examiner
Phone: 5752345934
Email: pperez@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO ENERGY INC.**
LEASE NO.:	**NMNM136870**
WELL NAME & NO.:	**12H – CORRAL CANYON FEDERAL**
SURFACE HOLE FOOTAGE:	**185'/N & 835'/E**
BOTTOM HOLE FOOTAGE	**200'/N & 660'/E**
LOCATION:	**Section 10.,T25S., R.29E., NMP**
COUNTY:	**EDDY County, New Mexico**

COA

H2S	○ Yes	◉ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	○ Low	◉ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ 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 **860** 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 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 **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. 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 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 (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 intergrity 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 intergrity 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 102218

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO ENERGY INC.
LEASE NO.:	NMNM136870
WELL NAME & NO.:	12H – CORRAL CANYON FEDERAL
SURFACE HOLE FOOTAGE:	185'/N & 835'/E
BOTTOM HOLE FOOTAGE	200'/N & 660'/E
LOCATION:	Section 10.,T25S., R.29E., NMP
COUNTY:	EDDY County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

☐ **General Provisions**
☐ **Permit Expiration**
☐ **Archaeology, Paleontology, and Historical Sites**
☐ **Noxious Weeds**
☒ **Special Requirements**
- Cave/Karst
- Hydrology

☐ **Construction**
- Notification
- Topsoil
- Closed Loop System
- Federal Mineral Material Pits
- Well Pads
- Roads

☐ **Road Section Diagram**
☐ **Production (Post Drilling)**
- Well Structures & Facilities

☐ **Interim Reclamation**
☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production:

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation
The following stipulations will be applied to protect cave/karst and ground water concerns:
Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:
Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:
ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.
Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

FLOWLINES (SURFACE):
- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.

- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Hydrology:

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

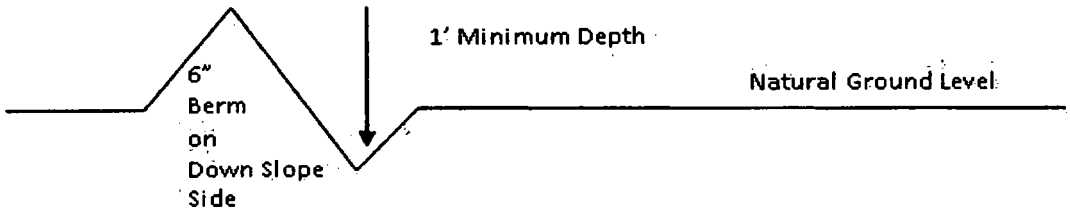
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ lead-off ditch interval

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

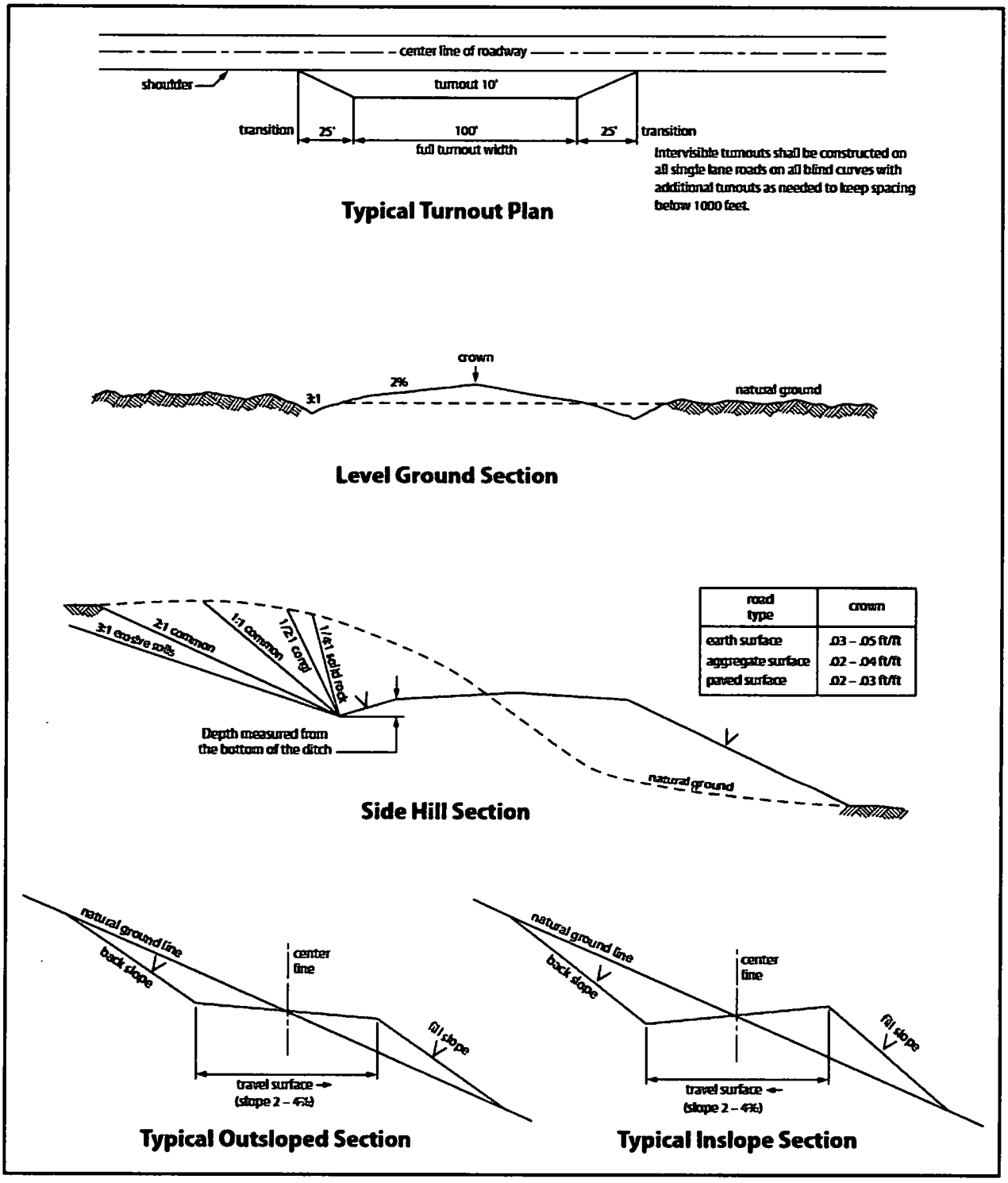


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

11/06/2018

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C.

NAME: Stephanie Rabadue **Signed on:** 10/05/2017

Title: Regulatory Coordinator

Street Address: 500 W. Illinois St, Ste 100

City: Midland **State:** TX **Zip:** 79701

Phone: (432)620-6714

Email address: stephanie_rabadue@xtoenergy.com

Field Representative

Representative Name: Jeff Raines

Street Address: 6401 Holiday Hill Road Bldg 5

City: Midland **State:** TX **Zip:** 79707

Phone: (432)620-4349

Email address: jeff_raines@xtoenergy.com

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

11/06/2018

APD ID: 10400023011 **Submission Date:** 10/05/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400023011 **Tie to previous NOS?** **Submission Date:** 10/05/2017

BLM Office: CARLSBAD **User:** Stephanie Rabadue **Title:** Regulatory Coordinator

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM136870 **Lease Acres:** 1280

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? NO **APD Operator:** XTO ENERGY INCORPORATED

Operator letter of designation: CorralCanyon12H_OpsNotice_20171005090517.pdf

Operator Info

Operator Organization Name: XTO ENERGY INCORPORATED

Operator Address: 2277 Springwoods Village Parkway **Zip:** 77389

Operator PO Box:

Operator City: Spring **State:** TX

Operator Phone: (432)620-6700

Operator Internet Address: Richard_redus@xtoenergy.com

Section 2 - Well Information

Well in Master Development Plan? NO **Mater Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** CORRAAL CANYON **Pool Name:** WILLOW LAKE; BONE SPRING, SE

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** CORRAL CANYON FEDERAL **Number:** 12H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: CONFIRMATION

Describe sub-type:

Distance to town: 8.3 Miles **Distance to nearest well:** 50 FT **Distance to lease line:** 185 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: CorralCanyon12H_LocTopo_20171005090656.pdf

CorralCanyon12H_Plat_20171005090708.pdf

CorralCanyon12H_VicinMap_20171005090715.pdf

Well work start Date: 06/05/2018 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
	185	FNL	835	FEL	25S	29E	10	NENE	32.151454	-103.966439	EDDY	NEW MEXI	NEW MEXI	F	NMNM 136870	3035	0	0
	185	FNL	835	FEL	25S	29E	10	NENE	32.151454	-103.966439	EDDY	NEW MEXI	NEW MEXI	F	NMNM 136870	-5260	8295	8295

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
	330	FNL	660	FEL	25S	29E	10	NENE	32.151057	-103.965873	EDDY	NEW MEXI	NEW MEXI	F	NMNM 136870	-5733	8852	8768
	330	FSL	660	FEL	25S	29E	15	SESE	32.123675	-103.965866	EDDY	NEW MEXI	NEW MEXI	F	NMNM 014778	-5833	18750	8868
	200	FSL	660	FEL	25S	29E	15	SESE	32.123318	-103.965866	EDDY	NEW MEXI	NEW MEXI	F	NMNM 014778	-5833	18880	8868

Elizabeth Zastoupil
Geologist
XTO Energy Inc.
810 Houston St.
Fort Worth, TX 76102
(817) 885-6750
elizabeth_zastoupil@xtoenergy.com

October 5, 2017

Bureau of Land Management
Carlsbad Field Office
620 E. Greene Street
Carlsbad, NM 88220

RE: Operating Agreement/Rights for Corral Canyon Federal #12H

To Whom It May Concern:

This is to hereby certify that XTO Energy, Inc. is has operating rights over leases: NMNM 136870 and NMNM 014778 through acreage trades and acquisitions.

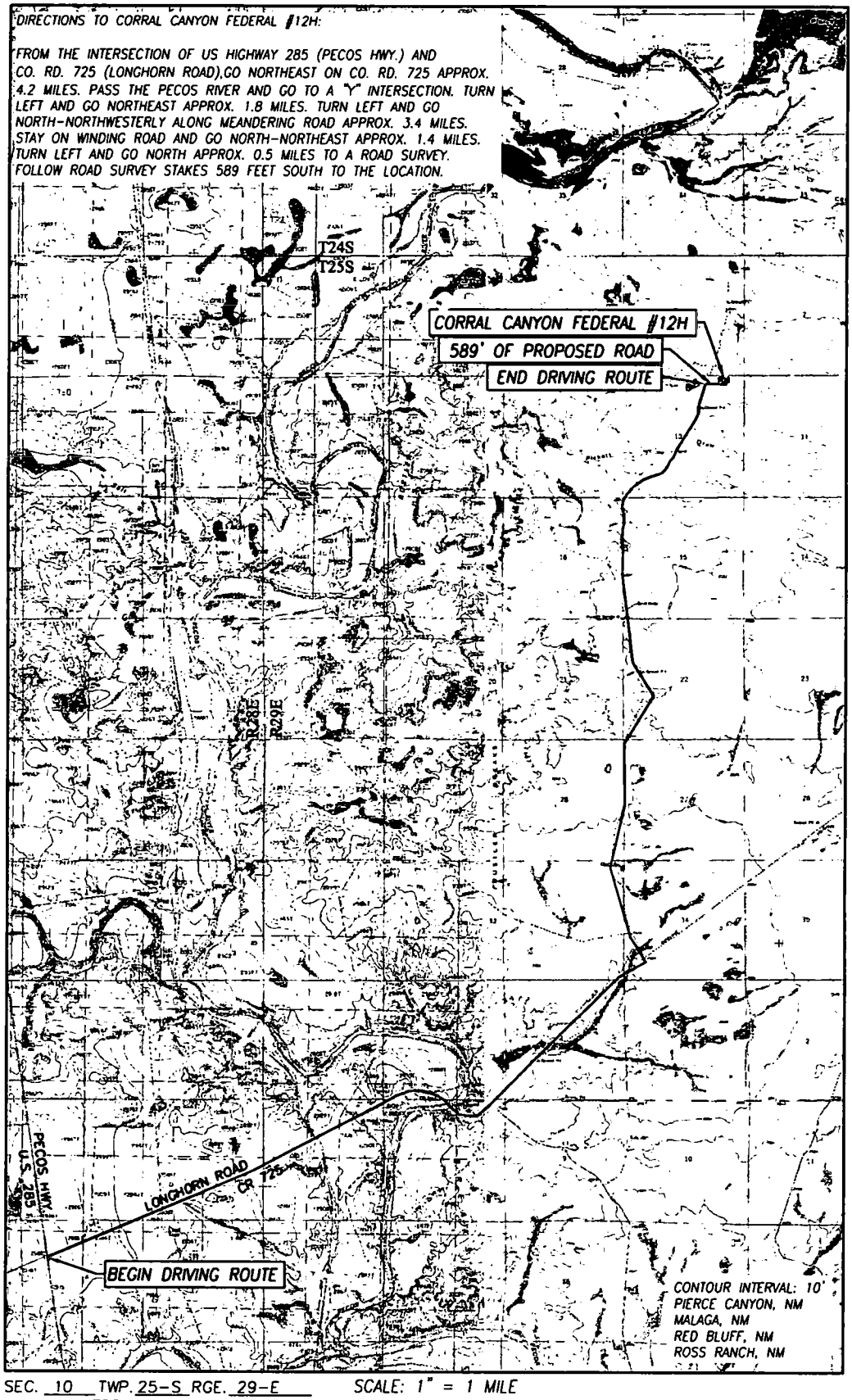
Sincerely,

Elizabeth Zastoupil
Geologist
XTO Energy, Inc

LOCATION VERIFICATION MAP

DIRECTIONS TO CORRAL CANYON FEDERAL #12H:

FROM THE INTERSECTION OF US HIGHWAY 285 (PECOS HWY.) AND CO. RD. 725 (LONGHORN ROAD),GO NORTHEAST ON CO. RD. 725 APPROX. 4.2 MILES. PASS THE PECOS RIVER AND GO TO A "Y" INTERSECTION. TURN LEFT AND GO NORTHEAST APPROX. 1.8 MILES. TURN LEFT AND GO NORTH-NORTHWESTERLY ALONG MEANDERING ROAD APPROX. 3.4 MILES. STAY ON WINDING ROAD AND GO NORTH-NORTHEAST APPROX. 1.4 MILES. TURN LEFT AND GO NORTH APPROX. 0.5 MILES TO A ROAD SURVEY. FOLLOW ROAD SURVEY STAKES 589 FEET SOUTH TO THE LOCATION.



SEC. 10 TWP. 25-S RGE. 29-E
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 185' FNL & 835' FEL
ELEVATION 3035'
OPERATOR XTO ENERGY
LEASE CORRAL CANYON FEDERAL
U.S.G.S. TOPOGRAPHIC MAP
MALAGA, N.M. SURVEY N.M.P.M.

SCALE: 1" = 1 MILE

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

APD ID: 10400023011 **Submission Date:** 10/05/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3035	0	0	ALLUVIUM,OTHER : Quaternary	NONE	No
2	RUSTLER	2517	518	518	SANDSTONE	USEABLE WATER	No
3	TOP SALT	2146	889	889	SALT	USEABLE WATER	No
4	BASE OF SALT	74	2961	2961	SALT	USEABLE WATER	No
5	DELAWARE	-131	3166	3166	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
6	BRUSHY CANYON	-2631	5666	5666	SANDSTONE	USEABLE WATER,NATURAL	No
7	BONE SPRING	-3888	6923	6923	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
8	BONE SPRING 1ST	-4823	7858	7858	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
9	2ND BONE SPRING LIME	-5089	8124	8124	LIMESTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
10	BONE SPRING 2ND	-5600	8635	8635	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	Yes
11	BONE SPRING 3RD	-5875	8910	8910	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 860

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. Max bottom hole pressure should not exceed 4242 psi.
Requesting Variance? YES

Variance request: 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.
Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited

to 50% of the working pressure. When nippling up on the 13-5/8" 5M flange, the BOP test will be limited to 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.

Choke Diagram Attachment:

CorralCanyon12H_CkMani_20171005092416.pdf

BOP Diagram Attachment:

CorralCanyon12H_5MBOP_20171005092423.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	860	0	860	-5793	-6608	860	H-40	48	STC	1.88	4.4	DRY	7.8	DRY	7.8
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3100	0	3100	-5793	-8843	3100	J-55	36	LTC	1.23	2.14	DRY	4.06	DRY	4.06
3	PRODUCTION	8.75	5.5	NEW	API	N	0	18880	0	8868	-5793	-14618	18880	OTHER	17	BUTT	1.69	1.12	DRY	1.7	DRY	1.7

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon12H_CaseAssump_20171005120108.pdf

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon12H_CaseAssump_20171005121622.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon12H_CaseAssump_20171005121630.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	860	885	1.35	14.8	1134	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		100	3100	625	2.49	11.9	1531.35	100	EconoCem-C	3 lbm/sk Kol-Seal + 0.25 lbm D-air 5000
INTERMEDIATE	Tail				300	1.33	14.8	385.7	100	HalCem-C	none
PRODUCTION	Lead		100	18880	715	2.77	10.8	1939	50	Tuned Light	2 lbm/sk Kol-Seal + 0.3 lbm/sk CFR-3

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

String Type	Lead/Tail	Stage Tool	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		0		2900	1.22	14.5	3513.6	30	VersaCem-H	3 lbm/sk Kol-Seal + 0.4% Halad 344 + 0.3% CFR-3 + 0.3% Super CBL + 0.25 lbm/sk D-air 5000

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition and fluid loss control will be on location at all times. Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 9.8ppg - 10.2ppg brine mud will be used while drilling through the salt formation. Cut brine will be used to drill the 8-3/4" section. A polymer water will be used to drill the 8-1/2" lateral. Pump speed will be recorded on a daily drilling report after mudding up.

Describe the mud monitoring system utilized: 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. Solids control equipment will be used to operate as a closed loop system.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	860	OTHER : FW/Native	8.4	8.8							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
3100	8295	OTHER : FW/Cut Brine	8.6	9.4							A mud test will be performed every 24 hours to determine: density, viscosity, strength,

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
											filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
8295	18880	OTHER : Polymer-Water	9.2	9.6							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
860	3100	OTHER : Brine/Gel Sweeps	9.8	10.2							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

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

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from kick-off point to intermediate casing shoe.

List of open and cased hole logs run in the well:

CBL,CNL,DS,DLL,GR,MUDLOG

Coring operation description for the well:

No coring will take place on this well

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4242 **Anticipated Surface Pressure:** 2291.04

Anticipated Bottom Hole Temperature(F): 175

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

CorralCanyon12H_H2S_20171005122457.pdf

CorralCanyon12H_H2SRigLayout_20171005122505.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CorralCanyon12H_Directional_20171005122515.pdf

CorralCanyon12H_DirectionalWM_20171005122522.pdf

Other proposed operations facets description:

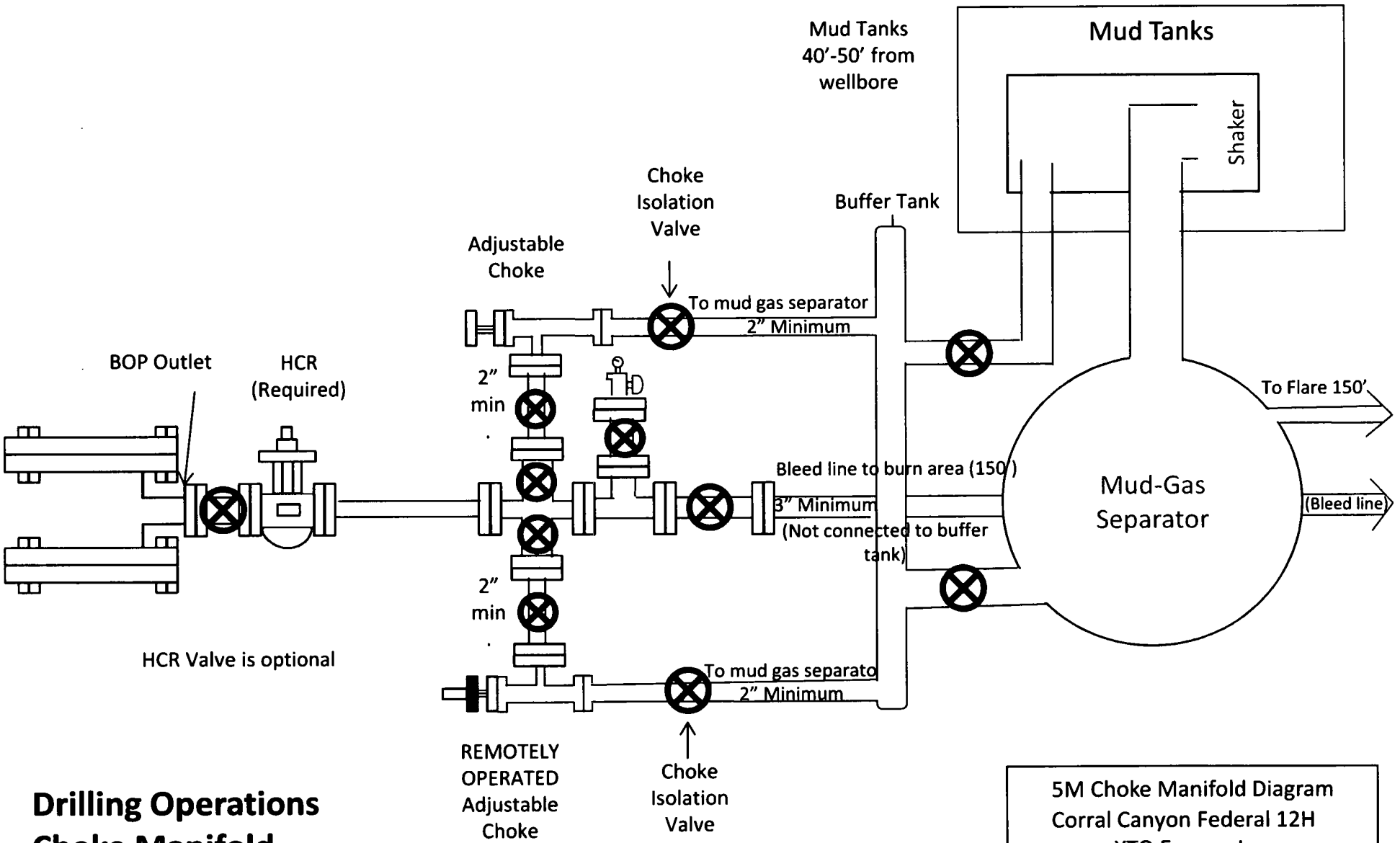
Other proposed operations facets attachment:

CorralCanyon12H_DrillPlan_20171005122532.pdf

CorralCanyon12H_FlexHose_20171005122538.pdf

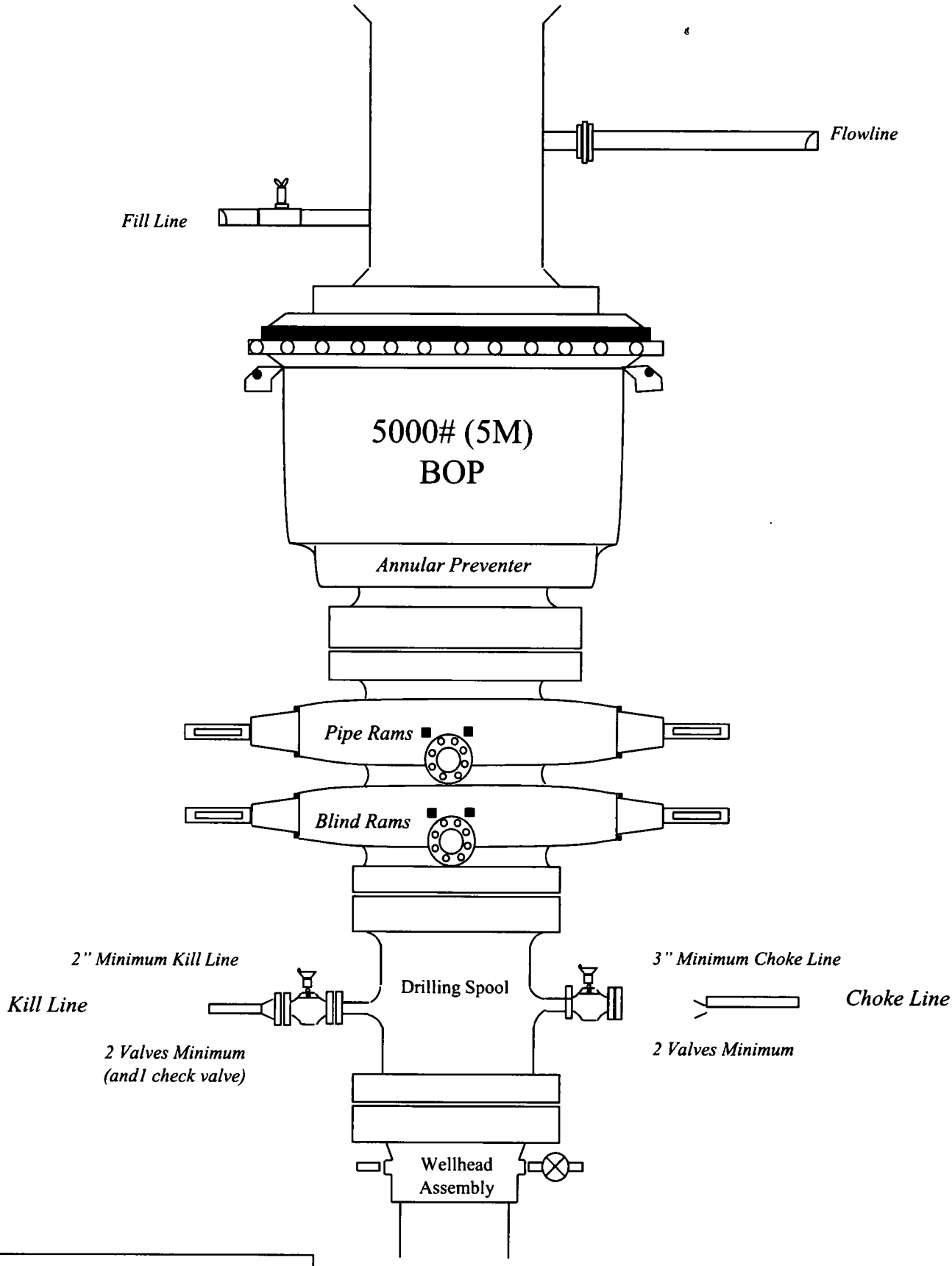
CorralCanyon12H_GasCap_20171005122545.pdf

Other Variance attachment:

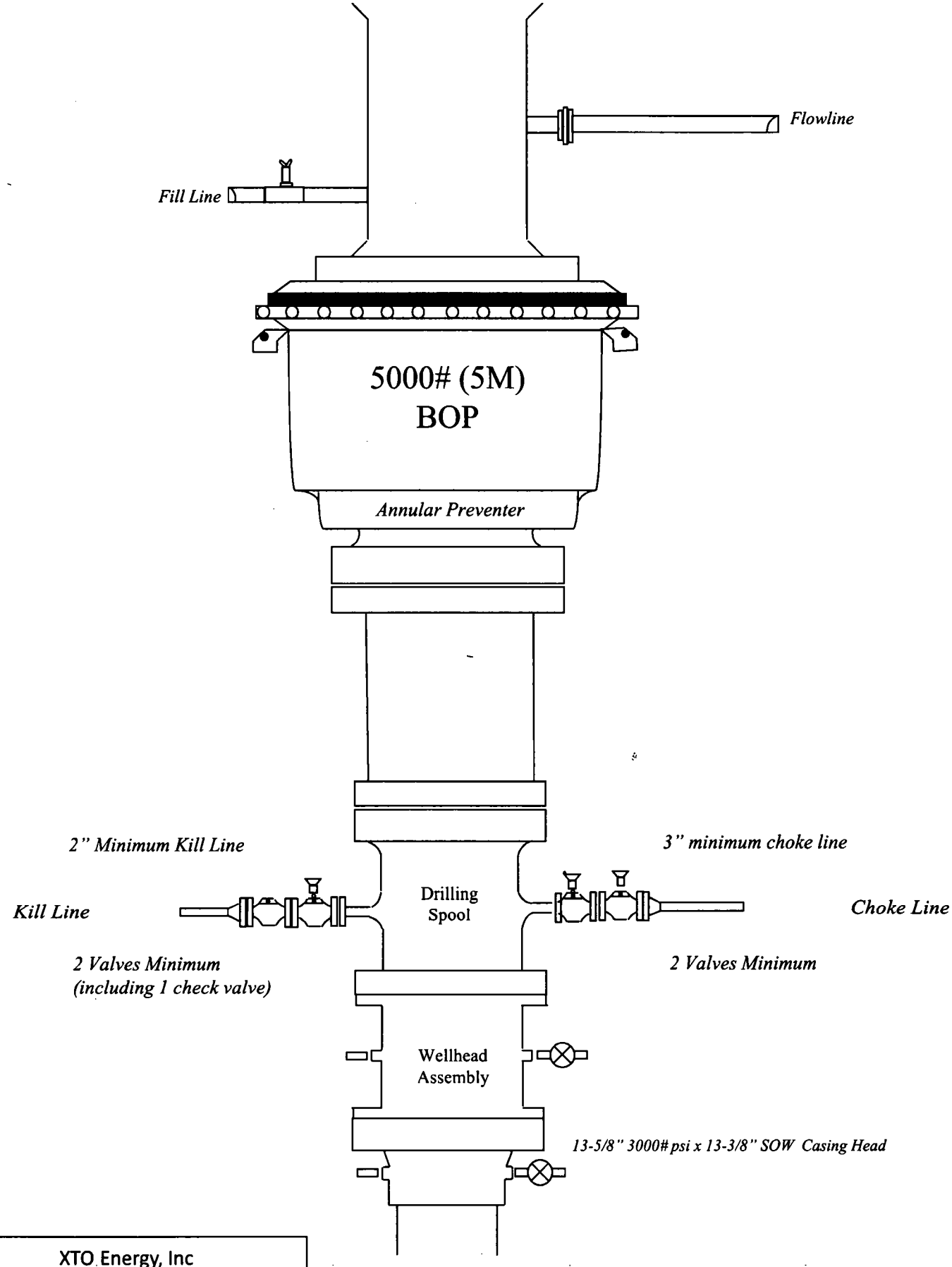


Drilling Operations
Choke Manifold
5M Service

5M Choke Manifold Diagram
Corral Canyon Federal 12H
XTO Energy, Inc.



XTO Energy, Inc.
Corral Canyon Federal #12H
5000# BOP



XTO Energy, Inc
Corral Canyon Federal #12H
5000# BOP

Corral Canyon Fed 12H **18880 ft TD** 4/4/2017

13 3/8" 860 MD/TVD 8.8 # mud

48#, H-40, ST&C	collapse =	740	Burst =	1730	Tension = 322000
(8.8)(0.052)(860) =	394 psi		740/394=	1.88	SF for collapse
Max exp. surf pressure	393.536 psi		1730/393.536=	4.40	SF for burst
(860)(48) =	41280 lb		322/41.3 =	7.80	SF for tension

9-5/8" 3100 MD/TVD 10.2 # mud

36#, J-55, LT&C	collapse =	2020	burst =	3520	tension = 453000
Max expected surf pressure =	1644.24 psi				
(10.2)(0.052)(3100) =	1644 psi		2020/1644=	1.23	SF for collapse
			3520/1644.24=	2.14	SF for burst
(3100)(36)=	111600 lb		453/111.6=	4.06	SF for tension

5-1/2" 18880 Shoe (MD) 8868 TVD 9.6 # mud

17# CYP-110, BTC	collapse=	7460	burst=	10640	tension= 546000
Max expected surf pressure =	9500 psi *for frac				
(9.6)(0.052)(8868) =	4427 psi		7460/4427=	1.69	SF for collapse
			10640/9500=	1.12	SF for burst
(18880)(17)=	320960 lb		546/320.96=	1.70	SF for tension

Corral Canyon Fed 12H **18880 ft TD** 4/4/2017

13 3/8" 860 MD/TVD 8.8 # mud

48#, H-40, ST&C collapse = 740 Burst = 1730 Tension = 322000

(8.8)(0.052)(860) = 394 psi 740/394= 1.88 SF for collapse

Max exp. surf pressure 393.536 psi 1730/393.536= 4.40 SF for burst

(860)(48) = 41280 lb 322/41.3 = 7.80 SF for tension

9-5/8" 3100 MD/TVD 10.2 # mud

36#, J-55, LT&C collapse = 2020 burst = 3520 tension = 453000

Max expected surf pressure = 1644.24 psi

(10.2)(0.052)(3100) = 1644 psi 2020/1644= 1.23 SF for collapse

3520/1644.24= 2.14 SF for burst

(3100)(36)= 111600 lb 453/111.6= 4.06 SF for tension

5-1/2" 18880 Shoe (MD) 8868 TVD 9.6 # mud

17# CYP-110, BTC collapse= 7460 burst= 10640 tension= 546000

Max expected surf pressure = 9500 psi *for frac

(9.6)(0.052)(8868) = 4427 psi 7460/4427= 1.69 SF for collapse

10640/9500= 1.12 SF for burst

(18880)(17)= 320960 lb 546/320.96= 1.70 SF for tension

Corral Canyon Fed 12H **18880 ft TD** 4/4/2017

13 3/8" 860 MD/TVD 8.8 # mud

48#, H-40, ST&C	collapse =	740	Burst =	1730	Tension =	322000
(8.8)(0.052)(860) =	394 psi		740/394=	1.88	SF for collapse	
Max exp. surf pressure	393.536 psi		1730/393.536=	4.40	SF for burst	
(860)(48) =	41280 lb		322/41.3 =	7.80	SF for tension	

9-5/8" 3100 MD/TVD 10.2 # mud

36#, J-55, LT&C	collapse =	2020	burst =	3520	tension =	453000
Max expected surf pressure =	1644.24 psi					
(10.2)(0.052)(3100) =	1644 psi		2020/1644=	1.23	SF for collapse	
			3520/1644.24=	2.14	SF for burst	
(3100)(36)=	111600 lb		453/111.6=	4.06	SF for tension	

5-1/2" 18880 Shoe (MD) 8868 TVD 9.6 # mud

17# CYP-110, BTC	collapse=	7460	burst=	10640	tension=	546000
Max expected surf pressure =	9500 psi *for frac					
(9.6)(0.052)(8868) =	4427 psi		7460/4427=	1.69	SF for collapse	
			10640/9500=	1.12	SF for burst	
(18880)(17)=	320960 lb		546/320.96=	1.70	SF for tension	

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
    - o Detection of H_2S, and
    - o Measures for protection against the gas,
    - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	2 ppm	N/A	1000 ppm

Contacting Authorities

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

EUNICE OFFICE – EDDY & LEA COUNTIES

EMSU @ Oil Center, NM, 8/10ths mile west of Hwy 8 on Hwy 175 Eunice, NM	575-394-2089

XTO ENERGY INC PERSONNEL:

Logan Farmar, Drilling Engineer	432-234-9872
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Dudley McMinn, EH & S Manager	432-557-7976
Wes McSpadden, Production Foreman	575-441-1147

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE: 575-392-5588

FIRE DEPARTMENTS:

	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359

HOSPITALS:

	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359

AGENT NOTIFICATIONS:

Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161
Mosaic Potash - Carlsbad	575-887-2871

CONTRACTORS:

ABC Rental – Light Towers	575-394-3155
Bulldog Services – Trucking/Forklift	575-391-8543
Champion – Chemical	575-393-7726
Indian Fire & Safety	575-393-3093
Key – Dirt Contractor	575-393-3180
Key Tools – Light Towers	575-393-2415
Sweatt – Dirt Contractor	575-397-4541
RWI – Contract Gang	575-393-5305

October 5, 2017

Elizabeth Zastoupil
XTO Energy Inc.
810 Houston St.
Fort Worth, TX 76102
817-885-6750
Elizabeth_zastoupil@xtoenergy.com

Bureau of Land Management
620 E. Greene
Carlsbad, NM 88220
575-887-6544

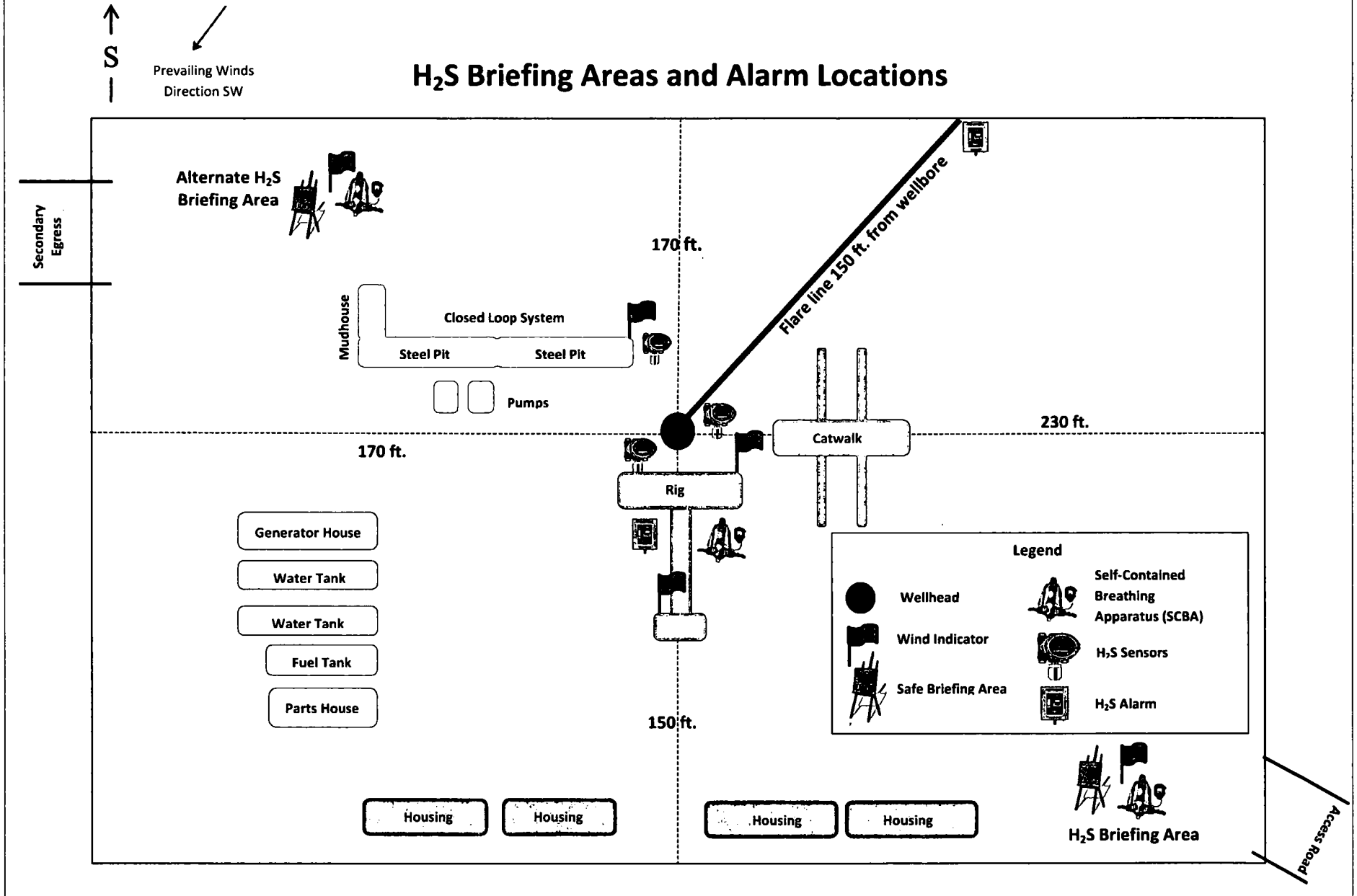
Dear Sirs:

XTO Energy Inc. does not anticipate encountering H2S while drilling the Corral Canyon Federal Com #12H located in Section 10, T25S, R29E, in Eddy County, New Mexico. As a precaution, I have attached an H2S contingency plan along with a gas analysis of our well stream. If you need anything further, please contact me at the telephone number or email listed above.

Thank you,

Elizabeth Zastoupil
Geologist

H_2S Briefing Areas and Alarm Locations



RECEIVED

NOV 08 2018

DISTRICT II-ARTESIA O.C.D.

XTO ENERGY, INC.

Eddy County, NM
Sec 10, T25S, R29E
Corral Canyon Federal 12H

Wellbore #1

Plan: Design #1

QES Well Planning Report

04 April, 2017

DIRECTIONAL DRILLING

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Eddy County, NM		
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 10, T25S, R29E				
Site Position:		**Northing:**	418,642.60 usft	**Latitude:**	32° 9' 1.624 N
From:	Map	**Easting:**	611,643.50 usft	**Longitude:**	103° 58' 21.351 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.19 °

Well	Corral Canyon Federal 12H					
Well Position	**+N/-S**	326.9 usft	**Northing:**	418,969.50 usft	**Latitude:**	32° 9' 4.790 N
	+E/-W	2,055.4 usft	**Easting:**	613,698.90 usft	**Longitude:**	103° 57' 57.430 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,035.0 usft

Wellbore	Wellbore #1			
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	4/18/2017	7.15	59.93	47,872

Design	Design #1			
Audit Notes:				
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**
	0.0	0.0	0.0	178.81

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,295.0	0.00	0.00	8,295.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,194.8	89.98	164.25	8,868.0	-551.2	155.5	10.00	10.00	0.00	164.25	
9,350.2	90.00	179.79	8,868.0	-704.7	177.0	10.00	0.01	10.00	89.92	
18,880.2	90.00	179.79	8,868.0	-10,234.6	211.9	0.00	0.00	0.00	0.00	PBHL - Corral Canyor

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
518.0	0.00	0.00	518.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
Top Salt									
889.0	0.00	0.00	889.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Base Salt									
2,961.0	0.00	0.00	2,961.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
Delaware									
3,166.0	0.00	0.00	3,166.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
Cherry Canyon									
4,034.0	0.00	0.00	4,034.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Brushy Canyon									
5,666.0	0.00	0.00	5,666.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
Basal Brushy Canyon									
6,683.0	0.00	0.00	6,683.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Bone Spring									
6,923.0	0.00	0.00	6,923.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1st Bone Spring Ss									
7,858.0	0.00	0.00	7,858.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2nd Bone Spring Lm									
8,124.0	0.00	0.00	8,124.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
Build 10°/100'									
8,295.0	0.00	0.00	8,295.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.50	164.25	8,300.0	0.0	0.0	0.0	10.00	10.00	0.00
8,350.0	5.50	164.25	8,349.9	-2.5	0.7	2.6	10.00	10.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.0	10.50	164.25	8,399.4	-9.2	2.6	9.3	10.00	10.00	0.00
8,450.0	15.50	164.25	8,448.1	-20.1	5.7	20.2	10.00	10.00	0.00
8,500.0	20.50	164.25	8,495.7	-34.9	9.8	35.1	10.00	10.00	0.00
8,550.0	25.50	164.25	8,541.7	-53.7	15.1	54.0	10.00	10.00	0.00
8,600.0	30.50	164.25	8,585.8	-76.3	21.5	76.7	10.00	10.00	0.00
8,650.0	35.50	164.25	8,627.7	-102.5	28.9	103.1	10.00	10.00	0.00
2nd Bone Spring Ss									
8,659.0	36.40	164.25	8,635.0	-107.6	30.3	108.2	10.00	10.00	0.00
8,700.0	40.50	164.25	8,667.1	-132.1	37.3	132.9	10.00	10.00	0.00
8,750.0	45.50	164.25	8,703.7	-164.9	46.5	165.9	10.00	10.00	0.00
8,800.0	50.50	164.25	8,737.1	-200.7	56.6	201.8	10.00	10.00	0.00
8,850.0	55.50	164.25	8,767.2	-239.1	67.4	240.4	10.00	10.00	0.00
2nd Bone Spring B									
8,880.9	58.59	164.25	8,784.0	-264.1	74.5	265.5	10.00	10.00	0.00
8,900.0	60.50	164.25	8,793.7	-279.9	78.9	281.5	10.00	10.00	0.00
8,950.0	65.50	164.25	8,816.4	-322.8	91.0	324.6	10.00	10.00	0.00
9,000.0	70.50	164.25	8,835.1	-367.4	103.6	369.4	10.00	10.00	0.00
9,050.0	75.50	164.25	8,849.7	-413.4	116.6	415.7	10.00	10.00	0.00
9,100.0	80.50	164.25	8,860.1	-460.4	129.9	463.0	10.00	10.00	0.00
9,150.0	85.50	164.25	8,866.2	-508.2	143.3	511.0	10.00	10.00	0.00
EOBT @ 89.98° Inc / 164.25° Azm - Turn 10°/100'									
9,194.8	89.98	164.25	8,868.0	-551.2	155.5	554.3	10.00	10.00	0.00
9,200.0	89.98	164.77	8,868.0	-556.3	156.9	559.4	10.00	0.01	10.00
9,250.0	89.99	169.77	8,868.0	-605.0	167.9	608.4	10.00	0.01	10.00
9,300.0	89.99	174.77	8,868.0	-654.5	174.6	658.0	10.00	0.01	10.00
EOBT 90.00° Inc / 179.79° Azm									
9,350.2	90.00	179.79	8,868.0	-704.7	177.0	708.2	10.00	0.01	10.00
9,400.0	90.00	179.79	8,868.0	-754.5	177.2	758.0	0.00	0.00	0.00
9,500.0	90.00	179.79	8,868.0	-854.5	177.5	858.0	0.00	0.00	0.00
9,600.0	90.00	179.79	8,868.0	-954.5	177.9	957.9	0.00	0.00	0.00
9,700.0	90.00	179.79	8,868.0	-1,054.5	178.3	1,057.9	0.00	0.00	0.00
9,800.0	90.00	179.79	8,868.0	-1,154.5	178.6	1,157.9	0.00	0.00	0.00
9,900.0	90.00	179.79	8,868.0	-1,254.5	179.0	1,257.9	0.00	0.00	0.00
10,000.0	90.00	179.79	8,868.0	-1,354.5	179.4	1,357.9	0.00	0.00	0.00
10,100.0	90.00	179.79	8,868.0	-1,454.5	179.7	1,457.9	0.00	0.00	0.00
10,200.0	90.00	179.79	8,868.0	-1,554.5	180.1	1,557.9	0.00	0.00	0.00
10,300.0	90.00	179.79	8,868.0	-1,654.5	180.5	1,657.8	0.00	0.00	0.00
10,400.0	90.00	179.79	8,868.0	-1,754.5	180.8	1,757.8	0.00	0.00	0.00
10,500.0	90.00	179.79	8,868.0	-1,854.5	181.2	1,857.8	0.00	0.00	0.00
10,600.0	90.00	179.79	8,868.0	-1,954.5	181.6	1,957.8	0.00	0.00	0.00
10,700.0	90.00	179.79	8,868.0	-2,054.5	181.9	2,057.8	0.00	0.00	0.00
10,800.0	90.00	179.79	8,868.0	-2,154.5	182.3	2,157.8	0.00	0.00	0.00
10,900.0	90.00	179.79	8,868.0	-2,254.5	182.7	2,257.8	0.00	0.00	0.00
11,000.0	90.00	179.79	8,868.0	-2,354.5	183.0	2,357.7	0.00	0.00	0.00
11,100.0	90.00	179.79	8,868.0	-2,454.5	183.4	2,457.7	0.00	0.00	0.00
11,200.0	90.00	179.79	8,868.0	-2,554.5	183.8	2,557.7	0.00	0.00	0.00
11,300.0	90.00	179.79	8,868.0	-2,654.5	184.1	2,657.7	0.00	0.00	0.00
11,400.0	90.00	179.79	8,868.0	-2,754.5	184.5	2,757.7	0.00	0.00	0.00
11,500.0	90.00	179.79	8,868.0	-2,854.5	184.9	2,857.7	0.00	0.00	0.00
11,600.0	90.00	179.79	8,868.0	-2,954.5	185.2	2,957.7	0.00	0.00	0.00
11,700.0	90.00	179.79	8,868.0	-3,054.5	185.6	3,057.6	0.00	0.00	0.00
11,800.0	90.00	179.79	8,868.0	-3,154.5	185.9	3,157.6	0.00	0.00	0.00
11,900.0	90.00	179.79	8,868.0	-3,254.5	186.3	3,257.6	0.00	0.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,000.0	90.00	179.79	8,868.0	-3,354.5	186.7	3,357.6	0.00	0.00	0.00
12,100.0	90.00	179.79	8,868.0	-3,454.5	187.0	3,457.6	0.00	0.00	0.00
12,200.0	90.00	179.79	8,868.0	-3,554.5	187.4	3,557.6	0.00	0.00	0.00
12,300.0	90.00	179.79	8,868.0	-3,654.5	187.8	3,657.6	0.00	0.00	0.00
12,400.0	90.00	179.79	8,868.0	-3,754.5	188.1	3,757.5	0.00	0.00	0.00
12,500.0	90.00	179.79	8,868.0	-3,854.5	188.5	3,857.5	0.00	0.00	0.00
12,600.0	90.00	179.79	8,868.0	-3,954.5	188.9	3,957.5	0.00	0.00	0.00
12,700.0	90.00	179.79	8,868.0	-4,054.4	189.2	4,057.5	0.00	0.00	0.00
12,800.0	90.00	179.79	8,868.0	-4,154.4	189.6	4,157.5	0.00	0.00	0.00
12,900.0	90.00	179.79	8,868.0	-4,254.4	190.0	4,257.5	0.00	0.00	0.00
13,000.0	90.00	179.79	8,868.0	-4,354.4	190.3	4,357.5	0.00	0.00	0.00
13,100.0	90.00	179.79	8,868.0	-4,454.4	190.7	4,457.4	0.00	0.00	0.00
13,200.0	90.00	179.79	8,868.0	-4,554.4	191.1	4,557.4	0.00	0.00	0.00
13,300.0	90.00	179.79	8,868.0	-4,654.4	191.4	4,657.4	0.00	0.00	0.00
13,400.0	90.00	179.79	8,868.0	-4,754.4	191.8	4,757.4	0.00	0.00	0.00
13,500.0	90.00	179.79	8,868.0	-4,854.4	192.2	4,857.4	0.00	0.00	0.00
13,600.0	90.00	179.79	8,868.0	-4,954.4	192.5	4,957.4	0.00	0.00	0.00
13,700.0	90.00	179.79	8,868.0	-5,054.4	192.9	5,057.4	0.00	0.00	0.00
13,800.0	90.00	179.79	8,868.0	-5,154.4	193.3	5,157.3	0.00	0.00	0.00
13,900.0	90.00	179.79	8,868.0	-5,254.4	193.6	5,257.3	0.00	0.00	0.00
14,000.0	90.00	179.79	8,868.0	-5,354.4	194.0	5,357.3	0.00	0.00	0.00
14,100.0	90.00	179.79	8,868.0	-5,454.4	194.4	5,457.3	0.00	0.00	0.00
14,200.0	90.00	179.79	8,868.0	-5,554.4	194.7	5,557.3	0.00	0.00	0.00
14,300.0	90.00	179.79	8,868.0	-5,654.4	195.1	5,657.3	0.00	0.00	0.00
14,400.0	90.00	179.79	8,868.0	-5,754.4	195.5	5,757.3	0.00	0.00	0.00
14,500.0	90.00	179.79	8,868.0	-5,854.4	195.8	5,857.2	0.00	0.00	0.00
14,600.0	90.00	179.79	8,868.0	-5,954.4	196.2	5,957.2	0.00	0.00	0.00
14,700.0	90.00	179.79	8,868.0	-6,054.4	196.6	6,057.2	0.00	0.00	0.00
14,800.0	90.00	179.79	8,868.0	-6,154.4	196.9	6,157.2	0.00	0.00	0.00
14,900.0	90.00	179.79	8,868.0	-6,254.4	197.3	6,257.2	0.00	0.00	0.00
15,000.0	90.00	179.79	8,868.0	-6,354.4	197.7	6,357.2	0.00	0.00	0.00
15,100.0	90.00	179.79	8,868.0	-6,454.4	198.0	6,457.2	0.00	0.00	0.00
15,200.0	90.00	179.79	8,868.0	-6,554.4	198.4	6,557.1	0.00	0.00	0.00
15,300.0	90.00	179.79	8,868.0	-6,654.4	198.8	6,657.1	0.00	0.00	0.00
15,400.0	90.00	179.79	8,868.0	-6,754.4	199.1	6,757.1	0.00	0.00	0.00
15,500.0	90.00	179.79	8,868.0	-6,854.4	199.5	6,857.1	0.00	0.00	0.00
15,600.0	90.00	179.79	8,868.0	-6,954.4	199.9	6,957.1	0.00	0.00	0.00
15,700.0	90.00	179.79	8,868.0	-7,054.4	200.2	7,057.1	0.00	0.00	0.00
15,800.0	90.00	179.79	8,868.0	-7,154.4	200.6	7,157.0	0.00	0.00	0.00
15,900.0	90.00	179.79	8,868.0	-7,254.4	201.0	7,257.0	0.00	0.00	0.00
16,000.0	90.00	179.79	8,868.0	-7,354.4	201.3	7,357.0	0.00	0.00	0.00
16,100.0	90.00	179.79	8,868.0	-7,454.4	201.7	7,457.0	0.00	0.00	0.00
16,200.0	90.00	179.79	8,868.0	-7,554.4	202.1	7,557.0	0.00	0.00	0.00
16,300.0	90.00	179.79	8,868.0	-7,654.4	202.4	7,657.0	0.00	0.00	0.00
16,400.0	90.00	179.79	8,868.0	-7,754.4	202.8	7,757.0	0.00	0.00	0.00
16,500.0	90.00	179.79	8,868.0	-7,854.4	203.2	7,856.9	0.00	0.00	0.00
16,600.0	90.00	179.79	8,868.0	-7,954.4	203.5	7,956.9	0.00	0.00	0.00
16,700.0	90.00	179.79	8,868.0	-8,054.4	203.9	8,056.9	0.00	0.00	0.00
16,800.0	90.00	179.79	8,868.0	-8,154.4	204.3	8,156.9	0.00	0.00	0.00
16,900.0	90.00	179.79	8,868.0	-8,254.4	204.6	8,256.9	0.00	0.00	0.00
17,000.0	90.00	179.79	8,868.0	-8,354.4	205.0	8,356.9	0.00	0.00	0.00
17,100.0	90.00	179.79	8,868.0	-8,454.4	205.4	8,456.9	0.00	0.00	0.00
17,200.0	90.00	179.79	8,868.0	-8,554.4	205.7	8,556.8	0.00	0.00	0.00
17,300.0	90.00	179.79	8,868.0	-8,654.4	206.1	8,656.8	0.00	0.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,400.0	90.00	179.79	8,868.0	-8,754.4	206.5	8,756.8	0.00	0.00	0.00
17,500.0	90.00	179.79	8,868.0	-8,854.4	206.8	8,856.8	0.00	0.00	0.00
17,600.0	90.00	179.79	8,868.0	-8,954.4	207.2	8,956.8	0.00	0.00	0.00
17,700.0	90.00	179.79	8,868.0	-9,054.4	207.6	9,056.8	0.00	0.00	0.00
17,800.0	90.00	179.79	8,868.0	-9,154.4	207.9	9,156.8	0.00	0.00	0.00
17,900.0	90.00	179.79	8,868.0	-9,254.4	208.3	9,256.7	0.00	0.00	0.00
18,000.0	90.00	179.79	8,868.0	-9,354.4	208.7	9,356.7	0.00	0.00	0.00
18,100.0	90.00	179.79	8,868.0	-9,454.4	209.0	9,456.7	0.00	0.00	0.00
18,200.0	90.00	179.79	8,868.0	-9,554.4	209.4	9,556.7	0.00	0.00	0.00
18,300.0	90.00	179.79	8,868.0	-9,654.4	209.8	9,656.7	0.00	0.00	0.00
18,400.0	90.00	179.79	8,868.0	-9,754.4	210.1	9,756.7	0.00	0.00	0.00
18,500.0	90.00	179.79	8,868.0	-9,854.4	210.5	9,856.7	0.00	0.00	0.00
18,600.0	90.00	179.79	8,868.0	-9,954.4	210.9	9,956.6	0.00	0.00	0.00
18,700.0	90.00	179.79	8,868.0	-10,054.4	211.2	10,056.6	0.00	0.00	0.00
18,800.0	90.00	179.79	8,868.0	-10,154.4	211.6	10,156.6	0.00	0.00	0.00
TD @ 18880.2' MD / 8868.0' TVD									
18,880.2	90.00	179.79	8,868.0	-10,234.6	211.9	10,236.8	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
PBHL - Corral Canyon F - plan hits target center - Point	0.00	0.00	8,868.0	-10,234.6	211.9	408,734.90	613,910.80	32° 7' 23.498 N	103° 57' 55.372 W
LTP - Corral Canyon Fe - plan misses target center by 0.1usft at 18750.2usft MD (8868.0 TVD, -10104.6 N, 211.4 E) - Point	0.00	0.00	8,868.0	-10,104.6	211.3	408,864.90	613,910.20	32° 7' 24.785 N	103° 57' 55.374 W
TP1 - Corral Canyon Fe - plan misses target center by 175.7usft at 8852.5usft MD (8768.6 TVD, -241.1 N, 68.0 E) - Point	0.00	0.00	8,868.0	-143.9	175.4	418,825.60	613,874.30	32° 9' 3.360 N	103° 57' 55.396 W

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Federal 12H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3060.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3060.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Federal 12H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
518.0	518.0	Rustler			
889.0	889.0	Top Salt			
2,961.0	2,961.0	Base Salt			
3,166.0	3,166.0	Delaware			
4,034.0	4,034.0	Cherry Canyon			
5,666.0	5,666.0	Brushy Canyon			
6,683.0	6,683.0	Basal Brushy Canyon			
6,923.0	6,923.0	Bone Spring			
7,858.0	7,858.0	1st Bone Spring Ss			
8,124.0	8,124.0	2nd Bone Spring Lm			
8,659.0	8,635.0	2nd Bone Spring Ss			
8,880.9	8,784.0	2nd Bone Spring B			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,295.0	8,295.0	0.0	0.0	Build 10°/100'
9,194.8	8,868.0	-551.2	155.5	EOBT @ 89.98° Inc / 164.25° Azm - Turn 10°/100'
9,350.2	8,868.0	-704.7	177.0	EOBT 90.00° Inc / 179.79° Azm
18,880.2	8,868.0	-10,234.6	211.9	TD @ 18880.2' MD / 8868.0' TVD

Sec 10, T25S, R29E
Corral Canyon Federal 12H
Q170* & WT-170*****
Design #1

XTO ENERGY

Company Name: XTO ENERGY, INC.
Corral Canyon Federal 12H
Eddy County, NM
Rig: Frontier 27
Created By: Keith Noech
Date: 4/4/2017

QES

PROJECT DETAILS: Eddy County, NM	
Geodetic System:	US State Plane 1927 (Exact solution)
Datum:	NAD 1927 (NADCON CONUS)
Ellipsoid:	Clarke 1866
Zone:	New Mexico East 3001
System Datum:	Mean Sea Level

WELL DETAILS: Corral Canyon Federal 12H

Ground Level: [illegible]

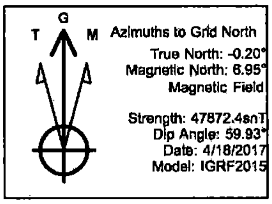
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	[illegible]	[illegible]	32° [illegible] N	103° 57' [illegible] W

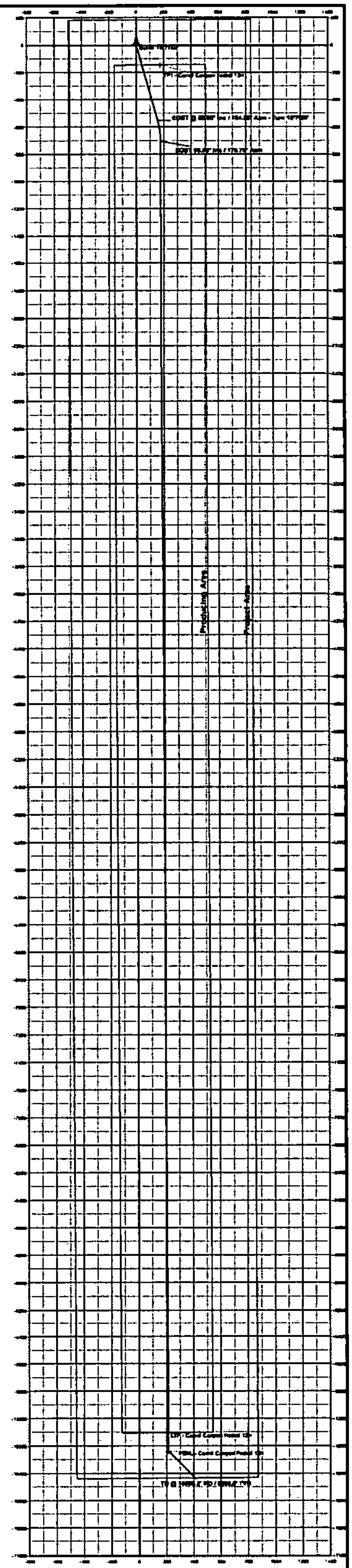
ANNOTATIONS

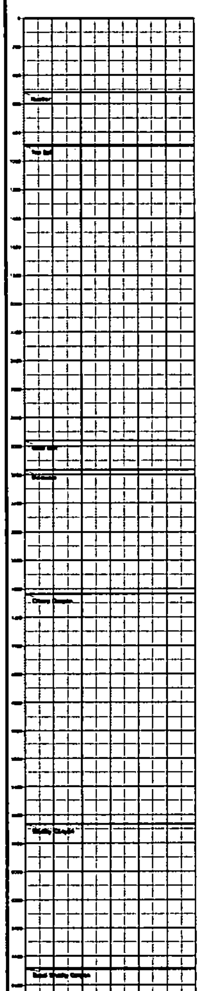
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
[illegible]	0.00	0.00	[illegible]	0.0	0.0	0.0	0.0	Build 10°/100'
9194.0	[illegible]	164.23	[illegible]	-631.2	163.5	634.3	672.7	EOBT @ [illegible]° Inc / 164.23° Azm - Turn 10°/100'
[illegible]	90.00	179.79	[illegible]	-704.7	177.0	700.2	725.1	EOBT 90.00° Inc / 179.79° Azm
[illegible]	90.00	179.79	[illegible]	-10234.0	211.0	10236.5	10356.1	TD @ [illegible]' MD / [illegible]' TVD

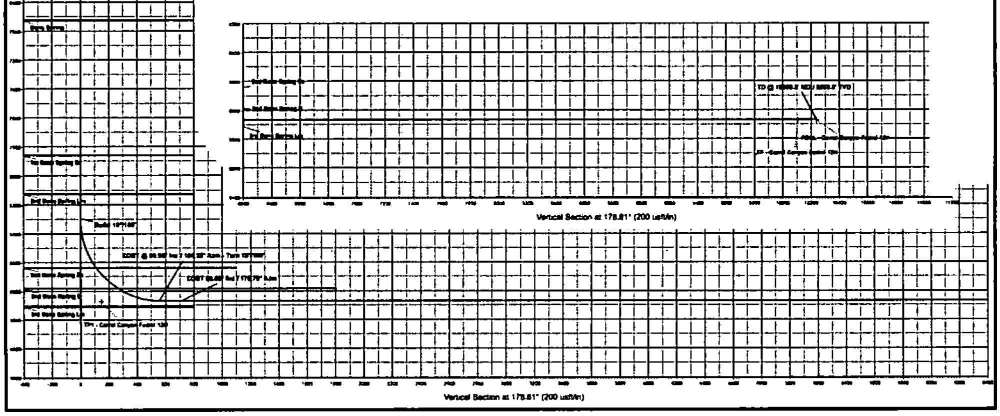
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LTP - Corral Canyon Federal 12H	[illegible]	-10104.0	211.3	[illegible]	613910.20	32° 7' 34.785 N	103° 57' 53.374 W
PBHL - Corral Canyon Federal 12H	[illegible]	-10234.0	211.0	408734.00	613910.00	32° 7' 33.498 N	103° 57' 53.372 W
TP1 - Corral Canyon Federal 12H	[illegible]	-143.0	175.4	[illegible]	613874.30	32° 9' 3.309 N	103° 57' 53.396 W









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

XTO Energy Inc.
Corral Canyon Federal 12H
Projected TD: 18880' MD / 8868' TVD
SHL: 185 FNL & 835' FEL, SECTION 10, T25S, R29E
BHL: 200' FSL & 660' FEL, SECTION 15, T25S, R29E
Eddy County, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

A. Quaternary

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Formation	Well Depth (TVD)	Water / Oil / Gas
Rustler	518'	Water
Top of Salt	889'	
Base of Salt	2961'	
Delaware	3166'	Water
Cherry Canyon	4034"	
Brushy Canyon	5666'	
Basal Brushy Canyon	6683'	Water
Bone Spring	6923'	Water/Oil/Gas
1st Bone Spring Ss	7858'	Water/Oil/Gas
2nd Bone Spring Lm	8124'	Water/Oil/Gas
2nd Bone Spring Ss	8635'	Water/Oil/Gas
2nd Bone Spring "B"Ss	8784'	Water/Oil/Gas
Target/Land Curve	8868'	Water/Oil/Gas
3rd Bone Spring	8910'	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" casing @ 860' (29' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 3100' and circulating cement to surface. An 8-3/4" vertical and curve hole be drilled and an 8-1/2" lateral hole will be drilled to MD/TD where 5-1/2" casing will be set at TD and cemented back at least 500' into the 9-5/8" casing shoe.

3. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 860'	13-3/8"	48#	STC	H-40	New	4.40	1.88	7.80
12-1/4"	0' – 3100'	9-5/8"	36#	LTC	J-55	New	2.14	1.23	4.06
8-3/4" x 8-1/2"	0' – 18880'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.69	1.70

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.

WELLHEAD:

A. Starting Head: 13-3/8" SOW bottom x 13-5/8" 5,000 psi top flange
B. Tubing Head: 13-5/8" 5,000 psi bottom flange x 7-1/16" 10,000 psi top flange

4. CEMENT PROGRAM:

A. **Surface Casing:** 13-3/8", 48#, NEW H-40, STC casing to be set at ± 860'.

20bbls FW, then 885sx HalCem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft^3/sk, 6.39 gal/sx wtr)

***All volumes 100% excess in open hole. Cement to surface.

B. **Intermediate Casing:** 9-5/8", 36#, NEW J-55, LTC casing to be set at ± 3100'.

Lead: 20 bbls FW, then 625 sx EconoCem-C + 3 lbm/sk Kol-Seal + 0.25 lbm D-air 5000 (mixed at 11.9 ppg, 2.49 ft^3/sk, 14.18 gal/sx wtr)

Tail: 300 sx HalCem-C (mixed at 14.8 ppg, 1.33 ft^3/sk, 6.34 gal/sx wtr)

***All volumes 100% excess in open hole. Cement to surface.

C. **Production Casing:** 5-1/2", 17#, NEW CYP-110, BTC casing to be set at ± 18880'.

Lead: 20 bbls FW, then 715 sx Tuned Light + 2 lbm/sk Kol-Seal + 0.3 lbm/sk CFR-3 (mixed at 10.8 ppg, 2.77 ft^3/sk, 15.3 gal/sx wtr)

Tail: 2900 sx VersaCem - H + 3 lbm/sk Kol-Seal + 0.4% Halad 344 + 0.3% CFR-3 + 0.3% Super CBL + 0.25 lbm/sk D-air 5000 (mixed at 14.5 ppg, 1.22 ft^3/sk, 5.33 gal/sx wtr)

***Lead planned with 50% excess in open hole, tail planned with 30% excess in open hole. Planned top of cement 100' into intermediate casing shoe.

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. Max bottom hole pressure should not exceed 4242 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 nippling up on the 13-5/8" 5M flange, the BOP test will be limited to 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 860'	17-1/2"	FW/Native	8.4 - 8.8	35 - 40	NC
860' to 3100'	12-1/4"	Brine/Gel Sweeps	9.8 - 10.2	30 - 32	NC
3100' to 8295'	8-3/4"	FW / Cut Brine	8.6 - 9.4	29 - 32	NC - 20
8295' to 18880'	8-1/2"	Polymer-Water	9.2 - 9.6	55 - 65	12 - 20

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

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 9.8ppg - 10.2ppg brine mud will be used while drilling through the salt formation. Cut brine will be used to drill the 8-3/4" section. A polymer water will be used to drill the 8-1/2" lateral. 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. Solids control equipment will be used 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) on below intermediate casing.

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from kick-off point to intermediate casing shoe.

9. ABNORMAL PRESSURES AND TEMPERATURES / POTENTIAL HAZARDS:

None anticipated. BHT of 175 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.

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

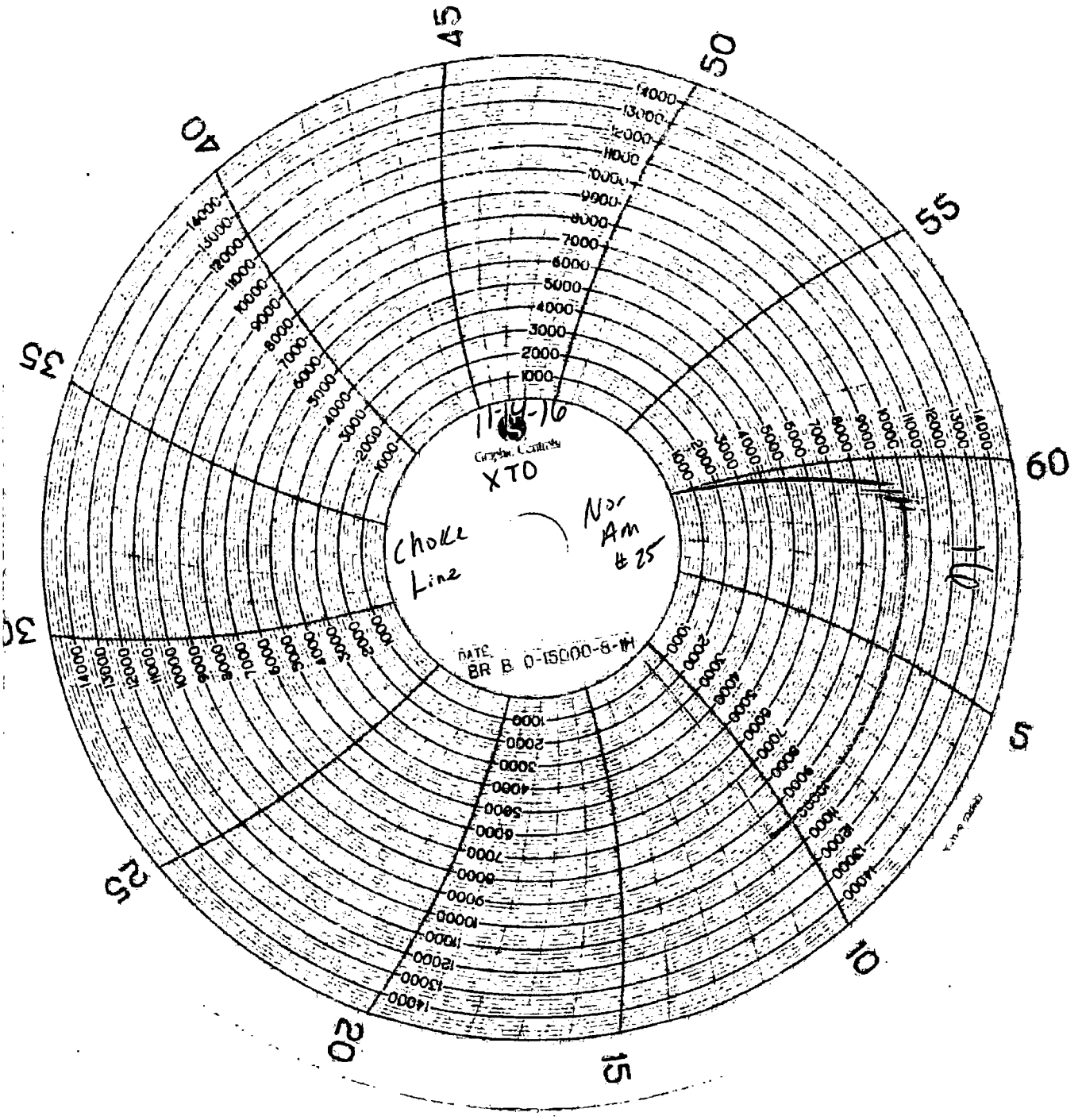
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

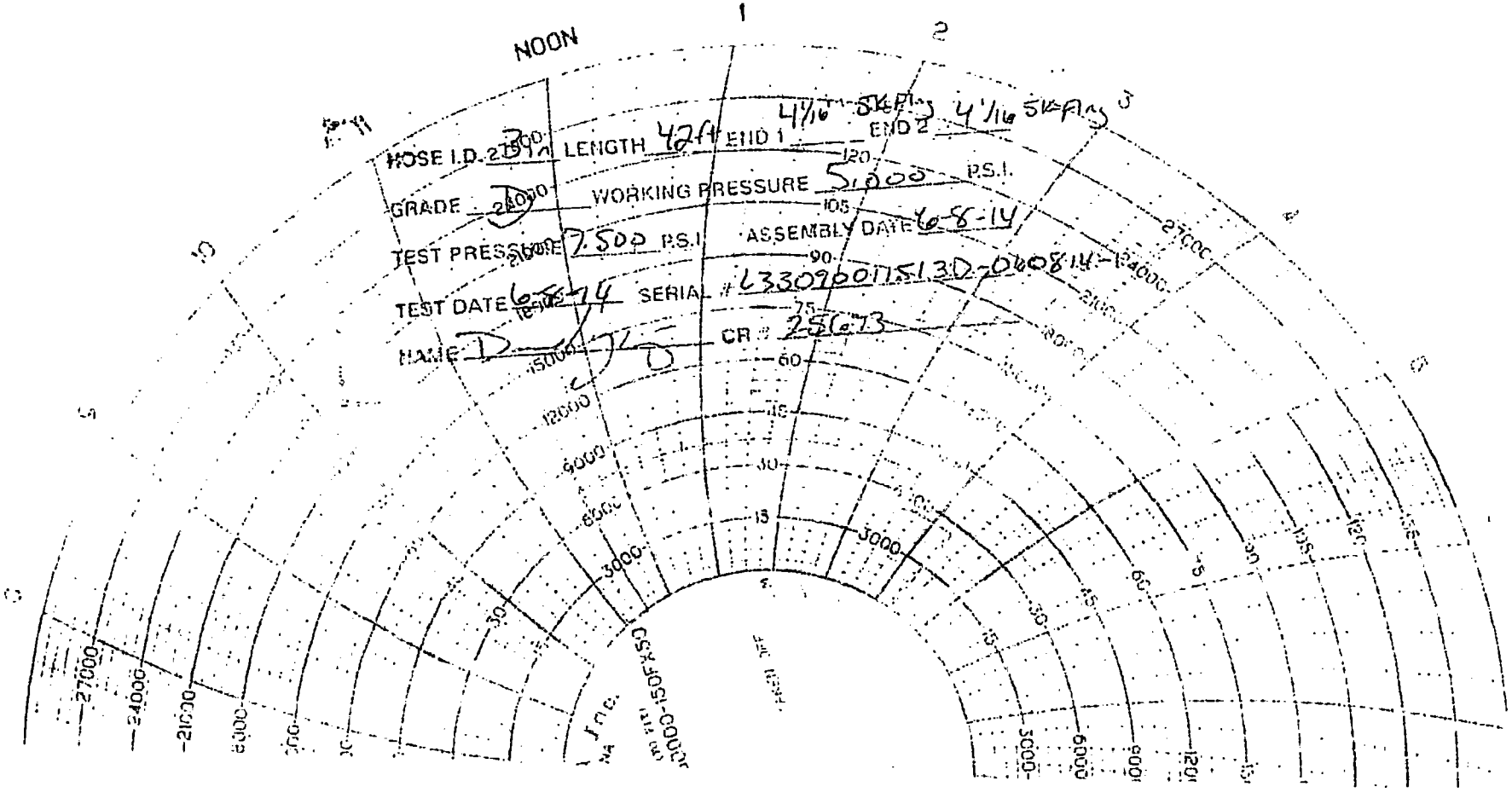
Product Description:	FD3.042.0R41/16.5KFLGE/E LE

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 :	


11-14-16
XTO
Choke Line
Nor Am #25
DATE
BR B 0-15000-8-M


NOON
HOSE I.D. 3"
LENGTH 42"
END 1 4 1/16 5K FLG
END 2 4 1/16 5K FLG
GRADE D
WORKING PRESSURE 5,000 P.S.I.
TEST PRESSURE 7,500 P.S.I.
ASSEMBLY DATE 6-8-14
TEST DATE 6-8-14
SERIAL # 633096011513D-060814-1
NAME D
CR # 25673

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Surface material will be native caliche.

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.

Access other construction information: Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.

Access miscellaneous information: The Corral Canyon 12H well is accessed from the intersection of Highway 285 (Pecos Hwy) and Co. Rd. 725 (Longhorn Road). Go Northeast on Co. Road 725 approximately 4.2 miles. Pass the Pecos River and go to a "Y" intersection. Turn left and go Northeast approximately 1.8 miles. Turn left and go North-Northwesterly along meandering road approximately 3.4 miles. Stay on winding road and go North-Northeast approximately 1.4 miles. Turn left and go North approximately .5 miles to a road survey. Follow road survey stakes 595' feet to the South to the Location. Transportation Plan identifying existing roads that will be used to access the project area is included from John West Surveying marked as, 'Location Verification Map.'

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the join BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

Road Drainage Control Structures (DCS) description: No drainage control structures were identified at onsite. Drainage control structures will be applied for as needed and be in accordance with road guidelines contained in the join BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

CorralCanyon12H_1Mile_20181003093707.pdf

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Production Facilities. No production facility is being applied for with this application. Flowlines. No flowlines are being applied for with this application. A 3160-5 subsequent sundry will be submitted with flowline information once available. Gas Pipeline. No gas pipeline is being applied for with this application. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. No flare is being applied for with this application. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas. Electrical. No OHE is being applied for with this application. A 3160-5 subsequent sundry will be submitted with OHE information once available.

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: DUST CONTROL, INTERMEDIATE/PRODUCTION CASING, SURFACE CASING

Water source type: GW WELL

Describe type:

Source latitude: 32.190613

Source longitude: -104.05808

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 30000

Source volume (acre-feet): 3.866793

Source volume (gal): 1260000

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Water source use type: STIMULATION **Water source type:** GW WELL

Describe type:

Source latitude: 32.192104 **Source longitude:** -104.06197

Source datum: NAD83

Water source permit type: WATER WELL

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 50000 **Source volume (acre-feet):** 6.444655

Source volume (gal): 2100000

Water source and transportation map:

CorralCanyon12H_Wtr_20181003084955.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location. Water for drilling, completion and dust control will be purchased from the following company: SB Oilfield Services 213 S. Mesa Carlsbad, NM 88220 Water for drilling, completion and dust control will be supplied to SB Oilfield Services for sale to XTO Energy, Inc from the following two sources (see "NMWaterDoc"): 1st Well: C3423 Section 26-T24S-R28E Latitude: 32.190613 Longitude: -104.05808 2nd Well: C3358 Section 26-T24S-R28E Latitude: 32.192104 Longitude: -104.06197 Anticipated water usage for drilling includes an estimated 30,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with 40% excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Well completion is expected to require approximately 50,000 barrels of fresh water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections. After production is established, XTO may complete wells with approximately 50,000 barrels of produced water. If this decision is made, the BLM will be notified appropriately, proper permitting will ensue with the New Mexico Oil Conservation division and this surface use plan will be amended as needed. A fresh water frac pond is anticipated after the wells are drilled. The maximum size anticipated for 24 wells is 250'x250'x15' with a HDPE 30mil liner. The potential location of the frac pond is unknown at this time but will be staked with a BLM representative present in order to make certain all wildlife habitat and hydrological areas are protected with minimal environmental impact.

New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Source 1: BLM Pit (24-22S-29E) Source 1: State (NMSLO) Pit (Pit 644-Eddy, 22-25S-28E)
Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A licensed 3rd party contract will be used to haul and dispose of human waste

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

Safe containment description: The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240 (575) 393-1079

Waste type: GARBAGE

Waste content description: garbage, junk and non-flammable waste materials

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

Safe containment description: All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: A license 3rd party vendor will be contracted to haul and safely dispose of garbage, junk and non-flammable waste materials.

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.
Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240 (575) 393-1079

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cutting: The well will be drilled utilizing the closed loop mud system. Drill cuttings will be held in roll off style mud boxes and taken to a NMOCD approved disposal site. Drilling fluids: These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced Fluids: Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

CorralCanyon12H_Well_20181003085025.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** CORRAL CANYON FEDERAL

Multiple Well Pad Number: 12H

Recontouring attachment:

Drainage/Erosion control construction: All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches.

Drainage/Erosion control reclamation: Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

Well pad proposed disturbance (acres): 0	**Well pad interim reclamation (acres):** 3.03	**Well pad long term disturbance (acres):** 2.75
Road proposed disturbance (acres): 0	**Road interim reclamation (acres):** 0.15	**Road long term disturbance (acres):** 0.15
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):** 0.1119146	**Pipeline long term disturbance (acres):** 5.45225
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 0	**Total interim reclamation:** 3.2919147	**Total long term disturbance:** 8.35225

Disturbance Comments:

Reconstruction method: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Topsoil redistribution: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Soil treatment: A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

Existing Vegetation at the well pad: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated

by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jeff **Last Name:** Raines

Phone: (432)620-4349 **Email:** jeff_raines@xtoenergy.com

Seedbed prep: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.
Seed BMP: If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Seed method: Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.
Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Weed control for all phases will be through the use of approved pesticides and herbicides according to applicable State, Federal and local laws.
Weed treatment plan attachment:

Monitoring plan description: Monitoring of invasive and noxious weeds will be visual and as-needed. If it is determined additional methods are required to monitor invasive and noxious weeds, appropriate BLM authorities will be contacted with a plan of action for approval prior to implementation.
Monitoring plan attachment:

Success standards: 100% compliance with applicable regulations

Pit closure description: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop mud system will meet the NMOCD requirements 19, 15, and 17.
Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 12H

Disturbance type: OTHER

Describe: Facilities and Flowline

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: OTHER

Describe: Electrical

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,289001 ROW- O&G Well Pad

ROW Applications

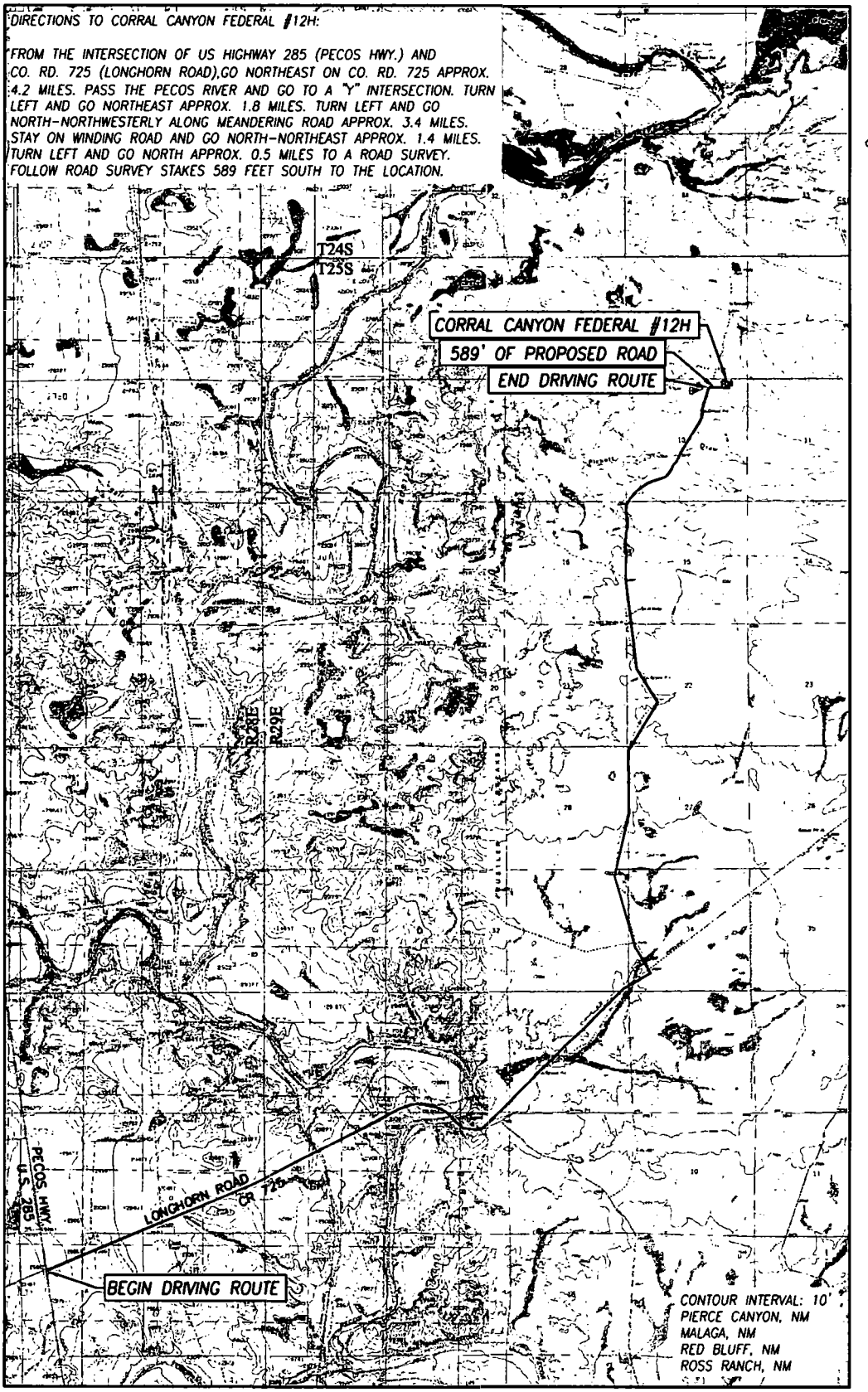
SUPO Additional Information: Existing ROWs: NM 134399 NM 134397 A Class III Cultural Resources Examination has been completed on all wells by Boone Archaeological Services and the results are attached here. XTO has entered into the PA with the BLM on 2/18/2014 where all necessary applications and dues will be paid prior to any construction activities based on the extent of the project development.
Use a previously conducted onsite? YES

Previous Onsite information: Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by John West Surveying, a registered professional land surveyor. Center stake surveys with access roads have been completed on State and Federal lands with Jesse Rice, Bureau of Land Management Natural Resource Specialist, in attendance.

Other SUPO Attachment

CorralCanyon12H_SUPO_20181003093836.pdf

LOCATION VERIFICATION MAP



SEC. 10 TWP. 25-S RGE. 29-E
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 185' FNL & 835' FEL
ELEVATION 3035'
OPERATOR XTO ENERGY
LEASE CORRAL CANYON FEDERAL
U.S.G.S. TOPOGRAPHIC MAP
MALAGA, N.M. SURVEY N.M.P.M.

SCALE: 1" = 1 MILE

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

CORRAL CANYON 3-34 FEDERAL PROPOSED ACCESS ROAD DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1,287.18 FEET, 78.01 RODS, OR 0.24 MILES IN LENGTH CROSSING SECTIONS 3 AND 10, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE OF ROAD SURVEY, COMPRISING OF 0.88 OF AN ACRE AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SW/4 SE/4 SECTION 3 = 178.56 FEET = 10.82 RODS = 0.12 OF AN ACRE
SE/4 SE/4 SECTION 3 = 1,053.35 FEET = 63.84 RODS = 0.72 OF AN ACRE
NE/4 NE/4 SECTION 10 = 55.27 FEET = 3.35 RODS = 0.04 OF AN ACRE

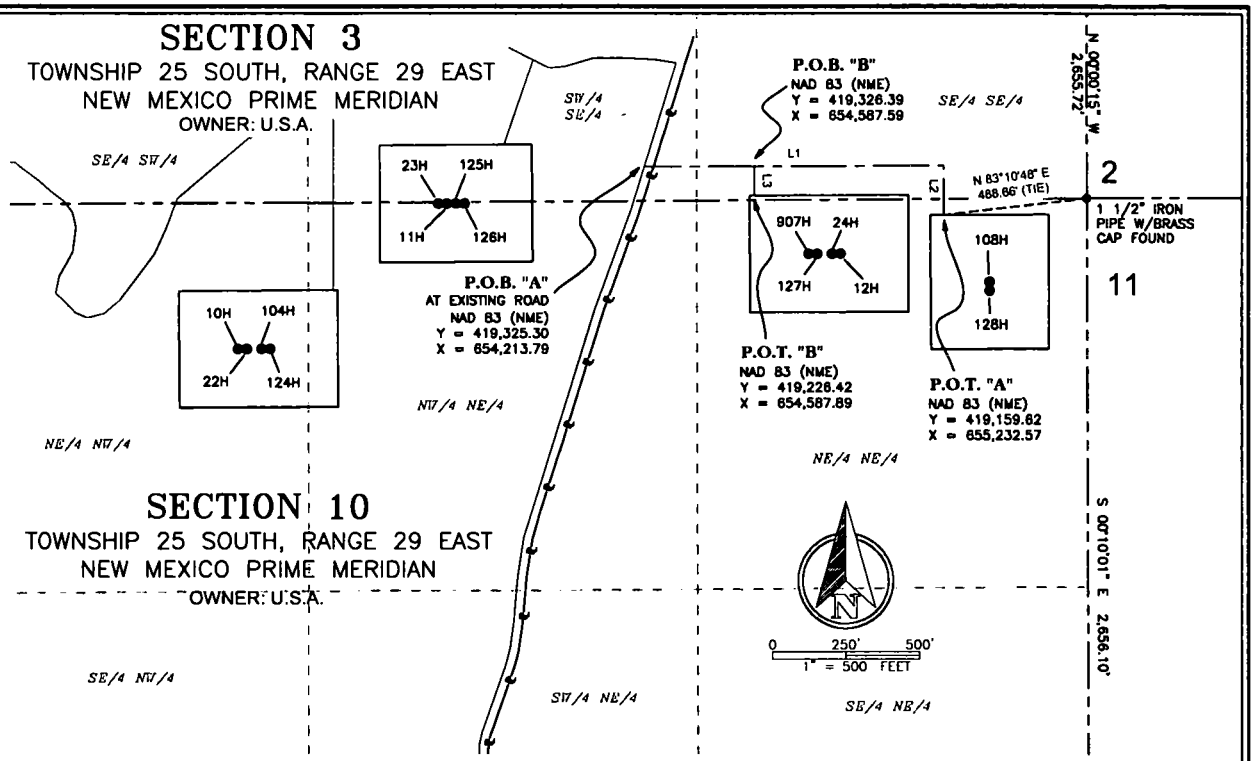
LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	N 89°49'00" E	1018.27'
L2	S 00°10'35" E	168.94'

LINE TABLE "B"

L3	S 00°10'23" E	99.97'

TOTAL LENGTH = 1,287.18 FEET
OR 78.01 RODS



MARK DILLON HARP
NEW MEXICO
23786
PROFESSIONAL SURVEYOR

GENERAL NOTES

1. BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

LEGEND

- SECTION LINE
- EXISTING PIPELINE
- EXISTING ROAD
- OHE — EXISTING OVERHEAD ELECTRIC
- PROPOSED PAD
- PROPOSED ROAD CENTERLINE
- P.O.B. — POINT OF BEGINNING
- P.O.T. — POINT OF TERMINUS
- FOUND MONUMENT AS NOTED

PLAT OF:

PROPOSED CENTERLINE OF ACCESS ROADS FOR:
XTO ENERGY, INC.
CORRAL CANYON 3-34 FEDERAL
SITUATED IN SECTIONS 3 AND 10
TOWNSHIP 25 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

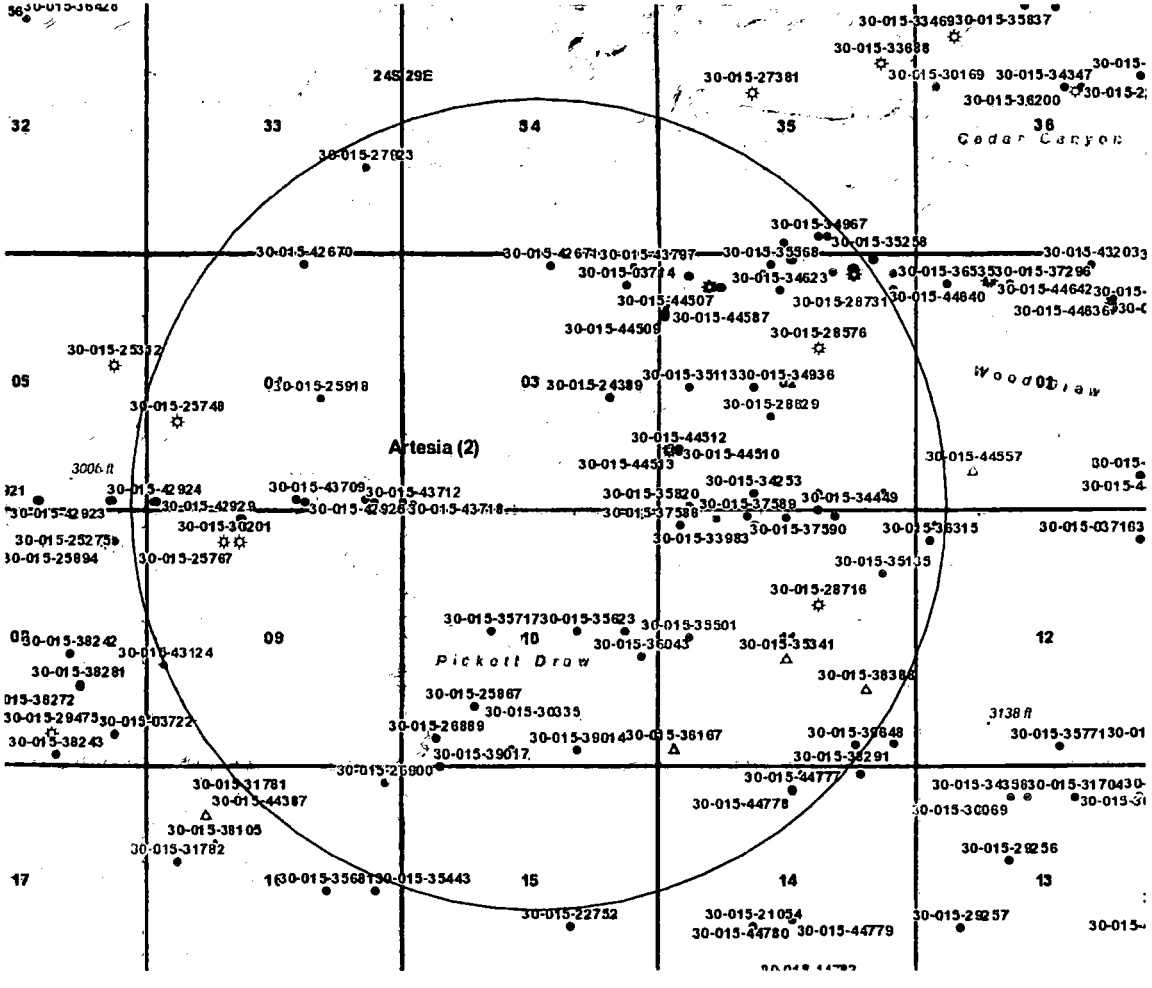
MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 · Fort Worth, TX 76107
Ph: 817.349.9800 · Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

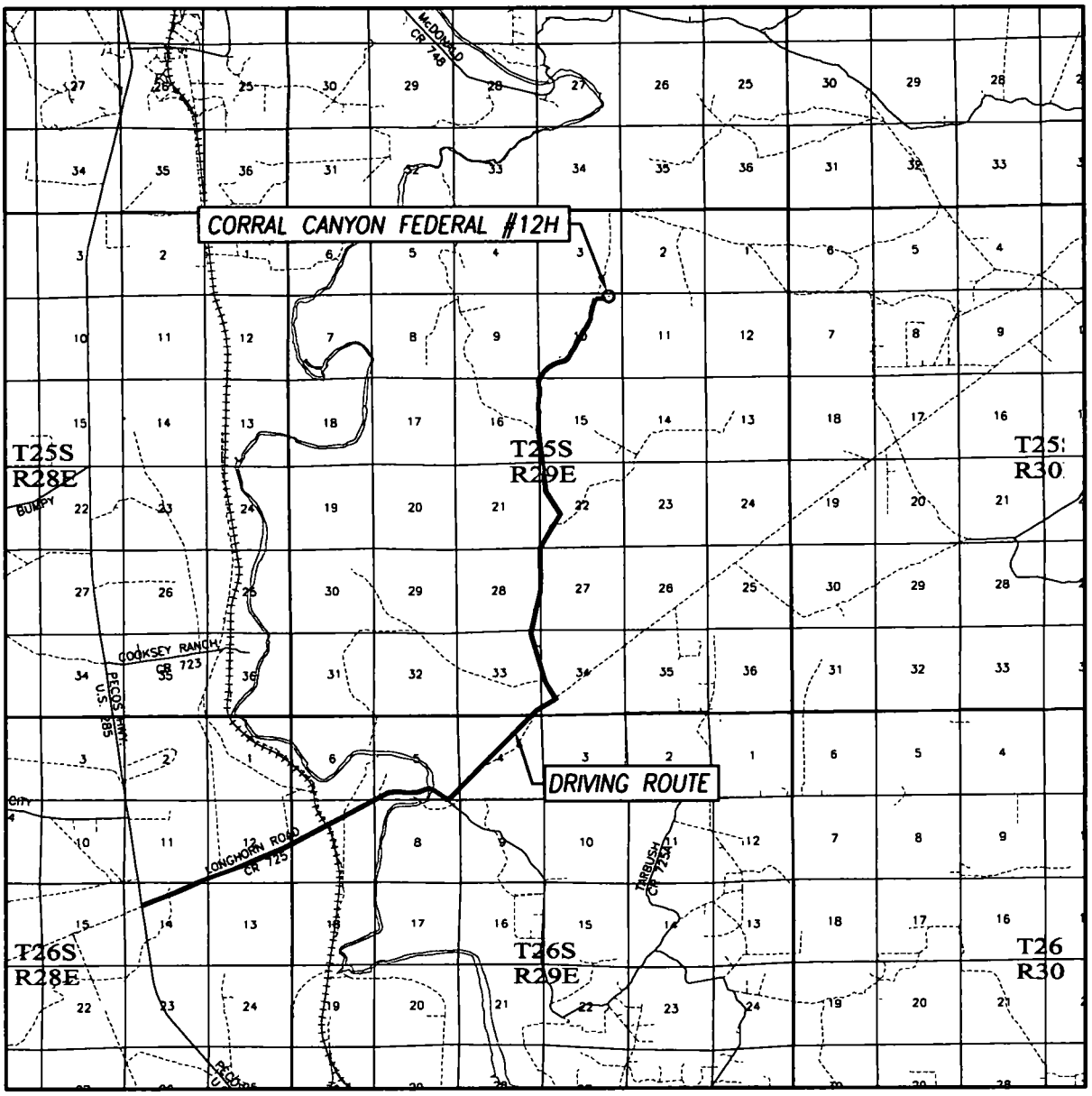
DATE:	10-10-2018
DRAWN BY:	AI
CHECKED BY:	DH
FIELD CREW:	RE/RD/KN/CD
PROJECT NO:	2017091592
SCALE:	1" = 500'
SHEET:	1 OF 1
REVISION:	NO

© COPYRIGHT 2018 - ALL RIGHTS RESERVED

Corral Canyon 3-34 Federal 1-Mile Radius Map



VICINITY MAP



SCALE: 1" = 2 MILES

DRIVING ROUTE: SEE LOCATION VERIFICATION MAP

SEC. 10 TWP. 25-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

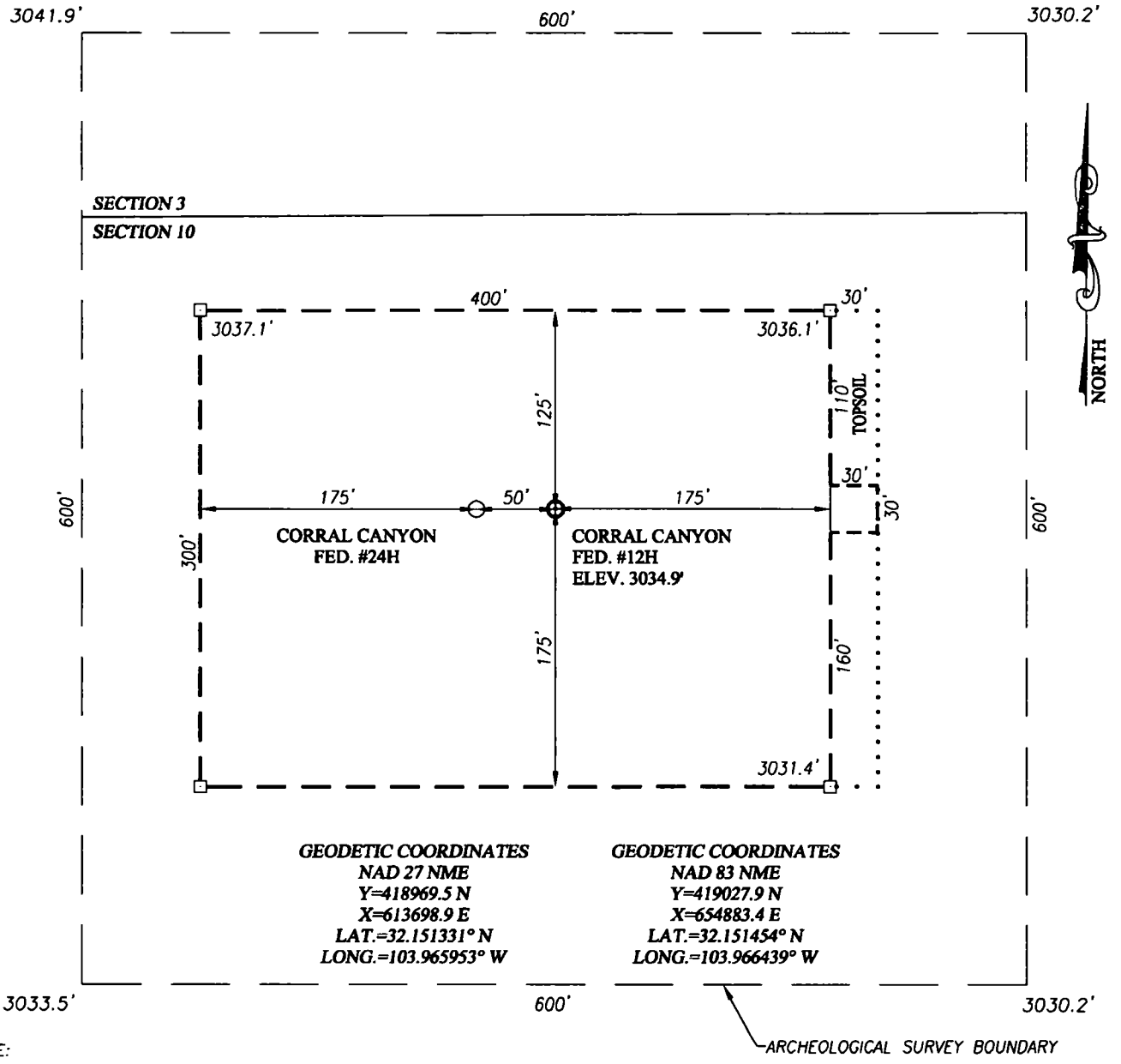
DESCRIPTION 185' FNL & 835' FEL

ELEVATION 3035'

OPERATOR XTO ENERGY

LEASE CORRAL CANYON FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000



NOTE:
1) SEE "LOCATION VERIFICATION MAP" FOR PROPOSED ROAD LOCATION.

DIRECTIONS TO CORRAL CANYON FEDERAL #12H:

FROM THE INTERSECTION OF US HIGHWAY 285 (PECOS HWY.) AND CO. RD. 725 (LONGHORN ROAD),GO NORTHEAST ON CO. RD. 725 APPROX. 4.2 MILES. PASS THE PECOS RIVER AND GO TO A "Y" INTERSECTION. TURN LEFT AND GO NORTHEAST APPROX. 1.8 MILES. TURN LEFT AND GO NORTH-NORTHWESTERLY ALONG MEANDERING ROAD APPROX. 3.4 MILES. STAY ON WINDING ROAD AND GO NORTH-NORTHEAST APPROX. 1.4 MILES. TURN LEFT AND GO NORTH APPROX. 0.5 MILES TO A ROAD SURVEY. FOLLOW ROAD SURVEY STAKES 589 FEET SOUTH TO THE LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

XTO ENERGY

CORRAL CANYON FEDERAL #12H WELL
LOCATED 185 FEET FROM THE NORTH LINE
AND 885 FEET FROM THE EAST LINE OF SECTION 10,
TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 5/2/14	CAD Date: 5/20/14	Drawn By: ACK
W.O. No.: 14110436	Rev: .	Rel. W.O.:	Sheet 1 of 1

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

© Anjelica\2014\XTO Energy\Wells\14110436 Corral Canyon Federal #12H

Well Site Locations

The results of the Corral Canyon Federal 12H well will develop economic quantities of oil and gas in development area with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering faults and/or drilling hazards while still targeting suitably productive zones.

If drilling results in an unproductive well, the well will be plugged and abandoned as soon as practical after the conclusion of production testing. Productive wells may be shut-in temporarily for BLM authorization for production activities and facilities.

Surface Use Plan

1. **Existing Roads**
    A. The Corral Canyon 12H well is accessed from the intersection of Highway 285 (Pecos Hwy) and Co. Rd. 725 (Longhorn Road). Go Northeast on Co. Road 725 approximately 4.2 miles. Pass the Pecos River and go to a "Y" intersection. Turn left and go Northeast approximately 1.8 miles. Turn left and go North-Northwesterly along meandering road approximately 3.4 miles. Stay on winding road and go North-Northeast approximately 1.4 miles. Turn left and go North approximately .5 miles to a road survey. Follow road survey stakes 595' feet to the South to the Location. Transportation Plan identifying existing roads that will be used to access the project area is included from John West Surveying marked as, 'Location Verification Map.'
    B. 99.97' of access road will be needed to access the well locations. All equipment and vehicles will be confined to the routes shown on the Vicinity Map as provided by Frank's Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.
    C. The project is located approximately 6.7 miles Southeast of Malaga, New Mexico.

2. **New or Upgraded Access Roads**
    A. **New Roads**. There are a total of approximately 99.97' of proposed and staked access road in the Corral Canyon Federal 12H well.
    B. **Well Pads**. The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The lease flow diagram shows the location of proposed roads that will need to be constructed to access the well pads.
    C. **Anticipated Traffic**. After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Battery is completed. Upon completion of the Central Tank Battery, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Battery only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
    D. **Routing**. All equipment and vehicles will be confined to the travel routes laid out in the vicinity map provided by Frank's Surveying unless otherwise approved by the BLM and applied for by XTO Energy, Inc.
    E. **Road Dimensions**. The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

Level Ground Section

F. **Surface Material**. Surface material will be native caliche. The average grade of all roads will be approximately 3%.
G. **Fence Cuts**: No.
H. **Fences**: No.
I. **Cattle Guards**: No.
J. **Turnouts**: No.
K. **Culverts**: No.
L. **Cuts and Fills**: Not significant.
M. **Topsoil**. Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.
N. **Maintenance**. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.
O. **Drainage**. The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

3. Location of Existing Wells

A. See attached 1-mile radius well map.

4. Ancillary Facilities

A. **Ancillary Facilities**. No off-pad ancillary facilities are planned during the exploration phase including, but not limited to: campsites, airstrips or staging areas.

5. Location of Proposed Production Facilities

A. **Production Facilities**. No production facility is being applied for with this application.
B. **Flowlines**. In the event the wells are found productive, 1 - 4" composite flexpipe or steel flowlines with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be laid on the surface within proposed lease road corridors from the proposed wells to the Corral Canyon 10 East CTB where oil, gas, and water will be metered and appropriately separated. 1 - 4" steel high pressure gas lines will be buried beneath the surface flowlines per well pad within the proposed lease road corridors for gas lift. Oil will be hauled from the location by truck following existing and proposed lease roads. The distance of proposed surface and buried lines lines per well will be approximately 2,118.56' or less. All flowlines will follow proposed lease road corridors. A plat of the proposed flowline route for the lease is attached.
C. **Gas Pipeline**. No gas pipeline is being applied for with this application.
D. **Disposal Facilities**. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.
E. **Flare**. No flare is being applied for with this application.

F. **Aboveground Structures**. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.

G. **Containment Berms**. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas.

H. **Electrical**. All electrical poles and lines will be placed within existing and proposed lease road corridors. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 130.04' of electrical will be run from the anticipated tie-in point to the well pad. 130.04' of electrical will be run from the anticipated tie-in point to the proposed CTB. Plats of the proposed electrical routing are attached.

6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from commercial water stations in the area and hauled to the location by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

Water for drilling, completion and dust control will be purchased from the following company:

SB Oilfield Services
213 S. Mesa
Carlsbad, NM 88220

Water for drilling, completion and dust control will be supplied to SB Oilfield Services for sale to XTO Energy, Inc from the following two sources (see Exhibit "E"):

1st Well: C3423
Section 26-T24S-R28E, SW/NE quarter
Latitude: 32 degrees, 11 minutes, 26.2 seconds
Longitude: 104 degrees, 03 minutes, 29.1 seconds

2nd Well: C3358
Section 26-T24S-R28E, SE/NW quarter
Latitude: 32 degrees, 11 minutes, 31.58 seconds
Longitude: 104 degrees, 03 minutes, 43.11 seconds

Anticipated water usage for drilling includes an estimated 30,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with 40% excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation.

Well completion is expected to require approximately 50,000 barrels of fresh water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections. After production is established, XTO may complete wells with approximately 50,000 barrels of produced water. If this decision is made, the BLM will be notified appropriately, proper permitting will ensue with the New Mexico Oil Conservation division and this surface use plan will be amended as needed.

7. Construction Activities

A. Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.

B. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.

C. Anticipated Caliche Locations:
   a. Pit 1: Federal Caliche Pit, Section 2-24S-29E
   b. Pit 2: State Caliche Pit, Pit 644-Eddy, 22-25S-28E

8. Methods for Handling Waste

- **Cuttings**. The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.
- **Drilling Fluids**. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.
- **Produced Fluids**. Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.
- **Sewage**. Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- **Garbage and Other Waste Materials.** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
- **Debris**. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- **Hazardous Materials.**
   i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
   ii. XTO Energy, Inc. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERLCA includes any 'hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.
   iii. No hazardous substances or wastes will be stored on the location after completion of the well.
   iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
   v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported

verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

9. Well Site Layout

A. **Rig Plat Diagrams**: The anticipated 4-well drilling pad will be 540' x 400'. The original well pad was approved under the Corral Canyon Federal EA: DOI-BLM-NM P020-2014-1545-EA. This request is for a pad expansion to accommodate the drilling rig and support the additional 2 wells on the pad. Pad expansion is: 70' East, 30' West, 30' North and 30' South. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of this pad is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached.
Closed-Loop System: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.

B. **V-Door Orientation**: The wells were staked with V-Door West orientation as agreed upon with Fernando Banos, BLM Natural Resource Specialist, present at on-site inspection.

C. A 600' x 600' area has been staked and flagged around each well pad. A plat for the well has been attached.

D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

10. Plans for Surface Reclamation:

Non-Commercial Well (Not Productive), Interim & Final Reclamation:

Definition: Reclamation includes disturbed areas where the original landform and a natural vegetative community will be restored and it is anticipated the site will not be disturbed for future development.

Reclamation Standards:

The portions of the pad not essential to production facilities or space required for workover operations will be reclaimed and seeded as per BLM requirements for interim reclamation. (See Interim Reclamation plats attached).

All equipment and trash will be removed, and the surfacing material will be removed from the well pad and road and transported to the original caliche pit or used to maintain other roads. The location will then be ripped and seeded.

The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

The site will be free of State-or County-listed noxious weeds, oil field debris and equipment, and contaminated soil. Invasive and non-native weeds will be controlled.

Seeding:

- Seedbed Preparation: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.
- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

11. Surface Ownership

A. All surface is 100% under the administrative jurisdiction of the Bureau of Land Management.
B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

12. Other Information

Surveying

- **Well Sites**. Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by Frank Surveying, a registered professional land surveyor. Center stake surveys with access roads have been completed on State and Federal lands with Fernando Banos, Bureau of Land Management Natural Resource Specialist in attendance.

- **Cultural Resources – Archaeology**: This area is located inside of the PA MOA. Payments to the PA have been made to BLM Archaeologist at the time of APD submission to BLM.

- **Dwellings and Structures**. There are no dwellings or structures within 2 miles of this location.

Soils and Vegetation

- **Environmental Setting**. Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

- **Traffic**. No truck traffic will be operated during periods or in areas of saturated ground when surface rutting could occur. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.

- **Water**. There is no permanent or live water in the immediate or within the project area.

13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: UTB000138

Operator's Representatives:

The XTO Energy, Inc. representatives for ensuring compliance of the surface use plan are listed below:

Surface:

Jimie Scott
Contract Construction Lead
XTO Energy, Incorporated
500 W. Illinois St., Suite 100
Midland, Texas 79701
432-488-9955
james_scott@xtoenergy.com

Jeff Raines
Construction Superintendent
XTO Energy, Incorporated
500 W. Illinois St., Suite 100
Midland, Texas 79701
432-620-4349
jeff_raines@xtoenergy.com

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

11/06/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: UTB000138

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: