Missing GCP

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 02 2019
RECEIVED

Form 3160-3
(June 2015)

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

UNITED STATES
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 22H

3/4/21

2. Name of Operator: XTO ENERGY INCORPORATED

9. API Well No.: 30-015-46326

3a. Address: 2277 Springwoods Village Parkway Spring TX 77389

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

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

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NENW / 500 FNL / 2460 FWL / LAT 32.150575 / LONG -103.972922

At proposed prod. zone: NENW / 200 FNL / 1980 FWL / LAT 32.180529 / LONG -103.974562

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*: 7.5 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): 500 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: 8823 feet / 19603 feet

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3030 feet

22. Approximate date work will start*: 03/15/2019

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)	Elizabeth Zastoupil / Ph: (817)885-6750	08/18/2017

Title: Geologist

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	09/27/2019

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

RWP 10-3-19

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 09/27/2019

Needs GCP.

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 I: 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: NENW / 500 FNL / 2460 FWL / TWSP: 25S / RANGE: 29E / SECTION: 10 / LAT: 32.150575 / LONG: -103.972922 (TVD: 0 feet, MD: 0 feet)
   PPP: SESW / 330 FSL / 1980 FWL / TWSP: 25S / RANGE: 29E / SECTION: 3 / LAT: 32.152853 / LONG: -103.974471 (TVD: 8823 feet, MD: 9534 feet)
   BHL: NENW / 200 FNL / 1980 FWL / TWSP: 24S / RANGE: 29E / SECTION: 34 / LAT: 32.180529 / LONG: -103.974562 (TVD: 8823 feet, MD: 19603 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**
LEASE NO.:	**NMNM-136870**
WELL NAME & NO.:	**Corral Canyon Federal 22H**
SURFACE HOLE FOOTAGE:	**0500' FNL & 2460' FWL**
BOTTOM HOLE FOOTAGE	**0200' FNL & 1980' FWL Sec. 34, T. 24 S., R 29 E.**
LOCATION:	**Section 10, T. 25 S., R 29 E., NMPM**
COUNTY:	**County, New Mexico**

Operator to add "COM" to the well name

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

(575) 361-2822

1. **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.**

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. 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 is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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.

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.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **815** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

    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.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight

necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

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.**

If cement does not circulate to surface on the intermediate casing, the cement on the production casing must come to surface.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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.

4. 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.

C. 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 53.

2. Variance approved to use flex line from BOP to choke manifold. 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. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi. **5M 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. The appropriate BLM office shall be notified a minimum of 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).

    a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

    b. 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.

    c. The results of the test shall be reported to the appropriate BLM office.

    d. 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.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi.

The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 092519

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Energy Incorporated
LEASE NO.: NMNM136870
LOCATION: Section 10, T.25 S., R.29 E., NMPM
COUNTY: Eddy County, New Mexico

Corral Canyon Federal 10H
Surface Hole Location: 500' FNL & 2410' FWL, Section 10, T. 25 S., R. 29 E.
Bottom Hole Location: 200' FSL & 1980' FWL, Section 15, T. 25 S, R 29 E.

Corral Canyon Federal 22H
Surface Hole Location: 500' FNL & 2460' FWL, Section 10, T. 25 S., R. 29 E.
Bottom Hole Location: 200' FNL & 1980' FWL, Section 34, T. 24 S, R 29 E.

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

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.

I. 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.)

II. 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.

III. 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.

IV. SPECIAL REQUIREMENT(S)

Wildlife: Texas Hornshell Mussel:

Oil and Gas and Associated Infrastructure Mitigation Measures for Zone D – CCA Boundary Requirements:

- Provide CEHMM with the permit, lease grant, or other authorization form BLM, if applicable.
- Provide CEHMM with plats or other electronic media describing the new surface disturbance for the project.

Hydrology:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and 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.
- **ELECTRIC LINE(S):**
  Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Cave/Karst Surface Mitigation

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

Construction:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.

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

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- 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 (i.e. an 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 Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- All tank battery locations and facilities will be lined and bermed.
- The liner should be at least 20 mil in thickness and 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.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to

minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

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.
- A leak detection plan will be submitted to BLM that incorporates an automatic shut off system (see below) to minimize the effects of an undesirable event that could negatively sensitive cave/karst resources.
- Well heads, pipelines (surface and buried), storage tanks, and all supporting equipment should be monitored regularly after installation to promptly identify and fix leaks.

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 groundwater concerns:

Closed Loop System:

- A closed loop system using steel tanks will be utilized during drilling – no pits
- All fluids and cuttings will be hauled off-site and disposed of properly at an authorized site

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:

- The kick off point 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 between surface and the base of the cave occurrence zone will be logged and reported in the drilling report.
- If a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, regardless of the type of drilling machinery used, 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:

- Additional plugging conditions of approval may be required upon well abandonment in high and medium karst potential occurrence zones.
- 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.

V. 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.

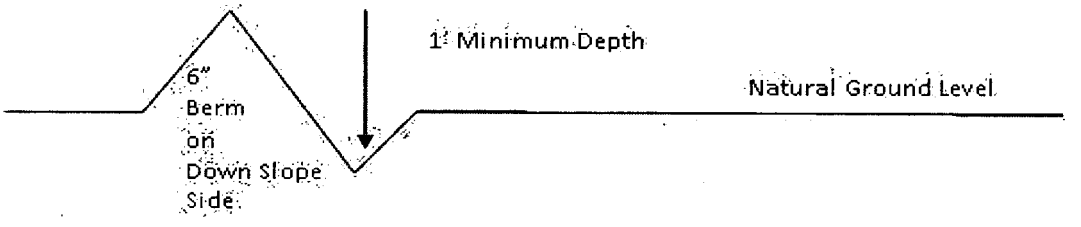
Ditching
Ditching shall be required on both sides of the road.

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

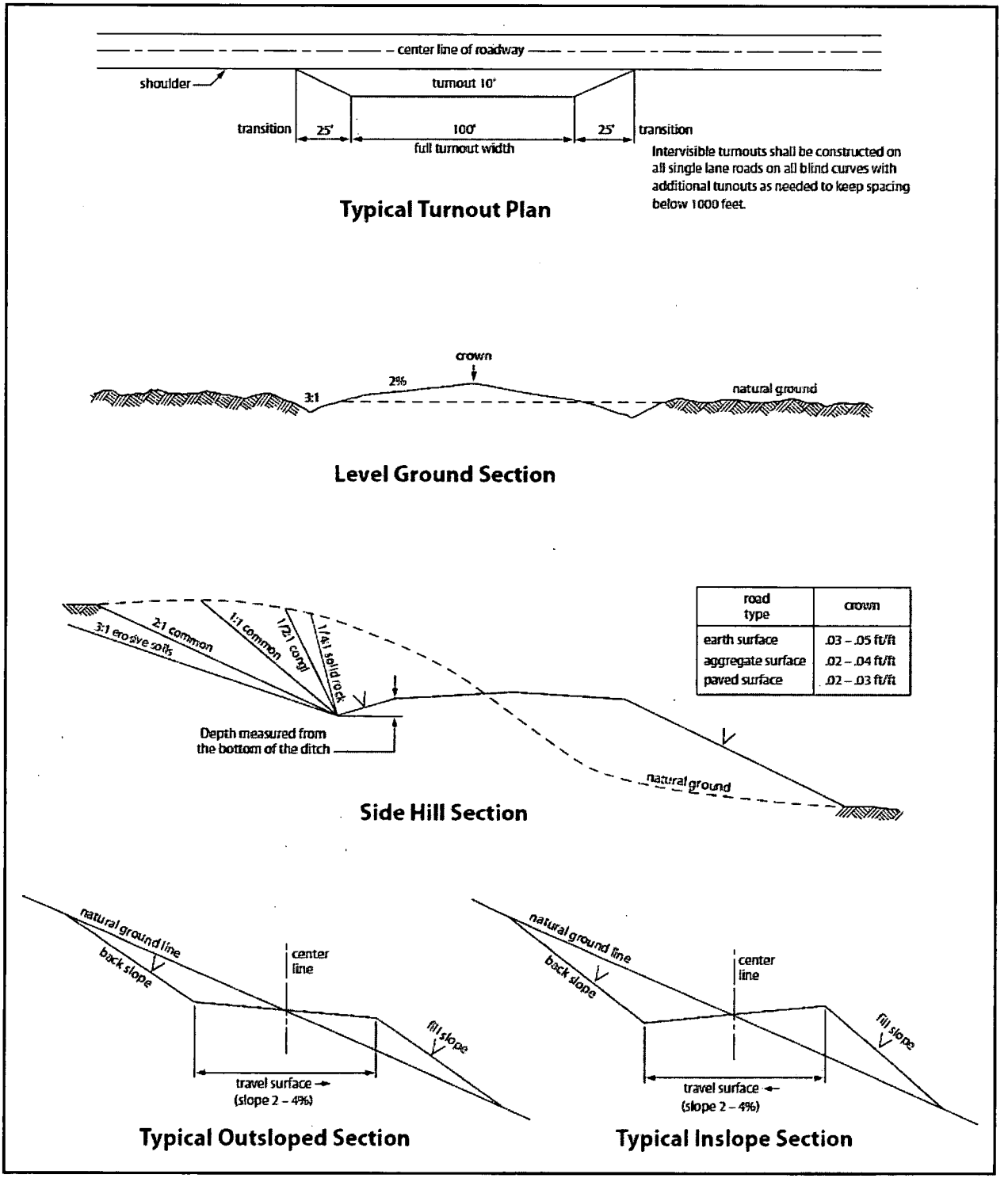


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VI. 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).

B. OVERHEAD ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of

the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder 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 will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
    - For reclamation remove poles, lines, transformer, etc. and dispose of properly.
    - Fill in any holes from the poles removed.

VII. 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).

VIII. 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

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. 1001 for the filing of false statements.

NAME: Stephanie Rabadue **Signed on:** 08/18/2017

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: 500 W. Illinois St, Suite 100

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

Phone: (432)620-4349

Email address: jeff_raines@xtoenergy.com

APD ID: 10400020108 **Submission Date:** 08/18/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400020108 **Tie to previous NOS?** N **Submission Date:** 08/18/2017

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:

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 **Master 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:** 22H **Well API Number:**

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

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

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

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:** 10H

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: 7.5 Miles **Distance to nearest well:** 50 FT **Distance to lease line:** 500 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: CorralCanyon22H_Plat_08-18-2017.pdf

Well work start Date: 03/15/2019 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

	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
SHL Leg #1	500	FNL	2460	FWL	25S	29E	10	Aliquot NENW	32.150575	-103.972922	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 136870	3030	0	0
KOP Leg #1	500	FNL	2460	FWL	25S	29E	10	Aliquot NENW	32.150575	-103.972922	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 136870	-5120	8150	8150
PPP Leg #1	330	FSL	1980	FWL	25S	29E	3	Aliquot SESW	32.152853	-103.974471	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 015302	-5793	9534	8823

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

	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
EXIT Leg #1	330	FNL	1980	FWL	24S	29E	34	Aliquot NENW	32.180171	-103.974561	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 118714	-5793	19472	8823
BHL Leg #1	200	FNL	1980	FWL	24S	29E	34	Aliquot NENW	32.180529	-103.974562	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 118714	-5793	19603	8823

Drilling Plan Data Report

09/30/2019

APD ID: 10400020108 **Submission Date:** 08/18/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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	---	3030	0	0	OTHER,ALLUVIUM : Quaternary	NONE	N
2	RUSTLER	2570	460	460	SANDSTONE	USEABLE WATER	N
3	TOP SALT	2189	841	841	SALT	OTHER : Water	N
4	BASE OF SALT	116	2914	2914	SALT	OTHER : water	N
5	DELAWARE	-91	3121	3121	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
6	BRUSHY CANYON	-2591	5621	5621	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
7	BONE SPRING	-3849	6879	6879	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
8	BONE SPRING 1ST	-4788	7818	7818	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
9	2ND BONE SPRING LIME	-5049	8079	8079	LIMESTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
10	BONE SPRING 2ND	-5558	8590	8590	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	Y
11	BONE SPRING 3RD	-5833	8863	8863	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 19603

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 4222 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.

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

Choke Diagram Attachment:

CorralCanyon22H_CkMani_08-18-2017.pdf

BOP Diagram Attachment:

CorralCanyon22H_5MBOP_08-18-2017.pdf

Pressure Rating (PSI): **Rating Depth:**

Equipment:

Requesting Variance?

Variance request:

Testing Procedure:

Choke Diagram Attachment:

BOP Diagram Attachment:

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 length MD	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	815	0	815	-5793	-6608	815	H-40	48	ST&C	1.98	4.64	DRY	8.23	DRY	8.23
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3050	0	3050	-5793	-8843	3050	J-55	36	LT&C	1.25	2.18	DRY	4.13	DRY	4.13
3	PRODUCTION	8.75	5.5	NEW	API	N	0	19603	0	8823			19603	OTHER	17	BUTT	1.69	1.12	DRY	1.64	DRY	1.64

Casing Attachments

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon22H_CaseAssump_08-18-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon22H_CaseAssump_08-18-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CorralCanyon22H_CaseAssump_08-18-2017.pdf

5.5_17.0_0.304_CYP_110_20190918142008.pdf

Section 4 - Cement

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	620	840	1.35	14.8	1134	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		100	3050	615	2.49	11.9	1531.35	100	EconoCem-C	3 lbm/sk Kol-Seal + 0.25 lbm D-air 5000
INTERMEDIATE	Tail				290	1.33	14.8	385.7	100	HalCem-C	none
PRODUCTION	Lead		100	19603	705	2.77	10.8	1953	50	Tuned Light	2 lbm/sk Kol-Seal + 0.3 lbm/sk CFR-3
PRODUCTION	Tail				3095	1.22	14.5	3776	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.

Describe the mud monitoring system utilized: A Pason or Totco will be used to detect changes in loss or gain of mud volume

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	815	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

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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
											necessary. Solids control equipment will be used to operate as a closed loop system.
3050	8150	OTHER : FW/Cut Brine	8.6	9.4							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.
8150	19603	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.
815	3050	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:** 22H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4222 **Anticipated Surface Pressure:** 2280.94

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:

CorralCanyon22H_H2S_08-18-2017.pdf

CorralCanyon22H_H2SRigLayout_08-18-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CorralCanyon22H_Directional_08-18-2017.pdf

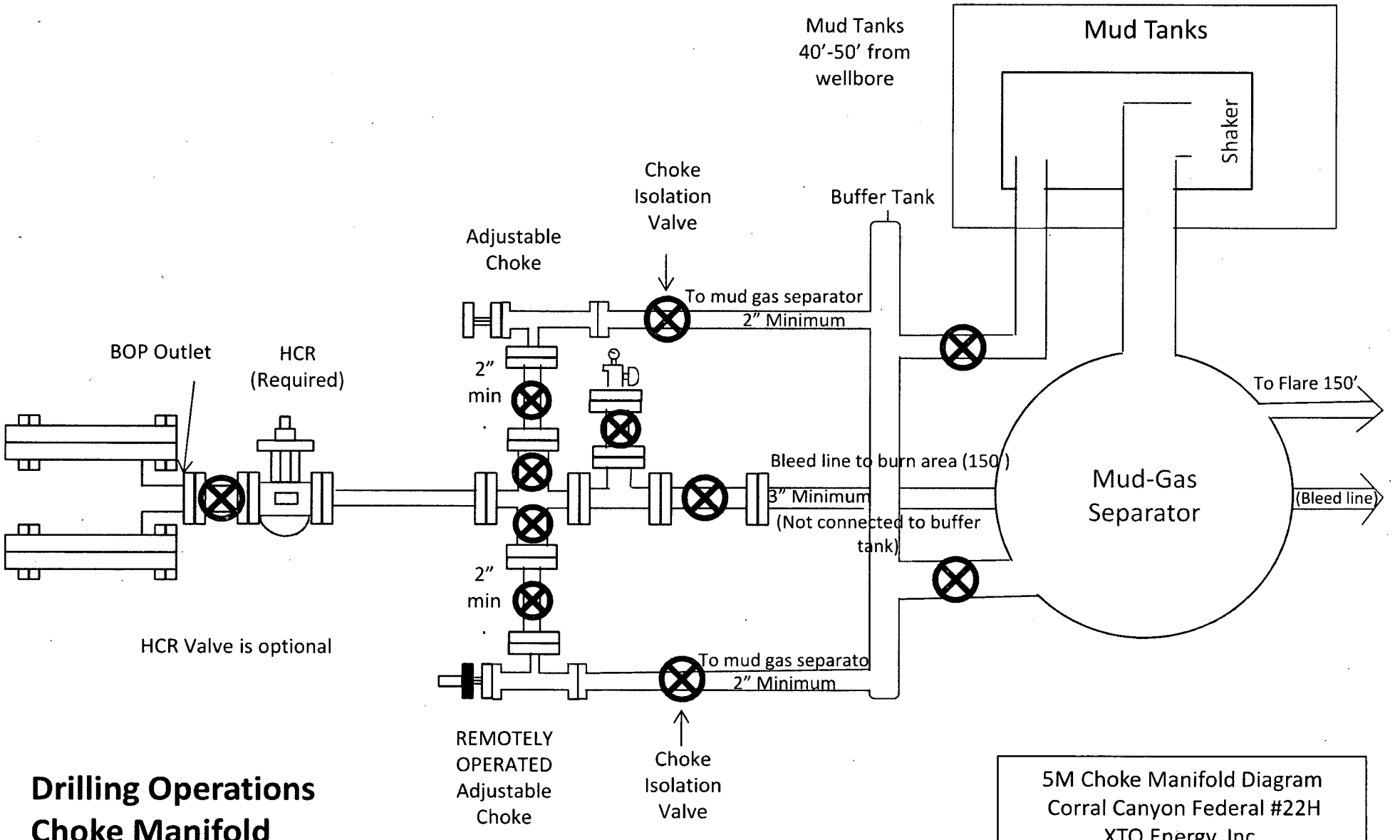
Other proposed operations facets description:

Other proposed operations facets attachment:

CorralCanyon22H_DrillPlan_08-18-2017.pdf

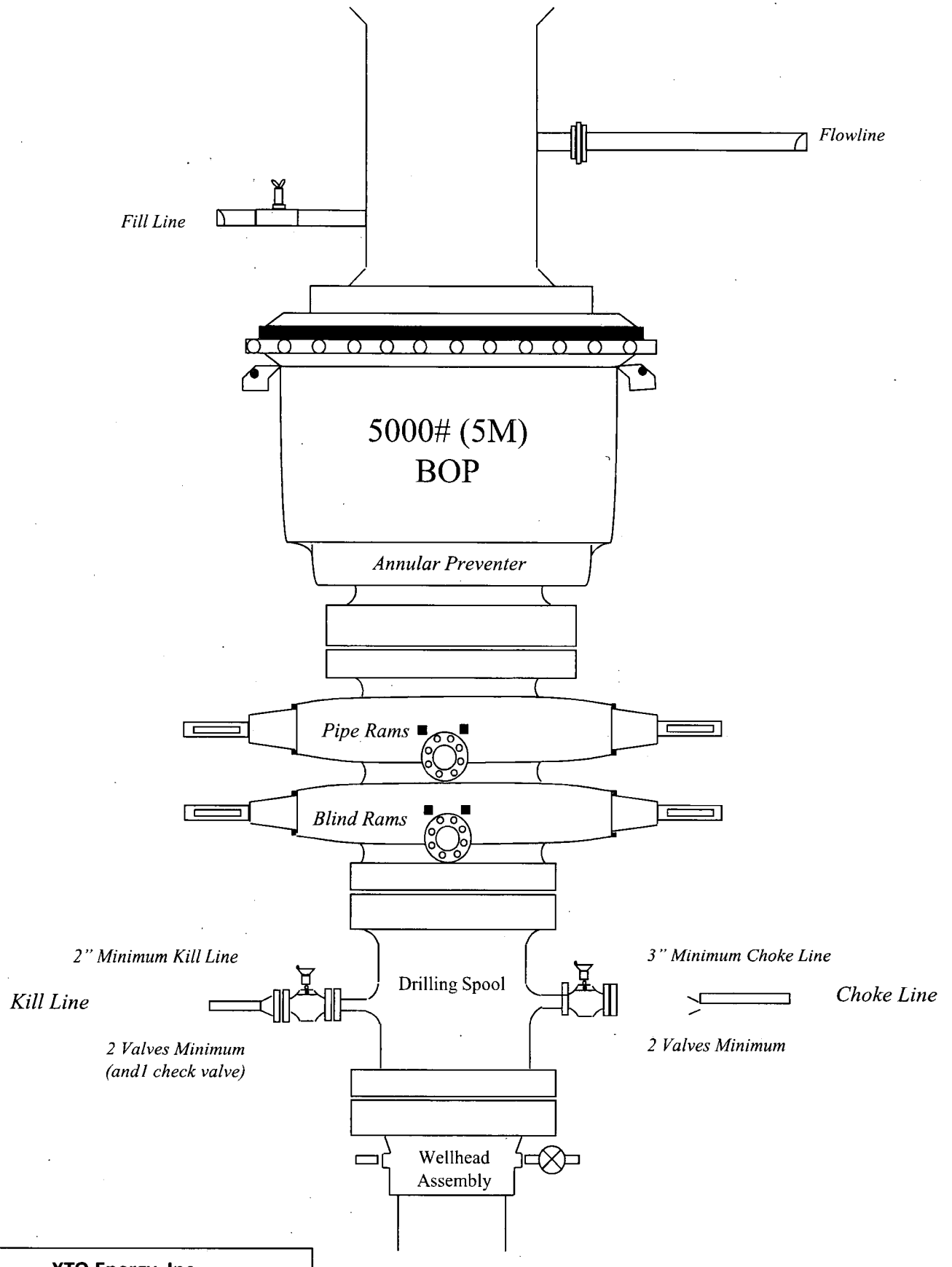
CorralCanyon22H_FlexHose_08-18-2017.pdf

Other Variance attachment:

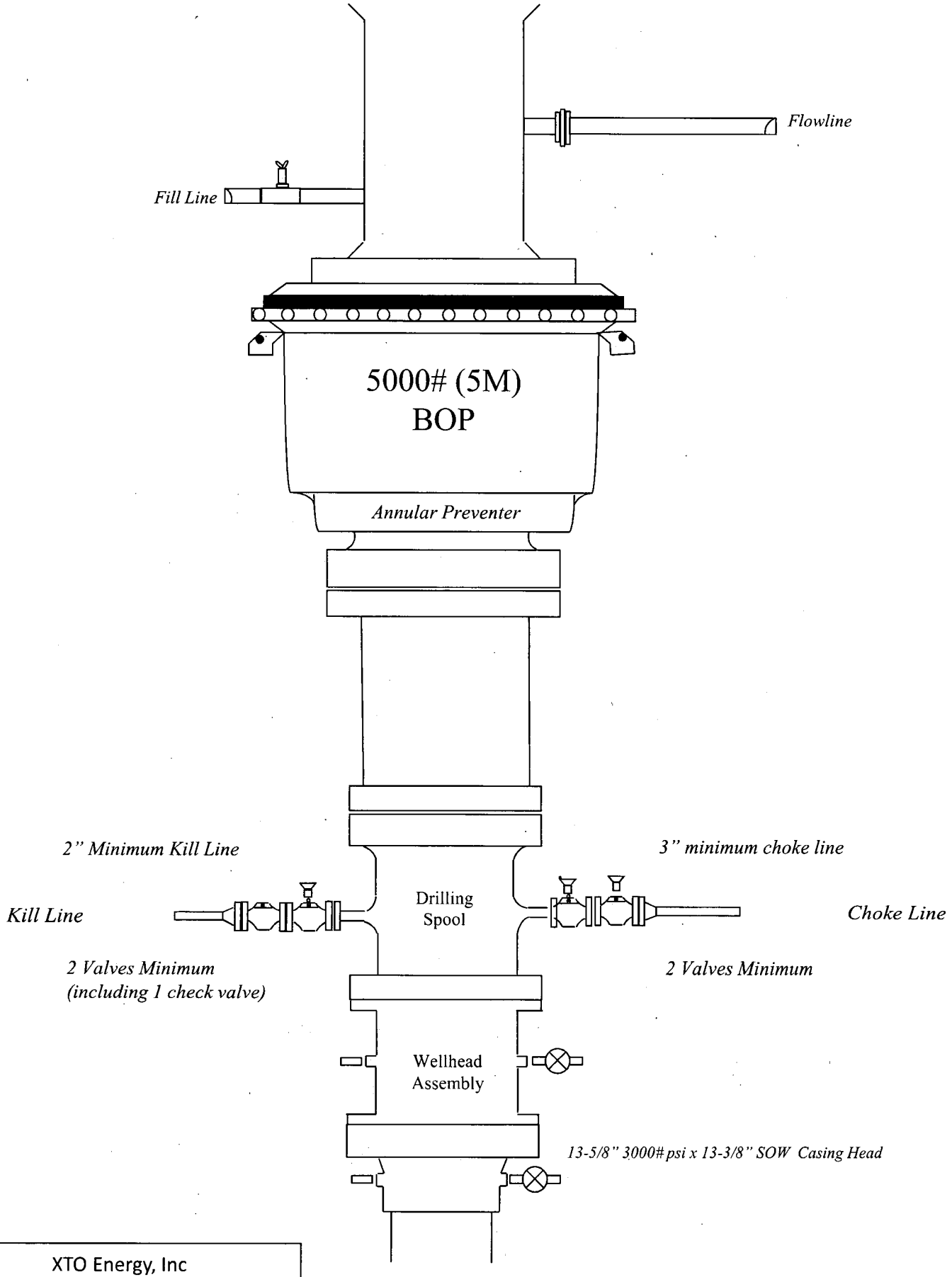


Drilling Operations
Choke Manifold
5M Service

5M Choke Manifold Diagram
Corral Canyon Federal #22H
XTO Energy, Inc.



XTO Energy, Inc.
Corral Canyon Federal #22H
5000# BOP



XTO Energy, Inc
Corral Canyon Federal #22H
5000# BOP

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 815'	13-3/8"	48#	STC	H-40	New	4.64	1.98	8.23
12-1/4"	0' – 3050'	9-5/8"	36#	LTC	J-55	New	2.18	1.25	4.13
8-3/4" x 8-1/2"	0' – 19603'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.69	1.64

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 815'	13-3/8"	48#	STC	H-40	New	4.64	1.98	8.23
12-1/4"	0' – 3050'	9-5/8"	36#	LTC	J-55	New	2.18	1.25	4.13
8-3/4" x 8-1/2"	0' – 19603'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.69	1.64

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 815'	13-3/8"	48#	STC	H-40	New	4.64	1.98	8.23
12-1/4"	0' – 3050'	9-5/8"	36#	LTC	J-55	New	2.18	1.25	4.13
8-3/4" x 8-1/2"	0' – 19603'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.69	1.64

U. S. Steel Tubular Products
Product Information
5 1/2 17.00 lb (0.304) CYP110 BTC

3/13/2019

		Coupling	Pipe Body	
Mechanical Properties				
	Yield Strength			
	Minimum	110	110	ksi
	Maximum	125	125	ksi
	Tensile Strength			
	Minimum	125	125	ksi
Dimensions, Nominal	Outside Diameter		5.500	in.
	Wall		0.304	in.
	Inside Diameter		4.892	in.
	Drift			
	API		4.767	in.
	Nominal Linear Weight, T&C		17.00	lbs/ft
	Weight, Plain End		16.89	lbs/ft
	Pipe Cross Sectional Area		4.962	sq. in.
	Coupling Diameter			
	BTC		6.300	in.
Performance Ratings, Minimum	Collapse			
	Plain End		7,480	psi
	BTC		7,480	psi
	Internal Yield Pressure			
	Plain End		10,640	psi
	BTC		10,640	psi
	Yield Strength, Pipe Body		546	1,000 lbs
	Joint Strength			
	BTC		568	1,000 lbs

U. S. Steel Tubular Products, Inc. - 460 Wildwood Forest Dr., Suite 300S, Spring, TX 77380
www.uss.com

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
  - Detection of H_2S, and
  - Measures for protection against the gas,
  - 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

August 18, 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

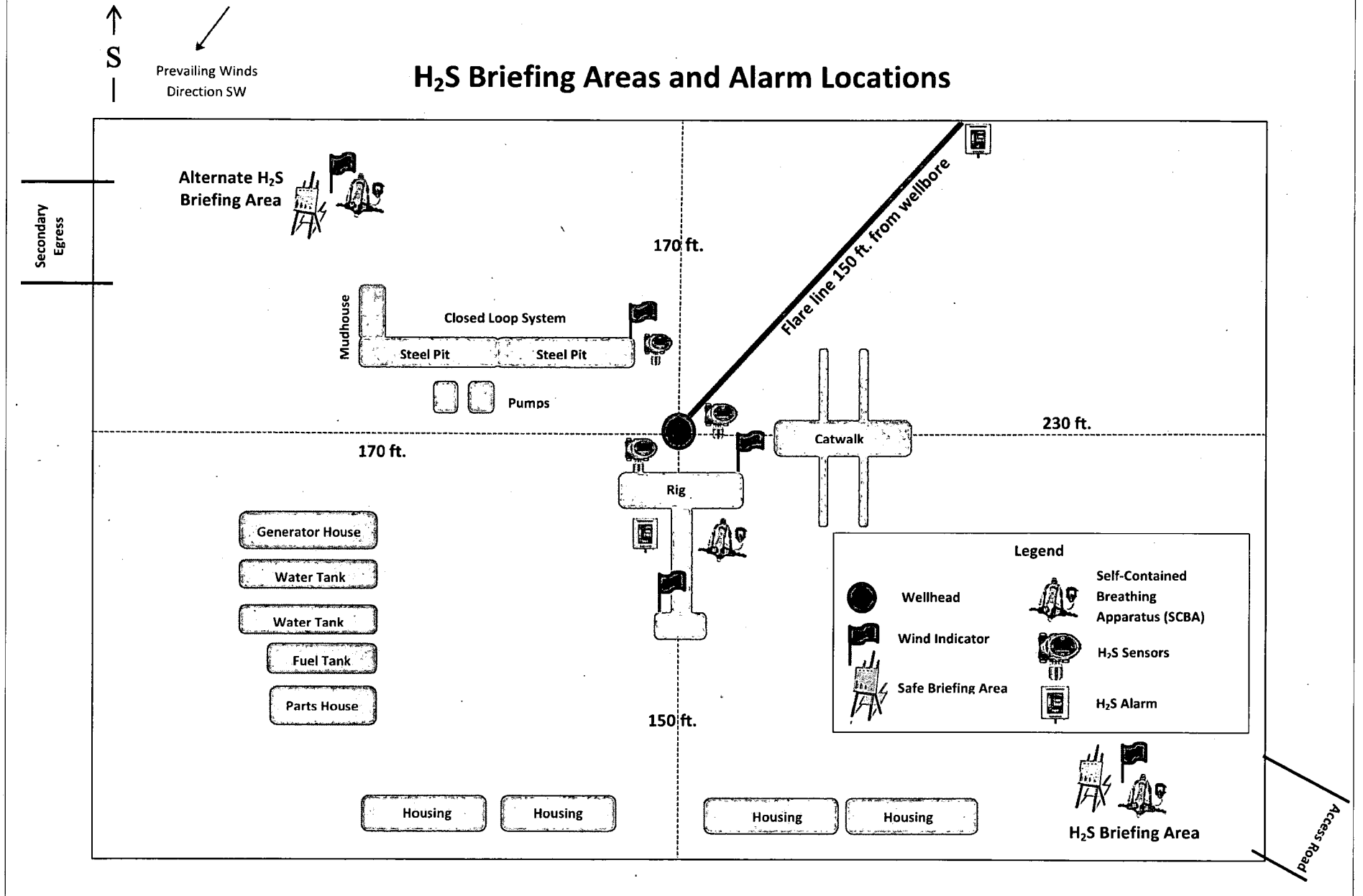
Dear Sirs:

XTO Energy Inc. does not anticipate encountering H2S while drilling the Corral Canyon Federal Com #22H 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



XTO ENERGY, INC.

Eddy County, NM
Sec 10, T25S, R29E
Corral Canyon Fed 22H

Wellbore #1

Plan: Plan #1

QES Well Planning Report

31 March, 2017

QES
DIRECTIONAL DRILLING

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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 Fed 22H

Well Position	**+N/-S**	0.4 usft	**Northing:**	418,643.00 usft	**Latitude:**	32° 9' 1.626 N
	+E/-W	50.0 usft	**Easting:**	611,693.50 usft	**Longitude:**	103° 58' 20.770 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,030.0 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/31/2017	7.16	59.93	47,876

Design Plan #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	356.96

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	
8,150.0	0.00	0.00	8,150.0	0.0	0.0	0.00	0.00	0.00	0.00	
8,722.9	57.29	301.73	8,632.1	138.5	-224.0	10.00	10.00	0.00	301.73	
9,356.0	90.00	359.45	8,823.0	648.0	-480.1	10.00	5.17	9.12	71.15	
19,603.0	90.00	359.45	8,823.0	10,894.5	-578.5	0.00	0.00	0.00	0.00	PBHL - Corral Canyor

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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
Rustler									
460.0	0.00	0.00	460.0	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
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									
841.0	0.00	0.00	841.0	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									
2,914.0	0.00	0.00	2,914.0	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									
3,121.0	0.00	0.00	3,121.0	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
Cherry Canyon									
3,982.0	0.00	0.00	3,982.0	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
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 Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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									
5,621.0	0.00	0.00	5,621.0	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									
6,636.0	0.00	0.00	6,636.0	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
Bone Spring									
6,879.0	0.00	0.00	6,879.0	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
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									
7,818.0	0.00	0.00	7,818.0	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
2nd Bone Spring Lm									
8,079.0	0.00	0.00	8,079.0	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
Build 10° / 100'									
8,150.0	0.00	0.00	8,150.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	5.00	301.73	8,199.9	1.1	-1.9	1.2	10.00	10.00	0.00
8,250.0	10.00	301.73	8,249.5	4.6	-7.4	5.0	10.00	10.00	0.00
8,300.0	15.00	301.73	8,298.3	10.3	-16.6	11.1	10.00	10.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)
8,350.0	20.00	301.73	8,346.0	18.2	-29.4	19.7	10.00	10.00	0.00
8,400.0	25.00	301.73	8,392.1	28.2	-45.7	30.6	10.00	10.00	0.00
8,450.0	30.00	301.73	8,436.5	40.4	-65.3	43.8	10.00	10.00	0.00
8,500.0	35.00	301.73	8,478.6	54.5	-88.1	59.1	10.00	10.00	0.00
8,550.0	40.00	301.73	8,518.3	70.5	-114.0	76.4	10.00	10.00	0.00
8,600.0	45.00	301.73	8,555.2	88.3	-142.7	95.7	10.00	10.00	0.00
8,650.0	50.00	301.73	8,588.9	107.6	-174.1	116.7	10.00	10.00	0.00
2nd Bone Spring Ss									
8,651.7	50.16	301.73	8,590.0	108.3	-175.2	117.4	10.00	10.00	0.00
8,700.0	54.99	301.73	8,619.4	128.5	-207.8	139.3	10.00	10.00	0.00
EOB @ 57.28° Inc / 301.73° Azm - Build/Turn 10° / 100'									
8,722.9	57.29	301.73	8,632.1	138.5	-224.0	150.2	10.00	10.00	0.00
8,750.0	58.20	304.74	8,646.6	151.0	-243.1	163.7	10.00	3.36	11.14
8,800.0	60.06	310.15	8,672.2	177.1	-277.2	191.6	10.00	3.72	10.81
8,850.0	62.14	315.35	8,696.4	206.9	-309.3	223.0	10.00	4.15	10.39
8,900.0	64.40	320.34	8,718.9	240.0	-339.2	257.6	10.00	4.52	9.99
2nd Bone Spring B									
8,936.0	66.13	323.82	8,734.0	265.8	-359.3	284.4	10.00	4.81	9.65
8,950.0	66.82	325.14	8,739.6	276.2	-366.8	295.2	10.00	4.96	9.47
9,000.0	69.39	329.77	8,758.2	315.3	-391.7	335.6	10.00	5.13	9.25
9,050.0	72.07	334.24	8,774.7	357.0	-413.8	378.4	10.00	5.37	8.94
9,100.0	74.85	338.57	8,789.0	400.9	-433.0	423.3	10.00	5.56	8.67
9,150.0	77.71	342.79	8,800.8	446.7	-449.0	469.9	10.00	5.73	8.44
9,200.0	80.64	346.92	8,810.2	494.1	-461.9	517.9	10.00	5.85	8.26
9,250.0	83.61	350.98	8,817.1	542.7	-471.3	566.9	10.00	5.95	8.12
9,300.0	86.62	354.99	8,821.3	592.1	-477.4	616.6	10.00	6.01	8.02
9,350.0	89.64	358.97	8,823.0	642.0	-480.1	666.5	10.00	6.04	7.97
EOC @ 90.00° Inc / 359.45° Azm / 8823.0' TVD									
9,356.0	90.00	359.45	8,823.0	648.0	-480.1	672.5	10.00	6.05	7.96
9,400.0	90.00	359.45	8,823.0	692.0	-480.6	716.5	0.00	0.00	0.00
9,500.0	90.00	359.45	8,823.0	792.0	-481.5	816.4	0.00	0.00	0.00
9,600.0	90.00	359.45	8,823.0	892.0	-482.5	916.3	0.00	0.00	0.00
9,700.0	90.00	359.45	8,823.0	992.0	-483.4	1,016.2	0.00	0.00	0.00
9,800.0	90.00	359.45	8,823.0	1,092.0	-484.4	1,116.1	0.00	0.00	0.00
9,900.0	90.00	359.45	8,823.0	1,192.0	-485.4	1,216.0	0.00	0.00	0.00
10,000.0	90.00	359.45	8,823.0	1,292.0	-486.3	1,315.9	0.00	0.00	0.00
10,100.0	90.00	359.45	8,823.0	1,392.0	-487.3	1,415.8	0.00	0.00	0.00
10,200.0	90.00	359.45	8,823.0	1,492.0	-488.2	1,515.7	0.00	0.00	0.00
10,300.0	90.00	359.45	8,823.0	1,592.0	-489.2	1,615.7	0.00	0.00	0.00
10,400.0	90.00	359.45	8,823.0	1,691.9	-490.2	1,715.6	0.00	0.00	0.00
10,500.0	90.00	359.45	8,823.0	1,791.9	-491.1	1,815.5	0.00	0.00	0.00
10,600.0	90.00	359.45	8,823.0	1,891.9	-492.1	1,915.4	0.00	0.00	0.00
10,700.0	90.00	359.45	8,823.0	1,991.9	-493.0	2,015.3	0.00	0.00	0.00
10,800.0	90.00	359.45	8,823.0	2,091.9	-494.0	2,115.2	0.00	0.00	0.00
10,900.0	90.00	359.45	8,823.0	2,191.9	-495.0	2,215.1	0.00	0.00	0.00
11,000.0	90.00	359.45	8,823.0	2,291.9	-495.9	2,315.0	0.00	0.00	0.00
11,100.0	90.00	359.45	8,823.0	2,391.9	-496.9	2,414.9	0.00	0.00	0.00
11,200.0	90.00	359.45	8,823.0	2,491.9	-497.8	2,514.8	0.00	0.00	0.00
11,300.0	90.00	359.45	8,823.0	2,591.9	-498.8	2,614.7	0.00	0.00	0.00
11,400.0	90.00	359.45	8,823.0	2,691.9	-499.8	2,714.6	0.00	0.00	0.00
11,500.0	90.00	359.45	8,823.0	2,791.9	-500.7	2,814.5	0.00	0.00	0.00
11,600.0	90.00	359.45	8,823.0	2,891.9	-501.7	2,914.4	0.00	0.00	0.00
11,700.0	90.00	359.45	8,823.0	2,991.9	-502.6	3,014.3	0.00	0.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)
11,800.0	90.00	359.45	8,823.0	3,091.9	-503.6	3,114.2	0.00	0.00	0.00
11,900.0	90.00	359.45	8,823.0	3,191.9	-504.6	3,214.1	0.00	0.00	0.00
12,000.0	90.00	359.45	8,823.0	3,291.9	-505.5	3,314.0	0.00	0.00	0.00
12,100.0	90.00	359.45	8,823.0	3,391.9	-506.5	3,414.0	0.00	0.00	0.00
12,200.0	90.00	359.45	8,823.0	3,491.9	-507.4	3,513.9	0.00	0.00	0.00
12,300.0	90.00	359.45	8,823.0	3,591.9	-508.4	3,613.8	0.00	0.00	0.00
12,400.0	90.00	359.45	8,823.0	3,691.9	-509.4	3,713.7	0.00	0.00	0.00
12,500.0	90.00	359.45	8,823.0	3,791.9	-510.3	3,813.6	0.00	0.00	0.00
12,600.0	90.00	359.45	8,823.0	3,891.8	-511.3	3,913.5	0.00	0.00	0.00
12,700.0	90.00	359.45	8,823.0	3,991.8	-512.2	4,013.4	0.00	0.00	0.00
12,800.0	90.00	359.45	8,823.0	4,091.8	-513.2	4,113.3	0.00	0.00	0.00
12,900.0	90.00	359.45	8,823.0	4,191.8	-514.2	4,213.2	0.00	0.00	0.00
13,000.0	90.00	359.45	8,823.0	4,291.8	-515.1	4,313.1	0.00	0.00	0.00
13,100.0	90.00	359.45	8,823.0	4,391.8	-516.1	4,413.0	0.00	0.00	0.00
13,200.0	90.00	359.45	8,823.0	4,491.8	-517.0	4,512.9	0.00	0.00	0.00
13,300.0	90.00	359.45	8,823.0	4,591.8	-518.0	4,612.8	0.00	0.00	0.00
13,400.0	90.00	359.45	8,823.0	4,691.8	-519.0	4,712.7	0.00	0.00	0.00
13,500.0	90.00	359.45	8,823.0	4,791.8	-519.9	4,812.6	0.00	0.00	0.00
13,600.0	90.00	359.45	8,823.0	4,891.8	-520.9	4,912.5	0.00	0.00	0.00
13,700.0	90.00	359.45	8,823.0	4,991.8	-521.8	5,012.4	0.00	0.00	0.00
13,800.0	90.00	359.45	8,823.0	5,091.8	-522.8	5,112.4	0.00	0.00	0.00
13,900.0	90.00	359.45	8,823.0	5,191.8	-523.8	5,212.3	0.00	0.00	0.00
14,000.0	90.00	359.45	8,823.0	5,291.8	-524.7	5,312.2	0.00	0.00	0.00
14,100.0	90.00	359.45	8,823.0	5,391.8	-525.7	5,412.1	0.00	0.00	0.00
14,200.0	90.00	359.45	8,823.0	5,491.8	-526.6	5,512.0	0.00	0.00	0.00
14,300.0	90.00	359.45	8,823.0	5,591.8	-527.6	5,611.9	0.00	0.00	0.00
14,400.0	90.00	359.45	8,823.0	5,691.8	-528.6	5,711.8	0.00	0.00	0.00
14,500.0	90.00	359.45	8,823.0	5,791.8	-529.5	5,811.7	0.00	0.00	0.00
14,600.0	90.00	359.45	8,823.0	5,891.8	-530.5	5,911.6	0.00	0.00	0.00
14,700.0	90.00	359.45	8,823.0	5,991.8	-531.4	6,011.5	0.00	0.00	0.00
14,800.0	90.00	359.45	8,823.0	6,091.7	-532.4	6,111.4	0.00	0.00	0.00
14,900.0	90.00	359.45	8,823.0	6,191.7	-533.4	6,211.3	0.00	0.00	0.00
15,000.0	90.00	359.45	8,823.0	6,291.7	-534.3	6,311.2	0.00	0.00	0.00
15,100.0	90.00	359.45	8,823.0	6,391.7	-535.3	6,411.1	0.00	0.00	0.00
15,200.0	90.00	359.45	8,823.0	6,491.7	-536.2	6,511.0	0.00	0.00	0.00
15,300.0	90.00	359.45	8,823.0	6,591.7	-537.2	6,610.9	0.00	0.00	0.00
15,400.0	90.00	359.45	8,823.0	6,691.7	-538.2	6,710.8	0.00	0.00	0.00
15,500.0	90.00	359.45	8,823.0	6,791.7	-539.1	6,810.7	0.00	0.00	0.00
15,600.0	90.00	359.45	8,823.0	6,891.7	-540.1	6,910.7	0.00	0.00	0.00
15,700.0	90.00	359.45	8,823.0	6,991.7	-541.0	7,010.6	0.00	0.00	0.00
15,800.0	90.00	359.45	8,823.0	7,091.7	-542.0	7,110.5	0.00	0.00	0.00
15,900.0	90.00	359.45	8,823.0	7,191.7	-543.0	7,210.4	0.00	0.00	0.00
16,000.0	90.00	359.45	8,823.0	7,291.7	-543.9	7,310.3	0.00	0.00	0.00
16,100.0	90.00	359.45	8,823.0	7,391.7	-544.9	7,410.2	0.00	0.00	0.00
16,200.0	90.00	359.45	8,823.0	7,491.7	-545.8	7,510.1	0.00	0.00	0.00
16,300.0	90.00	359.45	8,823.0	7,591.7	-546.8	7,610.0	0.00	0.00	0.00
16,400.0	90.00	359.45	8,823.0	7,691.7	-547.8	7,709.9	0.00	0.00	0.00
16,500.0	90.00	359.45	8,823.0	7,791.7	-548.7	7,809.8	0.00	0.00	0.00
16,600.0	90.00	359.45	8,823.0	7,891.7	-549.7	7,909.7	0.00	0.00	0.00
16,700.0	90.00	359.45	8,823.0	7,991.7	-550.6	8,009.6	0.00	0.00	0.00
16,800.0	90.00	359.45	8,823.0	8,091.7	-551.6	8,109.5	0.00	0.00	0.00
16,900.0	90.00	359.45	8,823.0	8,191.6	-552.6	8,209.4	0.00	0.00	0.00
17,000.0	90.00	359.45	8,823.0	8,291.6	-553.5	8,309.3	0.00	0.00	0.00
17,100.0	90.00	359.45	8,823.0	8,391.6	-554.5	8,409.2	0.00	0.00	0.00

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #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)
17,200.0	90.00	359.45	8,823.0	8,491.6	-555.4	8,509.1	0.00	0.00	0.00
17,300.0	90.00	359.45	8,823.0	8,591.6	-556.4	8,609.0	0.00	0.00	0.00
17,400.0	90.00	359.45	8,823.0	8,691.6	-557.4	8,709.0	0.00	0.00	0.00
17,500.0	90.00	359.45	8,823.0	8,791.6	-558.3	8,808.9	0.00	0.00	0.00
17,600.0	90.00	359.45	8,823.0	8,891.6	-559.3	8,908.8	0.00	0.00	0.00
17,700.0	90.00	359.45	8,823.0	8,991.6	-560.2	9,008.7	0.00	0.00	0.00
17,800.0	90.00	359.45	8,823.0	9,091.6	-561.2	9,108.6	0.00	0.00	0.00
17,900.0	90.00	359.45	8,823.0	9,191.6	-562.2	9,208.5	0.00	0.00	0.00
18,000.0	90.00	359.45	8,823.0	9,291.6	-563.1	9,308.4	0.00	0.00	0.00
18,100.0	90.00	359.45	8,823.0	9,391.6	-564.1	9,408.3	0.00	0.00	0.00
18,200.0	90.00	359.45	8,823.0	9,491.6	-565.0	9,508.2	0.00	0.00	0.00
18,300.0	90.00	359.45	8,823.0	9,591.6	-566.0	9,608.1	0.00	0.00	0.00
18,400.0	90.00	359.45	8,823.0	9,691.6	-567.0	9,708.0	0.00	0.00	0.00
18,500.0	90.00	359.45	8,823.0	9,791.6	-567.9	9,807.9	0.00	0.00	0.00
18,600.0	90.00	359.45	8,823.0	9,891.6	-568.9	9,907.8	0.00	0.00	0.00
18,700.0	90.00	359.45	8,823.0	9,991.6	-569.8	10,007.7	0.00	0.00	0.00
18,800.0	90.00	359.45	8,823.0	10,091.6	-570.8	10,107.6	0.00	0.00	0.00
18,900.0	90.00	359.45	8,823.0	10,191.6	-571.8	10,207.5	0.00	0.00	0.00
19,000.0	90.00	359.45	8,823.0	10,291.6	-572.7	10,307.4	0.00	0.00	0.00
19,100.0	90.00	359.45	8,823.0	10,391.5	-573.7	10,407.3	0.00	0.00	0.00
19,200.0	90.00	359.45	8,823.0	10,491.5	-574.6	10,507.3	0.00	0.00	0.00
19,300.0	90.00	359.45	8,823.0	10,591.5	-575.6	10,607.2	0.00	0.00	0.00
19,400.0	90.00	359.45	8,823.0	10,691.5	-576.6	10,707.1	0.00	0.00	0.00
19,500.0	90.00	359.45	8,823.0	10,791.5	-577.5	10,807.0	0.00	0.00	0.00
TD @ 19603.0' MD / 8823.0' TVD									
19,603.0	90.00	359.45	8,823.0	10,894.5	-578.5	10,909.8	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	8,823.0	10,894.5	-578.5	429,537.50	611,115.00	32° 10' 49.461 N	103° 58' 27.076 W
TP1 - Corral Canyon Fe - plan misses target center by 9.0usft at 9534.8usft MD (8823.0 TVD, 826.8 N, -481.9 E) - Point	0.00	0.00	8,832.0	826.8	-482.1	419,469.80	611,211.40	32° 9' 9.825 N	103° 58' 26.345 W
LTP - Corral Canyon Fe - plan misses target center by 35.6usft at 19472.6usft MD (8823.0 TVD, 10764.2 N, -577.2 E) - Point	0.00	0.00	8,832.0	10,764.5	-542.8	429,407.50	611,150.70	32° 10' 48.173 N	103° 58' 26.666 W

Database:	EDM5002	**Local Co-ordinate Reference:**	Well Corral Canyon Fed 22H
Company:	XTO ENERGY, INC.	**TVD Reference:**	RKB @ 3055.0usft (Frontier 27)
Project:	Eddy County, NM	**MD Reference:**	RKB @ 3055.0usft (Frontier 27)
Site:	Sec 10, T25S, R29E	**North Reference:**	Grid
Well:	Corral Canyon Fed 22H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
460.0	460.0	Rustler			
841.0	841.0	Top Salt			
2,914.0	2,914.0	Base Salt			
3,121.0	3,121.0	Delaware			
3,982.0	3,982.0	Cherry Canyon			
5,621.0	5,621.0	Brushy Canyon			
6,636.0	6,636.0	Basal Brushy Canyon			
6,879.0	6,879.0	Bone Spring			
7,818.0	7,818.0	1st Bone Spring Ss			
8,079.0	8,079.0	2nd Bone Spring Lm			
8,651.7	8,590.0	2nd Bone Spring Ss			
8,936.0	8,734.0	2nd Bone Spring B			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,150.0	8,150.0	0.0	0.0	Build 10° / 100'
8,722.9	8,632.1	138.5	-224.0	EOB @ 57.28° Inc / 301.73° Azm - Build/Turn 10° / 100'
9,356.0	8,823.0	648.0	-480.1	EOC @ 90.00° Inc / 359.45° Azm / 8823.0' TVD
19,603.0	8,823.0	10,894.5	-578.5	TD @ 19603.0' MD / 8823.0' TVD

Sec 10, T25S, R29E
Corral Canyon Fed 22H
Q170* & WT-170*****
Plan #1

XTO ENERGY

QES
DIRECTIONAL DRILLING

Company Name:	XTO ENERGY, INC.
	Corral Canyon Fed 22H
	Eddy County, NM
Rig:	Frontier 27
Created By:	Keith Noack
Date:	3/31/2017

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 Fed 22H

Ground Level: 3038.0

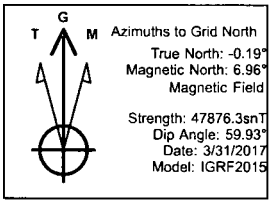
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	419643.00	611953.58	32° 9' 1.629 N	103° 58' 28.770 W

ANNOTATIONS

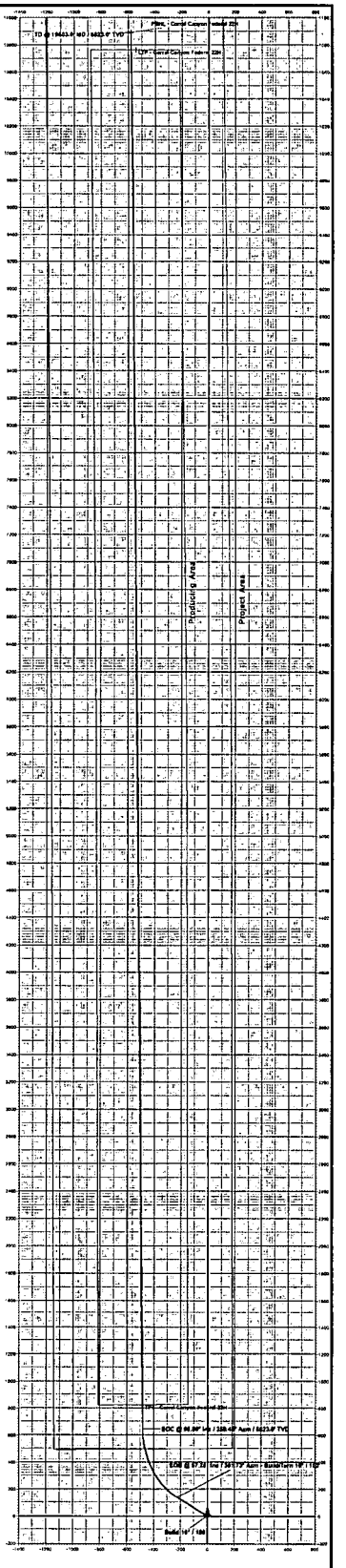
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
8150.0	0.00	0.00	8150.0	0.0	0.0	0.0	0.0	Build 10° / 100'
8723.9	57.29	301.73	8532.1	135.5	-224.0	150.2	263.4	EOB @ 57.29° Inc / 301.73° Azm - Build/Turn 10° / 100'
9356.0	90.00	359.45	8623.0	648.0	-480.1	672.5	862.6	EOC @ 90.00° Inc / 359.45° Azm / 8623.0' TVD
19803.0	90.00	359.45	8623.0	10894.5	-578.3	10909.6	11109.6	TD @ 19803.0' MD / 8623.0' TVD

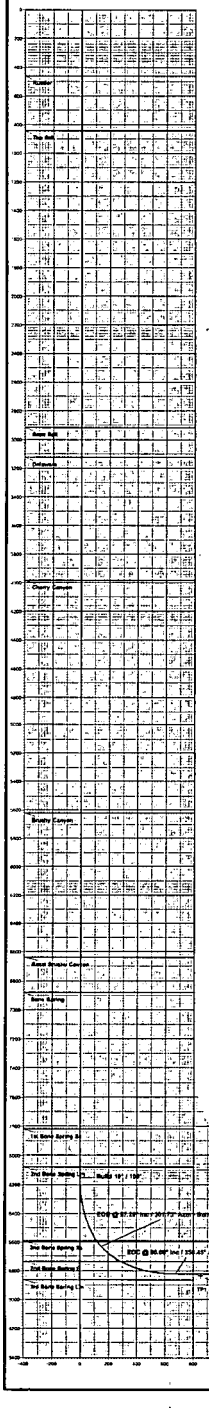
DESIGN TARGET DETAILS

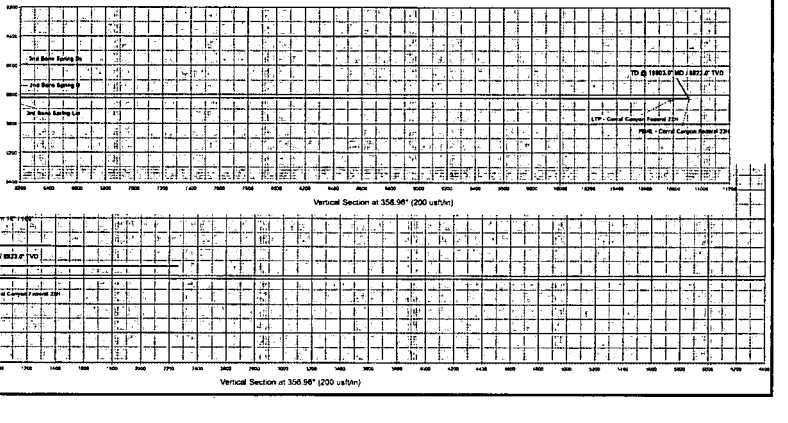
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL - Corral Canyon Federal 22H	8623.0	10894.5	-578.3	429537.50	611115.00	32° 10' 48.461 N	103° 58' 27.076 W
LTP - Corral Canyon Federal 22H	8332.0	10764.9	-542.9	429407.30	611150.70	32° 10' 46.173 N	103° 58' 26.666 W
TP1 - Corral Canyon Federal 22H	8623.0	826.6	+42.7	419488.80	611211.48	32° 9' 9.825 N	103° 58' 26.345 W



Azimuths to Grid North
True North: -0.19°
Magnetic North: 6.96°
Magnetic Field
Strength: 47876.3snT
Dip Angle: 59.93°
Date: 3/31/2017
Model: IGRF2015







Vertical Section at 358.96° (200 usft/in)

Vertical Section at 358.96° (200 usft/in)

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

XTO Energy Inc.
Corral Canyon Federal 22H
Projected TD: 19603' MD / 8823' TVD
SHL: 500' FNL & 2460' FWL, SECTION 10, T25S, R29E
BHL: 200' FNL & 1980' FWL, SECTION 34, T24S, 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	460'	Water
Top of Salt	841'	
Base of Salt	2914'	
Delaware	3121'	Water
Brushy Canyon	5621'	
Basal Brushy Canyon	6636'	Water
Bone Spring	6879'	Water/Oil/Gas
1st Bone Spring Ss	7818'	Water/Oil/Gas
2nd Bone Spring Lm	8079'	Water/Oil/Gas
2nd Bone Spring Ss	8590'	Water/Oil/Gas
2nd Bone Spring "B"Ss	8734'	Water/Oil/Gas
Target/Land Curve	8823'	Water/Oil/Gas
3rd Bone Spring	8863'	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 @ 815' (26' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9-5/8" casing at 3050' 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' – 815'	13-3/8"	48#	STC	H-40	New	4.64	1.98	8.23
12-1/4"	0' – 3050'	9-5/8"	36#	LTC	J-55	New	2.18	1.25	4.13
8-3/4" x 8-1/2"	0' – 19603'	5-1/2"	17#	BTC	CYP-110	New	1.12	1.69	1.64

- 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 ± 620'.

20bbls FW, then 840sx 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 ± 3050'.

Lead: 20 bbls FW, then 615 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: 290 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 ± 19603'.

Lead: 20 bbls FW, then 705 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: 3095 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 4222 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 815'	17-1/2"	FW/Native	8.4 - 8.8	35 - 40	NC
815' to 3050'	12-1/4"	Brine/Gel Sweeps	9.8 - 10.2	30 - 32	NC
3050' to 8150'	8-3/4"	FW / Cut Brine	8.6 - 9.4	29 - 32	NC - 20
8150' to 19603'	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

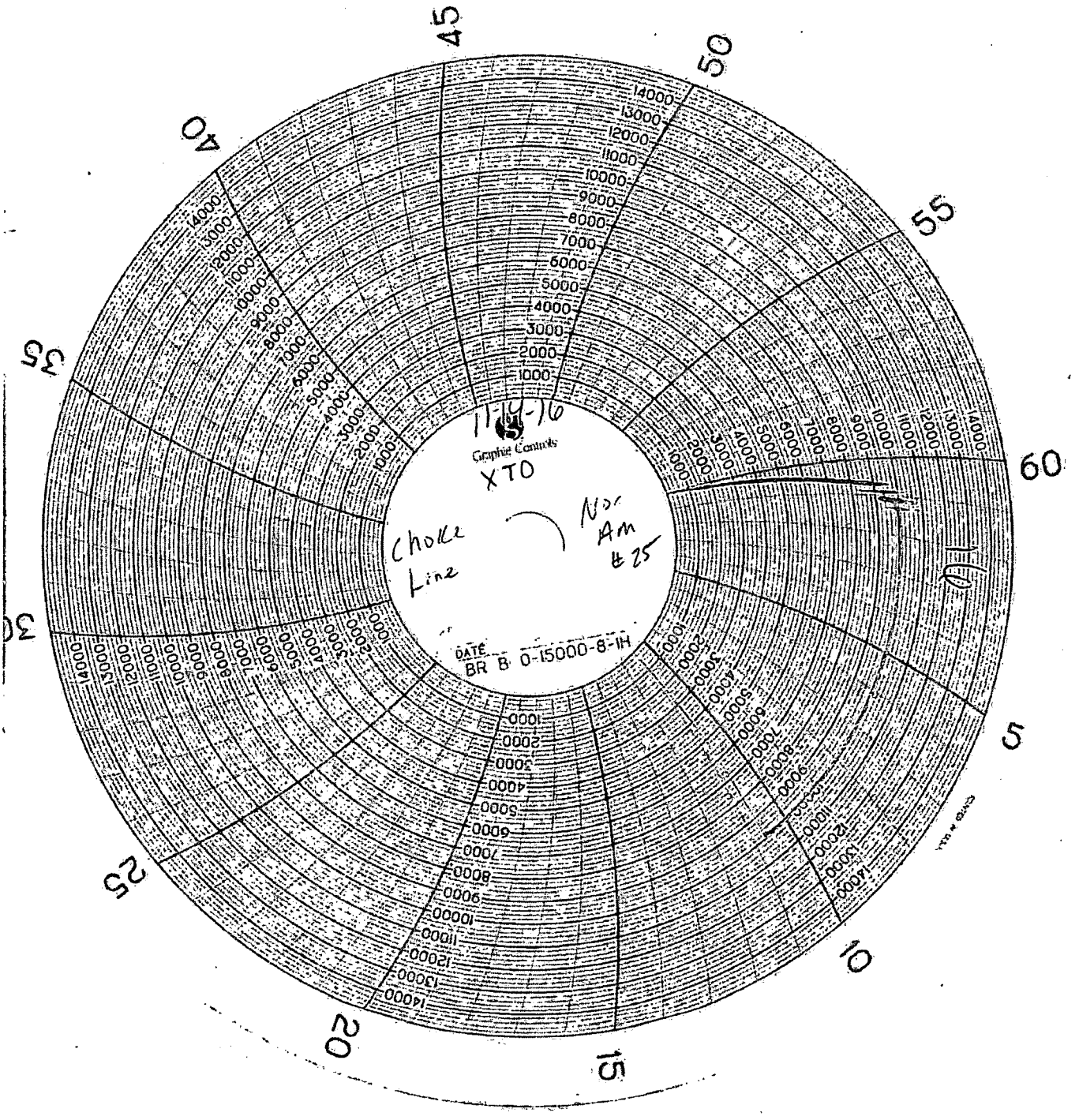
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

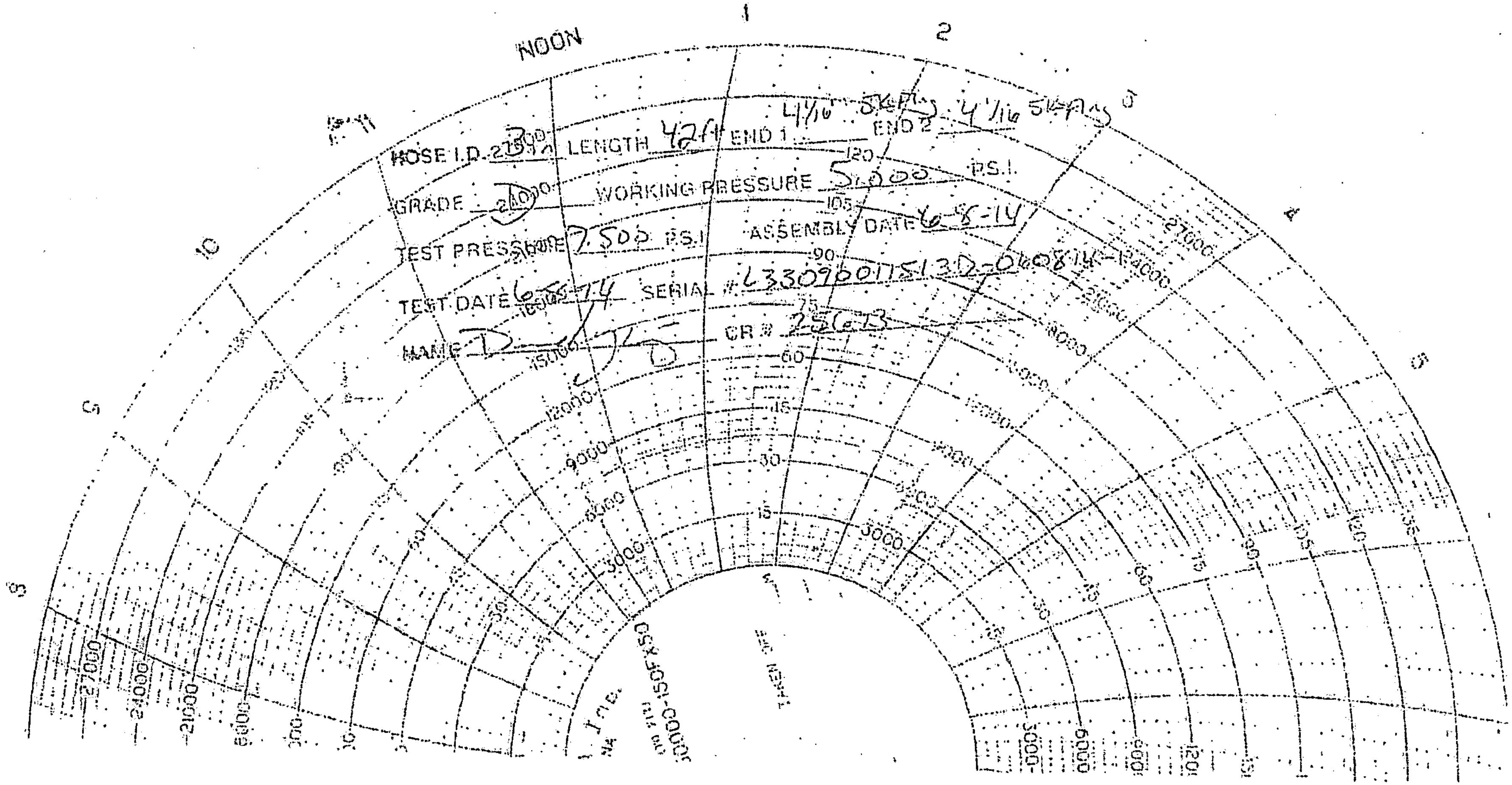
Product Description:	FD3.042.0R41/16.5KFLGE/E LE

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
Graphic Controls
XTO
Choke Line
Nor Am #25
DATE
BR B 0-15000-8-1H


NOON
HOSE I.D. LENGTH 42ft END 1 END 2
GRADE WORKING PRESSURE 5,000 P.S.I.
TEST PRESSURE 7,500 P.S.I. ASSEMBLY DATE 6-8-14
TEST DATE SERIAL #
NAME CR # 25613

APD ID: 10400020108 **Submission Date:** 08/18/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Corral_Fed_22H_ERoad_20190806052210.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** YES

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Corral_Fed_Road_20190806052343.pdf

New road type: RESOURCE

Length: 506.61 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: 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.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Turnout? N

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:

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

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Corral_Fed_1_Mile_20190806052439.pdf

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. No additional facility is required for this development area. Upon completion, if wells are determined to be productive, oil, gas and water volumes will flow to the approved Corral Canyon 10E CTB located in Section 3-25S-29E; directly adjacent to the Corral Canyon 11H & 23H well pad. Flowlines. No flowlines are being applied for with this application. Once flowline route is determined, a 3160-5 with appropriate flowline corridor will be submitted. Gas & Oil Pipeline. A gas purchaser has been identified and will be building separately to the Corral Canyon 10E CTB in this application. Disposal Facilities. Produced water will be piped from location to a 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 additional flare will be permitted with this development. 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. All lines will be primary 12,740 volt to properly run expected production equipment. 361.99' of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

Production Facilities map:

Corral_Fed_OHE_20190806052541.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

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

Source latitude: 32.190613 **Source longitude:** -104.05808

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: FEDERAL

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:** 22H

Water source type: GW WELL

Water source use type: STIMULATION

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

Source datum: NAD83

Water source permit type: WATER WELL

Water source transport method: TRUCKING

Source land ownership: FEDERAL

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:

Corral_Fed_22H_Wtr_20190806052711.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

Using any construction materials: YES

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: 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: 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: 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:

Corral_Fed_22H_Well1_20190911070545.pdf

Comments: Pad, OHE Written into EA: BLM-NM-P020-2014-1545-EA as part of a Master Surface Plan, which expires 9/24/2019

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

Section 10 - Plans for Surface Reclamation

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

Multiple Well Pad Number: 10H

Recontouring attachment:

Corral_Fed_22H_Int_Rec_20190806053010.pdf

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):	**Well pad interim reclamation (acres):** 3.32	**Well pad long term disturbance (acres):** 2.75
Road proposed disturbance (acres):	**Road interim reclamation (acres):** 0.15	**Road long term disturbance (acres):** 0.15
Powerline proposed disturbance (acres):	**Powerline interim reclamation (acres):**	**Powerline long term disturbance (acres):**
Pipeline proposed disturbance (acres):	**Pipeline interim reclamation (acres):** 5.474518	**Pipeline long term disturbance (acres):** 5.474518
Other proposed disturbance (acres):	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance:	**Total interim reclamation:** 8.944518	**Total long term disturbance:** 8.374517

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:

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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: 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:**

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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:**

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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 Pad, OHE Written into EA: BLM-NM-P020-2014-1545-EA as part of a Master Surface Plan, which expires 9/24/2019
Use a previously conducted onsite? YES

Previous Onsite information: Pad, FL, OHE Written into EA: BLM-NM-P020-2014-1545-EA as part of a Master Surface Plan, which expires 9/24/2019

Other SUPO Attachment

Corral_Fed_SUPO_20190911070601.pdf

LOCATION VERIFICATION MAP

DIRECTIONS TO CORRAL CANYON FEDERAL #22H:

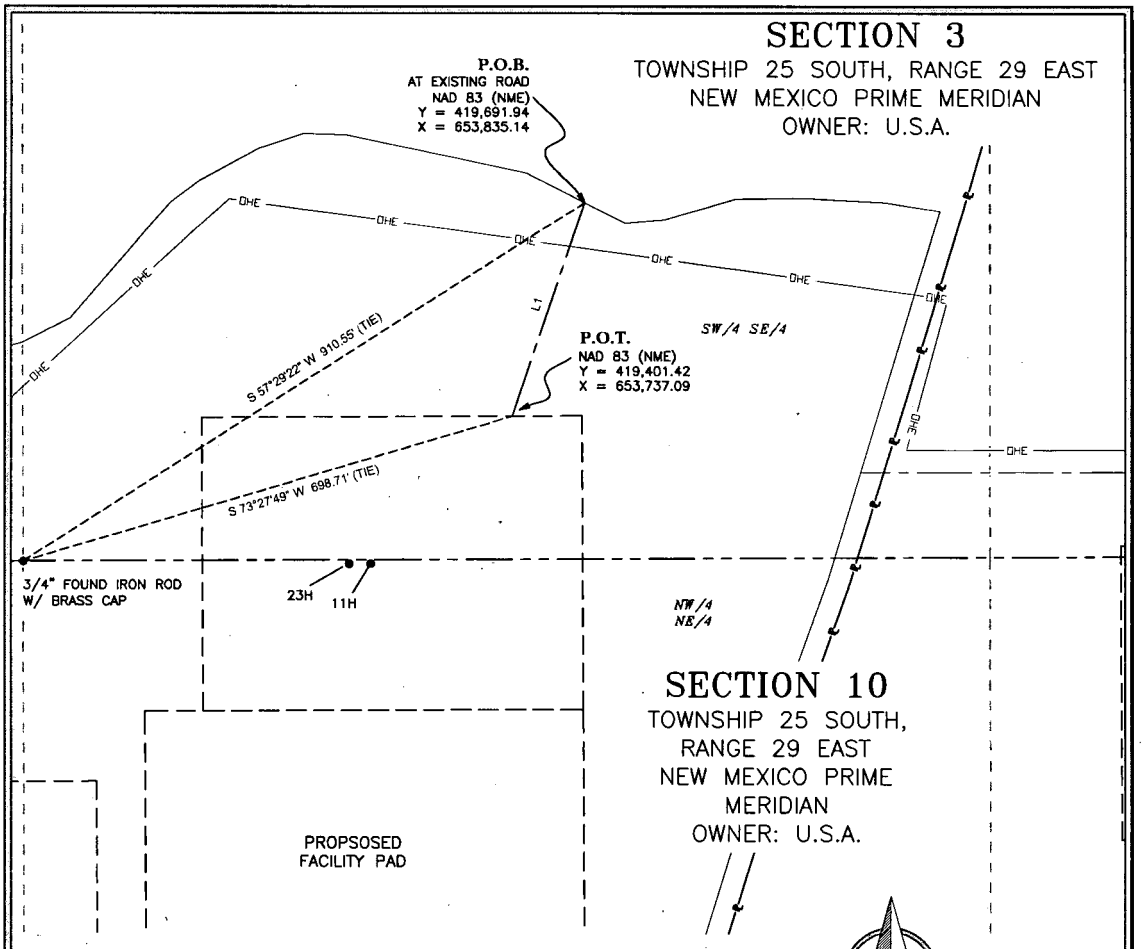
FROM THE INTERSECTION OF US HIGHWAY 285 (PECOS HWY.) AND CO. RD. 725 (LONGHORN ROAD),GO NORTHEAST ON CO. RD. 725 APPROX. 4.2 MILES. PASS THE PECOS RIVER AND GO TO A "Y" INTERSECTION. TURN LEFT AND GO NORTHEAST APPROX. 1.8 MILES. TURN LEFT AND GO NORTH-NORTHWESTERLY ALONG MEANDERING ROAD APPROX. 3.4 MILES. STAY ON WINDING ROAD AND GO NORTH-NORTHEAST APPROX. 1.4 MILES. TURN LEFT AND GO NORTH APPROX. 0.7 MILES. TURN LEFT AND GO WEST FOLLOWING WINDING ROAD APPROX. 0.5 MILES TO A ROAD SURVEY. FOLLOW ROAD SURVEY STAKES 225 FEET EAST TO THE LOCATION.

CONTOUR INTERVAL: 10'
PIERCE CANYON, NM
MALAGA, NM
RED BLUFF, NM
ROSS RANCH, NM

SEC. 10 TWP. 25-S RGE. 29-E
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 500' FNL & 2460' FWL
ELEVATION 3030'
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 ACCESS ROAD DESCRIPTION:

SURVEY OF A STRIP OF LAND 306.62 FEET, 18.58 RODS, OR 0.06 MILES IN LENGTH CROSSING SECTION 3, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND THE ABOVE PLATTED CENTERLINE OF SURVEY DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 NW/4 SECTION 10 = 306.62 FEET = 18.58 RODS

LINE	BEARING	DISTANCE
L1	S 18°39'02" W	306.62'

TOTAL LENGTH = 306.62 FEET
OR 18.58 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.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

LEGEND

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

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

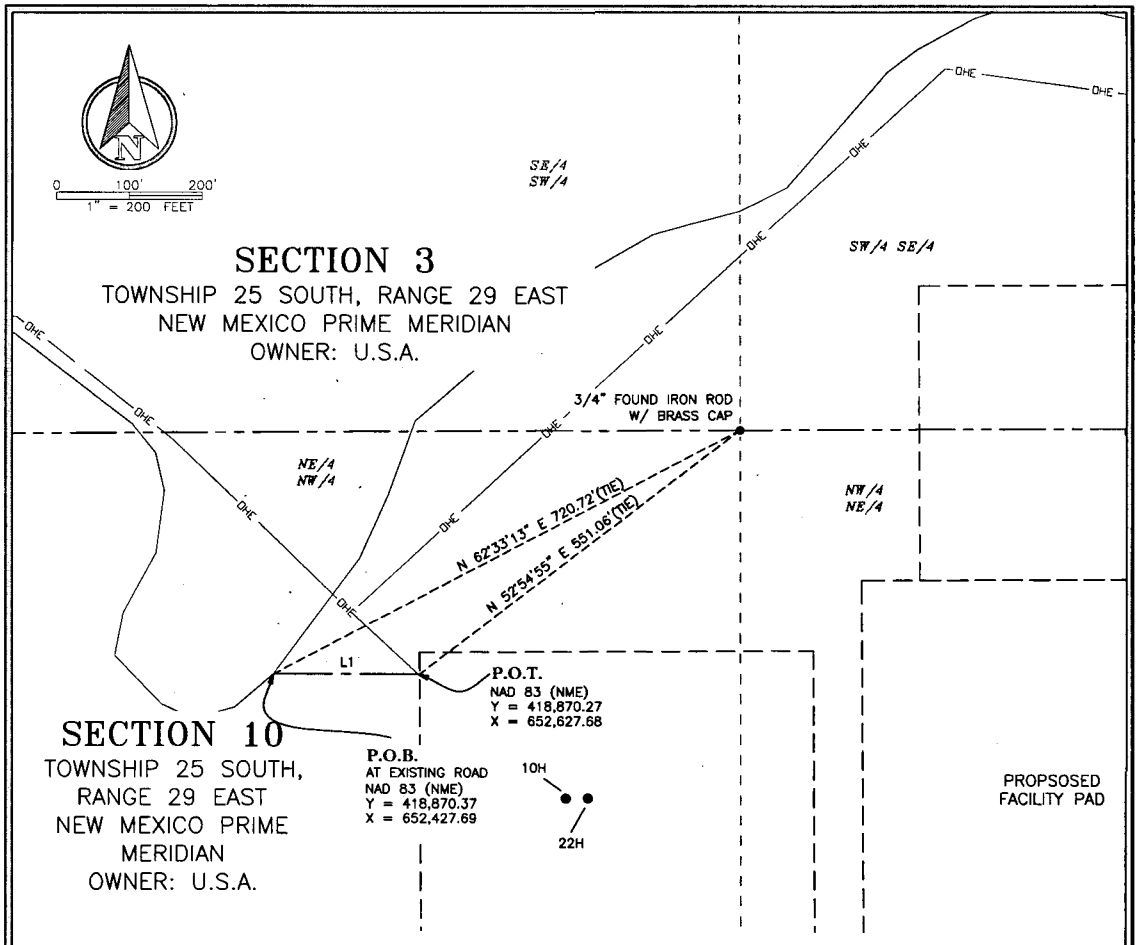
FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

PLAT OF :
PROPOSED CENTERLINE OF ACCESS ROAD FOR:
XTO ENERGY, INC.
CORRAL CANYON 3-34

SITUATED IN SECTION 3, TOWNSHIP 25 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME MERIDIAN, EDDY COUNTY, NEW MEXICO

DATE:	8-1-2019
DRAWN BY:	AI/JC
CHECKED BY:	DH
FIELD CREW:	RE/MR
PROJECT NO:	2017091592
SCALE:	1" = 200'
SHEET:	1 OF 1
REVISION:	1

P:\PROJECTS\2017\2017091592-XTO-CORRAL_CANYON_UNIT-EDDY\DWG\EXHIBITS\3-34\7-18-2019_JC_DWG\2017091592_XTO_CORRAL-CANYON-UNIT_3-34_ACCESS_ROAD_2.dwg



CORRAL CANYON 3-34 ACCESS ROAD DESCRIPTION:

SURVEY OF A STRIP OF LAND 199.99 FEET, 12.12 RODS, OR 0.04 MILES IN LENGTH CROSSING SECTION 10, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND THE ABOVE PLATTED CENTERLINE OF SURVEY DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 NW/4 SECTION 10 = 199.99 FEET = 12.12 RODS

LINE	BEARING	DISTANCE
L1	S 89°58'20" E	199.99'

TOTAL LENGTH = 199.99 FEET
OR 12.12 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.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

LEGEND

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

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

PLAT OF :

PROPOSED CENTERLINE OF ACCESS ROAD FOR:

XTO ENERGY, INC.

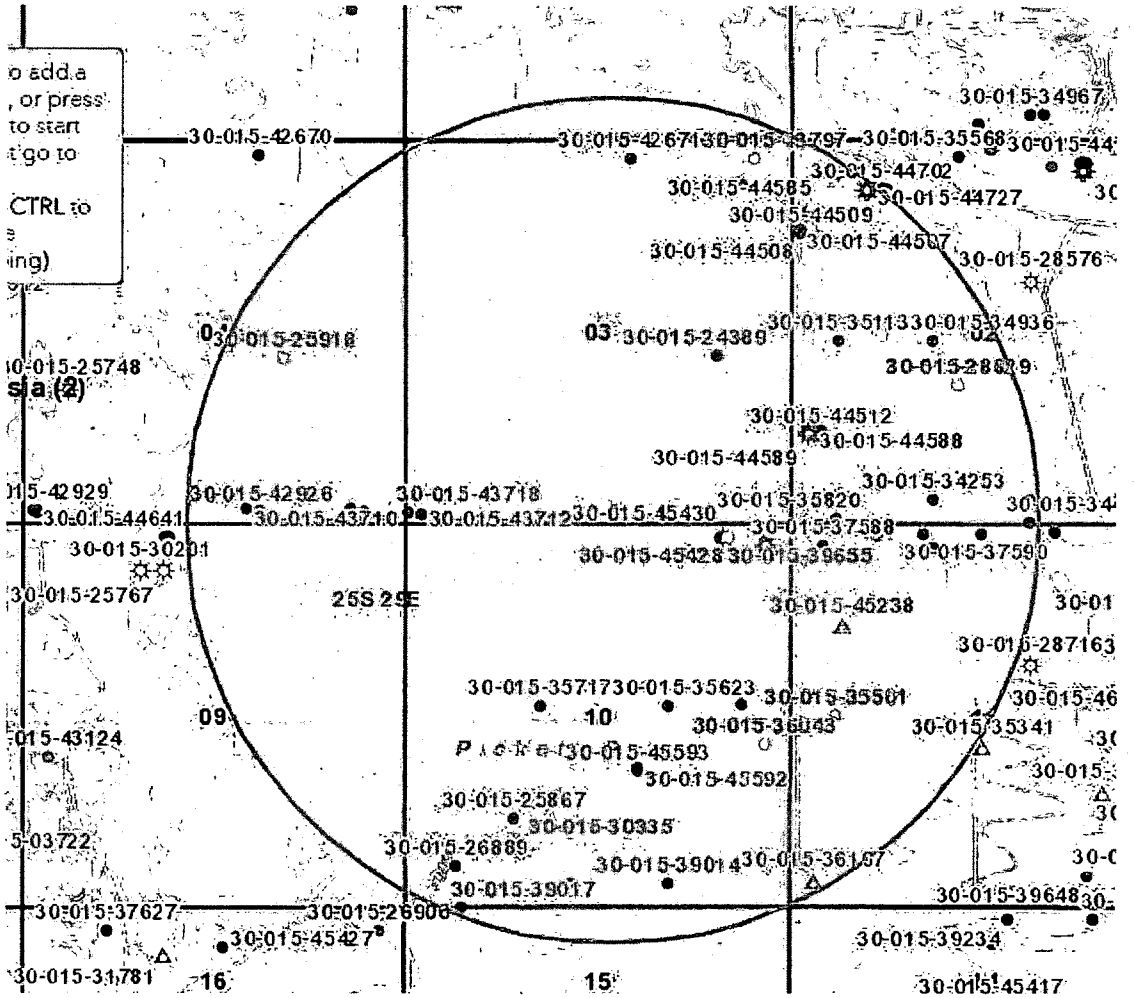
CORRAL CANYON 3-34

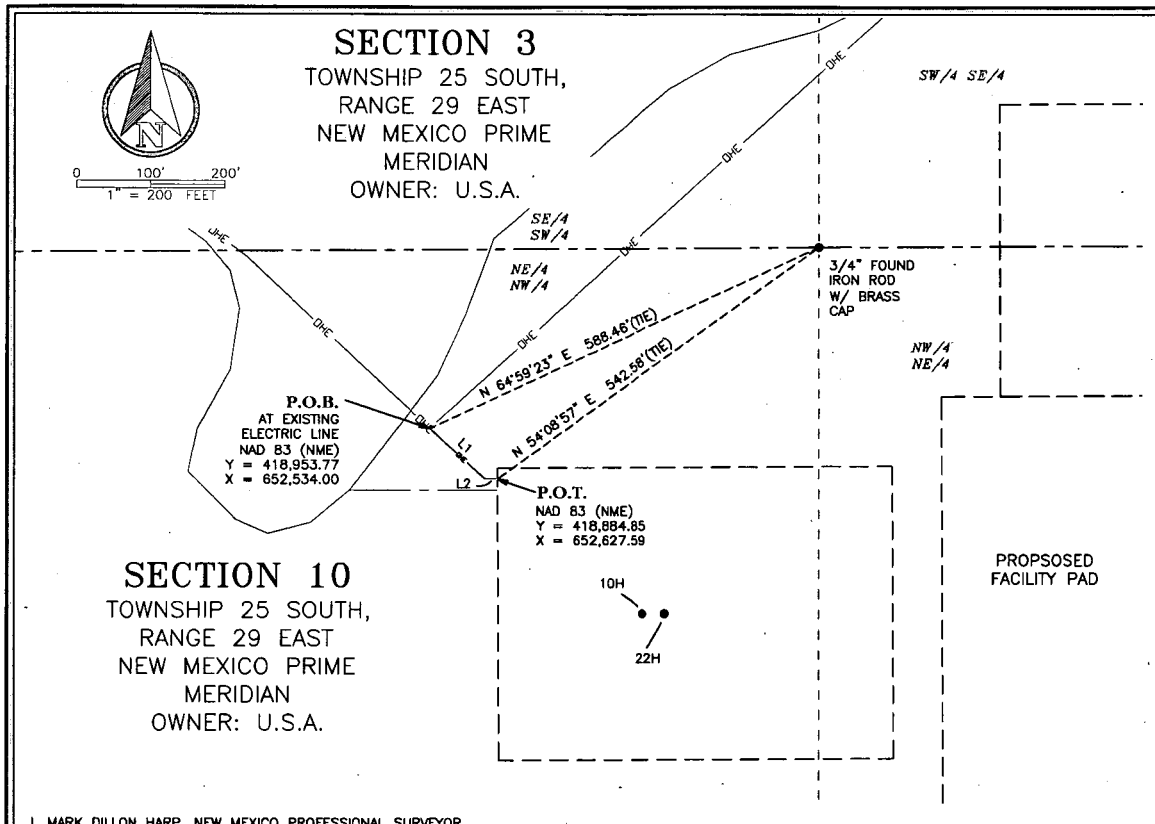
SITUATED IN SECTION 10, TOWNSHIP 25 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME MERIDIAN, EDDY COUNTY, NEW MEXICO

DATE:	8-1-2019
DRAWN BY:	AI/JC
CHECKED BY:	DH
FIELD CREW:	RE/MR
PROJECT NO:	2017091592
SCALE:	1" = 200'
SHEET:	1 OF 1
REVISION:	1

P:\PROJECTS\2017\2017091592-XTO-CORRAL_CANYON_UNIT-EDDY\DWG\EXHIBITS\3-34\7-18-2019_JC_DWG\2017091592_XTO_CORRAL-CANYON-UNIT_3-34_ACCESS_ROAD_1.dwg

Corral Canyon 1-Mile Map





CORRAL CANYON 3-34 ELECTRIC LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 120.13 FEET, 7.28 RODS, OR 0.02 MILES IN LENGTH CROSSING SECTION 10, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND THE ABOVE PLATTED CENTERLINE OF SURVEY DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 NW/4 SECTION 10 = 120.13 FEET = 7.28 RODS

LINE	BEARING	DISTANCE
L1	S 47°46'47" E	102.66'
L2	N 90°00'00" E	17.47'

TOTAL LENGTH = 120.13 FEET
OR 7.28 RODS

LEGEND

———	SECTION LINE
———	EXISTING ROAD
———DHE———	EXISTING OVERHEAD ELECTRIC
- - - - - -	PROPOSED PAD
- - - - - -	PROPOSED ACCESS ROAD
- - DHE - -	PROPOSED BURIED AND SURFACE FLOW LINES
P.O.B.	POINT OF BEGINNING.
P.O.T.	POINT OF TERMINUS
●	FOUND MONUMENT AS NOTED

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

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

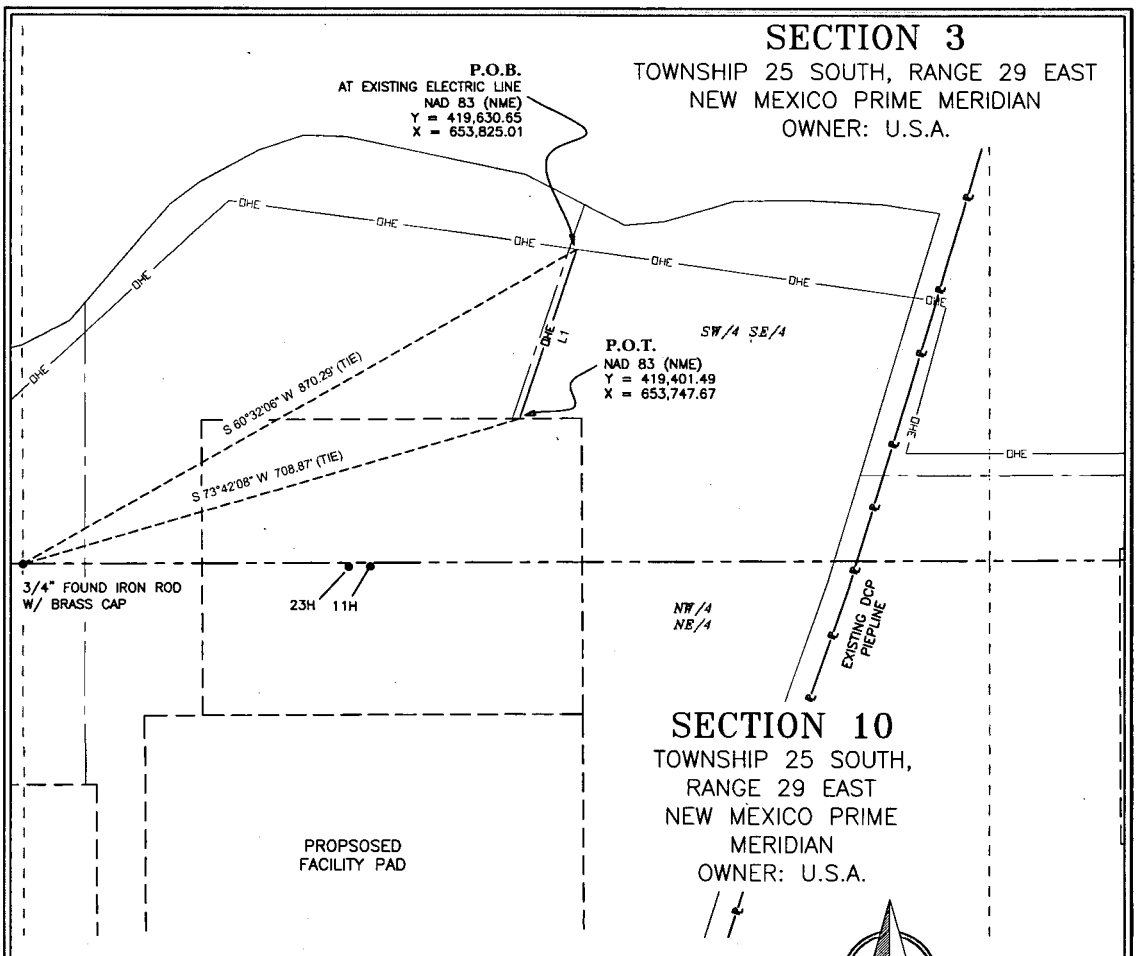
GENERAL NOTES

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.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

PROPOSED CENTERLINE OF
OVERHEAD ELECTRIC LINES FOR:
XTO ENERGY, INC.
CORRAL CANYON 3-34
SITUATED IN SECTION 10, TOWNSHIP 25 SOUTH,
RANGE 29 EAST, NEW MEXICO PRIME MERIDIAN, EDDY
COUNTY, NEW MEXICO

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:	8-1-2019	PROJECT NO:	2017091592
DRAWN BY:	AI/JC	SCALE:	1" = 200'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	1



CORRAL CANYON 3-34 OVERHEAD ELECTRIC LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 241.86 FEET, 14.66 RODS, OR 0.05 MILES IN LENGTH CROSSING SECTION 3, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND THE ABOVE PLATTED CENTERLINE OF SURVEY DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SW/4 SE/4 SECTION 3 = 241.86 FEET = 14.66 RODS

LINE	BEARING	DISTANCE
L1	S 18°39'02" W	241.86'

TOTAL LENGTH = 241.86 FEET
OR 14.66 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.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

LEGEND

——— – – ———	SECTION LINE
———	EXISTING ROAD
———OHE———	EXISTING OVERHEAD ELECTRIC
— — — — — —	PROPOSED PAD
——— – ———	PROPOSED ACCESS ROAD
———OHE———	PROPOSED OVERHEAD ELECTRIC
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINUS
●	FOUND MONUMENT AS NOTED

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

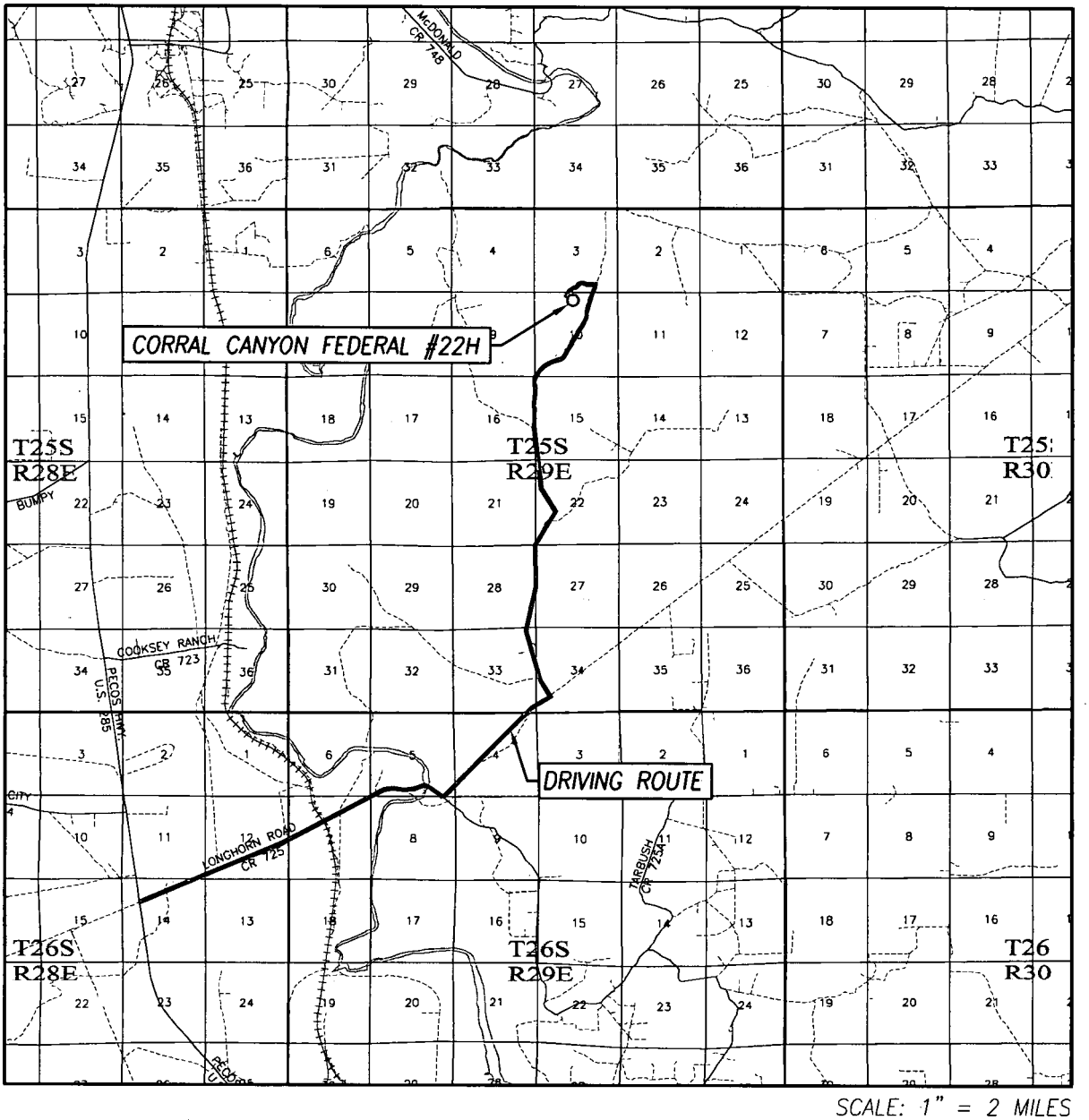
FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

PROPOSED CENTERLINE OF
OVERHEAD ELECTRIC LINE FOR:
XTO ENERGY, INC.
CORRAL CANYON 3-34
SITUATED IN SECTION 3, TOWNSHIP 25 SOUTH,
RANGE 29 EAST, NEW MEXICO PRIME MERIDIAN, EDDY
COUNTY, NEW MEXICO

DATE:	8-1-2019
DRAWN BY:	AI/JC
CHECKED BY:	DH
FIELD CREW:	RE/MR
PROJECT NO:	2017091592
SCALE:	1" = 200'
SHEET:	1 OF 1
REVISION:	1

P:\PROJECTS\2017\2017091592-XTO-CORRAL_CANYON_UNIT-EDDY\DWG\EXHIBITS\3-34\7-18-2019_JC_DWG\2017091592_XTO_CORRAL-CANYON-UNIT_3-34_ELEC.LINE_2.dwg

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

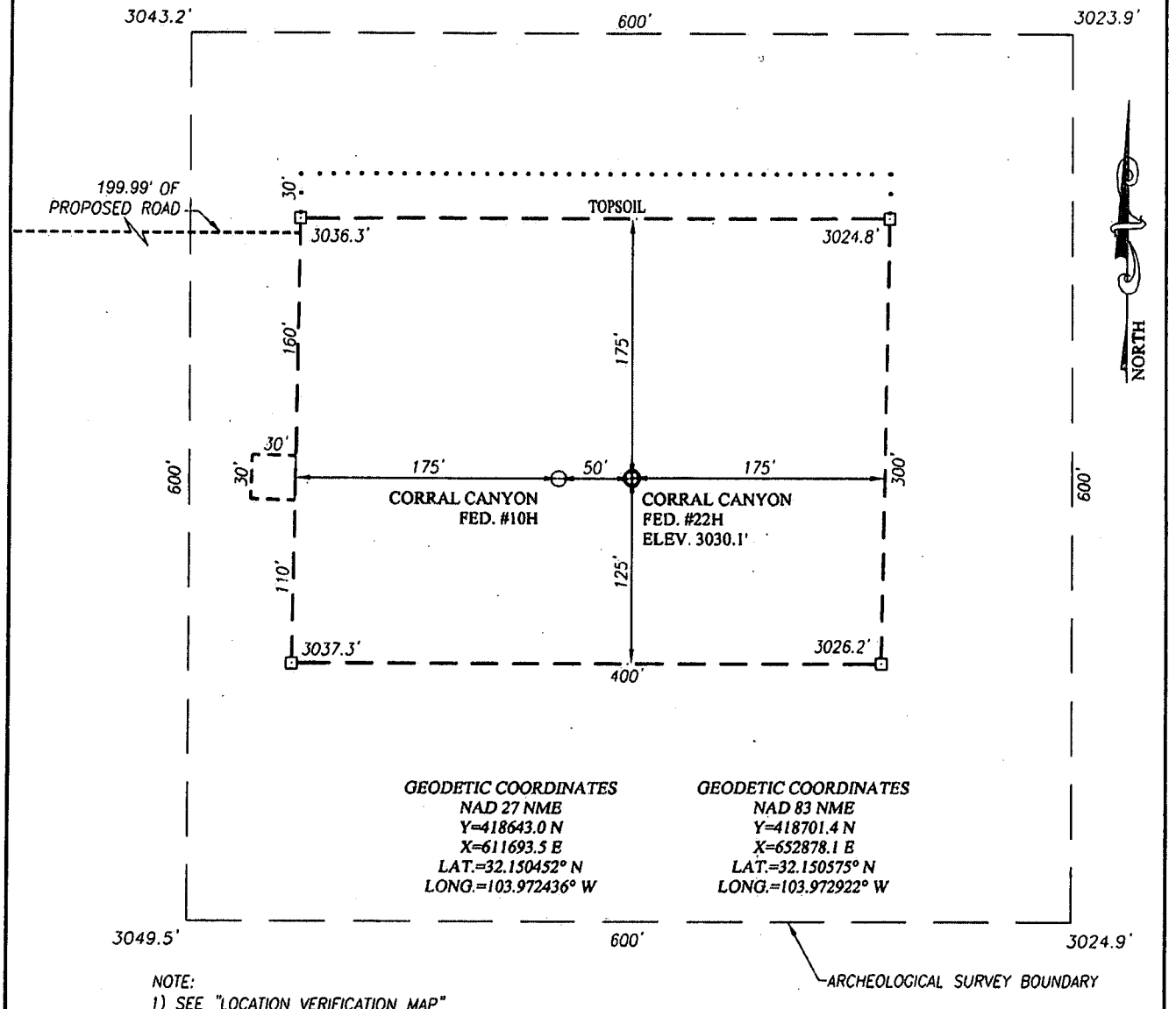
DESCRIPTION 500' FNL & 2460' FWL

ELEVATION 3030'

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 #22H:

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. 0.7 MILES. TURN LEFT AND GO WEST FOLLOWING WINDING ROAD APPROX. 0.5 MILES TO A ROAD SURVEY.

100 0 100 200 Feet

Scale: 1"=100'

XTO ENERGY

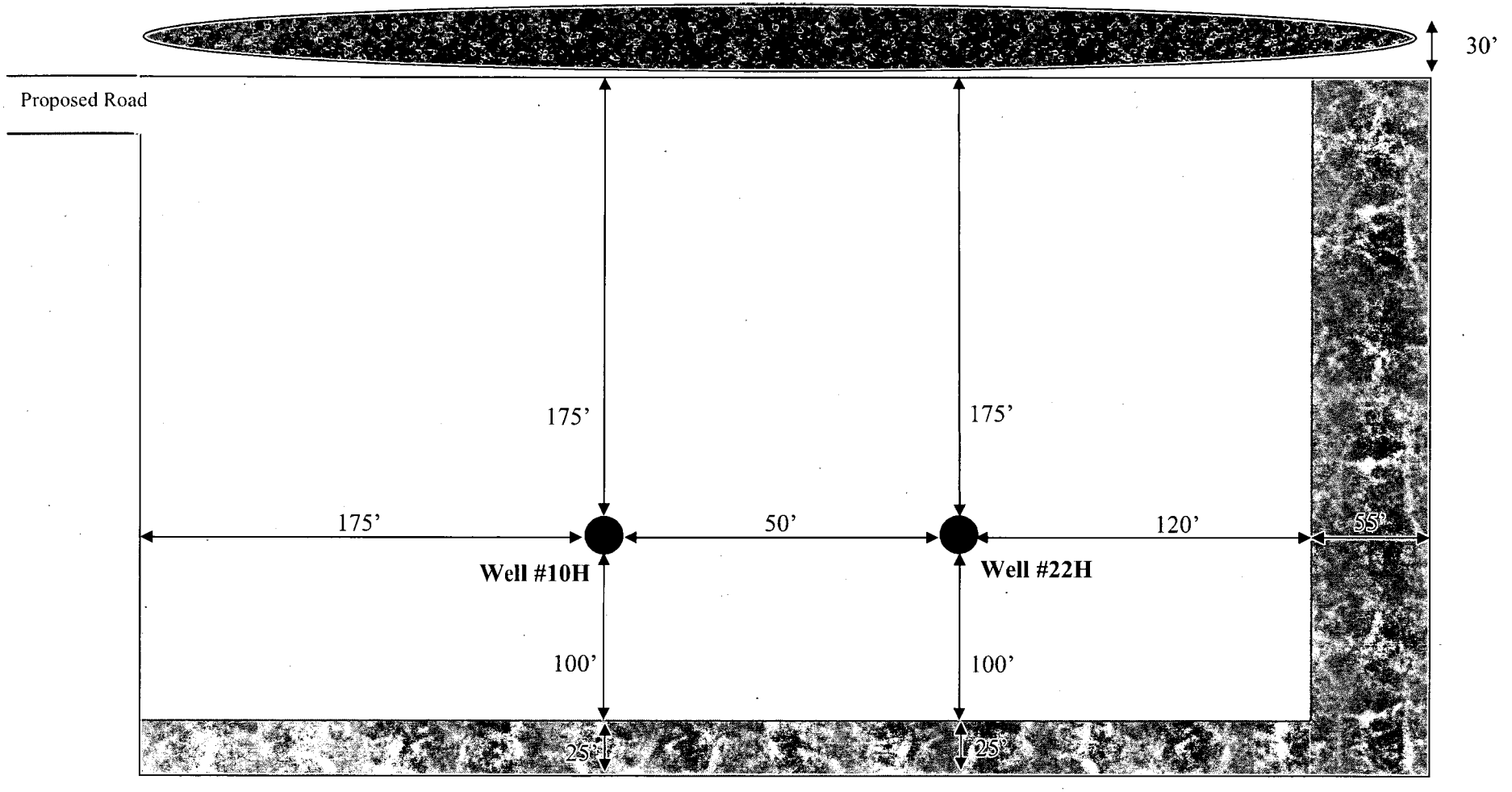
CORRAL CANYON FEDERAL #22H WELL
LOCATED 500 FEET FROM THE NORTH LINE
AND 2460 FEET FROM THE WEST LINE OF SECTION 10,
TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 4/29/14	CAD Date: 5/20/14	Drawn By: ACK
W.O. No.: 14110433	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

EXHIBIT H H.10

Interim Reclamation Diagram
Corral Canyon Federal #10H & #22H
V-Door West (Both Wells)



LEGEND

N

Wellbore

Interim Reclamation

Ditch & Berm

Topsoil

Well Site Locations

The results of the Corral Canyon Development Program will develop economic quantities of oil and gas in the 'Corral Canyon' 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.

These wells were written into BLM EA: DOI-BLM-NM-P020-2014-1545-EA.

Surface Use Plan

1. **Existing Roads**
    A. The Corral Canyon Federal development area is accessed by existing U.S. Highway 285 (Pecos Hwy.) and County Road 725 (Longhorn Road). Going Northeast on Co. Rd. 725 approximately 4.2 miles, across the Pecos River and unnamed State and BLM roads adjacent to and within the project area. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Topographical and Access Road Map.'
    B. There are existing access roads to the proposed Corral Canyon Federal well locations. All equipment and vehicles will be confined to the routes shown on the Topographical and Access Road Map as provided by FSC, Inc. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.

2. **New or Upgraded Access Roads**
    A. **New Roads**. There is a total of 506.61 feet of planned and proposed and staked access roads associated with this portion of the Corral Canyon Federal lease area. Total distance will vary based on elevation and terrain in the area.
    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 Topographical and Access Road Map provided by FSC, Inc. unless otherwise approved by the BLM and applied for by XTO Energy, Incorporated.
    E. **Road Dimensions**. The maximum width of the driving surface of new roads will be 20 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 additional facility is required for this development area. Upon completion, if wells are determined to be productive, oil, gas and water volumes will flow to the approved Corral Canyon 10E CTB located in Section 3-25S-29E; directly adjacent to the Corral Canyon 11H & 23H well pad.
B. **Flowlines**. No flowlines are being applied for with this application. Once flowline route is determined, a 3160-5 with appropriate flowline corridor will be submitted.
C. **Gas & Oil Pipeline**. A gas purchaser has been identified and will be building separately to the Corral Canyon 10E CTB in this application.
D. **Disposal Facilities**. Produced water will be piped from location to a 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 additional flare will be permitted with this development.

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 lines will be primary 12,740 volt to properly run expected production equipment. 361.99' of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is 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

7. 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.

8.

9. 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.

Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

10. 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, Section 22-25S-28E

11. 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.

12. Well Site Layout

A. **Rig Plat Diagrams**: There are 4 anticipated multi-well pads in the Chain-Blue Lightning 26 Federal lease. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached. From West to East:

1. Pad 1 is a 6-well pad expected to be 400'x300'.
2. Pad 2 is a 6-well pad expected to be 400'x300'.

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**: These wells were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Jessie Rice, BLM Natural Resource Specialist, present at on-site inspection.

1. Pad 1 has a V-Door Orientation: West
2. Pad 2 has a V-Door Orientation: West

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).

13. Plans for Surface Reclamation:

XTO Energy, Incorporated requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Once activities are completed, XTO Energy, Inc. will coordinate interim reclamation with the appropriate BLM personnel or use the following plan:

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.

14. Surface Ownership

A. Within the Corral Canyon 8-32 Federal & Corral Canyon 5-32 Federal project area: 100% of the surface is 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 FSC, Inc. 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**: Payment into the Permian Basin Programmatic Agreement (PBPA) for all disturbance associated with this application for permit to drill will be made upon submission to the Bureau of Land Management.

- **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: UTB0000138

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

Pad, OHE Written into EA: BLM-NM-P020-2014-1545-EA as part of a Master Surface Plan, which expires 9/24/2019

AFMSS

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

PWD Data Report

09/30/2019

APD ID: 10400020108 **Submission Date:** 08/18/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

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:

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

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?

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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):

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL **Well Number:** 22H

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

09/30/2019

APD ID: 10400020108

Submission Date: 08/18/2017

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON FEDERAL

Well Number: 22H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

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: