



U.S. Department of the Interior  
Bureau of Land Management

*Application for Permit to Drill*

**APD Package Report**

Date Printed: 02/27/2025 07:17 AM

APD ID: 10400096528

Well Status: AAPD

APD Received Date: 01/10/2024 08:32 PM

Well Name: RIGHT POPULAR 20 FED

Operator: XTO ENERGY INCORPORATED

Well Number: 412H

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
  - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
  - Blowout Prevention Choke Diagram Attachment: 1 file(s)
  - Blowout Prevention BOP Diagram Attachment: 1 file(s)
  - Casing Spec Documents: 2 file(s)
  - Casing Taperd String Specs: 1 file(s)
  - Casing Design Assumptions and Worksheet(s): 1 file(s)
  - Hydrogen sulfide drilling operations plan: 1 file(s)
  - Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  - Other Facets: 7 file(s)
  - Other Variances: 4 file(s)
- SUPO Report
- SUPO Attachments
  - Existing Road Map: 1 file(s)
  - New Road Map: 1 file(s)
  - Attach Well map: 1 file(s)
  - Production Facilities map: 4 file(s)
  - Water source and transportation map: 1 file(s)
  - Well Site Layout Diagram: 2 file(s)
  - Recontouring attachment: 4 file(s)
  - Other SUPO Attachment: 2 file(s)
- PWD Report
- PWD Attachments

-- None

- Bond Report

- Bond Attachments

-- None



Form 3160-3  
(June 2015)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM96848
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator XTO ENERGY INCORPORATED		8. Lease Name and Well No. RIGHT POPULAR 20 FED 412H
3a. Address 15948 US HWY 77, ARDMORE, OK 73401	3b. Phone No. (include area code) (325) 338-8339	9. API Well No. 30-015-56370
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE / 1151 FNL / 69 FEL / LAT 32.119565 / LONG -103.998249 At proposed prod. zone SESE / 50 FSL / 660 FEL / LAT 32.079088 / LONG -104.000056		10. Field and Pool, or Exploratory WILLOW LAKE/BONE SPRING SOUTHE
11. Sec., T. R. M. or Blk. and Survey or Area SEC 20/T25S/R29E/NMP		
14. Distance in miles and direction from nearest town or post office*		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)	69 feet	16. No of acres in lease
17. Spacing Unit dedicated to this well		960.0
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	30 feet	19. Proposed Depth 7706 feet / 24121 feet
20. BLM/BIA Bond No. in file		FED: COB000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3015 feet	22. Approximate date work will start* 09/01/2024	23. Estimated duration 45 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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 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). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) CASSIE EVANS / Ph: (432) 620-6700	Date 01/10/2024
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) CODY LAYTON / Ph: (575) 234-5959	Date 02/26/2025
Title Assistant Field Manager Lands & Minerals		
Office Carlsbad Field Office		

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.

(Continued on page 2)

\*(Instructions on page 2)



## 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 well, 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 directionally 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 well 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 will 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 connects this information to a new 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 Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

## Additional Operator Remarks

### Location of Well

0. SHL: NENE / 1151 FNL / 69 FEL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.119565 / LONG: -103.998249 ( TVD: 0 feet, MD: 0 feet )  
PPP: NESE / 2659 FSL / 670 FEL / TWSP: 25S / RANGE: 29E / SECTION: 29 / LAT: 32.100862 / LONG: -104.000106 ( TVD: 7706 feet, MD: 16300 feet )  
PPP: NENE / 0 FSL / 647 FEL / TWSP: 25S / RANGE: 29E / SECTION: 29 / LAT: 32.10816 / LONG: -104.000123 ( TVD: 7706 feet, MD: 13600 feet )  
PPP: NENE / 101 FNL / 660 FEL / TWSP: 25S / RANGE: 29E / SECTION: 20 / LAT: 32.122476 / LONG: -104.000154 ( TVD: 7706 feet, MD: 8400 feet )  
PPP: SESE / 1329 FSL / 680 FEL / TWSP: 25S / RANGE: 29E / SECTION: 29 / LAT: 32.097207 / LONG: -104.000097 ( TVD: 7706 feet, MD: 17600 feet )  
BHL: SESE / 50 FSL / 660 FEL / TWSP: 25S / RANGE: 29E / SECTION: 32 / LAT: 32.079088 / LONG: -104.000056 ( TVD: 7706 feet, MD: 24121 feet )

### BLM Point of Contact

Name: MARIAH HUGHES  
Title: Land Law Examiner  
Phone: (575) 234-5972  
Email: mhughes@blm.gov

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### **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.

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**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO Energy Incorporated
LEASE NO.:	NMNM99147 and NMNM96848
COUNTY:	Eddy

**Wells:****CORRAL 17-5 FED #801H** Pad A – D3**CORRAL 17-5 FED #802H** Pad B/C – B3**CORRAL 17-5 FED #803H** Pad B/C – A4**CORRAL 17-8 FED #101H** Pad A – D1**CORRAL 17-8 FED #102H** Pad A – B3**CORRAL 17-8 FED #103H** Pad B/C – C3**CORRAL 17-8 FED #104H** Pad B/C – D4**CORRAL 17-8 FED #105H** Pad B/C – D6**CORRAL 17-8 FED #106H** Pad B/C – A6**CORRAL 17-8 FED #121H** Pad A – B1**CORRAL 17-8 FED #122H** Pad A – A1**CORRAL 17-8 FED #123H** Pad A – A3**CORRAL 17-8 FED #124H** Pad B/C – A3**CORRAL 17-8 FED #125H** Pad B/C – C4**CORRAL 17-8 FED #126H** Pad B/C – C6**CORRAL 17-8 FED #161H** Pad A – C1**CORRAL 17-8 FED #162H** Pad A – C3**CORRAL 17-8 FED #163H** Pad B/C – D3**CORRAL 17-8 FED #164H** Pad B/C – E4**CORRAL 17-8 FED #165H** Pad B/C – B4**CORRAL 17-8 FED #166H** Pad B/C – B6**Future Wells****FUTURE WELL #1** Pad A – A2**FUTURE WELL #2** Pad A – B2**FUTURE WELL #3** Pad A – C2**FUTURE WELL #4** Pad A – D2

**FUTURE WELL #5** Pad B/C – A1

**FUTURE WELL #6** Pad B/C – A2

**FUTURE WELL #7** Pad B/C – A5

**FUTURE WELL #8** Pad B/C – B1

**FUTURE WELL #9** Pad B/C – B2

**FUTURE WELL #10** Pad B/C – B5

**FUTURE WELL #11** Pad B/C – C1

**FUTURE WELL #12** Pad B/C – C2

**FUTURE WELL #13** Pad B/C – C5

**FUTURE WELL #14** Pad B/C – D1

**FUTURE WELL #15** Pad B/C – D2

**FUTURE WELL #16** Pad B/C – D5

**FUTURE WELL #17** Pad B/C – E5

**RIGHT POPULAR 20 FED**

RIGHT POPULAR 20 FED 101H: PAD A – A1

RIGHT POPULAR 20 FED 102H: PAD A – A2

RIGHT POPULAR 20 FED 103H: PAD A – A3

RIGHT POPULAR 20 FED 104H: PAD A – A4

RIGHT POPULAR 20 FED 105H: PAD A – A5

RIGHT POPULAR 20 FED 106H: PAD A – A6

RIGHT POPULAR 20 FED 201H: PAD B – A1

RIGHT POPULAR 20 FED 204H: PAD B – B1

RIGHT POPULAR 20 FED 207H: PAD B – C1

RIGHT POPULAR 20 FED 210H: PAD B – D1

RIGHT POPULAR 20 FED 301H: PAD C – A1

RIGHT POPULAR 20 FED 302H: PAD C – A2

RIGHT POPULAR 20 FED 303H: PAD C – A3

RIGHT POPULAR 20 FED 304H: PAD C – B1

RIGHT POPULAR 20 FED 305H: PAD C – B2

RIGHT POPULAR 20 FED 306H: PAD C – B3

RIGHT POPULAR 20 FED 307H: PAD C – C1

RIGHT POPULAR 20 FED 308H: PAD C – C2

RIGHT POPULAR 20 FED 309H: PAD C – C3

RIGHT POPULAR 20 FED 310H: PAD C – D1

RIGHT POPULAR 20 FED 311H: PAD C – D2

RIGHT POPULAR 20 FED 312H: PAD C – D3

RIGHT POPULAR 20 FED 401H: PAD D – A1

RIGHT POPULAR 20 FED 403H: PAD D – A3

RIGHT POPULAR 20 FED 404H: PAD D – B1

RIGHT POPULAR 20 FED 406H: PAD D – B3

RIGHT POPULAR 20 FED 407H: PAD D – C1

RIGHT POPULAR 20 FED 409H: PAD D – C3

RIGHT POPULAR 20 FED 410H: PAD D – D1

RIGHT POPULAR 20 FED 412H: PAD D – D3

FUTURE WELL #1: PAD B – A2

FUTURE WELL #2: PAD B – A3

FUTURE WELL #3: PAD B – B2

FUTURE WELL #4: PAD B – B3

FUTURE WELL #5: PAD B – C2

FUTURE WELL #6: PAD B – C3

FUTURE WELL #7: PAD B – D2

FUTURE WELL #8: PAD B – D3

FUTURE WELL #9: PAD D – A2

FUTURE WELL #10: PAD D – B2

FUTURE WELL #11: PAD D – C2

FUTURE WELL #12: PAD D – D2

### TABLE OF CONTENTS

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

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☒ **Noxious Weeds**
- ☒ **Special Requirements**
  - Watershed
  - Light Pollution
  - Special Status Plant Species
  - Cave/Karst
  - Range
  - VRM IV
  - Texas Hornshell Mussel
- ☒ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**



## **I. GENERAL PROVISIONS**

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

## **II. PERMIT EXPIRATION**

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

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

#### IV. NOXIOUS WEEDS

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

##### **African Rue (*Peganum harmala*)**

**Spraying:** The spraying of African Rue must be completed by a licensed or certified applicator. In order to attempt to kill or remove African Rue the proper mix of chemical is needed. The mix consists of 2% Arsenal (Imazapyr) and 2% Roundup (Glyphosate) along with a nonionic surfactant. Any other chemicals or combinations shall be approved by the BLM Noxious Weeds Coordinator prior to treatment. African Rue shall be sprayed in connection to any dirt working activities or disturbances to the site being sprayed. Spraying of African Rue shall be done on immature plants at initial growth through flowering and mature plants between budding and flowering stages. Spraying shall not be conducted after flowering when plant is fruiting. This will ensure optimal intake of chemical and decrease chances of developing herbicide resistance. After spraying, the operator or necessary parties must contact the Carlsbad Field Office to inspect the effectiveness of the application treatment to the plant species. No ground disturbing activities can take place until the inspection by the authorized officer is complete. The operator may contact the Environmental Protection Department or the BLM Noxious Weed Coordinator at (575) 234-5972 or BLM\_NM\_CFO\_NoxiousWeeds@blm.gov.

**Management Practices:** In addition to spraying for African Rue, good management practices should be followed. All equipment should be washed off using a power washer in a designated containment area. The containment area shall be bermed to allow for containment of the seed to prevent it from entering any open areas of the nearby landscape. The containment area shall be excavated near or adjacent to the well pad at a depth of three feet and just large enough to get equipment inside it to be washed off. This will allow all seeds to be in a centrally located area that can be treated at a later date if the need arises.

#### V. SPECIAL REQUIREMENT(S)

##### **Watershed:**

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

the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

For the Corral Canyon 17 Pad B-C and Right Popular 20 Pad B there shall be additional erosion control structures for ephemeral drainages. For the Corral Canyon pad the ephemeral drainage (104.0065321°W 32.1249359°N) is to the north of the pad, electric line and pipeline. For the Right Popular pad the ephemeral drainage (104.0087803°W 32.1213205°N) is just south of the pad.

**Central Vessel Battery:**

Battery locations will be bermed. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

**BURIED/SURFACE LINE(S):**

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

**LIGHT POLLUTION****Downfacing**

All permanent lighting will be pointed straight down at the ground in order to prevent light spill beyond the edge of approved surface disturbance.

**Shielding**

All permanent lighting will use full cutoff luminaires, which are fully shielded (i.e., not emitting direct or indirect light above an imaginary horizontal plane passing through the lowest part of the light source).

**Lighting Color**

Lighting shall be 3,500 Kelvin or less (Warm White) except during drilling, completion, and workover operations. No bluish-white lighting shall be used in permanent outdoor lighting.

**Special Status Plant Species (SSPS) Habitat Stipulations:**

Vehicles and equipment will be kept on existing roads and approved surfaces only and will avoid travel across undisturbed surfaces; workers will be instructed not to park off the roads or ROW in undisturbed areas. Alterations to project design and additions of project components will require SSPS surveys and re-analysis of impacts if those project elements intersect SSPS suitable habitat.

**Special Status Plant Species Occupied Habitat Stipulations:**

Prior to initiating project construction activities, a barricade for the protection of Scheer's beehive cactus occupied habitat will be installed according to the following standards:

Barricade Type☐Temporary Fencing☒Permanent Fencing☐Natural Obstacles☐Other: \_\_\_\_\_Barricade Specifications

Four-strand wire (bottom wire smooth) fence with concreted-in posts, 2 end posts and 1 mid-length stress panel; 0.1mi (166 meters) length.

Biomonitor Required During Barrier Installation? ☒Yes ☐No

Biomonitor to coordinate with BLM biologist prior? ☒Yes ☐No

Coordination Type: Shapefile of known occurrences in project vicinity

Biomonitor Required During Project Construction? ☐Yes ☒No

Activities requiring biomonitoring: N/A

Biomonitor to coordinate with BLM biologist prior? ☐Yes ☐No ☒N/A

Coordination Type: N/A

**Cave/Karst:****Construction Mitigation**

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

**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 be vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

**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.

**Buried Pipeline/Cable Construction:**

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

**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.

**Surface Flowlines Installation:**

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

**Drilling Mitigation**

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

**Production Mitigation**

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Central Vessel battery locations and facilities will be bermed.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.

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

**Residual and Cumulative Mitigation**

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 taken to correct the problem to the BLM's approval.

**Plugging and Abandonment Mitigation**

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

**Range:****Cattleguards**

Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

**Fence Requirement**

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Livestock Watering Requirement**

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

**VRM IV:**

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

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

**Texas Hornshell Mussel**

Oil and Gas Zone D - CCA Boundary requirements.

- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization ("RAPPS")
- Comply with SPCC requirements in accordance with 40 CFR Part 112;



- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable;
- Utilize technologies (like underground borings for pipelines), where feasible;
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

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

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

### **B. TOPSOIL**

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

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

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

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

### **D. FEDERAL MINERAL MATERIALS PIT**

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

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

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

### **F. EXCLOSURE FENCING (CELLARS & PITS)**

#### **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is

free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

## **G. ON LEASE ACCESS ROADS**

### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed twenty (20) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed 30 (30) 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 20' 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.

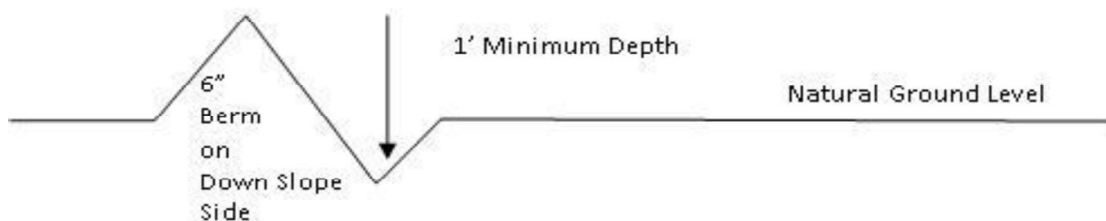
### **Drainage**

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:

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

### Cattle guards

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

### Fence Requirement

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

### Public Access

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

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

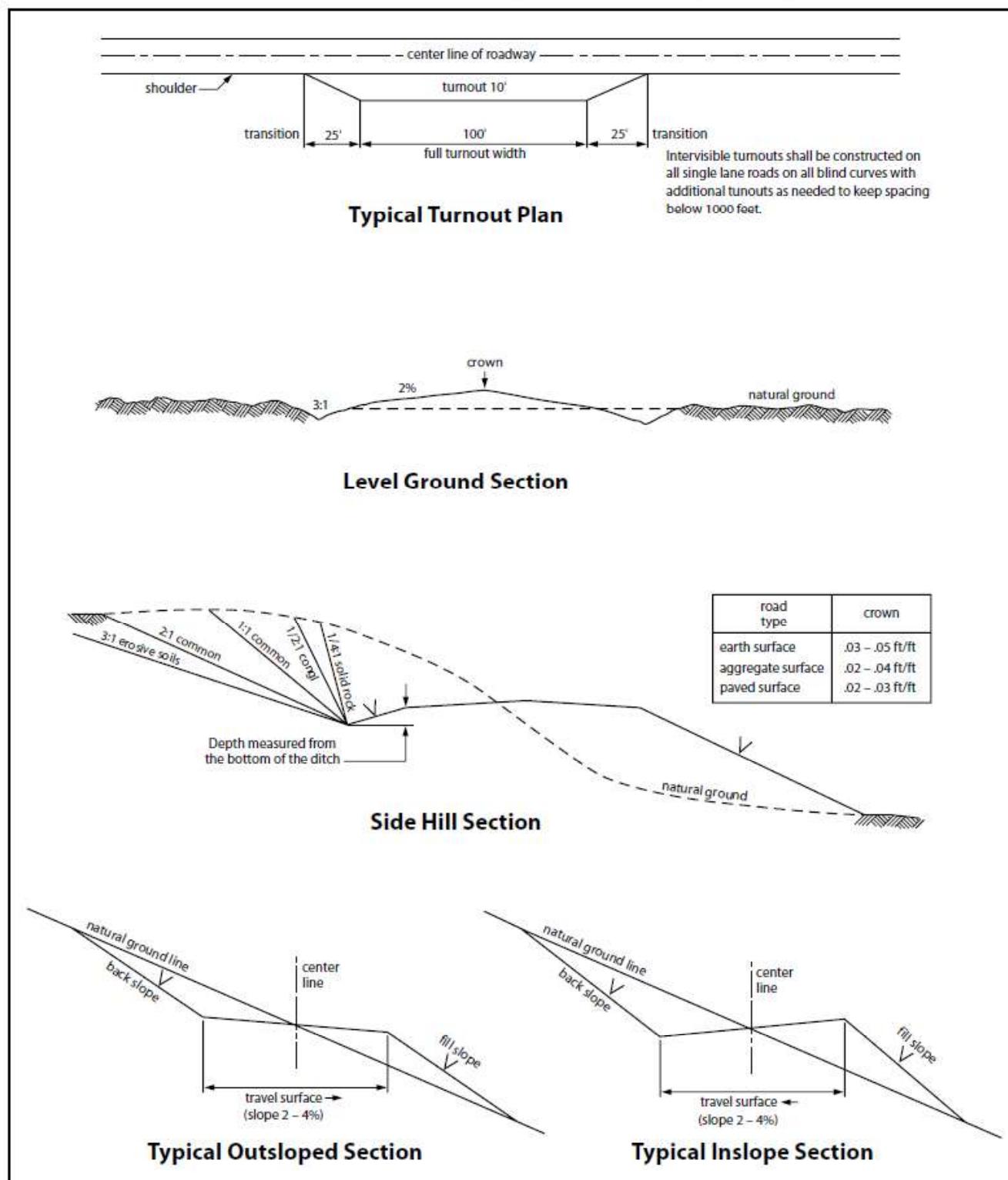


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## VII. PRODUCTION (POST DRILLING)

### A. WELL STRUCTURES & FACILITIES

#### Placement of Production Facilities

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

#### Exclosure Netting (Open-top Tanks)

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

#### Chemical and Fuel Secondary Containment and Exclosure Screening

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

#### Open-Vent Exhaust Stack Exclosures

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

#### Containment Structures

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

#### Painting Requirement

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

**B. PIPELINES**

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

b

**BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, 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. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 110 feet Mid-stream/30ft standard buried pipeline:

- Blading of vegetation within the right-of-way will be allowed: Maximum width of blading operations will not exceed 66 feet Mid-stream/20ft standard buried pipeline. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 110 feet Mid-stream/30ft standard buried pipeline. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. 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 of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

☐ Seed Mixture 1

☒ Seed Mixture 2

☐ Seed Mixture 2/LPC

☐ Seed Mixture 3

☐ Seed Mixture 4

☐ Seed Mixture Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.



OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. 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 associated roads, 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.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

#### 21. Special Stipulations:

##### **Karst:**

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

#### **VIII. INTERIM RECLAMATION**

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

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

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

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



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

#### **IX. FINAL ABANDONMENT & RECLAMATION**

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

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

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

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

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

**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**

	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

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

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b> XTO <b>LEASE NO.:</b> NMNM96848 <b>LOCATION:</b> Sec. 20, T.25 S, R 29 E <b>COUNTY:</b> <span style="border: 1px solid black; padding: 2px;">Eddy County, New Mexico ▼</span>
<b>WELL NAME &amp; NO.:</b> Right Popular 20 Fed 412H <b>SURFACE HOLE FOOTAGE:</b> 1151'N & 69'E <b>BOTTOM HOLE FOOTAGE:</b> 50'S & 660'E

COA

H <sub>2</sub> S	<input checked="" type="radio"/> No <span style="float: right;"><input type="radio"/> Yes</span>			
Potash / WIPP	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-Q	<input type="checkbox"/> Open Annulus <input type="checkbox"/> WIPP
Choose an option (including blank option.)				
Cave / Karst	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
Cementing	<input checked="" type="checkbox"/> Primary Squeeze	<input type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
Special Req	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input type="checkbox"/> Unit
Waste Prev.	<input type="radio"/> Self-Certification	<input type="radio"/> Waste Min. Plan	<input checked="" type="radio"/> APD Submitted prior to 06/10/2024	
Additional Language	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input checked="" type="checkbox"/> Break Testing
	<input type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input checked="" type="checkbox"/> Fluid-Filled	

### A. HYDROGEN SULFIDE

Hydrogen Sulfide (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 43 CFR 3176 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### B. CASING

1. The 9-5/8 inch surface casing shall be set at approximately **494** feet (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping

- cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or **500 pounds compressive strength**, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:  
Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.
- a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon at 5476'**.
  - b. **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

Operator has proposed to pump down **Surface X Intermediate 1** annulus after primary cementing stage. **Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the Surface casing to tieback requirements listed above after the second stage BH to verify TOC.** Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

If cement does not reach surface, the next casing string must come to surface.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

**C. PRESSURE CONTROL**

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).
2. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.

**D. SPECIAL REQUIREMENT(S)****BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted **(575-361-2822 Eddy County)** 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

### **Offline Cementing**

Contact the BLM prior to the commencement of any offline cementing procedure.

Engineer may elect to vary this language. Speak with Chris about implementing changes and whether that change seems reasonable.

### **Casing Clearance**

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Production casing tieback. Operator may contact approving engineer to discuss changing casing set depth or grade to meet clearance requirement.

## GENERAL REQUIREMENTS

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

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

### Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220;

[BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (575) 361-2822

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

### A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

## **B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's



requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - i. 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 cement), 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).
  - ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve

- open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - iv. 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.
  - v. The results of the test shall be reported to the appropriate BLM office.
  - vi. 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.
  - vii. 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.
  - viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

### **C. DRILLING MUD**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

### **D. WASTE MATERIAL AND FLUIDS**

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

disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**Approved by Zota Stevens on 2/10/2025**  
575-234-5998 / [zstevens@blm.gov](mailto:zstevens@blm.gov)



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

## Operator Certification Data Report

02/27/2025

### Operator

*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:**

**Signed on:** 01/10/2024

**Title:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**

### Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



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

## Application Data

02/27/2025

APD ID: 10400096528

Submission Date: 01/10/2024

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

Operator Name: XTO ENERGY INCORPORATED

Well Name: RIGHT POPULAR 20 FED

Well Number: 412H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - General

APD ID: 10400096528

Tie to previous NOS? N

Submission Date: 01/10/2024

BLM Office: Carlsbad

User: JEAN COOPER

Title: Regulatory Analyst

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM96848

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO

APD Operator: XTO ENERGY INCORPORATED

Operator letter of

### Operator Info

Operator Organization Name: XTO ENERGY INCORPORATED

Operator Address: 222777 SPRINGSWOODS VILLAGE PKWY

Zip: 77389

Operator PO Box:

Operator City: SPRING

State: TX

Operator Phone: (817)870-2800

Operator Internet Address:

### 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: RIGHT POPULAR 20 FED

Well Number: 412H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILLOW LAKE

Pool Name: BONE SPRING  
SOUTHEAST

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Is the proposed well in an area containing other mineral resources?** USEABLE WATER,NATURAL GAS,OIL**Is the proposed well in a Helium production area?** N**Use Existing Well Pad?** N**New surface disturbance?****Type of Well Pad:** MULTIPLE WELL**Multiple Well Pad Name:** Right Popular 20 Fed**Number:** D**Well Class:** HORIZONTAL**Number of Legs:** 1**Well Work Type:** Drill**Well Type:** OIL WELL**Describe Well Type:****Well sub-Type:** INFILL**Describe sub-type:****Distance to town:****Distance to nearest well:** 30 FT**Distance to lease line:** 69 FT**Reservoir well spacing assigned acres Measurement:** 960 Acres**Well plat:** RP\_20\_Fed\_412H\_C102\_FINAL\_20250124102746.pdf**Well work start Date:** 09/01/2024**Duration:** 45 DAYS**Section 3 - Well Location Table****Survey Type:** RECTANGULAR**Describe Survey Type:****Datum:** NAD83**Vertical Datum:** NAVD88**Survey number:****Reference Datum:** GROUND LEVEL

Wellbore	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	Will this well produce from this
SHL Leg #1	115	FNL	69	FEL	25S	29E	20	Aliquot NENE	32.119565	- 103.998249	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 96848	3015	0	0	Y
KOP Leg #1	115	FNL	69	FEL	25S	29E	20	Aliquot NENE	32.119565	- 103.998249	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 96848	- 4134	7450	7149	Y
PPP Leg #1-1	101	FNL	660	FEL	25S	29E	20	Aliquot NENE	32.122476	- 104.000154	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 96848	- 4691	8400	7706	Y

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

Wellbore	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	Will this well produce from this
PPP Leg #1-2	0	FSL	647	FEL	25S	29E	29	Aliquot NENE	32.10816	- 104.000123	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 102031	- 4691	13600	7706	Y
PPP Leg #1-3	2659	FSL	670	FEL	25S	29E	29	Aliquot NESE	32.100862	- 104.000106	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 100555	- 4691	16300	7706	Y
PPP Leg #1-4	1329	FSL	680	FEL	25S	29E	29	Aliquot SESE	32.097207	- 104.000097	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 139846	- 4691	17600	7706	Y
EXIT Leg #1	100	FSL	660	FEL	25S	29E	32	Aliquot SESE	32.079225	- 104.000056	EDD Y	NEW MEXI CO	NEW MEXI CO	S	STATE	- 4691	24071	7706	Y
BHL Leg #1	50	FSL	660	FEL	25S	29E	32	Aliquot SESE	32.079088	- 104.000056	EDD Y	NEW MEXI CO	NEW MEXI CO	S	STATE	- 4691	24121	7706	Y

C-102  Submit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION		Revised July, 09 2024	
	Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal		
		<input type="checkbox"/> Amended Report		
		<input type="checkbox"/> As Drilled		

## WELL LOCATION INFORMATION

API Number <b>30-015-</b>	Pool Code <b>96217</b>	Pool Name <b>WILLOW LAKE; BONE SPRING, SOUTHEAST</b>	
Property Code	Property Name <b>RIGHT POPULAR 20 FED</b>		Well Number <b>412H</b>
OGRID No. <b>005380</b>	Operator Name <b>XTO ENERGY, INC.</b>		Ground Level Elevation <b>3,015'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

## Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>A</b>	<b>20</b>	<b>25S</b>	<b>29E</b>		<b>1,151 FNL</b>	<b>69 FEL</b>	<b>32.119565</b>	<b>-103.998249</b>	<b>EDDY</b>

## Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>32</b>	<b>25S</b>	<b>29E</b>		<b>50 FSL</b>	<b>660 FEL</b>	<b>32.079088</b>	<b>-104.000056</b>	<b>EDDY</b>

Dedicated Acres <b>960.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>C</b>
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

## Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>A</b>	<b>20</b>	<b>25S</b>	<b>29E</b>		<b>1,151 FNL</b>	<b>69 FEL</b>	<b>32.119565</b>	<b>-103.998249</b>	<b>EDDY</b>

## First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>A</b>	<b>20</b>	<b>25S</b>	<b>29E</b>		<b>101 FNL</b>	<b>660 FEL</b>	<b>32.122476</b>	<b>-104.000154</b>	<b>EDDY</b>

## Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
<b>P</b>	<b>32</b>	<b>25S</b>	<b>29E</b>		<b>100 FSL</b>	<b>660 FEL</b>	<b>32.079225</b>	<b>-104.000056</b>	<b>EDDY</b>

Unitized Area of Area of Interest	Spacing Unit Type: <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,015'</b>
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## OPERATOR CERTIFICATIONS

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

If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.

Jena Austin 1/17/2025  
Signature Date

Jena Austin

Printed Name

Jena.N.Austin@ExxonMobil.com

Email Address

## SURVEYOR CERTIFICATIONS

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



[Signature]  
Signature and Seal of Professional Surveyor

MARK DILLON HARP 23786  
Certificate Number1/16/2025  
Date of Survey

KT

618,013013,02-36

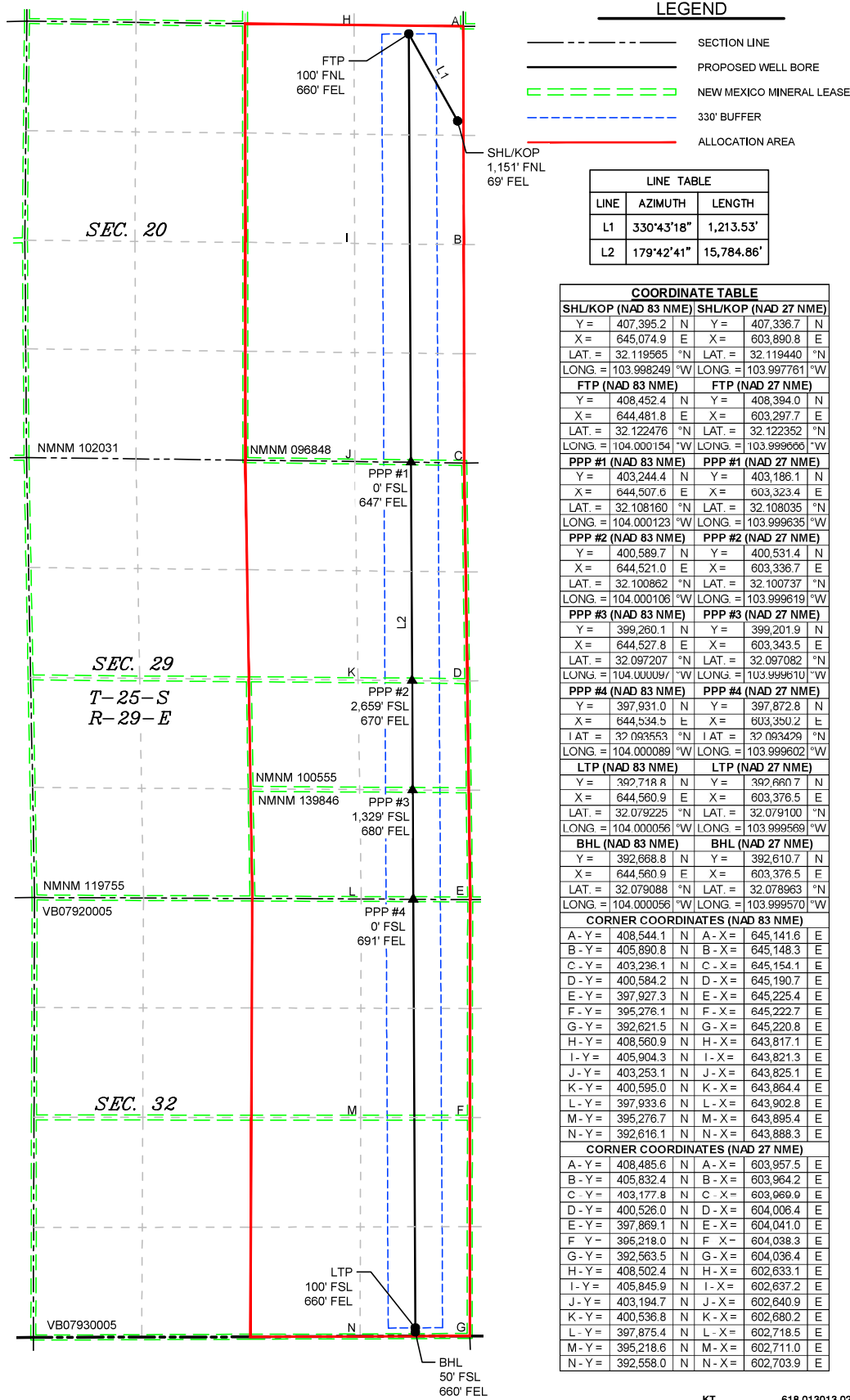
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other than the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

Surveyor shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.





# Drilling Plan Data Report

02/27/2025

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

APD ID: 10400096528

Submission Date: 01/10/2024

Highlighted data  
reflects the most  
recent changes

Operator Name: XTO ENERGY INCORPORATED

Well Name: RIGHT POPULAR 20 FED

Well Number: 412H

Well Type: OIL WELL

Well Work Type: Drill

[Show Final Text](#)

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
15107805	QUATERNARY	3015	0	0	ALLUVIUM	USEABLE WATER	N
15107807	SALADO	2381	634	634	SALT	NONE	N
15107808	BASE OF SALT	227	2788	2788	SALT	NONE	N
15107803	DELAWARE	37	2978	2978	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
15107804	BRUSHY CANYON	-2461	5476	5476	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
15107809	BONE SPRING	-3726	6741	6741	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
15107801	BONE SPRING 1ST	-4641	7656	7656	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y

## Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 7706

**Equipment:** Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril Annular and a 10M Triple Ram BOP. XTO will use a 3 String Multi-Bowl system which is attached.

**Requesting Variance?** YES

**Variance request:** A variance is requested to allow use of a flex hose: See Attached. XTO requests a variance to be able to batch drill this well if necessary. XTO request a break test variance: See Attached. XTO requests a variance to utilize a spudder rig: See Attached.

**Testing Procedure:** All BOP testing will be done by an independent service company. Operator will test as per 43 CFR 3172.

**Choke Diagram Attachment:**

Right\_Popular\_20\_Fed\_10MCM\_20250124103422.pdf

**BOP Diagram Attachment:**

Right\_Popular\_20\_Fed\_5M10M\_BOP\_20250124103457.pdf

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**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	12.25	9.625	NEW	API	N	0	534	0	534	3015	2481	534	J-55	40	BUTT	10.64	1.9	DRY	29.49	DRY	29.49
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	7300	0	7001	0	-3986	7300	L-80	29.7	FJ	2.74	2.36	DRY	4.14	DRY	4.14
3	PRODUCTION	6.75	5.5	NEW	NON API	Y	0	24121	0	7706	0	-4691	24121	P-110	23	OTHER - Freedom HTQ/Talon HTQ	3.16	1.21	DRY	4.28	DRY	4.28

**Casing Attachments****Casing ID:** 1      **String**      SURFACE**Inspection Document:****Spec Document:****Tapered String Spec:****Casing Design Assumptions and Worksheet(s):**

Operator Name: XTO ENERGY INCORPORATED

Well Name: RIGHT POPULAR 20 FED

Well Number: 412H

## Casing Attachments

Casing ID: 2 String INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 3 String PRODUCTION

Inspection Document:

Spec Document:

Freedom\_Semi\_Premium\_5.5000\_23.0000\_0.4150\_P110\_RY\_20241001134458.pdf

Talon\_Semiflush\_HTQ\_RD\_5.5000\_23.0000\_0.4150\_P110\_RY\_20241001134323.pdf

Tapered String Spec:

RP\_20\_Fed\_412H\_Csg\_20241024132524.pdf

Casing Design Assumptions and Worksheet(s):

RP\_20\_Fed\_412H\_Csg\_20241024132615.pdf

## Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	534	70	1.87	12.9	130.9	100	EconoCem-HLTRRC	NA
SURFACE	Tail		0	534	130	1.35	14.8	175.5	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	5476	620	1.33	14.8	824.6	100	Class C	NA
INTERMEDIATE	Tail		5476	7300	450	1.35	14.8	607.5	100	Class C	NA

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		7000	7500	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		7500	2412 1	1190	1.51	13.2	1796. 9	30	VersaCem	NA

### 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:** Spud with fresh water/native mud. Drill out from under surface casing with Saturated Salt solution. Saturated Salt mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

### 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
2978	7300	OTHER : BDE/OBM	9	9.5							
0	534	WATER-BASED MUD	8.7	9.2							
7300	2412 1	OIL-BASED MUD	11.5	12							
534	2978	SALT SATURATED	10.5	11							

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

## Section 6 - Test, Logging, Coring

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

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

Open hole logging will not be done on this well.

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

CEMENT BOND LOG,GAMMA RAY LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

**Coring operation description for the well:**

No coring is planned for the well.

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 4809**Anticipated Surface Pressure:** 3113**Anticipated Bottom Hole Temperature(F):** 165**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO**Describe:****Contingency Plans geohazards description:****Contingency Plans geohazards****Hydrogen Sulfide drilling operations plan required?** YES**Hydrogen sulfide drilling operations**

XTO\_Energy\_H2S\_Plan\_Updated\_20241024133603.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

RP\_20\_Fed\_412H\_DD\_20231229110411.pdf

**Other proposed operations facets description:****Other proposed operations facets attachment:**

RP\_20\_Fed\_412H\_Cmt\_20240412204237.pdf

Right\_Popular\_20\_Fed\_MBS\_20240621105358.pdf

Right\_Popular\_20\_Fed\_H2S\_DiaB\_20250124104622.pdf

Right\_Popular\_20\_Fed\_H2S\_DiaC\_20250124104622.pdf

Right\_Popular\_20\_Fed\_Gas\_Capture\_Plan\_20250124144214.pdf

Right\_Popular\_20\_Fed\_H2S\_DiaA\_20250127062713.pdf

Right\_Popular\_20\_Fed\_H2S\_DiaD\_20250127062715.pdf

**Other Variance attachment:**

Right\_Popular\_20\_Fed\_OLCV\_20230930111502.pdf

Spudder\_Rig\_Request\_20241024133831.pdf

**Operator Name:** XTO ENERGY INCORPORATED

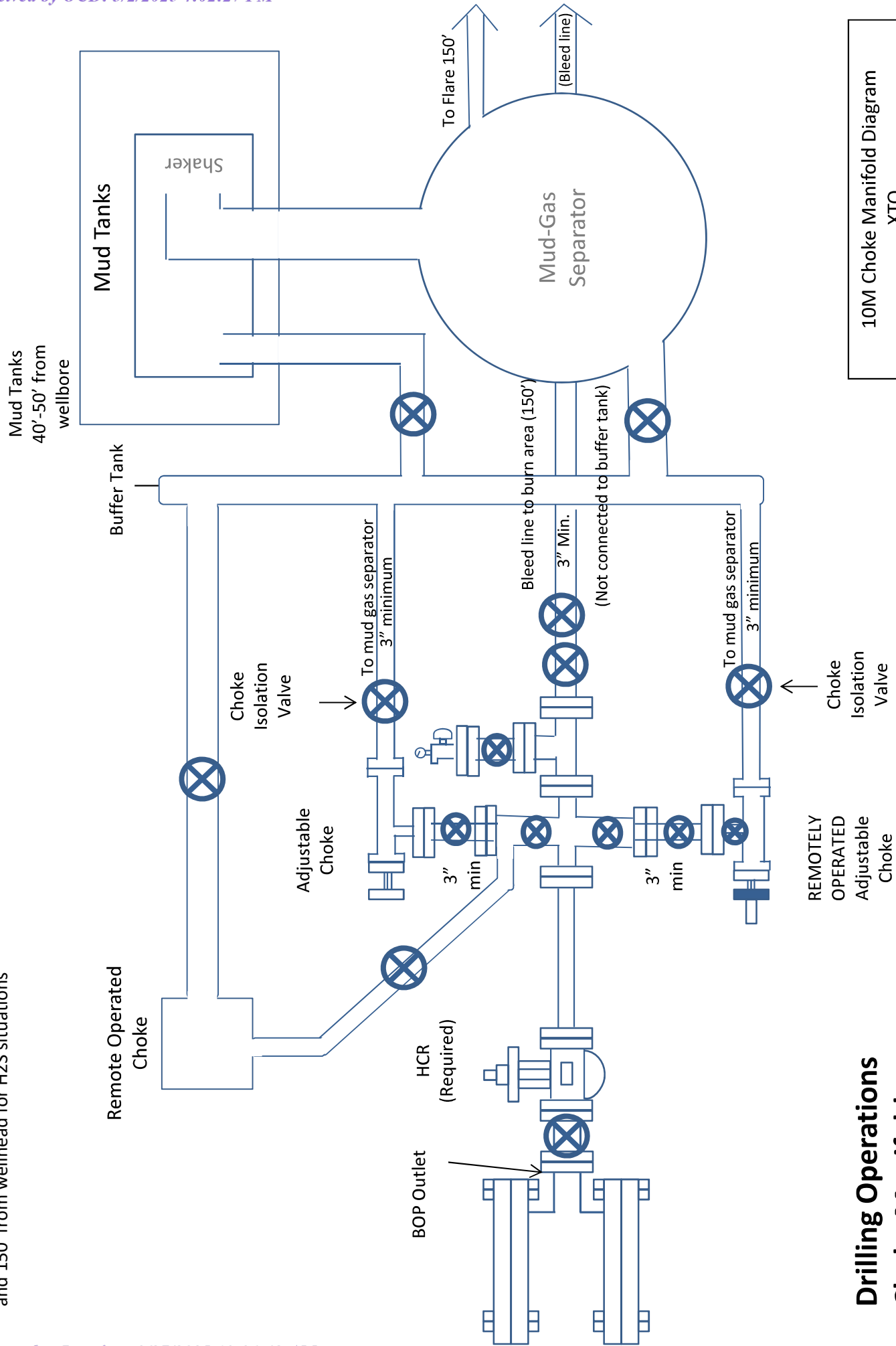
**Well Name:** RIGHT POPULAR 20 FED

**Well Number:** 412H

Updated\_Flex\_Hose\_20241024133836.pdf

BOP\_Break\_Test\_Variance\_20241024133842.pdf

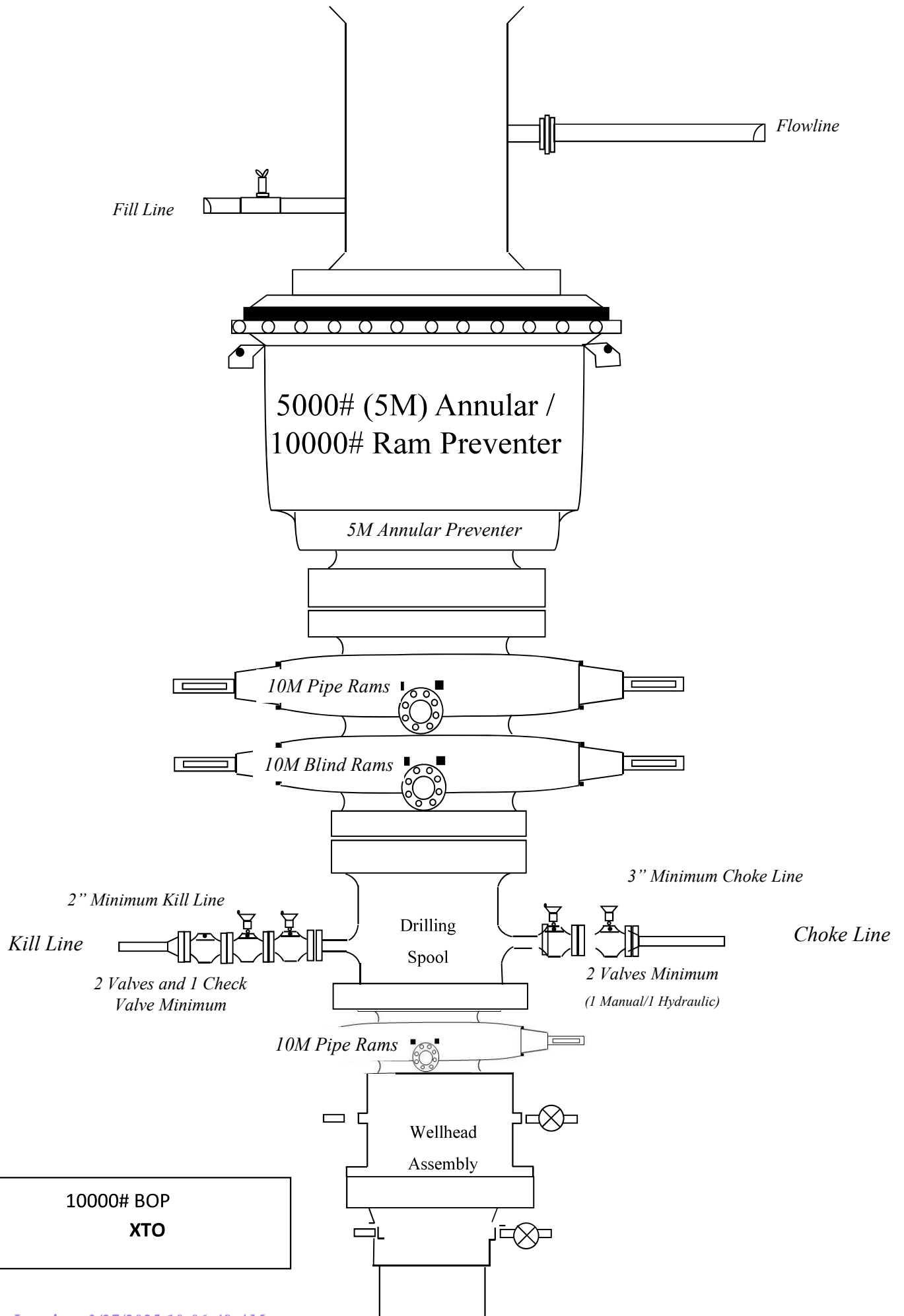
Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations



10M Choke Manifold Diagram  
XTO

**Drilling Operations  
Choke Manifold  
10M Service**







U. S. Steel Tubular Products

5.500" 23.00lb/ft (0.415" Wall) P110 RY USS-TALON HTQ™ RD

1/4/2024 11:09:09 AM



MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		--
Outside Diameter	5.500	5.900	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-TALON HTQ™ RD		--
Critical Area	6.630	6.425	sq. in.	--
Joint Efficiency	--	96.9	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	707,000	lb	--
Compression Rating	--	707,000	lb	--
Reference Length	--	20,490	ft	[5]
Maximum Uniaxial Bend Rating	--	88.9	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		--
Make-Up Loss	--	5.58	in.	--
Minimum Make-Up Torque	--	20,800	ft-lb	[4]
Maximum Make-Up Torque	--	23,800	ft-lb	[4]
Maximum Operating Torque	--	39,800	ft-lb	[4]

UNCONTROLLED

Notes

1.

Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2.

Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
3.

Uniaxial bend rating shown is structural only.
4.

Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
5.

Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
6.

Coupling must meet minimum mechanical properties of the pipe.

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U. S. Steel Tubular Products  
460 Wildwood Forest Drive, Suite 300S  
Spring, Texas 77380

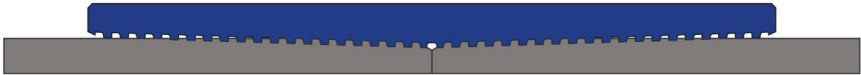
1-877-893-9461  
connections@uss.com  
www.usstubular.com



U. S. Steel Tubular Products

5.500" 23.00lb/ft (0.415" Wall) P110 RY USS-FREEDOM HTQ®

11/8/2023 1:09:13 PM



MECHANICAL PROPERTIES	Pipe	USS-FREEDOM HTQ®		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	125,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	Pipe	USS-FREEDOM HTQ®		--
Outside Diameter	5.500	6.300	in.	--
Wall Thickness	0.415	--	in.	--
Inside Diameter	4.670	4.670	in.	--
Standard Drift	4.545	4.545	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	23.00	--	lb/ft	--
Plain End Weight	22.56	--	lb/ft	--
SECTION AREA	Pipe	USS-FREEDOM HTQ®		--
Critical Area	6.630	6.630	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	Pipe	USS-FREEDOM HTQ®		--
Minimum Collapse Pressure	14,540	14,540	psi	--
Minimum Internal Yield Pressure	14,520	14,520	psi	--
Minimum Pipe Body Yield Strength	729,000	--	lb	--
Joint Strength	--	729,000	lb	--
Compression Rating	--	729,000	lb	--
Reference Length [4]	--	21,138	ft	--
Maximum Uniaxial Bend Rating [2]	--	91.7	deg/100 ft	--
MAKE-UP DATA	Pipe	USS-FREEDOM HTQ®		--
Make-Up Loss	--	4.13	in.	--
Minimum Make-Up Torque [3]	--	15,000	ft-lb	--
Maximum Make-Up Torque [3]	--	21,000	ft-lb	--
Maximum Operating Torque[3]	--	32,500	ft-lb	--

UNCONTROLLED

Notes

1.

Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
2.

Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3.

Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4.

Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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Spring, Texas 77380

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connections@uss.com  
www.usstubular.com

Casing Assumptions

Casing Design									
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 534'	9.625	40	J-55	BTC	New	1.90	10.64	29.49
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	3.25	2.65	2.57
8.75	4000' – 7300'	7.625	29.7	HC L-80	Flush Joint	New	2.36	2.74	4.14
6.75	0' – 7200'	5.5	23	RY P-110	Freedom HTQ	New	1.21	3.38	2.29
6.75	7200' - 7700'	5.5	23	RY P-110	Talon HTQ	New	1.21	3.16	3.95
6.75	7700' - 24121'	5.5	23	RY P-110	Talon HTQ	New	1.21	3.16	4.28

Casing Assumptions

Casing Design									
Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 534'	9.625	40	J-55	BTC	New	1.90	10.64	29.49
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	3.25	2.65	2.57
8.75	4000' – 7300'	7.625	29.7	HC L-80	Flush Joint	New	2.36	2.74	4.14
6.75	0' – 7200'	5.5	23	RY P-110	Freedom HTQ	New	1.21	3.38	2.29
6.75	7200' - 7700'	5.5	23	RY P-110	Talon HTQ	New	1.21	3.16	3.95
6.75	7700' - 24121'	5.5	23	RY P-110	Talon HTQ	New	1.21	3.16	4.28



## HYDROGEN SULFIDE (H<sub>2</sub>S) CONTINGENCY PLAN

**Assumed 100 ppm ROE = 3000'**

100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### **Emergency Procedures**

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

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

### **Ignition of Gas source**

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

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

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### **Contacting Authorities**

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

**CARLSBAD OFFICE – EDDY & LEA COUNTIES**

3104 E. Greene St., Carlsbad, NM 88220  
Carlsbad, NM

575-887-7329

**XTO PERSONNEL:**

Will Dacus, Drilling Manager	832-948-5021
Brian Dunn, Drilling Supervisor	832-653-0490
Robert Bartels, Construction Execution Planner	406-478-3617
Andy Owens, EH & S Manager	903-245-2602
Frank Fuentes, Production Foreman	575-689-3363

**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:****For Lea County:**

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

**For Eddy County:**

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283



## **XTO Energy**

**EDDY COUNTY, NM (NAD-27 / NME)**

**RIGHT POPULAR 20 FED**

**412H**

**OH**

**Plan: PERMIT**

## **Standard Planning Report**

**08 December, 2023**





Project: EDDY COUNTY, NM (NAD-27 / NME)  
 Site: RIGHT POPULAR 20 FED  
 Well: 412H  
 Wellbore: OH  
 Design: PERMIT

PROJECT DETAILS: EDDY COUNTY, NM (NAD-27 / NME)  
 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: 412H

	+N/-S	+E/-W	North	East	Latitude	Longitude
Rig Name:						
RKB = 33' @ 3048.00usft (TBD)						
Ground Level:						
	0.00	0.00	407336.70	603890.80	32.1194403	-103.9977611

## SECTION DETAILS

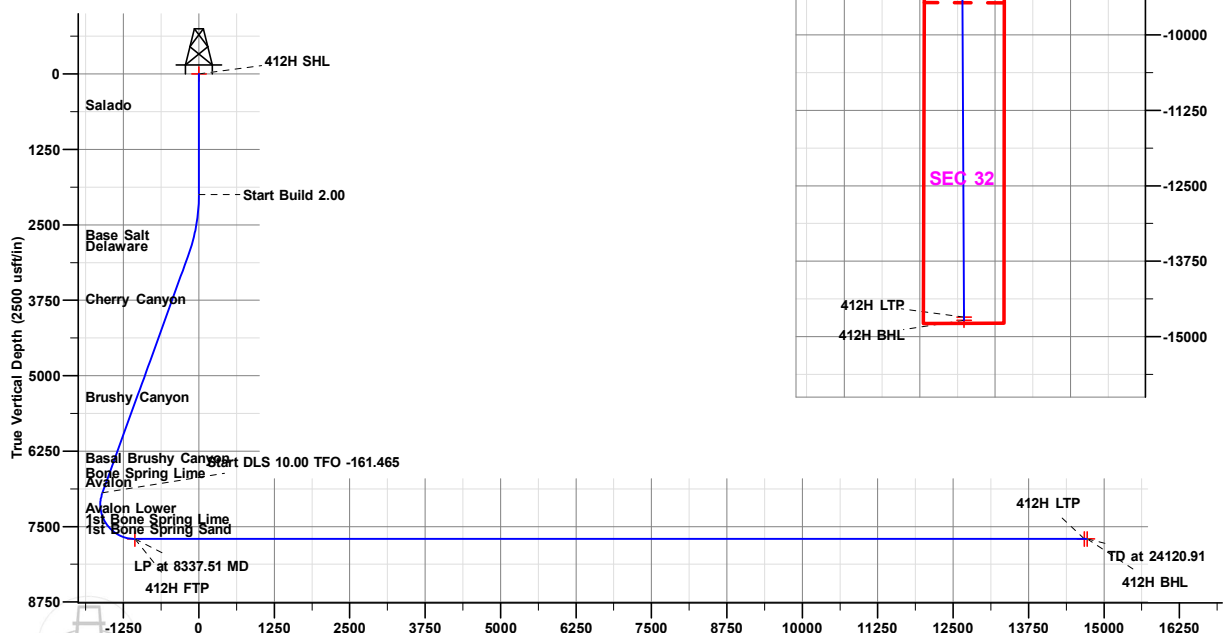
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	
3	3038.60	20.77	342.31	3016.00	177.41	-56.59	2.00	342.309	-177.69	
4	7239.71	20.77	342.31	6944.03	1596.88	-509.34	0.00	0.000	-1599.43	
5	8337.51	90.00	179.71	7706.00	1057.30	-593.10	10.00	-161.465	-1050.29	412H FTP
6	24070.91	90.00	179.71	7706.00	-14675.90	-514.65	0.00	0.000	14673.11	412H LTP
7	24120.91	90.00	179.71	7706.00	-14725.90	-514.40	0.00	0.000	14723.11	412H BHL

## DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	East	Latitude	Longitude
412H SHL	0.00	0.00	0.00	407336.70	603890.80	32.1194403	-103.9977611
412H BHL	7706.00	-14725.90	-514.40	392610.80	603376.40	32.0789631	-103.9995688
412H FTP	7706.00	1057.30	-593.10	408394.00	603297.70	32.1223519	-103.9996662
412H LTP	7706.00	-14675.90	-514.40	392660.80	603376.40	32.0791006	-103.9995693

## FORMATION TOP DETAILS

TVDPath	Formation
634.00	Salado
2788.00	Base Salt
2978.00	Delaware
3855.00	Cherry Canyon
5476.00	Brushy Canyon
6488.00	Basal Brushy Canyon
6741.00	Bone Spring Lime
6881.00	Avalon
7314.00	Avalon Lower
7505.00	1st Bone Spring Lime
7656.00	1st Bone Spring Sand
7706.00	LP



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Plan: PERMIT (412H/OH)

Created By: Matthew May Date: 18:56, December 08 2023

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

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

District III  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-015-</b>	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
<sup>4</sup> Property Code	<sup>5</sup> Property Name <b>RIGHT POPULAR 20 FED</b>	<sup>6</sup> Well Number <b>412H</b>
<sup>7</sup> OGRID No. <b>005380</b>	<sup>8</sup> Operator Name <b>XTO ENERGY, INC.</b>	<sup>9</sup> Elevation <b>3,015'</b>

## <sup>10</sup> Surface Location

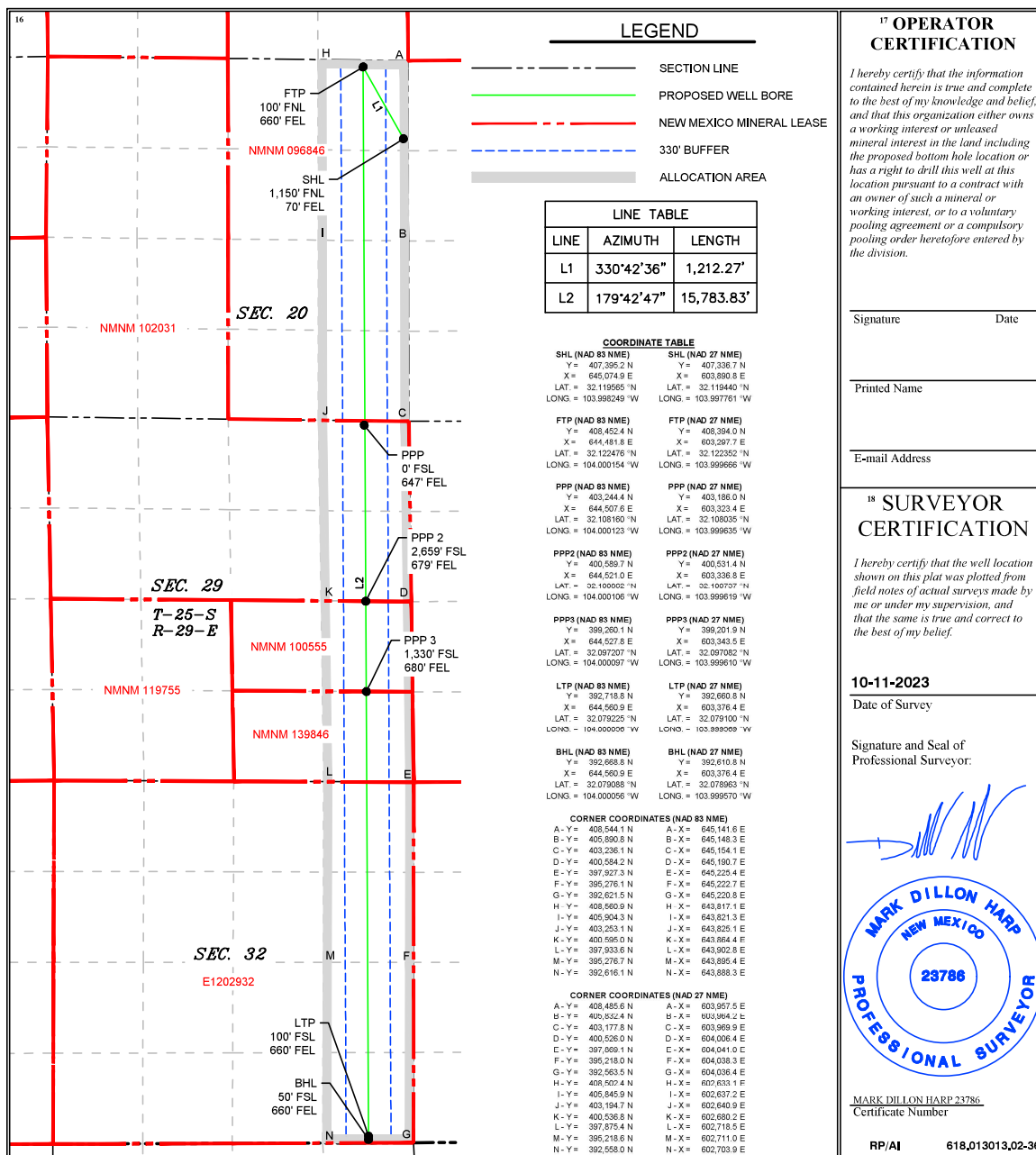
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>A</b>	<b>20</b>	<b>25 S</b>	<b>29 E</b>		<b>1,150</b>	<b>NORTH</b>	<b>70</b>	<b>EAST</b>	<b>EDDY</b>

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>P</b>	<b>32</b>	<b>25 S</b>	<b>29 E</b>		<b>50</b>	<b>SOUTH</b>	<b>660</b>	<b>EAST</b>	<b>EDDY</b>

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





## Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 412H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

<b>Project</b>	EDDY COUNTY, NM (NAD-27 / NME)		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	New Mexico East 3001		

Site		RIGHT POPULAR 20 FED			
Site Position:		Northing:	408,195.10 usft	Latitude:	32.1218286
From:	Map	Easting:	600,502.60 usft	Longitude:	-104.0086966
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.173

Well	412H					
Well Position	+N/-S	-858.40 usft	Northing:	407,336.70 usft	Latitude:	32.1194403
	+E/-W	3,388.20 usft	Easting:	603,890.80 usft	Longitude:	-103.9977611
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,015.00 usft

Design	PERMIT			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.71

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
3,038.60	20.77	342.31	3,016.00	177.41	-56.59	2.00	2.00	0.00	342.309	
7,239.71	20.77	342.31	6,944.04	1,596.88	-509.34	0.00	0.00	0.00	0.000	
8,337.52	90.00	179.71	7,706.00	1,057.30	-593.10	10.00	6.31	-14.81	-161.465	412H FTP
24,070.91	90.00	179.71	7,706.00	-14,675.90	-514.65	0.00	0.00	0.00	0.000	412H LTP
24,120.91	90.00	179.71	7,706.00	-14,725.90	-514.40	0.00	0.00	0.00	0.000	412H BHL



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<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>412H SHL</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
634.00	0.00	0.00	634.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Salado</b>									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	342.31	2,099.98	1.66	-0.53	-1.67	2.00	2.00	0.00
2,200.00	4.00	342.31	2,199.84	6.65	-2.12	-6.66	2.00	2.00	0.00
2,300.00	6.00	342.31	2,299.45	14.95	-4.77	-14.98	2.00	2.00	0.00
2,400.00	8.00	342.31	2,398.70	26.56	-8.47	-26.60	2.00	2.00	0.00
2,500.00	10.00	342.31	2,497.47	41.46	-13.23	-41.53	2.00	2.00	0.00
2,600.00	12.00	342.31	2,595.62	59.64	-19.02	-59.74	2.00	2.00	0.00
2,700.00	14.00	342.31	2,693.06	81.07	-25.86	-81.20	2.00	2.00	0.00
2,798.29	15.97	342.31	2,788.00	105.28	-33.58	-105.45	2.00	2.00	0.00
<b>Base Salt</b>									
2,800.00	16.00	342.31	2,789.64	105.73	-33.72	-105.90	2.00	2.00	0.00
2,900.00	18.00	342.31	2,885.27	133.58	-42.61	-133.80	2.00	2.00	0.00
2,998.07	19.96	342.31	2,978.00	163.97	-52.30	-164.23	2.00	2.00	0.00
<b>Delaware</b>									
3,000.00	20.00	342.31	2,979.82	164.60	-52.50	-164.86	2.00	2.00	0.00
3,038.60	20.77	342.31	3,016.00	177.41	-56.59	-177.69	2.00	2.00	0.00
3,100.00	20.77	342.31	3,073.41	198.15	-63.20	-198.47	0.00	0.00	0.00
3,200.00	20.77	342.31	3,166.91	231.94	-73.98	-232.31	0.00	0.00	0.00
3,300.00	20.77	342.31	3,260.41	265.73	-84.76	-266.16	0.00	0.00	0.00
3,400.00	20.77	342.31	3,353.91	299.52	-95.53	-300.00	0.00	0.00	0.00
3,500.00	20.77	342.31	3,447.41	333.31	-106.31	-333.84	0.00	0.00	0.00
3,600.00	20.77	342.31	3,540.91	367.09	-117.09	-367.68	0.00	0.00	0.00
3,700.00	20.77	342.31	3,634.41	400.88	-127.86	-401.52	0.00	0.00	0.00
3,800.00	20.77	342.31	3,727.91	434.67	-138.64	-435.37	0.00	0.00	0.00
3,900.00	20.77	342.31	3,821.41	468.46	-149.42	-469.21	0.00	0.00	0.00
3,935.93	20.77	342.31	3,855.00	480.60	-153.29	-481.37	0.00	0.00	0.00
<b>Cherry Canyon</b>									
4,000.00	20.77	342.31	3,914.91	502.25	-160.20	-503.05	0.00	0.00	0.00
4,100.00	20.77	342.31	4,008.41	536.03	-170.97	-536.89	0.00	0.00	0.00
4,200.00	20.77	342.31	4,101.91	569.82	-181.75	-570.73	0.00	0.00	0.00
4,300.00	20.77	342.31	4,195.41	603.61	-192.53	-604.58	0.00	0.00	0.00



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<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

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)
4,400.00	20.77	342.31	4,288.91	637.40	-203.30	-638.42	0.00	0.00	0.00
4,500.00	20.77	342.31	4,382.41	671.18	-214.08	-672.26	0.00	0.00	0.00
4,600.00	20.77	342.31	4,475.91	704.97	-224.86	-706.10	0.00	0.00	0.00
4,700.00	20.77	342.31	4,569.41	738.76	-235.63	-739.94	0.00	0.00	0.00
4,800.00	20.77	342.31	4,662.91	772.55	-246.41	-773.79	0.00	0.00	0.00
4,900.00	20.77	342.31	4,756.41	806.34	-257.19	-807.63	0.00	0.00	0.00
5,000.00	20.77	342.31	4,849.91	840.12	-267.97	-841.47	0.00	0.00	0.00
5,100.00	20.77	342.31	4,943.41	873.91	-278.74	-875.31	0.00	0.00	0.00
5,200.00	20.77	342.31	5,036.90	907.70	-289.52	-909.15	0.00	0.00	0.00
5,300.00	20.77	342.31	5,130.40	941.49	-300.30	-943.00	0.00	0.00	0.00
5,400.00	20.77	342.31	5,223.90	975.28	-311.07	-976.84	0.00	0.00	0.00
5,500.00	20.77	342.31	5,317.40	1,009.06	-321.85	-1,010.68	0.00	0.00	0.00
5,600.00	20.77	342.31	5,410.90	1,042.85	-332.63	-1,044.52	0.00	0.00	0.00
5,669.62	20.77	342.31	5,476.00	1,066.38	-340.13	-1,068.08	0.00	0.00	0.00
<b>Brushy Canyon</b>									
5,700.00	20.77	342.31	5,504.40	1,076.64	-343.40	-1,078.36	0.00	0.00	0.00
5,800.00	20.77	342.31	5,597.90	1,110.43	-354.18	-1,112.21	0.00	0.00	0.00
5,900.00	20.77	342.31	5,691.40	1,144.22	-364.96	-1,146.05	0.00	0.00	0.00
6,000.00	20.77	342.31	5,784.90	1,178.00	-375.73	-1,179.89	0.00	0.00	0.00
6,100.00	20.77	342.31	5,878.40	1,211.79	-386.51	-1,213.73	0.00	0.00	0.00
6,200.00	20.77	342.31	5,971.90	1,245.58	-397.29	-1,247.57	0.00	0.00	0.00
6,300.00	20.77	342.31	6,065.40	1,279.37	-408.07	-1,281.42	0.00	0.00	0.00
6,400.00	20.77	342.31	6,158.90	1,313.15	-418.84	-1,315.26	0.00	0.00	0.00
6,500.00	20.77	342.31	6,252.40	1,346.94	-429.62	-1,349.10	0.00	0.00	0.00
6,600.00	20.77	342.31	6,345.90	1,380.73	-440.40	-1,382.94	0.00	0.00	0.00
6,700.00	20.77	342.31	6,439.40	1,414.52	-451.17	-1,416.78	0.00	0.00	0.00
6,751.98	20.77	342.31	6,488.00	1,432.08	-456.77	-1,434.37	0.00	0.00	0.00
<b>Basal Brushy Canyon</b>									
6,800.00	20.77	342.31	6,532.90	1,448.31	-461.95	-1,450.63	0.00	0.00	0.00
6,900.00	20.77	342.31	6,626.40	1,482.09	-472.73	-1,484.47	0.00	0.00	0.00
7,000.00	20.77	342.31	6,719.90	1,515.88	-483.50	-1,518.31	0.00	0.00	0.00
7,022.56	20.77	342.31	6,741.00	1,523.51	-485.94	-1,525.95	0.00	0.00	0.00
<b>Bone Spring Lime</b>									
7,100.00	20.77	342.31	6,813.40	1,549.67	-494.28	-1,552.15	0.00	0.00	0.00
7,172.30	20.77	342.31	6,881.00	1,574.10	-502.07	-1,576.62	0.00	0.00	0.00
<b>Avalon</b>									
7,200.00	20.77	342.31	6,906.90	1,583.46	-505.06	-1,585.99	0.00	0.00	0.00
7,239.71	20.77	342.31	6,944.04	1,596.88	-509.34	-1,599.43	0.00	0.00	0.00
7,250.00	19.80	341.34	6,953.68	1,600.27	-510.45	-1,602.83	10.00	-9.46	-9.38
7,300.00	15.17	334.98	7,001.36	1,614.23	-515.93	-1,616.82	10.00	-9.25	-12.73
7,350.00	10.87	323.50	7,050.08	1,623.95	-521.50	-1,626.57	10.00	-8.60	-22.97
7,400.00	7.48	299.90	7,099.45	1,629.37	-527.13	-1,632.01	10.00	-6.79	-47.20
7,450.00	6.59	258.77	7,149.10	1,630.43	-532.77	-1,633.11	10.00	-1.77	-82.25
7,500.00	8.99	225.55	7,198.66	1,627.13	-538.38	-1,629.84	10.00	4.79	-66.44
7,550.00	12.96	209.26	7,247.75	1,619.50	-543.91	-1,622.24	10.00	7.94	-32.58
7,600.00	17.46	200.86	7,295.99	1,607.60	-549.32	-1,610.36	10.00	9.00	-16.80
7,618.98	19.23	198.70	7,314.00	1,601.98	-551.34	-1,604.75	10.00	9.33	-11.41
<b>Avalon Lower</b>									
7,650.00	22.17	195.88	7,343.02	1,591.51	-554.58	-1,594.29	10.00	9.47	-9.07
7,700.00	26.98	192.59	7,388.48	1,571.35	-559.64	-1,574.16	10.00	9.62	-6.58
7,750.00	31.85	190.24	7,432.02	1,547.29	-564.46	-1,550.12	10.00	9.73	-4.70
7,800.00	36.74	188.46	7,473.32	1,519.49	-569.00	-1,522.35	10.00	9.80	-3.57
7,840.63	40.74	187.28	7,505.00	1,494.31	-572.47	-1,497.19	10.00	9.84	-2.89



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<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

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)
<b>1st Bone Spring Lime</b>									
7,850.00	41.66	187.04	7,512.05	1,488.19	-573.24	-1,491.07	10.00	9.85	-2.60
7,900.00	46.60	185.87	7,547.93	1,453.60	-577.14	-1,456.51	10.00	9.87	-2.33
7,950.00	51.54	184.88	7,580.68	1,416.01	-580.67	-1,418.93	10.00	9.89	-1.98
8,000.00	56.49	184.02	7,610.05	1,375.68	-583.80	-1,378.62	10.00	9.90	-1.72
8,050.00	61.45	183.25	7,635.81	1,332.94	-586.51	-1,335.89	10.00	9.91	-1.54
8,095.59	65.97	182.61	7,656.00	1,292.13	-588.60	-1,295.09	10.00	9.92	-1.40
<b>1st Bone Spring Sand</b>									
8,100.00	66.41	182.55	7,657.78	1,288.09	-588.78	-1,291.06	10.00	9.92	-1.35
8,150.00	71.37	181.91	7,675.78	1,241.50	-590.59	-1,244.47	10.00	9.93	-1.30
8,200.00	76.34	181.29	7,689.68	1,193.51	-591.93	-1,196.49	10.00	9.93	-1.22
8,250.00	81.30	180.71	7,699.37	1,144.48	-592.78	-1,147.46	10.00	9.93	-1.17
8,300.00	86.27	180.14	7,704.78	1,094.79	-593.15	-1,097.78	10.00	9.94	-1.14
8,337.52	90.00	179.71	7,706.00	1,057.30	-593.10	-1,060.29	10.00	9.94	-1.13
<b>LP - 412H FTP</b>									
8,400.00	90.00	179.71	7,706.00	994.82	-592.79	-997.80	0.00	0.00	0.00
8,500.00	90.00	179.71	7,706.00	894.82	-592.29	-897.80	0.00	0.00	0.00
8,600.00	90.00	179.71	7,706.00	794.82	-591.79	-797.80	0.00	0.00	0.00
8,700.00	90.00	179.71	7,706.00	694.82	-591.29	-697.80	0.00	0.00	0.00
8,800.00	90.00	179.71	7,706.00	594.82	-590.79	-597.80	0.00	0.00	0.00
8,900.00	90.00	179.71	7,706.00	494.82	-590.30	-497.80	0.00	0.00	0.00
9,000.00	90.00	179.71	7,706.00	394.82	-589.80	-397.80	0.00	0.00	0.00
9,100.00	90.00	179.71	7,706.00	294.82	-589.30	-297.80	0.00	0.00	0.00
9,200.00	90.00	179.71	7,706.00	194.83	-588.80	-197.80	0.00	0.00	0.00
9,300.00	90.00	179.71	7,706.00	94.83	-588.30	-97.80	0.00	0.00	0.00
9,400.00	90.00	179.71	7,706.00	-5.17	-587.80	2.20	0.00	0.00	0.00
9,500.00	90.00	179.71	7,706.00	-105.17	-587.30	102.20	0.00	0.00	0.00
9,600.00	90.00	179.71	7,706.00	-205.17	-586.80	202.20	0.00	0.00	0.00
9,700.00	90.00	179.71	7,706.00	-305.17	-586.31	302.20	0.00	0.00	0.00
9,800.00	90.00	179.71	7,706.00	-405.17	-585.81	402.20	0.00	0.00	0.00
9,900.00	90.00	179.71	7,706.00	-505.17	-585.31	502.20	0.00	0.00	0.00
10,000.00	90.00	179.71	7,706.00	-605.16	-584.81	602.20	0.00	0.00	0.00
10,100.00	90.00	179.71	7,706.00	-705.16	-584.31	702.20	0.00	0.00	0.00
10,200.00	90.00	179.71	7,706.00	-805.16	-583.81	802.20	0.00	0.00	0.00
10,300.00	90.00	179.71	7,706.00	-905.16	-583.31	902.20	0.00	0.00	0.00
10,400.00	90.00	179.71	7,706.00	-1,005.16	-582.82	1,002.20	0.00	0.00	0.00
10,500.00	90.00	179.71	7,706.00	-1,105.16	-582.32	1,102.20	0.00	0.00	0.00
10,600.00	90.00	179.71	7,706.00	-1,205.16	-581.82	1,202.20	0.00	0.00	0.00
10,700.00	90.00	179.71	7,706.00	-1,305.16	-581.32	1,302.20	0.00	0.00	0.00
10,800.00	90.00	179.71	7,706.00	-1,405.15	-580.82	1,402.20	0.00	0.00	0.00
10,900.00	90.00	179.71	7,706.00	-1,505.15	-580.32	1,502.20	0.00	0.00	0.00
11,000.00	90.00	179.71	7,706.00	-1,605.15	-579.82	1,602.20	0.00	0.00	0.00
11,100.00	90.00	179.71	7,706.00	-1,705.15	-579.33	1,702.20	0.00	0.00	0.00
11,200.00	90.00	179.71	7,706.00	-1,805.15	-578.83	1,802.20	0.00	0.00	0.00
11,300.00	90.00	179.71	7,706.00	-1,905.15	-578.33	1,902.20	0.00	0.00	0.00
11,400.00	90.00	179.71	7,706.00	-2,005.15	-577.83	2,002.20	0.00	0.00	0.00
11,500.00	90.00	179.71	7,706.00	-2,105.15	-577.33	2,102.20	0.00	0.00	0.00
11,600.00	90.00	179.71	7,706.00	-2,205.14	-576.83	2,202.20	0.00	0.00	0.00
11,700.00	90.00	179.71	7,706.00	-2,305.14	-576.33	2,302.20	0.00	0.00	0.00
11,800.00	90.00	179.71	7,706.00	-2,405.14	-575.84	2,402.20	0.00	0.00	0.00
11,900.00	90.00	179.71	7,706.00	-2,505.14	-575.34	2,502.20	0.00	0.00	0.00
12,000.00	90.00	179.71	7,706.00	-2,605.14	-574.84	2,602.20	0.00	0.00	0.00
12,100.00	90.00	179.71	7,706.00	-2,705.14	-574.34	2,702.20	0.00	0.00	0.00





## Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 412H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
12,200.00	90.00	179.71	7,706.00	-2,805.14	-573.84	2,802.20	0.00	0.00	0.00	
12,300.00	90.00	179.71	7,706.00	-2,905.14	-573.34	2,902.20	0.00	0.00	0.00	
12,400.00	90.00	179.71	7,706.00	-3,005.13	-572.84	3,002.20	0.00	0.00	0.00	
12,500.00	90.00	179.71	7,706.00	-3,105.13	-572.34	3,102.20	0.00	0.00	0.00	
12,600.00	90.00	179.71	7,706.00	-3,205.13	-571.85	3,202.20	0.00	0.00	0.00	
12,700.00	90.00	179.71	7,706.00	-3,305.13	-571.35	3,302.20	0.00	0.00	0.00	
12,800.00	90.00	179.71	7,706.00	-3,405.13	-570.85	3,402.20	0.00	0.00	0.00	
12,900.00	90.00	179.71	7,706.00	-3,505.13	-570.35	3,502.20	0.00	0.00	0.00	
13,000.00	90.00	179.71	7,706.00	-3,605.13	-569.85	3,602.20	0.00	0.00	0.00	
13,100.00	90.00	179.71	7,706.00	-3,705.13	-569.35	3,702.20	0.00	0.00	0.00	
13,200.00	90.00	179.71	7,706.00	-3,805.12	-568.85	3,802.20	0.00	0.00	0.00	
13,300.00	90.00	179.71	7,706.00	-3,905.12	-568.36	3,902.20	0.00	0.00	0.00	
13,400.00	90.00	179.71	7,706.00	-4,005.12	-567.86	4,002.20	0.00	0.00	0.00	
13,500.00	90.00	179.71	7,706.00	-4,105.12	-567.36	4,102.20	0.00	0.00	0.00	
13,600.00	90.00	179.71	7,706.00	-4,205.12	-566.86	4,202.20	0.00	0.00	0.00	
13,700.00	90.00	179.71	7,706.00	-4,305.12	-566.36	4,302.20	0.00	0.00	0.00	
13,800.00	90.00	179.71	7,706.00	-4,405.12	-565.86	4,402.20	0.00	0.00	0.00	
13,900.00	90.00	179.71	7,706.00	-4,505.12	-565.36	4,502.20	0.00	0.00	0.00	
14,000.00	90.00	179.71	7,706.00	-4,605.11	-564.87	4,602.20	0.00	0.00	0.00	
14,100.00	90.00	179.71	7,706.00	-4,705.11	-564.37	4,702.20	0.00	0.00	0.00	
14,200.00	90.00	179.71	7,706.00	-4,805.11	-563.87	4,802.20	0.00	0.00	0.00	
14,300.00	90.00	179.71	7,706.00	-4,905.11	-563.37	4,902.20	0.00	0.00	0.00	
14,400.00	90.00	179.71	7,706.00	-5,005.11	-562.87	5,002.20	0.00	0.00	0.00	
14,500.00	90.00	179.71	7,706.00	-5,105.11	-562.37	5,102.20	0.00	0.00	0.00	
14,600.00	90.00	179.71	7,706.00	-5,205.11	-561.87	5,202.20	0.00	0.00	0.00	
14,700.00	90.00	179.71	7,706.00	-5,305.11	-561.38	5,302.20	0.00	0.00	0.00	
14,800.00	90.00	179.71	7,706.00	-5,405.10	-560.88	5,402.20	0.00	0.00	0.00	
14,900.00	90.00	179.71	7,706.00	-5,505.10	-560.38	5,502.20	0.00	0.00	0.00	
15,000.00	90.00	179.71	7,706.00	-5,605.10	-559.88	5,602.20	0.00	0.00	0.00	
15,100.00	90.00	179.71	7,706.00	-5,705.10	-559.38	5,702.20	0.00	0.00	0.00	
15,200.00	90.00	179.71	7,706.00	-5,805.10	-558.88	5,802.20	0.00	0.00	0.00	
15,300.00	90.00	179.71	7,706.00	-5,905.10	-558.38	5,902.20	0.00	0.00	0.00	
15,400.00	90.00	179.71	7,706.00	-6,005.10	-557.88	6,002.20	0.00	0.00	0.00	
15,500.00	90.00	179.71	7,706.00	-6,105.10	-557.39	6,102.20	0.00	0.00	0.00	
15,600.00	90.00	179.71	7,706.00	-6,205.09	-556.89	6,202.20	0.00	0.00	0.00	
15,700.00	90.00	179.71	7,706.00	-6,305.09	-556.39	6,302.20	0.00	0.00	0.00	
15,800.00	90.00	179.71	7,706.00	-6,405.09	-555.89	6,402.20	0.00	0.00	0.00	
15,900.00	90.00	179.71	7,706.00	-6,505.09	-555.39	6,502.20	0.00	0.00	0.00	
16,000.00	90.00	179.71	7,706.00	-6,605.09	-554.89	6,602.20	0.00	0.00	0.00	
16,100.00	90.00	179.71	7,706.00	-6,705.09	-554.39	6,702.20	0.00	0.00	0.00	
16,200.00	90.00	179.71	7,706.00	-6,805.09	-553.90	6,802.20	0.00	0.00	0.00	
16,300.00	90.00	179.71	7,706.00	-6,905.09	-553.40	6,902.20	0.00	0.00	0.00	
16,400.00	90.00	179.71	7,706.00	-7,005.09	-552.90	7,002.20	0.00	0.00	0.00	
16,500.00	90.00	179.71	7,706.00	-7,105.08	-552.40	7,102.20	0.00	0.00	0.00	
16,600.00	90.00	179.71	7,706.00	-7,205.08	-551.90	7,202.20	0.00	0.00	0.00	
16,700.00	90.00	179.71	7,706.00	-7,305.08	-551.40	7,302.20	0.00	0.00	0.00	
16,800.00	90.00	179.71	7,706.00	-7,405.08	-550.90	7,402.20	0.00	0.00	0.00	
16,900.00	90.00	179.71	7,706.00	-7,505.08	-550.41	7,502.20	0.00	0.00	0.00	
17,000.00	90.00	179.71	7,706.00	-7,605.08	-549.91	7,602.20	0.00	0.00	0.00	
17,100.00	90.00	179.71	7,706.00	-7,705.08	-549.41	7,702.20	0.00	0.00	0.00	
17,200.00	90.00	179.71	7,706.00	-7,805.08	-548.91	7,802.20	0.00	0.00	0.00	
17,300.00	90.00	179.71	7,706.00	-7,905.07	-548.41	7,902.20	0.00	0.00	0.00	
17,400.00	90.00	179.71	7,706.00	-8,005.07	-547.91	8,002.20	0.00	0.00	0.00	
17,500.00	90.00	179.71	7,706.00	-8,105.07	-547.41	8,102.20	0.00	0.00	0.00	



## Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 412H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

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)
17,600.00	90.00	179.71	7,706.00	-8,205.07	-546.91	8,202.20	0.00	0.00	0.00
17,700.00	90.00	179.71	7,706.00	-8,305.07	-546.42	8,302.20	0.00	0.00	0.00
17,800.00	90.00	179.71	7,706.00	-8,405.07	-545.92	8,402.20	0.00	0.00	0.00
17,900.00	90.00	179.71	7,706.00	-8,505.07	-545.42	8,502.20	0.00	0.00	0.00
18,000.00	90.00	179.71	7,706.00	-8,605.07	-544.92	8,602.20	0.00	0.00	0.00
18,100.00	90.00	179.71	7,706.00	-8,705.06	-544.42	8,702.20	0.00	0.00	0.00
18,200.00	90.00	179.71	7,706.00	-8,805.06	-543.92	8,802.20	0.00	0.00	0.00
18,300.00	90.00	179.71	7,706.00	-8,905.06	-543.42	8,902.20	0.00	0.00	0.00
18,400.00	90.00	179.71	7,706.00	-9,005.06	-542.93	9,002.20	0.00	0.00	0.00
18,500.00	90.00	179.71	7,706.00	-9,105.06	-542.43	9,102.20	0.00	0.00	0.00
18,600.00	90.00	179.71	7,706.00	-9,205.06	-541.93	9,202.20	0.00	0.00	0.00
18,700.00	90.00	179.71	7,706.00	-9,305.06	-541.43	9,302.20	0.00	0.00	0.00
18,800.00	90.00	179.71	7,706.00	-9,405.06	-540.93	9,402.20	0.00	0.00	0.00
18,900.00	90.00	179.71	7,706.00	-9,505.05	-540.43	9,502.20	0.00	0.00	0.00
19,000.00	90.00	179.71	7,706.00	-9,605.05	-539.93	9,602.20	0.00	0.00	0.00
19,100.00	90.00	179.71	7,706.00	-9,705.05	-539.44	9,702.20	0.00	0.00	0.00
19,200.00	90.00	179.71	7,706.00	-9,805.05	-538.94	9,802.20	0.00	0.00	0.00
19,300.00	90.00	179.71	7,706.00	-9,905.05	-538.44	9,902.20	0.00	0.00	0.00
19,400.00	90.00	179.71	7,706.00	-10,005.05	-537.94	10,002.20	0.00	0.00	0.00
19,500.00	90.00	179.71	7,706.00	-10,105.05	-537.44	10,102.20	0.00	0.00	0.00
19,600.00	90.00	179.71	7,706.00	-10,205.05	-536.94	10,202.20	0.00	0.00	0.00
19,700.00	90.00	179.71	7,706.00	-10,305.04	-536.44	10,302.20	0.00	0.00	0.00
19,800.00	90.00	179.71	7,706.00	-10,405.04	-535.95	10,402.20	0.00	0.00	0.00
19,900.00	90.00	179.71	7,706.00	-10,505.04	-535.45	10,502.20	0.00	0.00	0.00
20,000.00	90.00	179.71	7,706.00	-10,605.04	-534.95	10,602.20	0.00	0.00	0.00
20,100.00	90.00	179.71	7,706.00	-10,705.04	-534.45	10,702.20	0.00	0.00	0.00
20,200.00	90.00	179.71	7,706.00	-10,805.04	-533.95	10,802.20	0.00	0.00	0.00
20,300.00	90.00	179.71	7,706.00	-10,905.04	-533.45	10,902.20	0.00	0.00	0.00
20,400.00	90.00	179.71	7,706.00	-11,005.04	-532.95	11,002.20	0.00	0.00	0.00
20,500.00	90.00	179.71	7,706.00	-11,105.03	-532.45	11,102.20	0.00	0.00	0.00
20,600.00	90.00	179.71	7,706.00	-11,205.03	-531.96	11,202.20	0.00	0.00	0.00
20,700.00	90.00	179.71	7,706.00	-11,305.03	-531.46	11,302.20	0.00	0.00	0.00
20,800.00	90.00	179.71	7,706.00	-11,405.03	-530.96	11,402.20	0.00	0.00	0.00
20,900.00	90.00	179.71	7,706.00	-11,505.03	-530.46	11,502.20	0.00	0.00	0.00
21,000.00	90.00	179.71	7,706.00	-11,605.03	-529.96	11,602.20	0.00	0.00	0.00
21,100.00	90.00	179.71	7,706.00	-11,705.03	-529.46	11,702.20	0.00	0.00	0.00
21,200.00	90.00	179.71	7,706.00	-11,805.03	-528.96	11,802.20	0.00	0.00	0.00
21,300.00	90.00	179.71	7,706.00	-11,905.02	-528.47	11,902.20	0.00	0.00	0.00
21,400.00	90.00	179.71	7,706.00	-12,005.02	-527.97	12,002.20	0.00	0.00	0.00
21,500.00	90.00	179.71	7,706.00	-12,105.02	-527.47	12,102.20	0.00	0.00	0.00
21,600.00	90.00	179.71	7,706.00	-12,205.02	-526.97	12,202.20	0.00	0.00	0.00
21,700.00	90.00	179.71	7,706.00	-12,305.02	-526.47	12,302.20	0.00	0.00	0.00
21,800.00	90.00	179.71	7,706.00	-12,405.02	-525.97	12,402.20	0.00	0.00	0.00
21,900.00	90.00	179.71	7,706.00	-12,505.02	-525.47	12,502.20	0.00	0.00	0.00
22,000.00	90.00	179.71	7,706.00	-12,605.02	-524.98	12,602.20	0.00	0.00	0.00
22,100.00	90.00	179.71	7,706.00	-12,705.01	-524.48	12,702.20	0.00	0.00	0.00
22,200.00	90.00	179.71	7,706.00	-12,805.01	-523.98	12,802.20	0.00	0.00	0.00
22,300.00	90.00	179.71	7,706.00	-12,905.01	-523.48	12,902.20	0.00	0.00	0.00
22,400.00	90.00	179.71	7,706.00	-13,005.01	-522.98	13,002.20	0.00	0.00	0.00
22,500.00	90.00	179.71	7,706.00	-13,105.01	-522.48	13,102.20	0.00	0.00	0.00
22,600.00	90.00	179.71	7,706.00	-13,205.01	-521.98	13,202.20	0.00	0.00	0.00
22,700.00	90.00	179.71	7,706.00	-13,305.01	-521.49	13,302.20	0.00	0.00	0.00
22,800.00	90.00	179.71	7,706.00	-13,405.01	-520.99	13,402.20	0.00	0.00	0.00
22,900.00	90.00	179.71	7,706.00	-13,505.00	-520.49	13,502.20	0.00	0.00	0.00





## Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 412H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

## 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)
23,000.00	90.00	179.71	7,706.00	-13,605.00	-519.99	13,602.20	0.00	0.00	0.00
23,100.00	90.00	179.71	7,706.00	-13,705.00	-519.49	13,702.20	0.00	0.00	0.00
23,200.00	90.00	179.71	7,706.00	-13,805.00	-518.99	13,802.20	0.00	0.00	0.00
23,300.00	90.00	179.71	7,706.00	-13,905.00	-518.49	13,902.20	0.00	0.00	0.00
23,400.00	90.00	179.71	7,706.00	-14,005.00	-517.99	14,002.20	0.00	0.00	0.00
23,500.00	90.00	179.71	7,706.00	-14,105.00	-517.50	14,102.20	0.00	0.00	0.00
23,600.00	90.00	179.71	7,706.00	-14,205.00	-517.00	14,202.20	0.00	0.00	0.00
23,700.00	90.00	179.71	7,706.00	-14,304.99	-516.50	14,302.20	0.00	0.00	0.00
23,800.00	90.00	179.71	7,706.00	-14,404.99	-516.00	14,402.20	0.00	0.00	0.00
23,900.00	90.00	179.71	7,706.00	-14,504.99	-515.50	14,502.20	0.00	0.00	0.00
24,000.00	90.00	179.71	7,706.00	-14,604.99	-515.00	14,602.20	0.00	0.00	0.00
24,070.91	90.00	179.71	7,706.00	-14,675.90	-514.65	14,673.11	0.00	0.00	0.00
<b>412H LTP</b>									
24,100.00	90.00	179.71	7,706.00	-14,704.99	-514.50	14,702.20	0.00	0.00	0.00
24,120.91	90.00	179.71	7,706.00	-14,725.90	-514.40	14,723.11	0.00	0.00	0.00
<b>412H BHL</b>									

## Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
412H SHL	0.00	0.00	0.00	0.00	0.00	407,336.70	603,890.80	32.1194403	-103.9977611
- plan hits target center									
- Point									
412H BHL	0.00	0.00	7,706.00	-14,725.90	-514.40	392,610.80	603,376.40	32.0789632	-103.9995698
- plan hits target center									
- Point									
412H FTP	0.00	0.00	7,706.00	1,057.30	-593.10	408,394.00	603,297.70	32.1223519	-103.9996662
- plan hits target center									
- Point									
412H LTP	0.00	0.00	7,706.00	-14,675.90	-514.40	392,660.80	603,376.40	32.0791006	-103.9995693
- plan misses target center by 0.25usft at 24070.91usft MD (7706.00 TVD, -14675.90 N, -514.65 E)									
- Point									



## Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 412H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27 / NME)	<b>MD Reference:</b>	RKB = 33' @ 3048.00usft (TBD)
<b>Site:</b>	RIGHT POPULAR 20 FED	<b>North Reference:</b>	Grid
<b>Well:</b>	412H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PERMIT		

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
634.00	634.00	Salado			
2,798.29	2,788.00	Base Salt			
2,998.07	2,978.00	Delaware			
3,935.93	3,855.00	Cherry Canyon			
5,669.62	5,476.00	Brushy Canyon			
6,751.98	6,488.00	Basal Brushy Canyon			
7,022.56	6,741.00	Bone Spring Lime			
7,172.30	6,881.00	Avalon			
7,618.98	7,314.00	Avalon Lower			
7,840.63	7,505.00	1st Bone Spring Lime			
8,095.59	7,656.00	1st Bone Spring Sand			
8,337.52	7,706.00	LP			

### **Cement Variance Request**

#### **Intermediate Casing:**

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (5476') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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

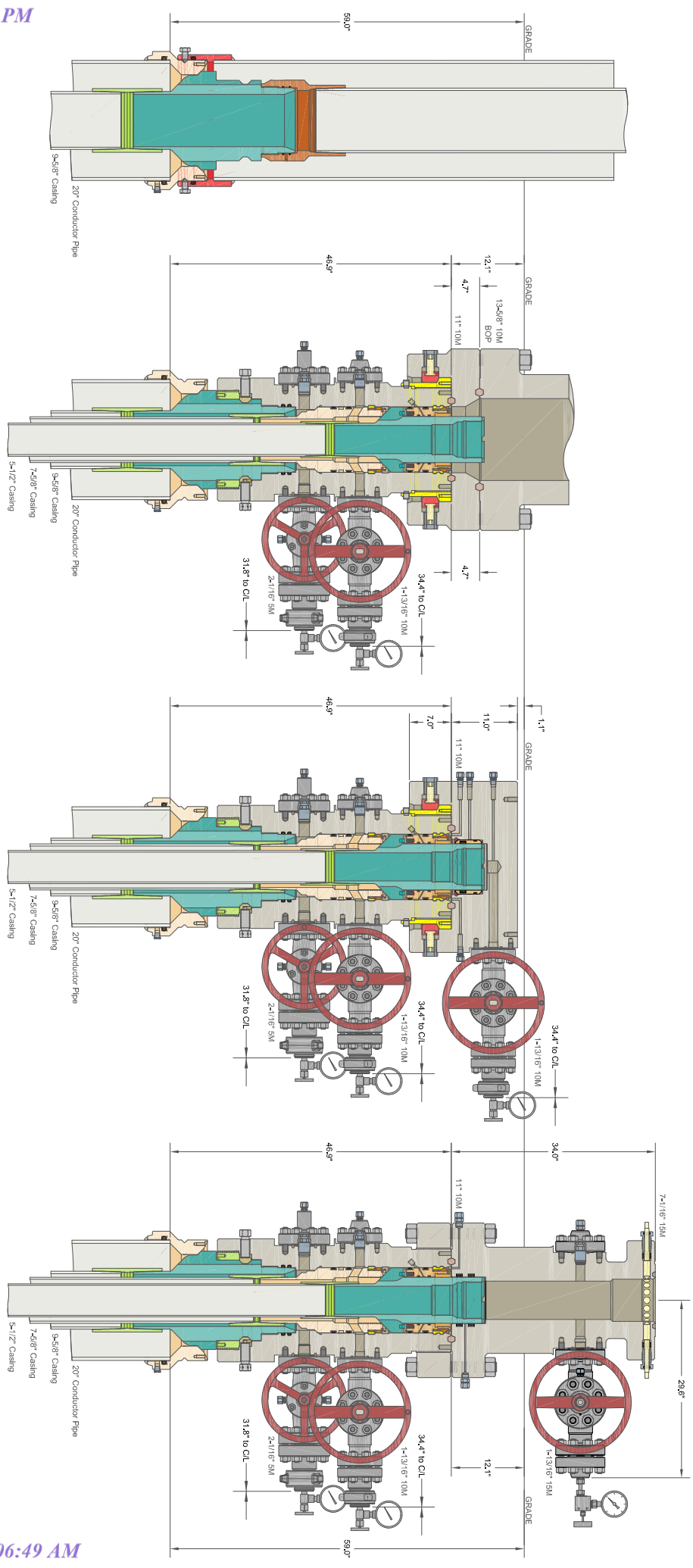
XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

#### **Production Casing:**

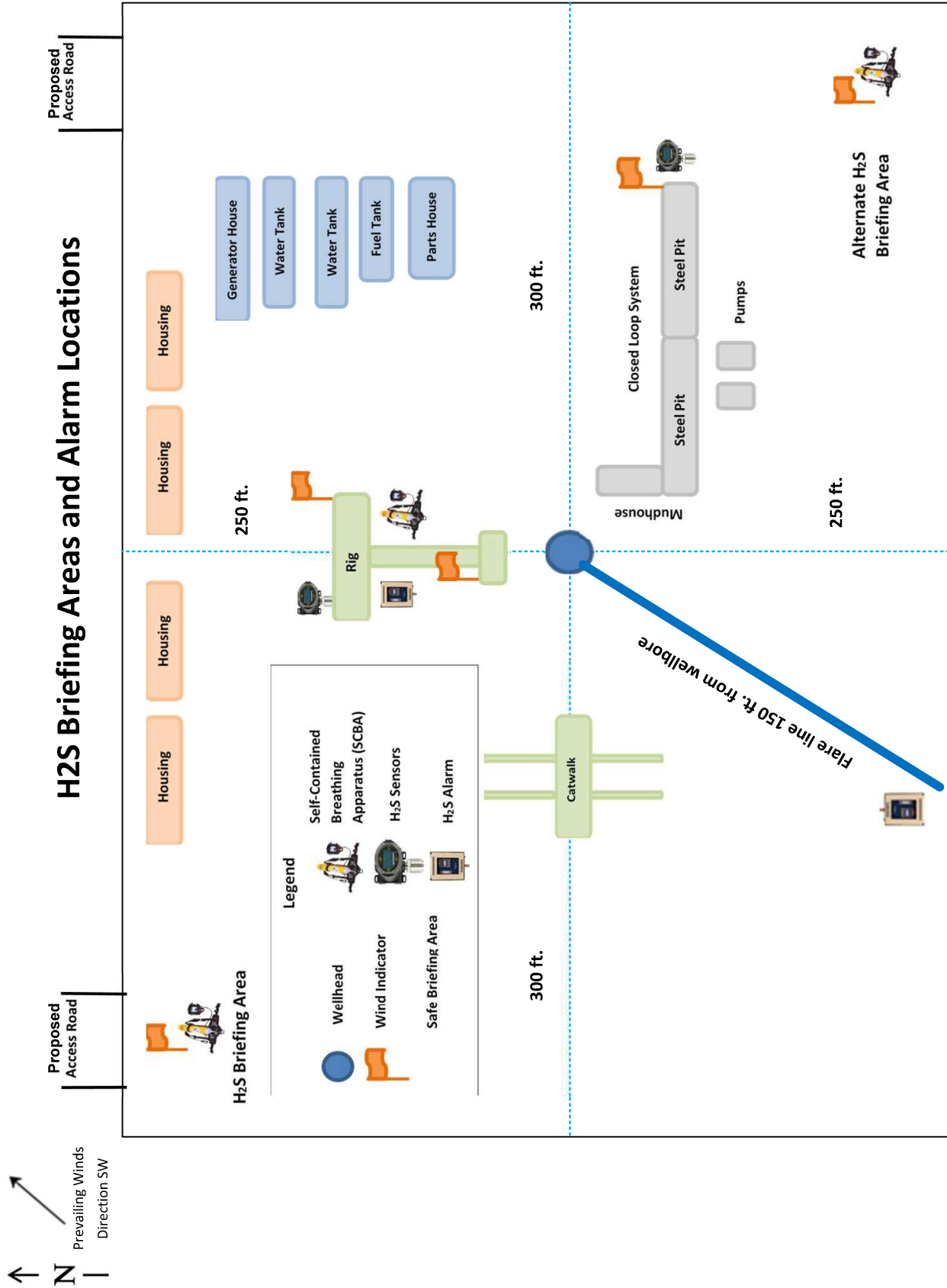
XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

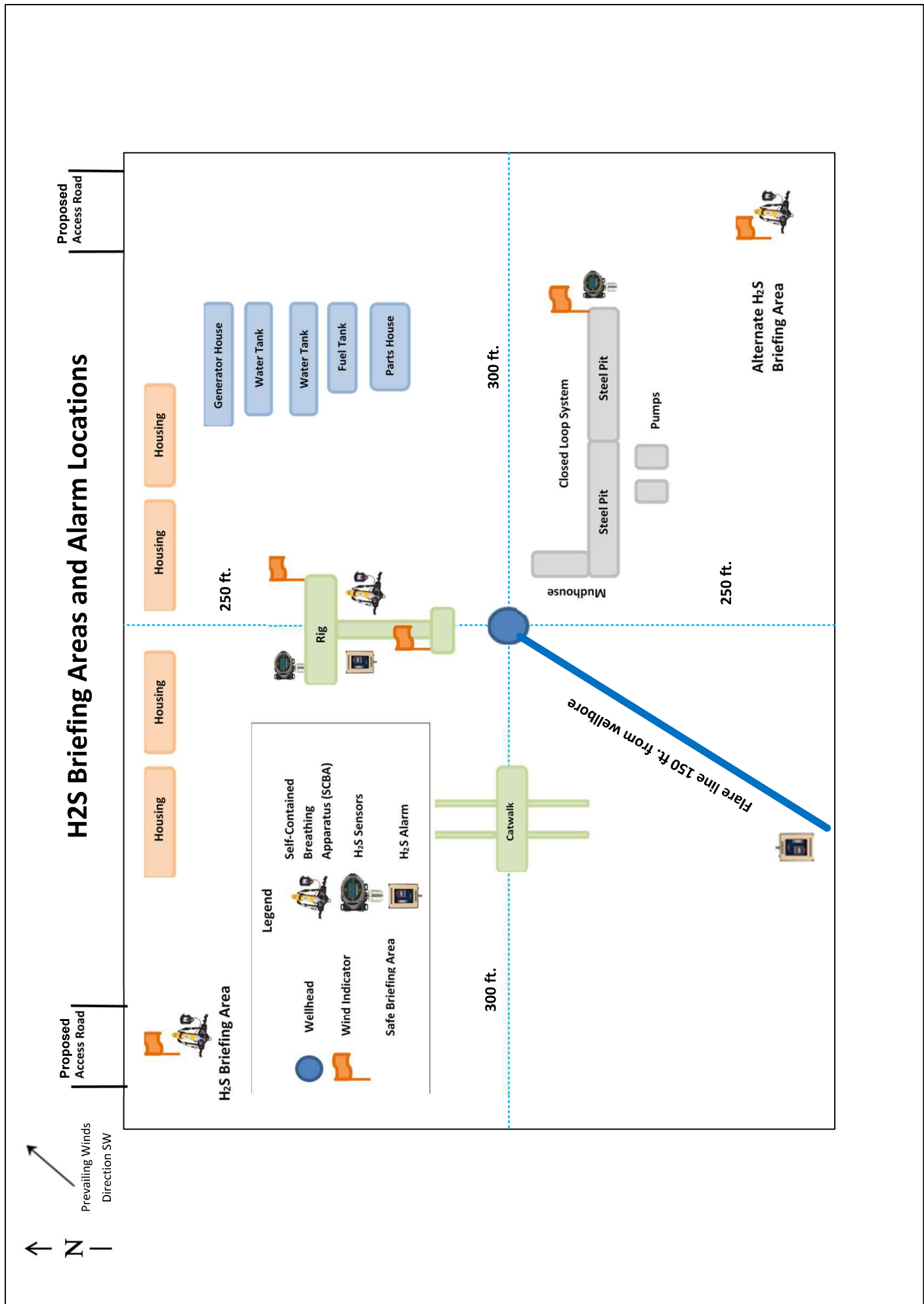
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CACTUS WELLHEAD LLC		ALL DIMENSIONS APPROXIMATE	
20" x 9-5/8" x 7-5/8" x 5-1/2" MBU-T-CFL-R-DBLO Wellhead With 11" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head And 9-5/8" 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers		XTO ENERGY INC ICARUS PAD	
DRAWN	DLE	18JAN22	
APPROV			
DRAWING NO.	HBE0000479		

# H2S Briefing Areas and Alarm Locations





State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Electronically  
Via E-permitting

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

## NATURAL GAS MANAGEMENT PLAN

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

### Section 1 – Plan Description

Effective May 25, 2021

**I. Operator:** XTO Energy Inc. **OGRID:** 005380 **Date:** 01 / 24 / 2025

**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: \_\_\_\_\_

**III. Well(s):** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	AP I	ULST R	Footage s	Anticipate d Oil BBL/D	3 yr Anticipate d Decline oil BBL/D	Anticipate d Gas MCF/D	3 yr anticipate d decline Gas MCF/D	Anticipate d Produced Water BBL/D	3 yr anticipate d decline Water BBL/D
Right Popular 20 Fed 101H		20 25S 29E	255 FNL, 374 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 102H		20 25S 29E	255 FNL, 404 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 103H		20 25S 29E	255 FNL, 434 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 104H		20 25S 29E	255 FNL, 464 FWL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 105H		20 25S 29E	255 FNL, 494 FWL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 106H		20 25S 29E	255 FNL, 524 FWL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 201H		20 25S 29E	244 FNL, 1850 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 204H		20 25S 29E	274 FNL, 1850 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 207H		20 25S 29E	304 FNL, 1849 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 210H		20 25S 29E	333 FNL, 1848 FWL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 301H		20 25S 29E	260 FNL, 2598 FWL	2,100	250	9,000	1,400	8,500	950

Right Popular 20 Fed 302H		20 25S 29E	263 FNL, 2555 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 303H		20 25S 29E	268 FNL, 2405 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 304H		20 25S 29E	290 FNL, 2597 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 305H		20 25S 29E	293 FNL, 2556 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 306H		20 25S 29E	298 FNL, 2406 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 307H		20 25S 29E	320 FNL, 2596 FWL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 308H		20 25S 29E	323 FNL, 2557 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 309H		20 25S 29E	327 FNL, 2408 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 310H		20 25S 29E	350 FNL, 2595 FWL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 311H		20 25S 29E	353 FNL, 2559 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 312H		20 25S 29E	357 FNL, 2409 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 401H		20 25S 29E	1064 FNL, 370 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 403H		20 25S 29E	1060 FNL, 70 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 404H		20 25S 29E	1094 FNL, 370 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 406H		20 25S 29E	1090 FNL, 70 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 407H		20 25S 29E	1124 FNL, 370 FEL	2,100	250	9,000	1,400	8,500	950
Right Popular 20 Fed 409H		20 25S 29E	1120 FNL, 70 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 410H		20 25S 29E	1154 FNL, 370 FEL	2,300	250	3,750	1,000	4,500	500
Right Popular 20 Fed 412H		20 25S 29E	1150 FNL, 70 FEL	2,300	250	3,750	1,000	4,500	500

IV. Central Delivery Point Name: CVB20/Hawkeye CDP [See 19.15.27.9(D)(1) NMAC]



**V. Anticipated Schedule:** Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Right Popular 20 Fed 101H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 102H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 103H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 104H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 105H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 106H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 201H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 204H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 207H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 210H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 301H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 302H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 303H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 304H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 305H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 306H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 307H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 308H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 309H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 310H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 311H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 312H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 401H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 403H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 404H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 406H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 407H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 409H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 410H	TBD	TBD	TBD	TBD	TBD	TBD
Right Popular 20 Fed 412H	TBD	TBD	TBD	TBD	TBD	TBD

**VI. Separation Equipment:** ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

**VII. Operational Practices:** ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

**VIII. Best Management Practices:** ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

**Section 2 – Enhanced Plan**  
**EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

**IX. Anticipated Natural Gas Production:**

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

**X. Natural Gas Gathering System (NGGS):**

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

**XI. Map.** ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

**XII. Line Capacity.** The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

**XIII. Line Pressure.** Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

**XIV. Confidentiality:** ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

### **Section 3 - Certifications**

**Effective May 25, 2021**

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

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

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

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

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

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

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

## Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

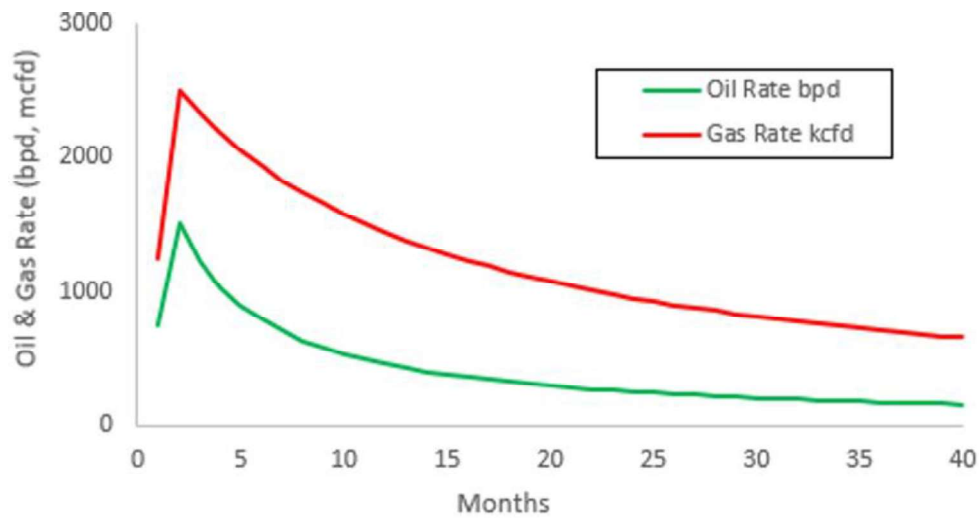
(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

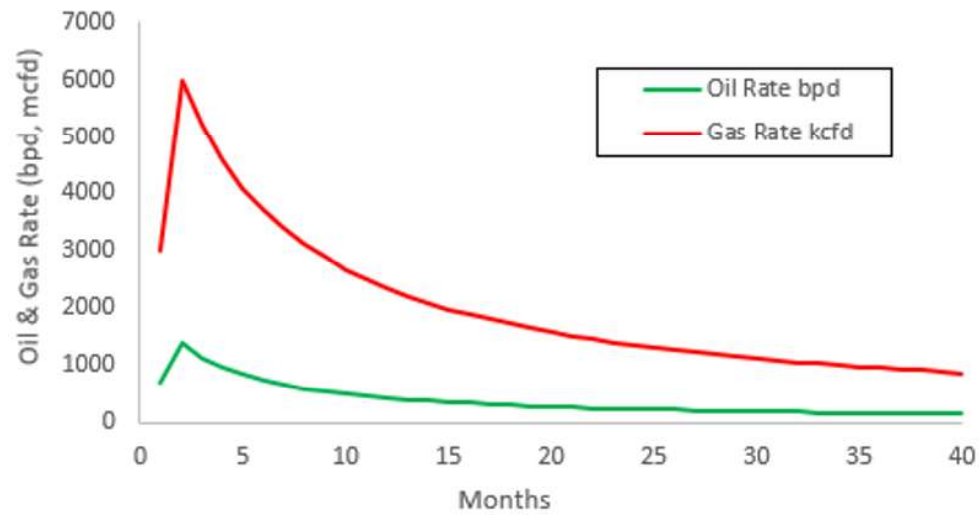
**I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.**

Signature: <i>Vishal Rajan</i>
Printed Name: VISHAL RAJAN
Title: Regulatory Analyst
E-mail Address: vishal.rajan@exxonmobil.com
Date: 01/24/2025
Phone: 346-225-9159
<b>OIL CONSERVATION DIVISION</b> <b>(Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**Corral Canyon – Decline Curves**  
**Bone Spring:**



**Wolfcamp:**



## VI. Separation Equipment:

XTO Permian Operating LLC. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. XTO utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.

## VII. Operational Practices

XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

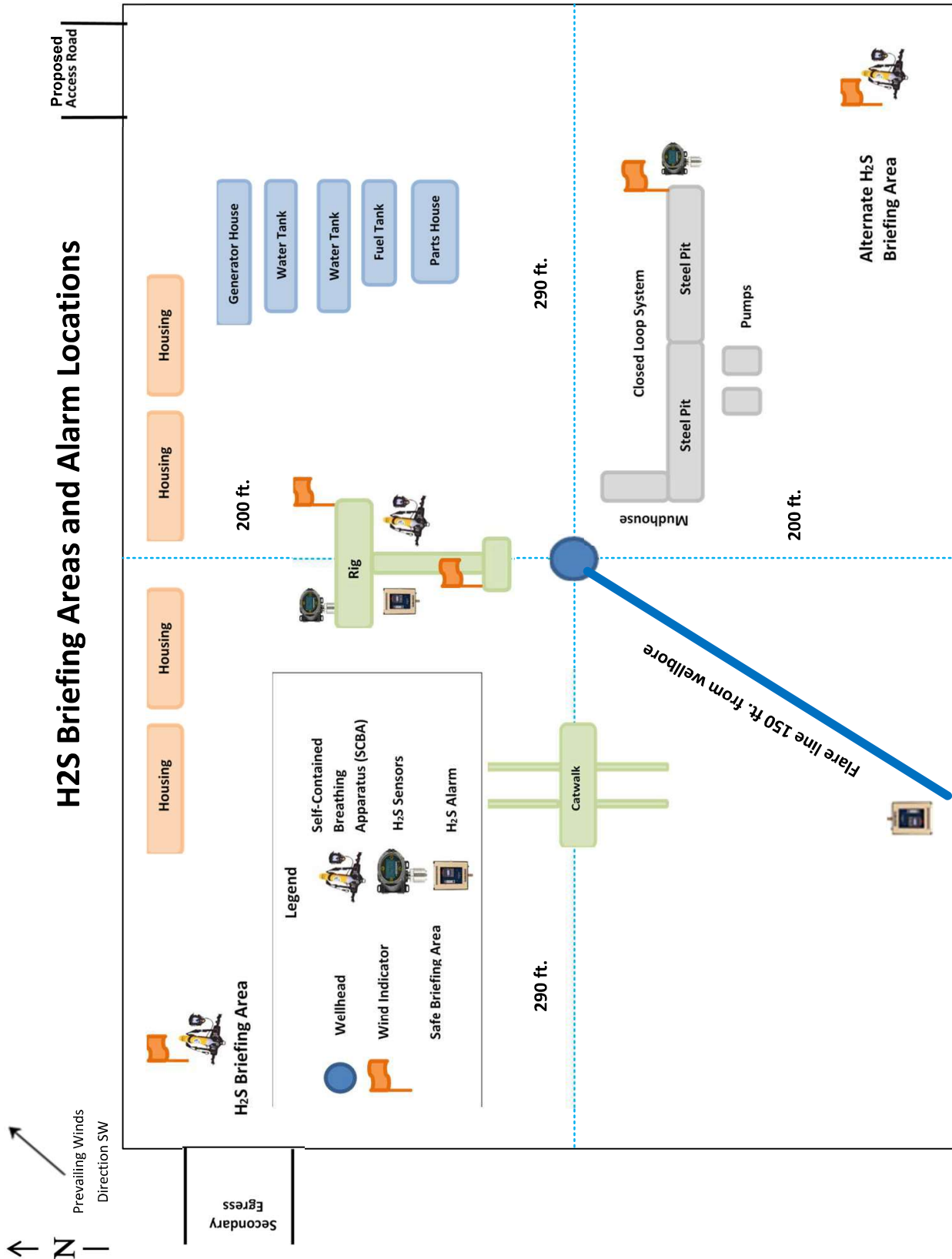
- During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically in-feasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLC will turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:
  - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
  - Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
  - Flaring in lieu of venting, where technically feasible
  - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
  - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
  - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
  - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

- Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible.

#### VIII. Best Management Practices during Maintenance

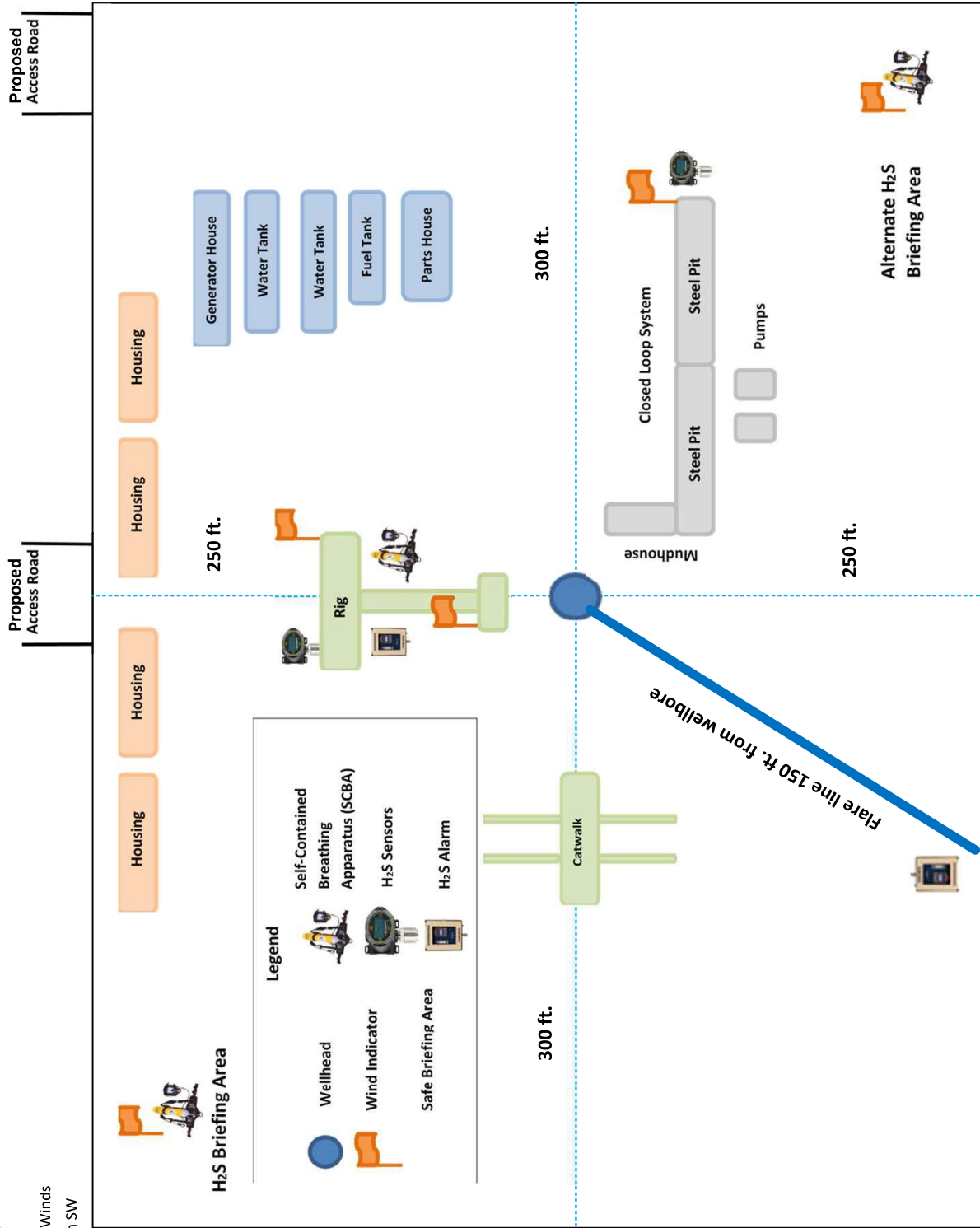
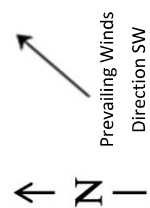
XTO Permian Operating LLC. will utilize best management practices to minimize venting during active and planned maintenance activities. XTO is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high-pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. XTO will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

# H2S Briefing Areas and Alarm Locations





# H2S Briefing Areas and Alarm Locations



**XTO Permian Operating, LLC Offline Cementing Variance Request**

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

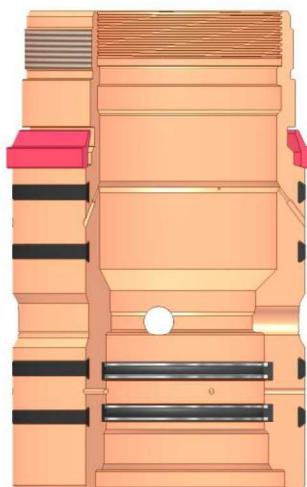
**1. Cement Program**

No changes to the cement program will take place for offline cementing.

**2. Offline Cementing Procedure**

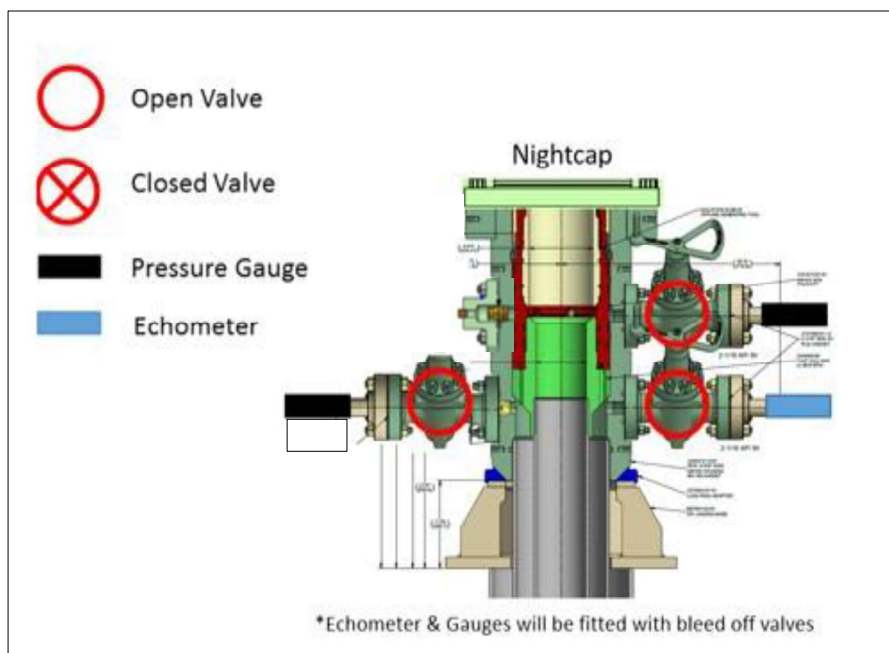
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
  - a. If any barrier fails to test, the BOP stack will not be nipped down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



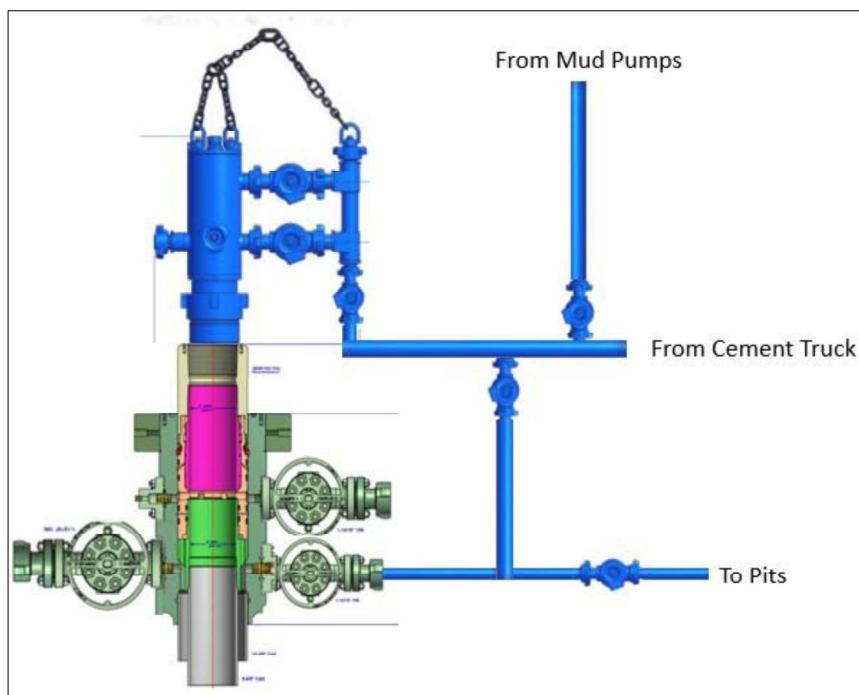
Annular packoff with both external and internal seals

## XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nipping up for further remediation.
  - a. Well Control Plan
    - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
    - ii. Rig pumps or a 3<sup>rd</sup> party pump will be tied into the upper casing valve to pump down the casing ID
    - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
    - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
    - v. Well will be confirmed static
    - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment

**XTO Permian Operating, LLC Offline Cementing Variance Request**

Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
  - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
  - b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
  - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
  - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
  - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nipped up and tested on the wellhead before drilling operations resume on each well.
  - a. The larger rig will move back onto the location within 90 days from the point at which the wells are secured and the spudder rig is moved off location.
  - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.

**BLACK GOLD®**

**GATES ENGINEERING & SERVICES NORTH AMERICA**  
**7603 Prairie Oak Dr.**  
**Houston, TX. 77086**

**PHONE: +1 (281) 602-4100****FAX: +1 (281) 602-4147****EMAIL: gesna.quality@gates.com****WEB: www.gates.com/oilandgas**

*NEW CHOKE HOSE  
INSTALLED 02-10-2024*

## CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

**CUSTOMER:** NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA  
**CUSTOMER P.O.#:** 15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)  
**CUSTOMER P/N:** IMR RETEST SN 74621 ASSET #66-1531

**PART DESCRIPTION:** RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES

**SALES ORDER #:** 529480  
**QUANTITY:** 1  
**SERIAL #:** 74621 H3-012524-1

**SIGNATURE:***F. OSMOS***TITLE:****QUALITY ASSURANCE****DATE:****1/25/2024**





H3-15/16

1/25/2024 11:48:06 AM

# TEST REPORT

**CUSTOMER**

Company: Nabors Industries Inc.

Production description: 74621/66-1531

Sales order #: 529480

Customer reference: FG1213

**TEST OBJECT**

Serial number: H3-012524-1

Lot number:

Description: 74621/66-1531

Hose ID: 3" 16C CK

Part number:

**TEST INFORMATION**

Test procedure: GTS-04-053

Test pressure: 15000.00 psi

Test pressure hold: 3600.00 sec

Work pressure: 10000.00 psi

Work pressure hold: 900.00 sec

Length difference: 0.00 %

Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K

Part number:

Description:

Fitting 2: 3.0 x 4-1/16 10K

Part number:

Description:

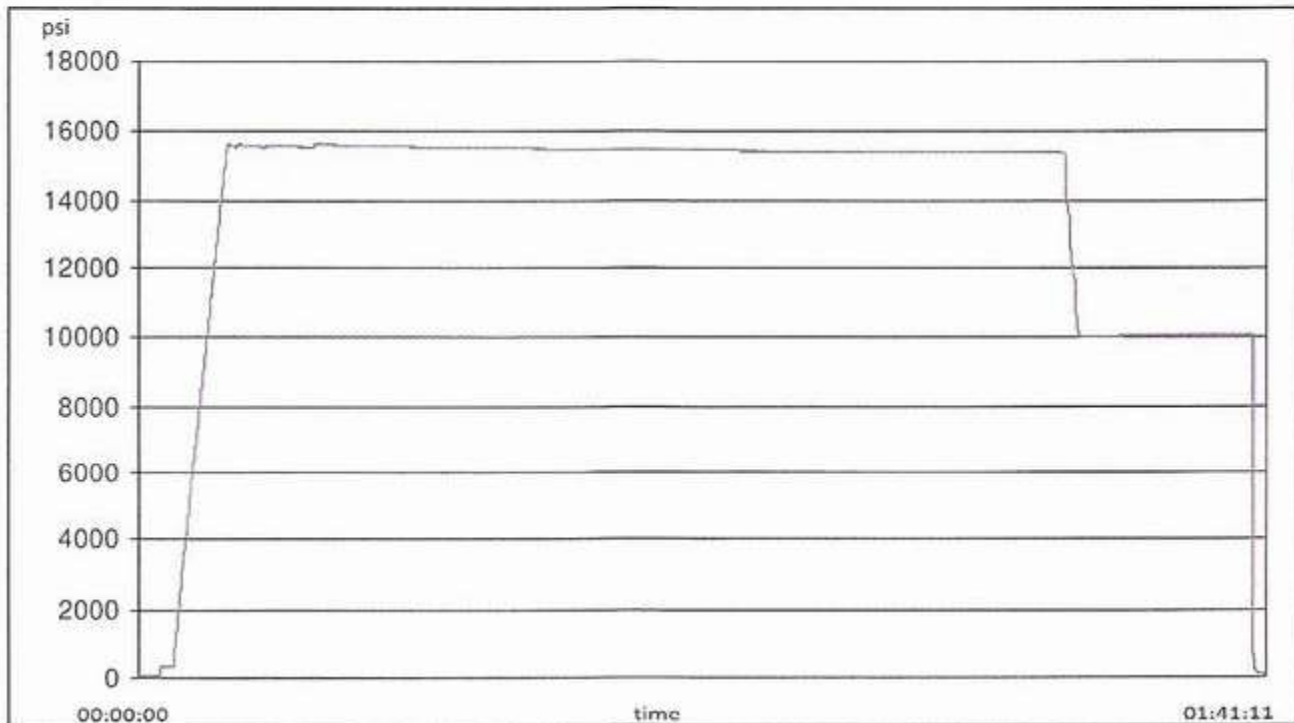
Visual check:

Pressure test result: PASS

Length measurement result:

Length: 45 feet

Test operator: Travis





H3-15/16

1/25/2024 11:48:06 AM

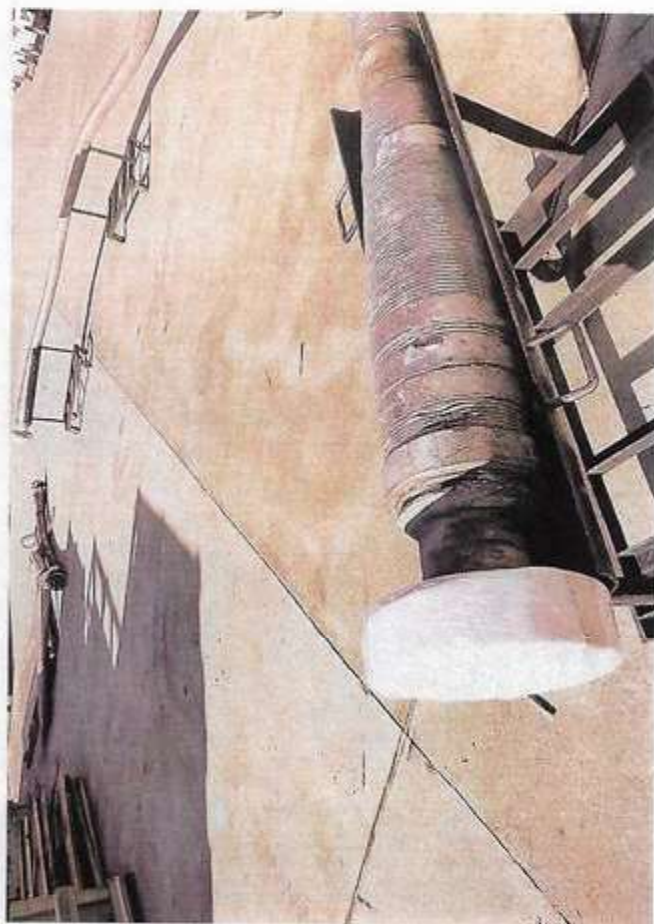
## TEST REPORT

### GAUGE TRACEABILITY

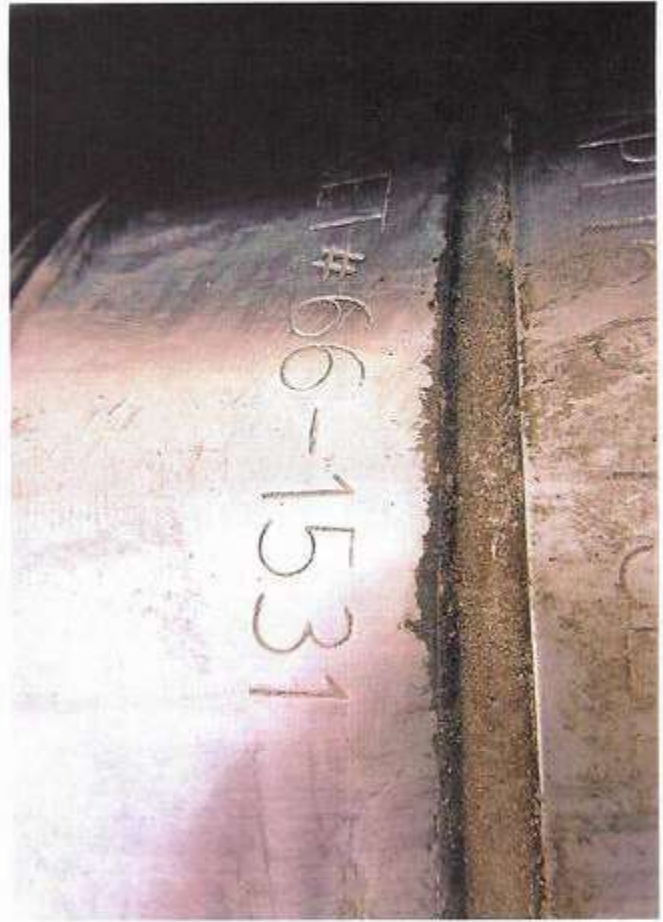
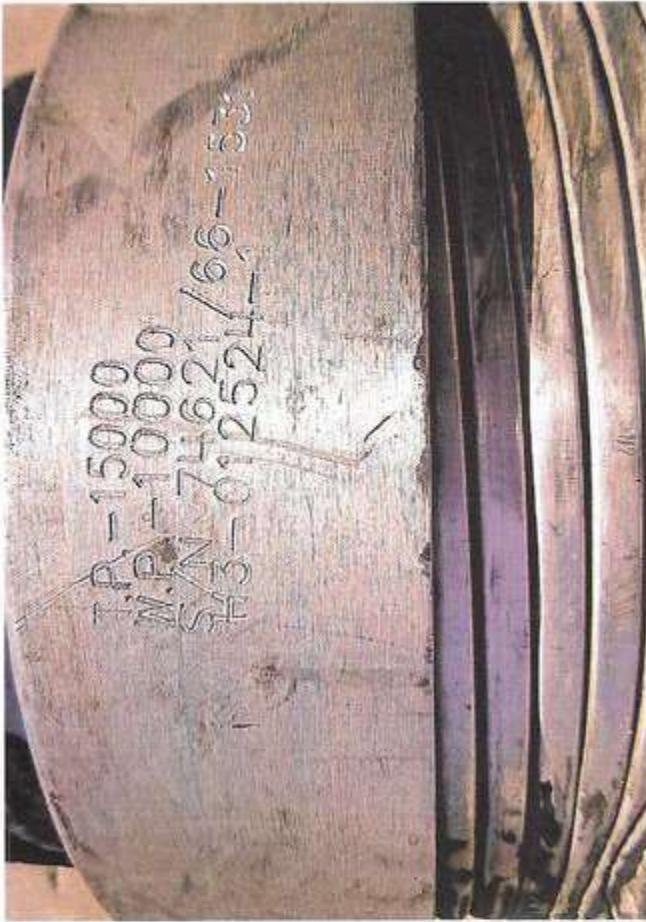
Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16

### Comment











**Subject:** Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

**Background**

Onshore Oil and Gas Order CFR Title 43 Part 3170, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. CFR Title 43 Part 3170 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

**Supporting Documentation**

CFR Title 43 Part 3170 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since CFR Title 43 Part 3170 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.

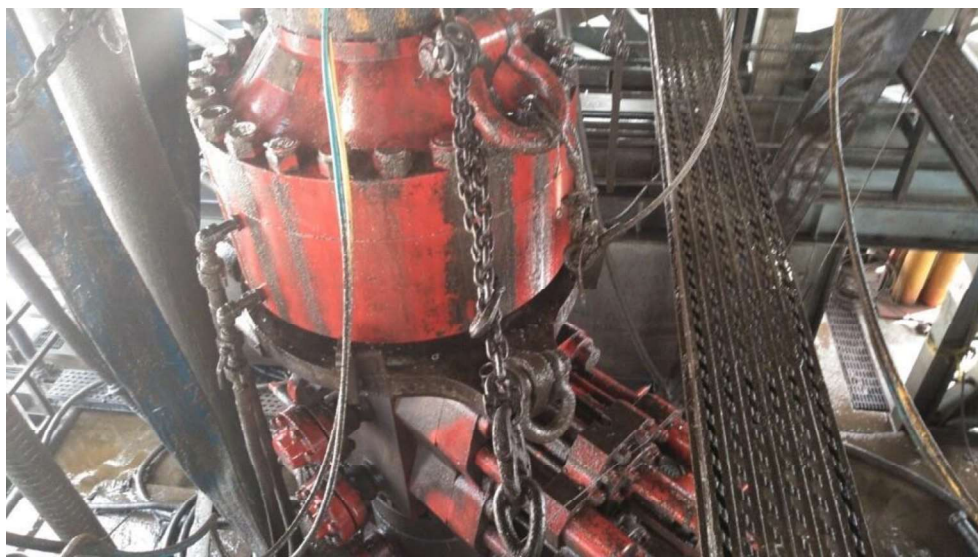


Figure 1: Winch System attached to BOP Stack



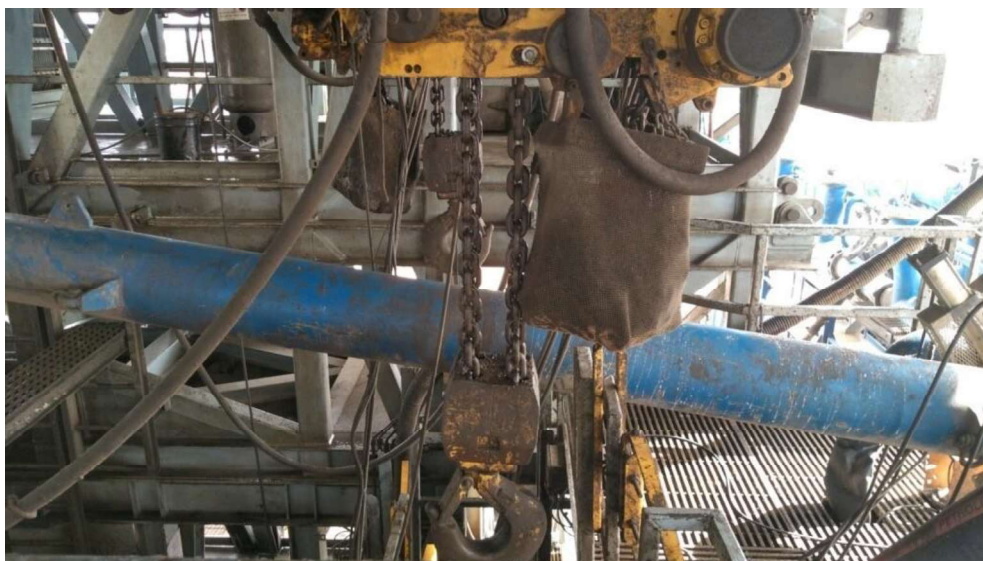


Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. CFR Title 43 Part 3170 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

62

API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure <sup>a,c</sup> psig (MPa)	Pressure Test—High Pressure <sup>a,c</sup>	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer <sup>b</sup>	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers <sup>b,d</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes <sup>e</sup>	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

<sup>a</sup> Pressure test evaluation periods shall be a minimum of five minutes.

No visible leaks.

The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.

<sup>b</sup> Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.

<sup>c</sup> For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

<sup>d</sup> For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.

<sup>e</sup> Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

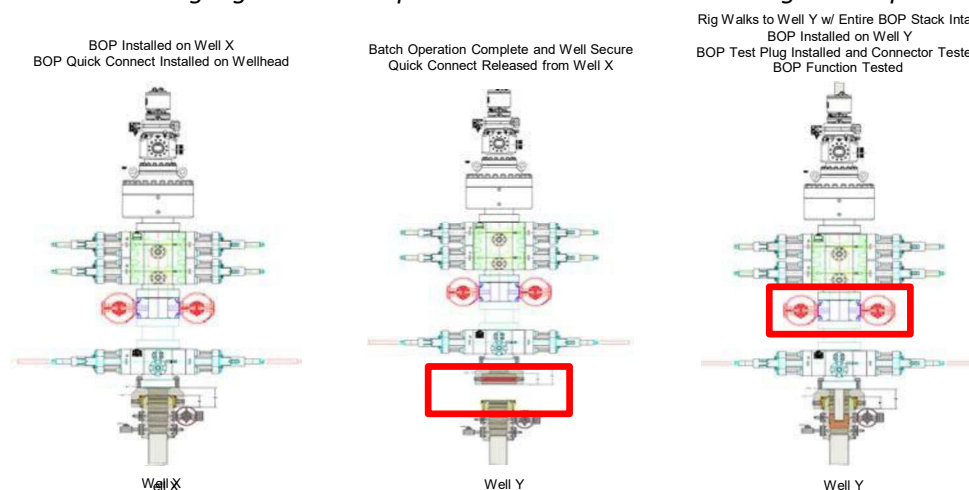
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

### **Procedures**

1. XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
  - a. A full BOP test will be conducted on the first well on the pad.
  - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
    - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
    - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
  - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
  - d. A full BOP test will be required prior to drilling any production hole.
3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
  - a. Between the HCV valve and choke line connection
  - b. Between the BOP quick connect and the wellhead
4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6. The connections mentioned in 3a and 3b will then be reconnected.
7. Install test plug into the wellhead using test joint or drill pipe.
8. A shell test is performed against the upper pipe rams testing the two breaks.
9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

*Note: Picture below highlights BOP components that will be tested during batch operations*



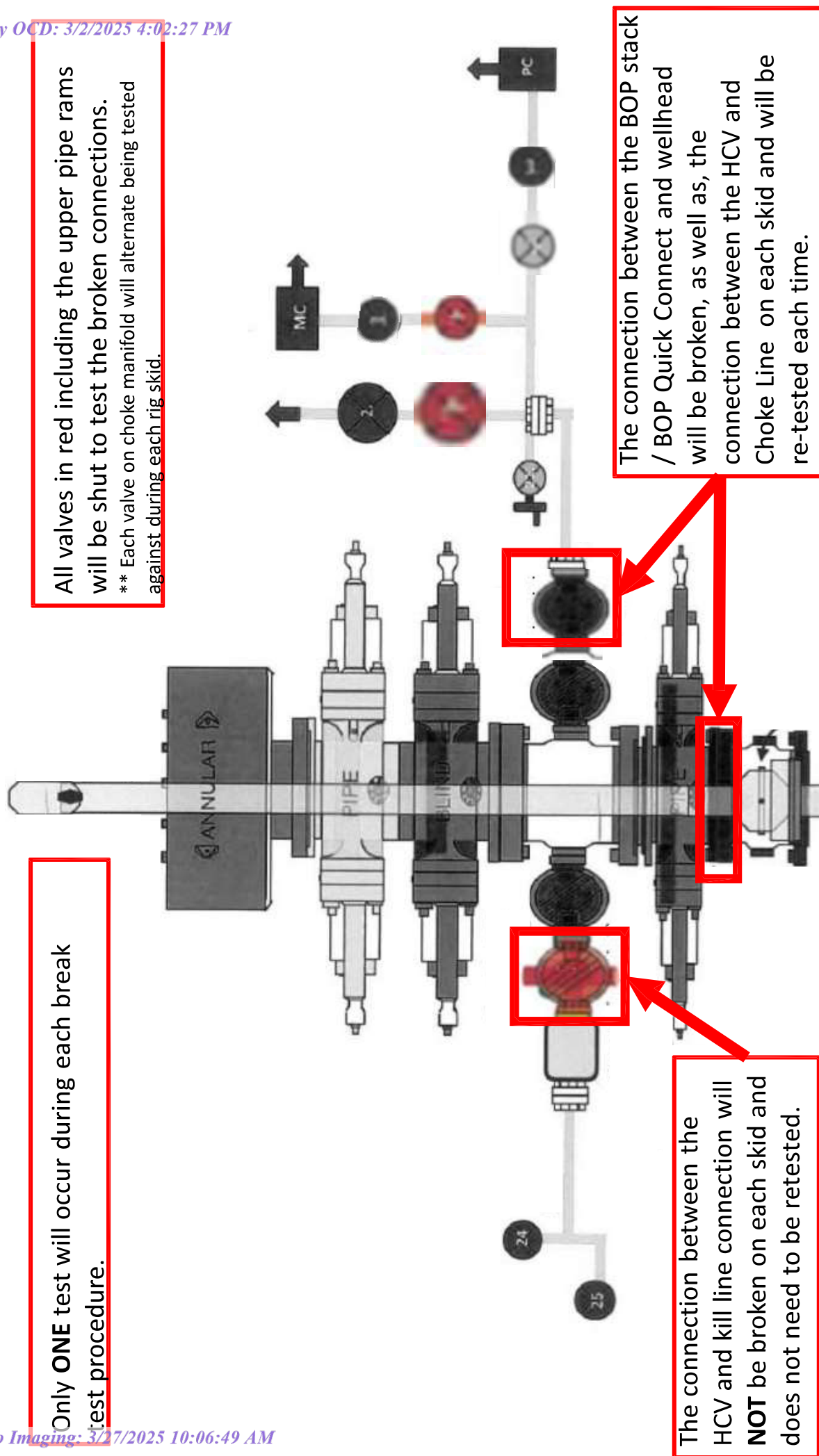
### Summary

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met:

1. After a full BOP test is conducted on the first well on the pad.
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4. Full BOP test will be required prior to drilling the production hole.







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

## SUPO Data Report

02/27/2025

APD ID: 10400096528

Submission Date: 01/10/2024

Highlighted data  
reflects the most  
recent changes  
[Show Final Text](#)

Operator Name: XTO ENERGY INCORPORATED

Well Name: RIGHT POPULAR 20 FED

Well Number: 412H

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

RP\_20\_Fed\_412H\_Road\_20250124073652.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

**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:

CC\_17\_RP\_20\_ACCESS\_ROAD\_FINAL\_20250124073801.pdf

New road type: RESOURCE

Length: 1915.74 Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? N

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?** N

**New road access plan**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Access road engineering design?** N**Access road engineering design****Turnout?** N**Access surfacing type:** OTHER**Access topsoil source:** ONSITE**Access surfacing type description:** 6" Rolled and Compacted Native Caliche**Access onsite topsoil source depth:** 6**Offsite topsoil source description:****Onsite topsoil removal process:** The topsoil that was stripped will be spread along the edge of the road and within the ditch.**Access other construction information:** 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 miscellaneous information:** All proposed access routes to the well sites as per the 43 CFR requirements have been described in the new road plat issued by the registered surveyor, Manhard Consulting. The same has been attached with the individual APDs under SUPO Section 2. Proposed routes to the individual wells on the well site locations have been shown & identified on the well specific vicinity, topography & access road maps attached in SUPO section 1 of the individual APDs.**Number of access turnouts:****Access turnout map:**

### Drainage Control

**New road drainage crossing:** LOW WATER**Drainage Control comments:** 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.**Road Drainage Control Structures (DCS) description:** 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.**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

### Section 3 - Location of Existing Wells

**Existing Wells Map?** YES**Attach Well map:**

Right\_Popular\_20\_Fed\_1\_Mile\_Radius\_Map\_20230930112915.pdf

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

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

**Submit or defer a Proposed Production Facilities plan?** SUBMIT

**Production Facilities description:** Separate certified plats issued by the registered surveyor Manhard Consulting for the proposed central tank battery, flowlines & overhead electrical lines, as per the 43 CFR requirements have been attached under SUPO section 4. A detailed facility layout which describes the placement of the proposed facility components on the central tank battery with appropriate labels, as per the 43 CFR requirements, has also been attached under SUPO section 4.

**Production Facilities map:**

CC\_17\_RP\_20\_FACILITY\_PAD\_FINAL\_20250124075120.pdf

CC\_17\_RP\_20\_ELECTRIC\_LINE\_FINAL\_20250124075124.pdf

CC\_17\_RP\_20\_FLOW\_LINE\_FINAL\_20250124075125.pdf

CC\_17\_RP\_20\_MIDSTREAM\_TIE\_IN\_FINAL\_20250124075125.pdf

## Section 5 - Location and Types of Water Supply

### Water Source Table

**Water source type:** OTHER**Describe type:** Fresh Water; Section 27, T25S-R30E, Eddy County, NM.

<b>Water source use type:</b>	DUST CONTROL
	SURFACE CASING
	INTERMEDIATE/PRODUCTION CASING
	STIMULATION

**Source latitude:****Source longitude:****Source datum:**

<b>Water source permit type:</b>	PRIVATE CONTRACT
----------------------------------	------------------

<b>Water source transport method:</b>	PIPELINE
---------------------------------------	----------

**Source land ownership:** COMMERCIAL**Source transportation land ownership:** FEDERAL**Water source volume (barrels):** 2000000**Source volume (acre-feet):** 257.78619266**Source volume (gal):** 84000000

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Water source type:** OTHER**Describe type:** Fresh Water; Section 6, T25S-R29E, Eddy County, NM.

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

**Source latitude:****Source longitude:****Source datum:****Water source permit type:** PRIVATE CONTRACT**Water source transport method:** PIPELINE**Source land ownership:** COMMERCIAL**Source transportation land ownership:** FEDERAL**Water source volume (barrels):** 2000000**Source volume (acre-feet):** 257.78619266**Source volume (gal):** 84000000**Water source and transportation**

RP\_20\_Fed\_412H\_Wtr\_20231229110537.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 a 3rd party vendor and hauled to the anticipated pit in Section 7 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: Texas Pacific Water Resources Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO ENERGY, INC. from Section 27, T25S-R30E, Eddy County, NM. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, NM. Anticipated water usage for drilling includes an estimated 35,000 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 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. 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 2,000,000 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.

**New water well?** N**New Water Well Info****Well latitude:****Well Longitude:****Well datum:**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**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:** Pit 1: State operated by MEC, Section 32-T25S-R29E, SENE Pit 2: State operated by MEC, Section 11-T25S-R29E, SENW**Construction Materials source location**

### Section 7 - Methods for Handling

**Waste type:** DRILLING**Waste content description:** Fluid**Amount of waste:** 500 barrels**Waste disposal frequency :** One Time Only**Safe containment description:** Steel mud boxes**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**Waste type:** DRILLING**Waste content description:** Cuttings**Amount of waste:** 2100 pounds**Waste disposal frequency :** One Time Only

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

**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

**Waste type:** SEWAGE

**Waste content 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.

**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 contractor to haul and dispose of human waste.

**Waste type:** GARBAGE

**Waste content 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 approved 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.

**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 approved 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:**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Disposal location description:** A licensed 3rd party contractor will be used to haul and dispose of garbage.

### Reserve Pit

**Reserve Pit being used?** NO**Temporary disposal of produced water into reserve pit?** NO**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?** Y

**Description of cuttings location** 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.

**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

**Are you requesting any Ancillary Facilities?:** N**Ancillary Facilities****Comments:**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Section 9 - Well Site****Well Site Layout Diagram:**

RP\_20\_Fed\_412H\_Well\_20240412205349.pdf

RP\_20\_Fed\_412H\_RL\_20250127062816.pdf

**Comments:** Multi-well pad.**Section 10 - Plans for Surface Reclamation****Type of disturbance:** New Surface Disturbance**Multiple Well Pad Name:** Right Popular 20 Fed**Multiple Well Pad Number:** D**Recontouring**

RIGHT\_POPULAR\_20\_PAD\_A\_INTERIM\_REC\_PAD\_LAYOUT\_FINAL\_20250124075907.pdf

RIGHT\_POPULAR\_20\_PAD\_B\_INTERIM\_REC\_PAD\_LAYOUT\_FINAL\_20250124075908.pdf

RIGHT\_POPULAR\_20\_PAD\_C\_INTERIM\_REC\_PAD\_LAYOUT\_FINAL\_20250124075908.pdf

RIGHT\_POPULAR\_20\_PAD\_D\_INTERIM\_REC\_PAD\_LAYOUT\_FINAL\_20250124075909.pdf

**Drainage/Erosion control construction:** 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.

**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 gulying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

<b>Well pad proposed disturbance (acres):</b> 35.115	<b>Well pad interim reclamation (acres):</b> 12.475	<b>Well pad long term disturbance (acres):</b> 22.64
<b>Road proposed disturbance (acres):</b> 1.33	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 1.33
<b>Powerline proposed disturbance (acres):</b> 7.57	<b>Powerline interim reclamation (acres):</b> 7.57	<b>Powerline long term disturbance (acres):</b> 0
<b>Pipeline proposed disturbance (acres):</b> 5.72	<b>Pipeline interim reclamation (acres):</b> 5.72	<b>Pipeline long term disturbance (acres):</b> 0
<b>Other proposed disturbance (acres):</b> 25.455	<b>Other interim reclamation (acres):</b> 15.33	<b>Other long term disturbance (acres):</b> 10.125
<b>Total proposed disturbance:</b> 75.19	<b>Total interim reclamation:</b> 41.095	<b>Total long term disturbance:</b> 34.095

**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) plant 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



**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H

species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

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

**Existing Vegetation at the well pad**

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

**Existing Vegetation Community at the road**

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

**Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullyng, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

**Existing Vegetation Community at other disturbances**

**Non native seed used?** N

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** N

**Seedling transplant description**

**Will seed be harvested for use in site reclamation?** N

**Seed harvest description:**

**Seed harvest description attachment:**

[Seed](#)[Seed Table](#)[Seed Summary](#)**Total pounds/Acre:****Seed Type****Pounds/Acre****Seed reclamation**[Operator Contact/Responsible Official](#)

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**First Name:** Robert**Last Name:** Bartels**Phone:** (406)478-3617**Email:** robert.e.bartels@exxonmobil.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?** N

**Existing invasive species treatment description:**

**Existing invasive species treatment**

**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**

**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**

**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 system will meet the NMOCD requirements 19.15.17.

**Pit closure attachment:**

## Section 11 - Surface Ownership

**Disturbance type:** EXISTING 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:**

**Operator Name:** XTO ENERGY INCORPORATED

**Well Name:** RIGHT POPULAR 20 FED

**Well Number:** 412H

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** OTHER

**Describe:** Central Tank Battery

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**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:** Flowlines**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:** TRANSMISSION LINE**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:**

**Operator Name:** XTO ENERGY INCORPORATED

**Well Name:** RIGHT POPULAR 20 FED

**Well Number:** 412H

**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:** PIPELINE

**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:**

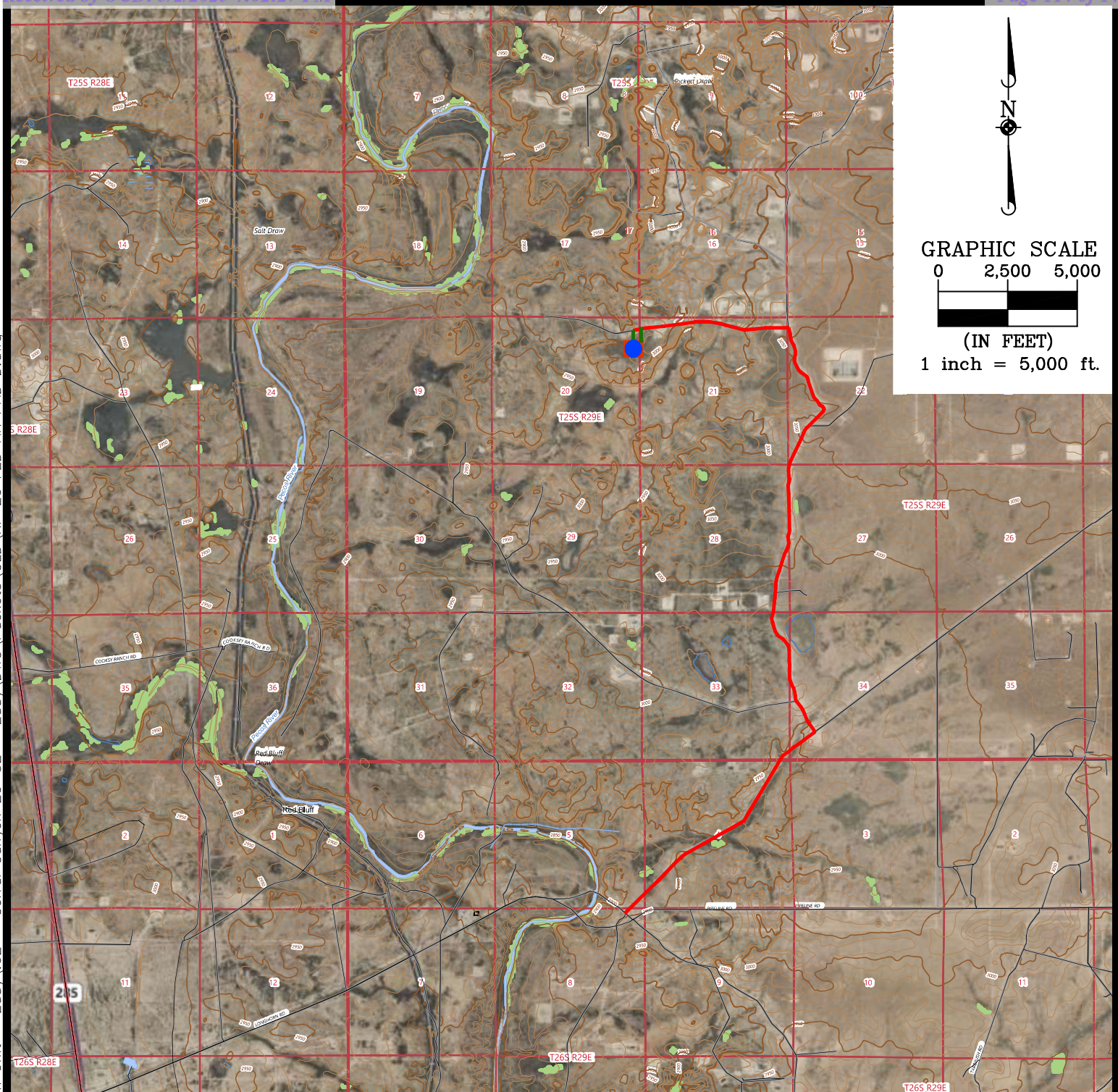
**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Disturbance type:** WELL PAD**Describe:****Surface Owner:** BUREAU OF LAND MANAGEMENT**Other surface owner description:****BIA Local Office:****BOR Local Office:****COE Local Office:****DOD Local Office:****NPS Local Office:****State Local Office:****Military Local Office:****USFWS Local Office:****Other Local Office:****USFS Region:****USFS Forest/Grassland:****USFS Ranger District:****Disturbance type:** PIPELINE**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:** RIGHT POPULAR 20 FED**Well Number:** 412H**Section 12 - Other****Right of Way needed?** Y**Use APD as ROW?** Y**ROW Type(s):** 281001 ROW - ROADS,285003 ROW – POWER TRANS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW- O&G Well Pad,FLPMA (Powerline)**ROW****SUPO Additional Information:** SUPO written for all wells in section/project area.**Use a previously conducted onsite?** Y**Previous Onsite information:** The XTO ENERGY, INC. representatives and BLM NRS were on location for onsite on 01/19/2023**Other SUPO**

Right\_Popular\_20\_Fed\_Well\_List\_\_10\_26\_2023\_20240413142018.pdf

Right\_Popular\_20\_Fed\_SUPO\_20250124080933.pdf



**DRIVING DIRECTION TO LOCATION**

FROM THE INTERSECTION OF HIGHWAY 285 AND WHITEHORN RD. GO NORTHEAST ON WHITEHORN RD. FOR APPROX. 2.4 MILES. TURN LEFT (NORTHEAST) ONTO LONGHORN RD. AND GO APPROX. 1.8 MILES. TURN LEFT (NORTHEAST) ONTO PIPELINE ROAD NUMBER 1 AND GO APPROX. 1.8 MILES. TURN LEFT (NORTH) ONTO LEASE ROAD AND GO APPROX. 3.0 MILES TO AN INTERSECTION. TURN LEFT (WEST) ONTO LEASE ROAD AND GO APPROX. 1.1 MILES ARRIVING AT A PROPOSED ROAD AND THE LOCATION IS TO THE SOUTH.

**LEGEND**

- RIGHT POPULAR 20 FED 412H WELL LOCATION
- PROPOSED WELL PAD
- PROPOSED ACCESS ROAD = 175'
- DRIVING ROUTE



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### A TOPOGRAPHICAL AND ACCESS ROAD MAP FOR XTO PERMIAN OPERATING, LLC. RIGHT POPULAR 20 FED 412H

LOCATED 1,150 FEET FROM THE NORTH LINE AND 70 FEET FROM THE EAST LINE OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: <b>AI</b>	DATE: <b>10-04-2023</b>	SCALE: <b>1" = 5,000'</b>	PROJECT NO.: <b>618.013013.02-36</b>
DRAWN BY: <b>RS</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>0</b>	SHEET: <b>3 OF 3</b>





CORRAL CANYON 17 FED AND RIGHT POPULAR 20 ACCESS ROAD DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1,915.74 FEET, 116.11 RODS, OR 0.36 MILES IN LENGTH CROSSING SECTIONS 17, 20, AND 21, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 1.33 ACRES AND DIVIDED IN EACH QUARTER QUARTER AS FOLLOWS:

SW1/4 SW1/4 SECTION 17 = 232.65 FEET = 14.10 RODS = 0.16 OF AN ACRE

SE1/4 SW1/4 SECTION 17 = 167.95 FEET = 10.18 RODS = 0.12 OF AN ACRE

SW1/4 NW1/4 SECTION 20 = 300.29 FEET = 18.20 RODS = 0.21 OF AN ACRE

NW1/4 NW1/4 SECTION 20 = 55.25 FEET = 3.35 RODS = 0.04 OF AN ACRE

NE1/4 NW1/4 SECTION 20 = 155.69 FEET = 9.44 RODS = 0.11 OF AN ACRE

NW1/4 NE1/4 SECTION 20 = 53.14 FEET = 3.22 RODS = 0.04 OF AN ACRE

NE1/4 NE1/4 SECTION 20 = 422.81 FEET = 25.62 RODS = 0.29 OF AN ACRE

NW1/4 NW1/4 SECTION 21 = 527.96 FEET = 32.00 RODS = 0.36 OF AN ACRE

TOTAL LENGTH = 1,915.74 FEET  
OR 116.11 RODS

LINE TABLE "A"			LINE TABLE "E"			LINE TABLE "I"		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L1	N90°00'00"E	100.67'	L5	S02°05'50"W	64.58'	L9	N00°41'06"E	82.34'

LINE TABLE "B"			LINE TABLE "F"			LINE TABLE "J"		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L2	N00°41'08"E	45.69'	L6	N00°41'06"E	74.81'	L10	S02°05'50"W	53.14'

LINE TABLE "C"			LINE TABLE "G"			LINE TABLE "K"		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L3	N07°26'40"W	67.50'	L7	S02°05'50"W	49.88'	L11	S00°08'08"E	422.81'

LINE TABLE "D"			LINE TABLE "H"			LINE TABLE "L"		
LINE	BEARING	LENGTH	LINE	BEARING	LENGTH	LINE	BEARING	LENGTH
L4	S00°37'34"W	174.71'	L8	S02°05'50"W	52.23'	L12	S00°08'08"E	527.96'

LINE TABLE "M"		
LINE	BEARING	LENGTH
L13	N90°00'00"E	199.62'

A PLAT OF:

PROPOSED CENTERLINE OF A  
PROPOSED ACCESS ROAD FOR  
XTO ENERGY, INC.

CORRAL CANYON 17 FED & RIGHT POPULAR 20 FED

SITUATED IN  
SECTIONS 17, 20, AND 21, TOWNSHIP 25 SOUTH, RANGE 29 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO



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

MARK DILLON HARP  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786



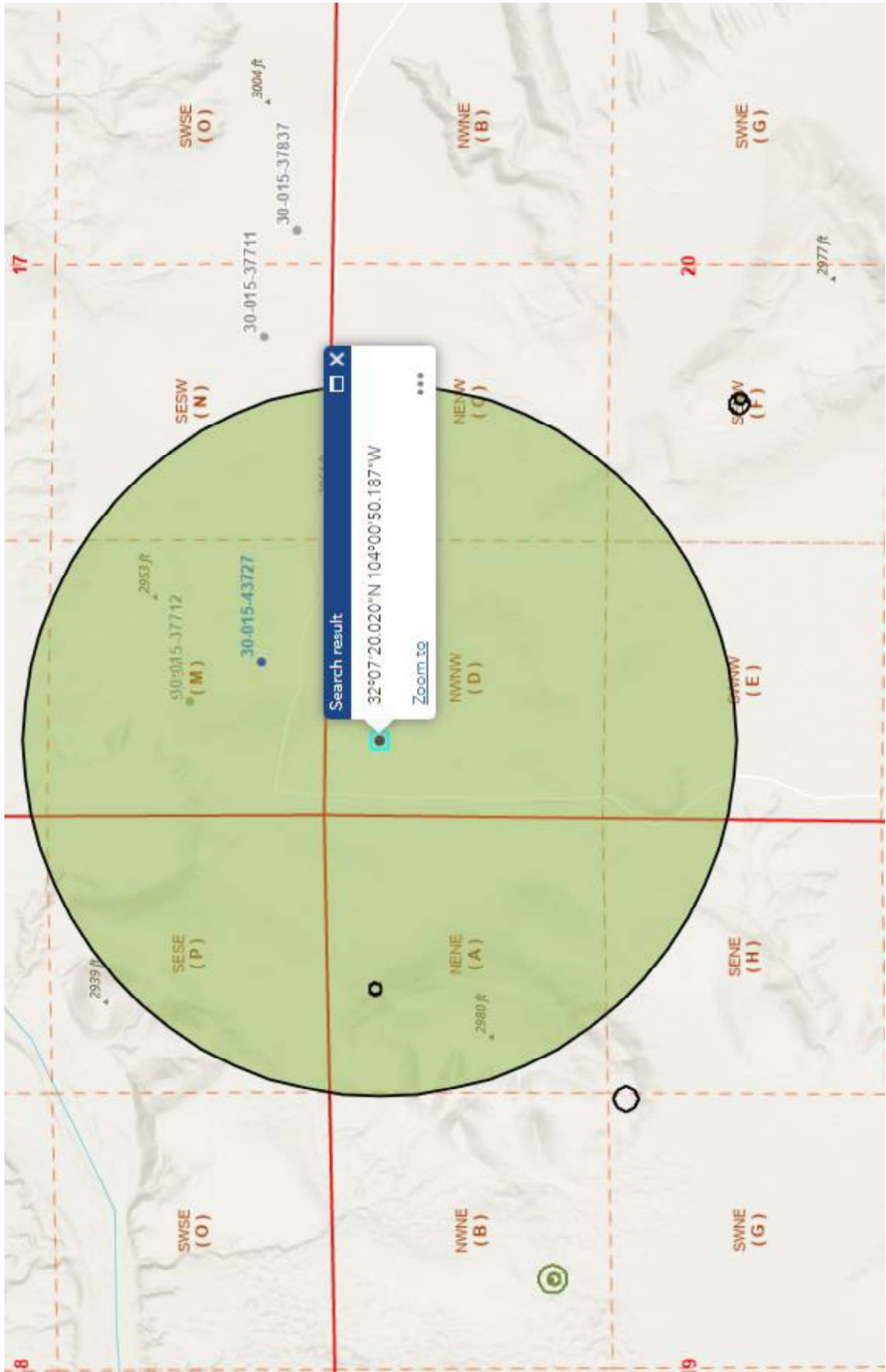
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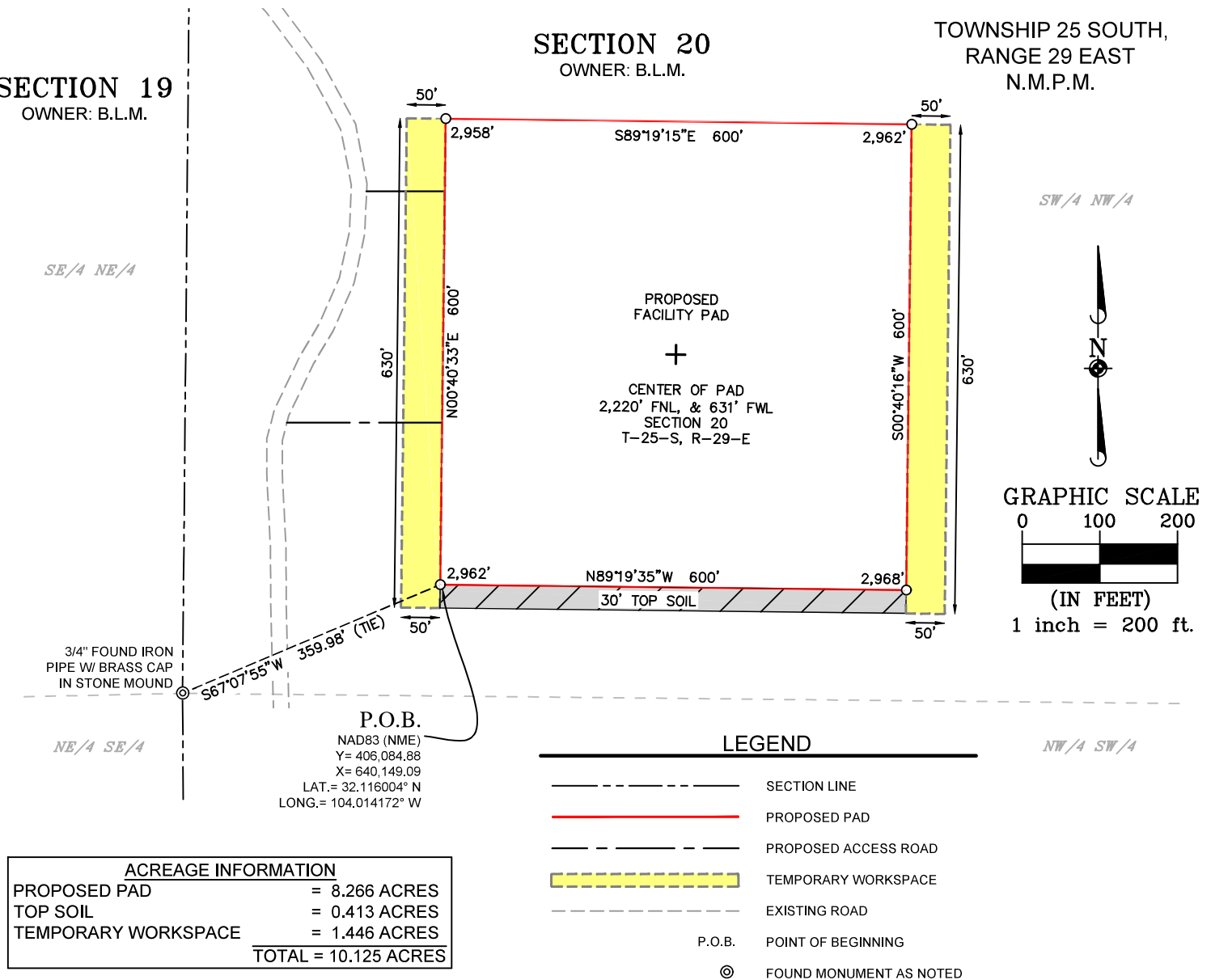
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CHECKED BY: <b>AI</b>	DATE: <b>2/27/2024</b>	SCALE: <b>1" = 600'</b>	PROJECT NO.: <b>618.013013.03</b>	DRAWN BY: <b>AR</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>2</b>	SHEET: <b>2 OF 2</b>
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Right Popular 20 Fed I Mile Radius Map



**SECTION 19**  
OWNER: B.L.M.**SECTION 20**  
OWNER: B.L.M.TOWNSHIP 25 SOUTH,  
RANGE 29 EAST  
N.M.P.M.**ACREAGE INFORMATION**

PROPOSED PAD = 8.266 ACRES  
TOP SOIL = 0.413 ACRES  
TEMPORARY WORKSPACE = 1.446 ACRES  
**TOTAL = 10.125 ACRES**

**GENERAL NOTES**

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

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  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786

**LEGEND**

---	SECTION LINE
---	PROPOSED PAD
---	PROPOSED ACCESS ROAD
---	TEMPORARY WORKSPACE
---	EXISTING ROAD
P.O.B.	POINT OF BEGINNING
⊙	FOUND MONUMENT AS NOTED

**CORRAL CANYON 17 & RIGHT POPULAR 20 PROPOSED FACILITY PAD DESCRIPTION:**

Description of a proposed facility pad totaling 8.266 acres and being situated in Section 20, Township 25 South, Range 29 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

**BEGINNING** at the southwest corner of the proposed facility pad from which a 3/4" iron pipe with a brass cap found in stone mound, being the west quarter corner of said Section 20 bears S 67°07'55" W 359.98 feet;

**THENCE** over and across said Section 20, the following courses and distances:

N 00°40'33" E, a distance of 600.00 feet to a point;

S 89°19'15" E, a distance of 600.00 feet to a point;

S 00°40'16" W, a distance of 600.00 feet to a point;

N 89°19'35" W, a distance of 600.00 feet to the **POINT OF BEGINNING** containing a total of 8.266 acres, more or less.

Said pad is divided in each lot section as follows

SW/4 NW/4 SECTION 20 = 8.266 ACRES

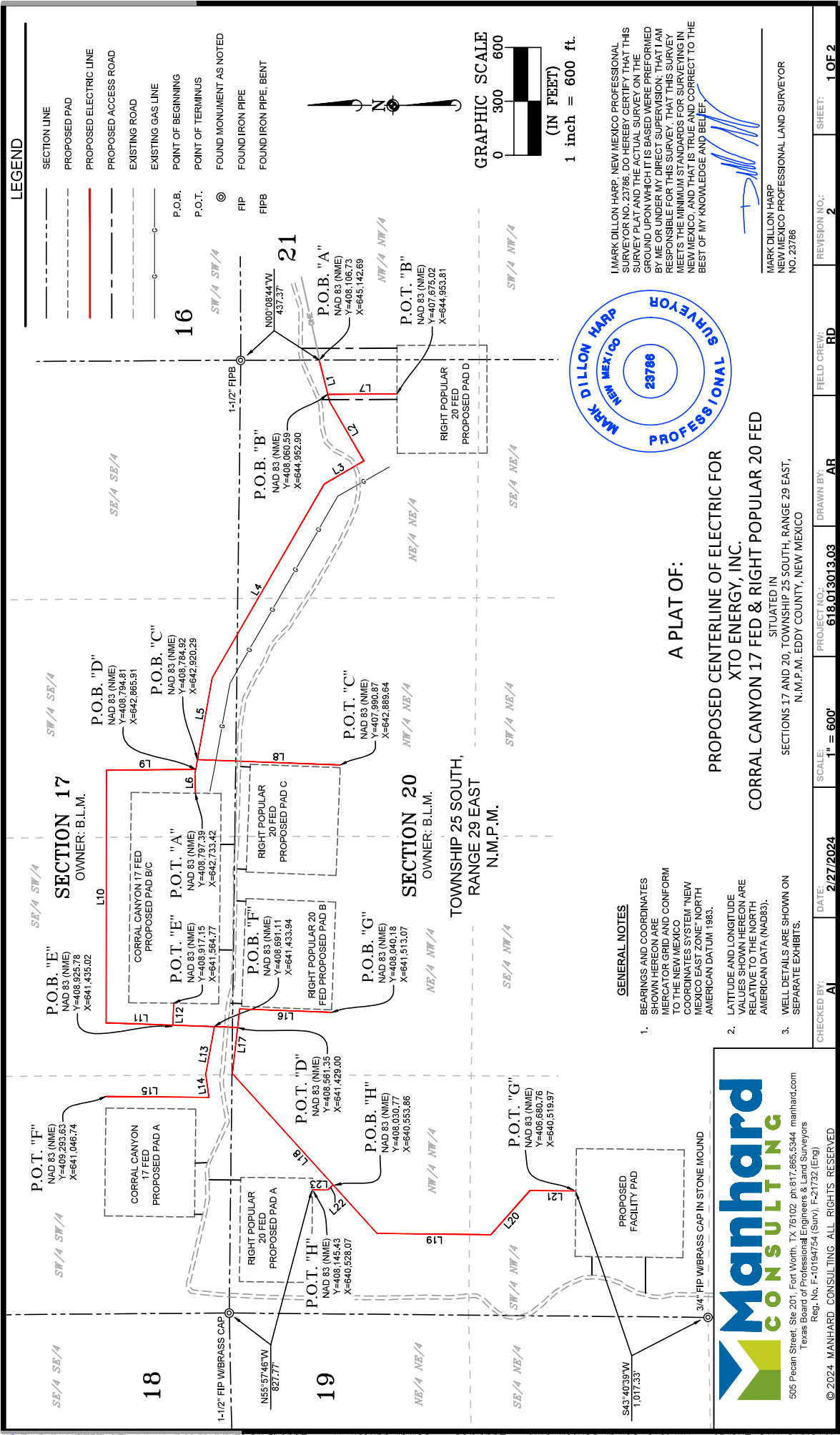


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**A PROPOSED PAD FOR XTO ENERGY, INC.**  
**CORRAL CANYON 17 & RIGHT POPULAR 20 PROPOSED FACILITY PAD**  
SITUATED IN THE NW/4 OF SECTION 20, TOWNSHIP 25 SOUTH,  
RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: <b>AR</b>	DATE: <b>2/27/2024</b>	SCALE: <b>1" = 200'</b>	PROJECT NO.: <b>618-013013.03</b>
DRAWN BY: <b>AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>4</b>	SHEET: <b>1 OF 1</b>





LINE TABLE "E"		
LINE	BEARING	LENGTH
L12	S87°47'01"E	122.13'

LINE TABLE "F"		
LINE	BEARING	LENGTH
L13	N79°42'43"W	265.26'
L14	S82°55'44"W	133.91'
L15	N00°40'11"E	571.67'

LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	S76°20'00"W	237.06'
L2	S60°02'02"W	382.56'
L3	N29°59'58"W	253.15'
L4	N59°57'10"W	1243.50'
L5	N79°40'20"W	540.55'
L6	S89°28'43"W	112.75'

LINE TABLE "G"		
LINE	BEARING	LENGTH
L16	N02°14'51"E	509.37'
L17	N83°18'53"W	360.73'
L18	S47°55'59"W	1199.51'
L19	S00°40'58"W	633.32'
L20	S48°22'05"E	329.91'
L21	S00°45'28"W	254.29'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L7	S00°08'07"E	385.57'

LINE TABLE "C"		
LINE	BEARING	LENGTH
L8	S02°12'38"W	794.64'

LINE TABLE "H"		
LINE	BEARING	LENGTH
L22	N41°59'48"W	40.14'
L23	N00°43'07"E	84.84'

LINE TABLE "D"		
LINE	BEARING	LENGTH
L9	N00°29'23"W	495.63'
L10	N89°53'03"W	1404.80'
L11	S02°10'52"W	732.43'

TOTAL LENGTH = 11,087.72 FEET  
OR 671.98 RODS



A PLAT OF:

PROPOSED CENTERLINE OF ELECTRIC FOR  
XTO ENERGY, INC.

CORRAL CANYON 17 FED & RIGHT POPULAR 20 FED

SITUATED IN  
SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO

**Manhard**  
CONSULTING

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Reg. No. F-10194754 (Surv), F-21732 (Eng)

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CORRAL CANYON 17 FED AND RIGHT POPULAR 20 FED ELECTRIC LINE DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 11,087.72 FEET, 671.98 RODS, OR 2.10 MILES IN LENGTH CROSSING SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 7.57 ACRES AND DIVIDED IN EACH QUARTER QUARTER AS FOLLOWS:

- SW¼ SW¼ SECTION 17 = 698.84 FEET = 42.35 RODS = 0.48 OF AN ACRE
- SE¼ SW¼ SECTION 17 = 2,128.33 FEET = 128.99 RODS = 1.47 ACRES
- SW¼ SE¼ SECTION 17 = 2,011.76 FEET = 121.92 RODS = 1.37 ACRES
- SW¼ NW¼ SECTION 20 = 701.97 FEET = 42.54 RODS = 0.48 OF AN ACRE
- NW¼ NW¼ SECTION 20 = 1,830.03 FEET = 110.91 RODS = 1.25 ACRES
- NE¼ NW¼ SECTION 20 = 908.90 FEET = 55.09 RODS = 0.60 OF AN ACRE
- NW¼ NE¼ SECTION 20 = 813.58 FEET = 49.31 RODS = 0.56 OF AN ACRE
- NE¼ NE¼ SECTION 20 = 1,994.31 FEET = 120.87 RODS = 1.36 ACRES

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  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786

CHECKED BY: <b>AI</b>	DATE: <b>2/27/2024</b>	SCALE: <b>1" = 600'</b>	PROJECT NO.: <b>618.013013.03</b>	DRAWN BY: <b>AR</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>2</b>	SHEET: <b>2 OF 2</b>
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CORRAL CANYON 17 FED AND RIGHT POPULAR 20 FED BURIED AND SURFACE FLOW LINE DESCRIPTION  
SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 8401.96 FEET 509.21 RODS OR 1.59 MILES IN LENGTH  
CROSSING SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW  
MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY,  
COMPRISING OF 5.72 ACRES AND DIVIDED IN EACH QUARTER QUARTER AS FOLLOWS:

- SW/4 SW/4 SECTION 17 = 563.95 FEET = 34.18 RODS = 0.39 OF AN ACRE  
SE/4 SW/4 SECTION 17 = 1,485.96 FEET = 90.06 RODS = 1.00 ACRES  
SW/4 SE/4 SECTION 17 = 751.98 FEET = 45.57 RODS = 0.51 OF AN ACRE  
SW/4 NW/4 SECTION 20 = 702.03 FEET = 42.55 RODS = 0.48 OF AN ACRE  
NW/4 NW/4 SECTION 20 = 1,830.06 FEET = 110.91 RODS = 1.25 ACRES  
NE/4 NW/4 SECTION 20 = 536.08 FEET = 32.49 RODS = 0.36 OF AN ACRE  
NW/4 NE/4 SECTION 20 = 711.75 FEET = 43.14 RODS = 0.49 OF AN ACRE  
NE/4 NE/4 SECTION 20 = 1,820.15 FEET = 110.31 RODS = 1.24 ACRES

LINE TABLE "C"		
LINE	BEARING	LENGTH
L16	S02°12'51"W	334.49'
L17	S87°47'06"E	73.92'

LINE TABLE "D"		
LINE	BEARING	LENGTH
L18	N87°43'01"W	73.61'

LINE TABLE "E"		
LINE	BEARING	LENGTH
L19	S47°55'52"W	1354.21'
L20	S00°41'06"W	606.59'
L21	S48°22'05"E	329.87'
L22	S00°45'28"W	268.01'

LINE TABLE "F"		
LINE	BEARING	LENGTH
L23	S00°46'24"W	96.37'
L24	S41°58'06"E	82.24'

LINE TABLE "G"		
LINE	BEARING	LENGTH
L25	N00°06'26"W	21.20'

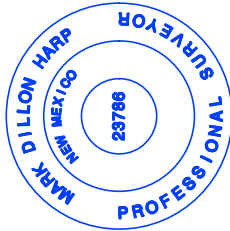
LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	S75°11'00"W	173.11'
L2	S60°02'04"W	525.76'
L3	N29°57'54"W	373.95'
L4	N59°57'28"W	1170.74'
L5	N79°39'52"W	496.16'
L6	S89°31'45"W	1115.18'
L7	S00°06'26"E	32.09'
L8	S89°53'34"W	578.24'
L9	N88°13'55"W	441.44'
L10	N79°42'43"W	533.84'
L11	S82°55'44"W	253.75'
L12	N67°17'53"W	255.92'
L13	N89°18'54"W	37.86'
L14	N01°26'40"W	22.06'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L15	S29°57'48"E	151.35'

TOTAL LENGTH = 8,401.96 FEET  
OR 509.21 RODS

A PLAT OF:  
PROPOSED CENTERLINE OF  
BURIED AND SURFACE FLOW LINES FOR  
XTO ENERGY, INC.  
CORRAL CANYON 17 FED & RIGHT POPULAR 20 FED

SITUATED IN  
SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO



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

*[Signature]*

MARK DILLON HARP  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786



505 Pecan Street, Ste 201, Fort Worth, TX 76102 ph 817.865.5344 manhard.com  
Texas Board of Professional Engineers & Land Surveyors  
Reg. No. F-10194754 (Surv), F-21732 (Eng)

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LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	N02°13'01"E	211.18'
L2	N00°41'25"E	514.79'
L3	N89°53'00"W	1278.41'
L4	S02°10'52"W	740.71'
L5	N83°19'00"W	259.89'
L6	S47°55'57"W	1150.56'
L7	S00°41'22"W	543.94'
L8	S48°22'05"E	330.00'
L9	S00°45'28"W	300.00'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L10	S00°49'00"W	79.00'
L11	S42°04'23"E	240.77'

LINE TABLE "C"		
LINE	BEARING	LENGTH
L12	S79°42'43"E	538.36'

TOTAL LENGTH = 6,187.61 FEET  
OR 375.01 RODS

CORRAL CANYON 17 FED AND RIGHT POPULAR 20 FED MIDSTREAM TIE-IN DESCRIPTION  
  
SURVEY OF A STRIP OF LAND 110.0 FEET WIDE AND 6,187.61 FEET, 375.01 RODS, OR 1.17 MILES IN LENGTH CROSSING SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 55.0 FEET RIGHT AND 55.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 15.33 ACRES AND DIVIDED IN EACH QUARTER QUARTER AS FOLLOWS:

- SW¼ SW¼ SECTION 17 = 192.29 FEET = 11.65 RODS = 0.49 OF AN ACRE
- SE¼ SW¼ SECTION 17 = 1,944.28 FEET = 117.84 RODS = 4.77 ACRES
- SW¼ SE¼ SECTION 17 = 961.77 FEET = 58.29 RODS = 2.43 ACRES
- SW¼ NW¼ SECTION 20 = 702.23 FEET = 42.56 RODS = 1.77 ACRES
- NW¼ NW¼ SECTION 20 = 1,846.13 FEET = 111.89 RODS = 4.52 ACRES
- NE¼ NW¼ SECTION 20 = 461.98 FEET = 28.00 RODS = 1.15 ACRES
- NW¼ NE¼ SECTION 20 = 78.93 FEET = 4.78 RODS = 0.20 OF AN ACRE

A PLAT OF:

PROPOSED CENTERLINE OF A MIDSTREAM TIE-IN FOR  
XTO ENERGY, INC.

CORRAL CANYON 17 FED & RIGHT POPULAR 20 FED

SITUATED IN  
SECTIONS 17 AND 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO



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

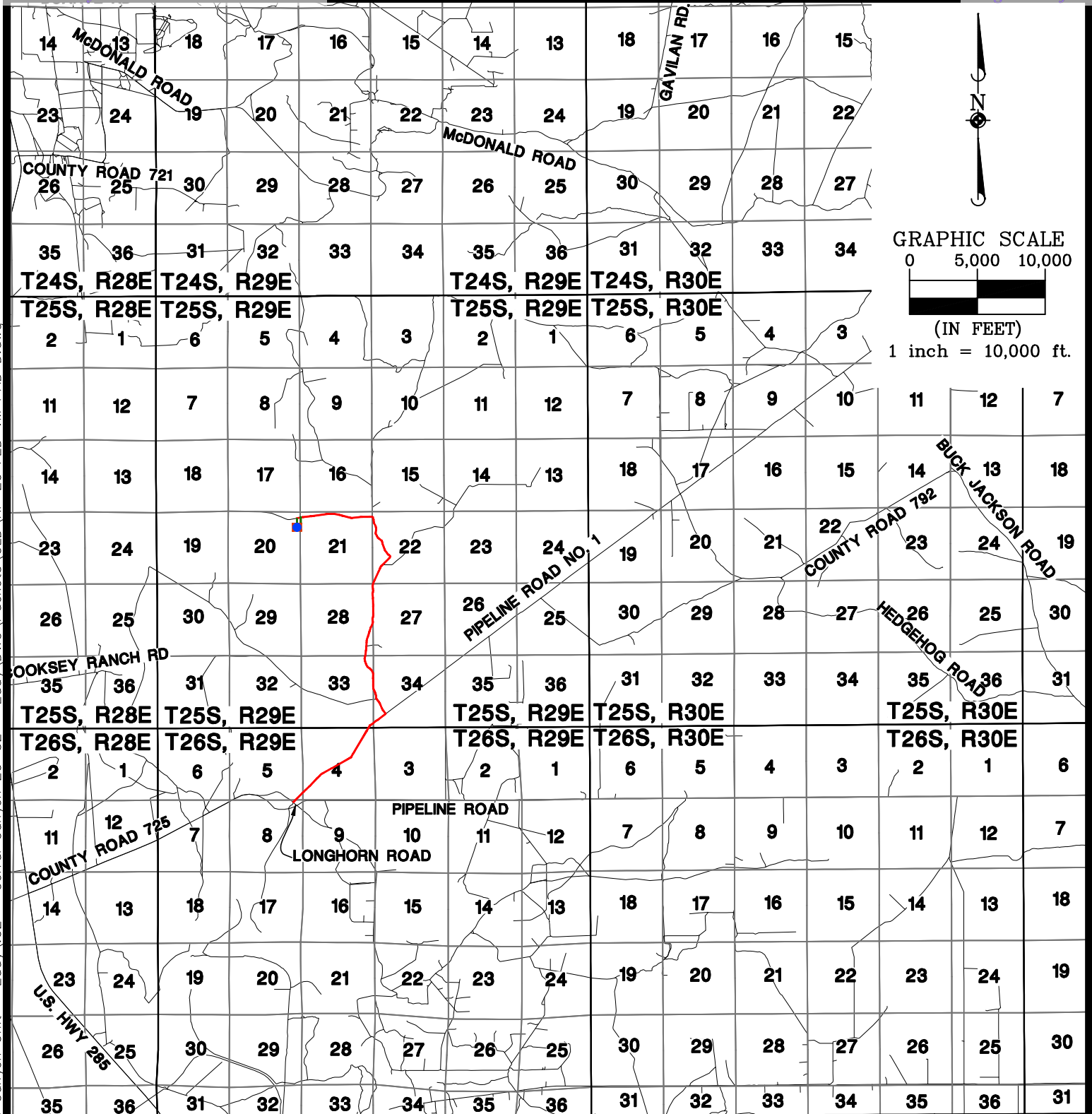
*[Signature]*

MARK DILLON HARP  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786



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STATE OF TEXAS

## LEGEND



RIGHT POPULAR 20 FED 412H WELL LOCATION



PROPOSED WELL PAD



PROPOSED ACCESS ROAD = 951'



DRIVING ROUTE



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A VICINITY MAP FOR XTO PERMIAN OPERATING, LLC.

RIGHT POPULAR 20 FED 412H

LOCATED 1,150 FEET FROM THE NORTH LINE AND 70 FEET FROM THE EAST LINE  
 OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY:  
DB

DATE:  
10-04-2023

SCALE:  
1" = 10,000'

PROJECT NO.:  
618.013013.02-36

DRAWN BY:  
RP

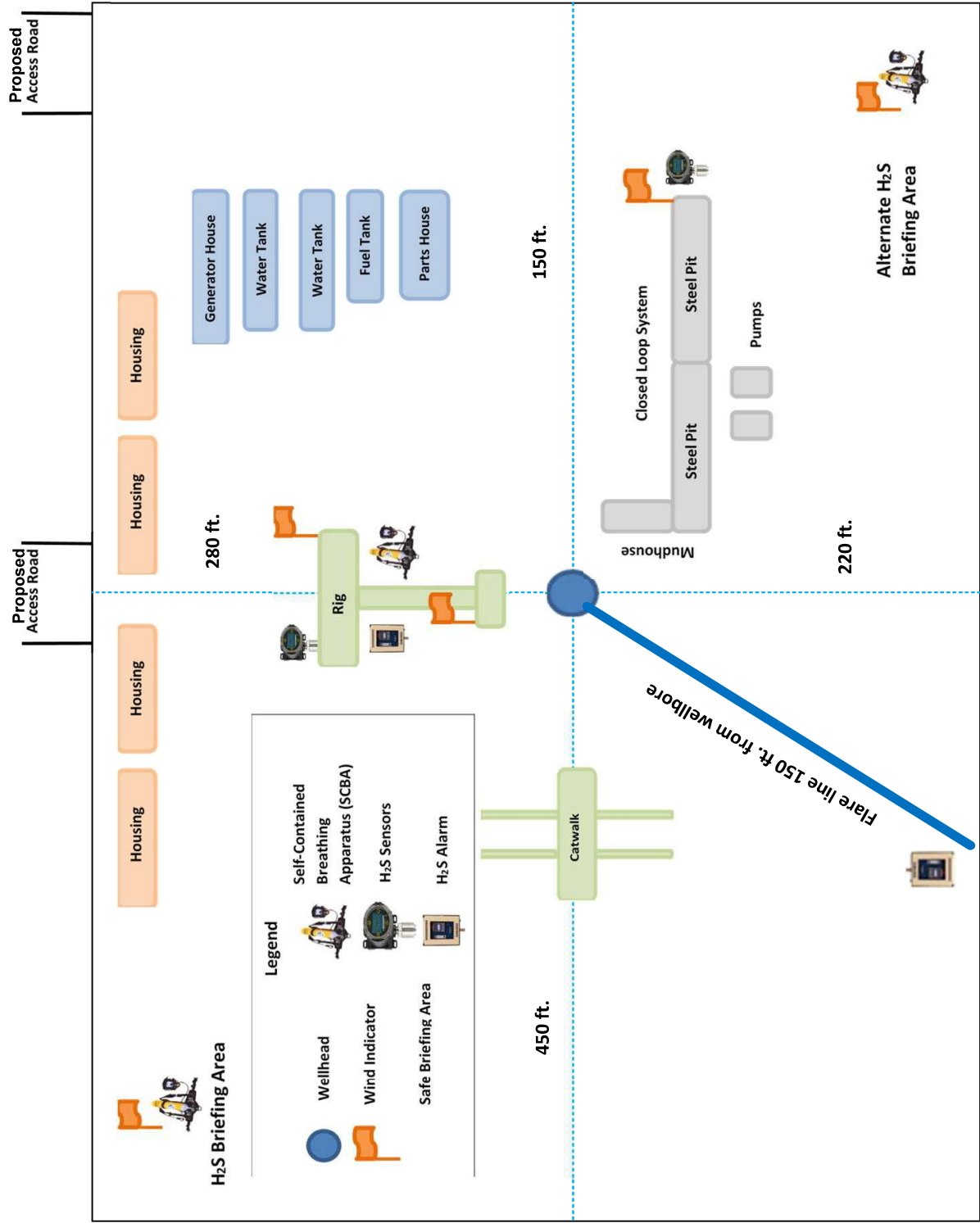
FIELD CREW:  
SR

REVISION NO.:  
0

SHEET:  
2 OF 3

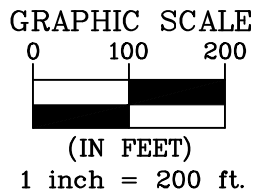
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# Rig Plat Layout



↑ N —

P:\618.013 XTO Energy - NM\013 Corral Canyon Unit - Eddy\DWG\To-Client\RIGHT POPULAR IR PADS\PAD A INTERIM REC.dwg

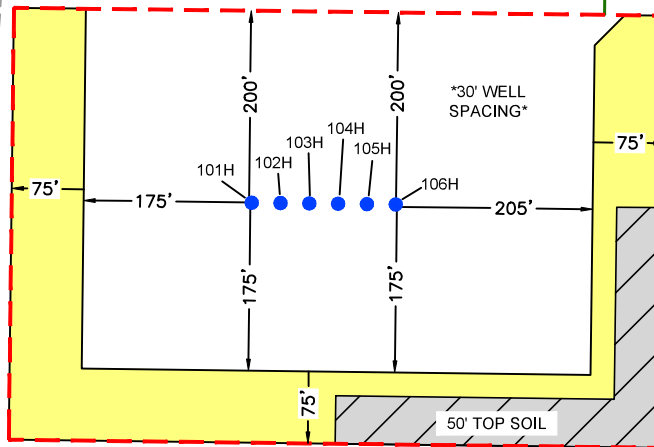


18

19

## SECTION 17

OWNER: B.L.M.



## SECTION 20

OWNER: B.L.M.

NW/4 NW/4

TOWNSHIP 25 SOUTH,  
RANGE 29 EAST  
N.M.P.M.

## DRIVING DIRECTION TO LOCATION

FROM THE INTERSECTION OF HIGHWAY 285 (PECOS HIGHWAY) AND COUNTY ROAD 725 (LONGHORN ROAD), GO NORTHEAST ON LONGHORN ROAD FOR APPROX. 4.2 MILES. TURN LEFT (NORTHEAST) ON PIPELINE ROAD 1 AND GO APPROX. 1.8 MILES. TURN LEFT (NORTHWEST) ON LEASE ROAD AND GO APPROX. 3.0 MILES. TURN LEFT (WEST) ON LEASE ROAD AND GO APPROX. 1.9 MILES, ARRIVING AT A PROPOSED ROAD AND THE LOCATION IS TO THE SOUTH.

## ACREAGE INFORMATION

INITIAL DISTURBED AREA	= 7.025 ACRES
INTERIM RECLAMATION	= 2.451 ACRES
TOTAL PAD ACREAGE AFTER IR = 4.574 ACRES	

## GENERAL NOTES

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

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  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786



## LEGEND

---	SECTION LINE
---	PROPOSED PAD
---	PROPOSED ACCESS ROAD
●	TBD WELL LOCATION
●	PERMITTED WELL LOCATION
---	EXISTING ROAD
---	INTERIM RECLAMATION AREA



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### AN INTERIM RECLAMATION DIAGRAM FOR XTO ENERGY, INC. RIGHT POPULAR 20 PROPOSED PAD "A"

PAD CENTER IS LOCATED 280 FEET FROM THE NORTH LINE AND 464 FEET FROM THE WEST LINE OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: DB	DATE: 1/17/2025	SCALE: 1" = 200'	PROJECT NO.: 618.013013.02
DRAWN BY: AI	FIELD CREW: RD	REVISION NO.: NO	SHEET: 1 OF 1

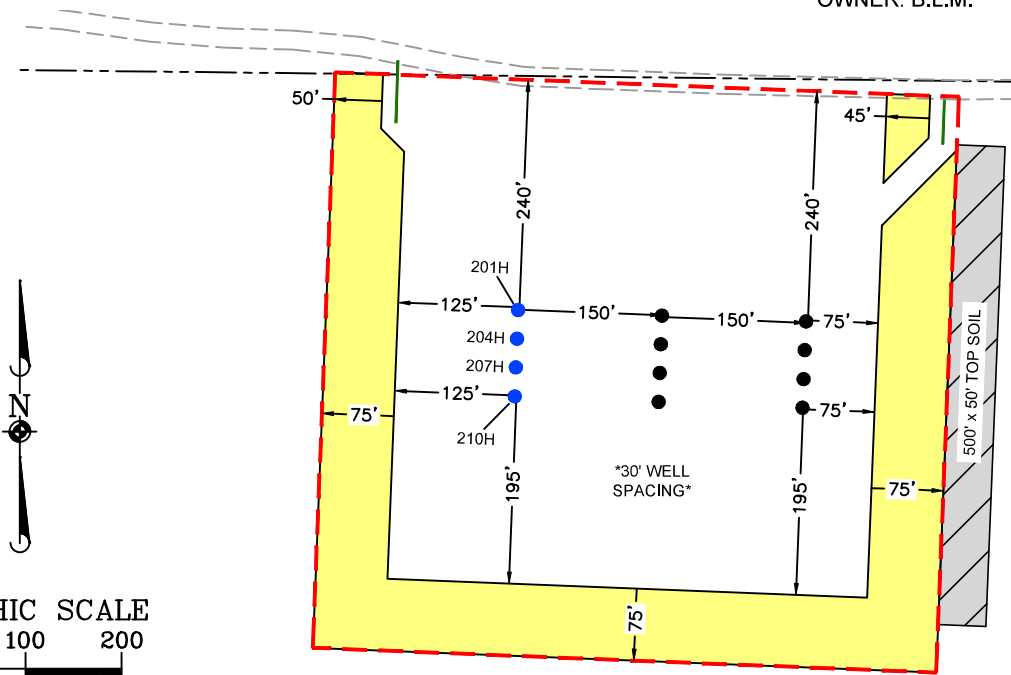


## SECTION 17

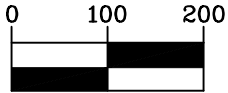
OWNER: B.L.M.

## SECTION 20

OWNER: B.L.M.

TOWNSHIP 25 SOUTH,  
RANGE 29 EAST  
N.M.P.M.

GRAPHIC SCALE



(IN FEET)

1 inch = 200 ft.

NE/4 NW/4

DRIVING DIRECTION TO LOCATION

FROM THE INTERSECTION OF HIGHWAY 285 (PECOS HIGHWAY) AND COUNTY ROAD 725 (LONGHORN ROAD), GO NORTHEAST ON LONGHORN ROAD FOR APPROX. 4.2 MILES. TURN LEFT (NORTHEAST) ON PIPELINE ROAD 1 AND GO APPROX. 1.8 MILES. TURN LEFT (NORTHWEST) ON LEASE ROAD AND GO APPROX. 3.0 MILES. TURN LEFT (WEST) ON LEASE ROAD AND GO APPROX. 1.6 MILES, ARRIVING AT A PROPOSED ROAD AND THE LOCATION IS TO THE SOUTH.

ACREAGE INFORMATION

INITIAL DISTURBED AREA	= 9.525 ACRES
INTERIM RECLAMATION	= 3.365 ACRES
TOTAL PAD ACREAGE AFTER IR = 6.160 ACRES	

GENERAL NOTES

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

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  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786

LEGEND

---	SECTION LINE
---	PROPOSED PAD
---	PROPOSED ACCESS ROAD
●	TBD WELL LOCATION
●	PERMITTED WELL LOCATION
---	EXISTING ROAD
---	INTERIM RECLAMATION AREA



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AN INTERIM RECLAMATION DIAGRAM FOR XTO ENERGY, INC.  
RIGHT POPULAR 20 PROPOSED PAD "B"

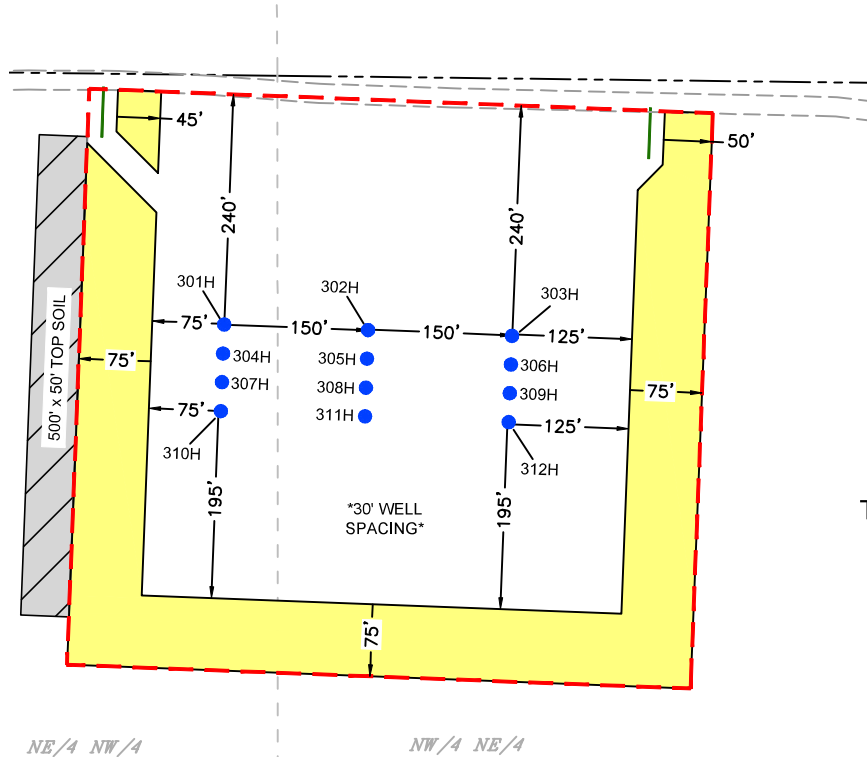
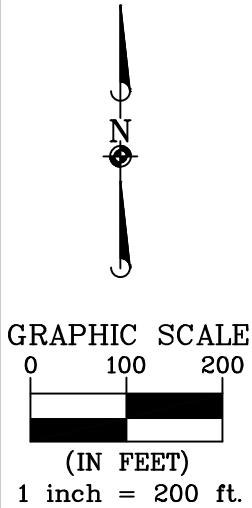
PAD CENTER IS LOCATED 308 FEET FROM THE NORTH LINE AND 1,999 FEET FROM THE WEST LINE OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: DB	DATE: 1/17/2025	SCALE: 1" = 200'	PROJECT NO.: 618.013013.02
DRAWN BY: AI	FIELD CREW: RD	REVISION NO.: NO	SHEET: 1 OF 1



## SECTION 17

OWNER: B.L.M.



## SECTION 20

OWNER: B.L.M.

TOWNSHIP 25 SOUTH,  
RANGE 29 EAST  
N.M.P.M.**DRIVING DIRECTION TO LOCATION**

FROM THE INTERSECTION OF HIGHWAY 285 (PECOS HIGHWAY) AND COUNTY ROAD 725 (LONGHORN ROAD), GO NORTHEAST ON LONGHORN ROAD FOR APPROX. 4.2 MILES. TURN LEFT (NORTHEAST) ON PIPELINE ROAD 1 AND GO APPROX. 1.8 MILES. TURN LEFT (NORTHWEST) ON LEASE ROAD AND GO APPROX. 3.0 MILES. TURN LEFT (WEST) ON LEASE ROAD AND GO APPROX. 1.5 MILES, ARRIVING AT A PROPOSED ROAD AND THE LOCATION IS TO THE SOUTH.

ACREAGE INFORMATION	
INITIAL DISTURBED AREA	= 9.526 ACRES
INTERIM RECLAMATION	= 3.370 ACRES
TOTAL PAD ACREAGE AFTER IR = 6.156 ACRES	

**GENERAL NOTES**

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

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  
NEW MEXICO PROFESSIONAL LAND SURVEYOR  
NO. 23786

**LEGEND**

	SECTION LINE
	PROPOSED PAD
	PROPOSED ACCESS ROAD
	TBD WELL LOCATION
	PERMITTED WELL LOCATION
	EXISTING ROAD
	INTERIM RECLAMATION AREA



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### AN INTERIM RECLAMATION DIAGRAM FOR XTO ENERGY, INC. RIGHT POPULAR 20 PROPOSED PAD "C"

PAD CENTER IS LOCATED 324 FEET FROM THE NORTH LINE AND 2,557 FEET FROM THE EAST LINE OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: <b>DB</b>	DATE: <b>1/17/2025</b>	SCALE: <b>1" = 200'</b>	PROJECT NO.: <b>618.013013.02</b>
DRAWN BY: <b>AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>NO</b>	SHEET: <b>1 OF 1</b>

# SECTION 20

OWNER: B.L.M.

# SECTION 21

OWNER: B.L.M.

## DRIVING DIRECTION TO LOCATION

FROM THE INTERSECTION OF HIGHWAY 285 (PECOS HIGHWAY) AND COUNTY ROAD 725 (LONGHORN ROAD), GO NORTHEAST ON LONGHORN ROAD FOR APPROX. 4.2 MILES. TURN LEFT (NORTHEAST) ON PIPELINE ROAD 1 AND GO APPROX. 1.8 MILES. TURN LEFT (NORTHWEST) ON LEASE ROAD AND GO APPROX. 3.0 MILES. TURN LEFT (WEST) ON LEASE ROAD AND GO APPROX. 1.0 MILE, ARRIVING AT A PROPOSED ROAD AND THE LOCATION IS TO THE SOUTH.

## GENERAL NOTES

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

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.

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## AN INTERIM RECLAMATION DIAGRAM FOR XTO ENERGY, INC. RIGHT POPULAR 20 PROPOSED PAD "D"

PAD CENTER IS LOCATED 1,125 FEET FROM THE NORTH LINE AND 202 FEET FROM THE EAST LINE OF SECTION 20, TOWNSHIP 25 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: <b>DB</b>	DATE: <b>1/17/2025</b>	SCALE: <b>1" = 200'</b>	PROJECT NO.: <b>618.013013.02</b>
DRAWN BY: <b>AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>NO</b>	SHEET: <b>1 OF 1</b>

GRAPHIC SCALE  
0 100 200  
(IN FEET)  
1 inch = 200 ft.

TOWNSHIP 25 SOUTH,  
RANGE 29 EAST  
N.M.P.M.

ACREAGE INFORMATION	
INITIAL DISTURBED AREA	= 9.039 ACRES
INTERIM RECLAMATION	= 3.289 ACRES
TOTAL PAD ACREAGE AFTER IR	= 5.750 ACRES

## LEGEND

	SECTION LINE
	PROPOSED PAD
	PROPOSED ACCESS ROAD
	TBD WELL LOCATION
	PERMITTED WELL LOCATION
	INTERIM RECLAMATION AREA

**RIGHT POPULAR 20 FED**

**RIGTH POPULAR 20 FED #101H: PAD A – A1**

**Surface Hole Location:** 374' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 330' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #102H: PAD A – A2**

**Surface Hole Location:** 404' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 550' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #103H: PAD A – A3**

**Surface Hole Location:** 434' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 330' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #104H: PAD A – A4**

**Surface Hole Location:** 464' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 660' FWL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #105H: PAD A – A5**

**Surface Hole Location:** 492' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 330' FWL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #106H: PAD A – A6**

**Surface Hole Location:** 524' FWL & 255' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 660' FWL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #201H: PAD B – A1**

**Surface Hole Location:** 1,850' FWL & 244' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 990' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #204H: PAD B – B1**

**Surface Hole Location:** 1,850' FWL & 274' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,430' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #207H: PAD B – C1**

**Surface Hole Location:** 1,849' FWL & 303' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,210' FWL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #210H: PAD B – D1**

**Surface Hole Location:** 1,848' FWL & 334' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,210' FWL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #301H: PAD C – A1**

**Surface Hole Location:** 2,598' FWL & 260' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,310' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #302H: PAD C – A2**

**Surface Hole Location:** 2,555' FEL & 263' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,310' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #303H: PAD C – A3**

**Surface Hole Location:** 2,405' FEL & 268' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,650' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #304H: PAD C – B1**

**Surface Hole Location:** 2,597' FWL & 290' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,090' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #305H: PAD C – B2**

**Surface Hole Location:** 2,556' FEL & 293' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,090' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #306H: PAD C – B3**

**Surface Hole Location:** 2,407' FEL & 297' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,210' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #307H: PAD C – C1**

**Surface Hole Location:** 2,596' FWL & 320' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,310' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #308H: PAD C – C2**

**Surface Hole Location:** 2,558' FEL & 323' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 2,310' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #309H: PAD C – C3**

**Surface Hole Location:** 2,408' FEL & 327' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,430' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #310H: PAD C – D1**

**Surface Hole Location:** 2,595' FWL & 350' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,980' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #311H: PAD C – D2**

**Surface Hole Location:** 2,558' FEL & 353' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,980' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #312H: PAD C – D3**

**Surface Hole Location:** 2,409' FEL & 358' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,980' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #401H: PAD D – A1**

**Surface Hole Location:** 370' FEL & 1,064' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 990' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #403H: PAD D – A3**

**Surface Hole Location:** 70' FEL & 1,059' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 330' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #404H: PAD D – B1**

**Surface Hole Location:** 370' FEL & 1,094' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 660' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #406H: PAD D – B3**

**Surface Hole Location:** 70' FEL & 1,090' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 660' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #407H: PAD D – C1**

**Surface Hole Location:** 370' FEL & 1,124' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 550' FEL & 280' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #409H: PAD D – C3**

**Surface Hole Location:** 70' FEL & 1,120' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 550' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #410H: PAD D – D1**

**Surface Hole Location:** 370' FEL & 1,154' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 1,430' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**RIGTH POPULAR 20 FED #412H: PAD D – D3**

**Surface Hole Location:** 70' FEL & 1,150' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** 660' FEL & 50' FSL, Section 32, T. 25 S. R. 29 E.

**Future Well #1: PAD B – A2**

**Surface Hole Location:** 2,000' FWL & 248' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #2: PAD B – B2**

**Surface Hole Location:** 1,999' FWL & 277' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #3: PAD B – C2**

**Surface Hole Location:** 1,998' FWL & 307' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #4: PAD B – D2**

**Surface Hole Location:** 1,998' FWL & 338' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #5: PAD B – A3**

**Surface Hole Location:** 2,150' FWL & 252' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #6: PAD B – B3**

**Surface Hole Location:** 2,149' FWL & 282' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #7:** PAD B – C3

**Surface Hole Location:** 2,148' FWL & 312' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #8:** PAD B – D3

**Surface Hole Location:** 2,148' FWL & 342' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #9:** PAD D – A2

**Surface Hole Location:** 220' FEL & 1,062' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #10:** PAD D – B2

**Surface Hole Location:** 220' FEL & 1,092' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #11:** PAD D – C2

**Surface Hole Location:** 220' FEL & 1,122' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Future Well #12:** PAD D – D2

**Surface Hole Location:** 220' FEL & 1,152' FNL, Section 20, T. 25 S. R. 29 E.

**Bottom Hole Location:** To Be Determined

**Surface Use Plan of Operations:****Existing Roads:**

Individual well specific vicinity maps, topographical & access road maps issued by the registered surveyor Manhard Consulting, that show & identify the proposed well sites and access routes to the proposed wells as per the 43 CFR requirements have been attached with the individual APDs under SUPO section 1.

**New or Reconstructed Access Roads:**

All proposed access routes to the well sites as per the 43 CFR requirements have been described in the new road plat issued by the registered surveyor, Manhard Consulting. The same has been attached with the individual APDs under SUPO Section 2. Proposed routes to the individual wells on the well site locations have been shown & identified on the well specific vicinity, topography & access road maps attached in SUPO section 1 of the individual APDs.

Below are the specifications for the new access roads that will be constructed –

- Road Width: All new access roads that will be constructed will be 30 feet wide
- Maximum Grade: Driving surface for all the new access roads will be made of 6" rolled & compacted caliche
- Crown & Ditch Design: All the new access roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. Ditches will be 1 foot deep with a 3:1 slope
- Turnouts: No new turnouts will be constructed during the construction of new access roads
- Cattleguards: No new cattleguards will be constructed during the construction of new access roads
- Major cuts and fills: No significant cuts & fills will be required during the construction of new access roads
- Type of surfacing material: Surface material for all new access roads will be native caliche

**Location of existing wells:**

A map including all known wells with-in a one-mile radius of the Right Popular 20 Fed development area, as per the 43 CFR requirements, is attached under SUPO section 3.

**Location of existing and/or proposed production facilities:**

Separate certified plats issued by the registered surveyor Manhard Consulting for the proposed central tank battery, flowlines & overhead electrical lines, as per the 43 CFR requirements have been attached under SUPO section 4. A detailed facility layout which describes the placement of the proposed facility components on the central tank battery with appropriate labels, as per the 43 CFR requirements, has also been attached under SUPO section 4.

**Location & Types of Water Supply:**

Source & location of water supply:

1. Texas Pacific Water Resources located at section 27, T25S-R30E, Eddy County, New Mexico
2. Intrepid Potash Company located at section 6, T25S-R29E, Eddy Country, New Mexico

Intrepid Potash Company is the alternate source of water if Texas Pacific Water Resources doesn't have enough water for XTO Energy, Inc. during drilling & completions.



Water will be transported using a transport truck via the existing and proposed access roads as described in the maps & plats attached under SUPO section 1 & section 2.

**Construction Material:**

- Source: Pit 1: State operated by MEC, Section 32-T25S-R29E, SENE Pit 2: State operated by MEC, Section 11-T25S-R29E, SENW?
- Character: 6" rolled and compacted caliche
- Intended use: surfacing the drill pad & constructing the access roads

**Methods for handling waste:**

- Cuttings: Drill cuttings will be held in roll-off style mud boxes and will be taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site located at
- Drilling Fluids. These will be contained in steel mud pits and will be taken to an NMOCD approved commercial disposal facility.
- Produced Fluids:
  - Water produced from the well during completions will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
  - Oil produced during operations will be stored in tanks until sold
- 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 approved 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 the drilling rig is removed, 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
- Sewage: Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completions activities, or as required, the toilet holding tanks will be pumped and the contents thereof will be disposed 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.
- Hazardous Materials:
  - All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location will be disposed off at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA) and will not be reused at another drilling location
  - No hazardous substances or wastes will be stored on the location after completion of the well.
  - Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list
  - All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in the 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

**Ancillary Facilities**

- No ancillary facilities will be required for the Right Popular 20 Fed development.

**Well Site Layout:**

- Certified well site layouts for the individual wells, issued by the registered surveyor, Manhard Consulting, have been attached under SUPO section 9 of the APD
- Rig layouts for individual wells, as per the 43 CFR requirements, have also been attached under SUPO section of the individual APDs

**Plans for surface reclamation:**

XTO Energy, Inc. 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. Reseeding of the topsoil stockpile in place will occur to maintain topsoil vitality until interim reclamation ensues. 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) plant 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, head cutting, 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.

**Surface Ownership:**

All the surface that will be utilized for the Right Popular 20 Fed Development is owned by the Bureau of Land Management (BLM).

**Other Information:**

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

Robert Bartels

Project Execution Planner

XTO Energy, Incorporated

6401 Holiday Hill Road Bldg 5

Midland, Texas 79701

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Phone: (406) 478-3671



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

## PWD Data Report

02/27/2025

**APD ID:** 10400096528

**Submission Date:** 01/10/2024

**Operator Name:** XTO ENERGY INCORPORATED

**Well Name:** RIGHT POPULAR 20 FED

**Well Number:** 412H

**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

Would you like to utilize Lined Pit PWD options? N

**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**

**Pit liner description:**

**Pit liner manufacturers**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal**

**Lined pit precipitated solids disposal schedule:**

**Lined pit precipitated solids disposal schedule**

**Lined pit reclamation description:**

**Lined pit reclamation**

**Leak detection system description:**

**Leak detection system**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Lined pit Monitor description:****Lined pit Monitor****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**

### Section 3 - Unlined

**Would you like to utilize Unlined Pit PWD options?** N**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****Precipitated solids disposal:****Describe precipitated solids disposal:****Precipitated solids disposal****Unlined pit precipitated solids disposal schedule:****Unlined pit precipitated solids disposal schedule****Unlined pit reclamation description:****Unlined pit reclamation****Unlined pit Monitor description:****Unlined pit Monitor****Do you propose to put the produced water to beneficial use?****Beneficial use user****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****State****Unlined Produced Water Pit Estimated****Unlined pit: do you have a reclamation bond for the pit?**

**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Is the reclamation bond a rider under the BLM bond?****Unlined pit bond number:****Unlined pit bond amount:****Additional bond information****Section 4 -****Would you like to utilize Injection PWD options?** N**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****Underground Injection Control (UIC) Permit?****UIC Permit****Section 5 - Surface****Would you like to utilize Surface Discharge PWD options?** N**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 -****Would you like to utilize Other PWD options?** N**Produced Water Disposal (PWD) Location:****PWD surface owner:****PWD disturbance (acres):****Other PWD discharge volume (bbl/day):**

**Operator Name:** XTO ENERGY INCORPORATED

**Well Name:** RIGHT POPULAR 20 FED

**Well Number:** 412H

**Other PWD type description:**

**Other PWD type**

**Have other regulatory requirements been met?**

**Other regulatory requirements**





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

**Bond Info Data**

02/27/2025

**APD ID:** 10400096528**Submission Date:** 01/10/2024**Operator Name:** XTO ENERGY INCORPORATED**Well Name:** RIGHT POPULAR 20 FED**Well Number:** 412H**Well Type:** OIL WELL**Well Work Type:** Drill

Highlighted data  
reflects the most  
recent changes

[Show Final Text](#)**Bond****Federal/Indian APD:** FED**BLM Bond number:** COB000050**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****Reclamation bond number:****Reclamation bond amount:****Reclamation bond rider amount:****Additional reclamation bond information**

C-102  Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
			<input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION			
API Number <b>30-01556370</b>	Pool Code <b>52775</b>	Pool Name <b>ROCK SPUR; BONE SPRING</b>	
Property Code <b>337075</b>	Property Name <b>RIGHT POPULAR 20 FED</b>		Well Number <b>412H</b>
OGRID No. <b>005380</b>	Operator Name <b>XTO ENERGY, INC.</b>		Ground Level Elevation <b>3,015'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

Surface Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	20	25S	29E		1,151 FNL	69 FEL	32.119565	-103.998249	EDDY

Bottom Hole Location									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	32	25S	29E		50 FSL	660 FEL	32.079088	-104.000056	EDDY

Dedicated Acres <b>480.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>C</b>
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	20	25S	29E		1,151 FNL	69 FEL	32.119565	-103.998249	EDDY

First Take Point (FTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
A	20	25S	29E		101 FNL	660 FEL	32.122476	-104.000154	EDDY

Last Take Point (LTP)									
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
P	32	25S	29E		100 FSL	660 FEL	32.079225	-104.000056	EDDY

Unitized Area of Area of Interest	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,015'</b>
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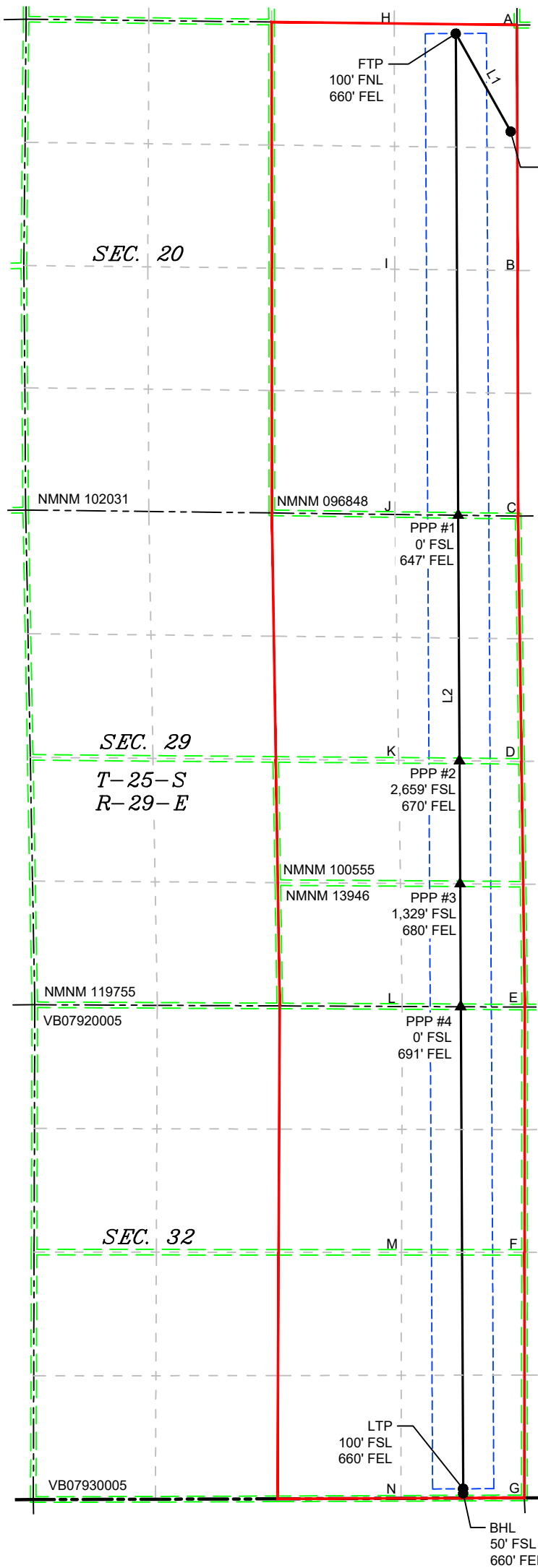
<div>OPERATOR CERTIFICATIONS</div> <div><p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</p><p>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</p></div> <div><div><div>Jena Austin</div><div>Signature</div></div><div><div>3/17/2025</div><div>Date</div></div></div> <div><div>Jena Austin</div><div>Printed Name</div></div> <div><div>Jena.N.Austin@ExxonMobil.com</div><div>Email Address</div></div>	<div>SURVEYOR CERTIFICATIONS</div> <div><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</p></div> <div><div><div><div>MARK DILLON HARP</div><div>NEW MEXICO</div><div>23786</div><div>PROFESSIONAL SURVEYOR</div></div><div><div><div></div><div></div></div></div></div><div>Signature and Seal of Professional Surveyor</div></div> <div><div>MARK DILLON HARP 23786</div><div>Certificate Number</div></div> <div><div>3/5/2025</div><div>Date of Survey</div></div> <div><div>KT</div><div>618.013013.02-36</div></div>
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This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other then the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

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LEGEND

- SECTION LINE
- PROPOSED WELL BORE
- NEW MEXICO MINERAL LEASE
- 330' BUFFER
- ALLOCATION AREA

LINE TABLE		
LINE	AZIMUTH	LENGTH
L1	330°43'18"	1,213.53'
L2	179°42'41"	15,784.86'

COORDINATE TABLE			
SHL/KOP (NAD 83 NME)		SHL/KOP (NAD 27 NME)	
Y =	407,395.2	N	Y = 407,336.7
X =	645,074.9	E	X = 603,890.8
LAT. =	32.119565	°N	LAT. = 32.119440
LONG. =	103.998249	°W	LONG. = 103.997761
FTP (NAD 83 NME)		FTP (NAD 27 NME)	
Y =	408,452.4	N	Y = 408,394.0
X =	644,481.8	E	X = 603,297.7
LAT. =	32.122476	°N	LAT. = 32.122352
LONG. =	104.000154	°W	LONG. = 103.999666
PPP #1 (NAD 83 NME)		PPP #1 (NAD 27 NME)	
Y =	403,244.4	N	Y = 403,186.1
X =	644,507.6	E	X = 603,323.4
LAT. =	32.108160	°N	LAT. = 32.108035
LONG. =	104.000123	°W	LONG. = 103.999635
PPP #2 (NAD 83 NME)		PPP #2 (NAD 27 NME)	
Y =	400,589.7	N	Y = 400,531.4
X =	644,521.0	E	X = 603,336.7
LAT. =	32.100862	°N	LAT. = 32.100737
LONG. =	104.000106	°W	LONG. = 103.999619
PPP #3 (NAD 83 NME)		PPP #3 (NAD 27 NME)	
Y =	399,260.1	N	Y = 399,201.9
X =	644,527.8	E	X = 603,343.5
LAT. =	32.097207	°N	LAT. = 32.097082
LONG. =	104.000097	°W	LONG. = 103.999610
PPP #4 (NAD 83 NME)		PPP #4 (NAD 27 NME)	
Y =	397,931.0	N	Y = 397,872.8
X =	644,534.5	E	X = 603,350.2
LAT. =	32.093553	°N	LAT. = 32.093429
LONG. =	104.000089	°W	LONG. = 103.999602
LTP (NAD 83 NME)		LTP (NAD 27 NME)	
Y =	392,718.8	N	Y = 392,660.7
X =	644,560.9	E	X = 603,376.5
LAT. =	32.079225	°N	LAT. = 32.079100
LONG. =	104.000056	°W	LONG. = 103.999569
BHL (NAD 83 NME)		BHL (NAD 27 NME)	
Y =	392,668.8	N	Y = 392,610.7
X =	644,560.9	E	X = 603,376.5
LAT. =	32.079088	°N	LAT. = 32.078963
LONG. =	104.000056	°W	LONG. = 103.999570
CORNER COORDINATES (NAD 83 NME)			
A - Y =	408,544.1	N	A - X = 645,141.6
B - Y =	405,890.8	N	B - X = 645,148.3
C - Y =	403,236.1	N	C - X = 645,154.1
D - Y =	400,584.2	N	D - X = 645,190.7
E - Y =	397,927.3	N	E - X = 645,225.4
F - Y =	395,276.1	N	F - X = 645,222.7
G - Y =	392,621.5	N	G - X = 645,220.8
H - Y =	408,560.9	N	H - X = 643,817.1
I - Y =	405,904.3	N	I - X = 643,821.3
J - Y =	403,253.1	N	J - X = 643,825.1
K - Y =	400,595.0	N	K - X = 643,864.4
L - Y =	397,933.6	N	L - X = 643,902.8
M - Y =	395,276.7	N	M - X = 643,895.4
N - Y =	392,616.1	N	N - X = 643,888.3
CORNER COORDINATES (NAD 27 NME)			
A - Y =	408,485.6	N	A - X = 603,957.5
B - Y =	405,832.4	N	B - X = 603,964.2
C - Y =	403,177.8	N	C - X = 603,969.9
D - Y =	400,526.0	N	D - X = 604,006.4
E - Y =	397,869.1	N	E - X = 604,041.0
F - Y =	395,218.0	N	F - X = 604,038.3
G - Y =	392,563.5	N	G - X = 604,036.4
H - Y =	408,502.4	N	H - X = 602,633.1
I - Y =	405,845.9	N	I - X = 602,637.2
J - Y =	403,194.7	N	J - X = 602,640.9
K - Y =	400,536.8	N	K - X = 602,680.2
L - Y =	397,875.4	N	L - X = 602,718.5
M - Y =	395,218.6	N	M - X = 602,711.0
N - Y =	392,558.0	N	N - X = 602,703.9

P:\618.013 XTO Energy - NM\013 Corral Canyon Unit - Eddy\02 - Corral Canyon 20-32 - CC 412H\DWG\RIGHT POPULAR 20 FED 412H C-102.dwg

C-102  Sumbit electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	Revised July, 09 2024	
		Submittal Type:	<input checked="" type="checkbox"/> Initial Submittal
			<input type="checkbox"/> Amended Report
			<input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION			
API Number <b>30-015- 56370</b>	Pool Code <b>96217</b>	Pool Name <b>WILLOW LAKE; BONE SPRING, SOUTHEAST</b>	
Property Code <b>337075</b>	Property Name <b>RIGHT POPULAR 20 FED</b>		Well Number <b>412H</b>
OGRID No. <b>005380</b>	Operator Name <b>XTO ENERGY, INC.</b>		Ground Level Elevation <b>3,015'</b>
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input checked="" type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal	

Surface Hole Location									
UL <b>A</b>	Section <b>20</b>	Township <b>25S</b>	Range <b>29E</b>	Lot	Ft. from N/S <b>1,151 FNL</b>	Ft. from E/W <b>69 FEL</b>	Latitude <b>32.119565</b>	Longitude <b>-103.998249</b>	County <b>EDDY</b>

Bottom Hole Location									
UL <b>P</b>	Section <b>32</b>	Township <b>25S</b>	Range <b>29E</b>	Lot	Ft. from N/S <b>50 FSL</b>	Ft. from E/W <b>660 FEL</b>	Latitude <b>32.079088</b>	Longitude <b>-104.000056</b>	County <b>EDDY</b>

Dedicated Acres <b>480.00</b>	Infill or Defining Well <b>INFILL</b>	Defining Well API	Overlapping Spacing Unit (Y/N) <b>Y</b>	Consolidation Code <b>C</b>
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)									
UL <b>A</b>	Section <b>20</b>	Township <b>25S</b>	Range <b>29E</b>	Lot	Ft. from N/S <b>1,151 FNL</b>	Ft. from E/W <b>69 FEL</b>	Latitude <b>32.119565</b>	Longitude <b>-103.998249</b>	County <b>EDDY</b>

First Take Point (FTP)									
UL <b>A</b>	Section <b>20</b>	Township <b>25S</b>	Range <b>29E</b>	Lot	Ft. from N/S <b>101 FNL</b>	Ft. from E/W <b>660 FEL</b>	Latitude <b>32.122476</b>	Longitude <b>-104.000154</b>	County <b>EDDY</b>

Last Take Point (LTP)									
UL <b>P</b>	Section <b>32</b>	Township <b>25S</b>	Range <b>29E</b>	Lot	Ft. from N/S <b>100 FSL</b>	Ft. from E/W <b>660 FEL</b>	Latitude <b>32.079225</b>	Longitude <b>-104.000056</b>	County <b>EDDY</b>

Unitized Area of Area of Interest	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation <b>3,015'</b>
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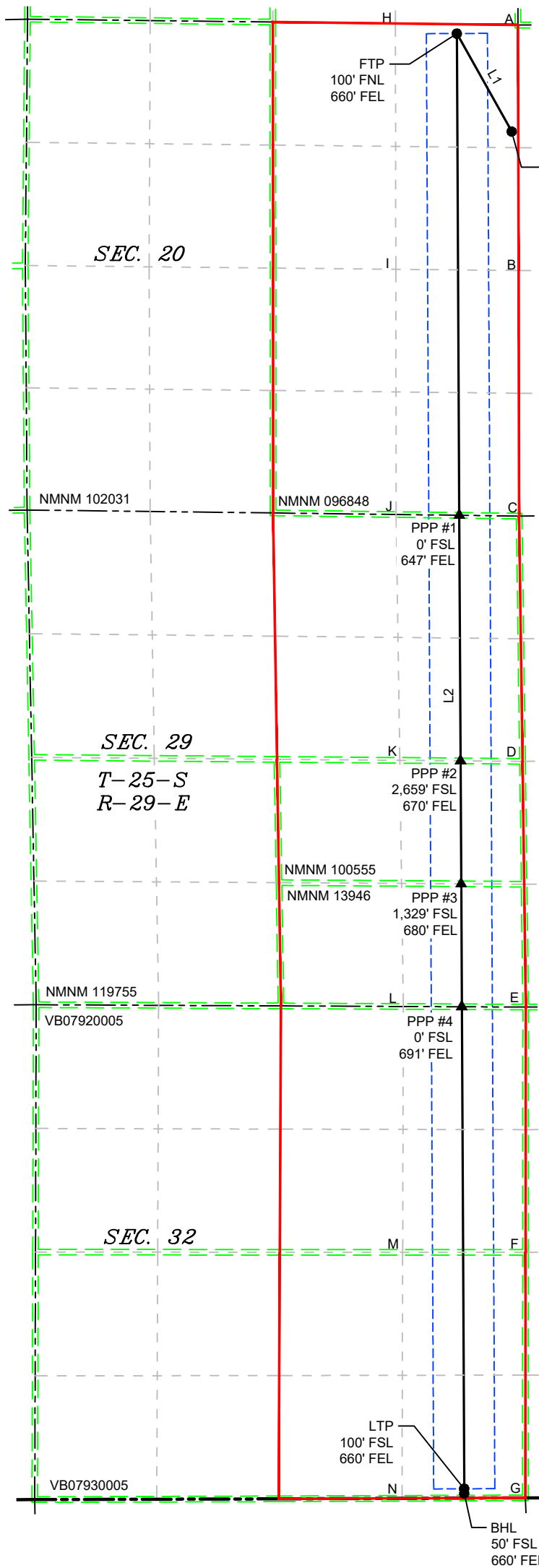
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P:\618.013 XTO Energy - NM\013 Corral Canyon Unit - Eddy\02 - Corral Canyon 20-32 - CC 412H\DWG\RIGHT POPULAR 20 FED 412H C-102.dwg

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 438020

**CONDITIONS**

Operator: XTO ENERGY, INC 6401 Holiday Hill Road Midland, TX 79707	OGRID: 5380
	Action Number: 438020
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
jaustin	Cement is required to circulate on both surface and intermediate1 strings of casing.	3/2/2025
jaustin	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.	3/2/2025
ward.rikala	Notify the OCD 24 hours prior to casing & cement.	3/27/2025
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.	3/27/2025
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	3/27/2025
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	3/27/2025