



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

## Application for Permit to Drill

### APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

### 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 Taperd String Specs: 1 file(s)
  - Casing Design Assumptions and Worksheet(s): 4 file(s)
  - Hydrogen sulfide drilling operations plan: 5 file(s)
  - Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  - Other Facets: 1 file(s)
  - Other Variances: 5 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)

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input 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 type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No.
3a. Address	3b. Phone No. (include area code)	9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
		12. County or Parish
		13. State
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
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)

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>1. Well plat certified by a registered surveyor.</li> <li>2. A Drilling Plan.</li> <li>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).</li> </ul> | <ul style="list-style-type: none"> <li>4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).</li> <li>5. Operator certification.</li> <li>6. Such other site specific information and/or plans as may be requested by the BLM.</li> </ul> |
|---|---|

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		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: LOT 4 / 155 FNL / 1130 FWL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.34034 / LONG: -103.821955 ( TVD: 0 feet, MD: 0 feet )

PPP: LOT 4 / 700 FSL / 1210 FWL / TWSP: 22S / RANGE: 31E / SECTION: 31 / LAT: 32.34269 / LONG: -103.821694 ( TVD: 10489 feet, MD: 10943 feet )

PPP: LOT 7 / 0 FNL / 1210 FWL / TWSP: 23S / RANGE: 31E / SECTION: 6 / LAT: 32.326254 / LONG: -103.821702 ( TVD: 10579 feet, MD: 17543 feet )

PPP: LOT 1 / 2637 FNL / 1130 FWL / TWSP: 23S / RANGE: 31E / SECTION: 7 / LAT: 32.333518 / LONG: -103.821699 ( TVD: 10579 feet, MD: 14903 feet )

BHL: LOT 2 / 2583 FNL / 1210 FWL / TWSP: 23S / RANGE: 31E / SECTION: 18 / LAT: 32.304612 / LONG: -103.821713 ( TVD: 10579 feet, MD: 24803 feet )

### BLM Point of Contact

Name: MARIAH HUGHES

Title: Land Law Examiner

Phone: (575) 234-5972

Email: mhughes@blm.gov

### **Review and Appeal Rights**

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

**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO Permian Operating, LLC.
LEASE NO.:	NMNM02953C, NMNM02887B, NMNM0281482A
COUNTY:	Eddy

**Wells:**

**JAMES RANCH UNIT DI 7 SAWTOOTH #114H: PAD B – B1**  
 Surface Hole Location: 2,308' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 2,090' FWL & 2,588' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #115H: PAD B – B4**  
 Surface Hole Location: 2,398' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 2,310' FEL & 2,591' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #116H: PAD C – A1**  
 Surface Hole Location: 2,050' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 1,430' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #117H: PAD C – A4**  
 Surface Hole Location: 1,960' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 550' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #118H: PAD C – B2**  
 Surface Hole Location: 2,021' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 330' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #701H: PAD A – B1**  
 Surface Hole Location: 979' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 330' FWL & 2,578' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #702H: PAD A – B2**  
 Surface Hole Location: 1,009' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 990' FWL & 2,582' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #703H: PAD A – B3**  
 Surface Hole Location: 1,039' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 1,650' FWL & 2,585' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #704H: PAD A – B4**  
 Surface Hole Location: 1,069' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 2,310' FWL & 2,589' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #705H: PAD A – B5**  
 Surface Hole Location: 1,099' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 2,310' FEL & 2,591' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #706H: PAD A – B6**  
 Surface Hole Location: 1,129' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
 Bottom Hole Location: 1,650' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #707H: PAD C – B7**  
Surface Hole Location: 1,741' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 990' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #708H: PAD C – B8**  
Surface Hole Location: 1,711' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 330' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #709H: PAD C – B9**  
Surface Hole Location: 1,681' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 330' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #710H: PAD C – B10**  
Surface Hole Location: 1,650' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 990' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #711H: PAD C – B11**  
Surface Hole Location: 1,621' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 1,650' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #712H: PAD C – B12**  
Surface Hole Location: 1,590' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 2,305' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #801H: PAD A – A5**  
Surface Hole Location: 1,100' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 330' FWL & 2,578' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #802H: PAD A – A6**  
Surface Hole Location: 1,130' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 1,210' FWL & 2,583' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #803H: PAD D – B5**  
Surface Hole Location: 350' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 1,210' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #804H: PAD D – B6**  
Surface Hole Location: 320' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 2,090' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #805H: PAD B – B2**  
Surface Hole Location: 2,338' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 2,090' FWL & 2,588' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #806H: PAD B – B5**  
Surface Hole Location: 2,428' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 2,310' FEL & 2,591' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #807H: PAD C – A2**  
Surface Hole Location: 2,020' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 1,430' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #808H: PAD C – A5**  
Surface Hole Location: 1,930' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 550' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #809H: PAD C – B1**  
Surface Hole Location: 2,051' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 330' FWL & 2,590' FNL, Section 17, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #905H: PAD B – B3**  
Surface Hole Location: 2,368' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 2,530' FWL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #906H: PAD B – B6**  
Surface Hole Location: 2,458' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 1,870' FWL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #907H: PAD C – A3**  
Surface Hole Location: 1,990' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 990' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**JAMES RANCH UNIT DI 7 SAWTOOTH #908H: PAD C – A6**  
Surface Hole Location: 1,900' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: 110' FEL & 2,590' FNL, Section 18, T. 23 S. R. 31 E.

**Future APDs**

**Future Well #1: PAD A – A7**  
Surface Hole Location: 1,290' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #2: PAD A – A8**  
Surface Hole Location: 1,320' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #3: PAD A – A9**  
Surface Hole Location: 1,350' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #4: PAD A – A10**  
Surface Hole Location: 1,380' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #5: PAD A – A11**  
Surface Hole Location: 1,410' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #6: PAD A – A12**  
Surface Hole Location: 1,440' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #7: PAD A – A13**  
Surface Hole Location: 1,600' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #8: PAD A – A14**  
Surface Hole Location: 1,630' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #9: PAD A – A15**

**Surface Hole Location: 1,660' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #10: PAD A – A16**

**Surface Hole Location: 1,690' FWL & 155' FNL, Section 22, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #11: PAD A – A17**

**Surface Hole Location: 1,720' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #12: PAD A – A18**

**Surface Hole Location: 1,750' FWL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #13: PAD A – B7**

**Surface Hole Location: 1,289' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #14: PAD A – B8**

**Surface Hole Location: 1,319' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #15: PAD A – B9**

**Surface Hole Location: 1,349' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #16: PAD A – B10**

**Surface Hole Location: 1,379' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #17: PAD A – B11**

**Surface Hole Location: 1,409' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #18: PAD A – B12**

**Surface Hole Location: 1,439' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #19: PAD A – B13**

**Surface Hole Location: 1,599' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #20: PAD A – B14**

**Surface Hole Location: 1,629' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #21: PAD A – B15**

**Surface Hole Location: 1,659' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #22: PAD A – B16**

**Surface Hole Location: 1,689' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #23: PAD A – B17**

Surface Hole Location: 1,719' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #24: PAD A – B18**

Surface Hole Location: 1,749' FWL & 260' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #25: PAD B – A7**

Surface Hole Location: 2,618' FWL & 127' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #26: PAD B – B7**

Surface Hole Location: 2,618' FWL & 157' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #27: PAD B – C7**

Surface Hole Location: 2,618' FWL & 187' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #28: PAD B – D7**

Surface Hole Location: 2,618' FWL & 217' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #29: PAD B – E7**

Surface Hole Location: 2,617' FWL & 247' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #30: PAD B – F1**

Surface Hole Location: 2,308' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #31: PAD B – F2**

Surface Hole Location: 2,337' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #32: PAD B – F3**

Surface Hole Location: 2,367' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #33: PAD B – F4**

Surface Hole Location: 2,397' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #34: PAD B – F5**

Surface Hole Location: 2,427' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #35: PAD B – F6**

Surface Hole Location: 2,457' FWL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #36: PAD B – G6**

Surface Hole Location: 2,617' FWL & 277' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #37: PAD C – A7**

**Surface Hole Location: 1,740' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #38: PAD C – A8**

**Surface Hole Location: 1,710' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #39: PAD C – A9**

**Surface Hole Location: 1,680' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #40: PAD C – A10**

**Surface Hole Location: 1,650' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #41: PAD C – A11**

**Surface Hole Location: 1,620' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #42: PAD C – A12**

**Surface Hole Location: 1,590' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #43: PAD C – A13**

**Surface Hole Location: 1,430' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #44: PAD C – A14**

**Surface Hole Location: 1,400' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #45: PAD C – A15**

**Surface Hole Location: 1,370' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #46: PAD C – A16**

**Surface Hole Location: 1,340' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #47: PAD C – A17**

**Surface Hole Location: 1,310' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #48: PAD C – A18**

**Surface Hole Location: 1,280' FEL & 155' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #49: PAD C – B3**

**Surface Hole Location: 1,991' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #50: PAD C – B4**

**Surface Hole Location: 1,961' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined**

**Future Well #51: PAD C – B5**  
Surface Hole Location: 1,931' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #52: PAD C – B6**  
Surface Hole Location: 1,901' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #53: PAD C – B13**  
Surface Hole Location: 1,430' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #54: PAD C – B14**  
Surface Hole Location: 1,401' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #55: PAD C – B15**  
Surface Hole Location: 1,371' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #56: PAD C – B16**  
Surface Hole Location: 1,341' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #57: PAD C – B17**  
Surface Hole Location: 1,311' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #58: PAD C – B18**  
Surface Hole Location: 1,281' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #59: PAD D – A7**  
Surface Hole Location: 160' FEL & 127' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #60: PAD D – B7**  
Surface Hole Location: 160' FEL & 157' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #61: PAD D – C7**  
Surface Hole Location: 160' FEL & 187' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #62: PAD D – D7**  
Surface Hole Location: 160' FEL & 217' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #63: PAD D – E7**  
Surface Hole Location: 160' FEL & 247' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #64: PAD D – F1**  
Surface Hole Location: 470' FEL & 250' FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #65: PAD D – F2**  
Surface Hole Location: 440’ FEL & 250’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #66: PAD D – F3**  
Surface Hole Location: 410’ FEL & 250’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #67: PAD D – F4**  
Surface Hole Location: 380’ FEL & 250’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #68: PAD D – F5**  
Surface Hole Location: 350’ FEL & 250’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #69: PAD D – F6**  
Surface Hole Location: 320’ FEL & 250’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**Future Well #58: PAD D – G7**  
Surface Hole Location: 160’ FEL & 277’ FNL, Section 6, T. 23 S. R. 31 E.  
Bottom Hole Location: To Be Determined

**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
  - Cave/Karst
  - Range
  - Lesser Prairie Chicken
  - VRM IV
  - Potash
- 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.

#### **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.

##### **TANK BATTERY:**

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

##### **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.

**ELECTRIC LINE(S):**

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

**Cave/Karst:****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 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:

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

**Lesser Prairie Chicken:****Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:**

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

**Timing Limitation Exceptions:**

The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

**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.

**Potash Resources**

Lessees must comply with the 2012 Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established James Ranch Unit Drill Island No. 7.

**VI. CONSTRUCTION**

**A. NOTIFICATION**

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

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

**B. TOPSOIL**

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

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

**C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

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

**D. FEDERAL MINERAL MATERIALS PIT**

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

**E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

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

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

**Exclosure Fencing**

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

**G. ON LEASE ACCESS ROADS**

**Road Width**

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

**Surfacing**

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

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

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

**Crowning**

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

**Ditching**

Ditching shall be required on both sides of the road.

**Turnouts**

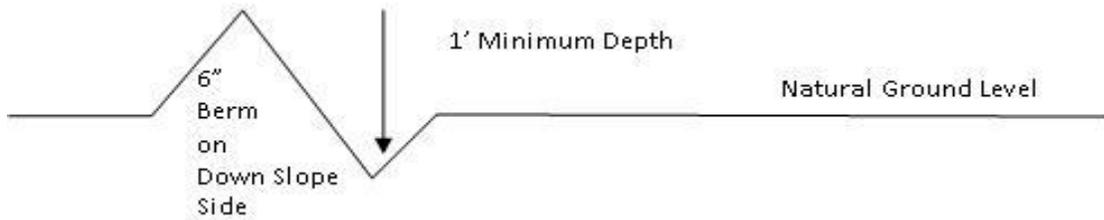
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

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

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

**Cross Section of a Typical Lead-off Ditch**



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

**Formula for Spacing Interval of Lead-off Ditches**

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

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

**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

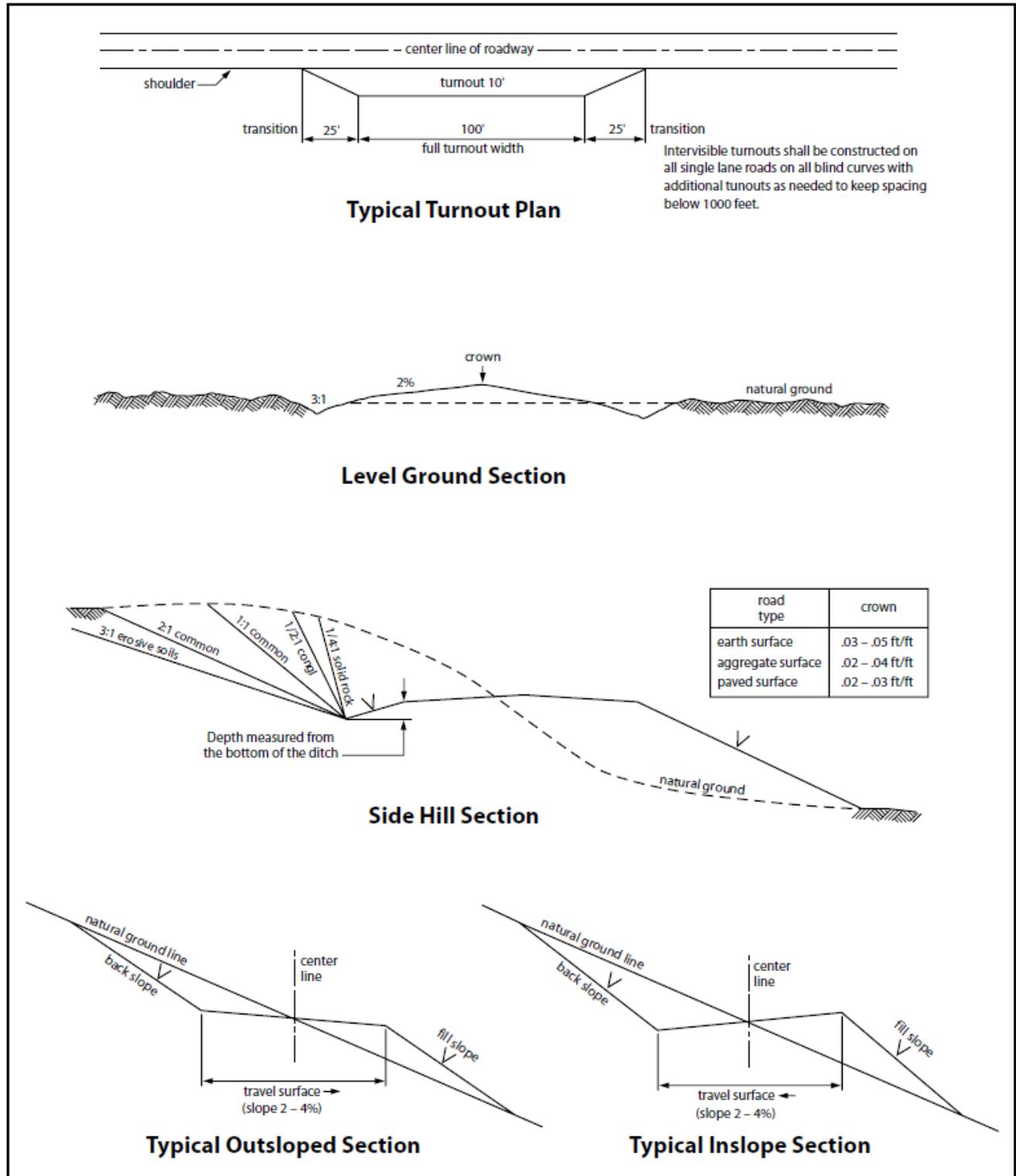


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## 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.

### 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:
  - Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 66 feet. 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. 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, 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.

## STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

**A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review 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. 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. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard 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 in particular, 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. 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 activity of 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 provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing
  - (2) Earth-disturbing and earth-moving work
  - (3) Blasting
  - (4) Vandalism and sabotage;
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, 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, salt water, 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/she 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 Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 30 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. 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.

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. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. 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. Signs will be maintained in a legible condition for the life of the pipeline.

14. 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. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. 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 16 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.

16. 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."

17. 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.

18. 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, powerline 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.

19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

### C. ELECTRIC LINES

- 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.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

#### STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

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

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

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

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

10. Any cultural 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 11 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.

11. 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."

12. 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.

13. Special Stipulations:

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

### **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 (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

\*Pounds of pure live seed:

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

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating LLC
<b>WELL NAME &amp; NO.:</b>	James Ranch Unit DI 7 Sawtooth 802H
<b>LOCATION:</b>	Sec 06-23S-31E-NMP
<b>COUNTY:</b>	Eddy County, New Mexico

COA

<b>H<sub>2</sub>S</b>	<input type="radio"/> No	<input checked="" type="radio"/> Yes		
<b>Potash / WIPP</b>	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-P	<input checked="" type="checkbox"/> WIPP
<b>Cave / Karst</b>	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High	<input type="radio"/> Critical
<b>Wellhead</b>	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both	<input type="radio"/> Diverter
<b>Cementing</b>	<input type="checkbox"/> Primary Squeeze	<input checked="" type="checkbox"/> Cont. Squeeze	<input checked="" type="checkbox"/> EchoMeter	<input type="checkbox"/> DV Tool
<b>Special Req</b>	<input checked="" type="checkbox"/> Break Testing	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit
<b>Variance</b>	<input checked="" type="checkbox"/> Flex Hose	<input checked="" type="checkbox"/> Casing Clearance	<input type="checkbox"/> Pilot Hole	<input type="checkbox"/> Capitan Reef
<b>Variance</b>	<input checked="" type="checkbox"/> Four-String	<input checked="" type="checkbox"/> Offline Cementing	<input type="checkbox"/> Fluid-Filled	<input type="checkbox"/> Open Annulus
<input type="checkbox"/> <b>Batch APD / Sundry</b>				

### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan shall be activated 500 feet prior to drilling into the **Base of Salt**. As a result, the Hydrogen Sulfide area must meet all requirements from 43 CFR 3176, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

### B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately 579 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. *Comments from the BLM Geologist: Operator's proposed surface casing at 579 feet is very near the top of the salt or in the salt. Operator has extensive drilling experience in this area and has encountered lost circulation in BLM's preferred setpoint for the surface casing just below the Magenta Dolomite. BLM accepts the base of the Rustler Formation and Top of the Salt as surface casing setpoint. Operator must set surface casing at this depth and not deeper in the salt. If operator's proposed setpoint is deeper than top of salt, Operator will set surface casing at top of salt.*
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**
- ❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.
3. 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 6489'**
  - 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, Capitan Reef, or potash.**
- ❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.

**Operator has proposed to pump down 7-5/8" X 9-5/8" 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 7-5/8" casing to surface 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.**

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

**Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
  - Cement should tie-back at least **700 feet** into previous casing string (casing tieback increased due to not meeting the minimum 0.422" clearance requirement per 43 CFR 3172.) Operator shall provide method of verification. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, Capitan Reef, or potash.**

### 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)

#### Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

#### Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

#### WIPP Requirements

The proposed surface well or bottom hole is located within 330 feet of the WIPP Land Withdrawal Area boundary. As a result, **XTO Permian Operating** is required to submit daily

drilling reports, logs and deviation survey information to the Bureau of Land Management Engineering Department and the U.S. Department of Energy per requirements of the Joint Powers Agreement until a total vertical depth of 7,000 feet is reached. These reports will have at a minimum the rate of penetration and a clearly marked section showing the deviation for each 500-foot interval. Operator may be required to do more frequent deviation surveys based on the daily information submitted and may be required to take other corrective measures. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Upon completion of the well, the operator shall submit a complete directional survey. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Any oil and gas well operator drilling within one mile of the WIPP Boundary must notify WIPP as soon as possible if any of the following conditions are encountered during oil and gas operations: (R R-111-P Amendment) Notification to Operators (Potash)

- (1) Indication of any well collision event,
- (2) Suspected well fluid flow (oil, gas, or produced water) outside of casing,
- (3) Sustained annulus pressure between the 1st intermediate and next innermost casing string in excess of 500 psi above the baseline pressure of the well, or above 1500 psi total,
- (4) Increasing pressure buildup rates (psi/day) across multiple successive bleed-off cycles on the annulus between the 1st intermediate and next innermost casing during well production, or
- (5) Sustained losses in excess of 50% through the salt formation during drilling.

**XTO Permian Operating** can email the required information to [OilGasReports@wipp.ws](mailto:OilGasReports@wipp.ws).

Attached files must not be greater than 20 MB. Call WIPP Tech Support at 575-234-7422, during the hours 7:00am to 4:30pm, if there are any issues sending to this address.

### **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 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 Onshore Oil and Gas Order No. 2.

- 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.

## GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
  - b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
  - c. BOPE tests (minimum of 4 hours)
    - **Eddy County (API No. / US Well No. contains 30-015-#####)**  
Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
**BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**  
(575) 361-2822
    - **Lea County (API No. / US Well No. contains 30-025-#####)**  
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 689-5981
1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
    - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
    - b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
  2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
  3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the

logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

**B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in **43 CFR part 3170 Subpart 3172** must be followed.
  - e. 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.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead 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).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the 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.)
  - c. 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 part 3170 Subpart 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 water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
  - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - e. The results of the test shall be reported to the appropriate BLM office.
  - f. 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.
  - g. 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.
  - h. 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 part 3170 Subpart 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.



# Operator Certification Data Report

03/05/2024

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

## 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:** CASSIE EVANS

**Signed on:** 06/22/2023

**Title:** Regulatory Analyst

**Street Address:** 6401 Holiday Hill Road, Bldg 5

**City:** Midland

**State:** TX

**Zip:** 79707

**Phone:** (432)218-3671

**Email address:** RANEL.KLEIN@EXXONMOBIL.COM

## Field

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



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

# Application Data

03/05/2024

APD ID: 10400093036

Submission Date: 06/22/2023

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 7 SAWTOOTH

Well Number: 802H

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - General

APD ID: 10400093036

Tie to previous NOS? N

Submission Date: 06/22/2023

BLM Office: Carlsbad

User: CASSIE EVANS

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM02953C

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM70965X

Agreement name: JAMES RANCH UNIT

Keep application confidential? N

Permitting Agent? NO

APD Operator: XTO PERMIAN OPERATING LLC

Operator letter of

## Operator Info

Operator Organization Name: XTO PERMIAN OPERATING LLC

Operator Address: 6401 HOLIDAY HILL ROAD BLDG 5

Zip: 79707

Operator PO Box:

Operator City: MIDLAND

State: TX

Operator Phone: (432)683-2277

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: JAMES RANCH UNIT DI 7 SAWTOOTH

Well Number: 802H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: LOS MEDANOS

Pool Name: BONE SPRING

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**Is the proposed well in an area containing other mineral resources?** USEABLE WATER,NATURAL GAS,OIL,POTASH

**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:** JRU DI 7 SAWTOOTH

**Number:** a

**Well Class:** HORIZONTAL

**Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** EVALUATION

**Describe sub-type:**

**Distance to town:**

**Distance to nearest well:** 0 FT

**Distance to lease line:** 155 FT

**Reservoir well spacing assigned acres Measurement:** 452 Acres

**Well plat:** JRU\_7\_Sawtooth\_802H\_C102\_20230621190208.pdf

**Well work start Date:** 08/15/2023

**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	155	FNL	1130	FWL	23S	31E	6	Lot 4	32.34034	-103.821955	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 02887D	3315	0	0	N
KOP Leg #1	155	FNL	1130	FWL	23S	31E	6	Lot 4	32.34034	-103.821955	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 02887D	-6637	10083	9952	N
PPP Leg #1-1	700	FSL	1210	FWL	22S	31E	31	Lot 4	32.34269	-103.821694	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 02953C	-7174	10943	10489	Y

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

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	2637	FNL	1130	FWL	23S	31E	7	Lot 1	32.333518	-103.821699	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 04473	-7264	14903	10579	Y
PPP Leg #1-3	0	FNL	1210	FWL	23S	31E	6	Lot 7	32.326254	-103.821702	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 02887D	-7264	17543	10579	Y
EXIT Leg #1	2533	FNL	1210	FWL	23S	31E	18	Lot 2	32.30475	-103.821713	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 02887A	-7264	24746	10579	Y
BHL Leg #1	2583	FNL	1210	FWL	23S	31E	18	Lot 2	32.304612	-103.821713	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM 02887A	-7264	24803	10579	Y

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

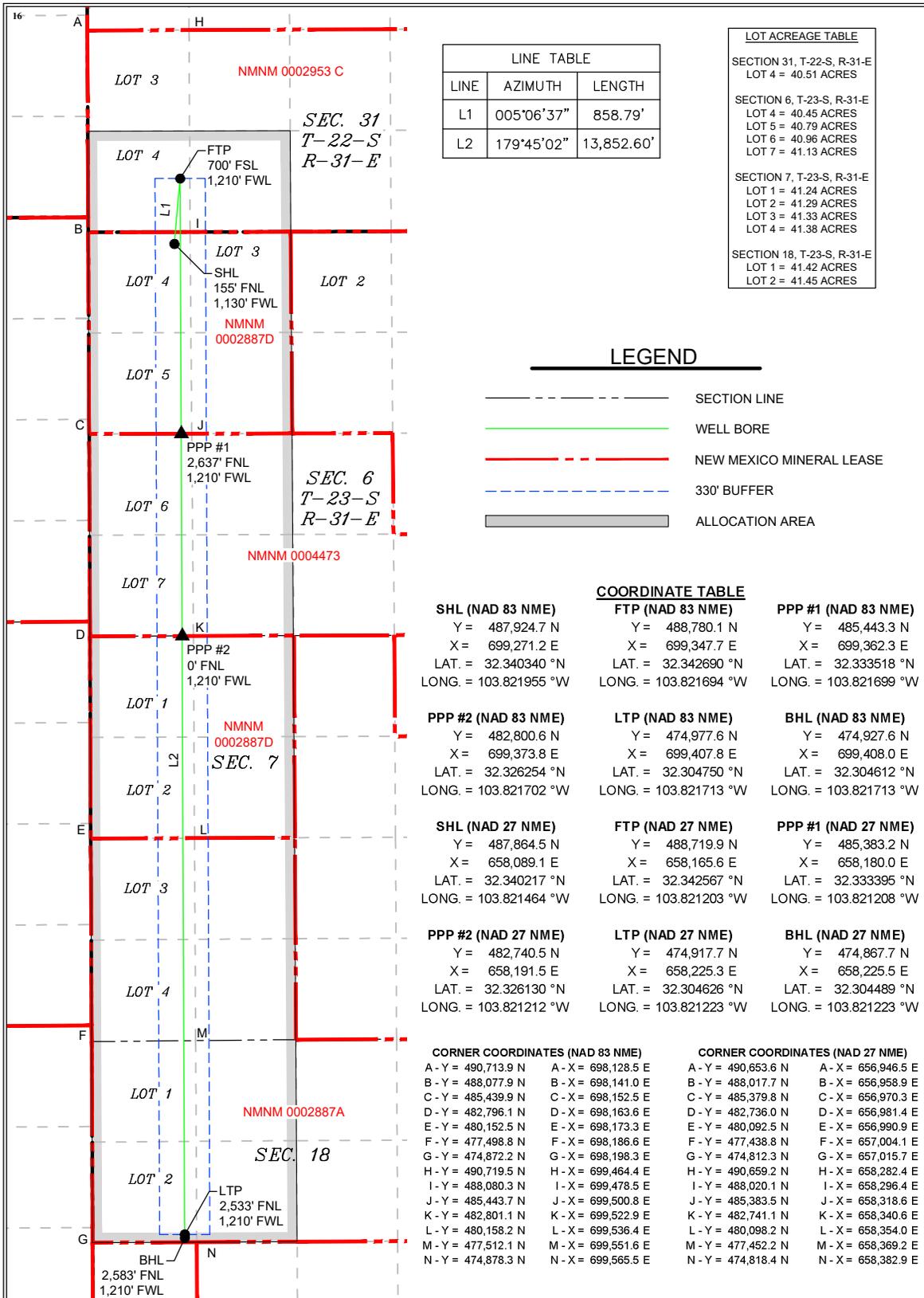
Table with 3 columns: API Number (30-015-), Pool Code (40295), Pool Name (LOS MEDANOS; BONE SPRING), Property Code (333473), Property Name (JAMES RANCH UNIT DI 7 SAWTOOTH), Well Number (802H), OGRID No. (373075), Operator Name (XTO PERMIAN OPERATING, LLC), Elevation (3,315')

Table with 10 columns: UL or lot no. (4), Section (6), Township (23 S), Range (31 E), Lot Idn, Feet from the (155), North/South line (NORTH), Feet from the (1,130), East/West line (WEST), County (EDDY)

Table with 10 columns: UL or lot no. (2), Section (18), Township (23 S), Range (31 E), Lot Idn, Feet from the (2,583), North/South line (NORTH), Feet from the (1,210), East/West line (WEST), County (EDDY)

Table with 4 columns: Dedicated Acres (891.95), Joint or Infill, Consolidation Code, Order No.

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

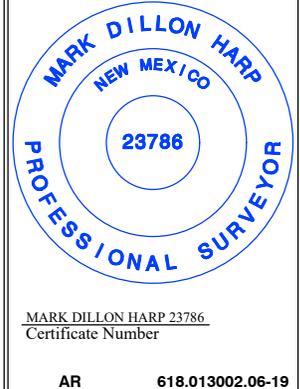


17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to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

Jessica Dooling 6/20/23
Signature Date
Jessica Dooling
Printed Name
jessica.dooling@exxonmobil.com
E-mail Address

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

06-20-2023
Date of Survey
Signature and Seal of Professional Surveyor:



\\618.013 XTO Energy - NM\002 James Ranch Unit\06 - DI 7 - EDDY\Wells\19 - 802H\DWG\C-102.dwg



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

# Drilling Plan Data Report

03/05/2024

**APD ID:** 10400093036

**Submission Date:** 06/22/2023

Highlighted data reflects the most recent changes

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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
13028615	QUATERNARY	3315	0	0	ALLUVIUM	USEABLE WATER	N
13028616	RUSTLER	3049	266	266	ANHYDRITE, SANDSTONE	USEABLE WATER	N
13028617	TOP SALT	2711	604	604	POTASH, SALT	POTASH	N
13028618	BASE OF SALT	-393	3708	3708	POTASH, SALT	POTASH	N
13028619	DELAWARE	-633	3948	3948	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, USEABLE WATER	N
13028620	BONE SPRING	-4506	7821	7821	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, USEABLE WATER	Y

## Section 2 - Blowout Prevention

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

**Rating Depth:** 10579

**Equipment:** Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8 minimum 5M Hydril and a 13-5/8 minimum 5M Double Ram BOP. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

**Requesting Variance?** YES

**Variance request:** A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors. XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells. 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. Based on discussions with the BLM on February 27th 2020, 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. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

**Testing Procedure:** All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 70% of the working pressure. When nipling up on the 13.375, 5M bradenhead and flange,

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

the BOP test will be limited to 3000 psi. When nipping up on the 7.625, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

**Choke Diagram Attachment:**

JRU\_7\_Sawtooth\_5MCM\_20230621183014.pdf

**BOP Diagram Attachment:**

JRU\_7\_Sawtooth\_5MBOP\_20240212200336.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	579	0	579	3315	2736	579	J-55	54.5	OTHER - BTC	4.42	2.4	DRY	27.03	DRY	27.03
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3808	0	3808	3315	-493	3808	J-55	40	OTHER - BTC	2.22	1.76	DRY	4.14	DRY	4.14
3	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	9860	0	9860	3315	-6545	9860	L-80	29.7	OTHER - FLUSH JOINT	3.68	2.17	DRY	2.3	DRY	2.3
4	PRODUCTION	6.75	5.5	NEW	API	Y	0	24803	0	10579	3315	-7264	24803	P-110	20	OTHER - SEMI-FLUSH	2.02	1.05	DRY	4.14	DRY	4.14

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

JRU\_7\_Sawtooth\_802H\_Csg\_20230621191540.pdf

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

JRU\_7\_Sawtooth\_802H\_Csg\_20230621191823.pdf

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**Casing ID:** 3                    **String**        INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

JRU\_7\_Sawtooth\_802H\_Csg\_20230621191720.pdf

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**Casing ID:** 4                    **String**        PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

JRU\_7\_Sawtooth\_802H\_Csg\_20230622101025.pdf

**Casing Design Assumptions and Worksheet(s):**

JRU\_7\_Sawtooth\_802H\_Csg\_20230621191909.pdf

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**Section 4 - Cement**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	579	200	1.87	12.9	374	100	EconoCem-HLTRRC	NA
SURFACE	Tail		0	579	300	1.35	14.8	405	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	3808	1580	1.39	12.9	2196.2	100	Class C	NA
INTERMEDIATE	Tail		0	3808	130	1.35	14.8	175.5	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	9860	460	1.35	14.8	621	100	Class C	NA
INTERMEDIATE	Tail		0	9860	400	1.33	14.8	532	100	Class C	NA
PRODUCTION	Lead		0	24803	1050	2.69	11.5	2824.5	20	NeoCem	NA
PRODUCTION	Tail		0	24803	1050	1.51	13.2	1585.5	20	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 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

### Circulating Medium Table

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	579	OTHER : FW / Native	8.5	9							Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.
579	3808	OTHER : BRINE	10	10.5							Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

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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
											to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.
3808	9860	OTHER : BDE/OBM or FW/Brine	8.6	9.1							Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.
9860	2480 3	OIL-BASED MUD	10	10.5							Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

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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
											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.

### 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:**

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

**Coring operation description for the well:**

No coring is planned for the well.

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 5501

**Anticipated Surface Pressure:** 3173

**Anticipated Bottom Hole Temperature(F):** 180

**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**

JRU\_7\_Sawtooth\_H2S\_Plan\_20230616113012.pdf

JRU\_7\_Sawtooth\_H2S\_DiaB\_20240204165237.pdf

JRU\_7\_Sawtooth\_H2S\_DiaD\_20240204165237.pdf

JRU\_7\_Sawtooth\_H2S\_DiaC\_20240204165237.pdf

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

JRU\_7\_Sawtooth\_H2S\_DiaA\_20240204165237.pdf

## Section 8 - Other Information

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

JRU\_7\_Sawtooth\_802H\_DD\_20230621192245.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

JRU\_7\_Sawtooth\_802H\_Cmt\_20230621192259.pdf

**Other Variance attachment:**

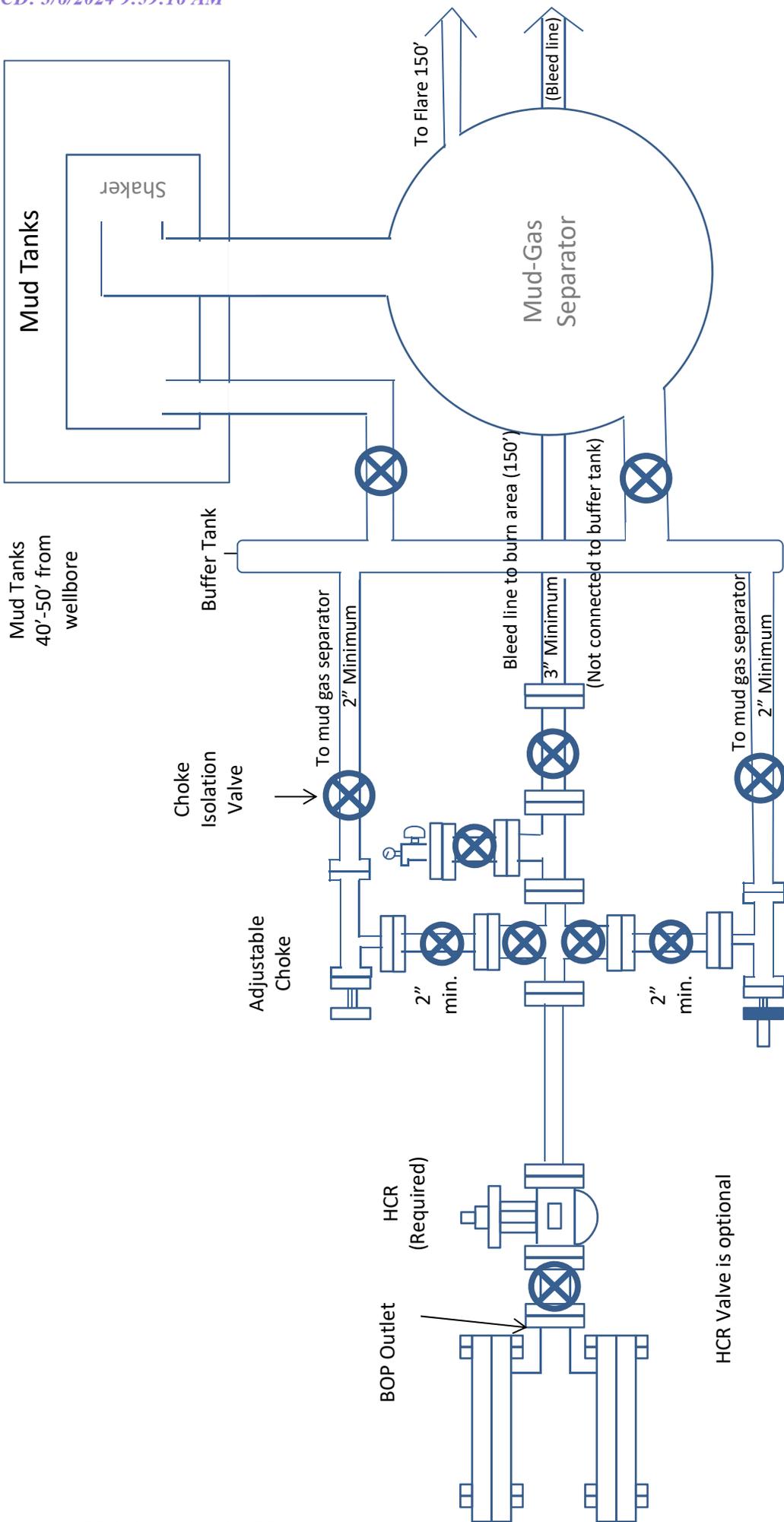
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JRU\_7\_Sawtooth\_OLCV\_20230616113403.pdf

JRU\_7\_Sawtooth\_Spud\_20230616113403.pdf

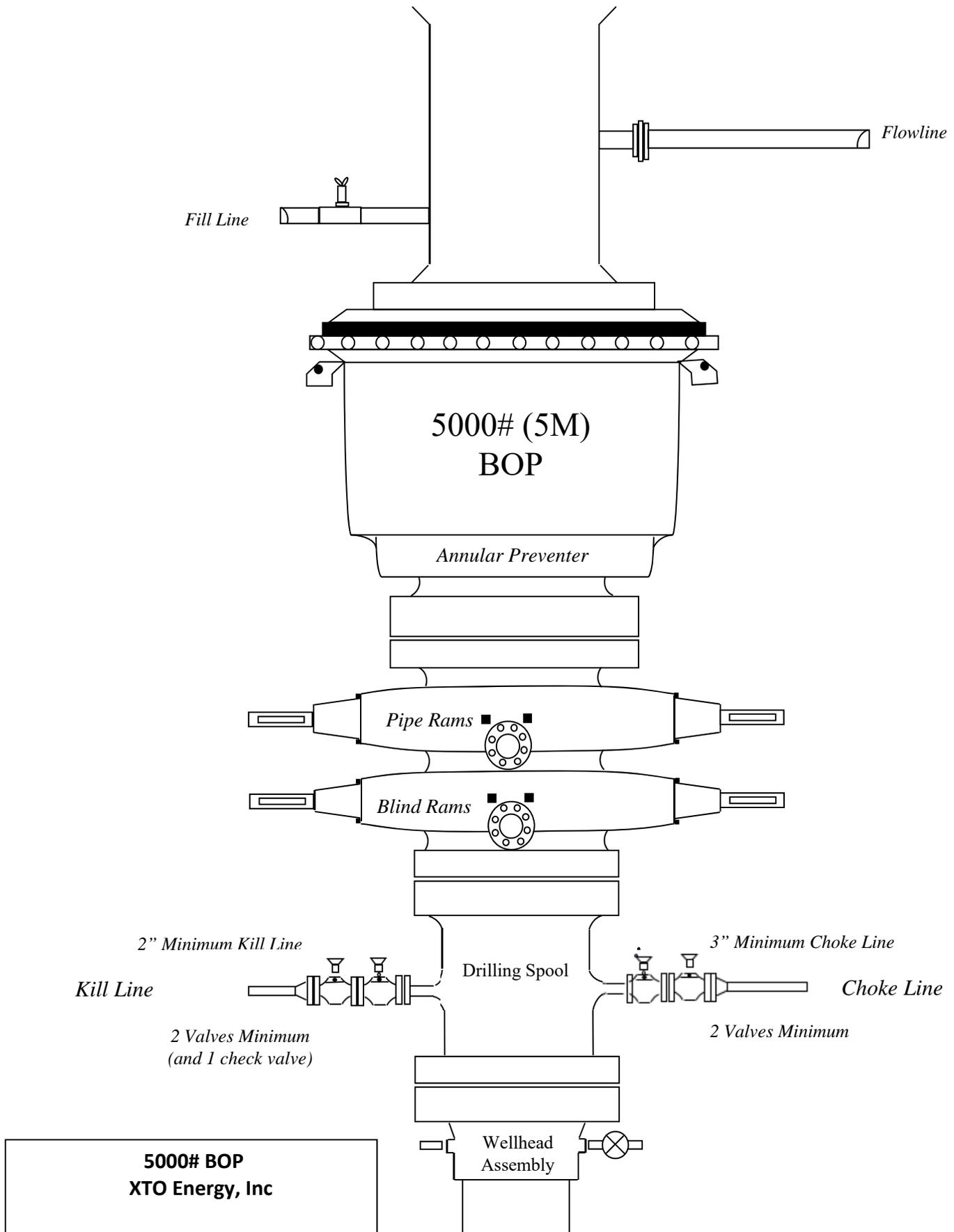
JRU\_7\_Sawtooth\_MBS\_\_2\_\_20230621153846.pdf

BOP\_Variance\_new\_Language\_BOP\_BTV\_20240113181736.pdf



5M Choke Manifold Diagram  
XTO Energy, Inc

**Drilling Operations  
Choke Manifold  
5M Service**



### Casing Assumptions

**Casing Design**

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 579'	13.375	54.5	J-55	BTC	New	2.40	4.42	27.03
12.25	0' – 3808'	9.625	40	J-55	BTC	New	1.76	2.22	4.14
8.75	0' – 3908'	7.625	29.7	RY P-110	Flush Joint	New	2.98	3.06	1.91
8.75	3908' – 9860'	7.625	29.7	HC L-80	Flush Joint	New	2.17	3.68	2.30
6.75	0' – 9760'	5.5	20	RY P-110	Semi-Premium	New	1.05	2.19	2.03
6.75	9760' - 24803'	5.5	20	RY P-110	Semi-Flush	New	1.05	2.02	4.14

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## Casing Assumptions

## Casing Design

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## 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:**

Jesse Chondo, Drilling Manager	432-210-7505
Sean Strode, Drilling Superintendent	432-234-0875
Josh Davis, Construction Foreman	936-332-2212
Andy Owens, EH & S Manager	903-245-2602
Mike Allen, Production Foreman	918-421-9056

**SHERIFF DEPARTMENTS:**

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

**NEW MEXICO STATE POLICE:**

575-392-5588

**FIRE DEPARTMENTS:**

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

**HOSPITALS:**

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

**AGENT NOTIFICATIONS:**

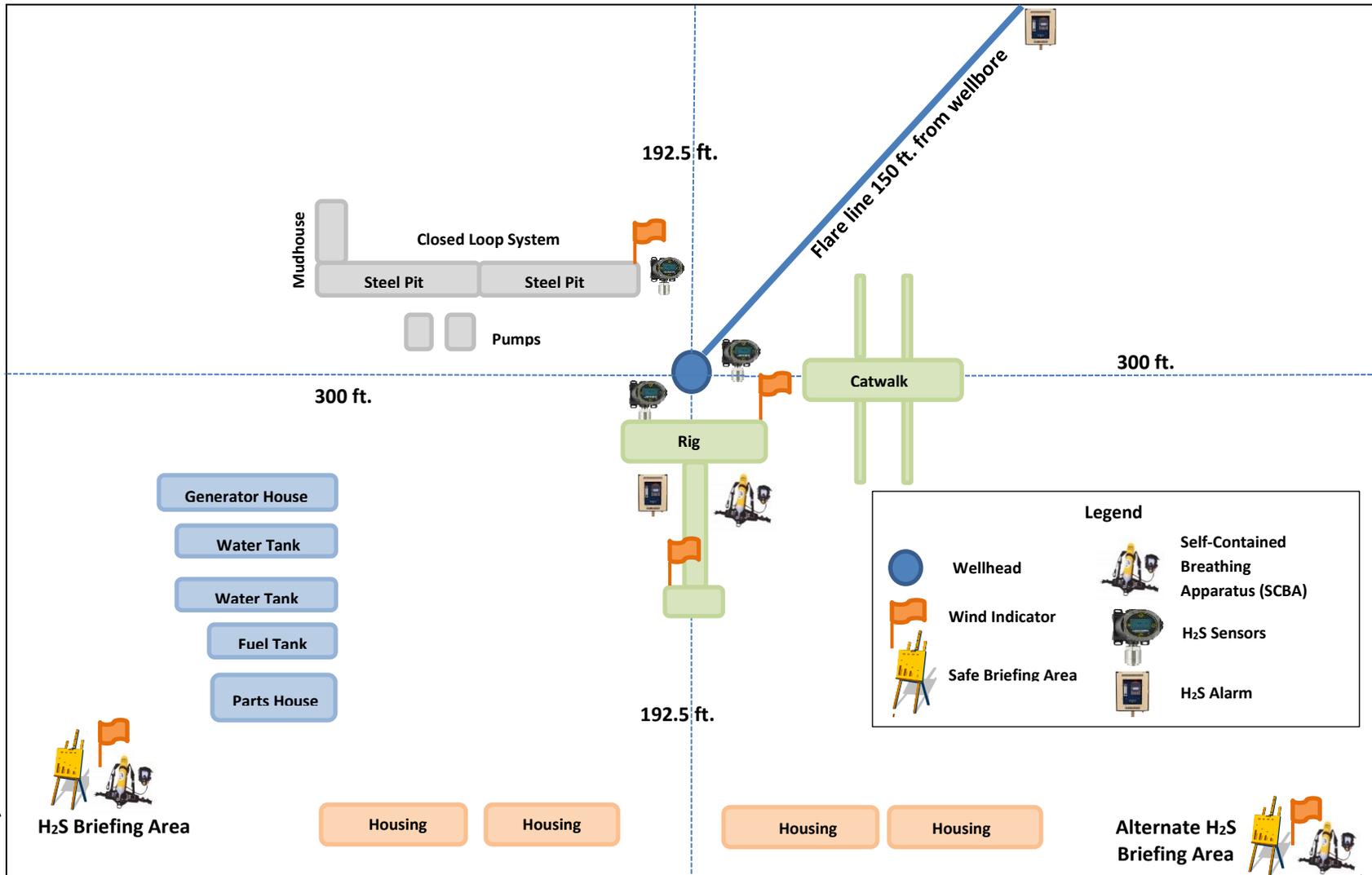
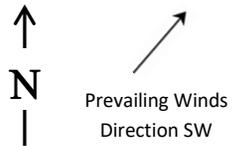
**For Lea County:**

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

# H2S Briefing Areas and Alarm Locations



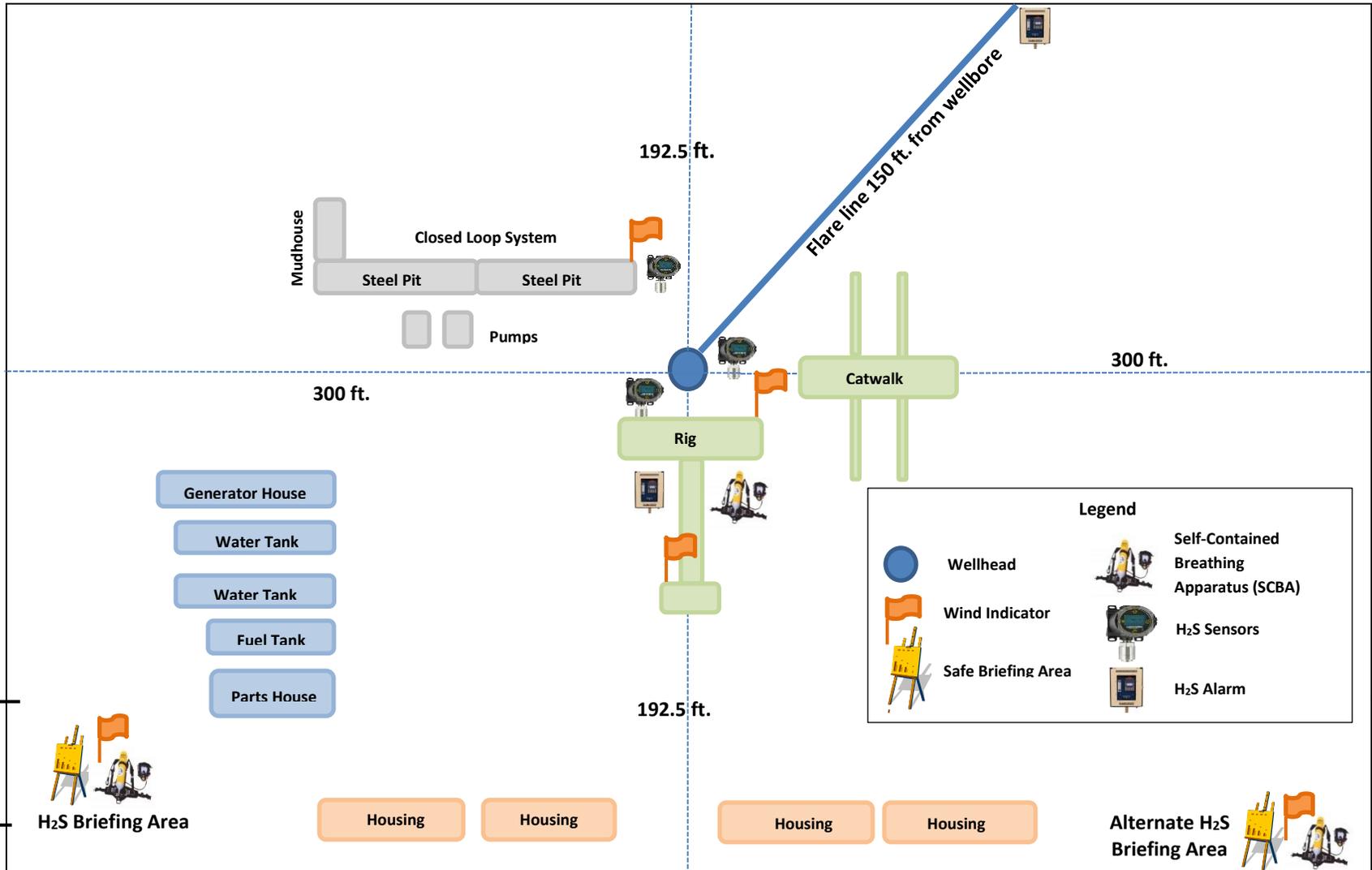
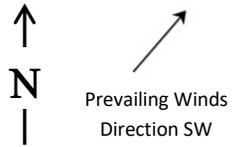
**Legend**

	Wellhead		Self-Contained Breathing Apparatus (SCBA)
	Wind Indicator		H2S Sensors
	Safe Briefing Area		H2S Alarm

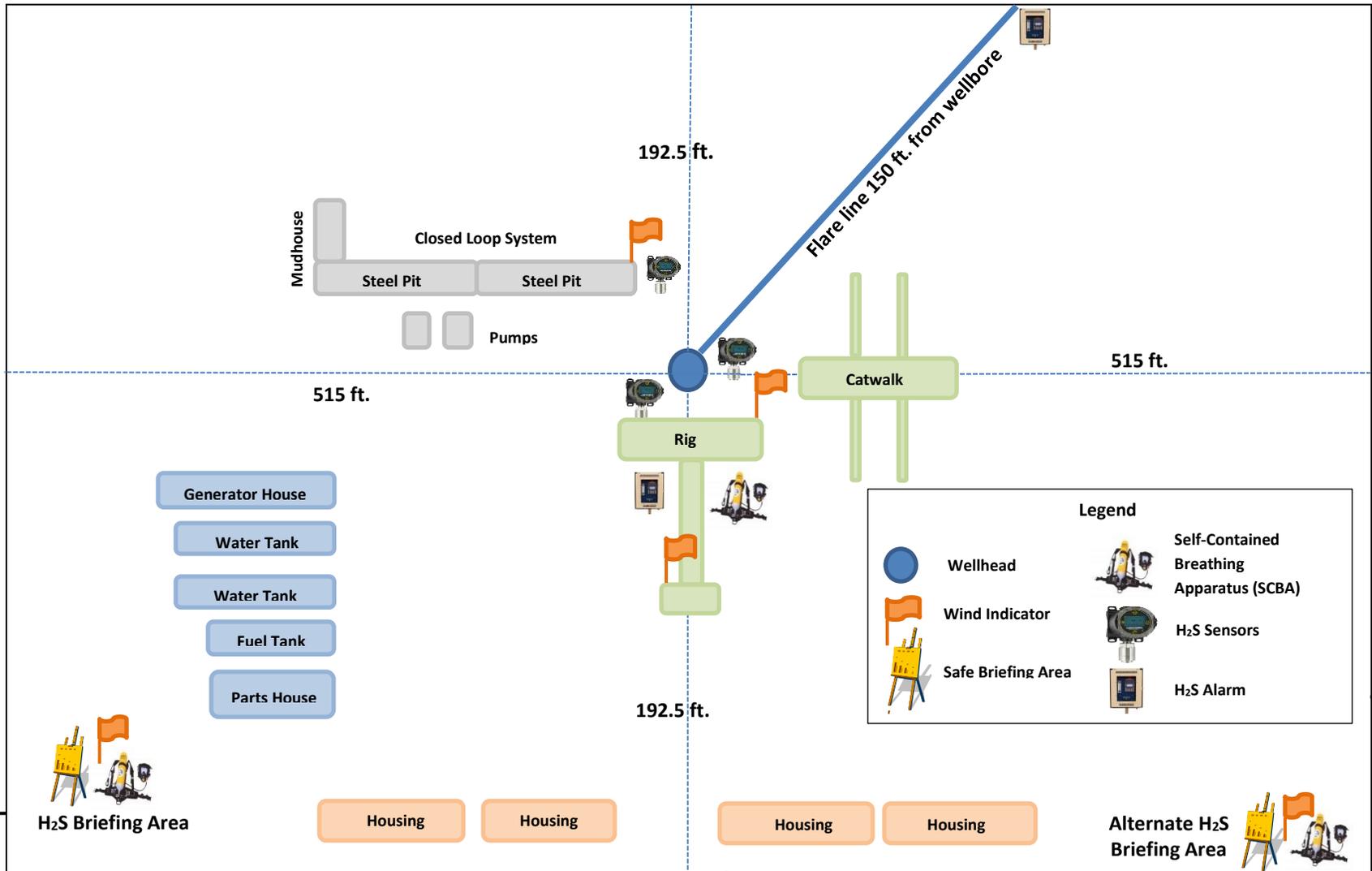
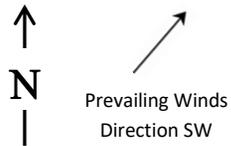
Access Road

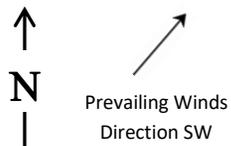
Access Road

# H2S Briefing Areas and Alarm Locations

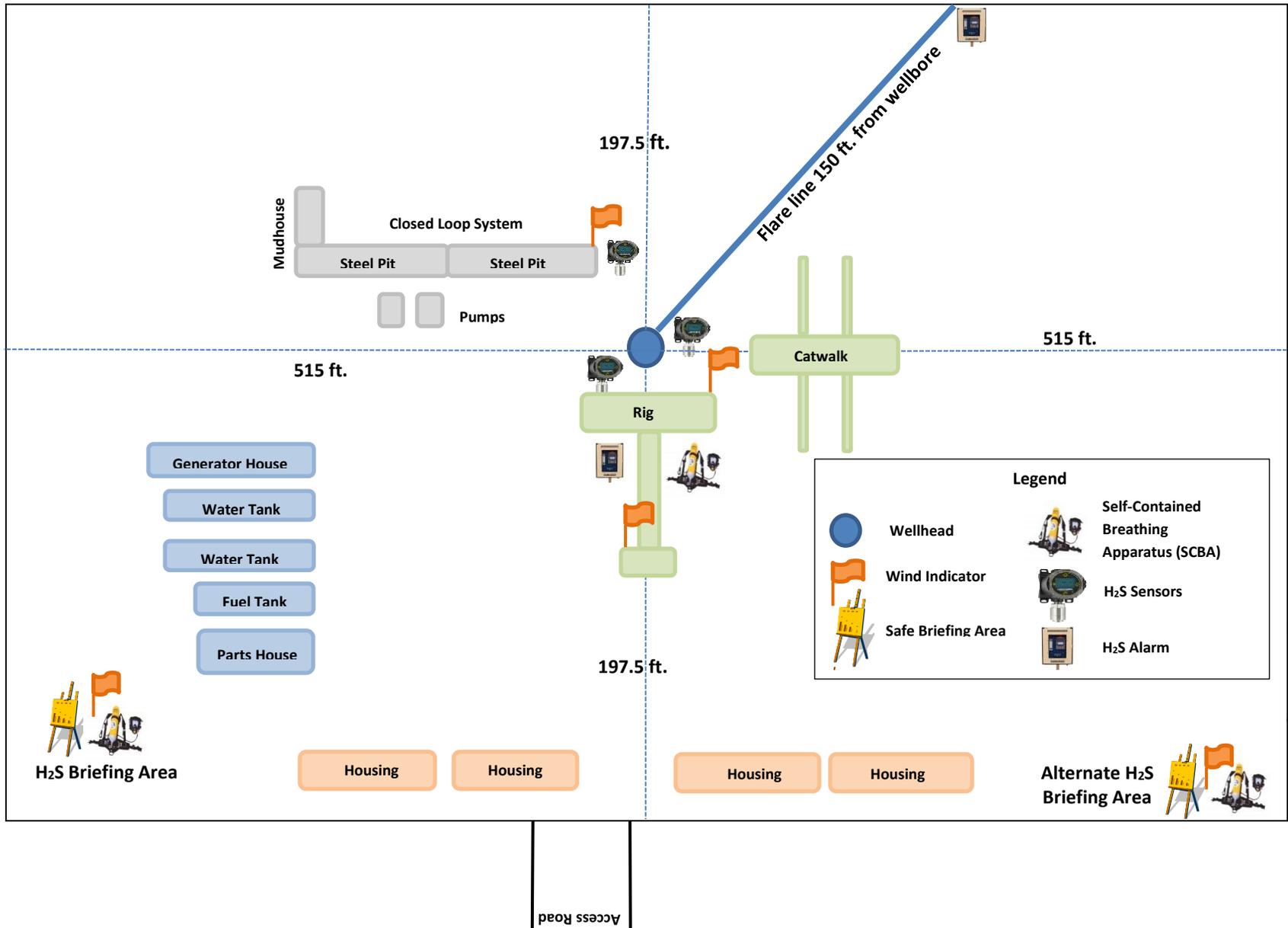


# H2S Briefing Areas and Alarm Locations





# H2S Briefing Areas and Alarm Locations





## **XTO Energy**

**EDDY COUNTY, NM (NAD-27)  
JAMES RANCH UNIT DI 7 SAWTOOTH  
802H**

**Wellbore #1**

**Plan: PERMIT**

## **Standard Planning Report**

**21 November, 2022**



Project: EDDY COUNTY, NM (NAD-27)  
 Site: JAMES RANCH UNIT DI 7 SAWTOOTH  
 Well: 802H  
 Wellbore: Wellbore #1  
 Design: PERMIT

PROJECT DETAILS: EDDY COUNTY, NM (NAD-27)  
 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: 802H

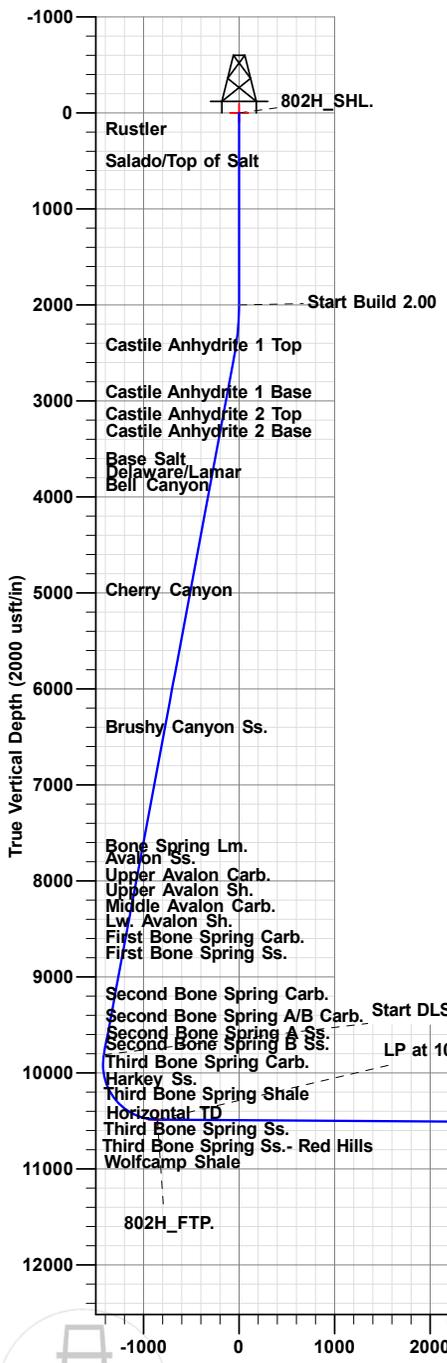
		Rig Name: TBD			
		RKB = 32' @ 3348.00usft (TBD)			
		Ground Level: 3316.00			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	487864.60	658089.10	32.3402171	-103.8214637

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	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	2531.65	10.63	2.73	2528.60	49.13	2.34	2.00	2.73	-49.12	
4	9940.78	10.63	2.73	9810.51	1414.69	67.50	0.00	0.00	-1414.38	
5	10943.24	89.63	179.75	10489.00	855.30	76.50	10.00	176.97	-854.96	802H_FTP.
6	24745.86	89.63	179.75	10578.63	-12946.90	136.15	0.00	0.00	12947.37	802H_LTP.
7	24802.86	89.63	179.75	10579.00	-13003.90	136.40	0.00	0.00	13004.37	802H_BHL.

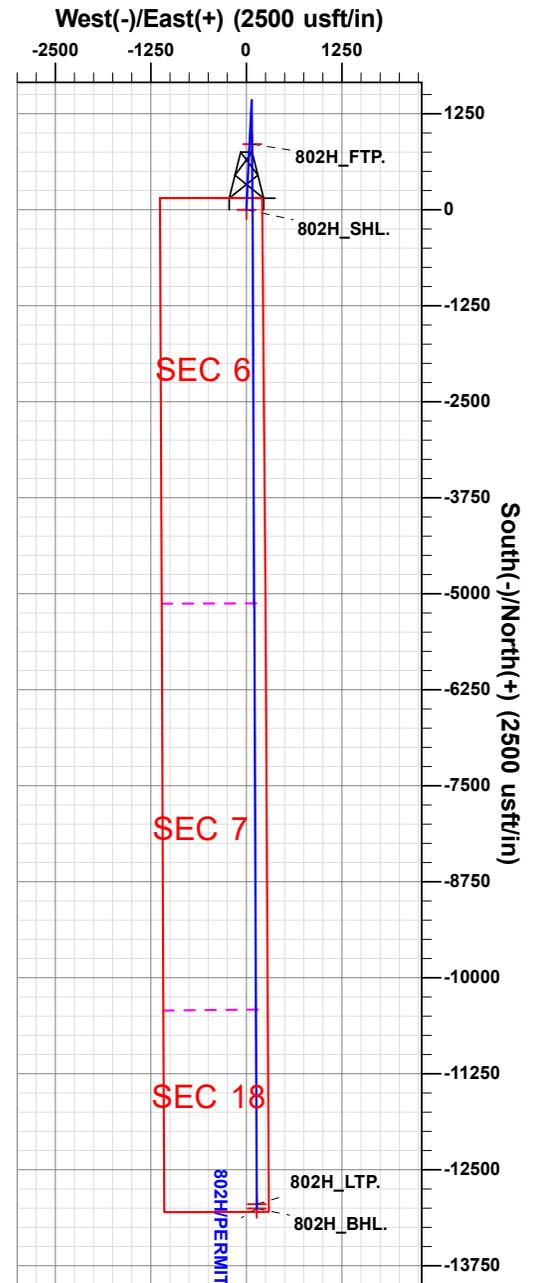
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
802H_SHL.	0.00	0.00	0.00	487864.60	658089.10	32.3402171	-103.8214637
802H_FTP.	10489.00	855.30	76.50	488719.90	658165.60	32.3425672	-103.8212027
802H_LTP.	10578.63	-12946.90	136.20	474917.70	658225.30	32.3046263	-103.8212230
802H_BHL.	10579.00	-13003.90	136.40	474860.70	658225.50	32.3044697	-103.8212232



FORMATION TOP DETAILS

TVDPPath	Formation
266.00	Rustler
604.00	Salado/Top of Salt
2524.00	Castile Anhydrite 1 Top
3015.00	Castile Anhydrite 1 Base
3245.00	Castile Anhydrite 2 Top
3350.00	Castile Anhydrite 2 Base
3708.00	Base Salt
3948.00	Delaware/Lamar
3981.00	Bell Canyon
5071.00	Cherry Canyon
6498.00	Brushy Canyon Ss.
7821.00	Bone Spring Lm.
7868.00	Avalon Ss.
8125.00	Upper Avalon Carb.
8197.00	Upper Avalon Sh.
8366.00	Middle Avalon Carb.
8441.00	Lw. Avalon Sh.
8770.00	First Bone Spring Carb.
8850.00	First Bone Spring Ss.
9280.00	Second Bone Spring Carb.
9660.00	Second Bone Spring A Ss.
9738.00	Second Bone Spring A/B Carb.
9800.00	Second Bone Spring B Ss.
9952.00	Third Bone Spring Carb.
10168.00	Harkey Ss.
10249.00	Third Bone Spring Shale
10489.00	Horizontal TD
10579.00	Horizontal TD



Vertical Section at 179.75° (2000 usft/in)

Plan: PERMIT (802H/Wellbore #1)  
 Created By: MATTHEW MAY Date: 17:22, November 21 2022

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

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

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

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

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

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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name
<sup>4</sup> Property Code	<sup>5</sup> Property Name JAMES RANCH UNIT DI 7 SAWTOOTH	
<sup>7</sup> OGRID No. 373075	<sup>8</sup> Operator Name XTO PERMIAN OPERATING, LLC	
		<sup>6</sup> Well Number 802H
		<sup>9</sup> Elevation 3,316'

<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
4	6	23 S	31 E		155	NORTH	1,130	WEST	EDDY

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

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	18	23 S	31 E		2,583	NORTH	1,210	WEST	EDDY

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

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

SECTION 31	
LOT 4	40.51 ACRES
SECTION 6	
LOT 4	40.45 ACRES
LOT 5	40.79 ACRES
LOT 6	40.96 ACRES
LOT 7	41.13 ACRES
SECTION 7	
LOT 1	41.24 ACRES
LOT 2	41.29 ACRES
LOT 3	41.33 ACRES
LOT 4	41.38 ACRES
SECTION 18	
LOT 1	41.42 ACRES
LOT 2	41.45 ACRES
LOT 3	41.49 ACRES
LOT 4	41.52 ACRES

<b>SHL (NAD83 NME)</b> Y = 487,924.8 X = 699,271.3 LAT. = 32.340340 °N LONG. = 103.821955 °W	<b>LTP (NAD83 NME)</b> Y = 474,977.6 X = 699,407.8 LAT. = 32.304750 °N LONG. = 103.821713 °W
<b>FTP (NAD83 NME)</b> Y = 488,780.1 X = 699,347.7 LAT. = 32.342690 °N LONG. = 103.821694 °W	<b>BHL (NAD83 NME)</b> Y = 474,927.6 X = 699,408.0 LAT. = 32.304612 °N LONG. = 103.821713 °W
<b>CORNER COORDINATES (NAD83 NME)</b>	
A - Y = 490,713.9 N B - Y = 488,077.9 N C - Y = 485,439.9 N D - Y = 482,796.1 N E - Y = 480,152.5 N F - Y = 477,498.8 N G - Y = 474,872.2 N H - Y = 490,719.5 N I - Y = 488,080.3 N J - Y = 485,443.7 N K - Y = 482,801.1 N L - Y = 480,158.2 N M - Y = 477,512.1 N N - Y = 474,878.3 N	X = 698,128.5 E X = 698,141.0 E X = 698,152.5 E X = 698,163.6 E X = 698,173.3 E X = 698,186.6 E X = 698,198.3 E X = 699,464.4 E X = 699,478.5 E X = 699,500.8 E X = 699,522.9 E X = 699,536.4 E X = 699,551.6 E X = 699,565.5 E
<b>SHL (NAD27 NME)</b> Y = 487,864.6 X = 658,089.1 LAT. = 32.340217 °N LONG. = 103.821464 °W	<b>LTP (NAD27 NME)</b> Y = 474,917.7 X = 658,225.3 LAT. = 32.304626 °N LONG. = 103.821223 °W
<b>FTP (NAD27 NME)</b> Y = 488,719.9 X = 658,165.6 LAT. = 32.342567 °N LONG. = 103.821203 °W	<b>BHL (NAD27 NME)</b> Y = 474,867.7 X = 658,225.5 LAT. = 32.304489 °N LONG. = 103.821223 °W
<b>CORNER COORDINATES (NAD27 NME)</b>	
A - Y = 490,653.6 N B - Y = 488,017.7 N C - Y = 485,379.8 N D - Y = 482,736.0 N E - Y = 480,092.5 N F - Y = 477,438.8 N G - Y = 474,812.3 N H - Y = 490,659.2 N I - Y = 488,020.1 N J - Y = 485,383.5 N K - Y = 482,741.1 N L - Y = 480,098.2 N M - Y = 477,452.2 N N - Y = 474,818.4 N	X = 656,946.5 E X = 656,958.9 E X = 656,970.3 E X = 656,981.3 E X = 656,990.9 E X = 657,004.1 E X = 657,015.7 E X = 658,282.4 E X = 658,296.4 E X = 658,318.6 E X = 658,340.6 E X = 658,354.0 E X = 658,369.2 E X = 658,382.9 E

**<sup>17</sup> OPERATOR CERTIFICATION**

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

Signature \_\_\_\_\_ Date \_\_\_\_\_

Printed Name \_\_\_\_\_

E-mail Address \_\_\_\_\_

**<sup>18</sup> SURVEYOR CERTIFICATION**

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

11/03/2022  
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP 23786  
Certificate Number

RE 2019093122



Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 802H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PERMIT		

<b>Project</b>	EDDY COUNTY, NM (NAD-27)		
<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		

<b>Site</b>	JAMES RANCH UNIT DI 7 SAWTOOTH				
<b>Site Position:</b>		<b>Northing:</b>	487,779.90 usft	<b>Latitude:</b>	32.3399854
<b>From:</b>	Map	<b>Easting:</b>	658,009.00 usft	<b>Longitude:</b>	-103.8217243
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.27 °

<b>Well</b>	802H					
<b>Well Position</b>	<b>+N/-S</b>	84.70 usft	<b>Northing:</b>	487,864.60 usft	<b>Latitude:</b>	32.3402171
	<b>+E/-W</b>	80.10 usft	<b>Easting:</b>	658,089.10 usft	<b>Longitude:</b>	-103.8214636
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b>	3,316.00 usft

<b>Design</b>	PERMIT			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	179.75

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	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	
2,531.65	10.63	2.73	2,528.60	49.13	2.34	2.00	2.00	0.00	2.73	
9,940.78	10.63	2.73	9,810.51	1,414.69	67.50	0.00	0.00	0.00	0.00	
10,943.24	89.63	179.75	10,489.00	855.30	76.50	10.00	7.88	17.66	176.97	802H_FTP.
24,745.86	89.63	179.75	10,578.63	-12,946.90	136.15	0.00	0.00	0.00	0.00	802H_LTP.
24,802.86	89.63	179.75	10,579.00	-13,003.90	136.40	0.00	0.00	0.00	0.00	802H_BHL.



Planning Report

<b>Database:</b>	EDM 5000.1.13 Single User Db	<b>Local Co-ordinate Reference:</b>	Well 802H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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	0.00
<b>802H_SHL.</b>										
100.00	0.00	0.00	100.00	0.00	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	0.00
266.00	0.00	0.00	266.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Rustler</b>										
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
604.00	0.00	0.00	604.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Salado/Top of Salt</b>										
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	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	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	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	0.00
1,500.00	0.00	0.00	1,500.00	0.00	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	0.00
1,700.00	0.00	0.00	1,700.00	0.00	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	0.00
1,900.00	0.00	0.00	1,900.00	0.00	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	0.00
2,100.00	2.00	2.73	2,099.98	1.74	0.08	-1.74	2.00	2.00	2.00	0.00
2,200.00	4.00	2.73	2,199.84	6.97	0.33	-6.97	2.00	2.00	2.00	0.00
2,300.00	6.00	2.73	2,299.45	15.68	0.75	-15.67	2.00	2.00	2.00	0.00
2,400.00	8.00	2.73	2,398.70	27.85	1.33	-27.84	2.00	2.00	2.00	0.00
2,500.00	10.00	2.73	2,497.47	43.47	2.07	-43.46	2.00	2.00	2.00	0.00
2,526.97	10.54	2.73	2,524.00	48.28	2.30	-48.26	2.00	2.00	2.00	0.00
<b>Castile Anhydrite 1 Top</b>										
2,531.65	10.63	2.73	2,528.60	49.13	2.34	-49.12	2.00	2.00	2.00	0.00
2,600.00	10.63	2.73	2,595.78	61.73	2.95	-61.72	0.00	0.00	0.00	0.00
2,700.00	10.63	2.73	2,694.06	80.16	3.83	-80.15	0.00	0.00	0.00	0.00
2,800.00	10.63	2.73	2,792.35	98.59	4.70	-98.57	0.00	0.00	0.00	0.00
2,900.00	10.63	2.73	2,890.63	117.02	5.58	-117.00	0.00	0.00	0.00	0.00
3,000.00	10.63	2.73	2,988.91	135.46	6.46	-135.43	0.00	0.00	0.00	0.00
3,026.54	10.63	2.73	3,015.00	140.35	6.70	-140.32	0.00	0.00	0.00	0.00
<b>Castile Anhydrite 1 Base</b>										
3,100.00	10.63	2.73	3,087.19	153.89	7.34	-153.85	0.00	0.00	0.00	0.00
3,200.00	10.63	2.73	3,185.48	172.32	8.22	-172.28	0.00	0.00	0.00	0.00
3,260.56	10.63	2.73	3,245.00	183.48	8.76	-183.44	0.00	0.00	0.00	0.00
<b>Castile Anhydrite 2 Top</b>										
3,300.00	10.63	2.73	3,283.76	190.75	9.10	-190.71	0.00	0.00	0.00	0.00
3,367.40	10.63	2.73	3,350.00	203.17	9.69	-203.12	0.00	0.00	0.00	0.00
<b>Castile Anhydrite 2 Base</b>										
3,400.00	10.63	2.73	3,382.04	209.18	9.98	-209.13	0.00	0.00	0.00	0.00
3,500.00	10.63	2.73	3,480.33	227.61	10.86	-227.56	0.00	0.00	0.00	0.00
3,600.00	10.63	2.73	3,578.61	246.04	11.74	-245.99	0.00	0.00	0.00	0.00
3,700.00	10.63	2.73	3,676.89	264.47	12.62	-264.41	0.00	0.00	0.00	0.00
3,731.65	10.63	2.73	3,708.00	270.30	12.90	-270.25	0.00	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 802H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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>Base Salt</b>										
3,800.00	10.63	2.73	3,775.18	282.90	13.50	-282.84	0.00	0.00	0.00	
3,900.00	10.63	2.73	3,873.46	301.33	14.38	-301.27	0.00	0.00	0.00	
3,975.84	10.63	2.73	3,948.00	315.31	15.05	-315.24	0.00	0.00	0.00	
<b>Delaware/Lamar</b>										
4,000.00	10.63	2.73	3,971.74	319.76	15.26	-319.69	0.00	0.00	0.00	
4,009.42	10.63	2.73	3,981.00	321.50	15.34	-321.43	0.00	0.00	0.00	
<b>Bell Canyon</b>										
4,100.00	10.63	2.73	4,070.02	338.19	16.14	-338.12	0.00	0.00	0.00	
4,200.00	10.63	2.73	4,168.31	356.62	17.02	-356.55	0.00	0.00	0.00	
4,300.00	10.63	2.73	4,266.59	375.05	17.90	-374.97	0.00	0.00	0.00	
4,400.00	10.63	2.73	4,364.87	393.49	18.78	-393.40	0.00	0.00	0.00	
4,500.00	10.63	2.73	4,463.16	411.92	19.66	-411.83	0.00	0.00	0.00	
4,600.00	10.63	2.73	4,561.44	430.35	20.53	-430.25	0.00	0.00	0.00	
4,700.00	10.63	2.73	4,659.72	448.78	21.41	-448.68	0.00	0.00	0.00	
4,800.00	10.63	2.73	4,758.00	467.21	22.29	-467.11	0.00	0.00	0.00	
4,900.00	10.63	2.73	4,856.29	485.64	23.17	-485.53	0.00	0.00	0.00	
5,000.00	10.63	2.73	4,954.57	504.07	24.05	-503.96	0.00	0.00	0.00	
5,100.00	10.63	2.73	5,052.85	522.50	24.93	-522.39	0.00	0.00	0.00	
5,118.46	10.63	2.73	5,071.00	525.90	25.09	-525.79	0.00	0.00	0.00	
<b>Cherry Canyon</b>										
5,200.00	10.63	2.73	5,151.14	540.93	25.81	-540.81	0.00	0.00	0.00	
5,300.00	10.63	2.73	5,249.42	559.36	26.69	-559.24	0.00	0.00	0.00	
5,400.00	10.63	2.73	5,347.70	577.79	27.57	-577.67	0.00	0.00	0.00	
5,500.00	10.63	2.73	5,445.98	596.22	28.45	-596.09	0.00	0.00	0.00	
5,600.00	10.63	2.73	5,544.27	614.65	29.33	-614.52	0.00	0.00	0.00	
5,700.00	10.63	2.73	5,642.55	633.09	30.21	-632.95	0.00	0.00	0.00	
5,800.00	10.63	2.73	5,740.83	651.52	31.09	-651.37	0.00	0.00	0.00	
5,900.00	10.63	2.73	5,839.12	669.95	31.97	-669.80	0.00	0.00	0.00	
6,000.00	10.63	2.73	5,937.40	688.38	32.85	-688.23	0.00	0.00	0.00	
6,100.00	10.63	2.73	6,035.68	706.81	33.73	-706.65	0.00	0.00	0.00	
6,200.00	10.63	2.73	6,133.97	725.24	34.61	-725.08	0.00	0.00	0.00	
6,300.00	10.63	2.73	6,232.25	743.67	35.49	-743.51	0.00	0.00	0.00	
6,400.00	10.63	2.73	6,330.53	762.10	36.36	-761.93	0.00	0.00	0.00	
6,500.00	10.63	2.73	6,428.81	780.53	37.24	-780.36	0.00	0.00	0.00	
6,570.39	10.63	2.73	6,498.00	793.51	37.86	-793.33	0.00	0.00	0.00	
<b>Brushy Canyon Ss.</b>										
6,600.00	10.63	2.73	6,527.10	798.96	38.12	-798.79	0.00	0.00	0.00	
6,700.00	10.63	2.73	6,625.38	817.39	39.00	-817.22	0.00	0.00	0.00	
6,800.00	10.63	2.73	6,723.66	835.82	39.88	-835.64	0.00	0.00	0.00	
6,900.00	10.63	2.73	6,821.95	854.25	40.76	-854.07	0.00	0.00	0.00	
7,000.00	10.63	2.73	6,920.23	872.69	41.64	-872.50	0.00	0.00	0.00	
7,100.00	10.63	2.73	7,018.51	891.12	42.52	-890.92	0.00	0.00	0.00	
7,200.00	10.63	2.73	7,116.79	909.55	43.40	-909.35	0.00	0.00	0.00	
7,300.00	10.63	2.73	7,215.08	927.98	44.28	-927.78	0.00	0.00	0.00	
7,400.00	10.63	2.73	7,313.36	946.41	45.16	-946.20	0.00	0.00	0.00	
7,500.00	10.63	2.73	7,411.64	964.84	46.04	-964.63	0.00	0.00	0.00	
7,600.00	10.63	2.73	7,509.93	983.27	46.92	-983.06	0.00	0.00	0.00	
7,700.00	10.63	2.73	7,608.21	1,001.70	47.80	-1,001.48	0.00	0.00	0.00	
7,800.00	10.63	2.73	7,706.49	1,020.13	48.68	-1,019.91	0.00	0.00	0.00	
7,900.00	10.63	2.73	7,804.78	1,038.56	49.56	-1,038.34	0.00	0.00	0.00	
7,916.51	10.63	2.73	7,821.00	1,041.60	49.70	-1,041.38	0.00	0.00	0.00	
<b>Bone Spring Lm.</b>										



Planning Report

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<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)
7,964.33	10.63	2.73	7,868.00	1,050.42	50.12	-1,050.19	0.00	0.00	0.00
<b>Avalon Ss.</b>									
8,000.00	10.63	2.73	7,903.06	1,056.99	50.44	-1,056.76	0.00	0.00	0.00
8,100.00	10.63	2.73	8,001.34	1,075.42	51.32	-1,075.19	0.00	0.00	0.00
8,200.00	10.63	2.73	8,099.62	1,093.85	52.20	-1,093.62	0.00	0.00	0.00
8,225.82	10.63	2.73	8,125.00	1,098.61	52.42	-1,098.37	0.00	0.00	0.00
<b>Upper Avalon Carb.</b>									
8,299.08	10.63	2.73	8,197.00	1,112.12	53.07	-1,111.87	0.00	0.00	0.00
<b>Upper Avalon Sh.</b>									
8,300.00	10.63	2.73	8,197.91	1,112.29	53.07	-1,112.04	0.00	0.00	0.00
8,400.00	10.63	2.73	8,296.19	1,130.72	53.95	-1,130.47	0.00	0.00	0.00
8,471.03	10.63	2.73	8,366.00	1,143.81	54.58	-1,143.56	0.00	0.00	0.00
<b>Middle Avalon Carb.</b>									
8,500.00	10.63	2.73	8,394.47	1,149.15	54.83	-1,148.90	0.00	0.00	0.00
8,547.34	10.63	2.73	8,441.00	1,157.87	55.25	-1,157.62	0.00	0.00	0.00
<b>Lw. Avalon Sh.</b>									
8,600.00	10.63	2.73	8,492.76	1,167.58	55.71	-1,167.32	0.00	0.00	0.00
8,700.00	10.63	2.73	8,591.04	1,186.01	56.59	-1,185.75	0.00	0.00	0.00
8,800.00	10.63	2.73	8,689.32	1,204.44	57.47	-1,204.18	0.00	0.00	0.00
8,882.09	10.63	2.73	8,770.00	1,219.57	58.19	-1,219.30	0.00	0.00	0.00
<b>First Bone Spring Carb.</b>									
8,900.00	10.63	2.73	8,787.60	1,222.87	58.35	-1,222.60	0.00	0.00	0.00
8,963.49	10.63	2.73	8,850.00	1,234.57	58.91	-1,234.30	0.00	0.00	0.00
<b>First Bone Spring Ss.</b>									
9,000.00	10.63	2.73	8,885.89	1,241.30	59.23	-1,241.03	0.00	0.00	0.00
9,100.00	10.63	2.73	8,984.17	1,259.73	60.11	-1,259.46	0.00	0.00	0.00
9,200.00	10.63	2.73	9,082.45	1,278.16	60.99	-1,277.88	0.00	0.00	0.00
9,300.00	10.63	2.73	9,180.74	1,296.59	61.87	-1,296.31	0.00	0.00	0.00
9,400.00	10.63	2.73	9,279.02	1,315.02	62.75	-1,314.74	0.00	0.00	0.00
9,401.00	10.63	2.73	9,280.00	1,315.21	62.76	-1,314.92	0.00	0.00	0.00
<b>Second Bone Spring Carb.</b>									
9,500.00	10.63	2.73	9,377.30	1,333.45	63.63	-1,333.16	0.00	0.00	0.00
9,600.00	10.63	2.73	9,475.59	1,351.89	64.51	-1,351.59	0.00	0.00	0.00
9,700.00	10.63	2.73	9,573.87	1,370.32	65.39	-1,370.02	0.00	0.00	0.00
9,787.64	10.63	2.73	9,660.00	1,386.47	66.16	-1,386.17	0.00	0.00	0.00
<b>Second Bone Spring A Ss.</b>									
9,800.00	10.63	2.73	9,672.15	1,388.75	66.27	-1,388.44	0.00	0.00	0.00
9,867.00	10.63	2.73	9,738.00	1,401.10	66.86	-1,400.79	0.00	0.00	0.00
<b>Second Bone Spring A/B Carb.</b>									
9,900.00	10.63	2.73	9,770.43	1,407.18	67.15	-1,406.87	0.00	0.00	0.00
9,930.08	10.63	2.73	9,800.00	1,412.72	67.41	-1,412.41	0.00	0.00	0.00
<b>Second Bone Spring B Ss.</b>									
9,940.78	10.63	2.73	9,810.51	1,414.69	67.50	-1,414.38	0.00	0.00	0.00
9,950.00	9.71	3.02	9,819.59	1,416.32	67.59	-1,416.01	10.00	-9.98	3.13
10,000.00	4.73	6.52	9,869.18	1,422.58	68.04	-1,422.27	10.00	-9.97	7.00
10,050.00	0.64	118.32	9,919.12	1,424.50	68.52	-1,424.19	10.00	-8.19	223.60
10,082.90	3.64	170.94	9,952.00	1,423.38	68.85	-1,423.07	10.00	9.12	159.91
<b>Third Bone Spring Carb.</b>									
10,100.00	5.33	173.76	9,969.04	1,422.06	69.02	-1,421.74	10.00	9.92	16.53
10,150.00	10.32	176.69	10,018.56	1,415.27	69.53	-1,414.96	10.00	9.97	5.85
10,200.00	15.31	177.72	10,067.30	1,404.20	70.05	-1,403.88	10.00	9.99	2.06
10,250.00	20.31	178.25	10,114.89	1,388.92	70.58	-1,388.59	10.00	9.99	1.06



Planning Report

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<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)
10,300.00	25.31	178.58	10,160.96	1,369.54	71.11	-1,369.22	10.00	10.00	0.66
10,307.81	26.09	178.62	10,168.00	1,366.16	71.20	-1,365.84	10.00	10.00	0.52
<b>Harkey Ss.</b>									
10,350.00	30.31	178.80	10,205.18	1,346.23	71.64	-1,345.91	10.00	10.00	0.44
10,400.00	35.31	178.97	10,247.19	1,319.15	72.17	-1,318.83	10.00	10.00	0.33
10,402.23	35.53	178.97	10,249.00	1,317.86	72.19	-1,317.54	10.00	10.00	0.29
<b>Third Bone Spring Shale</b>									
10,450.00	40.31	179.10	10,286.68	1,288.52	72.68	-1,288.19	10.00	10.00	0.26
10,500.00	45.31	179.20	10,323.35	1,254.56	73.19	-1,254.22	10.00	10.00	0.21
10,550.00	50.31	179.29	10,356.92	1,217.53	73.67	-1,217.19	10.00	10.00	0.18
10,600.00	55.31	179.37	10,387.14	1,177.71	74.13	-1,177.38	10.00	10.00	0.15
10,650.00	60.31	179.44	10,413.77	1,135.42	74.57	-1,135.08	10.00	10.00	0.14
10,700.00	65.31	179.50	10,436.61	1,090.96	74.99	-1,090.62	10.00	10.00	0.12
10,750.00	70.30	179.56	10,455.49	1,044.68	75.37	-1,044.34	10.00	10.00	0.11
10,800.00	75.30	179.61	10,470.27	996.93	75.71	-996.59	10.00	10.00	0.11
10,850.00	80.30	179.66	10,480.83	948.08	76.03	-947.74	10.00	10.00	0.10
10,900.00	85.30	179.71	10,487.09	898.49	76.30	-898.14	10.00	10.00	0.10
10,943.24	89.63	179.75	10,489.00	855.30	76.50	-854.96	10.00	10.00	0.10
<b>Horizontal Landing Point - 802H_FTP.</b>									
11,000.00	89.63	179.75	10,489.37	798.54	76.75	-798.20	0.00	0.00	0.00
11,100.00	89.63	179.75	10,490.02	698.54	77.18	-698.20	0.00	0.00	0.00
11,200.00	89.63	179.75	10,490.67	598.55	77.61	-598.20	0.00	0.00	0.00
11,300.00	89.63	179.75	10,491.32	498.55	78.04	-498.20	0.00	0.00	0.00
11,400.00	89.63	179.75	10,491.97	398.55	78.47	-398.21	0.00	0.00	0.00
11,500.00	89.63	179.75	10,492.62	298.56	78.91	-298.21	0.00	0.00	0.00
11,600.00	89.63	179.75	10,493.27	198.56	79.34	-198.21	0.00	0.00	0.00
11,700.00	89.63	179.75	10,493.91	98.56	79.77	-98.21	0.00	0.00	0.00
11,800.00	89.63	179.75	10,494.56	-1.43	80.20	1.78	0.00	0.00	0.00
11,900.00	89.63	179.75	10,495.21	-101.43	80.64	101.78	0.00	0.00	0.00
12,000.00	89.63	179.75	10,495.86	-201.43	81.07	201.78	0.00	0.00	0.00
12,100.00	89.63	179.75	10,496.51	-301.43	81.50	301.78	0.00	0.00	0.00
12,200.00	89.63	179.75	10,497.16	-401.42	81.93	401.78	0.00	0.00	0.00
12,300.00	89.63	179.75	10,497.81	-501.42	82.36	501.77	0.00	0.00	0.00
12,400.00	89.63	179.75	10,498.46	-601.42	82.80	601.77	0.00	0.00	0.00
12,500.00	89.63	179.75	10,499.11	-701.41	83.23	701.77	0.00	0.00	0.00
12,600.00	89.63	179.75	10,499.76	-801.41	83.66	801.77	0.00	0.00	0.00
12,700.00	89.63	179.75	10,500.41	-901.41	84.09	901.77	0.00	0.00	0.00
12,800.00	89.63	179.75	10,501.06	-1,001.40	84.52	1,001.76	0.00	0.00	0.00
12,900.00	89.63	179.75	10,501.71	-1,101.40	84.96	1,101.76	0.00	0.00	0.00
13,000.00	89.63	179.75	10,502.36	-1,201.40	85.39	1,201.76	0.00	0.00	0.00
13,100.00	89.63	179.75	10,503.01	-1,301.40	85.82	1,301.76	0.00	0.00	0.00
13,200.00	89.63	179.75	10,503.65	-1,401.39	86.25	1,401.76	0.00	0.00	0.00
13,300.00	89.63	179.75	10,504.30	-1,501.39	86.69	1,501.75	0.00	0.00	0.00
13,400.00	89.63	179.75	10,504.95	-1,601.39	87.12	1,601.75	0.00	0.00	0.00
13,500.00	89.63	179.75	10,505.60	-1,701.38	87.55	1,701.75	0.00	0.00	0.00
13,600.00	89.63	179.75	10,506.25	-1,801.38	87.98	1,801.75	0.00	0.00	0.00
13,700.00	89.63	179.75	10,506.90	-1,901.38	88.41	1,901.74	0.00	0.00	0.00
13,800.00	89.63	179.75	10,507.55	-2,001.37	88.85	2,001.74	0.00	0.00	0.00
13,900.00	89.63	179.75	10,508.20	-2,101.37	89.28	2,101.74	0.00	0.00	0.00
14,000.00	89.63	179.75	10,508.85	-2,201.37	89.71	2,201.74	0.00	0.00	0.00
14,100.00	89.63	179.75	10,509.50	-2,301.36	90.14	2,301.74	0.00	0.00	0.00
14,200.00	89.63	179.75	10,510.15	-2,401.36	90.58	2,401.73	0.00	0.00	0.00
14,300.00	89.63	179.75	10,510.80	-2,501.36	91.01	2,501.73	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 802H
<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)	
14,400.00	89.63	179.75	10,511.45	-2,601.36	91.44	2,601.73	0.00	0.00	0.00	
14,500.00	89.63	179.75	10,512.10	-2,701.35	91.87	2,701.73	0.00	0.00	0.00	
14,600.00	89.63	179.75	10,512.75	-2,801.35	92.30	2,801.73	0.00	0.00	0.00	
14,700.00	89.63	179.75	10,513.40	-2,901.35	92.74	2,901.72	0.00	0.00	0.00	
14,800.00	89.63	179.75	10,514.04	-3,001.34	93.17	3,001.72	0.00	0.00	0.00	
14,900.00	89.63	179.75	10,514.69	-3,101.34	93.60	3,101.72	0.00	0.00	0.00	
15,000.00	89.63	179.75	10,515.34	-3,201.34	94.03	3,201.72	0.00	0.00	0.00	
15,100.00	89.63	179.75	10,515.99	-3,301.33	94.47	3,301.72	0.00	0.00	0.00	
15,200.00	89.63	179.75	10,516.64	-3,401.33	94.90	3,401.71	0.00	0.00	0.00	
15,300.00	89.63	179.75	10,517.29	-3,501.33	95.33	3,501.71	0.00	0.00	0.00	
15,400.00	89.63	179.75	10,517.94	-3,601.33	95.76	3,601.71	0.00	0.00	0.00	
15,500.00	89.63	179.75	10,518.59	-3,701.32	96.19	3,701.71	0.00	0.00	0.00	
15,600.00	89.63	179.75	10,519.24	-3,801.32	96.63	3,801.70	0.00	0.00	0.00	
15,700.00	89.63	179.75	10,519.89	-3,901.32	97.06	3,901.70	0.00	0.00	0.00	
15,800.00	89.63	179.75	10,520.54	-4,001.31	97.49	4,001.70	0.00	0.00	0.00	
15,900.00	89.63	179.75	10,521.19	-4,101.31	97.92	4,101.70	0.00	0.00	0.00	
16,000.00	89.63	179.75	10,521.84	-4,201.31	98.35	4,201.70	0.00	0.00	0.00	
16,100.00	89.63	179.75	10,522.49	-4,301.30	98.79	4,301.69	0.00	0.00	0.00	
16,200.00	89.63	179.75	10,523.14	-4,401.30	99.22	4,401.69	0.00	0.00	0.00	
16,300.00	89.63	179.75	10,523.79	-4,501.30	99.65	4,501.69	0.00	0.00	0.00	
16,400.00	89.63	179.75	10,524.43	-4,601.30	100.08	4,601.69	0.00	0.00	0.00	
16,500.00	89.63	179.75	10,525.08	-4,701.29	100.52	4,701.69	0.00	0.00	0.00	
16,600.00	89.63	179.75	10,525.73	-4,801.29	100.95	4,801.68	0.00	0.00	0.00	
16,700.00	89.63	179.75	10,526.38	-4,901.29	101.38	4,901.68	0.00	0.00	0.00	
16,800.00	89.63	179.75	10,527.03	-5,001.28	101.81	5,001.68	0.00	0.00	0.00	
16,900.00	89.63	179.75	10,527.68	-5,101.28	102.24	5,101.68	0.00	0.00	0.00	
17,000.00	89.63	179.75	10,528.33	-5,201.28	102.68	5,201.68	0.00	0.00	0.00	
17,100.00	89.63	179.75	10,528.98	-5,301.27	103.11	5,301.67	0.00	0.00	0.00	
17,200.00	89.63	179.75	10,529.63	-5,401.27	103.54	5,401.67	0.00	0.00	0.00	
17,300.00	89.63	179.75	10,530.28	-5,501.27	103.97	5,501.67	0.00	0.00	0.00	
17,400.00	89.63	179.75	10,530.93	-5,601.26	104.41	5,601.67	0.00	0.00	0.00	
17,500.00	89.63	179.75	10,531.58	-5,701.26	104.84	5,701.66	0.00	0.00	0.00	
17,600.00	89.63	179.75	10,532.23	-5,801.26	105.27	5,801.66	0.00	0.00	0.00	
17,700.00	89.63	179.75	10,532.88	-5,901.26	105.70	5,901.66	0.00	0.00	0.00	
17,800.00	89.63	179.75	10,533.53	-6,001.25	106.13	6,001.66	0.00	0.00	0.00	
17,900.00	89.63	179.75	10,534.18	-6,101.25	106.57	6,101.66	0.00	0.00	0.00	
18,000.00	89.63	179.75	10,534.82	-6,201.25	107.00	6,201.65	0.00	0.00	0.00	
18,100.00	89.63	179.75	10,535.47	-6,301.24	107.43	6,301.65	0.00	0.00	0.00	
18,200.00	89.63	179.75	10,536.12	-6,401.24	107.86	6,401.65	0.00	0.00	0.00	
18,300.00	89.63	179.75	10,536.77	-6,501.24	108.30	6,501.65	0.00	0.00	0.00	
18,400.00	89.63	179.75	10,537.42	-6,601.23	108.73	6,601.65	0.00	0.00	0.00	
18,500.00	89.63	179.75	10,538.07	-6,701.23	109.16	6,701.64	0.00	0.00	0.00	
18,600.00	89.63	179.75	10,538.72	-6,801.23	109.59	6,801.64	0.00	0.00	0.00	
18,700.00	89.63	179.75	10,539.37	-6,901.23	110.02	6,901.64	0.00	0.00	0.00	
18,800.00	89.63	179.75	10,540.02	-7,001.22	110.46	7,001.64	0.00	0.00	0.00	
18,900.00	89.63	179.75	10,540.67	-7,101.22	110.89	7,101.64	0.00	0.00	0.00	
19,000.00	89.63	179.75	10,541.32	-7,201.22	111.32	7,201.63	0.00	0.00	0.00	
19,100.00	89.63	179.75	10,541.97	-7,301.21	111.75	7,301.63	0.00	0.00	0.00	
19,200.00	89.63	179.75	10,542.62	-7,401.21	112.18	7,401.63	0.00	0.00	0.00	
19,300.00	89.63	179.75	10,543.27	-7,501.21	112.62	7,501.63	0.00	0.00	0.00	
19,400.00	89.63	179.75	10,543.92	-7,601.20	113.05	7,601.62	0.00	0.00	0.00	
19,500.00	89.63	179.75	10,544.57	-7,701.20	113.48	7,701.62	0.00	0.00	0.00	
19,600.00	89.63	179.75	10,545.21	-7,801.20	113.91	7,801.62	0.00	0.00	0.00	
19,700.00	89.63	179.75	10,545.86	-7,901.19	114.35	7,901.62	0.00	0.00	0.00	



Planning Report

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<b>Company:</b>	XTO Energy	<b>TVD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)	
19,800.00	89.63	179.75	10,546.51	-8,001.19	114.78	8,001.62	0.00	0.00	0.00	
19,900.00	89.63	179.75	10,547.16	-8,101.19	115.21	8,101.61	0.00	0.00	0.00	
20,000.00	89.63	179.75	10,547.81	-8,201.19	115.64	8,201.61	0.00	0.00	0.00	
20,100.00	89.63	179.75	10,548.46	-8,301.18	116.07	8,301.61	0.00	0.00	0.00	
20,200.00	89.63	179.75	10,549.11	-8,401.18	116.51	8,401.61	0.00	0.00	0.00	
20,300.00	89.63	179.75	10,549.76	-8,501.18	116.94	8,501.61	0.00	0.00	0.00	
20,400.00	89.63	179.75	10,550.41	-8,601.17	117.37	8,601.60	0.00	0.00	0.00	
20,500.00	89.63	179.75	10,551.06	-8,701.17	117.80	8,701.60	0.00	0.00	0.00	
20,600.00	89.63	179.75	10,551.71	-8,801.17	118.24	8,801.60	0.00	0.00	0.00	
20,700.00	89.63	179.75	10,552.36	-8,901.16	118.67	8,901.60	0.00	0.00	0.00	
20,800.00	89.63	179.75	10,553.01	-9,001.16	119.10	9,001.60	0.00	0.00	0.00	
20,900.00	89.63	179.75	10,553.66	-9,101.16	119.53	9,101.59	0.00	0.00	0.00	
21,000.00	89.63	179.75	10,554.31	-9,201.16	119.96	9,201.59	0.00	0.00	0.00	
21,100.00	89.63	179.75	10,554.96	-9,301.15	120.40	9,301.59	0.00	0.00	0.00	
21,200.00	89.63	179.75	10,555.60	-9,401.15	120.83	9,401.59	0.00	0.00	0.00	
21,300.00	89.63	179.75	10,556.25	-9,501.15	121.26	9,501.58	0.00	0.00	0.00	
21,400.00	89.63	179.75	10,556.90	-9,601.14	121.69	9,601.58	0.00	0.00	0.00	
21,500.00	89.63	179.75	10,557.55	-9,701.14	122.13	9,701.58	0.00	0.00	0.00	
21,600.00	89.63	179.75	10,558.20	-9,801.14	122.56	9,801.58	0.00	0.00	0.00	
21,700.00	89.63	179.75	10,558.85	-9,901.13	122.99	9,901.58	0.00	0.00	0.00	
21,800.00	89.63	179.75	10,559.50	-10,001.13	123.42	10,001.57	0.00	0.00	0.00	
21,900.00	89.63	179.75	10,560.15	-10,101.13	123.85	10,101.57	0.00	0.00	0.00	
22,000.00	89.63	179.75	10,560.80	-10,201.12	124.29	10,201.57	0.00	0.00	0.00	
22,100.00	89.63	179.75	10,561.45	-10,301.12	124.72	10,301.57	0.00	0.00	0.00	
22,200.00	89.63	179.75	10,562.10	-10,401.12	125.15	10,401.57	0.00	0.00	0.00	
22,300.00	89.63	179.75	10,562.75	-10,501.12	125.58	10,501.56	0.00	0.00	0.00	
22,400.00	89.63	179.75	10,563.40	-10,601.11	126.02	10,601.56	0.00	0.00	0.00	
22,500.00	89.63	179.75	10,564.05	-10,701.11	126.45	10,701.56	0.00	0.00	0.00	
22,600.00	89.63	179.75	10,564.70	-10,801.11	126.88	10,801.56	0.00	0.00	0.00	
22,700.00	89.63	179.75	10,565.34	-10,901.10	127.31	10,901.56	0.00	0.00	0.00	
22,800.00	89.63	179.75	10,565.99	-11,001.10	127.74	11,001.55	0.00	0.00	0.00	
22,900.00	89.63	179.75	10,566.64	-11,101.10	128.18	11,101.55	0.00	0.00	0.00	
23,000.00	89.63	179.75	10,567.29	-11,201.09	128.61	11,201.55	0.00	0.00	0.00	
23,100.00	89.63	179.75	10,567.94	-11,301.09	129.04	11,301.55	0.00	0.00	0.00	
23,200.00	89.63	179.75	10,568.59	-11,401.09	129.47	11,401.54	0.00	0.00	0.00	
23,300.00	89.63	179.75	10,569.24	-11,501.09	129.90	11,501.54	0.00	0.00	0.00	
23,400.00	89.63	179.75	10,569.89	-11,601.08	130.34	11,601.54	0.00	0.00	0.00	
23,500.00	89.63	179.75	10,570.54	-11,701.08	130.77	11,701.54	0.00	0.00	0.00	
23,600.00	89.63	179.75	10,571.19	-11,801.08	131.20	11,801.54	0.00	0.00	0.00	
23,700.00	89.63	179.75	10,571.84	-11,901.07	131.63	11,901.53	0.00	0.00	0.00	
23,800.00	89.63	179.75	10,572.49	-12,001.07	132.07	12,001.53	0.00	0.00	0.00	
23,900.00	89.63	179.75	10,573.14	-12,101.07	132.50	12,101.53	0.00	0.00	0.00	
24,000.00	89.63	179.75	10,573.79	-12,201.06	132.93	12,201.53	0.00	0.00	0.00	
24,100.00	89.63	179.75	10,574.44	-12,301.06	133.36	12,301.53	0.00	0.00	0.00	
24,200.00	89.63	179.75	10,575.09	-12,401.06	133.79	12,401.52	0.00	0.00	0.00	
24,300.00	89.63	179.75	10,575.73	-12,501.05	134.23	12,501.52	0.00	0.00	0.00	
24,400.00	89.63	179.75	10,576.38	-12,601.05	134.66	12,601.52	0.00	0.00	0.00	
24,500.00	89.63	179.75	10,577.03	-12,701.05	135.09	12,701.52	0.00	0.00	0.00	
24,600.00	89.63	179.75	10,577.68	-12,801.05	135.52	12,801.52	0.00	0.00	0.00	
24,700.00	89.63	179.75	10,578.33	-12,901.04	135.96	12,901.51	0.00	0.00	0.00	
24,745.86	89.63	179.75	10,578.63	-12,946.90	136.15	12,947.37	0.00	0.00	0.00	
<b>802H_LTP.</b>										
24,802.86	89.63	179.75	10,579.00	-13,003.90	136.40	13,004.37	0.00	0.00	0.00	
<b>Horizontal TD - 802H_BHL.</b>										



Planning Report

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<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<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)

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
802H_SHL. - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	487,864.60	658,089.10	32.3402171	-103.8214636
802H_FTP. - plan hits target center - Point	0.00	0.00	10,489.00	855.30	76.50	488,719.90	658,165.60	32.3425672	-103.8212027
802H_LTP. - plan misses target center by 0.05usft at 24745.86usft MD (10578.63 TVD, -12946.90 N, 136.15 E) - Point	0.00	0.00	10,578.63	-12,946.90	136.20	474,917.70	658,225.30	32.3046264	-103.8212230
802H_BHL. - plan hits target center - Point	0.00	0.00	10,579.00	-13,003.90	136.40	474,860.70	658,225.50	32.3044697	-103.8212232



Planning Report

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<b>Project:</b>	EDDY COUNTY, NM (NAD-27)	<b>MD Reference:</b>	RKB = 32' @ 3348.00usft (TBD)
<b>Site:</b>	JAMES RANCH UNIT DI 7 SAWTOOTH	<b>North Reference:</b>	Grid
<b>Well:</b>	802H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PERMIT		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
266.00	266.00	Rustler			
604.00	604.00	Salado/Top of Salt			
2,526.97	2,524.00	Castile Anhydrite 1 Top			
3,026.54	3,015.00	Castile Anhydrite 1 Base			
3,260.56	3,245.00	Castile Anhydrite 2 Top			
3,367.40	3,350.00	Castile Anhydrite 2 Base			
3,731.65	3,708.00	Base Salt			
3,975.84	3,948.00	Delaware/Lamar			
4,009.42	3,981.00	Bell Canyon			
5,118.46	5,071.00	Cherry Canyon			
6,570.39	6,498.00	Brushy Canyon Ss.			
7,916.51	7,821.00	Bone Spring Lm.			
7,964.33	7,868.00	Avalon Ss.			
8,225.82	8,125.00	Upper Avalon Carb.			
8,299.08	8,197.00	Upper Avalon Sh.			
8,471.03	8,366.00	Middle Avalon Carb.			
8,547.34	8,441.00	Lw. Avalon Sh.			
8,882.09	8,770.00	First Bone Spring Carb.			
8,963.49	8,850.00	First Bone Spring Ss.			
9,401.00	9,280.00	Second Bone Spring Carb.			
9,787.64	9,660.00	Second Bone Spring A Ss.			
9,867.00	9,738.00	Second Bone Spring A/B Carb.			
9,930.08	9,800.00	Second Bone Spring B Ss.			
10,082.90	9,952.00	Third Bone Spring Carb.			
10,307.81	10,168.00	Harkey Ss.			
10,402.23	10,249.00	Third Bone Spring Shale			
10,943.24	10,489.00	Horizontal Landing Point			
24,802.86	10,579.00	Horizontal TD			

### **Cement Variance Request**

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 Brushy Canyon (6498') 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 to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, 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 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 GE procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.



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

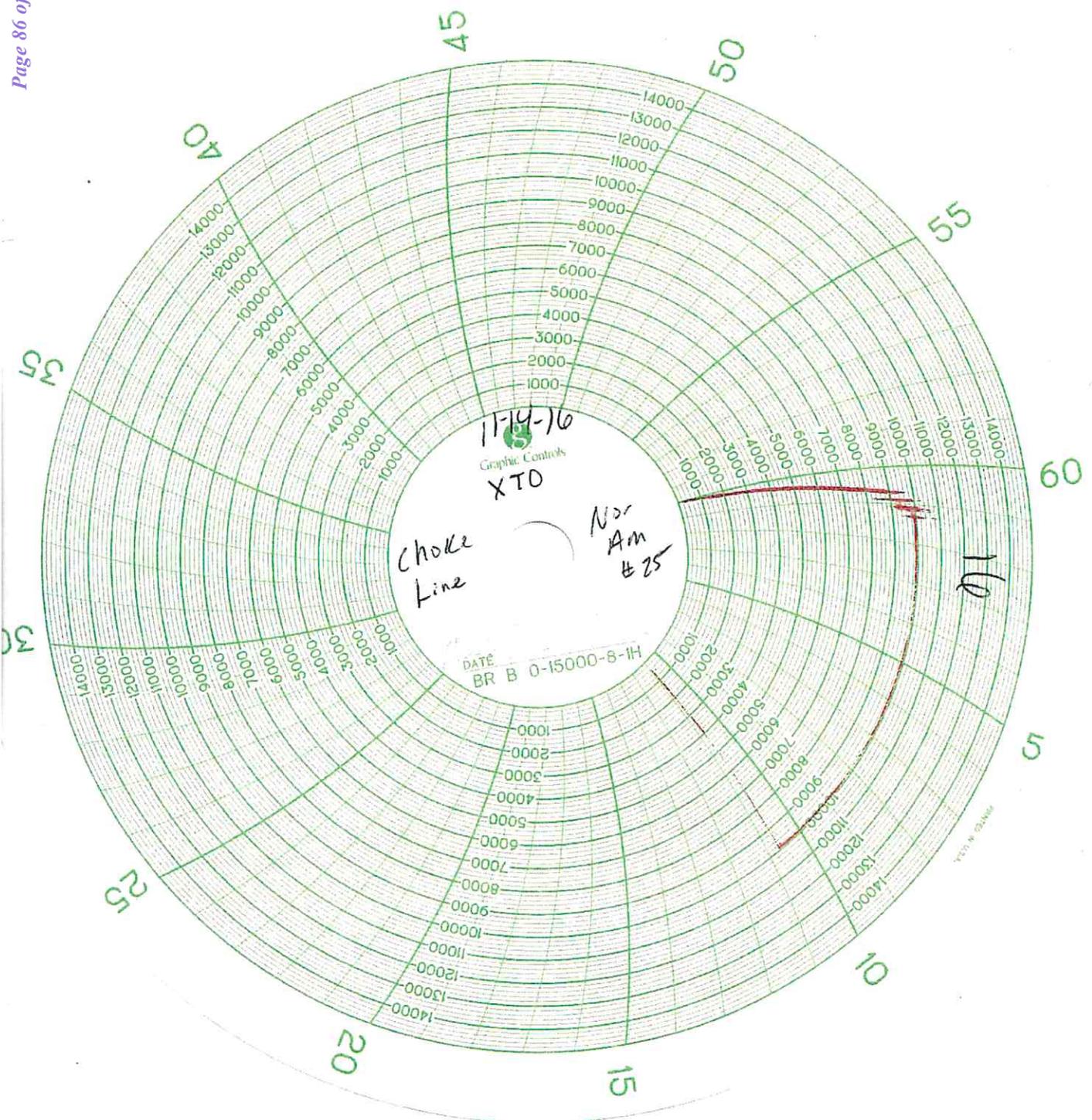
PHONE: 361-887-9807  
 FAX: 361-887-0812  
 EMAIL: crpe&s@gates.com  
 WEB: www.gates.com

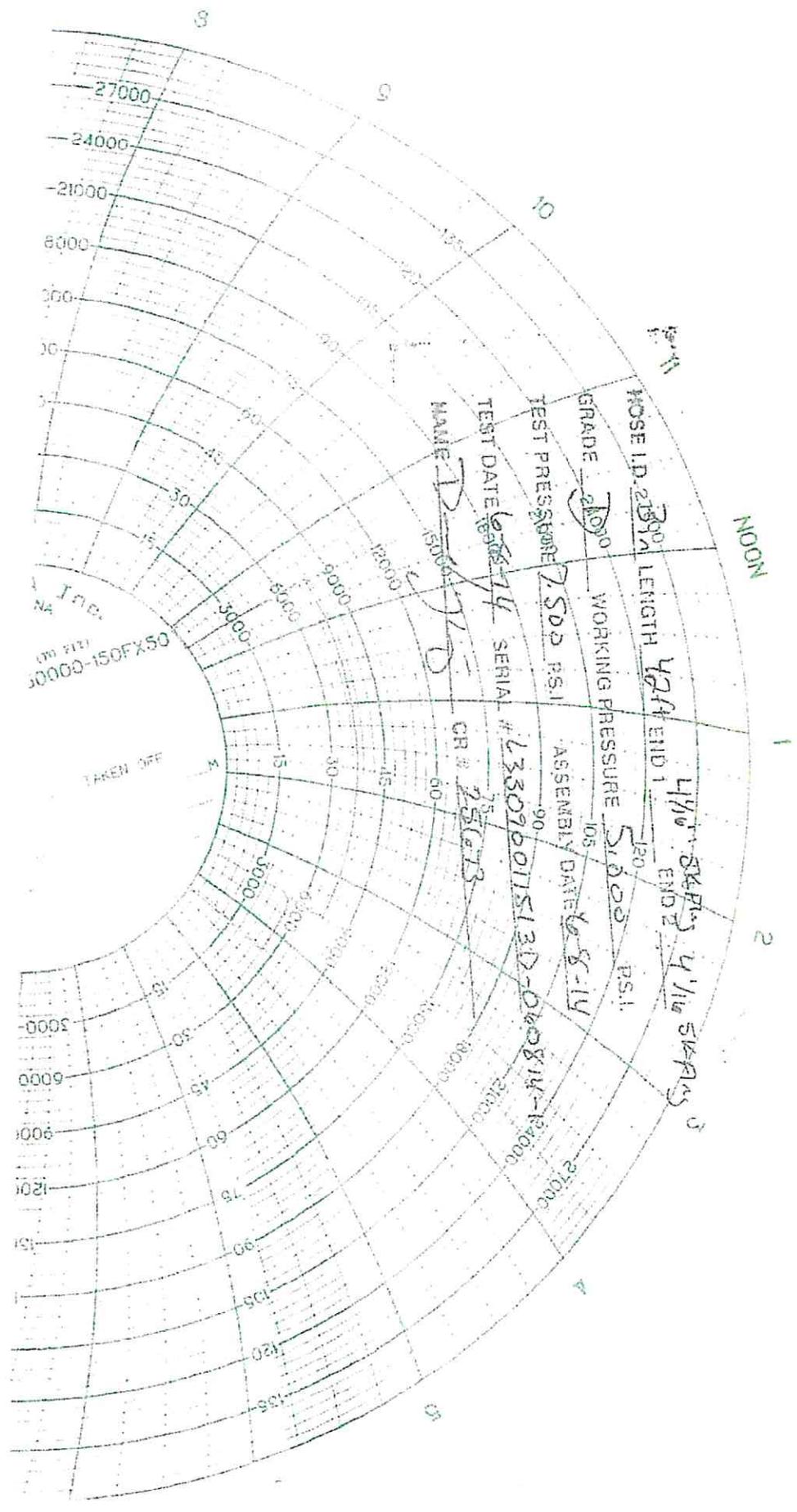
**GRADE D PRESSURE TEST CERTIFICATE**

Customer:	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref.:	PENDING	Hose Serial No.:	D-060814-1
Invoice No.:	201709	Created By:	NORMA
Product Description:	FD3-042.0R41/16.5KFLGE/E LE		
End Filling 1:	4 1/16 in.5K FLG	End Filling 2:	4 1/16 in.5K FLG
Gates Part No.:	4274-6001	Assembly Code:	L33090011513D-060814-1
Working Pressure:	5,000 PSI	Test Pressure:	7,500 PSI

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

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





## 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.

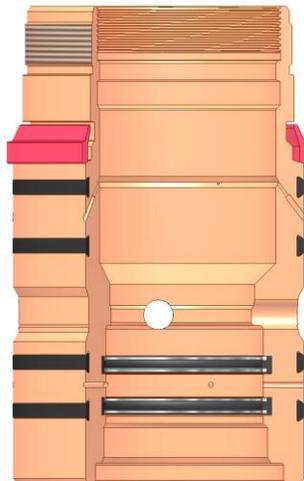
### 1. Cement Program

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

### 2. Offline Cementing Procedure

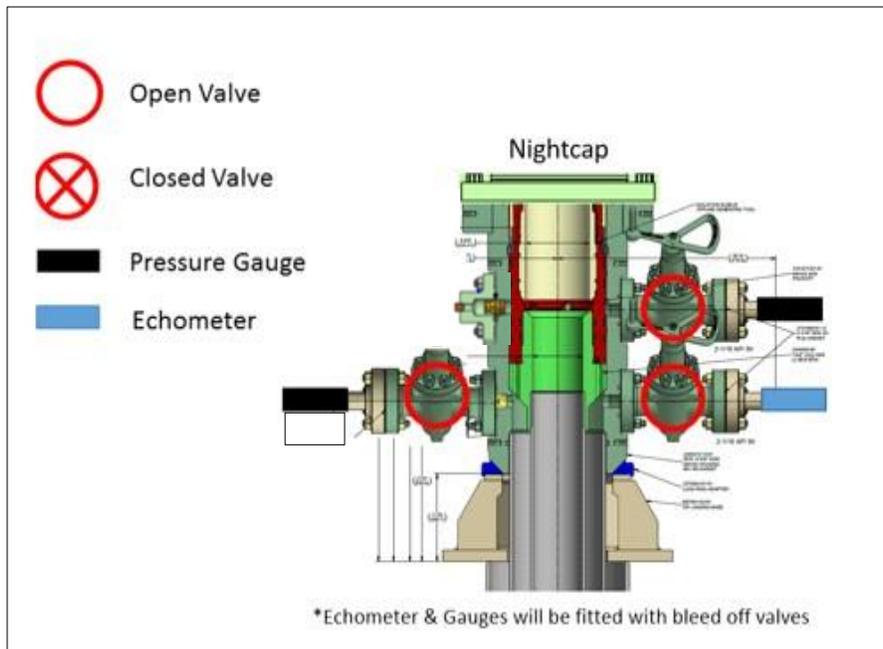
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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

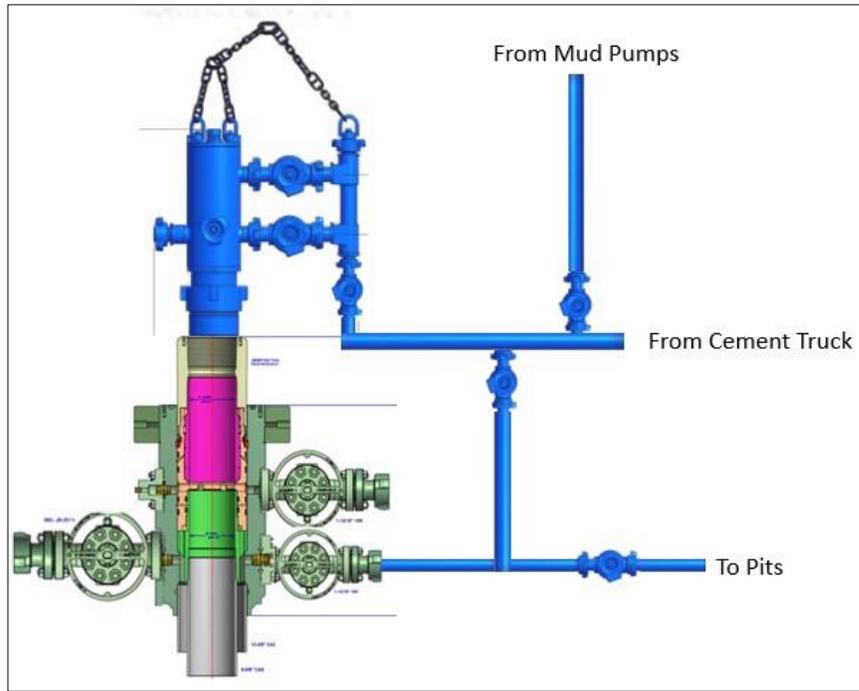
## XTO Permian Operating, LLC Offline Cementing Variance Request



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



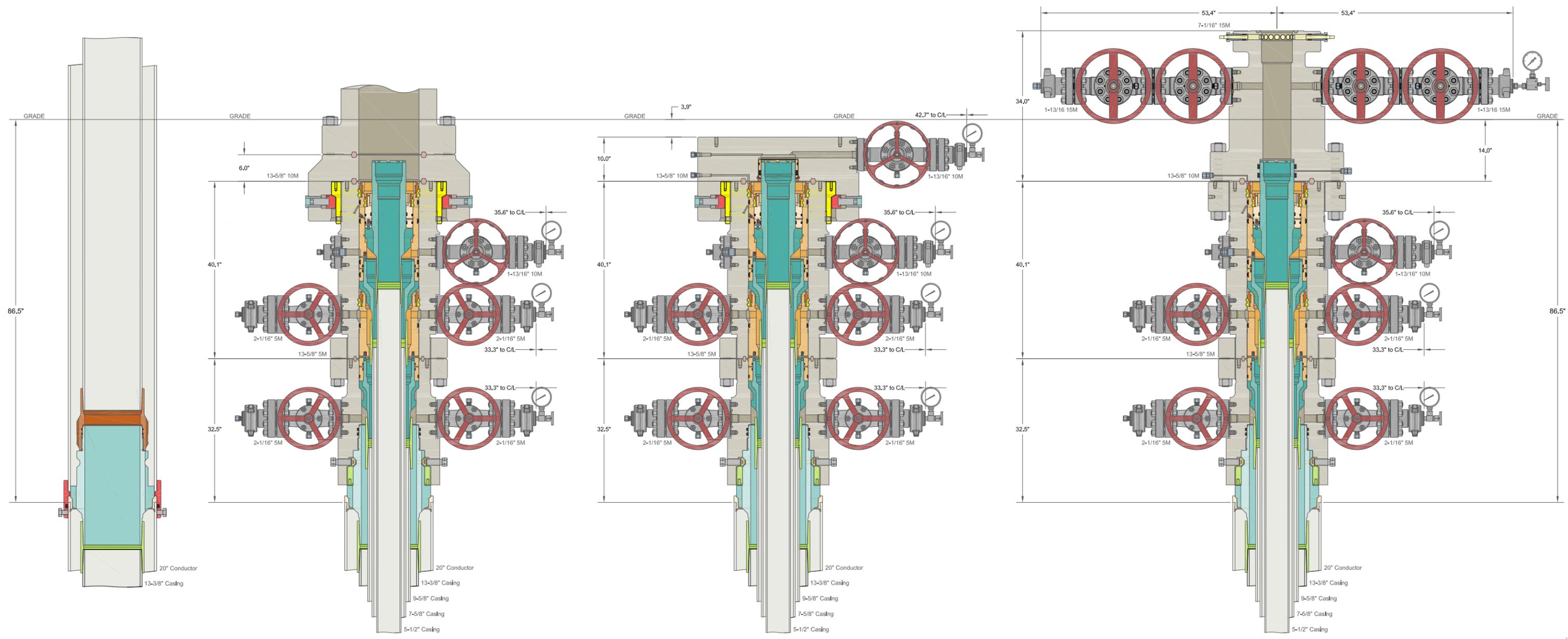
Wellhead diagram during offline cementing operations

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 180 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.



INFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, DISCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY AUTHORIZED BY CACTUS WELLHEAD, LLC.

ALL DIMENSIONS APPROXIMATE

<b>CACTUS WELLHEAD LLC</b>		XTO ENERGY INC DELAWARE BASIN	
(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations		DRAWN	VJK
		APPRV	31MAR22
		DRAWING NO.	SDT-3301

**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.

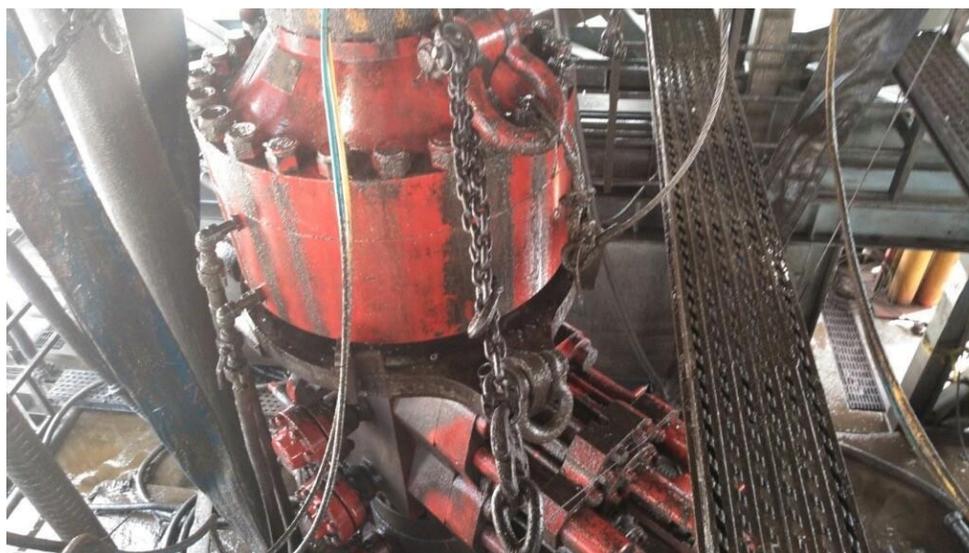


Figure 1: Winch System attached to BOP Stack



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>ac</sup> psig (MPa)	Pressure Test—High Pressure <sup>ac</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>bd</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.

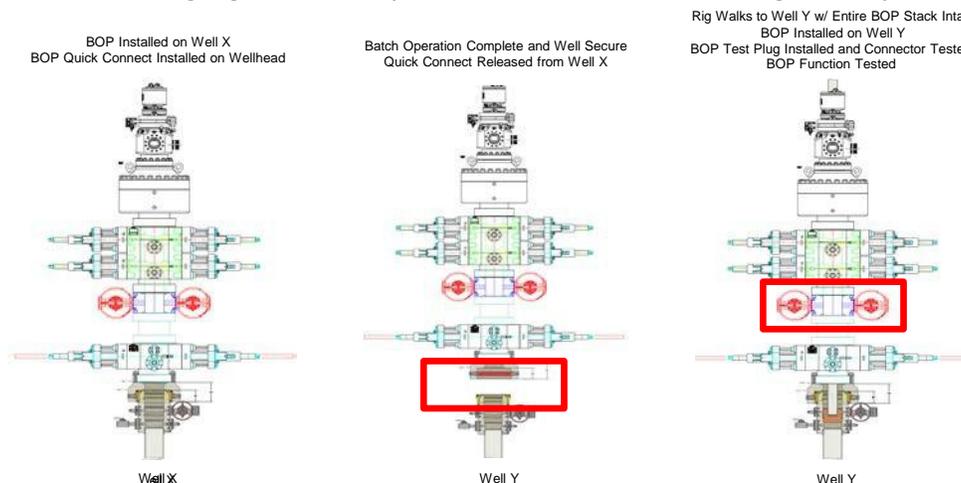
XTO Energy feels break testing and our current procedures meet the intent of CFR Title 43 Part 317 0and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often 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.

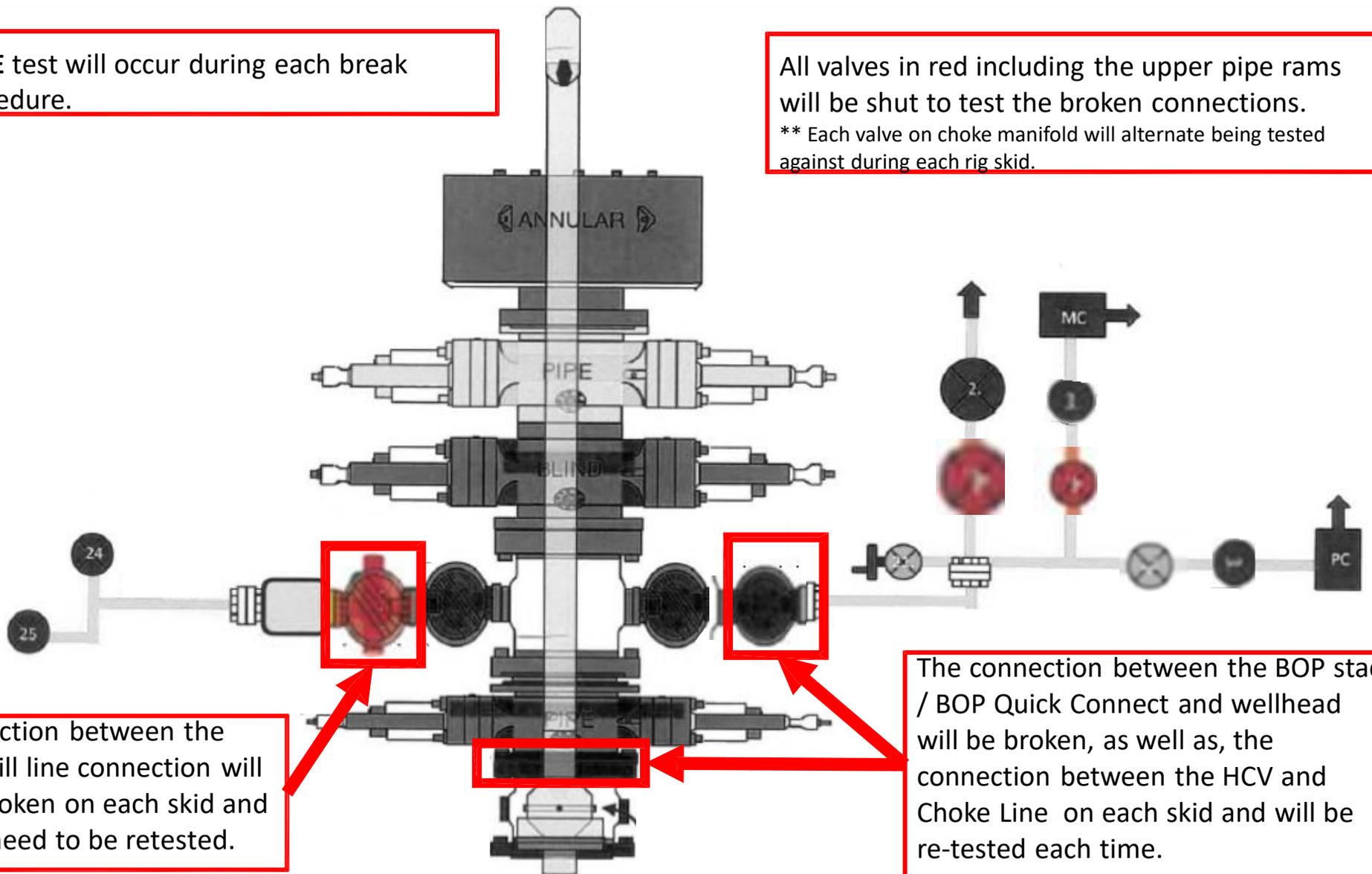
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

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.

Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.  
\*\* Each valve on choke manifold will alternate being tested against during each skid.



The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.



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

# SUPO Data Report

03/05/2024

APD ID: 10400093036

Submission Date: 06/22/2023

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 7 SAWTOOTH

Well Number: 802H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

## Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

JRU\_7\_Sawtooth\_802H\_Road\_20230622100213.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

## Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

JRU\_7\_Sawtooth\_Road\_20230616125855.pdf

New road type: RESOURCE

Length: 585.29 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 PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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:** The topsoil that was stripped will be spread along the edge of the road and within the ditch.

**Access miscellaneous information:** From the intersection of JAL Highway (State Highway 128) and WIPP Road, go Northeast on WIPP Road for approximately 0.8 miles. Turn Right (East) onto Lease Road and go approximately 0.3 miles. Turn Left (North) onto Lease Road and go approximately 0.2 miles, arriving at the location(s). The locations are to the Northwest. Transportation maps identifying existing roads that will be used to access the project area are included from FSC, Inc. marked as, Topographical and Access Road Map. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, Topographical and Access Road Map. All equipment and vehicles will be confined to the routes shown on the Topographical and Access Map as provided by FSC, Inc. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.

**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:**

JRU\_7\_Sawtooth\_1\_Mile\_20230616131356.pdf

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

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

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

**Production Facilities description:** A. Production Facilities. Two pads were staked with the BLM for construction and use as Central Tank Batteries (CTBs). The Central Tank Batteries are the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The James Ranch Unit DI 7 Central Tank Battery East is 600ft.x600ft. (Center:389 FEL & 1277 FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. The James Ranch Unit DI 7 Central Tank Battery West is 600ft.x600ft. (Center: 2397 FWL & 1174. FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. Plats of the proposed facilities are attached. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. Buried & Surface Flowlines. In the event the In the event the James Ranch Unit DI 7 wells are found productive, one hundred and fourteen (114) 22in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. If XTO Permian Operating, LLC decides to run surface lines, one hundred and fourteen (114) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The proposed corridor for flowlines: 4863.85 long, 100ft. wide. Total Acreage Associated with Flowlines: 10.7 Acres. Midstream Tie-In. One (1) 110 corridor is requested to connect twelve (12) lines each with the DI 8 MSO pipeline. XTO will be installing the lines with anticipated risers located on the CTBs. James Ranch Unit DI 7 MSO Length: 1711.54 x 110wide. A plat of the requested lines is attached. Specifics of the lines can be found on APD attachment: James Ranch Unit DI 7: Midstream Tie-In Sheet Specifics. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. A flare is not requested nor required with this project. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas. Electrical. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 6627.22 of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

**Production Facilities map:**

JRU\_7\_Sawtooth\_CTBE\_20230616131933.pdf

JRU\_7\_Sawtooth\_CTBW\_20230616131933.pdf

JRU\_7\_Sawtooth\_OHE\_20230616131933.pdf

JRU\_7\_Sawtooto\_FL\_20230616131933.pdf

### Section 5 - Location and Types of Water Supply

#### Water Source Table

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**Water source type:** OTHER

**Describe type:** FreshWater; Section 27, T25S-R30E, 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 type:** OTHER

**Describe type:** FreshWater; 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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**Source volume (gal):** 84000000

**Water source and transportation**

JRU\_7\_Sawtooth\_802H\_Wtr\_20230622100243.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 Permian Operating, LLC 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 50,000 barrels (bbls) 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 ~1.5 bbls 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. Well completion is expected to require approximately 1,950,000 bbls 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:**

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

### Section 6 - Construction Materials

**Using any construction materials:** YES

**Construction Materials description:** Pit 1: State Caliche Pit, Section 32-T21S-R31E, SESW Pit 2: State Caliche Pit, Section 16-T23S-R30E, SESW

**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

**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

<b>Operator Name:</b> XTO PERMIAN OPERATING LLC		
<b>Well Name:</b> JAMES RANCH UNIT DI 7 SAWTOOTH	<b>Well Number:</b> 802H	

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:**

**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

**Operator Name:** XTO PERMIAN OPERATING LLC**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH**Well Number:** 802H**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:**

## Section 9 - Well Site

**Well Site Layout Diagram:**

JRUI\_DI\_7\_SAWTOOTH\_802H\_WELL\_07\_18\_2023\_20240113181623.pdf

JRUI\_7\_Sawtooth\_802H\_RL\_20240204165533.pdf

**Comments:** Multi-well pad.

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance**Multiple Well Pad Name:** JRUI DI 7 SAWTOOTH**Multiple Well Pad Number:** a**Recontouring**

JRUI\_7\_Sawtooth\_IR2\_20230616135635.pdf

JRUI\_7\_Sawtooth\_IR3\_20230616135635.pdf

JRUI\_7\_Sawtooth\_IR4\_20230616135636.pdf

JRUI\_7\_Sawtooth\_IR1\_20240204165624.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 gully, headcutting, slumping,

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

and deep or excessive rills (greater than 3 inches) are not observed.

<b>Well pad proposed disturbance (acres):</b> 0	<b>Well pad interim reclamation (acres):</b> 0	<b>Well pad long term disturbance (acres):</b> 0
<b>Road proposed disturbance (acres):</b> 0.42	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0.42
<b>Powerline proposed disturbance (acres):</b> 4.51	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 4.51
<b>Pipeline proposed disturbance (acres):</b> 14.96	<b>Pipeline interim reclamation (acres):</b> 14.96	<b>Pipeline long term disturbance (acres):</b> 0
<b>Other proposed disturbance (acres):</b> 3.37	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 3.37
<b>Total proposed disturbance:</b> 23.26	<b>Total interim reclamation:</b> 14.96	<b>Total long term disturbance:</b> 8.3

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

**Existing Vegetation at the well pad:** Soils are classified as Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote.

**Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** Soils are classified as Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote.

**Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** Soils are classified as Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote.

**Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** Soils are classified as Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote.

**Existing Vegetation Community at other disturbances**

**Non native seed used?** N

**Non native seed description:**

<b>Operator Name:</b> XTO PERMIAN OPERATING LLC	<b>Well Name:</b> JAMES RANCH UNIT DI 7 SAWTOOTH	<b>Well Number:</b> 802H
---	--	--------------------------

**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	
Seed Type	Pounds/Acre

**Total pounds/Acre:**

**Seed reclamation**

[Operator Contact/Responsible Official](#)

**First Name:** James

**Last Name:** Scott

**Phone:**

**Email:** james.scott@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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

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:**

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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:**

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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:**

**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 PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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:**

**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:** December 15, 2022 with Zane Kirsch, Bureau of Land Management NRS

**Other SUPO**

JRU\_7\_Sawtooth\_LS\_20230621115910.pdf

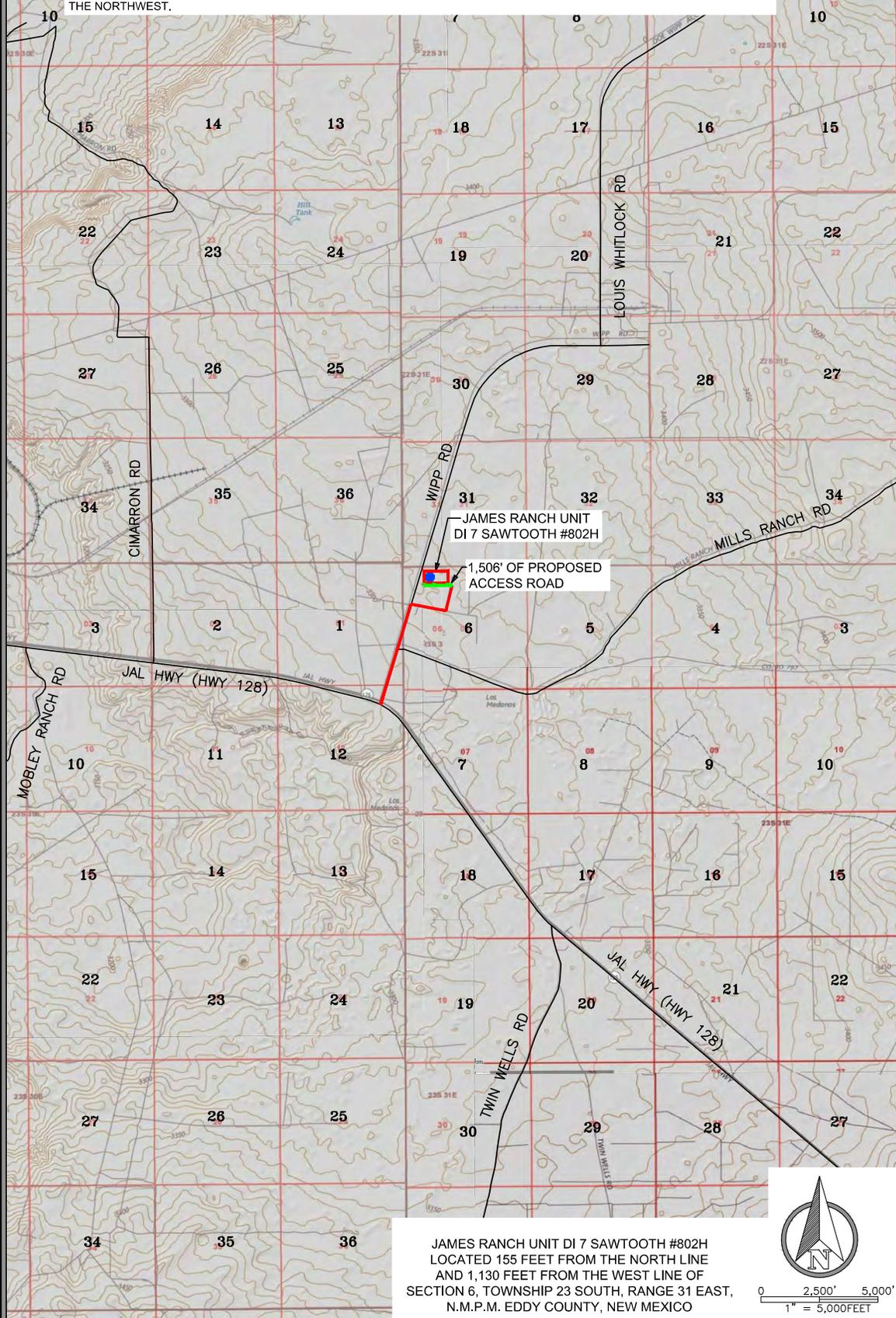
JRU\_7\_Sawtooth\_SUPO\_20230621102058.pdf



# TOPOGRAPHICAL AND ACCESS ROAD MAP

**DIRECTIONS TO THIS LOCATION:**

FROM THE INTERSECTION OF JAL HIGHWAY (STATE HIGHWAY 128) AND WIPP ROAD, GO NORTHEAST ONTO WIPP ROAD AND GO APPROX. 0.8 MILES. TURN RIGHT (EAST) ONTO LEASE ROAD AND GO APPROX. 0.3 MILES. TURN LEFT (NORTH) ONTO LEASE ROAD AND GO APPROX. 0.2 MILES, ARRIVING AT THE PROPOSED ROAD AND THE LOCATION IS APPROX. 800 FEET TO THE NORTHWEST.



JAMES RANCH UNIT DI 7 SAWTOOTH #802H  
 LOCATED 155 FEET FROM THE NORTH LINE  
 AND 1,130 FEET FROM THE WEST LINE OF  
 SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
 N.M.P.M. EDDY COUNTY, NEW MEXICO

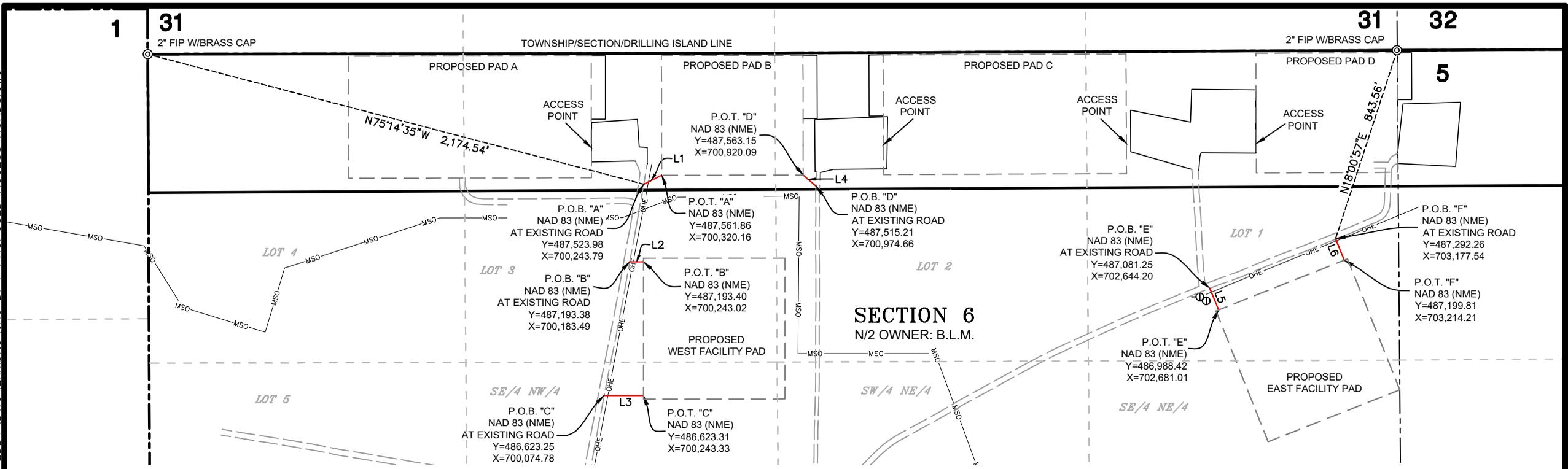


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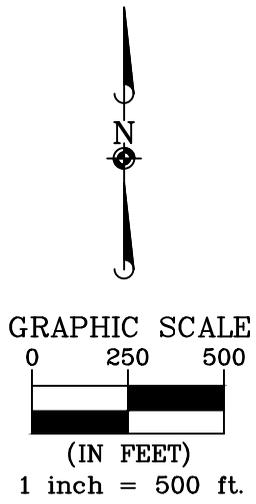
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CHECKED BY:	AI	SHEET:	1 OF 1
FIELD CREW:	RE/KN	REVISION:	2

Received by OCD: 3/6/2024 9:59:16 AM  
 P:\618.013\_XTO\_Energy - NM\_002\_James Ranch\_Unit\06 - DI 7 - EDDY\DWG\Exhibits\JRU DI 7 PROPOSED ACCESS ROADS.dwg  
 Page 114 of 151



**LEGEND**

- SECTION LINE
- PROPOSED PAD
- PROPOSED ACCESS ROAD
- EXISTING PAD
- PROPOSED DRILLING ISLAND
- EXISTING ROAD
- EXISTING OVERHEAD ELECTRIC
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINUS
- FOUND MONUMENT AS NOTED
- FIP FOUND IRON PIPE



TOWNSHIP 23 SOUTH,  
 RANGE 31 EAST  
 N.M.P.M.



A PLAT OF:

A PROPOSED CENTERLINE OF ACCESS ROAD FOR  
 XTO PERMIAN OPERATING, LLC  
 JAMES RANCH UNIT DI 7

SITUATED IN  
 SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
 N.M.P.M. EDDY COUNTY, NEW MEXICO

**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  
 REGISTERED PROFESSIONAL LAND SURVEYOR  
 STATE OF NEW MEXICO 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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CHECKED BY: <b>AR</b>	DATE: <b>06/09/2023</b>	SCALE: <b>1" = 500'</b>	PROJECT NO.: <b>618.013002.06</b>	DRAWN BY: <b>AR/AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>1</b>	SHEET: <b>1 OF 2</b>
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Released to Imaging: 3/25/2024 11:06:09 AM

LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	N63°37'04"E	85.25'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L2	N89°58'41"E	59.53'

LINE TABLE "C"		
LINE	BEARING	LENGTH
L3	N89°58'41"E	168.55'

LINE TABLE "D"		
LINE	BEARING	LENGTH
L4	N48°42'12"W	72.64'

LINE TABLE "E"		
LINE	BEARING	LENGTH
L5	S21°38'05"E	99.86'

LINE TABLE "F"		
LINE	BEARING	LENGTH
L6	S21°38'05"E	99.46'

TOTAL LENGTH = 585.29 FEET  
OR 35.47 RODS

JAMES RANCH UNIT DI 7 PROPOSED ACCESS ROAD DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 585.29 FEET, 35.47 RODS, OR 0.11 MILES IN LENGTH CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 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 0.42 ACRES AND DIVIDED IN EACH LOT AND QUARTER QUARTER AS FOLLOWS:

LOT 3 SECTION 6 = 144.78 FEET = 8.77 RODS = 0.11 ACRES

SE/4 NW/4 SECTION 6 = 168.55 FEET = 10.22 RODS = 0.12 ACRES

LOT 2 SECTION 6 = 72.64 FEET = 4.40 RODS = 0.06 ACRES

LOT 1 SECTION 6 = 199.33 FEET = 12.08 RODS = 0.13 ACRES

A PLAT OF:

A PROPOSED CENTERLINE OF ACCESS ROAD FOR  
XTO PERMIAN OPERATING, LLC  
JAMES RANCH UNIT DI 7

SITUATED IN  
SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786

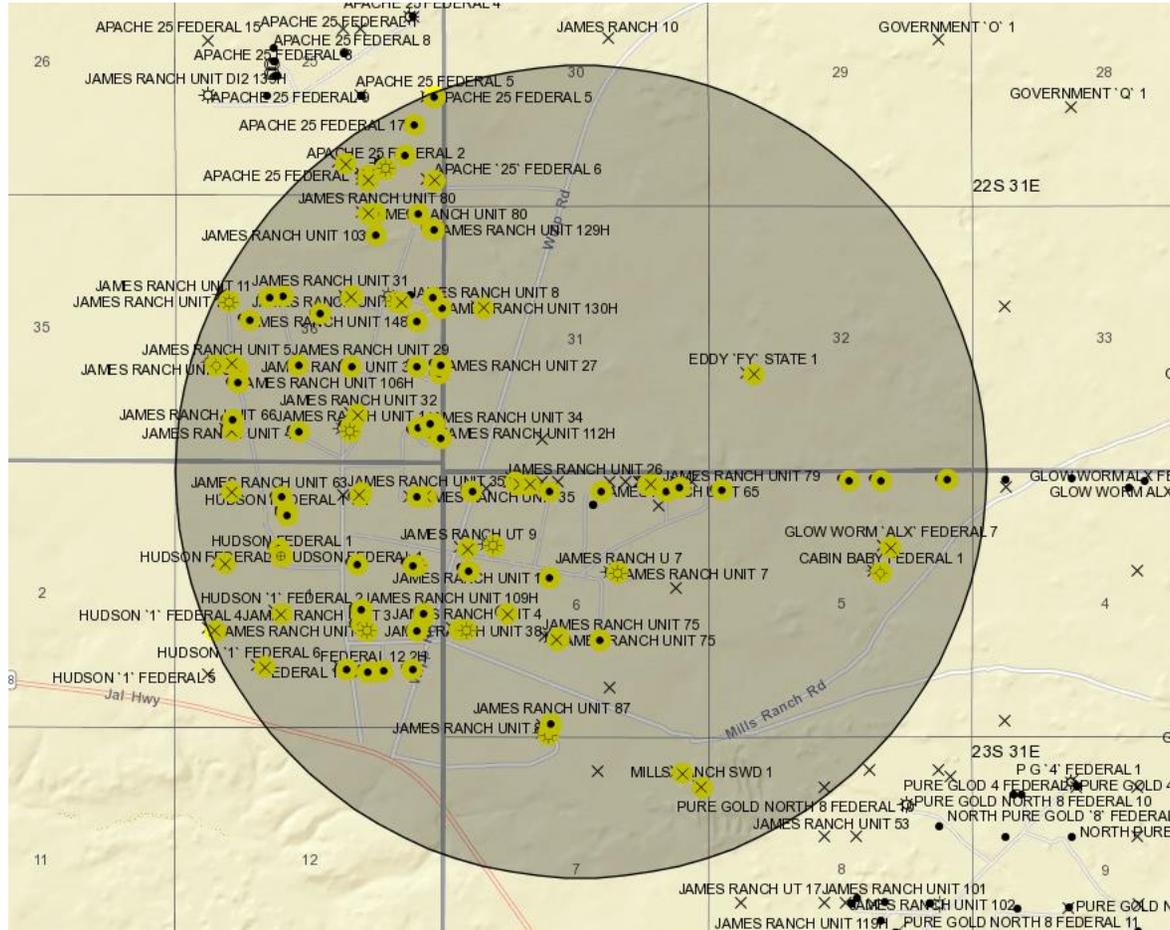


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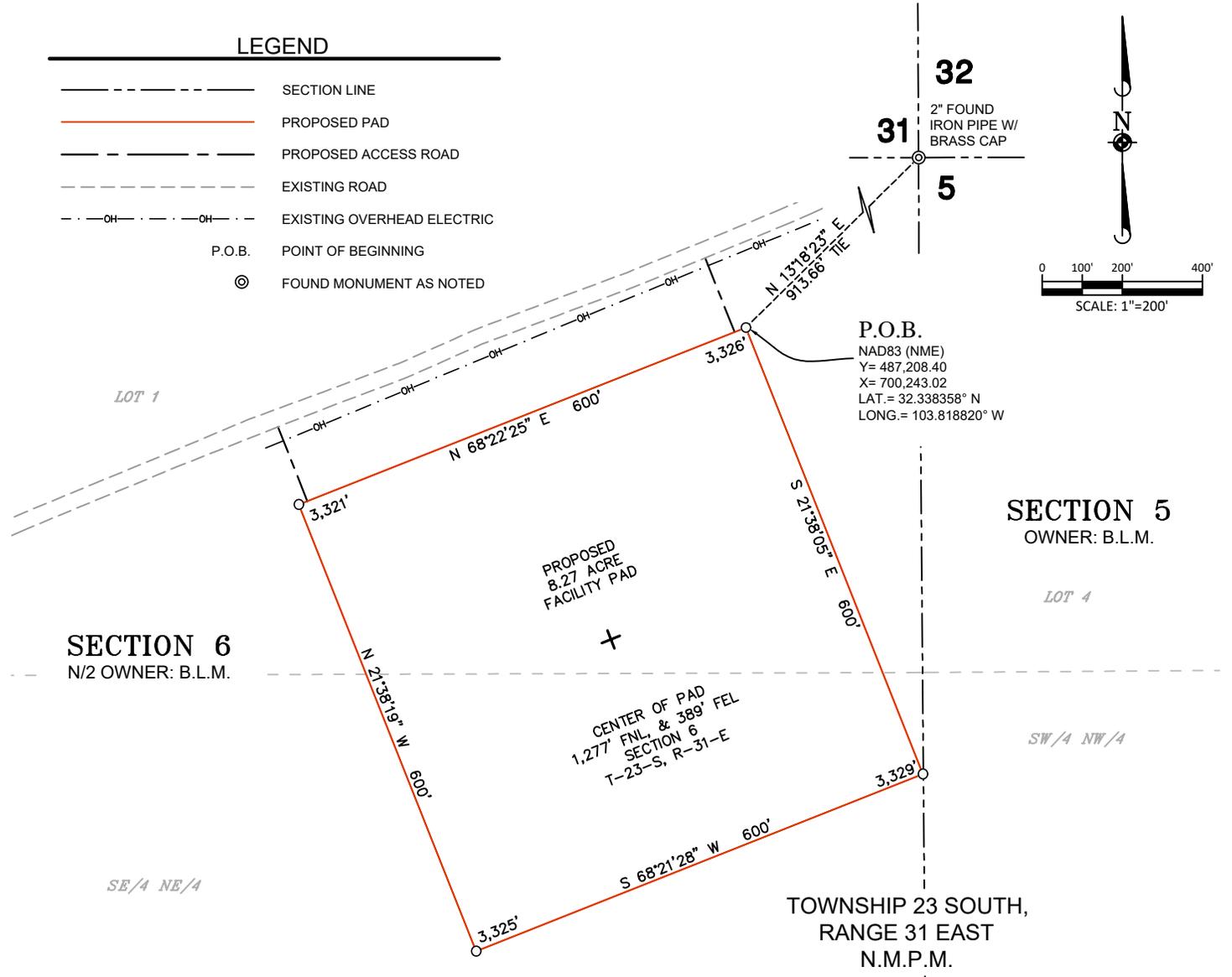
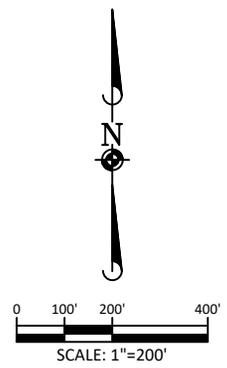
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### James Ranch Unit DI 7 1-Mile Map



**LEGEND**

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



**SECTION 6**  
N/2 OWNER: B.L.M.

**SECTION 5**  
OWNER: B.L.M.

TOWNSHIP 23 SOUTH,  
RANGE 31 EAST  
N.M.P.M.

**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).

**JAMES RANCH UNIT DI 7 PROPOSED FACILITY PAD EAST DESCRIPTION:**

Description of a proposed facility pad totaling 8.27 acres and being situated in Section 6, Township 23 South, Range 31 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

**BEGINNING** at the northeast corner of the proposed facility pad from which a found 2" iron pipe with a brass cap, being the northeast corner of said Section 6, bears N 13°18'23" E 2,274.76 feet;

**THENCE** over and across said Section 6, the following courses and distances:

- S 21°38'05" E, a distance of 600.00 feet to a point;
- S 68°21'28" W, a distance of 600.00 feet to a point;
- N 21°38'19" W, a distance of 600.00feet to a point;
- N 68°22'25" E, a distance of 600.00 feet to the **POINT OF BEGINNING** containing a total of 8.27 acres, more or less.

Said pad is divided in each lot section as follows

LOT 1 SECTION 6 = 4.77 ACRES  
SE/4 NE/4 SECTION 6 = 3.50 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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786



A PROPOSED PAD FOR XTO PERMIAN OPERATING, LLC.  
JAMES RANCH UNIT DI 7 PROPOSED FACILITY PAD EAST  
SITUATED IN THE NE/4 OF SECTION 6, TOWNSHIP 23 SOUTH,  
RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO



505 Pecan Street, Suite 201, Fort Worth, TX 76102  
p h : 8 1 7 . 8 6 5 . 5 3 4 4 m a n h a r d . c o m  
Texas Board of Professional Engineers & Land Surveyors Reg. No. F-10194754 (Surv), F-21732 (Eng)

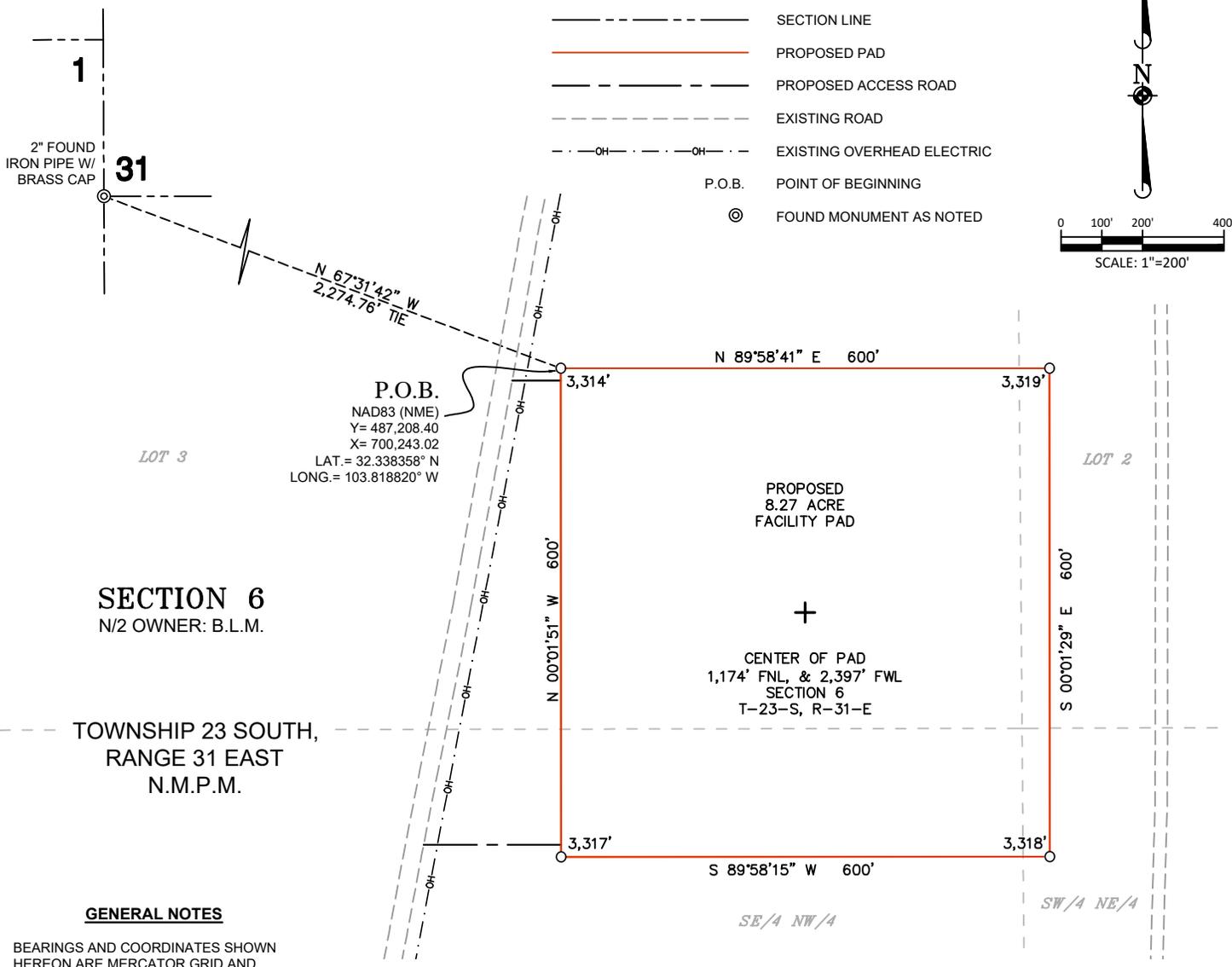
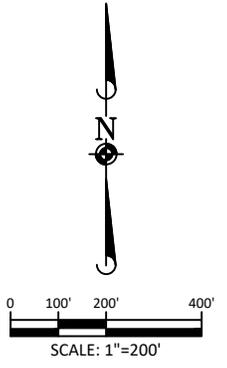
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CHECKED BY: <b>AR</b>	DATE: <b>02/10/2023</b>	SCALE: <b>1" = 200'</b>	PROJECT NO.: <b>618-013002.06</b>
DRAWN BY: <b>AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>NO</b>	SHEET: <b>1 OF 1</b>

P:\618.013 XTO Energy - NM\002 James Ranch Unit\06 - DI 7 - EDDY\DWG\Exhibits\JRU DI 7 EAST FACILITY PAD.dwg

**LEGEND**

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



**SECTION 6**  
N/2 OWNER: B.L.M.

TOWNSHIP 23 SOUTH,  
RANGE 31 EAST  
N.M.P.M.

**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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786



**JAMES RANCH UNIT DI 7 PROPOSED FACILITY PAD WEST DESCRIPTION:**

Description of a proposed facility pad totaling 8.27 acres and being situated in Section 6, Township 23 South, Range 31 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

**BEGINNING** at the northwest corner of the proposed facility pad from which a found 2" iron pipe with a brass cap, being the northwest corner of said Section 6, bears N 67°31'42" W 2,274.76 feet;

**THENCE** over and across said Section 6, the following courses and distances:

- N 89°58'41" E, a distance of 600.00 feet to a point;
- S 00°01'29" E, a distance of 600.00 feet to a point;
- S 89°58'15" W, a distance of 600.00 feet to a point;
- N 00°01'51" W, a distance of 600.00 feet to the **POINT OF BEGINNING** containing a total of 8.27 acres, more or less.

Said pad is divided in each lot section as follows

- LOT 3 SECTION 6 = 5.74 ACRES
- LOT 2 SECTION 6 = 0.36 OF AN ACRE
- SW/4 NE/4 SECTION 6 = 0.12 OF AN ACRE
- SW/4 NW/4 SECTION 6 = 2.05 ACRES



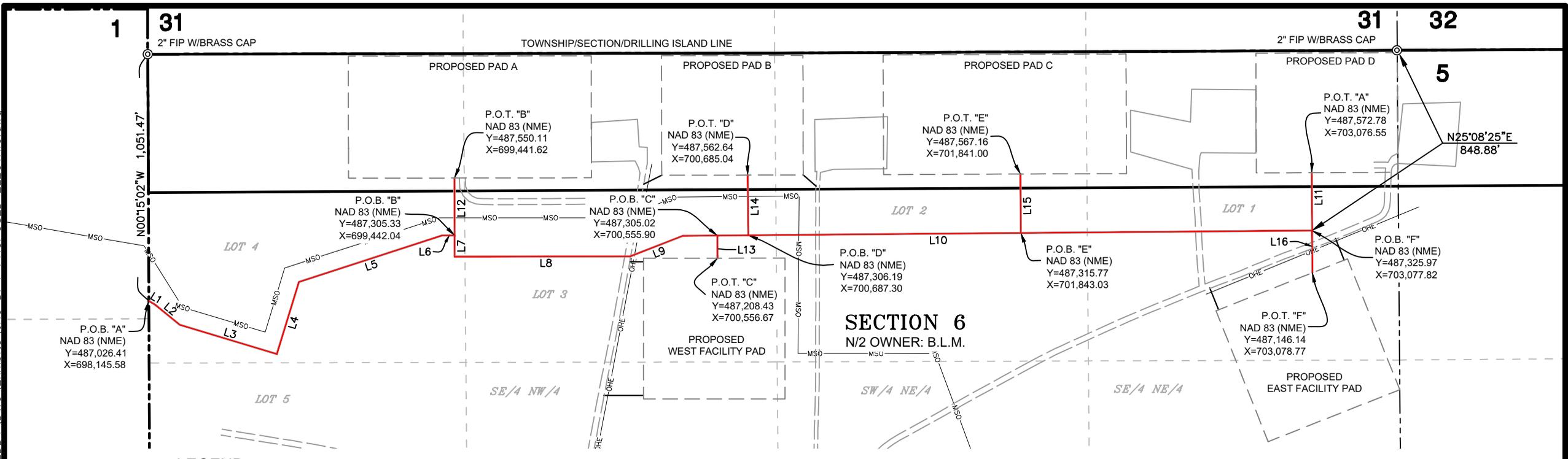
505 Pecan Street, Suite 201, Fort Worth, TX 76102  
ph: 817.865.5344 manhard.com  
Texas Board of Professional Engineers & Land Surveyors Reg. No. F-10194754 (Surv), F-21732 (Eng)

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**A PROPOSED PAD FOR XTO PERMIAN OPERATING, LLC.**  
**JAMES RANCH UNIT DI 7 PROPOSED FACILITY PAD WEST**  
SITUATED IN THE NW/4 OF SECTION 6, TOWNSHIP 23 SOUTH,  
RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

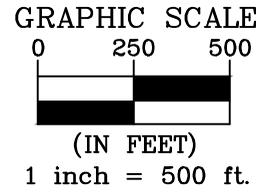
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DRAWN BY: <b>AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>NO</b>	SHEET: <b>1 OF 1</b>

P:\618.013 XTO Energy - NM\002 James Ranch Unit\06 - DI 7 - EDDY.DWG\Exhibits\JRU DI 7 WEST FACILITY PAD.dwg



**LEGEND**

- SECTION LINE
- PROPOSED PAD
- PROPOSED OVERHEAD ELECTRIC
- PROPOSED ACCESS ROAD
- PROPOSED DRILLING ISLAND
- EXISTING ROAD
- EXISTING OVERHEAD ELECTRIC
- EXISTING PAD
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINUS
- FOUND MONUMENT AS NOTED
- FIP FOUND IRON PIPE



TOWNSHIP 23 SOUTH,  
RANGE 31 EAST  
N.M.P.M.



**A PLAT OF:**  
A PROPOSED CENTERLINE OF OVERHEAD ELECTRIC FOR  
XTO PERMIAN OPERATING, LLC  
JAMES RANCH UNIT DI 7

SITUATED IN  
SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO

**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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786

**Manhard CONSULTING**  
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)

CHECKED BY: <b>AR</b>	DATE: <b>06/09/2023</b>	SCALE: <b>1" = 500'</b>	PROJECT NO.: <b>618.013002.06</b>	DRAWN BY: <b>AR/AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>2</b>	SHEET: <b>1 OF 2</b>
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LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	S57°54'46"E	34.32'
L2	S50°32'16"E	130.93'
L3	S73°08'07"E	430.85'
L4	N16°58'11"E	321.39'
L5	N71°57'45"E	639.34'
L6	N90°00'00"E	52.26'
L7	S00°04'26"E	89.98'
L8	N89°57'07"E	742.80'
L9	N68°42'17"E	242.05'
L10	N89°31'29"E	2667.42'
L11	N00°17'26"W	246.78'

LINE TABLE "C"		
LINE	BEARING	LENGTH
L13	S00°27'38"E	96.60'

LINE TABLE "D"		
LINE	BEARING	LENGTH
L14	N00°30'18"W	256.46'

LINE TABLE "E"		
LINE	BEARING	LENGTH
L15	N00°27'46"W	251.40'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L12	N00°05'50"W	244.77'

LINE TABLE "F"		
LINE	BEARING	LENGTH
L16	S00°18'21"E	179.87'

TOTAL LENGTH = 6,627.22 FEET  
OR 401.65 RODS

JAMES RANCH UNIT DI 7 PROPOSED OVERHEAD ELECTRIC DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 6,627.22 FEET, 401.65 RODS, OR 1.26 MILES IN LENGTH CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 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 4.51 ACRES AND DIVIDED IN EACH LOT AS FOLLOWS:

- LOT 4 SECTION 6 = 1,987.51 FEET = 120.46 RODS = 1.36 ACRES
- LOT 3 SECTION 6 = 1,688.98 FEET = 102.36 RODS = 1.14 ACRES
- LOT 2 SECTION 6 = 1,571.11 FEET = 95.22 RODS = 1.07 ACRES
- LOT 1 SECTION 6 = 1,379.62 FEET = 83.61 RODS = 0.94 ACRES

A PLAT OF:

A PROPOSED CENTERLINE OF OVERHEAD ELECTRIC FOR  
XTO PERMIAN OPERATING, LLC  
JAMES RANCH UNIT DI 7

SITUATED IN  
SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO



505 Pecan Street, Ste 201, Fort Worth, TX 76102 ph:817.865.5344 manhard.com  
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Reg. No. F-10194754 (Surv), F-21732 (Eng)

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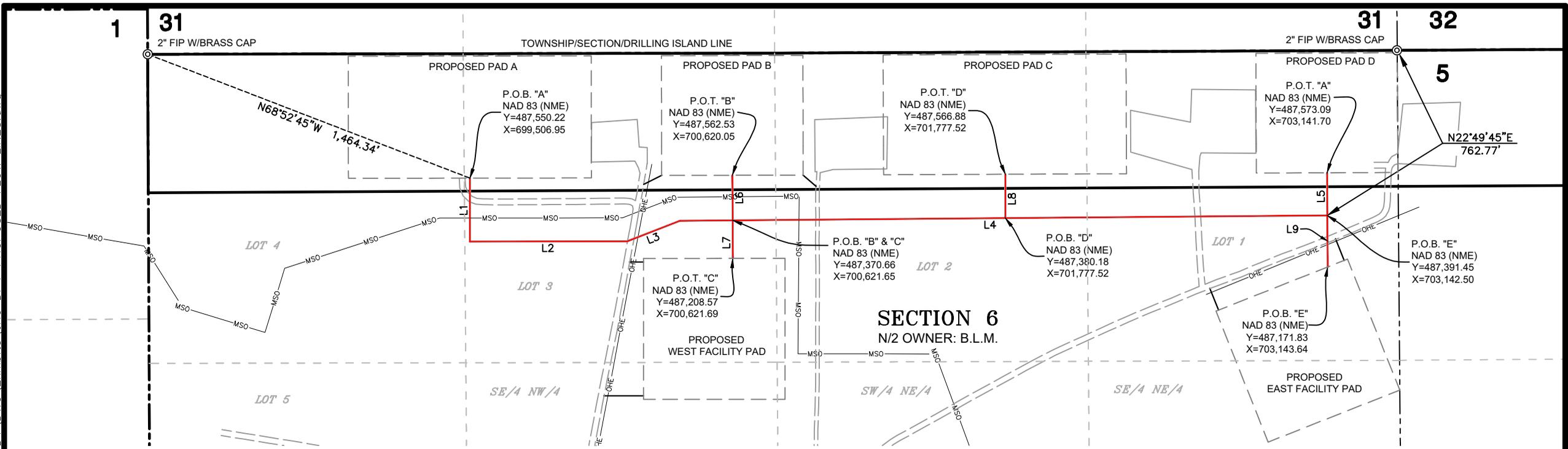


I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS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

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

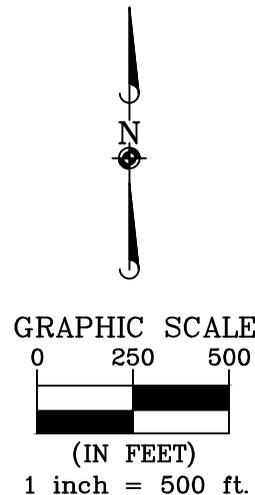
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Page 121 of 151  
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**LEGEND**

- SECTION LINE
- PROPOSED PAD
- PROPOSED BURIED AND SURFACE FLOW LINE
- PROPOSED ACCESS ROAD
- PROPOSED DRILLING ISLAND
- EXISTING ROAD
- EXISTING OVERHEAD ELECTRIC
- EXISTING PAD
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINUS
- FOUND MONUMENT AS NOTED
- FIP FOUND IRON PIPE



TOWNSHIP 23 SOUTH,  
RANGE 31 EAST  
N.M.P.M.



A PLAT OF:  
A PROPOSED CENTERLINE OF BURIED AND SURFACE  
FLOWLINES FOR  
XTO PERMIAN OPERATING, LLC  
JAMES RANCH UNIT DI 7  
SITUATED IN  
SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
N.M.P.M. EDDY COUNTY, NEW MEXICO

**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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786

**Manhard**  
CONSULTING

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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CHECKED BY: <b>AR</b>	DATE: <b>06/09/2023</b>	SCALE: <b>1" = 500'</b>	PROJECT NO.: <b>618.013002.06</b>	DRAWN BY: <b>AR/AI</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>1</b>	SHEET: <b>1 OF 2</b>
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Released to Imaging: 3/25/2024 11:06:09 AM

LINE TABLE "A"		
LINE	BEARING	LENGTH
L1	S00°01'04"E	269.81'
L2	N89°56'56"E	665.80'
L3	N68°40'53"E	241.73'
L4	N89°31'44"E	2744.57'
L5	N00°15'02"W	181.64'

LINE TABLE "B"		
LINE	BEARING	LENGTH
L6	N00°28'40"W	191.88'

LINE TABLE "C"		
LINE	BEARING	LENGTH
L7	S00°00'54"E	162.09'

LINE TABLE "D"		
LINE	BEARING	LENGTH
L8	N00°00'00"E	186.70'

LINE TABLE "E"		
LINE	BEARING	LENGTH
L9	S00°17'50"E	219.63'

TOTAL LENGTH = 4,863.85 FEET  
OR 294.78 RODS

JAMES RANCH UNIT DI 7 PROPOSED BURIED AND SURFACE FLOW LINE DESCRIPTION

SURVEY OF A STRIP OF LAND 100.0 FEET WIDE AND 4,863.85 FEET, 294.78 RODS, OR 0.92 MILES IN LENGTH CROSSING SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 50.0 FEET RIGHT AND 50.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 10.7 ACRES AND DIVIDED IN EACH LOT AS FOLLOWS:

LOT 4 SECTION 6 (EASEMENT ONLY) = 0.20 ACRES

LOT 3 SECTION 6 = 1,937.97 FEET = 117.45 RODS = 4.02 ACRES

LOT 2 SECTION 6 = 1,506.42 FEET = 91.30 RODS = 3.34 ACRES

LOT 1 SECTION 6 = 1,419.45 FEET = 86.03 RODS = 3.14 ACRES

A PLAT OF:

A PROPOSED CENTERLINE OF BURIED AND SURFACE FLOWLINES FOR  
XTO PERMIAN OPERATING, LLC  
JAMES RANCH UNIT DI 7

SITUATED IN  
SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 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  
REGISTERED PROFESSIONAL LAND SURVEYOR  
STATE OF NEW MEXICO NO. 23786

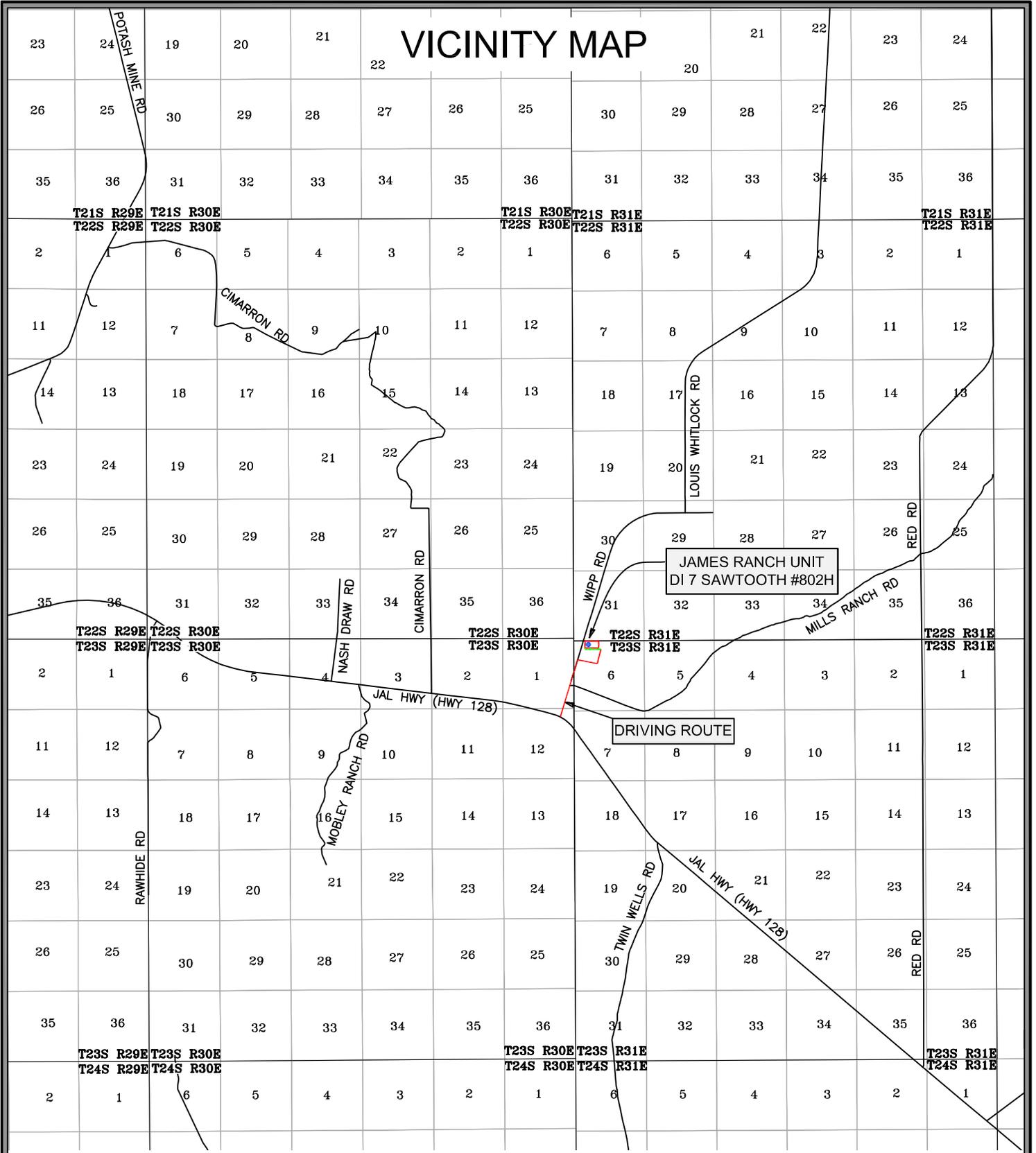


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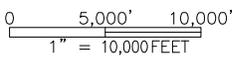
# VICINITY MAP



NOTE:

- 1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR DRIVING DIRECTIONS

JAMES RANCH UNIT DI 7 SAWTOOTH #802H  
 LOCATED 155 FEET FROM THE NORTH LINE  
 AND 1,130 FEET FROM THE WEST LINE OF  
 SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST,  
 N.M.P.M. EDDY COUNTY, NEW MEXICO



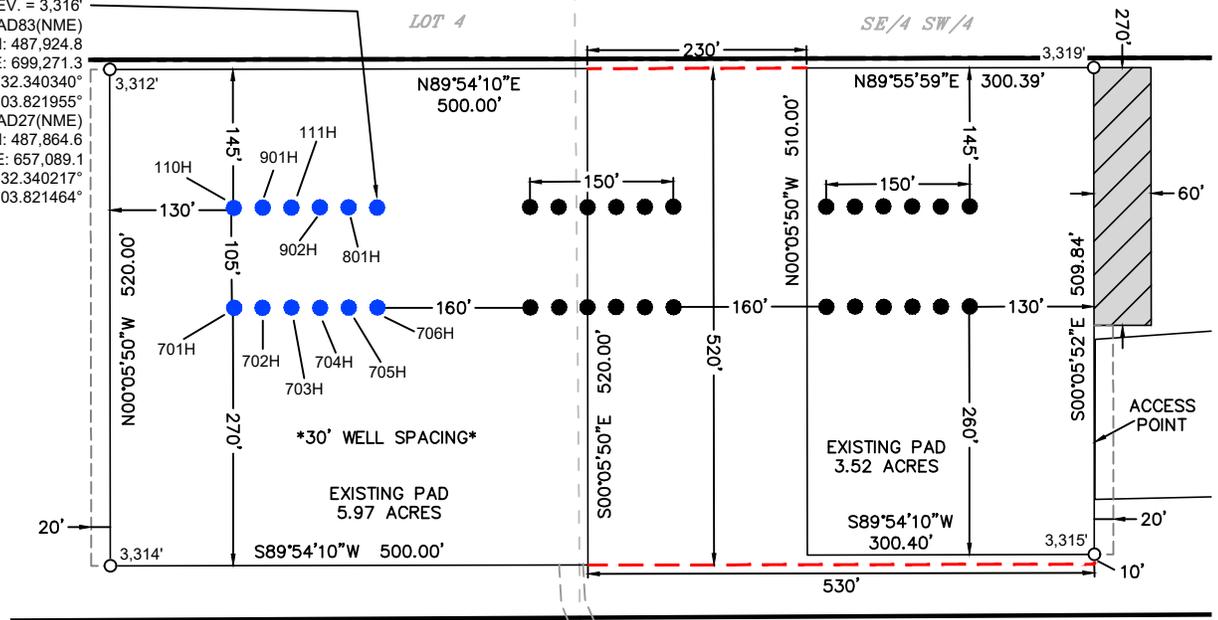
550 Bailey Ave., 205 - Fort Worth, TX 76107  
 Ph: 817.349.9800 - Fax: 979.732.5271  
 TBPE Firm 17957 | TBPLS Firm 10193887  
[www.fscinc.net](http://www.fscinc.net)

DATE: 10-25-2022  
 DRAWN BY: DB  
 CHECKED BY: AI  
 FIELD CREW: RE/KN  
 PROJECT NO: 2019093122  
 SCALE: 1" = 10,000'  
 SHEET: 1 OF 1  
 REVISION: 2

TOWNSHIP 22 SOUTH,  
RANGE 31 EAST  
N.M.P.M.

SECTION 31  
OWNER: DEPT. OF ENERGY

JAMES RANCH UNIT DI 7 SAWTOOTH 802H  
ELEV. = 3,316'  
NAD83(NME)  
N: 487,924.8  
E: 699,271.3  
LAT: N32.340340°  
LONG: W103.821955°  
NAD27(NME)  
N: 487,864.6  
E: 657,089.1  
LAT: N32.340217°  
LONG: W103.821464°



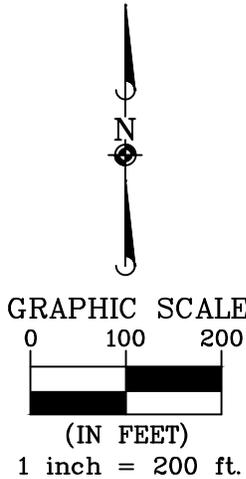
SECTION 6  
N/2 OWNER: B.L.M.

**DRIVING DIRECTION TO LOCATION**

FROM THE INTERSECTION OF JAL HIGHWAY AND WIPP ROAD, GO NORTHEAST ONTO WIPP ROAD AND GO APPROX. 0.8 MILES. TURN RIGHT (EAST) ONTO LEASE ROAD AND GO APPROX. 0.3 MILES. TURN LEFT (NORTH) ONTO LEASE ROAD AND GO APPROX. 0.2 MILES. TURN LEFT (WEST) ONTO LEASE ROAD AND GO APPROX. 0.1 MILES ARRIVING AT EXISTING PAD AND LOCATION IS TO THE NORTH.

**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).
- REFER TO TOPOGRAPHICAL AND ACCESS ROAD MAP FOR PROPOSED ROAD LOCATION.



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

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

TOWNSHIP 23 SOUTH,  
RANGE 31 EAST  
N.M.P.M.

ACREAGE INFORMATION	
PROPOSED PAD EXPANSION	= 2.811 ACRES
TOP SOIL	= 0.372 ACRES
TEMPORARY WORKSPACE	= 0.349 ACRES
<b>TOTAL</b>	<b>= 3.532 ACRES</b>

**LEGEND**

	SECTION LINE
	PROPOSED DRILLING ISLAND
	PROPOSED WELL PAD EXPANSION
	PERMITTED WELL LOCATION
	TBD WELL LOCATION
	TOP SOIL
	TEMPORARY WORKSPACE
	EXISTING ROAD
	EXISTING PAD



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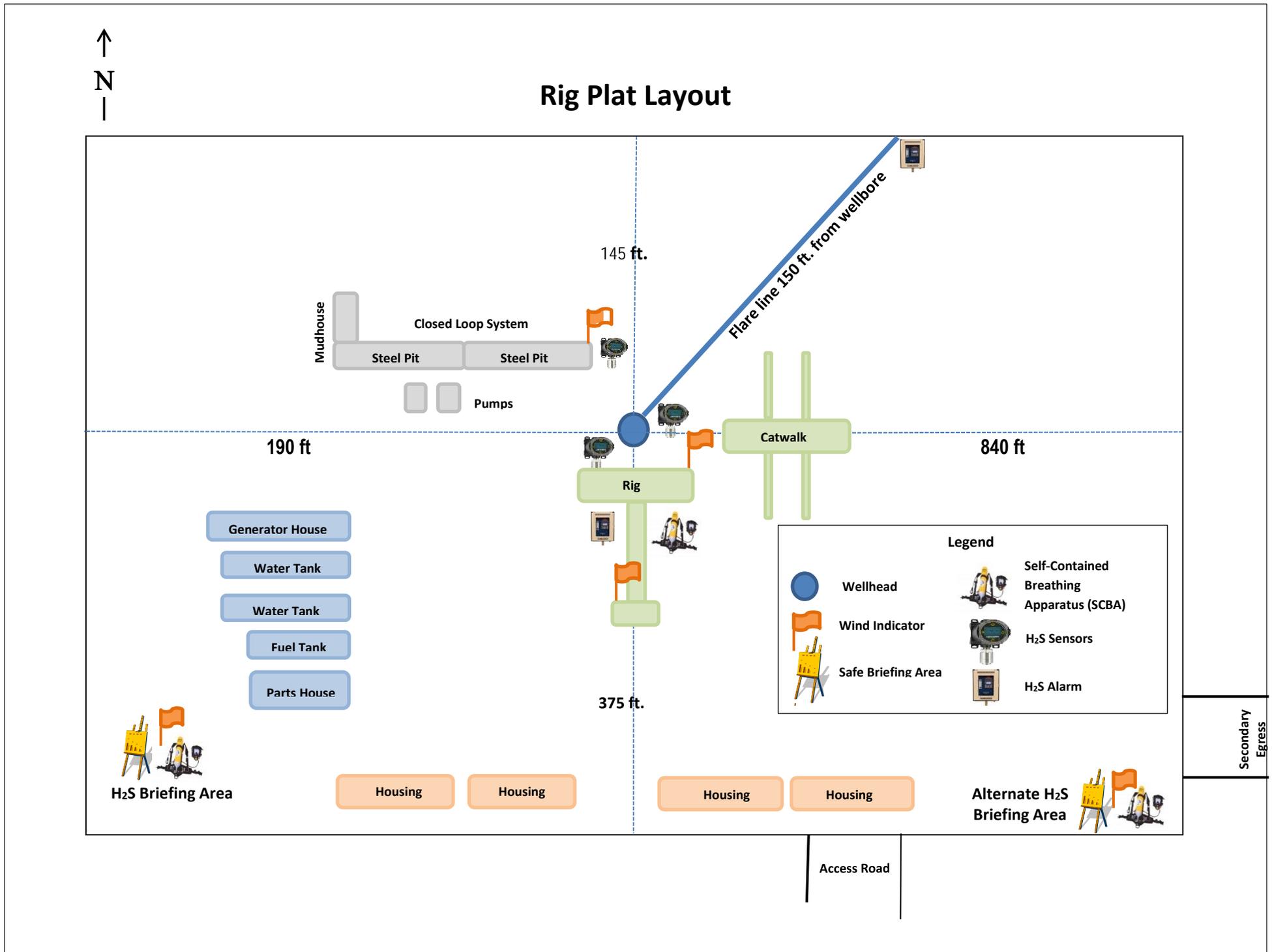
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A WELL SITE PLAN FOR XTO PERMIAN OPERATING, LLC.

JAMES RANCH UNIT DI 7 PROPOSED PAD "A"

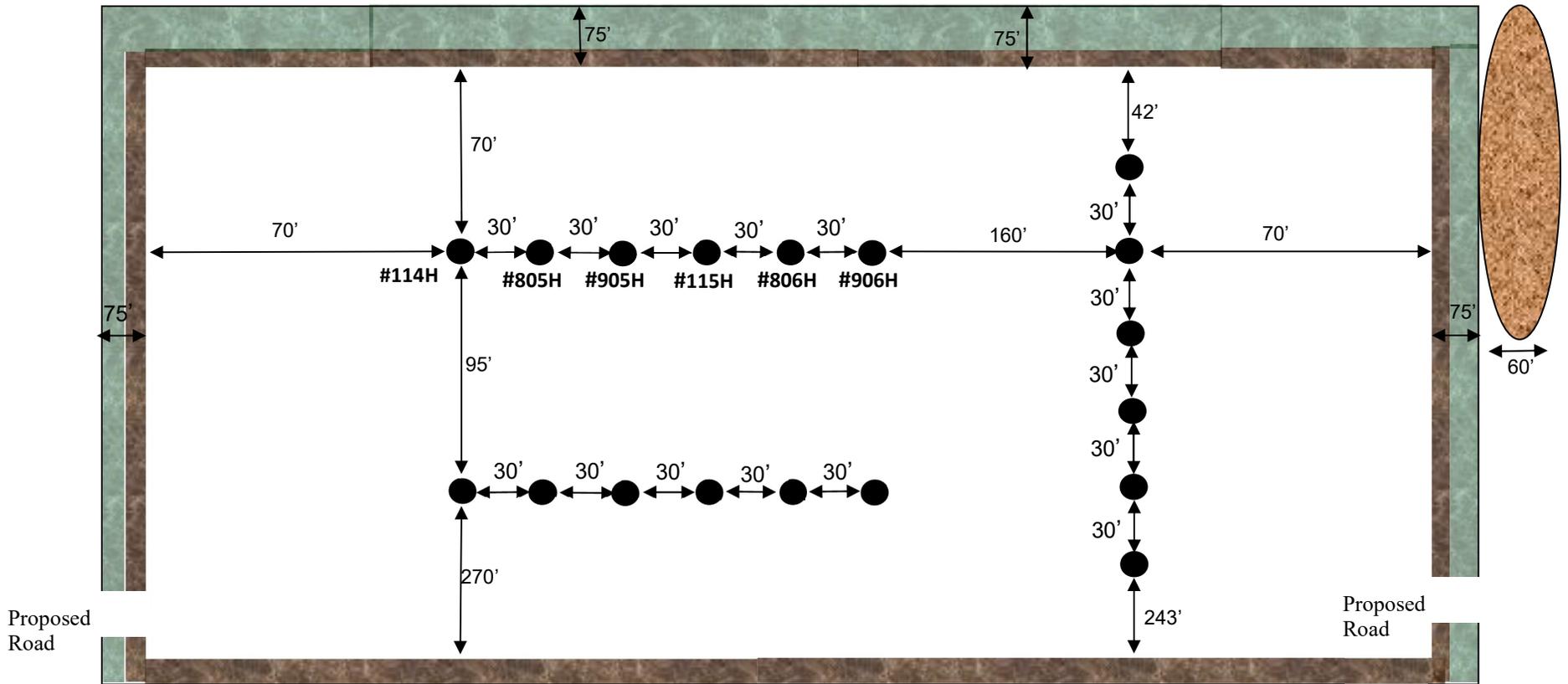
JAMES RANCH UNIT DI 7 SAWTOOTH 802H IS LOCATED 155 FEET FROM THE NORTH LINE AND 1,130 FEET FROM THE WEST LINE OF SECTION 6, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: <b>AR</b>	DATE: <b>07/18/2023</b>	SCALE: <b>1" = 200'</b>	PROJECT NO.: <b>618.013002.06-19</b>
DRAWN BY: <b>AI/RE</b>	FIELD CREW: <b>RD</b>	REVISION NO.: <b>2</b>	SHEET: <b>1 OF 3</b>



### Interim Reclamation Diagram

JRU DI 7 Sawtooth : 114H, 805H, 905H, 115H, 806H, 906H  
All Wells Without Numbers are 'TBD' Allocations for Future Development



### LEGEND



Wellbore

Interim Reclamation



Ditch & Berm



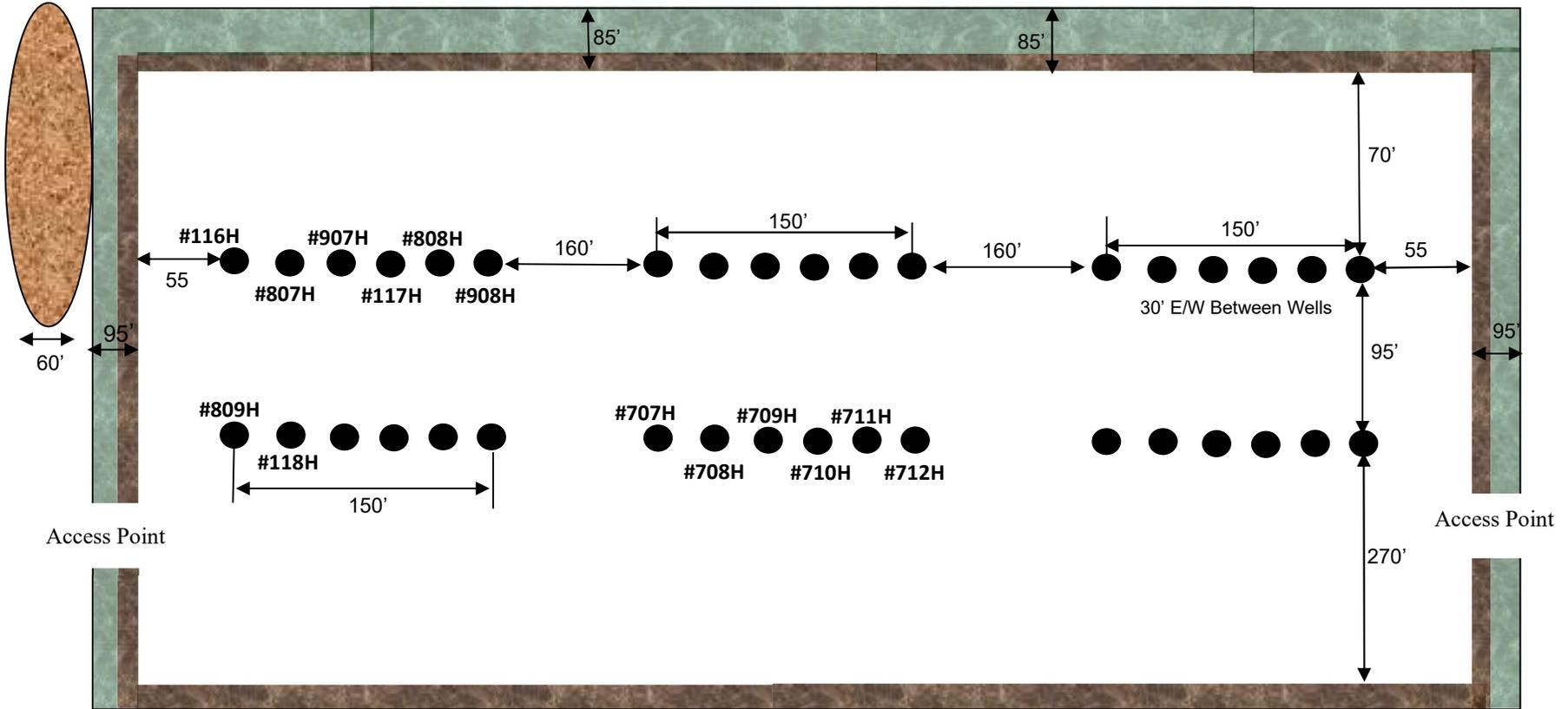
Topsoil

\*Diagram Not to Scale

### Interim Reclamation Diagram

JRU DI 7 Sawtooth: 116H, 807H, 907H, 117H, 808H, 908H, 809H, 118H, 707H, 708H, 709H, 710H, 711H, 712H

All Wells Without Numbers are 'TBD' Allocations for Future Development



### LEGEND



Wellbore

Interim Reclamation



Ditch & Berm

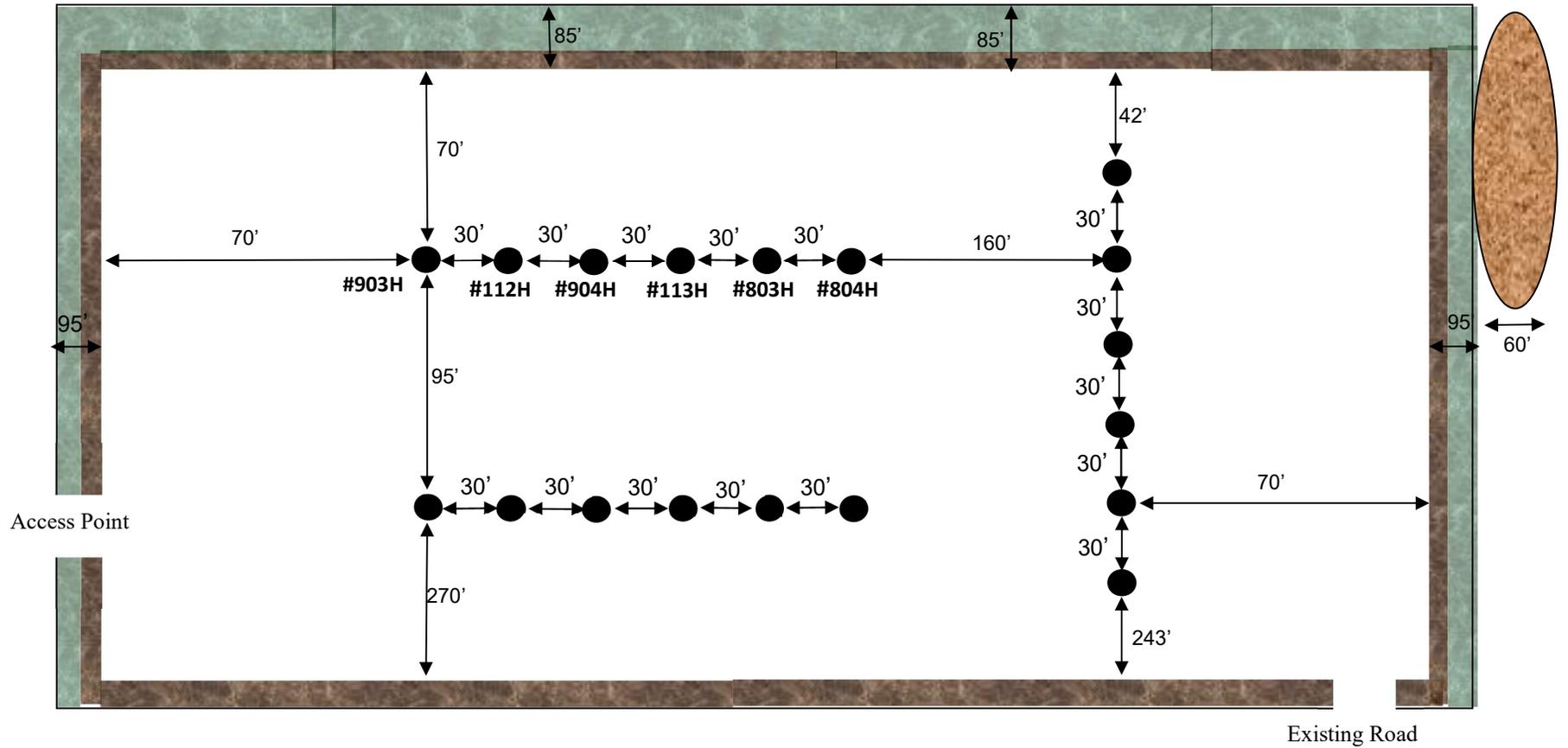


Topsoil

\*Diagram Not to Scale

### Interim Reclamation Diagram

JRU DI 7 Sawtooth : 903H, 112H, 904H, 113H, 803H, 804H  
All Wells Without Numbers are 'TBD' Allocations for Future Development



### LEGEND



Wellbore

Interim Reclamation



Ditch & Berm

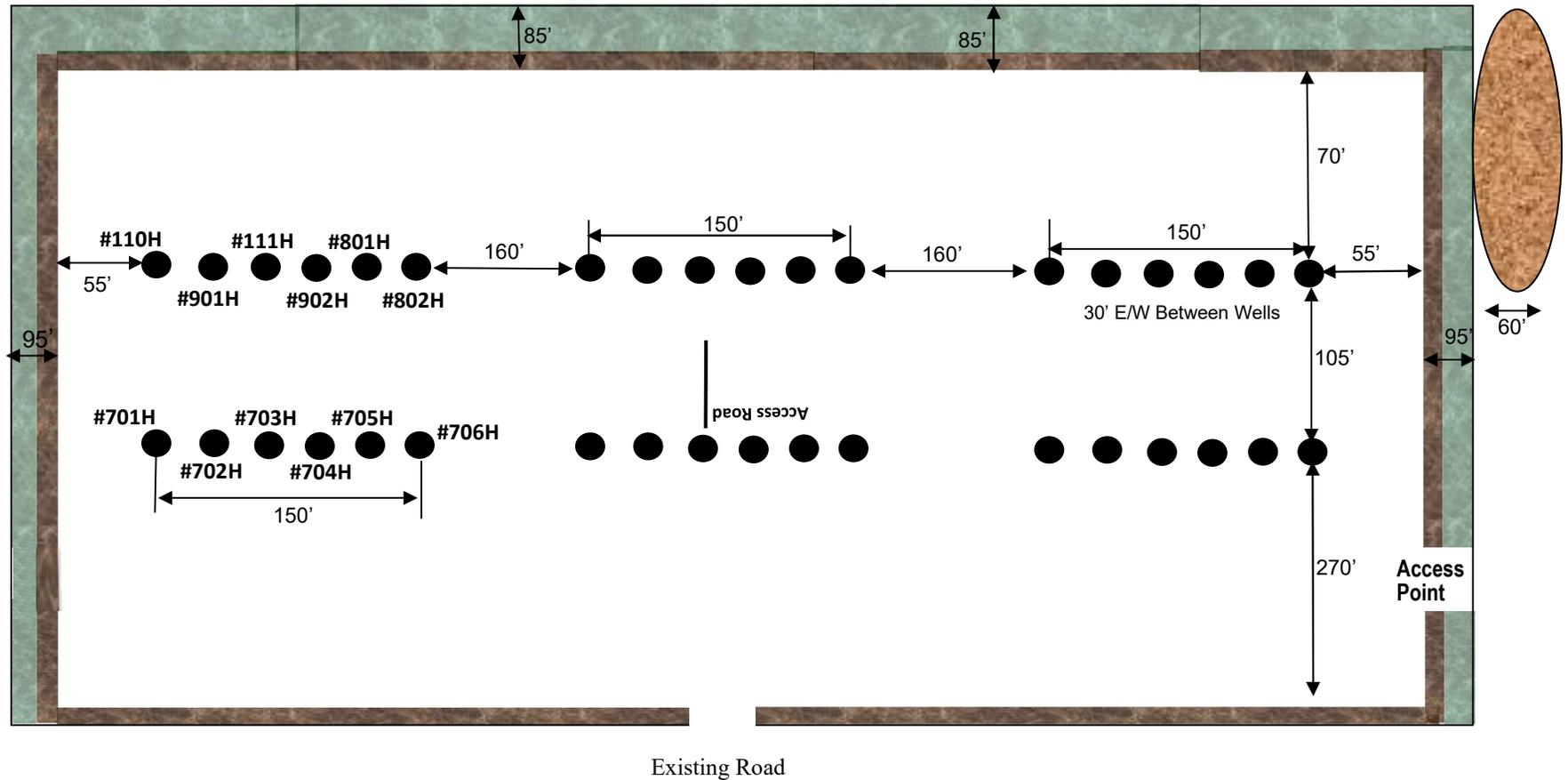


Topsoil

\*Diagram Not to Scale

### Interim Reclamation Diagram

JRU DI 7 Sawtooth: 110H, 901H, 111H, 902H, 801H, 802H, 701H, 702H, 703H, 704H, 705H, 706H  
All Wells Without Numbers are 'TBD' Allocations for Future Development



### LEGEND



Wellbore

Interim Reclamation



Ditch & Berm



Topsoil

\*Diagram Not to Scale

**James Ranch Unit DI 7 Sawtooth: XTO Permian Operating, LLC**  
 Sections 6-23S-31E (Bureau of Land Management) Eddy  
 County, New Mexico

**Plat Designation Name: Midstream Tie-In James Ranch Unit DI 7**

<b>Line Length:</b>	1711.54ft	<b>Line Width:</b>	110ft	<b>Total Acres:</b>	4.26 Acres
<b>Number</b>	<b>Purpose</b>	<b>Diameter</b>	<b>MAOP/Hydro</b>	<b>Material</b>	<b>Location</b>
1	Oil	22" or Less	1440psi/1800psi	Steel	Buried
2	LP Gas 1	22" Or Less	1440psi/1800psi	Steel	Buried
3	LP Gas 2	22" or Less	1440psi/1800psi	Steel	Buried
4	LP Gas 3	22" or Less	1440psi/1800psi	Steel	Buried
5	Gas Lift	22" or Less	1440psi/1800psi	Steel	Buried
6	Fuel Gas	22" or Less	1440psi/1800psi	Steel	Buried
7	Condensate	22" or Less	125psi/250psi	Steel	Buried
8	Frac Water	22" or Less	125psi/250psi	Fiberglass or Poly	Buried
9	Produced Water	22" or Less	125psi/250psi	Fiberglass or Poly	Buried
10	Recycle Water	22" or Less	125psi/250psi	Fiberglass or Poly	Buried
11	Fresh Water	22" or Less	125psi/250psi	Fiberglass or Poly	Buried
12	Electrical	115k Volts	N/A	N/A	OHE
13	Fiber Optic Cable	N/A	N/A	N/A	OHE or Buried
14	Maintenance Road	10' Width	N/A	Caliche	Surface

## Well Site Locations

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The results of the James Ranch Unit DI 7 Development Program will develop economic quantities of oil and gas in the 'James Ranch Unit DI 7' area with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering faults and/or drilling hazards while still targeting suitably productive zones.

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

## Surface Use Plan

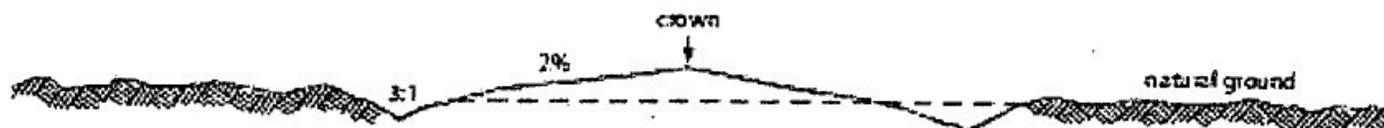
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### 1. Existing Roads

- A. From the intersection of JAL Highway (State Highway 128) and WIPP Road, go Northeast on WIPP Road for approximately 0.8 miles. Turn Right (East) onto Lease Road and go approximately 0.3 miles. Turn Left (North) onto Lease Road and go approximately 0.2 miles, arriving at the location(s). The locations are to the Northwest. Transportation maps identifying existing roads that will be used to access the project area are included from FSC, Inc. marked as, 'Topographical and Access Road Map'.
- B. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Topographical and Access Road Map'. All equipment and vehicles will be confined to the routes shown on the 'Topographical and Access Map' as provided by FSC, Inc. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.

### 2. New or Upgraded Access Roads

- A. **New Roads.** There is a total of 585.29' or 0.11 miles of proposed and staked access roads in the James Ranch Unit DI 7 lease area.
- B. **Well Pads.** The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The lease flow diagram shows the location of proposed roads that will need to be constructed to access the well pads.
- C. **Anticipated Traffic.** After well completion, travel to each well site will include one lease operator truck and two oil trucks per day until the Central Tank Batteries are completed. Upon completion of the Central Tank Batteries, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Batteries only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
- D. **Routing.** All equipment and vehicles will be confined to the travel routes laid out in the Topographical and Access Map provided by FSC, Inc. unless otherwise approved by the BLM and applied for by XTO Permian Operating, LLC.
- E. **Road Dimensions.** The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



## Level Ground Section

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

### 3. Location of Existing Wells

- A. See attached 1-Mile Radius Well map.

### 4. Ancillary Facilities

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

### 5. Location of Proposed Production Facilities

- A. **Production Facilities.** Two pads were staked with the BLM for construction and use as Central Tank Batteries (CTBs). The Central Tank Batteries are the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The James Ranch Unit DI 7 Central Tank Battery East is 600ft.x600ft. (Center:389' FEL & 1277' FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. The James Ranch Unit DI 7 Central Tank Battery West is 600ft.x600ft. (Center: 2397' FWL & 1174' FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. Plats of the proposed facilities are attached. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment.
- B. **Buried & Surface Flowlines.** In the event the James Ranch Unit DI 7 wells are found productive, one hundred and fourteen (114) 22in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. If XTO Permian

- Operating, LLC decides to run surface lines, one hundred and fourteen (114) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The proposed corridor for flowlines: 4863.85' long, 100ft. wide. Total Acreage Associated with Flowlines: 10.7 Acres.
- C. **Midstream Tie-In.** One (1) 110' corridor is requested to connect twelve (12) lines each with the DI 8 MSO pipeline. XTO will be installing the lines with anticipated risers located on the CTBs. James Ranch Unit DI 7 MSO Length: 1711.54 x 110' wide. A plat of the requested lines is attached. Specifics of the lines can be found on APD attachment: *James Ranch Unit DI 7: Midstream Tie-In Sheet Specifics*.
  - D. **Disposal Facilities.** Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.
  - E. **Flare.** A flare is not requested nor required with this project.
  - F. **Aboveground Structures.** All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.
  - G. **Containment Berms.** Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas.
  - H. **Electrical.** All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 6627.22' of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

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- A. **Production Facilities.** Two pads were staked with the BLM for construction and use as Central Tank Batteries (CTBs). The Central Tank Batteries are the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The James Ranch Unit DI 7 Central Tank Battery East is 600ft.x600ft. (Center:389' FEL & 1277' FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. The James Ranch Unit DI 7 Central Tank Battery West is 600ft.x600ft. (Center: 2397' FWL & 1174' FNL) located in Section 6-23S-31E NMPM, Eddy County, New Mexico. Plats of the proposed facilities are attached. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. **Buried & Surface Flowlines.** In the event the James Ranch Unit DI 7 wells are found productive, one hundred and fourteen (114) 22in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. If XTO Permian Operating, LLC decides to run surface lines, one hundred and fourteen (114) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the James Ranch Unit DI 7 Central Tank Battery East and James Ranch Unit DI 7 Central Tank Battery West. The proposed corridor for flowlines: 4863.85' long, 100ft. wide. Total Acreage Associated with Flowlines: 10.7 Acres. **Midstream Tie-In.** One (1) 110' corridor is requested to connect twelve (12) lines each with the DI 8 MSO pipeline. XTO will be installing the lines with anticipated risers located on the CTBs. James Ranch Unit DI 7 MSO Length: 1711.54 x 110'wide. A plat of the requested lines is attached. Specifics of the lines can be found on APD attachment: *James Ranch Unit*

**DI 7: Midstream Tie-In Sheet Specifics.** **Disposal Facilities.** Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. **Flare.** A flare is not requested nor required with this project. **Aboveground Structures.** All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment. **Containment Berms.** Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas. **Electrical.** All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 6627.22' of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

## 6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3<sup>rd</sup> 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 Permian Operating, LLC 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 50,000 barrels (bbls) 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 ~1.5 bbls 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. Well completion is expected to require approximately 1,950,000 bbls of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

## 7. Construction Activities

- A. Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.
- B. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.
- C. Anticipated Caliche Locations:

- a. Pit 1: State Caliche Pit, Section 32-T21S-R31E, SESW
- b. Pit 2: State Caliche Pit, Section 16-T23S-R30E, SESW

## 8. Methods for Handling Waste

- **Cuttings.** The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.
- **Drilling Fluids.** These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.
- **Produced Fluids.** Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.
- **Sewage.** Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- **Garbage and Other Waste Materials.** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an 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 removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- **Hazardous Materials.**
  - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location, and not reused at another drilling location, will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
  - ii. XTO Permian, LLC. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted/promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.
  - iii. No hazardous substances or wastes will be stored on the location after completion of the well.
  - iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
  - v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

## 9. Well Site Layout

- A. **Rig Plat Diagrams:** There are 4 multi-well pads requested for expansion in the James Ranch Unit DI 7 anticipated project. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads indicating temporary workspaces and topsoil stockpile locations were completed by Manhard Consulting, a registered professional land surveyor. Pad expansions are within approved drill island, no additional surface disturbance.

From West to East:

1. Pad A Expansion is on the East and South: 3.995 Acres
    1. Pad Expansion: 2.811
      - a. East Expansion: 2.746 Acres
      - b. South Expansion: 0.065 Acres
    2. Topsoil: 0.372 Acres
    3. Temporary Workspace: 0.812 Acres
  2. Pad B Expansion is on the East and West: 1.542 Acres
    1. Pad Expansion: 1.170 Acres
      - a. East Expansion: 50' x 510' (0.585 Acres)
      - b. West Expansion: 50' x 510' (0.585 Acres)
    2. Topsoil: 0.372 Acres
  3. Pad C Expansion is Center and West: 2.722 Acres
    1. Pad Expansion: 1.524 Acres
      - a. Center Expansion: 77' x 510' (0.902 Acres)
      - b. East Expansion: 53' x 510' (0.622 Acres)
    2. Topsoil: 0.358 Acres
    3. Temporary Workspace: 0.840 Acres
  4. Pad D Expansion is on the East: 2.118 Acres
    1. Pad Expansion: 1.172 Acres
      - a. East Expansion: 100' x 500' (1.72 Acres)
    2. Topsoil: 0.276 Acres
    3. Temporary Workspace: 0.670 Acres
- B. **Closed-Loop System:** There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
- C. **V-Door Orientation:** These pads were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Jeffery Robertson, BLM Natural Resource Specialist, present at on-site inspection.
1. Pad A has a V-Door Orientation: East
  2. Pad B has a V-Door Orientation: East
  3. Pad C has a V-Door Orientation: East
  4. Pad D has a V-Door Orientation: East
- D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

#### 10. Plans for Surface Reclamation:

XTO Permian Operating, LLC requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Once activities are completed, XTO Permian Operating, LLC. 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 gulying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

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

### Seeding:

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

## 11. Surface Ownership

- A. 100% of the James Ranch Unit DI 7 project area is under the administrative jurisdiction of the Bureau of Land Management.
- B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

## 12. Other Information

### Drill Island

- **Drill Island**. The approved drill island is requested as use for oil and gas operations inside of the Secretary's Order of Potash Area (SOPA). The island requested will be used for surface hole locations for

wells productive of oil and gas with no surface hole planned outside of the boundary of the onsitied and approved drill island. The total penetrable space of the drill island is: 6621'x590' (based on maximum footages of the two longest 2-sides).

JRU DI 7 Centerpoint: 88.49 acres [Centerpoint: 1997'FEL & 290'FNL, Section 6-T23S-R31E]

The total size of the drill island is anticipated to be to: 6621'x590' (based on maximum footages of the two longest 2-sides) or a total of 88.49 acres.

38 wells and 70 slots are currently planned on the James Ranch Unit DI 7.

A current detailed plat of the drill island is attached depicting shallow and deep designation areas, proposed well pads, pipelines, and existing well pads. Shallow and deep designation areas were determined post-onsite based on ¼ mile or ½ mile from the edge of the drill island to existing mine workings as depicted in BLM shape files.

It was determined during onsite that surface disturbance can be associated with the drill island to the East, South, and West. No surface disturbance can occur North of the drill island due to the WIPP boundary.

- **Well Sites.** Four (4) well pad expansions have been staked on the drill island, known as James Ranch Unit DI 7. Surveys of the drill island location have been completed by Manhard Consulting a registered professional land surveyor and are attached to this application. Center stake surveys with access roads have been completed on Federal lands initially with Jeffery Robertson, Bureau of Land Management Natural Resource Specialist, and Jim Rutley, Bureau of Land Management Geologist, and on December 15, 2022 with Bureau of Land Management Natural Resource Specialist, Zane Kirsch in attendance. Well pads are allowed to fall off of the proposed edge of the drill island while surface holes must remain on the drill island. Approval of the drill island does not constitute approval to drill. An APD must be submitted and approved for each well located on the drill island prior to any surface disturbance or drilling activity.
  - The wellbore paths will not leave the 6621'x590' (based on maximum footages of the two longest 2-sides) drill island until the salt zone is cased and protected pursuant to NMOCD Order R-111-P.
  - A full list of XTO Permian Operating, LLC wells anticipated to be located on James Ranch Unit DI 7 is attached, tabulated by well pad.
  - Approval of the drill island does not constitute approval to drill. An APD must be submitted and approved for each well located on the drill island prior to any surface disturbance or drilling activity.
- **Cultural Resources – Archaeology:** A Class III Cultural Resources Examination has been completed on the Flowlines by Boone Archaeological Services and the results will be forwarded to the BLM Office. A PA payment has been made for the well pad expansions, CTBs, OHE, MSO & access roads.
- **Dwellings and Structures.** There are no dwellings or structures within 2 miles of this location.

#### Surveying

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

#### Soils and Vegetation

- **Environmental Setting.** Soils are classified as Reeves soils. These soils are associated with the loamy ecological site which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote.

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

### 13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: COB000050

### Operator's Representatives:

The XTO Permian Operating, LLC representatives for ensuring compliance of the surface use plan are listed below:

#### Surface:

Jimie Scott  
Construction Superintendent  
XTO Energy, Incorporated  
6401 Holiday Hill Road, Bldg 5  
Midland, Texas 79707  
432-571-8202  
[james.scott@exxonmobil.com](mailto:james.scott@exxonmobil.com)

Onsite: December 15, 2022 with Zane Kirsch, Bureau of Land Management NRS



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

# PWD Data Report

03/05/2024

**APD ID:** 10400093036

**Submission Date:** 06/22/2023

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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:**

**Decribe 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 PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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 PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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 PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**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

03/05/2024

**APD ID:** 10400093036

**Submission Date:** 06/22/2023

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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** JAMES RANCH UNIT DI 7 SAWTOOTH

**Well Number:** 802H

**Well Type:** OIL WELL

**Well Work Type:** Drill

## 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**

## VI. Separation Equipment:

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

## VII. Operational Practices:

### 1. Subsection B.

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

### 2. Subsection C.

- During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

### 3. Subsection D.

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- 4. Subsection E.
  - All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
  - Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
  - At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- 5. Subsection F.
  - Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
  - Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

**VIII. Best Management Practices:**

1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

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 Permian Operating, LLC **OGRID:** 373075 **Date:** March 6, 2024

**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	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
James Ranch Unit DI 7 Sawtooth 801H		4-6-T23S-R31E	155' FNL & 1100' FWL	2000	3200	3500
James Ranch Unit DI 7 Sawtooth 802H		4-6-T23S-R31E	155' FNL & 1130' FWL	2000	3200	3500

**IV. Central Delivery Point Name:** James Ranch Unit DI 7 Sawtooth CTB [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 Commence ment Date	Initial Flow Back Date	First Production Date
James Ranch Unit DI 7 Sawtooth 801H		TBD	TBD	TBD	TBD	TBD
James Ranch Unit DI 7 Sawtooth 802H		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:
Printed Name: Rusty Klein
Title: Regulatory Analyst
E-mail Address: ranell.klein@exxonmobil.com
Date: March 6, 2024
Phone: 575-703-6412
<b>OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)</b>
Approved By:
Title:
Approval Date:
Conditions of Approval:

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 320730

**CONDITIONS**

Operator: XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 320730
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

**CONDITIONS**

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	3/25/2024
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	3/25/2024
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	3/25/2024
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	3/25/2024
ward.rikala	If cement does not circulate on any string, a CBL is required for that string of casing	3/25/2024
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	3/25/2024