Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM0002953

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

7. If Unit or CA Agreement, Name and No.
JAMES RANCH / NMNM070965X

8. Lease Name and Well No.
JAMES RANCH UNIT DI 8 BS3-1E 279H
327080

2. Name of Operator
XTO PERMIAN OPERATING LLC

9. API Well No.
30-015-46663

3a. Address
6401 Holiday Hill Road, Bldg 5 Midland TX 79707

3b. Phone No. *(include area code)*
(432)682-8873

10. Field and Pool, or Exploratory 40295
~~GATUNA CA~~NYON; BONE SPRING Los Medanos

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface SENW / 1940 FNL / 2067 FWL / LAT 32.350508 / LONG -103.836229
At proposed prod. zone NENE / 330 FNL / 200 FEL / LAT 32.354362 / LONG -103.809111

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 36 / T22S / R30E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
	EDDY	NM

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
200 feet	800.86	240

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
60 feet	11047 feet / 18800 feet	FED: COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3317 feet	01/01/2019	90 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Kelly Kardos / Ph: (432)620-4374	08/15/2018
Title: Regulatory Coordinator		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	01/29/2020
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

APPROVED WITH CONDITIONS
Approval Date: 01/29/2020

(Continued on page 2)

*(Instructions on page 2)

RWP 1-31-2020

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

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

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

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Additional Operator Remarks

Location of Well

1. SHL: SENW / 1940 FNL / 2067 FWL / TWSP: 22S / RANGE: 30E / SECTION: 36 / LAT: 32.350508 / LONG: -103.836229 (TVD: 0 feet, MD: 0 feet)
   PPP: NWNE / 530 FNL / 2310 FEL / TWSP: 22S / RANGE: 30E / SECTION: 36 / LAT: 32.354258 / LONG: -103.832595 (TVD: 10916 feet, MD: 11400 feet)
   BHL: NENE / 330 FNL / 200 FEL / TWSP: 22S / RANGE: 31E / SECTION: 31 / LAT: 32.354362 / LONG: -103.809111 (TVD: 11047 feet, MD: 18800 feet)

BLM Point of Contact

Name: Tenille Ortiz

Title: Legal Instruments Examiner

Phone: 5752342224

Email: tortiz@blm.gov

Review and Appeal Rights

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Permian Operating, LLC.**
LEASE NO.:	**NMNM-0002953**
WELL NAME & NO.:	**James Ranch Unit DI 8 BS3-1E 279H**
SURFACE HOLE FOOTAGE:	**1940' FNL & 2067' FWL**
BOTTOM HOLE FOOTAGE	**0330' FNL & 0200' FEL Sec. 31, T.22 S., R.31 E.**
LOCATION:	**Section 36, T.22 S., R.30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Salado** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

R-111-P-Potash/WIPP
Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler and Delaware.
Abnormal pressure may be encountered within the 3rd Bone Spring Sandstone and the Wolfcamp formation.

B. CASING

1. The **18-5/8** inch surface casing shall be set at approximately **562** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

    13-3/8 inch 1st Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch 1st 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 and potash.**

    9-5/8 inch 2nd Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **9-5/8** inch 2nd intermediate casing is:

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

    a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

❖ In WIPP Areas cement must come to surface on the first three casing strings.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- Cement should tie-back **500 feet** into the previous casing. Operator shall provide method of verification. **Excess calculates to 4% - Additional cement may be required.**

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 inch 1st intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 inch 1st intermediate 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 OOGO2.III.A.2.i 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 well is located within 330' of the WIPP Land Withdrawal Area boundary. As a result, XTO Permian Operating, LLC is required to submit daily drilling reports, logs and deviation survey information to the Bureau of Land Management and the 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 from this well will be included in the Quarterly Drilling Report. 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.

XTO Permian Operating, LLC can email the required information to Mr. Melvin Balderrama at Melvin.Balderama@wipp.ws or Mr. J. Neatherlin at Jimmy.Neatherlin@wipp.ws fax to his attention at 575-234-6062.

GENERAL REQUIREMENTS

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

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

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

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

5. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

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

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

    e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JAM 121019

AFMSS

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

Operator Certification Data Report

01/29/2020

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Stephanie Rabadue

Signed on: 08/14/2018

Title: Regulatory Coordinator

Street Address: 500 W. Illinois St, Ste 100

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

Phone: (432)620-6714

Email address: stephanie_rabadue@xtoenergy.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS

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

Application Data Report

01/29/2020

APD ID: 10400033040 **Submission Date:** 08/15/2018

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400033040 **Tie to previous NOS?** **Submission Date:** 08/15/2018

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

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

Lease number: NMNM0002953 **Lease Acres:** 800.86

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

Agreement in place? YES **Federal or Indian agreement:** FEDERAL

Agreement number: NMNM070965X

Agreement name:

Keep application confidential? NO

Permitting Agent? NO **APD Operator:** XTO PERMIAN OPERATING LLC

Operator letter of designation:

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)682-8873

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 8 BS3-1E **Well Number:** 279H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** GATUNA CANYON; BONE SPRING **Pool Name:**

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** YES **New surface disturbance?** N

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** JAMES RANCH UNIT DI **Number:** 8

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: **Distance to nearest well:** 60 FT **Distance to lease line:** 200 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: JRU_DI_8_279H_C102_Rev_20191209073908.pdf

Well work start Date: 01/01/2019 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

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 lease?
SHL Leg #1	1940	FNL	2067	FWL	22S	30E	36	Aliquot SENW	32.350508	-103.836229	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	3317	0	0	
KOP Leg #1	1940	FNL	2067	FWL	22S	30E	36	Aliquot SENW	32.350508	-103.836229	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	1217	2100	2100	
PPP Leg #1-1	530	FNL	2310	FEL	22S	30E	36	Aliquot NWNE	32.354258	-103.832595	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-7599	11400	10916	

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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 lease?
EXIT Leg #1	330	FNL	330	FEL	22S	31E	31	Aliquot NENE	32.354363	-103.809532	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 0002953	-7727	18670	11044	
BHL Leg #1	330	FNL	200	FEL	22S	31E	31	Aliquot NENE	32.354362	-103.809111	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 0002953	-7730	18800	11047	

APD ID: 10400033040 **Submission Date:** 08/15/2018

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
285351	---	3317	0	0	ALLUVIUM, OTHER : Quaternary	NONE	N
285342	RUSTLER	3030	287	287	SANDSTONE	USEABLE WATER	N
285343	TOP SALT	2730	587	587	SALT	POTASH	N
285344	BASE OF SALT	-270	3587	3587	SALT	POTASH	N
285346	DELAWARE	-510	3827	3827	MARL, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
285340	BONE SPRING 1ST	-5411	8728	8728	SANDSTONE	NATURAL GAS, OTHER, POTASH : Produced Water	N
285341	BONE SPRING 2ND	-6249	9566	9566	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
285389	BONE SPRING 3RD	-7219	10536	10536		NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 562

Equipment: The blow out preventer equipment (BOP) for this well consists of a 21-1/4" minimum 2M Hydril and a 21-1/4"" minimum 2M Double Ram BOP.
Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.
Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up, the BOP test will be limited to 2,000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 2M BOP diagram is attached. Blind rams will be function tested each trip, pipe rams will be function tested each day.
Choke Diagram Attachment:

JRU_DI_8_2MCM_20190926115535.pdf

BOP Diagram Attachment:

JRU_DI_8_2MBOP_20190926115543.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

JRU_DI_8_2MCM_20190926115535.pdf

JRU_DI_8_2MBOP_20190926115543.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 11047

Equipment: The blow out preventer equipment (BOP) for the permanent wellhead consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3388 psi.
Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors. Wellhead: Temporary Wellhead · 18-5/8" SOW bottom x 21-1/4" 2M top flange. · Permanent Wellhead – GE RSH Multibowl System A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange · Wellhead will be installed by manufacturer's representatives. · Manufacturer will monitor welding process to ensure appropriate temperature of seal. · Operator will test the 9-5/8" casing per BLM Onshore Order 2 · Wellhead Manufacturer representative will not be present for BOP test plug installation
Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 11-3/4", 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 8-5/8", the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day. Permanent Wellhead – GE RSH Multibowl System A. Starting Head: 13-5/8" 5M top flange x 11-3/4" SOW bottom B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange · Wellhead will be installed by manufacturer's representatives. · Manufacturer will monitor welding process to ensure appropriate temperature of seal. · Operator will test the 8-5/8" casing per BLM Onshore Order 2 · Wellhead Manufacturer representative will not be present for BOP test plug installation

Choke Diagram Attachment:

JRU_DI_8_5MCM_20180814122646.pdf

BOP Diagram Attachment:

JRU_DI_8_5MBOP_20180814122656.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	24	18.625	NEW	API	N	0	562	0	562			562	J-55	87.5	ST&C	2.48	1.41	DRY	11.37	DRY	11.37

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	3777	0	3777			3777	J-55	68	ST&C	1.67	1.59	DRY	2.63	DRY	2.63
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	8372	0	8372			8372	HCL-80	40	LT&C	2.42	1.71	DRY	2.17	DRY	2.17
4	PRODUCTION	8.75	5.5	NEW	API	N	0	18800	0	11047			18800	P-110	17	BUTT	1.29	1.12	DRY	2.33	DRY	2.33

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_8_279H_Csg_20191209074737.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_8_279H_Csg_20191209074727.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_8_279H_Csg_20191209074716.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_8_279H_Csg_20191209074705.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	562	350	1.87	12.9	654.5	100	Econo-Cem-HLTRRC	None
SURFACE	Tail				550	1.35	14.8	742.5	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		0	3777	2580	1.87	12.9	4824.6	100	Econo-Cem-HLTRRC	None
INTERMEDIATE	Tail				300	1.35	14.8	4440	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	3827	0	3827	1340	1.88	12.9	2519.2	100	Halcem-C	2% CaCl

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	3827	3827	8372	1100	1.88	12.9	2068	100	Halcem-C	2% CaCl
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	Halcem-C	2% CaCl
PRODUCTION	Lead		7872	18800	1790	1.61	13.2	2881.9	30	VersaCem	None

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition and fluid loss control will be on location at all times.

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

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
3777	8372	OTHER : FW / Cut Brine	8.7	9.4							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

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	562	OTHER : FW/Native	8.4	8.8							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. 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
562	3777	OTHER : Brine/Gel Sweeps	9.8	10.2							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. 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
8372	18800	OTHER : Cut Brine/Polymer/OBM	9.8	10.1							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

Section 6 - Test, Logging, Coring

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

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

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

CBL,CNL,DS,GR,MUDLOG

Coring operation description for the well:

No coring will take place on this well.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5744 **Anticipated Surface Pressure:** 3313.66

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Potential loss of circulation through the Capitan Reef.

Contingency Plans geoharzards description:

The necessary mud products for weight addition and fluid loss control will be on location at all times.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. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

JRU_DI_8_H2S_Plan_20180814131534.pdf

JRU_DI_8_279H_H2S_Dia_20180814131558.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JRU_DI_8_279H_DD_20180814131630.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

JRU_DI_8_279H_GCP_20191209080329.pdf

Other Variance attachment:

JRU_DI_8_FH_20180814131758.pdf

JRU_DI_8_MBS_20191209080346.pdf

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 562'	18-5/8"	87.5	STC	H-40	New	1.41	2.48	11.37
17-1/2"	0' – 3777'	13-3/8"	68	STC	J-55	New	1.59	1.67	2.63
12-1/4"	0' – 8372'	9-5/8"	40	LTC	HCL-80	New	1.71	2.42	2.17
8-3/4"	0' – 18800'	5-1/2"	17	BTC	P-110	New	1.12	1.29	2.33

- XTO requests to not utilize centralizers in the curve and lateral
- 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" Collapse analyzed using 50% evacuation based on regional experience.
- 9-5/8" Collapse analyzed using 33% evacuation based on regional experience.
- 5-1/2" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on 2M Annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

Wellhead:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.
- Permanent Wellhead – GE RSH Multibowl System

A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

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- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

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

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

Ignition of Gas source

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

Characteristics of H_2S and SO_2

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

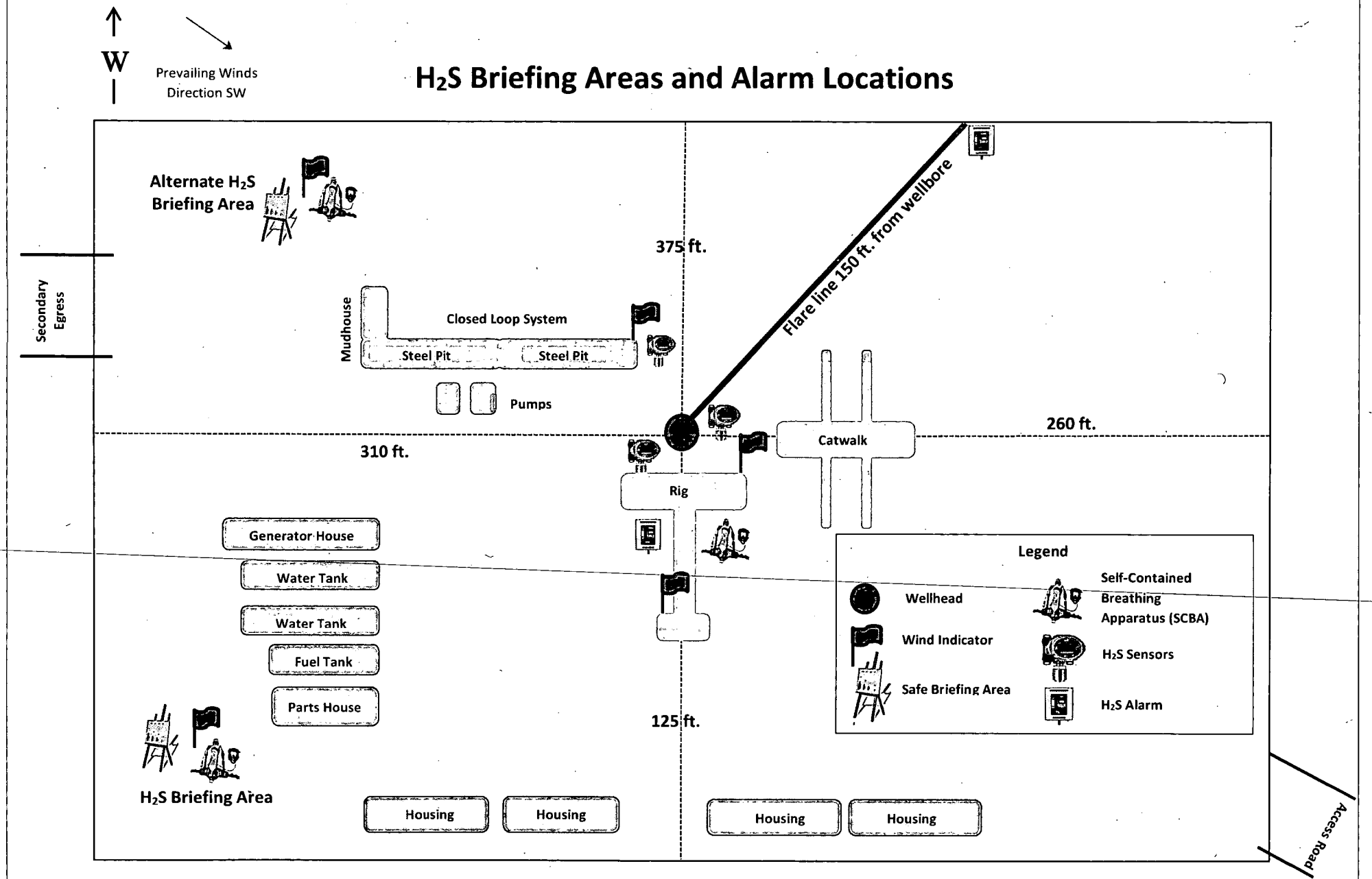
Contacting Authorities

XTO Energy, Inc. 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 Energy, Inc. PERSONNEL:	
Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147
SHERIFF DEPARTMENTS:	
Eddy County	575-887-7551
Lea County	575-396-3611
NEW MEXICO STATE POLICE:	575-392-5588
FIRE DEPARTMENTS:	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS:	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS:	
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

H_2S Briefing Areas and Alarm Locations



XTO Energy

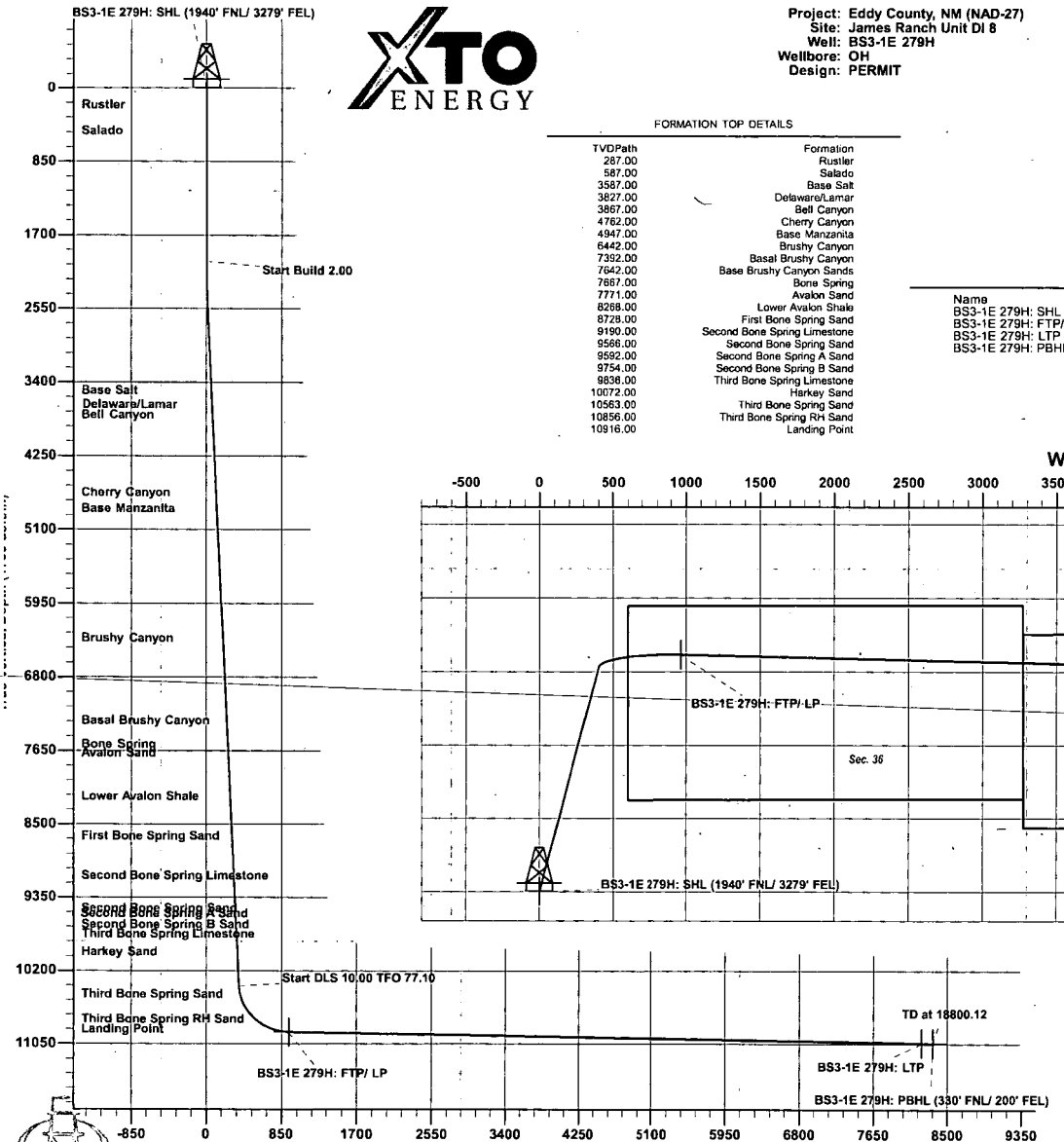
Eddy County, NM (NAD-27)
James Ranch Unit DI 8
BS3-1E 279H

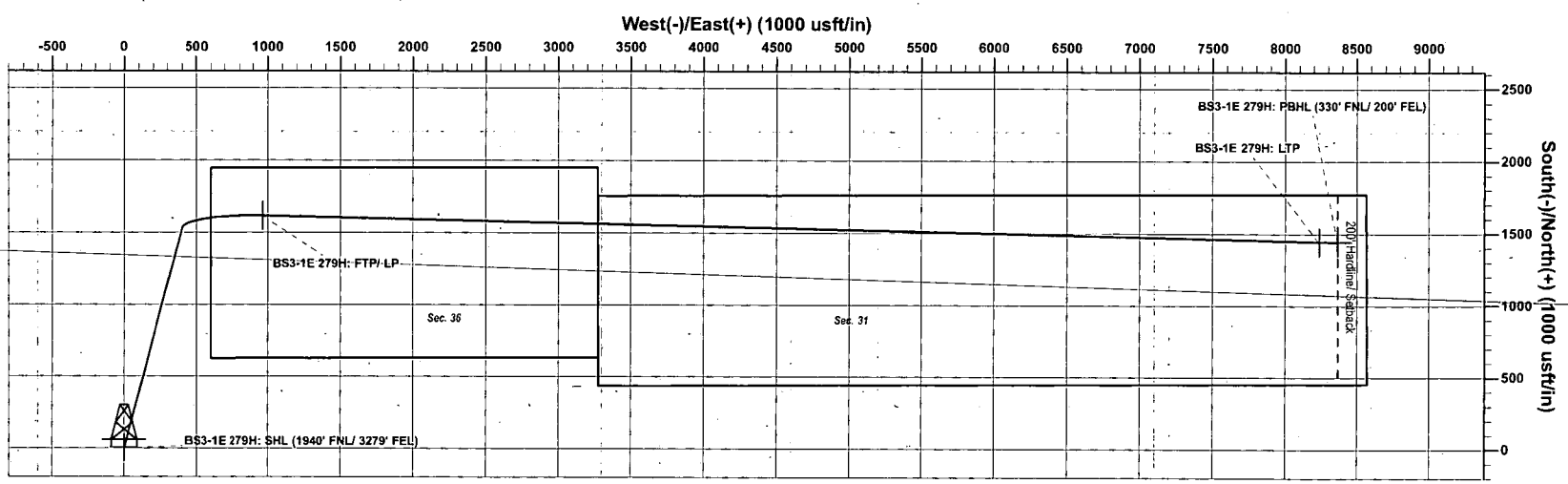
OH

Plan: PERMIT

Standard Planning Report

15 May, 2018





Project: Eddy County, NM (NAD-27)
Site: James Ranch Unit DI 8
Well: BS3-1E 279H
Wellbore: OH
Design: PERMIT

WELL DETAILS: BS3-1E 279H

Rig Name:
RKB = 25' @ 3342.00usft
Ground Level: 3317.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	491542.90	653663.30	32.350385	-103.835738

FORMATION TOP DETAILS

TVDPath	Formation
287.00	Rustler
587.00	Salado
3587.00	Base Salt
3827.00	Delaware/Lamar
3867.00	Bell Canyon
4762.00	Cherry Canyon
4947.00	Base Manzanita
6442.00	Brushy Canyon
7392.00	Basal Brushy Canyon
7642.00	Base Brushy Canyon Sands
7667.00	Bone Spring
7771.00	Avalon Sand
8268.00	Lower Avalon Shale
8728.00	First Bone Spring Sand
9190.00	Second Bone Spring Limestone
9566.00	Second Bone Spring Sand
9592.00	Second Bone Spring A Sand
9754.00	Second Bone Spring B Sand
9836.00	Third Bone Spring Limestone
10072.00	Harkey Sand
10563.00	Third Bone Spring Sand
10856.00	Third Bone Spring RH Sand
10916.00	Landing Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
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	2550.82	11.02	14.65	2547.44	51.08	13.35	2.00	14.65	12.17
4	10527.99	11.02	14.65	10377.60	1525.91	398.80	0.00	0.00	363.54
5	11392.79	88.99	91.32	10916.00	1613.10	963.40	10.00	77.10	925.98
6	18670.15	88.99	91.32	11044.70	1445.30	8237.68	0.00	0.00	8202.20
7	18800.12	88.99	91.32	11047.00	1442.30	8367.60	0.00	0.00	8332.15

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BS3-1E 279H: SHL (1940' FNL/ 3279' FEL)	0.00	0.00	0.00	491542.90	653663.30	32.350385	-103.835738	Point
BS3-1E 279H: FTP/ LP	10916.00	1613.10	963.40	493156.00	654626.70	32.354807	-103.832594	Point
BS3-1E 279H: LTP	11044.70	1441.80	8237.60	492984.70	661900.90	32.354241	-103.809041	Point
BS3-1E 279H: PBHL (330' FNL/ 200' FEL)	11047.00	1442.30	8367.60	492985.20	662030.90	32.354240	-103.808620	Point

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

Plan: PERMIT (BS3-1E 279H/OH)

Created By: Matthew May Date: 14:42, May 16 2018

Note: All Plan details including boundary lines and offset well data is subject to customers approval.

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Project Eddy County, NM (NAD-27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site James Ranch Unit DI 8

Site Position:		**Northing:**	491,410.50 usft	**Latitude:**	32.350025
From:	Map	**Easting:**	653,432.80 usft	**Longitude:**	-103.836487
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.27 °

Well BS3-1E 279H

Well Position	**+N/-S**	132.40 usft	**Northing:**	491,542.90 usft	**Latitude:**	32.350386
	+E/-W	230.50 usft	**Easting:**	653,663.30 usft	**Longitude:**	-103.835738
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,317.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/14/2018	6.99	60.12	47,893

Design PERMIT

Audit Notes:

Version:	**Phase:**	PLAN	**Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	91.32

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,550.82	11.02	14.65	2,547.44	51.08	13.35	2.00	2.00	0.00	14.65	
10,527.99	11.02	14.65	10,377.60	1,525.91	398.80	0.00	0.00	0.00	0.00	
11,392.79	88.99	91.32	10,916.00	1,613.10	963.40	10.00	9.02	8.87	77.10	BS3-1E 279H: FTP
18,670.15	88.99	91.32	11,044.70	1,445.30	8,237.68	0.00	0.00	0.00	0.00	BS3-1E 279H: LTP
18,800.12	88.99	91.32	11,047.00	1,442.30	8,367.60	0.00	0.00	0.00	0.00	BS3-1E 279H: PBH

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	14.65	2,099.98	1.69	0.44	0.40	2.00	2.00	0.00
2,200.00	4.00	14.65	2,199.84	6.75	1.76	1.61	2.00	2.00	0.00
2,300.00	6.00	14.65	2,299.45	15.18	3.97	3.62	2.00	2.00	0.00
2,400.00	8.00	14.65	2,398.70	26.97	7.05	6.43	2.00	2.00	0.00
2,500.00	10.00	14.65	2,497.47	42.11	11.00	10.03	2.00	2.00	0.00
2,550.82	11.02	14.65	2,547.44	51.08	13.35	12.17	2.00	2.00	0.00
2,600.00	11.02	14.65	2,595.71	60.17	15.72	14.33	0.00	0.00	0.00
2,700.00	11.02	14.65	2,693.86	78.66	20.56	18.74	0.00	0.00	0.00
2,800.00	11.02	14.65	2,792.02	97.14	25.39	23.14	0.00	0.00	0.00
2,900.00	11.02	14.65	2,890.18	115.63	30.22	27.55	0.00	0.00	0.00
3,000.00	11.02	14.65	2,988.34	134.12	35.05	31.95	0.00	0.00	0.00
3,100.00	11.02	14.65	3,086.49	152.61	39.88	36.36	0.00	0.00	0.00
3,200.00	11.02	14.65	3,184.65	171.10	44.72	40.76	0.00	0.00	0.00
3,300.00	11.02	14.65	3,282.81	189.59	49.55	45.17	0.00	0.00	0.00
3,400.00	11.02	14.65	3,380.96	208.07	54.38	49.57	0.00	0.00	0.00
3,500.00	11.02	14.65	3,479.12	226.56	59.21	53.98	0.00	0.00	0.00
3,600.00	11.02	14.65	3,577.28	245.05	64.04	58.38	0.00	0.00	0.00
3,700.00	11.02	14.65	3,675.44	263.54	68.88	62.79	0.00	0.00	0.00
3,800.00	11.02	14.65	3,773.59	282.03	73.71	67.19	0.00	0.00	0.00
3,900.00	11.02	14.65	3,871.75	300.51	78.54	71.60	0.00	0.00	0.00
4,000.00	11.02	14.65	3,969.91	319.00	83.37	76.00	0.00	0.00	0.00
4,100.00	11.02	14.65	4,068.06	337.49	88.20	80.41	0.00	0.00	0.00
4,200.00	11.02	14.65	4,166.22	355.98	93.03	84.81	0.00	0.00	0.00
4,300.00	11.02	14.65	4,264.38	374.47	97.87	89.21	0.00	0.00	0.00
4,400.00	11.02	14.65	4,362.54	392.96	102.70	93.62	0.00	0.00	0.00
4,500.00	11.02	14.65	4,460.69	411.44	107.53	98.02	0.00	0.00	0.00
4,600.00	11.02	14.65	4,558.85	429.93	112.36	102.43	0.00	0.00	0.00
4,700.00	11.02	14.65	4,657.01	448.42	117.19	106.83	0.00	0.00	0.00
4,800.00	11.02	14.65	4,755.17	466.91	122.03	111.24	0.00	0.00	0.00
4,900.00	11.02	14.65	4,853.32	485.40	126.86	115.64	0.00	0.00	0.00
5,000.00	11.02	14.65	4,951.48	503.88	131.69	120.05	0.00	0.00	0.00
5,100.00	11.02	14.65	5,049.64	522.37	136.52	124.45	0.00	0.00	0.00
5,200.00	11.02	14.65	5,147.79	540.86	141.35	128.86	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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)
5,300.00	11.02	14.65	5,245.95	559.35	146.19	133.26	0.00	0.00	0.00
5,400.00	11.02	14.65	5,344.11	577.84	151.02	137.67	0.00	0.00	0.00
5,500.00	11.02	14.65	5,442.27	596.33	155.85	142.07	0.00	0.00	0.00
5,600.00	11.02	14.65	5,540.42	614.81	160.68	146.48	0.00	0.00	0.00
5,700.00	11.02	14.65	5,638.58	633.30	165.51	150.88	0.00	0.00	0.00
5,800.00	11.02	14.65	5,736.74	651.79	170.34	155.28	0.00	0.00	0.00
5,900.00	11.02	14.65	5,834.89	670.28	175.18	159.69	0.00	0.00	0.00
6,000.00	11.02	14.65	5,933.05	688.77	180.01	164.09	0.00	0.00	0.00
6,100.00	11.02	14.65	6,031.21	707.25	184.84	168.50	0.00	0.00	0.00
6,200.00	11.02	14.65	6,129.37	725.74	189.67	172.90	0.00	0.00	0.00
6,300.00	11.02	14.65	6,227.52	744.23	194.50	177.31	0.00	0.00	0.00
6,400.00	11.02	14.65	6,325.68	762.72	199.34	181.71	0.00	0.00	0.00
6,500.00	11.02	14.65	6,423.84	781.21	204.17	186.12	0.00	0.00	0.00
6,600.00	11.02	14.65	6,522.00	799.70	209.00	190.52	0.00	0.00	0.00
6,700.00	11.02	14.65	6,620.15	818.18	213.83	194.93	0.00	0.00	0.00
6,800.00	11.02	14.65	6,718.31	836.67	218.66	199.33	0.00	0.00	0.00
6,900.00	11.02	14.65	6,816.47	855.16	223.50	203.74	0.00	0.00	0.00
7,000.00	11.02	14.65	6,914.62	873.65	228.33	208.14	0.00	0.00	0.00
7,100.00	11.02	14.65	7,012.78	892.14	233.16	212.55	0.00	0.00	0.00
7,200.00	11.02	14.65	7,110.94	910.62	237.99	216.95	0.00	0.00	0.00
7,300.00	11.02	14.65	7,209.10	929.11	242.82	221.36	0.00	0.00	0.00
7,400.00	11.02	14.65	7,307.25	947.60	247.66	225.76	0.00	0.00	0.00
7,500.00	11.02	14.65	7,405.41	966.09	252.49	230.16	0.00	0.00	0.00
7,600.00	11.02	14.65	7,503.57	984.58	257.32	234.57	0.00	0.00	0.00
7,700.00	11.02	14.65	7,601.72	1,003.07	262.15	238.97	0.00	0.00	0.00
7,800.00	11.02	14.65	7,699.88	1,021.55	266.98	243.38	0.00	0.00	0.00
7,900.00	11.02	14.65	7,798.04	1,040.04	271.81	247.78	0.00	0.00	0.00
8,000.00	11.02	14.65	7,896.20	1,058.53	276.65	252.19	0.00	0.00	0.00
8,100.00	11.02	14.65	7,994.35	1,077.02	281.48	256.59	0.00	0.00	0.00
8,200.00	11.02	14.65	8,092.51	1,095.51	286.31	261.00	0.00	0.00	0.00
8,300.00	11.02	14.65	8,190.67	1,113.99	291.14	265.40	0.00	0.00	0.00
8,400.00	11.02	14.65	8,288.83	1,132.48	295.97	269.81	0.00	0.00	0.00
8,500.00	11.02	14.65	8,386.98	1,150.97	300.81	274.21	0.00	0.00	0.00
8,600.00	11.02	14.65	8,485.14	1,169.46	305.64	278.62	0.00	0.00	0.00
8,700.00	11.02	14.65	8,583.30	1,187.95	310.47	283.02	0.00	0.00	0.00
8,800.00	11.02	14.65	8,681.45	1,206.44	315.30	287.43	0.00	0.00	0.00
8,900.00	11.02	14.65	8,779.61	1,224.92	320.13	291.83	0.00	0.00	0.00
9,000.00	11.02	14.65	8,877.77	1,243.41	324.97	296.24	0.00	0.00	0.00
9,100.00	11.02	14.65	8,975.93	1,261.90	329.80	300.64	0.00	0.00	0.00
9,200.00	11.02	14.65	9,074.08	1,280.39	334.63	305.04	0.00	0.00	0.00
9,300.00	11.02	14.65	9,172.24	1,298.88	339.46	309.45	0.00	0.00	0.00
9,400.00	11.02	14.65	9,270.40	1,317.36	344.29	313.85	0.00	0.00	0.00
9,500.00	11.02	14.65	9,368.55	1,335.85	349.12	318.26	0.00	0.00	0.00
9,600.00	11.02	14.65	9,466.71	1,354.34	353.96	322.66	0.00	0.00	0.00
9,700.00	11.02	14.65	9,564.87	1,372.83	358.79	327.07	0.00	0.00	0.00
9,800.00	11.02	14.65	9,663.03	1,391.32	363.62	331.47	0.00	0.00	0.00
9,900.00	11.02	14.65	9,761.18	1,409.81	368.45	335.88	0.00	0.00	0.00
10,000.00	11.02	14.65	9,859.34	1,428.29	373.28	340.28	0.00	0.00	0.00
10,100.00	11.02	14.65	9,957.50	1,446.78	378.12	344.69	0.00	0.00	0.00
10,200.00	11.02	14.65	10,055.66	1,465.27	382.95	349.09	0.00	0.00	0.00
10,300.00	11.02	14.65	10,153.81	1,483.76	387.78	353.50	0.00	0.00	0.00
10,400.00	11.02	14.65	10,251.97	1,502.25	392.61	357.90	0.00	0.00	0.00
10,500.00	11.02	14.65	10,350.13	1,520.73	397.44	362.31	0.00	0.00	0.00
10,527.99	11.02	14.65	10,377.60	1,525.91	398.80	363.54	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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)
10,550.00	11.70	25.28	10,399.18	1,529.96	400.28	364.93	10.00	3.12	48.32
10,600.00	14.42	44.02	10,447.91	1,539.03	406.78	371.22	10.00	5.44	37.48
10,650.00	18.12	56.12	10,495.91	1,547.85	417.57	381.80	10.00	7.40	24.19
10,700.00	22.32	64.01	10,542.82	1,556.35	432.57	396.60	10.00	8.40	15.79
10,750.00	26.79	69.46	10,588.30	1,564.47	451.67	415.51	10.00	8.93	10.88
10,800.00	31.40	73.42	10,631.98	1,572.15	474.72	438.38	10.00	9.23	7.93
10,850.00	36.11	76.45	10,673.54	1,579.32	501.55	465.03	10.00	9.42	6.06
10,900.00	40.88	78.86	10,712.66	1,585.94	531.94	495.27	10.00	9.54	4.82
10,950.00	45.69	80.85	10,749.05	1,591.95	565.68	528.86	10.00	9.62	3.97
11,000.00	50.53	82.53	10,782.42	1,597.30	602.51	565.55	10.00	9.68	3.37
11,050.00	55.40	84.00	10,812.53	1,601.97	642.13	605.06	10.00	9.72	2.93
11,100.00	60.27	85.30	10,839.14	1,605.90	684.26	647.08	10.00	9.75	2.60
11,150.00	65.16	86.48	10,862.05	1,609.07	728.57	691.31	10.00	9.78	2.36
11,200.00	70.06	87.57	10,881.09	1,611.46	774.72	737.40	10.00	9.79	2.18
11,250.00	74.96	88.59	10,896.11	1,613.05	822.37	784.99	10.00	9.81	2.05
11,300.00	79.87	89.57	10,907.00	1,613.83	871.15	833.74	10.00	9.82	1.96
11,350.00	84.78	90.52	10,913.68	1,613.79	920.69	883.27	10.00	9.82	1.90
11,392.79	88.99	91.32	10,916.00	1,613.10	963.40	925.98	10.00	9.82	1.87
11,400.00	88.99	91.32	10,916.13	1,612.93	970.60	933.19	0.00	0.00	0.00
11,500.00	88.99	91.32	10,917.90	1,610.63	1,070.56	1,033.17	0.00	0.00	0.00
11,600.00	88.99	91.32	10,919.66	1,608.32	1,170.52	1,133.16	0.00	0.00	0.00
11,700.00	88.99	91.32	10,921.43	1,606.02	1,270.48	1,233.14	0.00	0.00	0.00
11,800.00	88.99	91.32	10,923.20	1,603.71	1,370.44	1,333.13	0.00	0.00	0.00
11,900.00	88.99	91.32	10,924.97	1,601.40	1,470.39	1,433.11	0.00	0.00	0.00
12,000.00	88.99	91.32	10,926.74	1,599.10	1,570.35	1,533.10	0.00	0.00	0.00
12,100.00	88.99	91.32	10,928.51	1,596.79	1,670.31	1,633.08	0.00	0.00	0.00
12,200.00	88.99	91.32	10,930.28	1,594.49	1,770.27	1,733.07	0.00	0.00	0.00
12,300.00	88.99	91.32	10,932.04	1,592.18	1,870.22	1,833.05	0.00	0.00	0.00
12,400.00	88.99	91.32	10,933.81	1,589.88	1,970.18	1,933.03	0.00	0.00	0.00
12,500.00	88.99	91.32	10,935.58	1,587.57	2,070.14	2,033.02	0.00	0.00	0.00
12,600.00	88.99	91.32	10,937.35	1,585.26	2,170.10	2,133.00	0.00	0.00	0.00
12,700.00	88.99	91.32	10,939.12	1,582.96	2,270.05	2,232.99	0.00	0.00	0.00
12,800.00	88.99	91.32	10,940.89	1,580.65	2,370.01	2,332.97	0.00	0.00	0.00
12,900.00	88.99	91.32	10,942.66	1,578.35	2,469.97	2,432.96	0.00	0.00	0.00
13,000.00	88.99	91.32	10,944.42	1,576.04	2,569.93	2,532.94	0.00	0.00	0.00
13,100.00	88.99	91.32	10,946.19	1,573.73	2,669.89	2,632.92	0.00	0.00	0.00
13,200.00	88.99	91.32	10,947.96	1,571.43	2,769.84	2,732.91	0.00	0.00	0.00
13,300.00	88.99	91.32	10,949.73	1,569.12	2,869.80	2,832.89	0.00	0.00	0.00
13,400.00	88.99	91.32	10,951.50	1,566.82	2,969.76	2,932.88	0.00	0.00	0.00
13,500.00	88.99	91.32	10,953.27	1,564.51	3,069.72	3,032.86	0.00	0.00	0.00
13,600.00	88.99	91.32	10,955.04	1,562.21	3,169.67	3,132.85	0.00	0.00	0.00
13,700.00	88.99	91.32	10,956.80	1,559.90	3,269.63	3,232.83	0.00	0.00	0.00
13,800.00	88.99	91.32	10,958.57	1,557.59	3,369.59	3,332.82	0.00	0.00	0.00
13,900.00	88.99	91.32	10,960.34	1,555.29	3,469.55	3,432.80	0.00	0.00	0.00
14,000.00	88.99	91.32	10,962.11	1,552.98	3,569.51	3,532.78	0.00	0.00	0.00
14,100.00	88.99	91.32	10,963.88	1,550.68	3,669.46	3,632.77	0.00	0.00	0.00
14,200.00	88.99	91.32	10,965.65	1,548.37	3,769.42	3,732.75	0.00	0.00	0.00
14,300.00	88.99	91.32	10,967.41	1,546.06	3,869.38	3,832.74	0.00	0.00	0.00
14,400.00	88.99	91.32	10,969.18	1,543.76	3,969.34	3,932.72	0.00	0.00	0.00
14,500.00	88.99	91.32	10,970.95	1,541.45	4,069.29	4,032.71	0.00	0.00	0.00
14,600.00	88.99	91.32	10,972.72	1,539.15	4,169.25	4,132.69	0.00	0.00	0.00
14,700.00	88.99	91.32	10,974.49	1,536.84	4,269.21	4,232.67	0.00	0.00	0.00
14,800.00	88.99	91.32	10,976.26	1,534.54	4,369.17	4,332.66	0.00	0.00	0.00
14,900.00	88.99	91.32	10,978.03	1,532.23	4,469.13	4,432.64	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	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)
15,000.00	88.99	91.32	10,979.79	1,529.92	4,569.08	4,532.63	0.00	0.00	0.00
15,100.00	88.99	91.32	10,981.56	1,527.62	4,669.04	4,632.61	0.00	0.00	0.00
15,200.00	88.99	91.32	10,983.33	1,525.31	4,769.00	4,732.60	0.00	0.00	0.00
15,300.00	88.99	91.32	10,985.10	1,523.01	4,868.96	4,832.58	0.00	0.00	0.00
15,400.00	88.99	91.32	10,986.87	1,520.70	4,968.91	4,932.56	0.00	0.00	0.00
15,500.00	88.99	91.32	10,988.64	1,518.40	5,068.87	5,032.55	0.00	0.00	0.00
15,600.00	88.99	91.32	10,990.41	1,516.09	5,168.83	5,132.53	0.00	0.00	0.00
15,700.00	88.99	91.32	10,992.17	1,513.78	5,268.79	5,232.52	0.00	0.00	0.00
15,800.00	88.99	91.32	10,993.94	1,511.48	5,368.75	5,332.50	0.00	0.00	0.00
15,900.00	88.99	91.32	10,995.71	1,509.17	5,468.70	5,432.49	0.00	0.00	0.00
16,000.00	88.99	91.32	10,997.48	1,506.87	5,568.66	5,532.47	0.00	0.00	0.00
16,100.00	88.99	91.32	10,999.25	1,504.56	5,668.62	5,632.46	0.00	0.00	0.00
16,200.00	88.99	91.32	11,001.02	1,502.25	5,768.58	5,732.44	0.00	0.00	0.00
16,300.00	88.99	91.32	11,002.79	1,499.95	5,868.53	5,832.42	0.00	0.00	0.00
16,400.00	88.99	91.32	11,004.55	1,497.64	5,968.49	5,932.41	0.00	0.00	0.00
16,500.00	88.99	91.32	11,006.32	1,495.34	6,068.45	6,032.39	0.00	0.00	0.00
16,600.00	88.99	91.32	11,008.09	1,493.03	6,168.41	6,132.38	0.00	0.00	0.00
16,700.00	88.99	91.32	11,009.86	1,490.73	6,268.37	6,232.36	0.00	0.00	0.00
16,800.00	88.99	91.32	11,011.63	1,488.42	6,368.32	6,332.35	0.00	0.00	0.00
16,900.00	88.99	91.32	11,013.40	1,486.11	6,468.28	6,432.33	0.00	0.00	0.00
17,000.00	88.99	91.32	11,015.16	1,483.81	6,568.24	6,532.31	0.00	0.00	0.00
17,100.00	88.99	91.32	11,016.93	1,481.50	6,668.20	6,632.30	0.00	0.00	0.00
17,200.00	88.99	91.32	11,018.70	1,479.20	6,768.15	6,732.28	0.00	0.00	0.00
17,300.00	88.99	91.32	11,020.47	1,476.89	6,868.11	6,832.27	0.00	0.00	0.00
17,400.00	88.99	91.32	11,022.24	1,474.58	6,968.07	6,932.25	0.00	0.00	0.00
17,500.00	88.99	91.32	11,024.01	1,472.28	7,068.03	7,032.24	0.00	0.00	0.00
17,600.00	88.99	91.32	11,025.78	1,469.97	7,167.99	7,132.22	0.00	0.00	0.00
17,700.00	88.99	91.32	11,027.54	1,467.67	7,267.94	7,232.21	0.00	0.00	0.00
17,800.00	88.99	91.32	11,029.31	1,465.36	7,367.90	7,332.19	0.00	0.00	0.00
17,900.00	88.99	91.32	11,031.08	1,463.06	7,467.86	7,432.17	0.00	0.00	0.00
18,000.00	88.99	91.32	11,032.85	1,460.75	7,567.82	7,532.16	0.00	0.00	0.00
18,100.00	88.99	91.32	11,034.62	1,458.44	7,667.77	7,632.14	0.00	0.00	0.00
18,200.00	88.99	91.32	11,036.39	1,456.14	7,767.73	7,732.13	0.00	0.00	0.00
18,300.00	88.99	91.32	11,038.16	1,453.83	7,867.69	7,832.11	0.00	0.00	0.00
18,400.00	88.99	91.32	11,039.92	1,451.53	7,967.65	7,932.10	0.00	0.00	0.00
18,500.00	88.99	91.32	11,041.69	1,449.22	8,067.61	8,032.08	0.00	0.00	0.00
18,600.00	88.99	91.32	11,043.46	1,446.91	8,167.56	8,132.06	0.00	0.00	0.00
18,670.15	88.99	91.32	11,044.70	1,445.30	8,237.68	8,202.20	0.00	0.00	0.00
18,700.00	88.99	91.32	11,045.23	1,444.61	8,267.52	8,232.05	0.00	0.00	0.00
18,800.12	88.99	91.32	11,047.00	1,442.30	8,367.60	8,332.15	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well BS3-1E 279H
Company:	XTO Energy	**TVD Reference:**	RKB = 25' @ 3342.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 25' @ 3342.00usft
Site:	James Ranch Unit DI 8	**North Reference:**	Grid
Well:	BS3-1E 279H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BS3-1E 279H: SHL (1 - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	491,542.90	653,663.30	32.350386	-103.835738
BS3-1E 279H: FTP/ L - plan hits target center - Point	0.00	0.01	10,916.00	1,613.10	963.40	493,156.00	654,626.70	32.354807	-103.832594
BS3-1E 279H: LTP - plan misses target center by 3.50usft at 18670.15usft MD (11044.70 TVD, 1445.30 N, 8237.68 E) - Point	0.00	0.01	11,044.70	1,441.80	8,237.60	492,984.70	661,900.90	32.354241	-103.809041
BS3-1E 279H: PBHL - plan hits target center - Point	0.00	0.01	11,047.00	1,442.30	8,367.60	492,985.20	662,030.90	32.354240	-103.808620

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
287.00	287.00	Rustler			
587.00	587.00	Salado			
3,609.90	3,587.00	Base Salt			
3,854.41	3,827.00	Delaware/Lamar			
3,895.16	3,867.00	Bell Canyon			
4,806.96	4,762.00	Cherry Canyon			
4,995.44	4,947.00	Base Manzanita			
6,518.50	6,442.00	Brushy Canyon			
7,486.34	7,392.00	Basal Brushy Canyon			
7,741.03	7,642.00	Base Brushy Canyon Sands			
7,766.50	7,667.00	Bone Spring			
7,872.45	7,771.00	Avalon Sand			
8,378.78	8,268.00	Lower Avalon Shale			
8,847.42	8,728.00	First Bone Spring Sand			
9,318.09	9,190.00	Second Bone Spring Limestone			
9,701.15	9,566.00	Second Bone Spring Sand			
9,727.64	9,592.00	Second Bone Spring A Sand			
9,892.68	9,754.00	Second Bone Spring B Sand			
9,976.22	9,836.00	Third Bone Spring Limestone			
10,216.65	10,072.00	Harkey Sand			
10,721.97	10,563.00	Third Bone Spring Sand			
11,135.96	10,856.00	Third Bone Spring RH Sand			
11,392.79	10,916.00	Landing Point			

APD ID: 10400033040 **Submission Date:** 08/15/2018

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

JRU_DI_8_279H_ERoad_20180814131852.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_DI_8_Road_20180814131929.pdf

New road type: RESOURCE

Length: 527.81 Feet **Width (ft.):** 30

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

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.

New road access plan or profile prepared? NO

New road access plan attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Access road engineering design? NO

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Surface material will be native caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.
Access other construction information: Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.
Access miscellaneous information: The James Ranch Unit DI 8 development area is accessed from the intersection of Jal Highway (St. Hwy. 128) and WIPP Rd. Go Northeast on WIPP Rd approximately 0.8 miles to an intersection. Turn left (Northwest) on lease road and go approximately 0.4 miles to a 'T' intersection. Turn right (North) on lease road and go approximately 0.3 miles to an intersection. Turn right (Northeast) on lease road and go approximately 0.4 miles to an intersection. Turn left (West) on lease road and go approximately 0.3 miles. Turn right (Northwest) on lease road and go approximately 0.3 miles. The location is to the Northwest. Transportation Plan identifying existing roads that will be used to access the project area is included from Frank's Surveying marked as, 'Vicinity Map.' There is an existing access road to the proposed James Ranch Unit DI 8 well Pad 1 location. There is no existing access road to the proposed James Ranch Unit DI 8 well Pad 2 location. All equipment and vehicles will be confined to the routes shown on the Vicinity Map as provided by Frank's Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.
Number of access turnouts: 0 **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the 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: No drainage control structures were identified at onsite. Drainage control structures will be applied for as-needed and be in accordance with road guidelines contained in the 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) attachment:

Access Additional Attachments

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

JRU_DI8_1_Mile_20180814132121.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

JRU_DI_8_CTB_20180814132145.pdf
JRU_DI_8_FL_20190925071011.pdf
JRU_DI_8_GS_20190925071019.pdf
JRU_DI_8_OHE_20190925071029.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Fresh Water: Sec. 27, T25S, R30E

Water source use type: SURFACE CASING
STIMULATION
INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 330000

Source volume (acre-feet): 42.53472

Source volume (gal): 13860000

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Water source type: OTHER

Describe type: Fresh Water; Sec. 6, T25S, R30E

Water source use type: SURFACE CASING

STIMULATION

INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 330000 **Source volume (acre-feet):** 42.53472

Source volume (gal): 13860000

Water source and transportation map:

JRU_DI_8_279H_Wtr_20180814133016.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 supplied by Texas Pacific Water Resources for sale to XTO Permian Operating, LLC. from Section 27, T25S-R30E, Eddy County, New Mexico. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO Permian Operating, LLC. at time of drilling and completion, then XTO Permian Operating, LLC. water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico. Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 330,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

New water well? NO

New Water Well Info

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

Well target aquifer:

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

Aquifer comments:

Aquifer documentation:

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

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

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

Drilling method: **Drill material:**

Grout material: **Grout depth:**

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

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: 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. 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. Anticipated Caliche Locations: Pit 1: State Caliche Pit, Section 32-T21S-R31E Pit 2: Private Caliche Pit, Section 16-T23S-R30E

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

Safe containment description: The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes.

Safe containmant attachment:

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

Disposal type description:

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 8 BS3-1E **Well Number:** 279H

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel mud pits

Safe containmant attachment:

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

Disposal type description:

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

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

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

Safe containmant attachment:

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

Disposal type description:

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

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

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

Safe containmant attachment:

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

Disposal type description:

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

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location 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 Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

JRU_DI_8_279H_Well_20180814133259.pdf

Comments: A. Rig Plat Diagrams: There are 2 multi-well pads in the James Ranch Unit DI 8 lease anticipated. This will allow enough space for cuts and fills, topsoil storage, and storm water control. A well list is attached to this application. Interim

reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. From North to South: Pad 1 is a 10-well pad expected to be 600'x500' [6.89acres, Topsoil: Northeast] Pad 2 is a 6-well pad expected to be 500'x500' [5.74acres, Topsoil: East] V-Door Orientation: These wells were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Jeffery Robertson, BLM Natural Resource Specialist, present at on-site inspection. 1. Pad 1 has a V-Door Orientation of North. 2. Pad 2 has a V-Door Orientation of North.

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: JAMES RANCH UNIT DI

Multiple Well Pad Number: 8

Recontouring attachment:

Drainage/Erosion control construction: All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches.
Drainage/Erosion control reclamation: Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

Well pad proposed disturbance (acres): 12.63
Road proposed disturbance (acres): 0.36
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 12.63
Total proposed disturbance: 25.62

Well pad interim reclamation (acres): 0
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 0

Well pad long term disturbance (acres): 12.63
Road long term disturbance (acres): 0.36
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 12.63
Total long term disturbance: 25.62

Disturbance Comments:

Reconstruction method: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded
Topsoil redistribution: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded.
Soil treatment: A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation
Existing Vegetation at the well pad: Soils are classified of 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 cresoste.
Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Soils are classified of 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 cresoste.
Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Soils are classified of 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 cresoste.
Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Soils are classified of 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 cresoste.
Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

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

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

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

Success standards: 100% compliance with applicable regulations.

Pit closure description: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT 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 8 BS3-1E **Well Number:** 279H

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: OTHER

Describe: CTB

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT 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 8 BS3-1E **Well Number:** 279H

Disturbance type: OTHER

Describe: FLOWLINE

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: OTHER

Describe: DISTRIBUTION LINE

Surface Owner: BUREAU OF LAND MANAGEMENT,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT 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 8 BS3-1E **Well Number:** 279H

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE/CARLSBAD DISTRICT OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other Information

Right of Way needed? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: 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. Reseeding of the topsoil stockpile in place will occur to maintain topsoil vitality until interim reclamation ensues. Once activities are completed, XTO Permian Operating, LLC. will coordinate interim reclamation with the appropriate BLM personnel.
Use a previously conducted onsite? YES

Previous Onsite information: Jeffery Robertson, BLM Natural Resource Specialist, present at on-site inspection.

Other SUPO Attachment