

RECEIVED

JAN 15 2020

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
EMNRD-OCD ARTESIA

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM0025533	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name	
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. POKER LAKE / NMNM071016X	
2. Name of Operator XTO PERMIAN OPERATING LLC		8. Lease Name and Well No. POKER LAKE UNIT 18 TWR 107H 326260	
3a. Address 6401 Holiday Hill Road, Bldg 5 Midland TX 79707	3b. Phone No. (include area code) (432)682-8873	9. API Well No. 30-015-46622	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE / 175 FNL / 566 FEL / LAT 32.209586 / LONG -103.810226 At proposed prod. zone SESE / 200 FSL / 660 FEL / LAT 32.181577 / LONG -103.8104649		10. Field and Pool, or Exploratory PURPLE SAGE; WOLFCAMP (GAS) 98220	
11. Sec., T. R. M. or Blk. and Survey or Area SEC 19 / T24S / R31E / NMP		12. County or Parish EDDY	
13. State NM		14. Distance in miles and direction from nearest town or post office*	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330 feet	16. No of acres in lease 324.37	17. Spacing Unit dedicated to this well 640	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 35 feet	19. Proposed Depth 11538 feet / 21917 feet	20. BLM/BIA Bond No. in file FED: COB000050	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3498 feet	22. Approximate date work will start* 11/01/2019	23. Estimated duration 60 days	
24. Attachments			
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)			
1. Well plat certified by a registered surveyor.		4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).	
2. A Drilling Plan.		5. Operator certification.	
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).		6. Such other site specific information and/or plans as may be requested by the BLM.	
25. Signature (Electronic Submission)	Name (Printed/Typed) Kelly Kardos / Ph: (432)620-4374	Date 08/06/2019	
Title Regulatory Coordinator			
Approved by (Signature)	Name (Printed/Typed)	Date 11/26/2019	
Title 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.			

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DEPARTMENT OF THE INTERIOR
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APPLICATION FOR PERMIT TO DRILL OR REENTER

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2. Name of Operator XTO PERMIAN OPERATING LLC		8. Lease Name and Well No. POKER LAKE UNIT 18 TWR 107H
3a. Address 6401 Holiday Hill Road, Bldg 5, Midland, TX 79707	3b. Phone No. (include area code) (432) 682-8873	9. API Well No. 30-015-46622
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE / 175 FNL / 566 FEL / LAT 32.209586 / LONG -103.810226 At proposed prod. zone SESE / 200 FSL / 660 FEL / LAT 32.181577 / LONG -103.8104649		10. Field and Pool, or Exploratory PURPLE SAGE; WOLFCAMP (GAS)/null
11. Sec., T. R. M. or Blk. and Survey or Area SEC 19/T24S/R31E/NMP		12. County or Parish EDDY
13. State NM		14. Distance in miles and direction from nearest town or post office*
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- | | |
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| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature (Electronic Submission)	Name (Printed/Typed) Kelly Kardos / Ph: (432) 682-8873	Date 08/06/2019
Title Regulatory Coordinator		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Christopher Walls / Ph: (575) 234-2234	Date 11/26/2019
Title Petroleum Engineer		

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.

11/22/2020

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

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

Additional Operator Remarks

Location of Well

1. SHL: NENE / 175 FNL / 566 FEL / TWSP: 24S / RANGE: 31E / SECTION: 19 / LAT: 32.209586 / LONG: -103.810226 (TVD: 0 feet, MD: 0 feet)
PPP: NENE / 330 FNL / 660 FEL / TWSP: 24S / RANGE: 31E / SECTION: 19 / LAT: 32.20916 / LONG: -103.8105269 (TVD: 11538 feet, MD: 11883 feet)
PPP: NESE / 2310 FSL / 660 FEL / TWSP: 24S / RANGE: 31E / SECTION: 19 / LAT: 32.200989 / LONG: -103.810501 (TVD: 11538 feet, MD: 14523 feet)
PPP: NENE / 330 FNL / 660 FEL / TWSP: 24S / RANGE: 31E / SECTION: 30 / LAT: 32.193733 / LONG: -103.8104929 (TVD: 11538 feet, MD: 17163 feet)
BHL: SESE / 200 FSL / 660 FEL / TWSP: 24S / RANGE: 31E / SECTION: 30 / LAT: 32.181577 / LONG: -103.8104649 (TVD: 11538 feet, MD: 21917 feet)

BLM Point of Contact

Name:

Title:

Phone:

Email:

Approval Date: 11/26/2019

(Form 3160-3, page 3)

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.

Approval Date: 11/26/2019

(Form 3160-3, page 4)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating, LLC.
LEASE NO.:	NMMN-0025533
WELL NAME & NO.:	Poker Lake Unit 18 TWR 107H
SURFACE HOLE FOOTAGE:	0175' FNL & 0566' FEL
BOTTOM HOLE FOOTAGE:	0200' FSL & 0660' FEL Sec. 30, T. 24 S., R 31 E.
LOCATION:	Section 19, T. 24 S., R 31 E., NMPM
COUNTY:	County, New Mexico

Commercial Well Determination

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

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.

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Eddy County**

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

1. **Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

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

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

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

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

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

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Red Beds, Rustler, and Delaware.

Abnormal pressure may be encountered in the 3rd Bone Spring and all subsequent formations.

1. The **18-5/8** inch surface casing shall be set at approximately **770** feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least **25** feet 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 is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 13-3/8" shoe to be tested according to Onshore Order

2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

9-5/8" Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

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

Operator has proposed DV tool at depth of 4200', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool: _____

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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

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

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

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a

larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. **PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.
4. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8" intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8" intermediate casing shoe shall be 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. **Operator shall perform the 9-5/8" intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
- e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

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

- 5. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer.**
 - b. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

- c. The results of the test shall be reported to the appropriate BLM office.
- d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**
- e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- f. 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.

D. 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.

E. DRILL STEM TEST

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

F. 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 101519



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

Operator Certification Data Report

01/14/2020

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: Kelly Kardos

Signed on: 08/06/2019

Title: Regulatory Coordinator

Street Address:

City:

State:

Zip:

Phone: (432)620-4374

Email address: kelly_kardos@xtoenergy.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data Report

01/14/2020

APD ID: 10400045455

Submission Date: 08/06/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400045455

Tie to previous NOS? Y

Submission Date: 08/06/2019

BLM Office: CARLSBAD

User: Kelly Kardos

Title: Regulatory Coordinator

Federal/Indian APD: FED

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

Lease number: NMNM0025533

Lease Acres: 324.37

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM071016X

Agreement name:

Keep application confidential? N

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: POKER LAKE UNIT 18 TWR

Well Number: 107H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: PURPLE SAGE;
WOLFCAMP (GAS)

Pool Name:

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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

Is the proposed well in a Helium production area? N

Use Existing Well Pad? N

New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:
POKER LAKE UNIT 18 TWR
Number of Legs: 1

Number: 4

Well Class: HORIZONTAL

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town:

Distance to nearest well: 35 FT

Distance to lease line: 330 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: PLU_18_TWR_107H_C102_20190806080037.pdf

Well work start Date: 11/01/2019

Duration: 60 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

Reference Datum: GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	175	FNL	566	FEL	24S	31E	19	Aliquot NENE	32.209586	-103.810226	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 0025533	3498	0	0	Y
KOP Leg #1	175	FNL	566	FEL	24S	31E	19	Aliquot NENE	32.209586	-103.810226	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 0025533	-7418	10934	10916	Y
PPP Leg #1-1	330	FNL	660	FEL	24S	31E	30	Aliquot NENE	32.193733	-103.8104929	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 0000506A	-8040	17163	11538	Y

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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?
PPP Leg #1-2	231 0	FSL	660	FEL	24S	31E	19	Aliquot NESE	32.20098 9	- 103.8105 01	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 015756 6	- 804 0	145 23	115 38	Y
PPP Leg #1-3	330	FNL	660	FEL	24S	31E	19	Aliquot NENE	32.20916	- 103.8105 269	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 002553 3	- 804 0	118 83	115 38	Y
EXIT Leg #1	330	FSL	660	FEL	24S	31E	30	Aliquot SESE	32.18193 5	- 103.8104 649	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 000050 6	- 804 0	217 87	115 38	Y
BHL Leg #1	200	FSL	660	FEL	24S	31E	30	Aliquot SESE	32.18157 7	- 103.8104 649	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 000050 6	- 804 0	219 17	115 38	Y



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

Drilling Plan Data Report

01/14/2020

APD ID: 10400045455

Submission Date: 08/06/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
509101	PERMIAN	3498	0	0	OTHER : Quaternary	NONE	N
509092	RUSTLER	2892	606	606	SILTSTONE	USEABLE WATER	N
509093	TOP SALT	2518	980	980	SALT	OTHER : Produced Water	N
509094	BASE OF SALT	-600	4098	4098	SALT	OTHER : Produced Water	N
509090	DELAWARE	-808	4306	4306	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
509091	BONE SPRING	-4643	8141	8141	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
509089	BONE SPRING 1ST	-5658	9156	9156	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
509088	BONE SPRING 2ND	-6398	9896	9896	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
509107	BONE SPRING 3RD	-7583	11081	11081	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
509109	WOLFCAMP	-7975	11473	11473	SHALE	NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 11538

Equipment: The blow out preventer equipment (BOP) on surface casing temporary wellhead will consist of a 21-1/4 minimum 2M Hydril. MASP should not exceed 1245 psi. Once the permanent wellhead is installed the blow out preventer equipment (BOP) for this well consists of a 13-5/8 minimum 5M Hydril and a 13-5/8 minimum 5M Double Ram BOP. MASP should not exceed 3761 psi.

Requesting Variance? YES

Variance request: XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint. 13-3/8" Collapse analyzed using 50% evacuation based on regional experience. 9-5/8" Collapse analyzed using 50% 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 Permanent Wellhead – GE RSH Multibowl System A. Starting Head (RSH System): 13-3/8" SOW bottom x 13-5/8" 5M top flange 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 Onshore Order 2. • Wellhead manufacturer representative may

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

not be present for BOP test plug installation 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 nipping up on the 13-5/8 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When the 11-3/4 and 8-5/8 casing is set, the packoff seals 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.

Choke Diagram Attachment:

PLU_18_TWR_2M3MCM_20190523130558.pdf

PLU_18_TWR_5MCM_20190806082114.pdf

BOP Diagram Attachment:

PLU_18_TWR_Multi_20190523130747.pdf

PLU_18_TWR_2MBOP_20190528101103.pdf

PLU_18_TWR_5MBOP_20190806082129.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	770	0	770	3498	2728	770	J-55	87.5	BUTT	1.81	1.81	BUOY	20.4	DRY	20.4
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	4150	0	4150		-652	4150	HCL-80	68	BUTT	2.31	1.8	DRY	10.41	DRY	10.41
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	10300	0	10300		-6802	10300	HCL-80	40	BUTT	1.4	1.45	DRY	3.07	DRY	3.07
4	PRODUCTION	8.75	5.5	NEW	API	N	0	21917	0	11538	3500	-8040	21917	P-110	17	BUTT	1.96	1.01	DRY	2.17	DRY	2.17

Casing Attachments

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_18_TWR_107H_Csg_20190806082215.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_18_TWR_107H_Csg_20190806082258.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_18_TWR_107H_Csg_20190806082343.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Casing Attachments

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_18_TWR_107H_Csg_20190806082430.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	770	620	1.87	12.8	1159.4	100	EconoCem-HLTRRC	none
SURFACE	Tail				550	1.35	14.8	742.5	100	Halcm-C	2% CaCl
INTERMEDIATE	Lead		0	4150	2450	1.88	12.8	4606	100	Halcm-C	2% CaCl
INTERMEDIATE	Tail				850	1.35	14.8	1147.5	100	Halcm-C	2% CaCl
INTERMEDIATE	Lead	4200	0	10300	1130	1.87	12.8	2113.1	100	Halcm-C	2% CaCl
INTERMEDIATE	Tail				390	1.35	14.8	526.5	100	Halcm-C	2% CaCl
INTERMEDIATE	Lead		4250	10300	1680	1.88	12.8	3158.4	100	Halcm-C	2% CaCl
INTERMEDIATE	Tail				470	1.33	14.8	625.1	100	Halcm-C	2% CaCl
PRODUCTION	Lead		0	21917	1860	1.88	11.5	3496.8	20	Halcm-C	2% CaCl
PRODUCTION	Tail				2610	1.33	13.2	3471.3	20	VersaCem	none

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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
1030 0	1153 8	OTHER : FW / Cut Brine / Poly / OBM	10.2	10.8							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
4150 0	1030 0	OTHER : FW / Cut Brine	9.1	9.5							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
0	770	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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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
770	4150	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

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:

COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MUD LOG/GEOLOGIC LITHOLOGY LOG,

Coring operation description for the well:

No coring will take place on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6300

Anticipated Surface Pressure: 3761

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 geohazards 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:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

PLU_18_TWR_H2S_DiaW_20190523132638.pdf

PLU_18_TWR_H2S_Plan_20190523132617.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

PLU_18_TWR_107H_DD_20190806082938.pdf

Other proposed operations facets description:

The surface fresh water sands will be protected by setting 18-5/8 inch casing @ 770' (207' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8 inch casing at 4150' and circulating cement to surface. A 12-1/4 inch vertical hole will be drilled to 10300' and 9-5/8 inch casing ran and cemented 500' into the 13-3/8 inch casing. An 8-3/4 inch curve and lateral hole will be drilled to MD/TD and 5-1/2 casing will be set at TD and cemented back 300' into the 9-5/8 inch casing shoe.

Other proposed operations facets attachment:

PLU_18_TWR_GCPE_20191009105038.pdf

PLU_18_TWR_GCPW_20191009105051.pdf

Other Variance attachment:

PLU_18_TWR_FH_20190523132910.pdf



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 H₂S, 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 H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). 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 H₂S and SO₂

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

Contacting Authorities

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

CARLSBAD OFFICE – EDDY & LEA COUNTIES

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

575-887-7329

XTO PERSONNEL:

Kendall Decker, Drilling Manager
Milton Turman, Drilling Superintendent
Jeff Raines, Construction Foreman
Toady Sanders, EH & S Manager
Wes McSpadden, Production Foreman

903-521-6477
817-524-5107
432-557-3159
903-520-1601
575-441-1147

SHERIFF DEPARTMENTS:

Eddy County
Lea County

575-887-7551
575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

Carlsbad
Eunice
Hobbs
Jal
Lovington

911
575-885-2111
575-394-2111
575-397-9308
575-395-2221
575-396-2359

HOSPITALS:

Carlsbad Medical Emergency
Eunice Medical Emergency
Hobbs Medical Emergency
Jal Medical Emergency
Lovington Medical Emergency

911
575-885-2111
575-394-2112
575-397-9308
575-395-2221
575-396-2359

AGENT NOTIFICATIONS:

For Lea County:

Bureau of Land Management – Hobbs
New Mexico Oil Conservation Division – Hobbs

575-393-3612
575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad
New Mexico Oil Conservation Division - Artesia

575-234-5972
575-748-1283



XTO Energy

Eddy County, NM (NAD-27)

Poker Lake Unit 18 TWR

#107H

Wellbore #1

Plan: PERMIT

Standard Planning Report

01 May, 2019



Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 18 TWR
Well: #107H
Wellbore: Wellbore #1
Design: PERMIT

PROJECT DETAILS: Eddy County, NM (NAD-27)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #107H

Rig Name: RKB # 25 @ 3523.00usft
Ground Level: 3498.00
+N/-S +E/-W Northing Easting Latitude Longitude
0.00 0.00 440316.50 661941.50 32.2094629 -103.8097418

DESIGN TARGET DETAILS

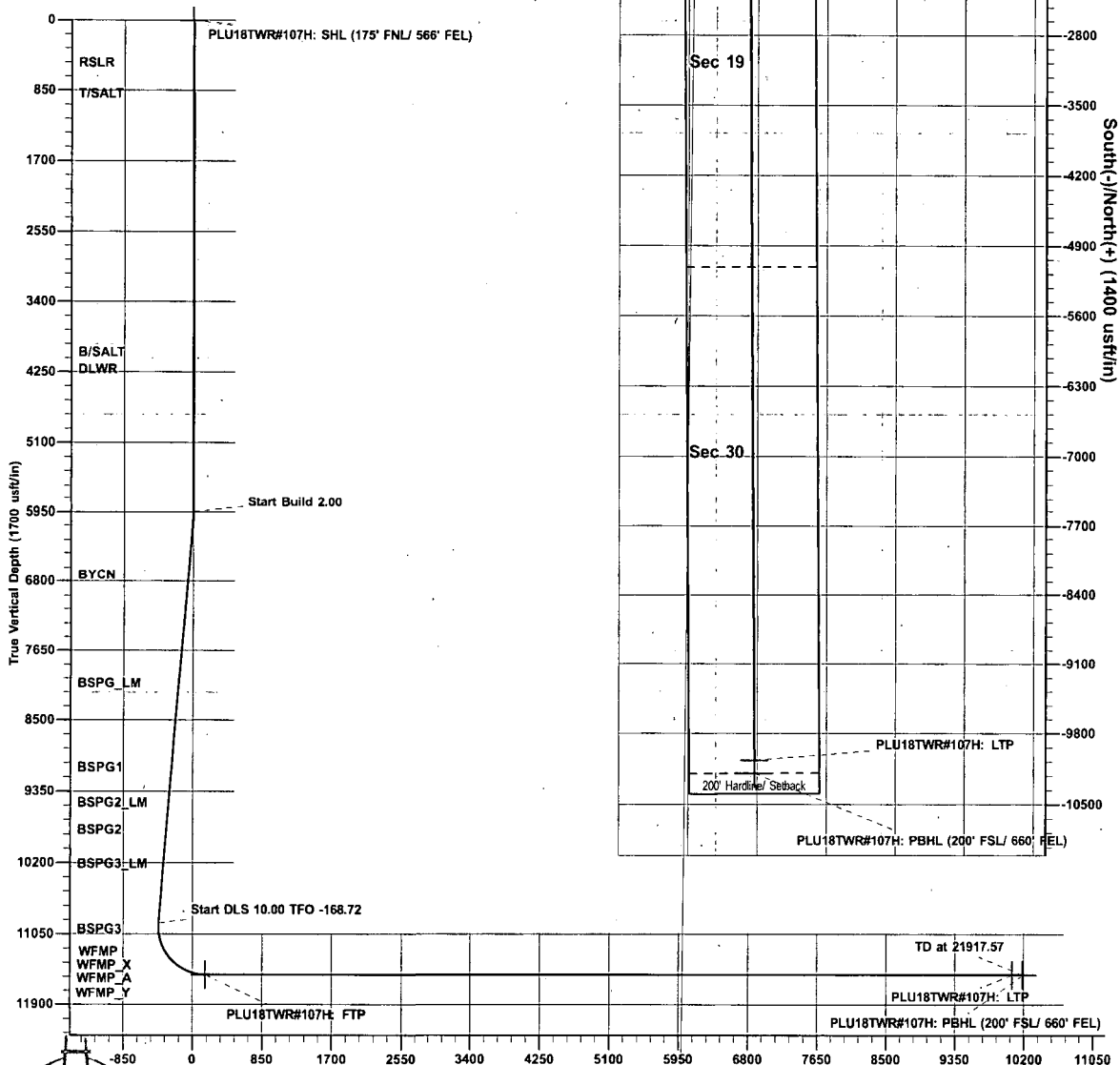
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PLU18TWR#107H: SHL (175' FNL/ 566' FEL)	0.00	0.00	0.00	440316.50	661941.50	32.2094629	-103.8097418	Point
PLU18TWR#107H: FTP	11538.00	-155.50	-92.20	440161.00	661849.30	32.2090367	-103.8100424	Point
PLU18TWR#107H: LTP	11538.00	-10059.30	-25.50	430257.20	661916.00	32.1818113	-103.8099826	Point
PLU18TWR#107H: PBHL (200' FSL/ 660' FEL)	11538.00	-10189.30	-24.60	430127.20	661916.90	32.1814540	-103.8099817	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	5940.00	0.00	0.00	5940.00	0.00	0.00	0.00	0.00	0.00
3	6189.82	5.00	348.38	6189.50	10.66	-2.19	2.00	348.38	-10.68
4	10934.53	5.00	348.38	10916.19	415.42	-85.45	0.00	-415.99	0.00
5	11883.54	90.00	179.61	11538.00	-155.50	-92.20	10.00	-168.72	154.87
6	21787.56	90.00	179.61	11538.00	-10059.30	-25.48	0.00	10058.89	0.00
7	21917.57	90.00	179.61	11538.00	-10189.30	-24.60	0.00	10188.90	0.00

FORMATION TOP DETAILS

TVDPATH	Formation
603.00	RSLR
977.00	T/SALT
4098.00	B/SALT
4303.00	DLWR
6808.00	BYCN
8138.00	BSPG LM
9153.00	BSPG1
9573.00	BSPG2 LM
9893.00	BSPG2
10298.00	BSPG3 LM
11078.00	BSPG3
11473.00	WFMP
11508.00	WFMP X
11538.00	WFMP Y



The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented. Any decisions made or wells drilled utilizing this or any other information supplied by Prototype are at the sole risk and responsibility of the user.

Vertical Section at 179.61° (1700 usft/in)

Plan: PERMIT (#107H/Wellbore #1)

Created By: Prototype Well Planning, LLC Date: 19:43, May 01 2019



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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	Poker Lake Unit 18 TWR		
Site Position:		Northing:	440,397.40 usft
From:	Map	Easting:	657,946.80 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.2097382
		Longitude:	-103.8226558
		Grid Convergence:	0.27 °

Well	#107H		
Well Position	+N/-S	-80.90 usft	Northing:
	+E/-W	3,994.70 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32.2094630
		Longitude:	-103.8097418
		Ground Level:	3,498.00 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/01/19	6.86	59.99	47,712

Design	PERMIT		
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	179.61

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	
5,940.00	0.00	0.00	5,940.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,189.82	5.00	348.38	6,189.50	10.66	-2.19	2.00	2.00	0.00	348.38	
10,934.53	5.00	348.38	10,916.19	415.42	-85.45	0.00	0.00	0.00	0.00	
11,883.54	90.00	179.61	11,538.00	-155.50	-92.20	10.00	8.96	-17.78	-168.72	PLU18TWR#107H:
21,787.56	90.00	179.61	11,538.00	-10,059.30	-25.48	0.00	0.00	0.00	0.00	PLU18TWR#107H:
21,917.57	90.00	179.61	11,538.00	-10,189.30	-24.60	0.00	0.00	0.00	0.00	PLU18TWR#107H:



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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
603.00	0.00	0.00	603.00	0.00	0.00	0.00	0.00	0.00	0.00
RSLR									
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
977.00	0.00	0.00	977.00	0.00	0.00	0.00	0.00	0.00	0.00
T/SALT									
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	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,098.00	0.00	0.00	4,098.00	0.00	0.00	0.00	0.00	0.00	0.00
B/SALT									
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,303.00	0.00	0.00	4,303.00	0.00	0.00	0.00	0.00	0.00	0.00
DLWR									
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,940.00	0.00	0.00	5,940.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	1.20	348.38	6,000.00	0.62	-0.13	-0.62	2.00	2.00	0.00
6,100.00	3.20	348.38	6,099.92	4.38	-0.90	-4.38	2.00	2.00	0.00
6,189.82	5.00	348.38	6,189.50	10.66	-2.19	-10.68	2.00	2.00	0.00
6,200.00	5.00	348.38	6,199.64	11.53	-2.37	-11.55	0.00	0.00	0.00
6,300.00	5.00	348.38	6,299.26	20.06	-4.13	-20.09	0.00	0.00	0.00
6,400.00	5.00	348.38	6,398.88	28.59	-5.88	-28.63	0.00	0.00	0.00
6,500.00	5.00	348.38	6,498.50	37.12	-7.64	-37.17	0.00	0.00	0.00
6,600.00	5.00	348.38	6,598.13	45.65	-9.39	-45.72	0.00	0.00	0.00
6,700.00	5.00	348.38	6,697.75	54.18	-11.15	-54.26	0.00	0.00	0.00
6,800.00	5.00	348.38	6,797.37	62.72	-12.90	-62.80	0.00	0.00	0.00
6,810.68	5.00	348.38	6,808.00	63.63	-13.09	-63.71	0.00	0.00	0.00
BYCN									
6,900.00	5.00	348.38	6,896.99	71.25	-14.66	-71.34	0.00	0.00	0.00
7,000.00	5.00	348.38	6,996.61	79.78	-16.41	-79.89	0.00	0.00	0.00
7,100.00	5.00	348.38	7,096.23	88.31	-18.16	-88.43	0.00	0.00	0.00
7,200.00	5.00	348.38	7,195.85	96.84	-19.92	-96.97	0.00	0.00	0.00
7,300.00	5.00	348.38	7,295.47	105.37	-21.67	-105.51	0.00	0.00	0.00
7,400.00	5.00	348.38	7,395.09	113.90	-23.43	-114.06	0.00	0.00	0.00
7,500.00	5.00	348.38	7,494.71	122.43	-25.18	-122.60	0.00	0.00	0.00
7,600.00	5.00	348.38	7,594.33	130.96	-26.94	-131.14	0.00	0.00	0.00
7,700.00	5.00	348.38	7,693.95	139.49	-28.69	-139.68	0.00	0.00	0.00
7,800.00	5.00	348.38	7,793.57	148.02	-30.45	-148.23	0.00	0.00	0.00
7,900.00	5.00	348.38	7,893.19	156.55	-32.20	-156.77	0.00	0.00	0.00
8,000.00	5.00	348.38	7,992.81	165.08	-33.96	-165.31	0.00	0.00	0.00
8,100.00	5.00	348.38	8,092.43	173.62	-35.71	-173.85	0.00	0.00	0.00
8,145.75	5.00	348.38	8,138.00	177.52	-36.52	-177.76	0.00	0.00	0.00
BSPG LM									
8,200.00	5.00	348.38	8,192.05	182.15	-37.47	-182.40	0.00	0.00	0.00
8,300.00	5.00	348.38	8,291.67	190.68	-39.22	-190.94	0.00	0.00	0.00
8,400.00	5.00	348.38	8,391.29	199.21	-40.98	-199.48	0.00	0.00	0.00
8,500.00	5.00	348.38	8,490.91	207.74	-42.73	-208.02	0.00	0.00	0.00
8,600.00	5.00	348.38	8,590.53	216.27	-44.49	-216.57	0.00	0.00	0.00
8,700.00	5.00	348.38	8,690.15	224.80	-46.24	-225.11	0.00	0.00	0.00
8,800.00	5.00	348.38	8,789.77	233.33	-48.00	-233.65	0.00	0.00	0.00
8,900.00	5.00	348.38	8,889.39	241.86	-49.75	-242.19	0.00	0.00	0.00
9,000.00	5.00	348.38	8,989.01	250.39	-51.51	-250.74	0.00	0.00	0.00
9,100.00	5.00	348.38	9,088.63	258.92	-53.26	-259.28	0.00	0.00	0.00
9,164.62	5.00	348.38	9,153.00	264.44	-54.39	-264.80	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1:13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
BSPG1									
9,200.00	5.00	348.38	9,188.25	267.45	-55.02	-267.82	0.00	0.00	0.00
9,300.00	5.00	348.38	9,287.87	275.98	-56.77	-276.36	0.00	0.00	0.00
9,400.00	5.00	348.38	9,387.49	284.51	-58.52	-284.91	0.00	0.00	0.00
9,500.00	5.00	348.38	9,487.11	293.05	-60.28	-293.45	0.00	0.00	0.00
9,586.22	5.00	348.38	9,573.00	300.40	-61.79	-300.81	0.00	0.00	0.00
BSPG2 LM									
9,600.00	5.00	348.38	9,586.73	301.58	-62.03	-301.99	0.00	0.00	0.00
9,700.00	5.00	348.38	9,686.35	310.11	-63.79	-310.53	0.00	0.00	0.00
9,800.00	5.00	348.38	9,785.97	318.64	-65.54	-319.08	0.00	0.00	0.00
9,900.00	5.00	348.38	9,885.59	327.17	-67.30	-327.62	0.00	0.00	0.00
9,907.44	5.00	348.38	9,893.00	327.80	-67.43	-328.25	0.00	0.00	0.00
BSPG2									
10,000.00	5.00	348.38	9,985.21	335.70	-69.05	-336.16	0.00	0.00	0.00
10,100.00	5.00	348.38	10,084.83	344.23	-70.81	-344.70	0.00	0.00	0.00
10,200.00	5.00	348.38	10,184.45	352.76	-72.56	-353.25	0.00	0.00	0.00
10,300.00	5.00	348.38	10,284.07	361.29	-74.32	-361.79	0.00	0.00	0.00
10,313.99	5.00	348.38	10,298.00	362.48	-74.56	-362.98	0.00	0.00	0.00
BSPG3 LM									
10,400.00	5.00	348.38	10,383.69	369.82	-76.07	-370.33	0.00	0.00	0.00
10,500.00	5.00	348.38	10,483.31	378.35	-77.83	-378.87	0.00	0.00	0.00
10,600.00	5.00	348.38	10,582.93	386.88	-79.58	-387.42	0.00	0.00	0.00
10,700.00	5.00	348.38	10,682.55	395.41	-81.34	-395.96	0.00	0.00	0.00
10,800.00	5.00	348.38	10,782.17	403.95	-83.09	-404.50	0.00	0.00	0.00
10,900.00	5.00	348.38	10,881.79	412.48	-84.85	-413.04	0.00	0.00	0.00
10,934.53	5.00	348.38	10,916.19	415.42	-85.45	-415.99	0.00	0.00	0.00
10,950.00	3.49	343.41	10,931.61	416.53	-85.72	-417.11	10.00	-9.72	-32.14
11,000.00	1.91	210.27	10,981.58	417.27	-86.58	-417.85	10.00	-3.16	-266.27
11,050.00	6.72	187.93	11,031.43	413.65	-87.40	-414.24	10.00	9.61	-44.68
11,097.17	11.40	184.46	11,078.00	406.27	-88.15	-406.86	10.00	9.94	-7.36
BSPG3									
11,100.00	11.69	184.34	11,080.77	405.70	-88.19	-406.29	10.00	9.96	-4.25
11,150.00	16.67	182.87	11,129.23	393.48	-88.93	-394.08	10.00	9.98	-2.93
11,200.00	21.67	182.07	11,176.44	377.08	-89.63	-377.68	10.00	9.99	-1.61
11,250.00	26.66	181.56	11,222.05	356.63	-90.27	-357.24	10.00	9.99	-1.03
11,300.00	31.66	181.20	11,265.70	332.28	-90.85	-332.89	10.00	9.99	-0.72
11,350.00	36.66	180.93	11,307.06	304.22	-91.36	-304.84	10.00	10.00	-0.54
11,400.00	41.66	180.71	11,345.82	272.66	-91.81	-273.28	10.00	10.00	-0.43
11,450.00	46.65	180.54	11,381.68	237.85	-92.19	-238.47	10.00	10.00	-0.35
11,500.00	51.65	180.39	11,414.37	200.04	-92.49	-200.66	10.00	10.00	-0.30
11,550.00	56.65	180.26	11,443.64	159.52	-92.71	-160.15	10.00	10.00	-0.26
11,600.00	61.65	180.14	11,469.27	116.61	-92.86	-117.24	10.00	10.00	-0.23
11,607.95	62.45	180.12	11,473.00	109.58	-92.88	-110.21	10.00	10.00	-0.22
WFMP									
11,650.00	66.65	180.04	11,491.07	71.63	-92.93	-72.26	10.00	10.00	-0.21
11,697.29	71.38	179.94	11,508.00	27.48	-92.92	-28.11	10.00	10.00	-0.20
WFMP X									
11,700.00	71.65	179.94	11,508.86	24.91	-92.92	-25.55	10.00	10.00	-0.19
11,750.00	76.65	179.85	11,522.51	-23.17	-92.83	22.54	10.00	10.00	-0.18
11,800.00	81.65	179.76	11,531.92	-72.26	-92.66	71.63	10.00	10.00	-0.18
11,850.00	86.65	179.67	11,537.02	-121.98	-92.41	121.35	10.00	10.00	-0.17
11,883.54	90.00	179.61	11,538.00	-155.50	-92.20	154.87	10.00	10.00	-0.17
LP									



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
11,900.00	90.00	179.61	11,538.00	-171.96	-92.09	171.33	0.00	0.00	0.00
12,000.00	90.00	179.61	11,538.00	-271.96	-91.42	271.33	0.00	0.00	0.00
12,100.00	90.00	179.61	11,538.00	-371.96	-90.74	371.33	0.00	0.00	0.00
12,200.00	90.00	179.61	11,538.00	-471.95	-90.07	471.33	0.00	0.00	0.00
12,300.00	90.00	179.61	11,538.00	-571.95	-89.39	571.33	0.00	0.00	0.00
12,400.00	90.00	179.61	11,538.00	-671.95	-88.72	671.33	0.00	0.00	0.00
12,500.00	90.00	179.61	11,538.00	-771.95	-88.05	771.33	0.00	0.00	0.00
12,600.00	90.00	179.61	11,538.00	-871.95	-87.37	871.33	0.00	0.00	0.00
12,700.00	90.00	179.61	11,538.00	-971.94	-86.70	971.33	0.00	0.00	0.00
12,800.00	90.00	179.61	11,538.00	-1,071.94	-86.03	1,071.33	0.00	0.00	0.00
12,900.00	90.00	179.61	11,538.00	-1,171.94	-85.35	1,171.33	0.00	0.00	0.00
13,000.00	90.00	179.61	11,538.00	-1,271.94	-84.68	1,271.33	0.00	0.00	0.00
13,100.00	90.00	179.61	11,538.00	-1,371.93	-84.00	1,371.33	0.00	0.00	0.00
13,200.00	90.00	179.61	11,538.00	-1,471.93	-83.33	1,471.33	0.00	0.00	0.00
13,300.00	90.00	179.61	11,538.00	-1,571.93	-82.66	1,571.33	0.00	0.00	0.00
13,400.00	90.00	179.61	11,538.00	-1,671.93	-81.98	1,671.33	0.00	0.00	0.00
13,500.00	90.00	179.61	11,538.00	-1,771.93	-81.31	1,771.33	0.00	0.00	0.00
13,600.00	90.00	179.61	11,538.00	-1,871.92	-80.64	1,871.33	0.00	0.00	0.00
13,700.00	90.00	179.61	11,538.00	-1,971.92	-79.96	1,971.33	0.00	0.00	0.00
13,800.00	90.00	179.61	11,538.00	-2,071.92	-79.29	2,071.33	0.00	0.00	0.00
13,900.00	90.00	179.61	11,538.00	-2,171.92	-78.61	2,171.33	0.00	0.00	0.00
14,000.00	90.00	179.61	11,538.00	-2,271.91	-77.94	2,271.33	0.00	0.00	0.00
14,100.00	90.00	179.61	11,538.00	-2,371.91	-77.27	2,371.33	0.00	0.00	0.00
14,200.00	90.00	179.61	11,538.00	-2,471.91	-76.59	2,471.33	0.00	0.00	0.00
14,300.00	90.00	179.61	11,538.00	-2,571.91	-75.92	2,571.33	0.00	0.00	0.00
14,400.00	90.00	179.61	11,538.00	-2,671.90	-75.25	2,671.33	0.00	0.00	0.00
14,500.00	90.00	179.61	11,538.00	-2,771.90	-74.57	2,771.33	0.00	0.00	0.00
14,600.00	90.00	179.61	11,538.00	-2,871.90	-73.90	2,871.33	0.00	0.00	0.00
14,700.00	90.00	179.61	11,538.00	-2,971.90	-73.23	2,971.33	0.00	0.00	0.00
14,800.00	90.00	179.61	11,538.00	-3,071.90	-72.55	3,071.33	0.00	0.00	0.00
14,900.00	90.00	179.61	11,538.00	-3,171.89	-71.88	3,171.33	0.00	0.00	0.00
15,000.00	90.00	179.61	11,538.00	-3,271.89	-71.20	3,271.33	0.00	0.00	0.00
15,100.00	90.00	179.61	11,538.00	-3,371.89	-70.53	3,371.33	0.00	0.00	0.00
15,200.00	90.00	179.61	11,538.00	-3,471.89	-69.86	3,471.33	0.00	0.00	0.00
15,300.00	90.00	179.61	11,538.00	-3,571.88	-69.18	3,571.33	0.00	0.00	0.00
15,400.00	90.00	179.61	11,538.00	-3,671.88	-68.51	3,671.33	0.00	0.00	0.00
15,500.00	90.00	179.61	11,538.00	-3,771.88	-67.84	3,771.33	0.00	0.00	0.00
15,600.00	90.00	179.61	11,538.00	-3,871.88	-67.16	3,871.33	0.00	0.00	0.00
15,700.00	90.00	179.61	11,538.00	-3,971.88	-66.49	3,971.33	0.00	0.00	0.00
15,800.00	90.00	179.61	11,538.00	-4,071.87	-65.81	4,071.33	0.00	0.00	0.00
15,900.00	90.00	179.61	11,538.00	-4,171.87	-65.14	4,171.33	0.00	0.00	0.00
16,000.00	90.00	179.61	11,538.00	-4,271.87	-64.47	4,271.33	0.00	0.00	0.00
16,100.00	90.00	179.61	11,538.00	-4,371.87	-63.79	4,371.33	0.00	0.00	0.00
16,200.00	90.00	179.61	11,538.00	-4,471.86	-63.12	4,471.33	0.00	0.00	0.00
16,300.00	90.00	179.61	11,538.00	-4,571.86	-62.45	4,571.33	0.00	0.00	0.00
16,400.00	90.00	179.61	11,538.00	-4,671.86	-61.77	4,671.33	0.00	0.00	0.00
16,500.00	90.00	179.61	11,538.00	-4,771.86	-61.10	4,771.33	0.00	0.00	0.00
16,600.00	90.00	179.61	11,538.00	-4,871.86	-60.42	4,871.33	0.00	0.00	0.00
16,700.00	90.00	179.61	11,538.00	-4,971.85	-59.75	4,971.33	0.00	0.00	0.00
16,800.00	90.00	179.61	11,538.00	-5,071.85	-59.08	5,071.33	0.00	0.00	0.00
16,900.00	90.00	179.61	11,538.00	-5,171.85	-58.40	5,171.33	0.00	0.00	0.00
17,000.00	90.00	179.61	11,538.00	-5,271.85	-57.73	5,271.33	0.00	0.00	0.00
17,100.00	90.00	179.61	11,538.00	-5,371.84	-57.06	5,371.33	0.00	0.00	0.00
17,200.00	90.00	179.61	11,538.00	-5,471.84	-56.38	5,471.33	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
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)
17,300.00	90.00	179.61	11,538.00	-5,571.84	-55.71	5,571.33	0.00	0.00	0.00
17,400.00	90.00	179.61	11,538.00	-5,671.84	-55.04	5,671.33	0.00	0.00	0.00
17,500.00	90.00	179.61	11,538.00	-5,771.83	-54.36	5,771.33	0.00	0.00	0.00
17,600.00	90.00	179.61	11,538.00	-5,871.83	-53.69	5,871.33	0.00	0.00	0.00
17,700.00	90.00	179.61	11,538.00	-5,971.83	-53.01	5,971.33	0.00	0.00	0.00
17,800.00	90.00	179.61	11,538.00	-6,071.83	-52.34	6,071.33	0.00	0.00	0.00
17,900.00	90.00	179.61	11,538.00	-6,171.83	-51.67	6,171.33	0.00	0.00	0.00
18,000.00	90.00	179.61	11,538.00	-6,271.82	-50.99	6,271.33	0.00	0.00	0.00
18,100.00	90.00	179.61	11,538.00	-6,371.82	-50.32	6,371.33	0.00	0.00	0.00
18,200.00	90.00	179.61	11,538.00	-6,471.82	-49.65	6,471.33	0.00	0.00	0.00
18,300.00	90.00	179.61	11,538.00	-6,571.82	-48.97	6,571.33	0.00	0.00	0.00
18,400.00	90.00	179.61	11,538.00	-6,671.81	-48.30	6,671.33	0.00	0.00	0.00
18,500.00	90.00	179.61	11,538.00	-6,771.81	-47.62	6,771.33	0.00	0.00	0.00
18,600.00	90.00	179.61	11,538.00	-6,871.81	-46.95	6,871.33	0.00	0.00	0.00
18,700.00	90.00	179.61	11,538.00	-6,971.81	-46.28	6,971.33	0.00	0.00	0.00
18,800.00	90.00	179.61	11,538.00	-7,071.81	-45.60	7,071.33	0.00	0.00	0.00
18,900.00	90.00	179.61	11,538.00	-7,171.80	-44.93	7,171.33	0.00	0.00	0.00
19,000.00	90.00	179.61	11,538.00	-7,271.80	-44.26	7,271.33	0.00	0.00	0.00
19,100.00	90.00	179.61	11,538.00	-7,371.80	-43.58	7,371.33	0.00	0.00	0.00
19,200.00	90.00	179.61	11,538.00	-7,471.80	-42.91	7,471.33	0.00	0.00	0.00
19,300.00	90.00	179.61	11,538.00	-7,571.79	-42.23	7,571.33	0.00	0.00	0.00
19,400.00	90.00	179.61	11,538.00	-7,671.79	-41.56	7,671.33	0.00	0.00	0.00
19,500.00	90.00	179.61	11,538.00	-7,771.79	-40.89	7,771.33	0.00	0.00	0.00
19,600.00	90.00	179.61	11,538.00	-7,871.79	-40.21	7,871.33	0.00	0.00	0.00
19,700.00	90.00	179.61	11,538.00	-7,971.78	-39.54	7,971.33	0.00	0.00	0.00
19,800.00	90.00	179.61	11,538.00	-8,071.78	-38.87	8,071.33	0.00	0.00	0.00
19,900.00	90.00	179.61	11,538.00	-8,171.78	-38.19	8,171.33	0.00	0.00	0.00
20,000.00	90.00	179.61	11,538.00	-8,271.78	-37.52	8,271.33	0.00	0.00	0.00
20,100.00	90.00	179.61	11,538.00	-8,371.78	-36.85	8,371.33	0.00	0.00	0.00
20,200.00	90.00	179.61	11,538.00	-8,471.77	-36.17	8,471.33	0.00	0.00	0.00
20,300.00	90.00	179.61	11,538.00	-8,571.77	-35.50	8,571.33	0.00	0.00	0.00
20,400.00	90.00	179.61	11,538.00	-8,671.77	-34.82	8,671.33	0.00	0.00	0.00
20,500.00	90.00	179.61	11,538.00	-8,771.77	-34.15	8,771.33	0.00	0.00	0.00
20,600.00	90.00	179.61	11,538.00	-8,871.76	-33.48	8,871.33	0.00	0.00	0.00
20,700.00	90.00	179.61	11,538.00	-8,971.76	-32.80	8,971.33	0.00	0.00	0.00
20,800.00	90.00	179.61	11,538.00	-9,071.76	-32.13	9,071.33	0.00	0.00	0.00
20,900.00	90.00	179.61	11,538.00	-9,171.76	-31.46	9,171.33	0.00	0.00	0.00
21,000.00	90.00	179.61	11,538.00	-9,271.76	-30.78	9,271.33	0.00	0.00	0.00
21,100.00	90.00	179.61	11,538.00	-9,371.75	-30.11	9,371.33	0.00	0.00	0.00
21,200.00	90.00	179.61	11,538.00	-9,471.75	-29.43	9,471.33	0.00	0.00	0.00
21,300.00	90.00	179.61	11,538.00	-9,571.75	-28.76	9,571.33	0.00	0.00	0.00
21,400.00	90.00	179.61	11,538.00	-9,671.75	-28.09	9,671.33	0.00	0.00	0.00
21,500.00	90.00	179.61	11,538.00	-9,771.74	-27.41	9,771.33	0.00	0.00	0.00
21,600.00	90.00	179.61	11,538.00	-9,871.74	-26.74	9,871.33	0.00	0.00	0.00
21,700.00	90.00	179.61	11,538.00	-9,971.74	-26.07	9,971.33	0.00	0.00	0.00
21,787.56	90.00	179.61	11,538.00	-10,059.30	-25.48	10,058.89	0.00	0.00	0.00
21,800.00	90.00	179.61	11,538.00	-10,071.74	-25.39	10,071.33	0.00	0.00	0.00
21,900.00	90.00	179.61	11,538.00	-10,171.73	-24.72	10,171.33	0.00	0.00	0.00
21,917.57	90.00	179.61	11,538.00	-10,189.30	-24.60	10,188.90	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #107H
Company:	XTO Energy	TVD Reference:	RKB = 25' @ 3523.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 25' @ 3523.00usft
Site:	Poker Lake Unit 18 TWR	North Reference:	Grid
Well:	#107H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Design Targets										
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
- Shape										
PLU18TWR#107H: SI	0.00	0.00	0.00	0.00	0.00	440,316.50	661,941.50	32.2094630	-103.8097418	
- plan hits target center										
- Point										
PLU18TWR#107H: PI	0.00	0.00	11,538.00	-10,189.30	-24.60	430,127.20	661,916.90	32.1814540	-103.8099817	
- plan hits target center										
- Point										
PLU18TWR#107H: LI	0.00	0.00	11,538.00	-10,059.30	-25.50	430,257.20	661,916.00	32.1818114	-103.8099825	
- plan misses target center by 0.02usft at 21787.56usft MD (11538.00 TVD, -10059.30 N, -25.48 E)										
- Point										
PLU18TWR#107H: F	0.00	0.00	11,538.00	-155.50	-92.20	440,161.00	661,849.30	32.2090367	-103.8100424	
- plan hits target center										
- Point										

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(°)	
603.00	603.00	RSLR				
977.00	977.00	T/SALT				
4,098.00	4,098.00	B/SALT				
4,303.00	4,303.00	DLWR				
6,810.68	6,808.00	BYCN				
8,145.75	8,138.00	BSPG_LM				
9,164.62	9,153.00	BSPG1				
9,586.22	9,573.00	BSPG2_LM				
9,907.44	9,893.00	BSPG2				
10,313.99	10,298.00	BSPG3_LM				
11,097.17	11,078.00	BSPG3				
11,607.95	11,473.00	WFMP				
11,697.29	11,508.00	WFMP_X				
11,883.54	11,538.00	LP				

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Submit Original
to Appropriate
District Office

GAS CAPTURE PLAN

Date: 04/26/2019

☒ Original Operator & OGRID No.: XTO Permian Operating, LLC [373075]
☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility: Poker Lake Unit 18 TWR East CTB

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Poker Lake Unit18 TWR 107H		A-19-24S-31E	175'FNL & 566'FEL	2800	Flared/Sold	
Poker Lake Unit18 TWR 121H		1-19-24S-31E	75'FNL & 535'FWL	3000	Flared/Sold	
Poker Lake Unit18 TWR 152H		1-19-24S-31E	40'FNL & 535'FWL	2800	Flared/Sold	
Poker Lake Unit18 TWR 161H		1-19-24S-31E	5'FNL & 535'FWL	4800	Flared/Sold	
Poker Lake Unit18 TWR 162H		1-19-24S-31E	5'FNL & 785'FWL	4800	Flared/Sold	
Poker Lake Unit18 TWR 122H		1-19-24S-31E	40'FNL & 785'FWL	4300	Flared/Sold	
Poker Lake Unit18 TWR 103H		C-19-24S-31E	648'FNL & 2420'FWL	2600	Flared/Sold	
Poker Lake Unit18 TWR 153H		C-19-24S-31E	613'FNL & 2420'FWL	2700	Flared/Sold	
Poker Lake Unit18 TWR 164H		C-19-24S-31E	578'FNL & 2420'FWL	2600	Flared/Sold	
Poker Lake Unit18 TWR 154H		C-19-24S-31E	578'FNL & 2670'FWL	4300	Flared/Sold	
Poker Lake Unit18 TWR 124H		C-19-24S-31E	613'FNL & 2670'FWL	2800	Flared/Sold	
Poker Lake Unit18 TWR 126H		B-19-24S-31E	265'FNL & 1856'FEL	4800	Flared/Sold	
Poker Lake Unit18 TWR 166H		B-19-24S-31E	230'FNL & 1856'FEL	3300	Flared/Sold	
Poker Lake Unit18 TWR 165H		B-19-24S-31E	230'FNL & 2106'FEL	2900	Flared/Sold	
Poker Lake Unit18 TWR 155H		B-19-24S-31E	265'FNL & 2106'FEL	3000	Flared/Sold	
Poker Lake Unit18 TWR 125H		B-19-24S-31E	300'FNL & 2106'FEL	2600	Flared/Sold	
Poker Lake Unit18 TWR 128H		A-19-24S-31E	140'FNL & 566'FEL	2700	Flared/Sold	
Poker Lake Unit18 TWR 158H		A-19-24S-31E	105'FNL & 566'FEL	2600	Flared/Sold	
Poker Lake Unit18 TWR 157H		A-19-24S-31E	105'FNL & 816'FEL	4300	Flared/Sold	
Poker Lake Unit18 TWR 167H		A-19-24S-31E	140'FNL & 816'FEL	4300	Flared/Sold	
Poker Lake Unit18 TWR 127H		A-19-24S-31E	175'FNL & 816'FEL	2800	Flared/Sold	
Poker Lake Unit18 TWR 102H		1-19-24S-31E	75'FNL & 785'FWL	2800	Flared/Sold	
Poker Lake Unit18 TWR 104H		C-19-24S-31E	648'FNL & 2670'FWL	2800	Flared/Sold	
Poker Lake Unit18 TWR 105H		B-19-24S-31E	300'FNL & 1856'FEL	2800	Flared/Sold	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Lucid and will be connected to Lucid low/high pressure gathering system located in Eddy County, New Mexico. It will require 760.75' of pipeline to connect the facility to low/high pressure gathering system. XTO Permian Operating, LLC provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, XTO Permian Operating, LLC and Lucid have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Red Hills Plant, Sec. 13, T24S, R33E or Roadrunner, Sec. 32, T32S, R28E, Eddy County. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Lucid system at that time. Based on current information, it is XTO Permian Operating, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Access road engineering design? N

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 Poker Lake Unit 18 TWR area is accessed from the intersection of Jal Hwy (US Hwy 285) and Twin Wells road. Go approximately 7.0 miles. Turn left (Southeast) onto lease road and go approx. 0.5 miles. Locations will be to the East. Transportation Plan identifying existing roads that will be used to access the project area is included from Frank's Surveying marked as, 'Topographical and Access Road Map.' 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. The project is located approximately 50 miles from the town of Malaga.

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

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

PLU_18_TWR_1_Mile_20190523133246.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Two 600 x 600 pads were staked with the BLM for construction and use as Central Tank Batteries (CTBs). The pads are located in Section 19-T24S-R31E NMPM, Eddy County, NM. Plats of the proposed facilities are attached. Only the area necessary to maintain facilities will be disturbed. Due to air permitting timeframes and anticipated reserves, two facilities are anticipated to be necessary for full area development. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. In the event the wells are found productive, 24-10 or less composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750psi) will be buried within proposed lease road corridors where possible from the proposed wells to the PLU 18 West and East CTBs where the oil, gas, and water will be metered and appropriately separated. If XTO Permian Operating, LLC decides to run surface lines, 24-4 or less flexpipe or steel flowlines with a max. safety psi rating of 750 (op pressure: 125psi) will be laid within proposed lease road corridors from the proposed wells to the proposed CTBs. An additional 24-6 high pressure gas lines will be buried within the proposed lease road corridors where possible for gas lift, fuel gas, and water. The distance of proposed flowlines per well will be approximately 6,296.93 or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors where possible. A plat of the proposed flowline route for the lease is attached. *5,351 of pipeline in Sec. 19, T24S, R31E was approved with the Row 2 East TL corridor sundry (DOI-BLM-NM-P020-2018-0522 EA). A gas purchaser has been identified. Two 110 corridors are requested to connect with the Poker Lake Unit Row 2 pipeline extending from the PLU 18 TWR West and East CTBs. XTO Permian Operating, LLC will be installing the line with anticipated risers located on the CTBs. The gas purchaser will be responsible for permitting their own gas lines and compressor station, where applicable, through private, state, and federal lands. PLU 18 TWR West GSL approx. Length: 700.04. PLU 18 TWR East GSL approx. Length: 760.75. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. There are two flares associated with the PLU 18 TWR development. The flare stacks will be 50x50 and located on the approved CTB pads. Flares will be sized and rated based on anticipated reserves and recovery of gas throughout the development area with 150 of distance between all facility equipment, road and well pad locations for safety purposes. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 times the capacity of the largest tank and away from cut or fill areas. All electrical poles and lines will be placed within existing and proposed lease roads corridors. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 2302.41 of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

Production Facilities map:

PLU_18_TWR_CTBW_20190529083106.pdf

PLU_18_TWR_CTBE_20190523133555.pdf

PLU_18_TWR_FL_20191009105209.pdf

PLU_18_TWR_GS_20191009105226.pdf

PLU_18_TWR_OHE_20191009105247.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Water source type: OTHER

Describe type: Fresh Water; in Section 6, T25S-R29E

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

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT
PRIVATE CONTRACT
PRIVATE CONTRACT

Water source transport method: TRUCKING
TRUCKING
TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 33500

Source volume (acre-feet): 4.31791873

Source volume (gal): 1407000

Water source type: OTHER

Describe type: Fresh Water; Section 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
PRIVATE CONTRACT
PRIVATE CONTRACT
PRIVATE CONTRACT

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Water source transport method: TRUCKING

TRUCKING

TRUCKING

TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 33500

Source volume (acre-feet): 4.31791873

Source volume (gal): 1407000

Water source and transportation map:

PLU_18_TWR_107H_Wtr_20190806083116.pdf

Water source comments:

New water well? N

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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: Federal Caliche Pit, Section 17-T25S-R30E Pit 2: Federal Caliche Pit, Section 34-T25S-R29E

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

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

Safe containment 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.

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 containment 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.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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

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

Reserve Pit

Reserve Pit being used? N

Temporary disposal of produced water into reserve pit? NO

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

PLU_18_TWR_107H_Well_20190806083147.pdf

Comments: This is a multi-well pad.

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: POKER LAKE UNIT 18 TWR

Multiple Well Pad Number: 4

Recontouring attachment:

PLU_18_TWR_Int_Rec_Pad2_20190523133820.pdf

PLU_18_TWR_Int_Rec_Pad1_20190523133808.pdf

PLU_18_TWR_Int_Rec_Pad4_20190523133841.pdf

PLU_18_TWR_Int_Rec_Pad3_20190523133830.pdf

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

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Well pad proposed disturbance (acres): 22.97	Well pad interim reclamation (acres): 7.68	Well pad long term disturbance (acres): 15.29
Road proposed disturbance (acres): 5.27	Road interim reclamation (acres): 0	Road long term disturbance (acres): 5.27
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 8.03	Pipeline interim reclamation (acres): 8.03	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 16.53	Other interim reclamation (acres): 0	Other long term disturbance (acres): 16.53
Total proposed disturbance: 52.8	Total interim reclamation: 15.709999999999999	Total long term disturbance: 37.09

Disturbance Comments:

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

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

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

Existing Vegetation at the well pad: Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona-Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation Community at other disturbances attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre
-----------	-------------

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

Last Name:

Phone:

Email:

Seedbed prep: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

Seed BMP: If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Seed method: Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment 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:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

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: OTHER

Describe: CTB

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: OTHER

Describe: Flowline

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: OTHER

Describe: Electric

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? Y

Use APD as ROW? Y

ROW Type(s): 281001 ROW - ROADS, 288100 ROW - O&G Pipeline, 288101 ROW - O&G Facility Sites, 289001 ROW - O&G Well Pad, FLPMA (Powerline)

ROW Applications

SUPO Additional Information: XTO requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Once activities are completed, XTO will coordinate interim reclamation with the appropriate BLM personnel. The proposed project is within the PA. A MOA payment has been submitted to the Bureau of Land Management. Arch report for Gas Sales line submitted to BLM.

Use a previously conducted onsite? Y

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

Other SUPO Attachment

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

PLU_18_TWR_Arch_PA_20190523134439.pdf

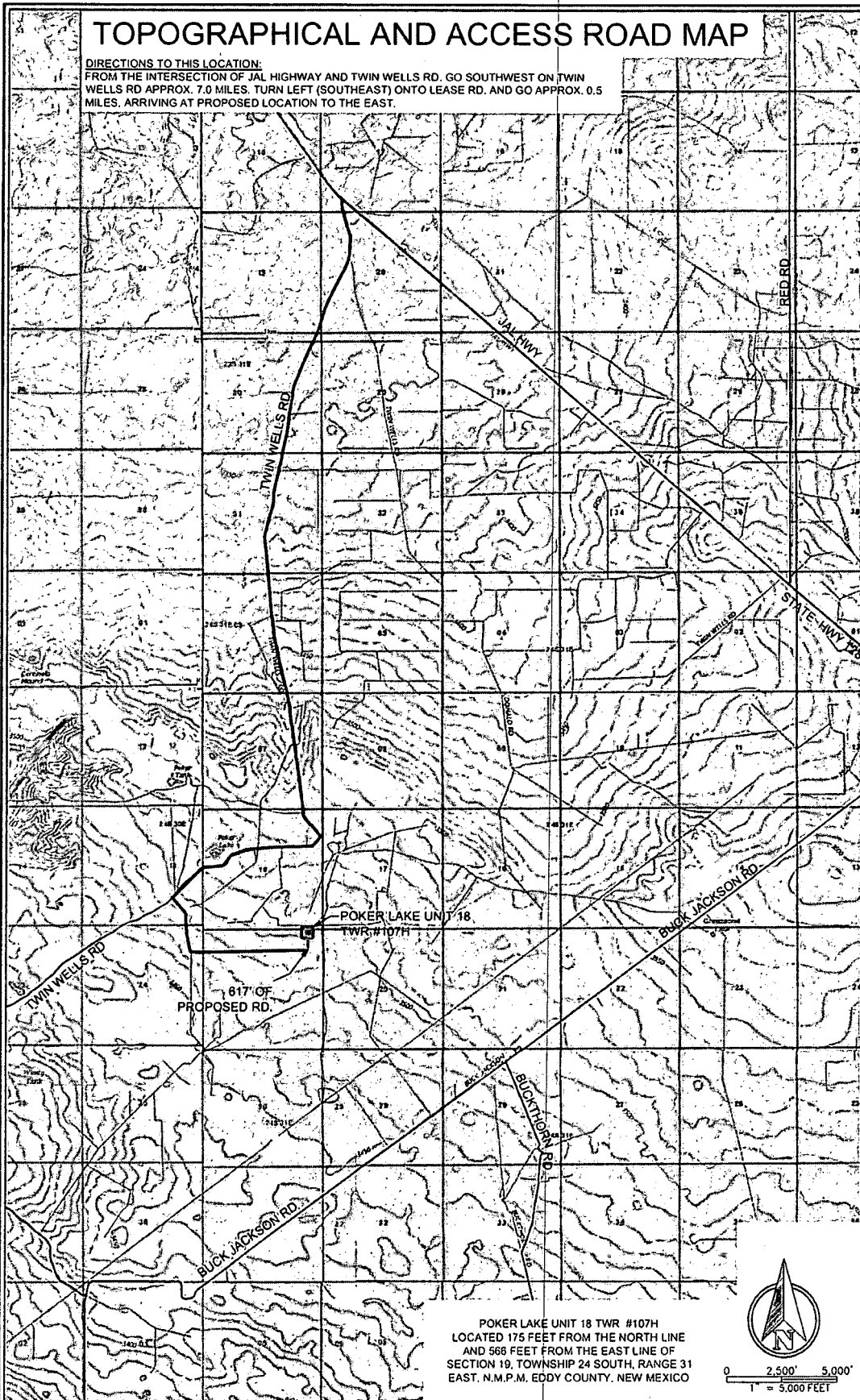
PLU_18_TWR_GS_Arch_20190801112800.pdf

PLU_18_TWR_SUPO_20191009105604.pdf

TOPOGRAPHICAL AND ACCESS ROAD MAP

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF JAL HIGHWAY AND TWIN WELLS RD. GO SOUTHWEST ON TWIN WELLS RD APPROX. 7.0 MILES. TURN LEFT (SOUTHEAST) ONTO LEASE RD. AND GO APPROX. 0.5 MILES. ARRIVING AT PROPOSED LOCATION TO THE EAST.



POKER LAKE UNIT 18 TWR #107H
LOCATED 175 FEET FROM THE NORTH LINE
AND 568 FEET FROM THE EAST LINE OF
SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31
EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO



0 2,500' 5,000'
1" = 5,000 FEET



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THPL Firm 179571 THPLS Firm 10194887
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DATE:	4-26-2019	PROJECT NO:	2019030731
DRAWN BY:	LB/C	SCALE:	1" = 5,000'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE/RR	REVISION:	0

LINE TABLE "A"		
LINE	BEARING	DISTANCE
L1	N 89°38'09" E	5,349.83'

LINE TABLE "B"		
L2	N 00°21'02" W	723.29'

LINE TABLE "C"		
L3	S 00°22'15" E	130.53'

LINE TABLE "D"		
L4	N 00°16'34" W	147.55'

LINE TABLE "E"		
L5	N 00°21'12" W	494.10'

LINE TABLE "F"		
L6	S 00°19'42" E	190.36'

LINE TABLE "G"		
L7	N 00°22'04" W	616.98'

TOTAL LENGTH = 7,652.64 FEET
OR 463.80 RODS

POKER LAKE UNIT 18 TWR PROPOSED ACCESS ROADS DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 7,652.64 FEET, 463.80 RODS, OR 1.45 MILES IN LENGTH CROSSING SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE OF ROAD SURVEY, COMPRISING OF 5.20 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

LOT 1 SECTION 19 = 2,243.97 FEET = 136.00 RODS = 1.52 ACRES
NE/4 NW/4 SECTION 19 = 1,466.31 FEET = 88.87 RODS = 1.00 ACRES
NW/4 NE/4 SECTION 19 = 1,814.56 FEET = 109.97 RODS = 1.24 ACRES
NE/4 NE/4 SECTION 19 = 2,127.80 FEET = 128.96 RODS = 1.44 ACRES

GENERAL NOTES

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

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

DATE: 10-04-2019
DRAWN BY: AW
CHECKED BY: DH
FIELD CREW: DL/RE
PROJECT NO: 2018010176
SCALE: 1" = 500'
SHEET: 2 OF 2
REVISION: 2

PLAT OF:
A PROPOSED CENTERLINE OF
ACCESS ROAD FOR:
XTO PERMIAN OPERATING, LLC.

POKER LAKE UNIT 18 TWR
SITUATED IN SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



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

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

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[illegible]

SECTION 24
TOWNSHIP 24 SOUTH, RANGE 30 EAST
NEW MEXICO PRIME MERIDIAN

18

1 1/2" IRON PIPE W/BRASS
CAP FOUND IN ROCK MOUND

NE/4 NE/4

N 12°35'47" W 1,170.87' (TIE)

NW/4 NW/4

P.O.B.

NAD 83 (NME)
Y = 439,384.89
X = 698,600.49

N 89°42'56" E 600.00'

PROPOSED 8.27 ACRE
FACILITY PAD

+

CENTER OF PAD
551' FWL & 1,444' FNL
SECTION 19
T-24-S, R-31-E

S 89°41'05" W 600.00'

SECTION 19
TOWNSHIP 24 SOUTH,
RANGE 31 EAST
NEW MEXICO PRIME
MERIDIAN

LEGEND

SECTION LINE
PROPOSED FACILITY PAD

P.O.B. POINT OF BEGINNING
● FOUND MONUMENT AS NOTED

GENERAL NOTES

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

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

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



FSC INC
SURVEYORS+ENGINEERS

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

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POKER LAKE UNIT 18 TWR PROPOSED FACILITY PAD DESCRIPTION:

Description of a proposed facility pad totaling 8.27 acres and being situated in Section 19, Township 24 South, Range 31 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

BEGINNING at the northwest corner of the proposed facility pad from which a 1 1/2" iron pipe with a brass cap found in rock mound, being the northwest corner of said Section 19, bears N 12°35'47" W 1,170.87 feet;

THENCE over and across said Section 19, the following courses and distances:

N 89°42'56" E, a distance of 600.00 feet to a point;

S 00°17'06" E, a distance of 600.00 feet to a point;

S 89°41'05" W, a distance of 600.00 feet to a point;

N 00°16'07" W, a distance of 600.00 feet to the POINT OF BEGINNING containing a total of **8.27 acres**, more or less.

Said pad is divided in each quarter-quarter section as follows

NW/4 NW/4 Section 19 = 2.46 ACRES

SW/4 NW/4 Section 19 = 5.81 ACRES



0 100' 200'
1" = 200 FEET



XTO PERMIAN OPERATING, LLC.

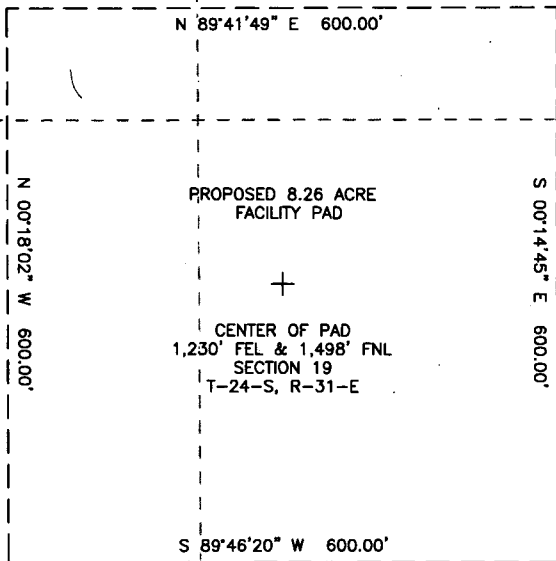
PROPOSED FACILITY PAD
POKER LAKE UNIT 18 TWR

SURVEY FOR A PROPOSED FACILITY PAD
SITUATED IN THE NW/4 OF SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO

DATE:	07-27-2018	PROJECT NO:	2018010176
DRAWN BY:	AW	SCALE:	1" = 200'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	NO

NW/4 NE/4

NE/4 NE/4



P.O.B.

NAD 83 (NME)
Y = 438,750.50
X = 702,775.06

SW/4 NE/4

SE/4 NE/4

SECTION 19

TOWNSHIP 24 SOUTH, RANGE 31 EAST
NEW MEXICO PRIME MERIDIAN

GENERAL NOTES

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

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

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



FSC INC
SURVEYORS+ENGINEERS

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Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

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POKER LAKE UNIT 18 TWR PROPOSED FACILITY PAD DESCRIPTION:

Description of a proposed facility pad totaling 8.26 acres and being situated in Section 19, Township 24 South, Range 31 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

BEGINNING at the southeast corner of the proposed facility pad from which a 3/4" found iron pipe with a brass cap, being the east quarter-corner of said Section 19, bears S 48°10'06" E 1,259.49 feet;

THENCE over and across said Section 19, the following courses and distances:

S 89°46'20" W, a distance of 600.00 feet to a point;

N 00°18'02" W, a distance of 600.00 feet to a point;

N 89°41'49" E, a distance of 600.00 feet to a point;

S 00°14'45" E, a distance of 600.00 feet to the POINT OF BEGINNING containing a total of **8.26 acres**, more or less.

Said pad is divided in each quarter-quarter section as follows

NW/4 NE/4 Section 19 = 0.59 OF AN ACRE

NE/4 NE/4 Section 19 = 1.11 ACRES

SW/4 NE/4 Section 19 = 2.28 ACRES

SE/4 NE/4 Section 19 = 4.28 ACRES

S 48°10'06" E 1,259.49' (TIE)

3/4" FOUND IRON
PIPE W/BRASS CAP

SECTION 20
TOWNSHIP 24 SOUTH,
RANGE 31 EAST
NEW MEXICO PRIME
MERIDIAN

LEGEND

--- SECTION LINE
--- PROPOSED FACILITY PAD

P.O.B. POINT OF BEGINNING

● FOUND MONUMENT AS NOTED



0 100' 200'
1" = 200 FEET

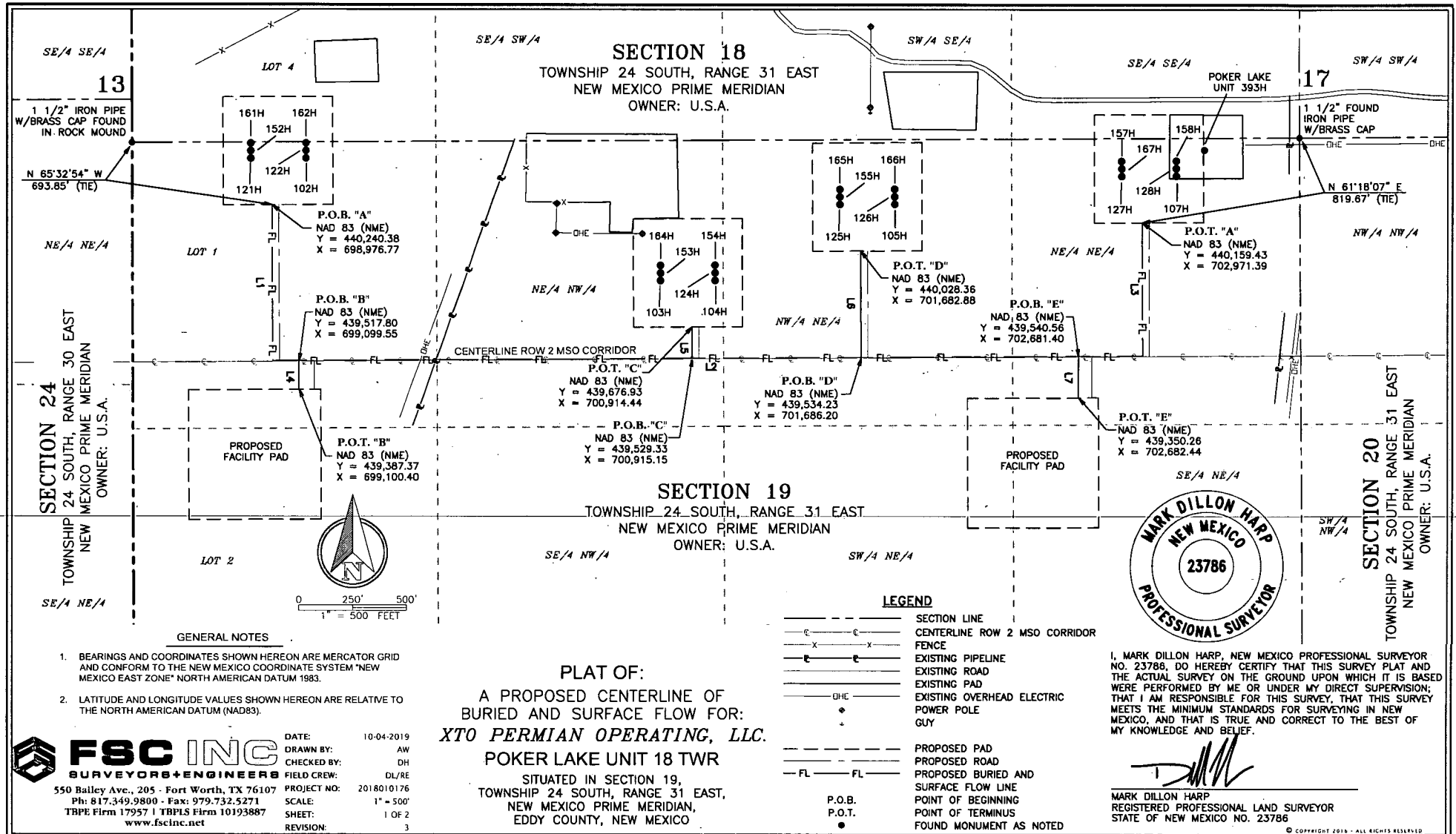


XTO PERMIAN OPERATING, LLC.

**PROPOSED FACILITY PAD
POKER LAKE UNIT 18 TWR**

SURVEY FOR A PROPOSED FACILITY PAD
SITUATED IN THE NE/4 OF SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO

DATE:	07-29-2018	PROJECT NO:	2018010176
DRAWN BY:	AW	SCALE:	1" = 200'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	NO



LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	S 00°21'30" E	723.35'
L2	N 89°38'09" E	3,994.10'
L3	N 00°21'49" W	617.02'

LINE TABLE "B"

L4	S 00°22'15" E	130.43'
----	---------------	---------

LINE TABLE "C"

L5	N 00°16'34" W	147.59'
----	---------------	---------

LINE TABLE "D"

L6	N 00°23'06" W	494.14'
----	---------------	---------

LINE TABLE "E"

L7	S 00°18'50" E	190.30'
----	---------------	---------

TOTAL LENGTH = 6,296.93 FEET
OR 381.63 RODS

POKER LAKE UNIT 18 TWR PROPOSED BURIED AND SURFACE FLOW LINES DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 6,296.93 FEET, 381.63 RODS, OR 1.19 MILES IN LENGTH CROSSING SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED SURVEY, COMPRISING OF 4.30 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

LOT 1 SECTION 19 = 1,612.09 FEET = 97.70 RODS = 1.10 ACRES
NE/4 NW/4 SECTION 19 = 1,466.35 FEET = 88.87 RODS = 1.00 ACRES
NW/4 NE/4 SECTION 19 = 1,814.60 FEET = 109.98 RODS = 1.24 ACRES
NE/4 NE/4 SECTION 19 = 1,403.89 FEET = 85.08 RODS = 0.96 OF AN ACRE

GENERAL NOTES

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



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

DATE: 10-04-2019
DRAWN BY: AW
CHECKED BY: DH
FIELD CREW: DL/RE
PROJECT NO: 2018010176
SCALE: 1" = 500'
SHEET: 2 OF 2
REVISION: 3

PLAT OF:
A PROPOSED CENTERLINE OF
BURIED AND SURFACE FLOW FOR:
XTO PERMIAN OPERATING, LLC.

POKER LAKE UNIT 18 TWR

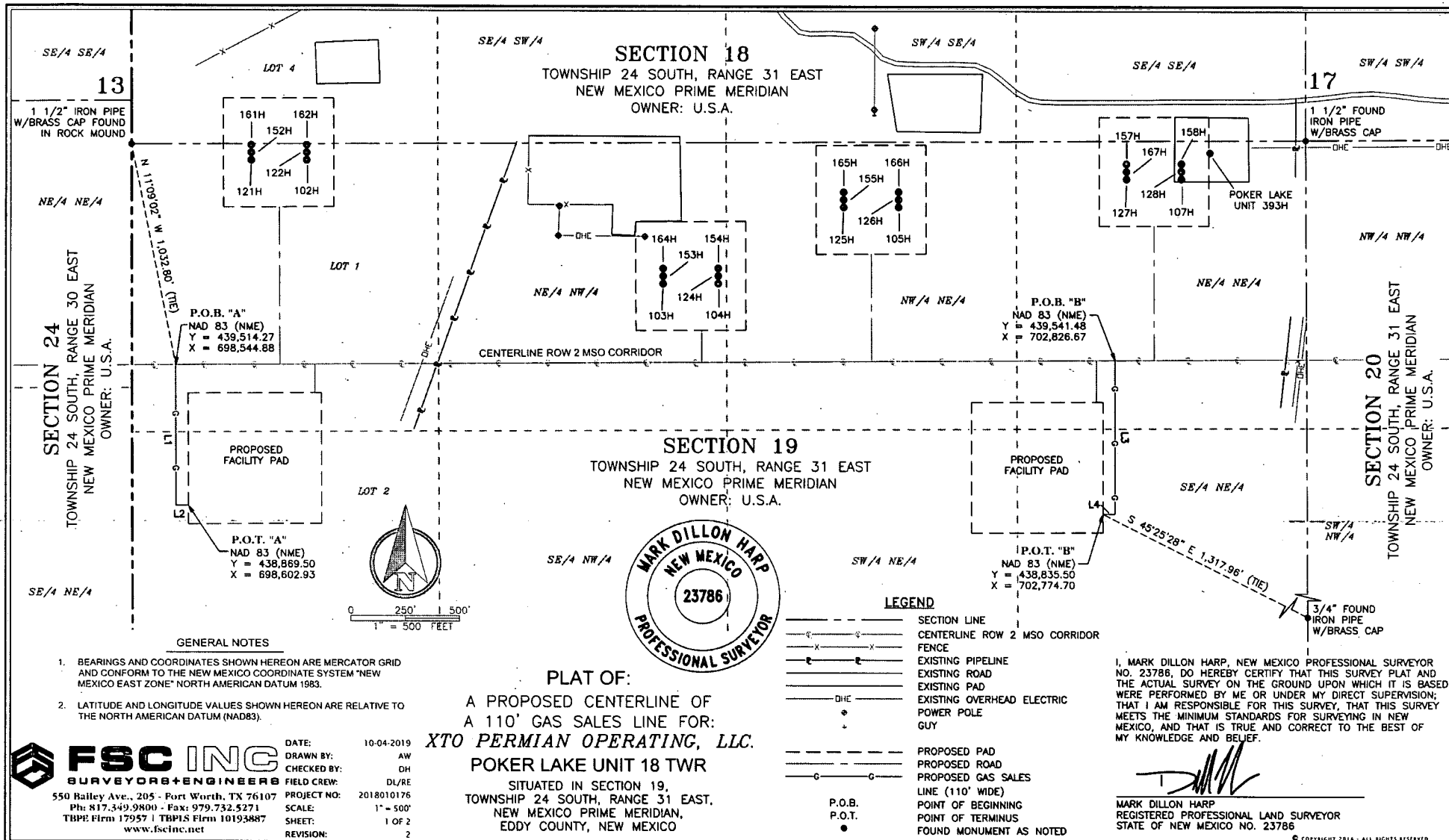
SITUATED IN SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



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

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

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LINE TABLE "A"		
LINE	BEARING	DISTANCE
L1	S 00°16'17" E	645.04'
L2	N 89°43'43" E	55.00'

LINE TABLE "B"		
LINE	BEARING	DISTANCE
L3	S 00°14'45" E	705.75'
L4	S 89°45'15" W	55.00'

TOTAL LENGTH = 1,460.79 FEET
OR 88.53 RODS

POKER LAKE UNIT 18 TWR PROPOSED 110' WIDE GAS SALES LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 110.0 FEET WIDE AND 1,460.79 FEET, 88.53 RODS, OR 0.28 MILES IN LENGTH CROSSING SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 55.0 FEET RIGHT AND 55.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE OF ROAD SURVEY, COMPRISING OF 3.69 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

LOT 1 SECTION 19 = 308.13 FEET = 18.67 RODS = 0.78 OF AN ACRE
LOT 2 SECTION 19 = 391.91 FEET = 23.75 RODS = 0.99 OF AN ACRE
NE/4 NE/4 SECTION 19 = 314.12 FEET = 19.04 RODS = 0.79 OF AN ACRE
SE/4 NE/4 SECTION 19 = 446.63 FEET = 27.07 RODS = 1.13 ACRES

GENERAL NOTES

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

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

DATE: 10-04-2019
DRAWN BY: AW
CHECKED BY: DH
FIELD CREW: DL/RE
PROJECT NO: 2018010176
SCALE: 1" = 500'
SHEET: 2 OF 2
REVISION: 2

PLAT OF:
A PROPOSED CENTERLINE OF
A 110' GAS SALES LINE FOR:
XTO PERMIAN OPERATING, LLC.
POKER LAKE UNIT 18 TWR

SITUATED IN SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO

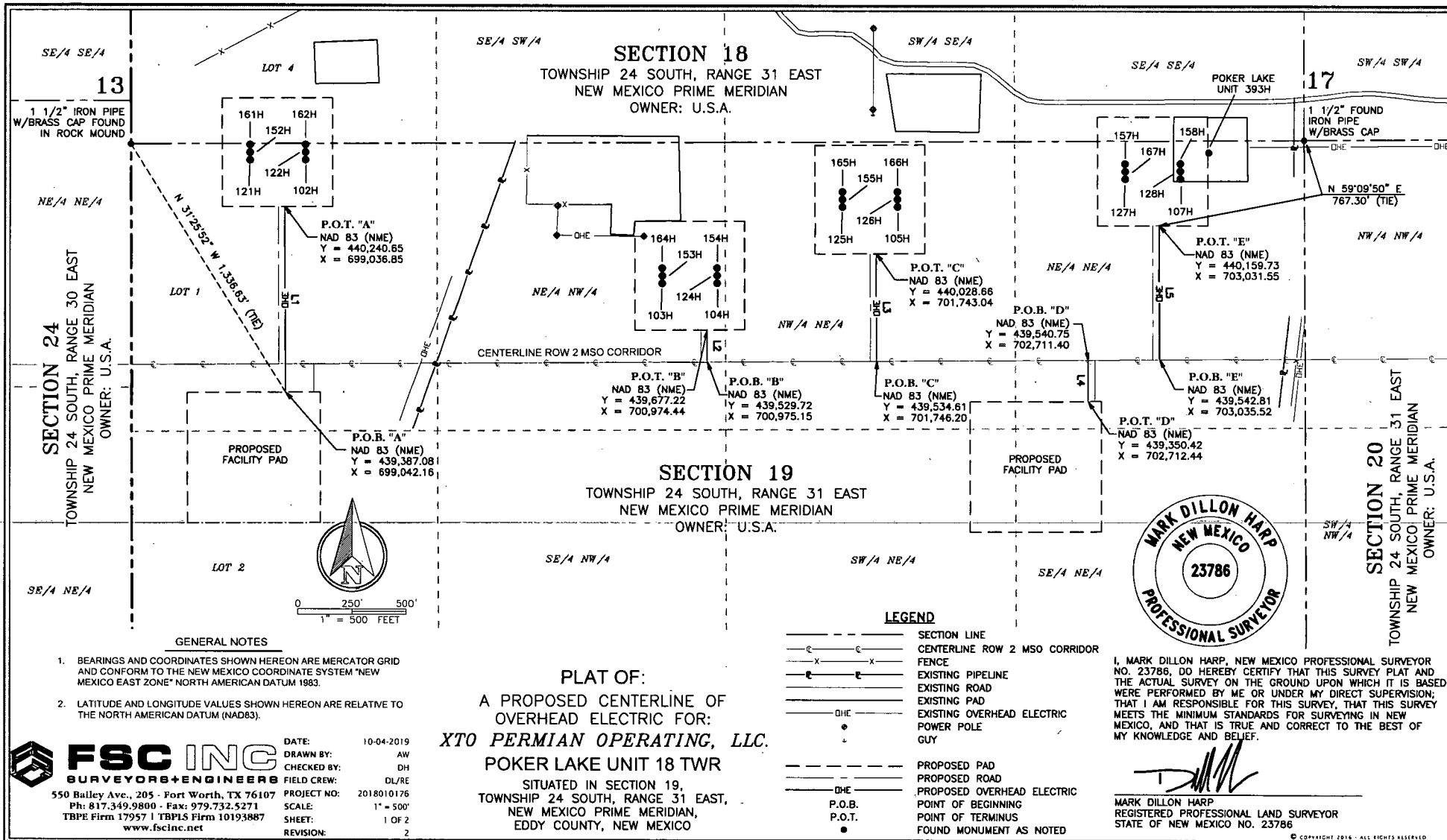


I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS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

[Signature]

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

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LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	N 00°21'25" W	853.59'

LINE TABLE "B"

L2	N 00°16'34" W	147.51'
----	---------------	---------

LINE TABLE "C"

L3	N 00°21'59" W	494.05'
----	---------------	---------

LINE TABLE "D"

L4	S 00°18'50" E	190.33'
----	---------------	---------

LINE TABLE "E"

L5	N 00°22'08" W	616.93'
----	---------------	---------

TOTAL LENGTH = 2,302.41 FEET
OR 139.54 RODS

POKER LAKE UNIT 18 TWR PROPOSED OVERHEAD ELECTRIC LINES DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 2,302.41 FEET, 139.54 RODS, OR 0.44 MILES IN LENGTH CROSSING SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED SURVEY, COMPRISING OF 1.58 ACRES AND DIVIDED IN EACH QUARTER SECTION AS FOLLOWS:

LOT 1 SECTION 19 = 853.59 FEET = 51.73 RODS = 0.59 OF AN ACRE
NE/4 NW/4 SECTION 19 = 147.51 FEET = 8.94 RODS = 0.10 OF AN ACRE
NW/4 NE/4 SECTION 19 = 494.05 FEET = 29.94 RODS = 0.34 OF AN ACRE
NE/4 NE/4 SECTION 19 = 807.26 FEET = 48.93 RODS = 0.55 OF AN ACRE

GENERAL NOTES

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

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TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE: 10-04-2019
DRAWN BY: AW
CHECKED BY: DH
FIELD CREW: DL/RE
PROJECT NO: 2018010176
SCALE: 1" = 500'
SHEET: 2 OF 2
REVISION: 2

PLAT OF:
A PROPOSED CENTERLINE OF
OVERHEAD ELECTRIC FOR:
XTO PERMIAN OPERATING, LLC.
POKER LAKE UNIT 18 TWR

SITUATED IN SECTION 19,
TOWNSHIP 24 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



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

[Signature]

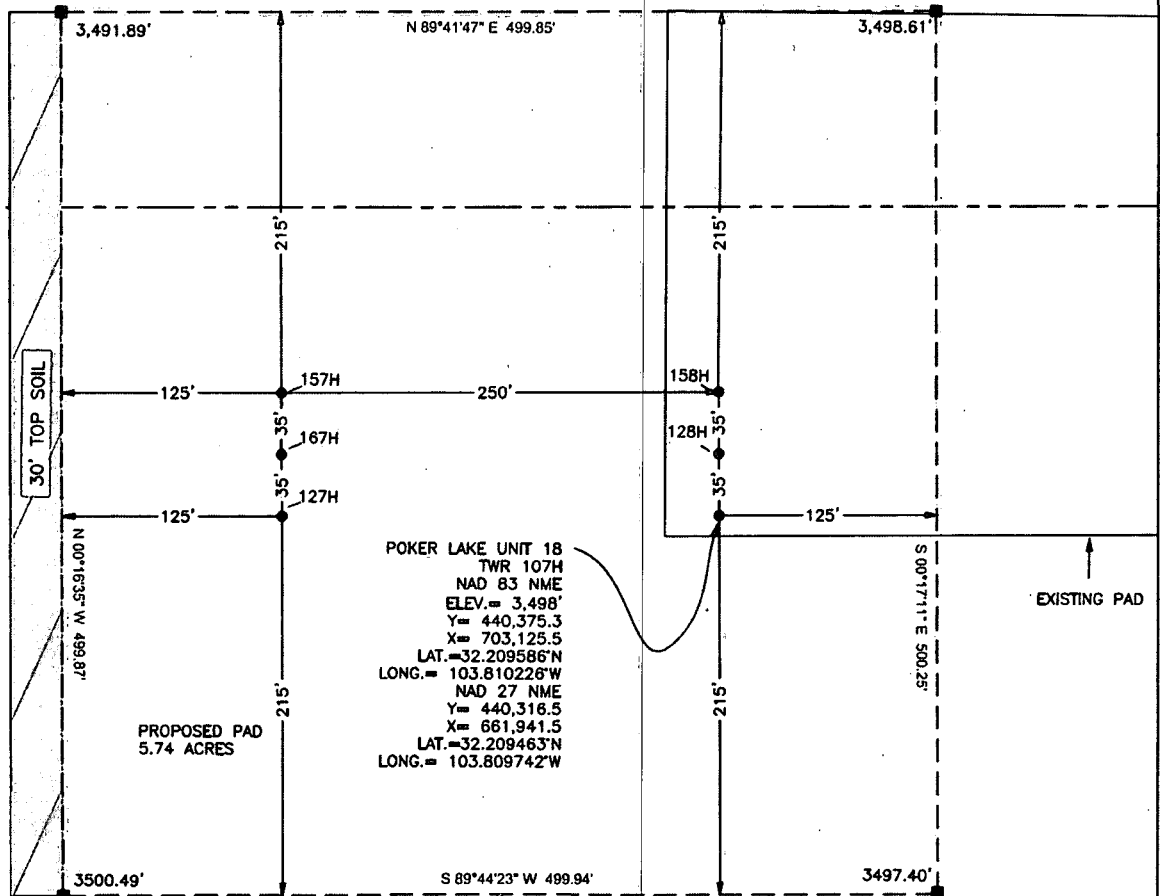
MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

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SECTION 18

TOWNSHIP 24 SOUTH, RANGE 31 EAST
NEW MEXICO PRIME MERIDIAN
OWNERSHIP: U.S.A.

SE/4 SE/4



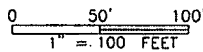
SECTION 19

TOWNSHIP 24 SOUTH, RANGE 31 EAST
NEW MEXICO PRIME MERIDIAN
OWNERSHIP: U.S.A.

NE/4 NE/4

LEGEND

- PROPOSED PAD
- PROPOSED ACCESS RD.
- SURVEY LINE
- x-x- FENCE
- EXISTING PAD



NOTE:

- 1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF JAL HIGHWAY AND TWIN WELLS RD. GO SOUTHWEST ON TWIN WELLS RD APPROX. 7.0 MILES. TURN LEFT (SOUTHEAST) ONTO LEASE RD. AND GO APPROX. 0.5 MILES, ARRIVING AT PROPOSED LOCATION TO THE EAST.



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XTO PERMIAN OPERATING, LLC.

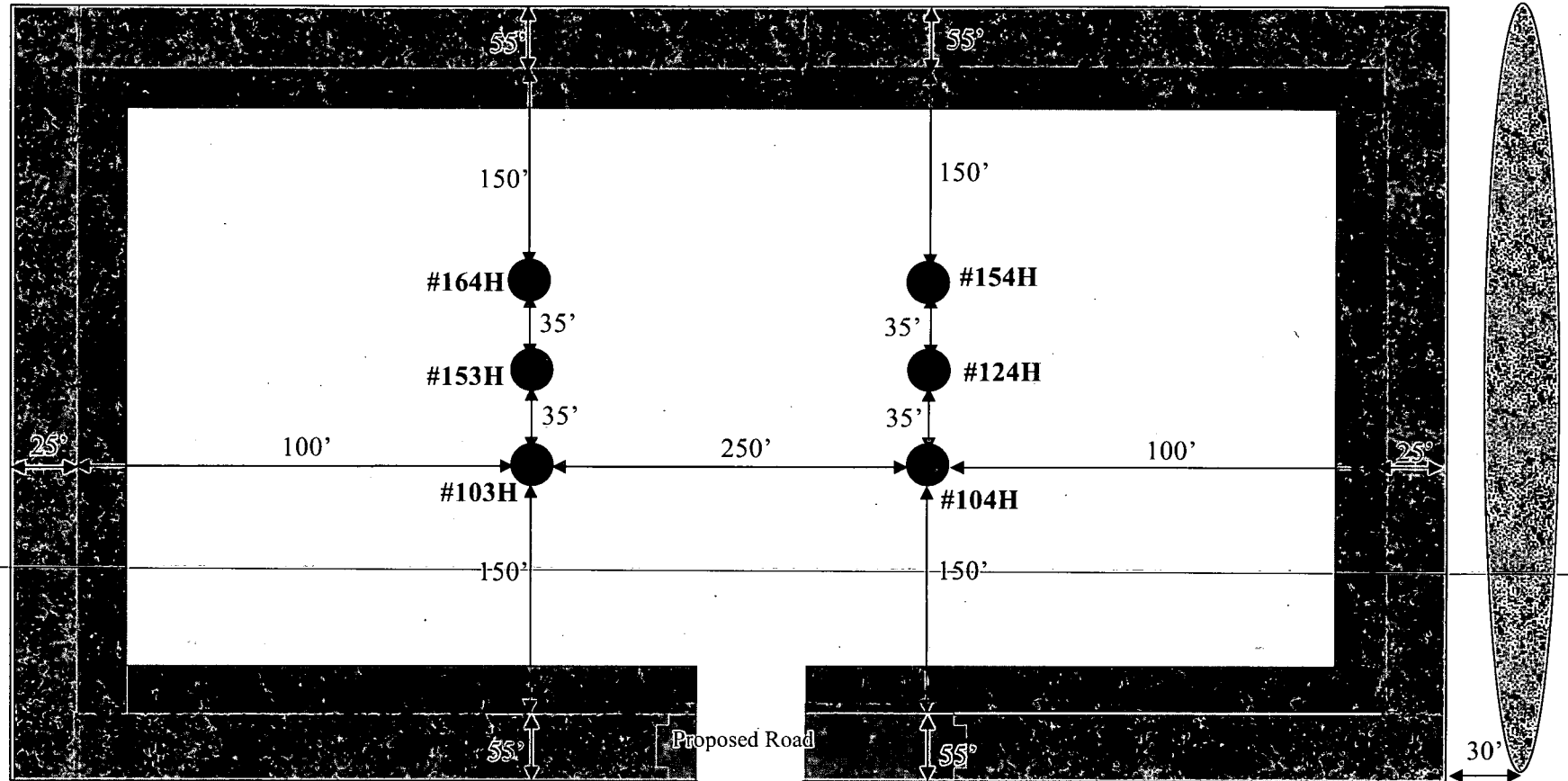
WELL SITE PLAN

POKER LAKE UNIT 18 TWR #107H
LOCATED 175 FEET FROM THE NORTH LINE
AND 566 FEET FROM THE EAST LINE OF
SECTION 19, TOWNSHIP 24 SOUTH, RANGE 31
EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

DATE:	4-23-2019	PROJECT NO:	2019030731
DRAWN BY:	LB/JC	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	

Interim Reclamation Diagram

Poker Lake Unit 18 TWR 103H, 104H, 124H, 153H, 154H, 164H
V-Door North: 164H, 153H, 103H; V-Door South: 104H, 124H, 154H



LEGEND



Wellbore

Interim Reclamation



Ditch & Berm

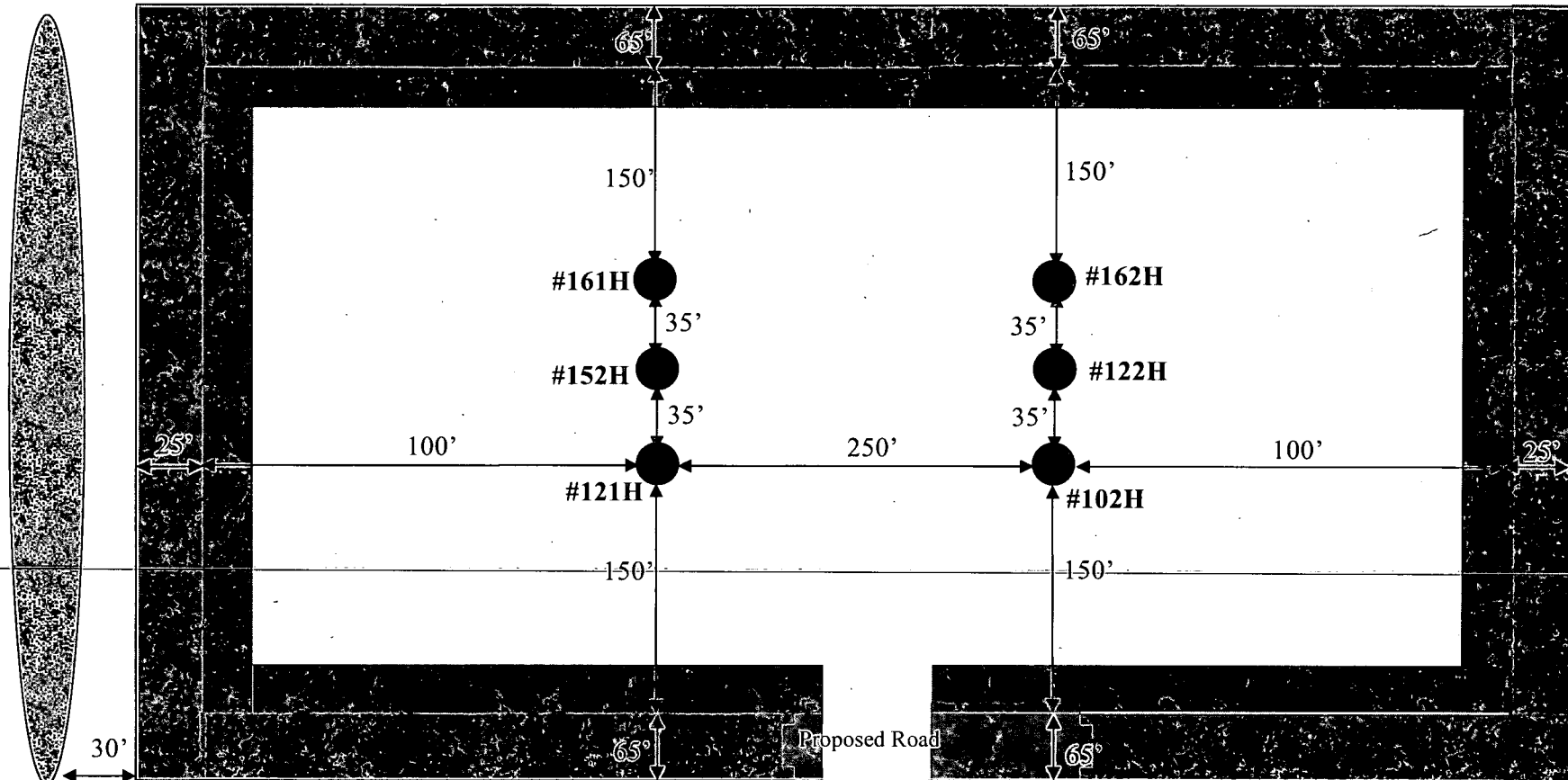


Topsoil

Interim Reclamation Diagram

Poker Lake Unit 18 TWR 102H, 121H, 122H, 161H, 162H

V-Door North: 161H, 152H, 121H ; V-Door South: 102H, 122H, 162H



LEGEND



Wellbore

Interim Reclamation



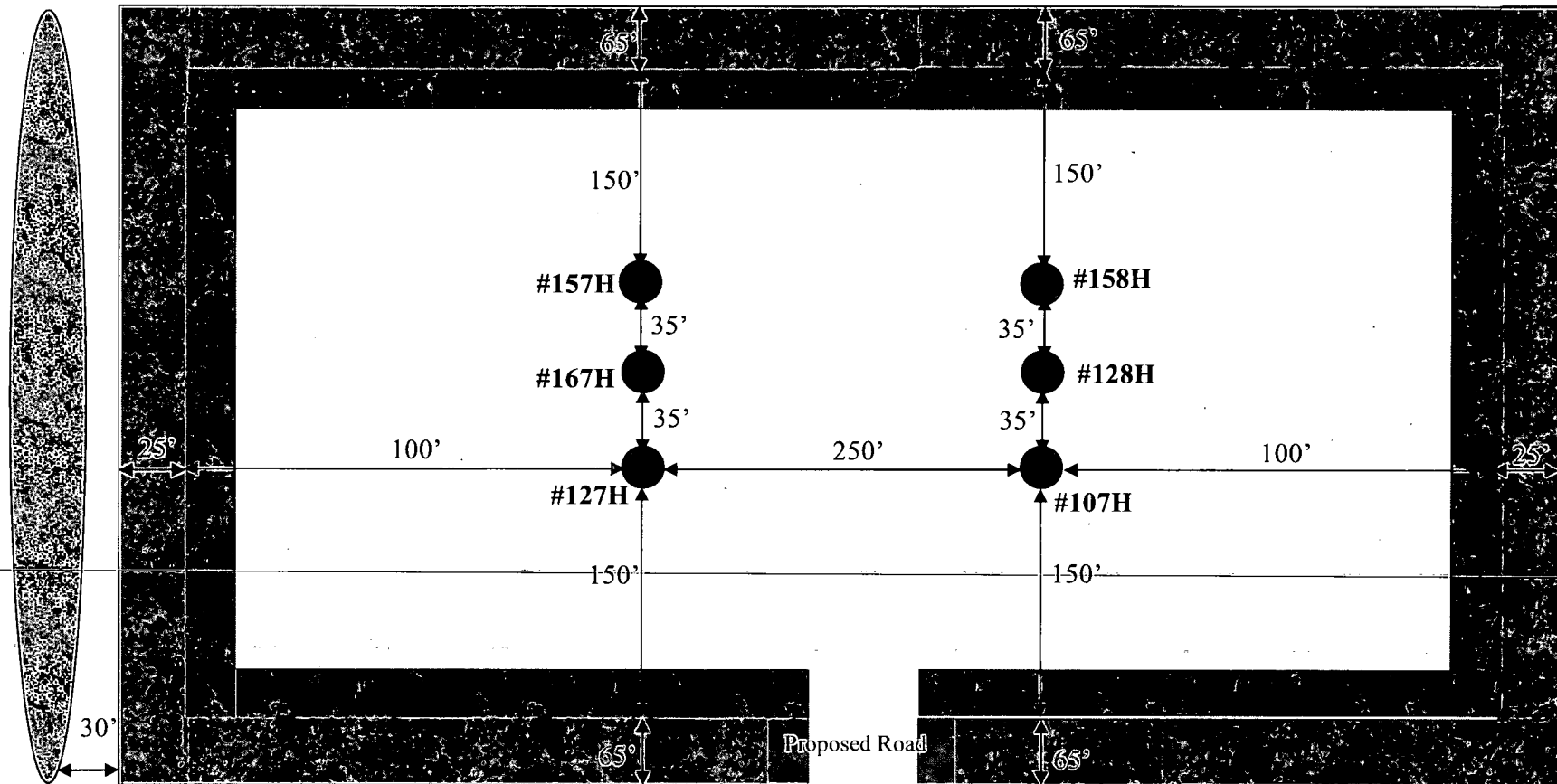
Ditch & Berm



Topsoil

Interim Reclamation Diagram

Poker Lake Unit 17 TWR 107H, 127H, 128H, 157H, 158H, 167H
V-Door North: 127H, 167H, 157H; V-Door South: 107H, 128H, 158H



LEGEND



Wellbore



Interim Reclamation



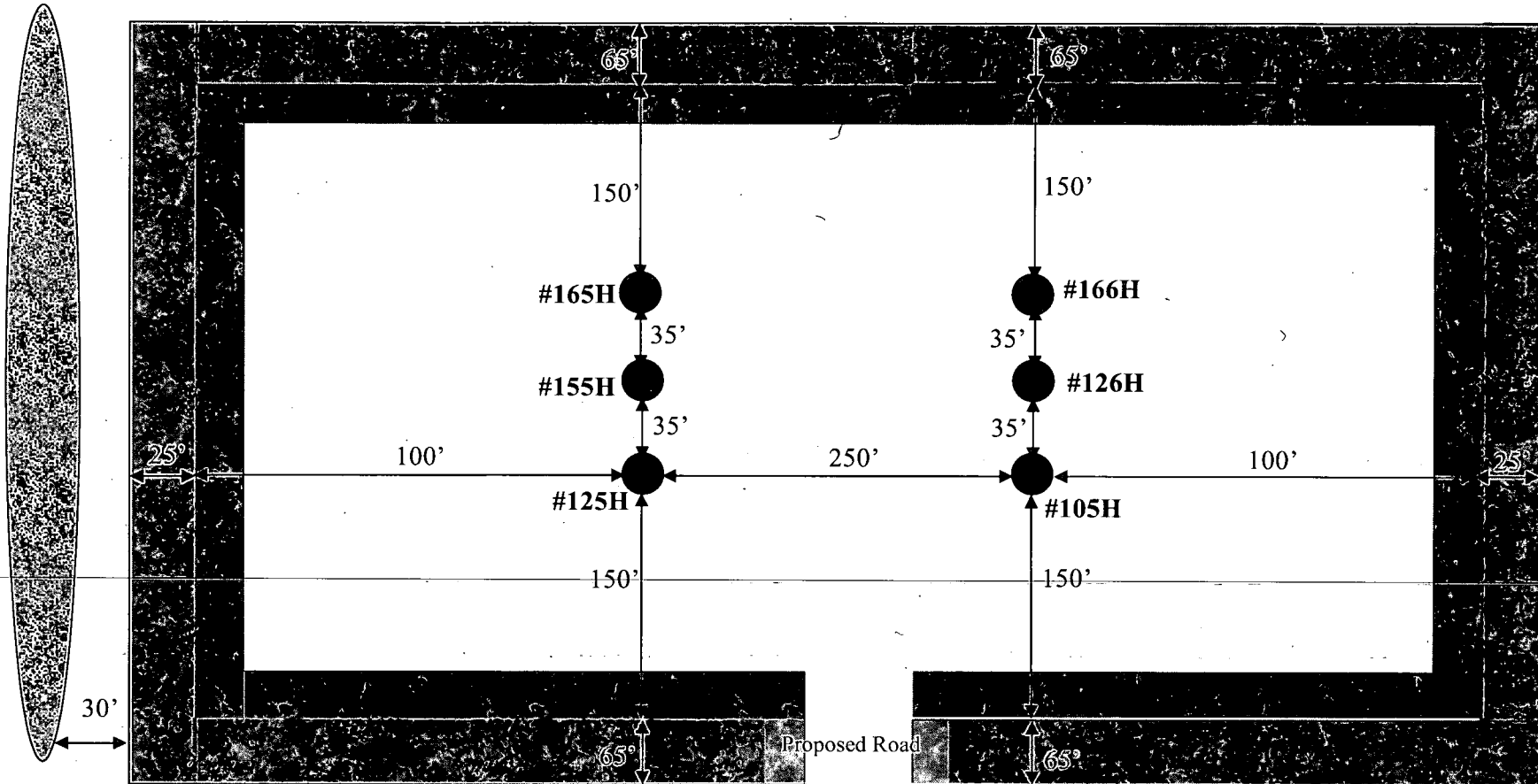
Ditch & Berm



Topsoil

Interim Reclamation Diagram

Poker Lake Unit 18 TWR 105H, 125H, 126H, 155H, 166H, 165H
V-Door North: 165H, 155H, 125H; V-Door South: 166H, 126H, 105H



LEGEND



Wellbore



Interim Reclamation



Ditch & Berm



Topsoil

Confirmation of Payment

Form NM 8140-9

(March 2008)

United States Department of the Interior
Bureau of Land Management
New Mexico State Office

Permian Basin Cultural Resource Mitigation Fund

The company shown below has agreed to contribute funding to the Permian Basin Cultural Resource Fund in lieu of being required to conduct a Class III survey for cultural resources associated with their project. This form verifies that the company has elected to have the Bureau of Land Management (BLM) follow the procedures specified within the Programmatic Agreement (PA) concerning improved strategies for managing historic properties within the Permian Basin, New Mexico, for the undertaking rather than the Protocol to meet the agency's Section 106 obligations.

Company Name: XTO Permian Operating, LLC

Address: 6401 Holiday Hill Rd

Midland, TX 79707

Project description:

Poker Lake Unit 18 TWR APDs & associated facilities.

T. 24S, R. 31E, Section 19 NMPM, Eddy County, New Mexico

Amount of contribution: \$ 12,783.95

4 Well Pads: 22.97 acres x \$201 = \$4616.97

2 CTBs: 16.53 acres x \$201 = \$3322.53

Gas Sales Line: 1521' x \$0.29 = \$441.09

Flowline: 6314' x \$0.29 = \$1831.06

Road: 7670' x \$0.29 = \$2224.30

OHE: 2320' x \$0.15 = \$348.00

Confirmation of Payment Page 2

Provisions of the PA:

- A. No new Class III inventories are required of industry within the project area for those projects where industry elects to contribute to the mitigation fund.
- B. The amount of funds contributed was derived from the rate schedule established within Appendix B of the PA. The amount of the funding contribution acknowledged on this form reflects those rates.
- C. The BLM will utilize the funding to carry out a program of mitigation at high-priority sites whose study is needed to answer key questions identified within the Regional Research Design.
- D. Donating to the fund is voluntary. Industry acknowledges that it is aware it has the right to pay for a Class III survey rather than contributing to the mitigation fund. Industry must avoid or fund data recovery at those sites already recorded that are eligible for nomination to the National Register or whose eligibility is unknown. Any such payments are independent of the mitigation funds established by this PA.
- E. Previously recorded archaeological sites determined eligible for nomination to the National Register, or whose eligibility remains undetermined, must be avoided or mitigated.
- F. If any skeletal remains that might be human or funerary objects are discovered by any activities, the land-use applicant will cease activities in the area of discovery, protect the remains, and notify the BLM within 24 hours. The BLM will determine the appropriate treatment of the remains in consultation with culturally-affiliated Indian Tribe(s) and lineal descendants. Applicants will be required to pay for treatment of the cultural items, independent and outside of the mitigation fund.

Kelly Kardos

Company-Authorized Officer

05-21-19

Date

BLM-Authorized Officer

Date

United States Department of the Interior
Bureau of Land Management
 CARLSBAD FIELD OFFICE
 620 E. GREENE
 CARLSBAD, NM 88220 -6292
 Phone: (575) 234-5972

Receipt

No: 4460333

Transaction #: 4580106	
Date of Transaction: 05/22/2019	
CUSTOMER:	
XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707-2156 US	

LINE #	QTY	DESCRIPTION	REMARKS	UNIT PRICE	TOTAL
1	1.00	CONTRIBUTED FUNDS-ALL OTHER / 7122 FLPMA / ALL OTHER RES DEV, PROTECT & MGMT PROJECT: LVTFG09G6180	MOA: XTO PERMIAN OPERATING LLC POKER LAKE UNIT 18 TWR APD & ASSOCIATED FACILITIES	12783.95	12783.95
TOTAL:				\$12,783.95	

PAYMENT INFORMATION			
NOTE: Items will appear on credit card statement as "Bureau of Land Mgmt CO".			
1	AMOUNT:	12783.95	POSTMARKED: N/A
	TYPE:	CREDIT CARD	RECEIVED: 05/22/2019
	NAME:	XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL RD BLDG 5 MIDLAND TX 79707-2156 US	
	CARD NO:	XXXXXXXXXXXX4200	AUTH CODE: 081857
	NAME ON CARD:	STEPHANIE RABADUE	
	SIGNATURE:	INTERNET	

REMARKS

This receipt was generated by the automated BLM Collections and Billing System and is a paper representation of a portion of the official electronic record contained therein.

P A I D
 TRAN# 4580106
 05/22/19 *[Signature]* 5/22/2019

NMCRIS No.: 143653

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 143653	2a. Lead Agency: US Bureau of Land Management Carlsbad Field Office	2b. Other Agency(ies):	3. Lead Agency Report No.:
4. Title of Report: A Class III Archaeological Survey for the XTO Energy, Inc. Proposed PLU 27 BD Gas Sales Line, Eddy County, New Mexico Author(s) Galassini, Stacy K. and Joshua W. Broxson			5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
6. Investigation Type <input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Archaeological Survey/Inventory <input type="checkbox"/> Architectural Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study <input type="checkbox"/> Compliance Decision Based on Previous Inventory <input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic Study <input type="checkbox"/> Site/Property Specific Visit <input type="checkbox"/> Historic Structures Report <input type="checkbox"/> Other			
7. Description of Undertaking (what does the project entail?): XTO Energy, Inc. proposes to construct the PLU 27 BD Gas Sales Line in Eddy County, NM, on federal land in Section 27 of T25S R30E. The pipeline will measure 2,401.23 ft. in length and occupy a permanent 110 ft. wide right-of-way. The project totals 6.06 acres. A 300 ft. wide survey was conducted on the proposed project. The survey area totals 16.54 acres.			
[] Continuation			
8. Dates of Investigation: from: 19-Jul-2019 to: 19-Jul-2019		9. Report Date: 23-Jul-2019	
10. Performing Agency/Consultant: Boone Archaeological Resource Consultants, LLC. Principal Investigator: Stacy K. Galassini Field Supervisor: Lincoln Harschlip Field Personnel Names: Chris Mickwee Tyler Phillips Historian / Other:			
11. Performing Agency/Consultant Report No.: BARC 07-19-22			
12. Applicable Cultural Resource Permit No(s): BLM Permit No.: 190-2920-16-Y			

NMCRIS No.: 143653

13. Client/Customer (project proponent):

XTO Energy, Inc.

Contact: Kelly Kardos

Address:

Phone: 432-620-4374

14. Client/Customer Project No.:

15. Land Ownership Status (must be indicated on project map):

Land Owner (By Agency)

Acres Surveyed Acres in APE

US Bureau of Land Management Carlsbad Field Office	16.54	16.54
TOTALS	16.54	16.54

16. Records Search(es):

Date(s) of HPD/ARMS File Review: 18 Jul 2019	Name of Reviewer(s): S.K. Galassini
Date(s) of Other Agency File Review: 18 Jul 2019	Name of Reviewer(s): S.K. Galassini Agency: BLM/CFO

17. Survey Data:

a. Source Graphics ☐ NAD 27 ☒ NAD 83 **Note: NAD 83 is the NMCRIS standard.**

☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:

☒ GPS Unit Accuracy ☒ <1.0m ☐ 1-10m ☐ 10-100m ☐ >100m

☐ Aerial Photo(s)

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name

USGS Quad Code

Phantom Banks, NM

32103-A7

c. County(ies): EDDY

d. Nearest City or Town: Malaga, NM

e. Legal Description:

Township (N/S)

Range (E/W)

Section

25S

30E

27

Projected legal description? ☐ Yes ☒ No ☐ Unplatted

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

☐ Continuation

18. Survey Field Methods:

Intensity:

☒ 100% coverage

☐ <100% coverage

NMCRIS No.: 143653

Configuration: ☐ block survey units ☒ linear survey units (l x w): 2,401:23 ft. x 300 ft.
☐ other survey units (specify):

Scope: ☒ non-selective (all sites/properties recorded) ☐ selective/thematic (selected sites/properties recorded)

Coverage Method: ☒ systematic pedestrian coverage
☐ other method (describe):

Survey Interval (m): 15 Crew Size: 3 Fieldwork Dates: from: 19-Jul-2019 to: 19-Jul-2019

Survey Person Hours: 3.75 Recording Person Hours: 0.00 Total Hours: 3.75

Additional Narrative:

The proposed project was surveyed using six 50 ft. parallel transects, creating a 300 ft. wide survey area. The survey area totals 720,369 sq. ft. or 16.54 acres.

There are two previously recorded cultural resources within ¼ mile of the project area: LAs 147589 and 147590.

[] Continuation

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

According to the Natural Resources Conservation Service' online database, the project area soils consists of Tonuco soils. These soils are associated with the Sandy ecological site (R042XC004NM) which typically supports grama, bluestem, and threeawn grasslands with a sparse distribution of sand sage and mesquite. The current vegetative community consists of mesquite, creosote, broom snakeweed, prickly pear, althorn, pencil cholla, yucca, and desert forbs and grasses. The project area lies on a rolling terrain south of a large arroyo. The elevation ranges from 3,220 ft. – 3,280 ft. above mean sea level.

[] Continuation

20.a. Percent Ground Visibility: 51%-75% **b. Condition of Survey Area (grazed, bladed, undistributed, etc.):**

The survey area has been affected by a lease road, erosion, burrowing, and cattle grazing.

[] Continuation

21. CULTURAL RESOURCE FINDINGS

☐ Yes, see next report section

☒ No, discuss why:

No cultural resources were recorded or updated during the survey. The lack of cultural materials is likely due to the relatively small survey area and high level of disturbance.

[] Continuation

22. Attachments (check all appropriate boxes):

[x] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

[x] Copy of NMCRIS Map Check (required)

[] LA Site Forms - new sites (with sketch map & topographic map) if applicable

[] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[] Historic Cultural Property Inventory Forms, if applicable

[] List and Description of Isolates, if applicable

[] List and Description of Collections, if applicable

23. Other Attachments:

[] Photographs and Log

[x] Other Attachments
(Describe): Pre-field Form

NMCRIS No.: 143653

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: Printed Name: Stacy K. Galassini

Signature: Stacy K. Galassini

Date: 7/26/19

Title: Principal Investigator

25. Reviewing Agency

Reviewer's Name/Date:

Accepted []

Rejected []

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 0

☒ Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

No cultural resources were recorded or updated during the survey. The proposed project is recommended for approval as staked. If cultural materials are encountered during construction, work should be halted and archaeologists with the BLM/CFO should be notified immediately.

[] Continuation

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

NMCRIS No.: 143653

Previously recorded revisited sites/HCPI properties:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

MONITORING LA NUMBER LOG (site form required)

Sites Discovered (site form required):

Previously recorded sites (site update form required):

LA No. Field/Agency No.

LA No. Field/Agency No.

Areas outside known nearby site boundaries monitored? [] Yes

[] No, Explain
why:

TESTING & EXCAVATION LA NUMBER LOG (site form required)

Tested LA number(s)

Excavated LA number(s)

A Class III Archaeological Survey for the XTO Energy, Inc.
Proposed PLU 27 BD Gas Sales Line, Eddy County, New Mexico

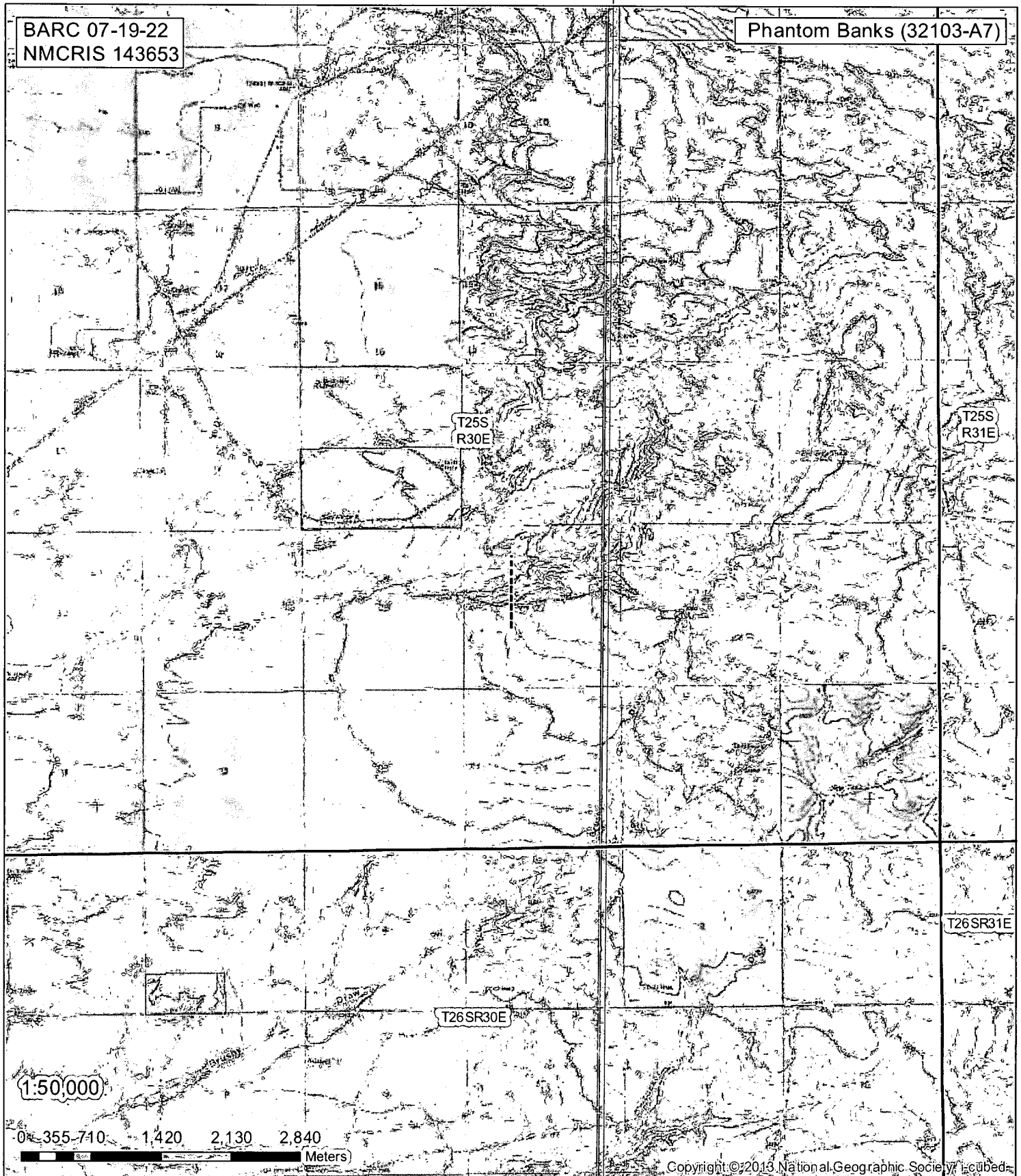
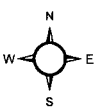
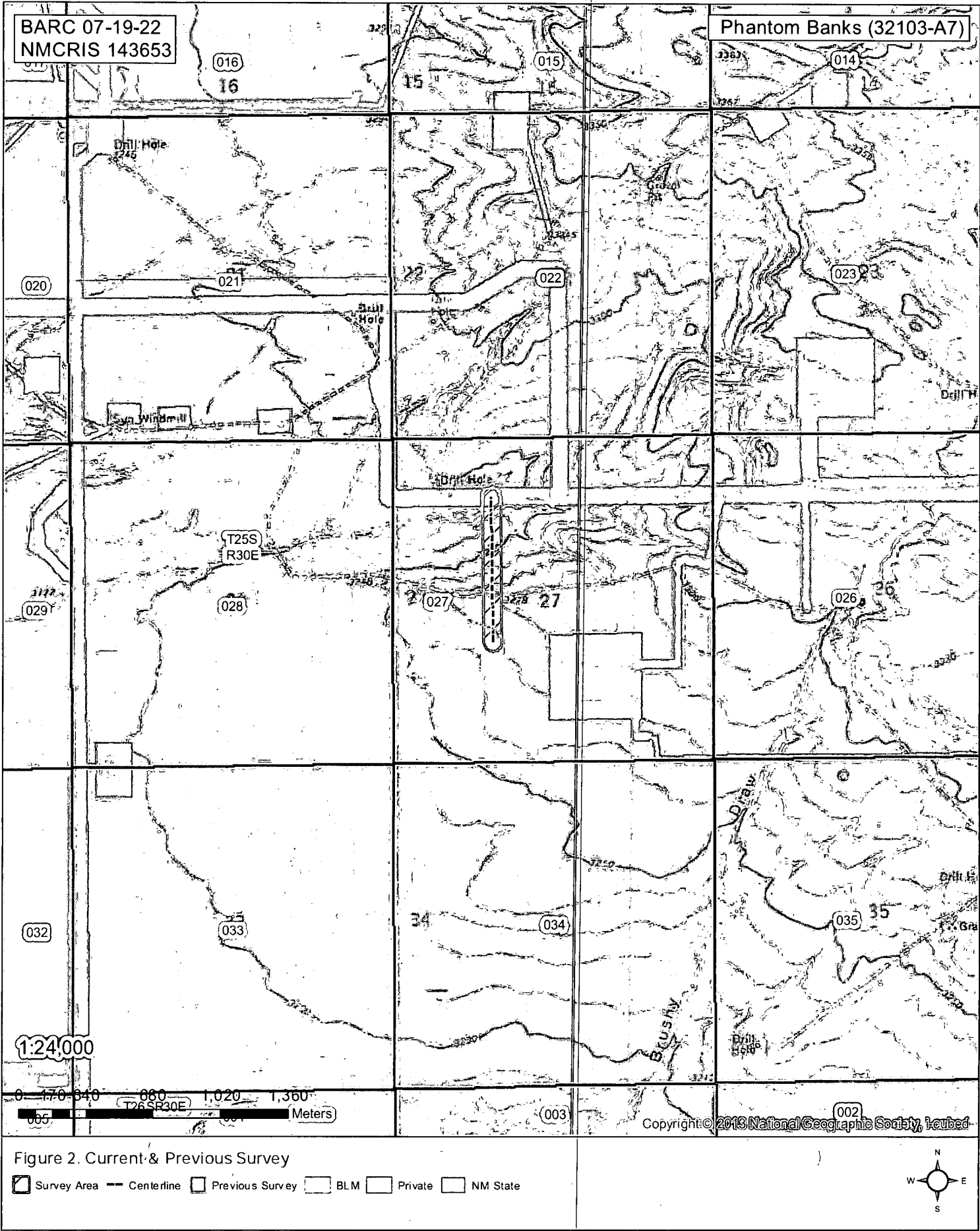


Figure 1. Project Area

-- Centerline ☐ BLM ☐ Private ☐ NM State



A Class III Archaeological Survey for the XTO Energy, Inc.
 Proposed PLU 27 BD Gas Sales Line, Eddy County, New Mexico

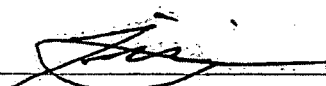
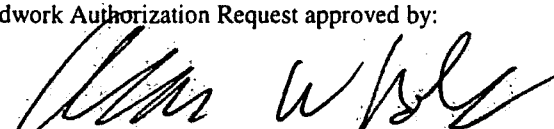


Authorization # (BLM Use):

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FIELDWORK AUTHORIZATION REQUEST

To Conduct Specific Cultural Resource Work Under the Authority of a Cultural Resource Use Permit Issued by the Bureau of Land Management
Pursuant to Sec. 302(b) of P.L. 94-579, October 21, 1976, 43 U.S.C. 1732 and Sec. 4 of P.L. 96-95, October 31, 1979, 16 U.S.C. 470cc

1. Name of Permittee and Company Stacy K. Galassini - Boone Archaeological Resource Consultants, LLC	
2. Date Permit Issued 07/26/2016	
3. Contact Telephone Number 575-885-1352	
4. Project Name and Client Name BARC 719022 XTO Kardos, Kelly PLU 27 BD Gas Sales Line	
5. Location of Work or Legal Description (Include map) a. Description of Public Lands Involved T25S R30E S22 Agency: BLM Secondary:	
6. Nature of Cultural Resource Work (Survey, APE, etc.) a. Identification of Previous Surveys and Sites (if applicable) Survey line 250' corridor	
7. Name of Individual(s) Responsible for Planning Supervising Field Work, Approving Reports, Evaluations, Recommendations Stacy K. Galassini	
8. Signature of Individual Conducting Pre-Field Consultation 	9. Date 7/18/2019
<p>The individual named in item 7 above shall be present during the conduct of field work authorized herein, or shall notify the authorized officer of the need for any extended absence, and shall make provision that the work will be carried out under supervision of equal quality, by an individual approved by the authorized officer.</p> <p>All terms and conditions of the permit continue to apply; any special conditions attached hereto have the same force and effect as conditions of the permit.</p> <p>Permittee shall immediately notify the authorized officer of any change in items 3 through 7 above.</p>	
Fieldwork Authorization Request approved by:  (Signature of BLM Authorized Officer)	Date: 7/18/19

Well Site Locations

The results of the Poker Lake Unit 18 Twin Wells Ranch Development Program will develop economic quantities of oil and gas in the 'Poker Lake Unit 18 Twin Wells Ranch' area with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering faults and/or drilling hazards while still targeting suitably productive zones.

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

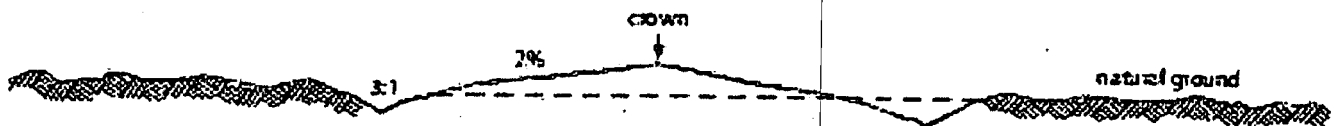
Surface Use Plan

1. Existing Roads

- A. The Poker Lake Unit 18 TWR area is accessed from the intersection of Jal Hwy (US Hwy 285) and Twin Wells road. Go approximately 7.0 miles. Turn left (Southeast) onto lease road and go approx. 0.5 miles. Locations will be to the East.
- B. Transportation Plan identifying existing roads that will be used to access the project area is included from Frank's Surveying marked as, 'Topographical and Access Road Map.' All equipment and vehicles will be confined to the routes shown on the "Vicinity Map" as provided by Frank's Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.
- C. The project is located approximately 50 miles from the town of Malaga.

2. New or Upgraded Access Roads

- A. **New Roads.** There is a total of approximately 7,652.64' or 1.45 miles of proposed and staked access roads in the Poker Lake Unit 18 TWR area. *5,351' of access in Sec. 19, T24S, R31E was approved with the Row 2 East TL corridor sundry (DOI-BLM-NM-P020-2018-0522 EA).
- B. **Well Pads.** The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The lease flow diagram shows the location of proposed roads that will need to be constructed to access the well pads.
- C. **Anticipated Traffic.** After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Batteries are completed. Upon completion of the CTBs, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the CTBs only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
- D. **Routing.** All equipment and vehicles will be confined to the travel routes laid out in the 'Vicinity Map' provided by Frank's Surveying unless otherwise approved by the BLM and applied for by XTO Permian Operating, LLC.
- E. **Road Dimensions.** The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



Level Ground Section

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

3. Location of Existing Wells

- A. See attached 1-mile radius well map.

4. Ancillary Facilities

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

5. Location of Proposed Production Facilities

- A. **Production Facilities.** Two 600' x 600' pads were staked with the BLM for construction and use as Central Tank Batteries (CTB). The pads are located in Section 19-T24S-R31E NMPM, Eddy County, NM. Plats of the proposed facilities are attached. Only the area necessary to maintain facilities will be disturbed. Due to air permitting timeframes and anticipated reserves, two facilities are anticipated to be necessary for full area development. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment.
- B. **Flowlines.** In the event the wells are found productive, 24-10" or less composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750psi) will be buried within proposed lease road corridors where possible from the proposed wells to the PLU 18 West and East CTBs where the oil, gas, and water will be metered and appropriately separated. If XTO Permian Operating, LLC decides to run surface lines, 24-4" or less flexpipe or steel flowlines with a max. safety psi rating of 750 (op pressure: 125psi) will be laid within proposed lease road corridors from the proposed wells to the proposed CTBs. An additional 24-6" high pressure gas lines will be buried within the proposed lease road corridors where possible for gas lift, fuel gas, and water. The distance of

proposed flowlines per well will be approximately 6,296.93' or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors where possible. A plat of the proposed flowline route for the lease is attached. *5,351' of pipeline in Sec. 19, T24S, R31E was approved with the Row 2 East TL corridor sundry (DOI-BLM-NM-P020-2018-0522 EA).

- C. **Gas Pipeline.** A gas purchaser has been identified. Two 110' corridors are requested to connect with the Poker Lake Unit Row 2 pipeline extending from the PLU 18 TWR West and East CTBs. XTO Permian Operating, LLC will be installing the line with anticipated risers located on the CTBs. The gas purchaser will be responsible for permitting their own gas lines and compressor station, where applicable, through private, state, and federal lands. PLU 18 TWR West GSL approx. Length: 700.04'. PLU 18 TWR East GSL approx. Length: 760.75'.
- D. **Disposal Facilities.** Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.
- E. **Flare.** There are two flares associated with the PLU 18 TWR development. The flare stacks will be 50'x50' and located on the approved CTB pads. Flares will be sized and rated based on anticipated reserves and recovery of gas throughout the development area with 150' of distance between all facility equipment, road and well pad locations for safety purposes.
- F. **Aboveground Structures.** All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.
- G. **Containment Berms.** Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas.
- H. **Electrical.** All electrical poles and lines will be placed within existing and proposed lease roads corridors. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 2302.41' of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

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

Texas Pacific Water Resources

Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO Permian Operating, LLC from Section 27, T25S-R30E, Eddy County, New Mexico. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, 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 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

7. Construction Activities

- A. Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.
- B. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.
- C. Anticipated Caliche Locations:
 - a. Pit 1: Federal Caliche Pit, Section 17-T25S-R30E
 - b. Pit 2: Federal Caliche Pit, Section 34-T25S-R29E

8. Methods for Handling Waste

- **Cuttings.** The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.
- **Drilling Fluids.** These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.
- **Produced Fluids.** Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.
- **Sewage.** Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- **Garbage and Other Waste Materials.** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approved sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
- **Debris.** Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- **Hazardous Materials.**
 - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
 - ii. XTO. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous

material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.

- iii. No hazardous substances or wastes will be stored on the location after completion of the well.
- iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
- v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

9. Well Site Layout

- A. **Rig Plat Diagrams:** There are 4 multi-well pads in the Poker Lake Unit 13 DTD lease anticipated. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached. From West to East:

- 1. Pad 1 is a 6-well pad expected to be 500'x500'.
- 2. Pad 2 is a 6-well pad expected to be 500'x500'.
- 3. Pad 3 is a 6-well pad expected to be 500'x500'.
- 4. Pad 4 is a 6-well pad expected to be 500'x500'.

Closed-Loop System: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.

- B. **V-Door Orientation:** These wells were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Colleen Cepero-Rios, Bureau of Land Management Natural Resource Specialist, present at on-site inspection.

- 1. Pad 1 has a Dual V-Door Orientation.
 - a. Western Row of Wells: North [Wells: 161H, 152H, 121H]
 - b. Eastern Row of Wells: South [Wells: 102H, 122H, 162H]
- 2. Pad 2 has a Dual V-Door Orientation.
 - a. Western Row of Wells: North [Wells: 164H, 153H, 103H]
 - b. Eastern Row of Wells: South [Wells: 154H, 124H, 104H]
- 3. Pad 3 has a Dual V-Door Orientation.
 - a. Western Row of Wells: North [Wells: 165H, 155H, 125H]
 - b. Eastern Row of Wells: South [Wells: 166H, 126H, 105H]
- 4. Pad 4 has a Dual V-Door Orientation.
 - a. Western Row of Wells: North [Wells: 157H, 167H, 127H]
 - b. Eastern Row of Wells: South [Wells: 158H, 128H, 107H]

- C. A 600' x 600' area has been staked and flagged around each well pad. A plat for the well has been attached.
- D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

10. Plans for Surface Reclamation:

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

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

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

Reclamation Standards:

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

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

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

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

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

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

Seeding:

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

11. Surface Ownership

- A. Within the Poker Lake Unit 18 Twin Wells Ranch project: 100% of the surface is under the administrative jurisdiction of the Bureau of Land Management.
- B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

12. Other Information

Changes from Notice of Staking / Onsite

- **Well Numbers.** See reference table for appropriate well number changes.

Notice of Staking Well Number	APD Well Number
1002H	122H
1004H	124H
1006H	126H
1008H	128H
1201H	161H
1202H	162H
1203H	164H
1204H	154H
1205H	165H
1206H	166H
1207H	157H
1208H	158H
701H	121H
703H	103H
705H	125H
707H	127H
901H	152H
903H	153H
905H	165H
907H	167H

Surveying

- **Well Sites.** Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by Frank Surveying, a registered professional land surveyor. Center stake surveys with access roads have been completed on Federal lands with Colleen Cepero-Rios, Bureau of Land Management Natural Resource Specialist in attendance on 5/10/18.
- **Cultural Resources – Archaeology:** The proposed project is within the PA. A MOA payment has been submitted to the Bureau of Land Management. Arch survey conducted for the gas sales line. A copy of the report has been submitted to the BLM.
- **Dwellings and Structures.** There are no dwellings or structures within 2 miles of this location.

Soils and Vegetation

- **Environmental Setting.** Soils are classified as Berino complex. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Dominant vegetation species include: black grama, dropseed, little bluestem and various perennial forbs and grasses.
- **Traffic.** No truck traffic will be operated during periods or in areas of saturated ground when surface rutting could occur. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.
- **Water.** There is no permanent or live water in the immediate or within the project area.

13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: COB000050

Operator's Representatives:

The XTO representatives for ensuring compliance of the surface use plan are listed below:

Surface:

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

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



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

PWD Data Report

01/14/2020

APD ID: 10400045455

Submission Date: 08/06/2019

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



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

Bond Info Data Report

01/14/2020

APD ID: 10400045455

Submission Date: 08/06/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 18 TWR

Well Number: 107H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: COB000050

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: