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Form 3160-3
(June 2015)

JUL 15 2019

DISTRICT I-ARTESIA O.C.D.

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0063667

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

7. If Unit or CA Agreement, Name and No.
BIG EDDY / NMNM068294X

8. Lease Name and Well No.
BIG EDDY UNIT 30E SKYWALKER
101H 325955

2. Name of Operator
XTO PERMIAN OPERATING LLC

9. API Well No.
30-015-96195

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
6401 Holiday Hill Road, Bldg 5 Midland TX 79707	(432)682-8873	WC WILLIAMS SINK; BONE SPRING

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

At surface NWSW / 1540 FSL / 435 FWL / LAT 32.570286 / LONG -103.847043

At proposed prod. zone SENE / 1980 FNL / 50 FEL / LAT 32.57522 / LONG -103.814314

11. Sec.; T. R. M. or Blk. and Survey or Area
SEC 14 / T20S / R31E / NMP

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

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
435 feet	960	320

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
30 feet	9474 feet / 20224 feet	FED: COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3449 feet	05/01/2019	90 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Stephanie Rabadue / Ph: (432)620-6714	03/25/2019

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	07/05/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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

APPROVED WITH CONDITIONS

Approval Date: 07/05/2019

(Continued on page 2)

*(Instructions on page 2)

RWP 7-19-19

INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.
AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160
PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.
ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.
EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

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Additional Operator Remarks

Location of Well

1. SHL: NWSW / 1540 FSL / 435 FWL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.570286 / LONG: -103.847043 (TVD: 0 feet, MD: 0 feet)
   PPP: SWNW / 1980 FNL / 660 FWL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.57521 / LONG: -103.846315 (TVD: 9390 feet, MD: 10100 feet)
   PPP: SENE / 1980 FNL / 660 FEL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.575188 / LONG: -103.833479 (TVD: 9491 feet, MD: 14000 feet)
   BHL: SENE / 1980 FNL / 50 FEL / TWSP: 20S / RANGE: 31E / SECTION: 13 / LAT: 32.57522 / LONG: -103.814314 (TVD: 9474 feet, MD: 20224 feet)

BLM Point of Contact

Name: Tenille Ortiz
Title: Legal Instruments Examiner
Phone: 5752342224
Email: tortiz@blm.gov

Review and Appeal Rights

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

PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Permian Operating, LLC**
LEASE NO.:	**NMLC-0063667**
WELL NAME & NO.:	**Big Eddy Unit 30E Skywalker 101H**
SURFACE HOLE FOOTAGE:	**1540' FSL & 0435' FWL**
BOTTOM HOLE FOOTAGE	**1980' FNL & 0050' FEL Sec. 13, T. 20 S., R 31 E.**
LOCATION:	**Section 14, T. 20 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 Potash Areas:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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.

R-111-P Potash
Capitan Reef
Possibility of water flows in the Castile, Yates, and Salado.
Possibility of lost circulation in the Red Beds, Rustler, Yates, Capitan Reef, and Delaware.

1. The **18-5/8** inch surface casing shall be set at approximately **820** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

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

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

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

13-3/8 1st Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing (**set below the base of the Salt**) is:

    ☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

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

Operator has proposed DV tool at depth of 2270', 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. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Centralizers required through the curve 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 **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 2850'). 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.

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

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 1st intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 1st 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" casing integrity tests 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.**

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

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

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

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

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

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

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

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

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

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

JAM 060519

Approval Date: 07/05/2019

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO PERMIAN OPERATING LLC
WELL NAME & NO.:	Big Eddy Unit 30E Skywalker 101H
SURFACE HOLE FOOTAGE:	1540'/S & 435'/W
BOTTOM HOLE FOOTAGE	1980'/N & 50'/W
LOCATION:	Section 14, T.20 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

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

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

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Hydrology

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

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

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

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

A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

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

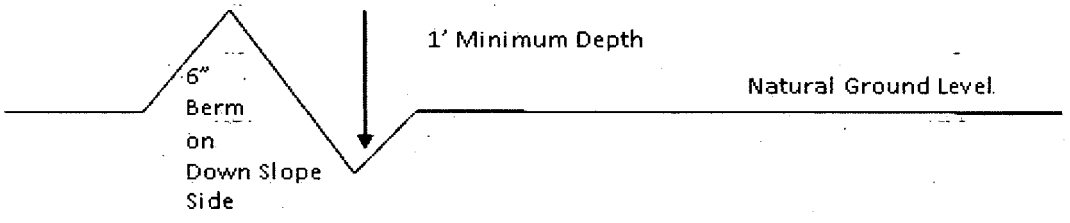
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards

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

Fence Requirement

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

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

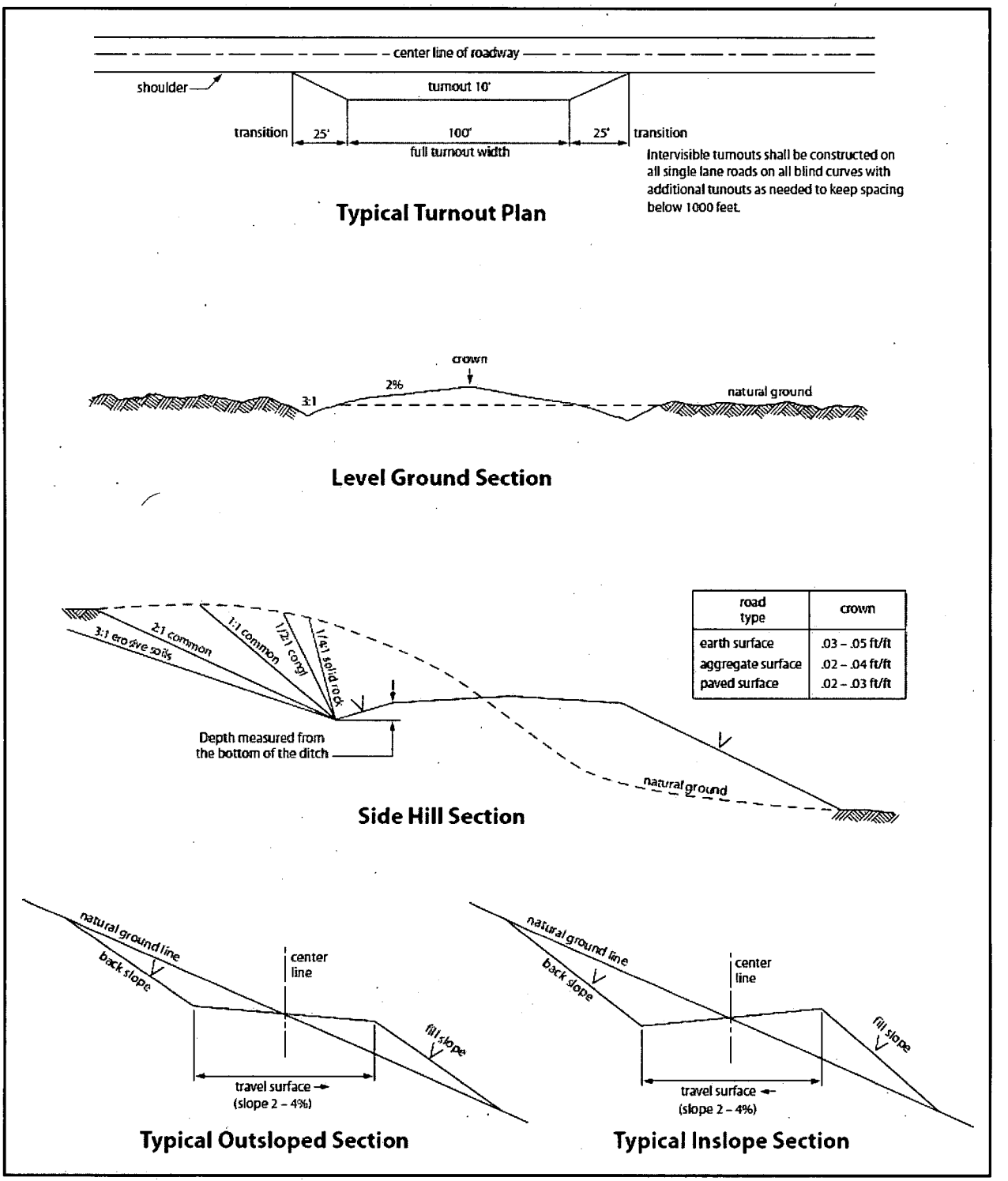


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

Containment Structures

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

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

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

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

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

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

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

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

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

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

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

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

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

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

( ) seed mixture 1	( ) seed mixture 3
() seed mixture 2	( ) seed mixture 4
(X) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

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

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

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

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

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

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

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

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities

that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VIII. INTERIM RECLAMATION

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

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

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

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

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

IX. FINAL ABANDONMENT & RECLAMATION

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

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory

revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

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

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

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

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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

AFMSS

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

Operator Certification Data Report

07/08/2019

Operator Certification

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

NAME: Stephanie Rabadue **Signed on:** 06/15/2018

Title: Regulatory Coordinator

Street Address: 500 W. Illinois St, Ste 100

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

Phone: (432)620-6714

Email address: stephanie_rabadue@xtoenergy.com

Field Representative

Representative Name:

Street Address:

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

Phone:

Email address:

AFMSS

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

Application Data Report

07/08/2019

APD ID: 10400039860 **Submission Date:** 03/25/2019

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400039860 **Tie to previous NOS?** **Submission Date:** 03/25/2019

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

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

Lease number: NMLC0063667 **Lease Acres:** 960

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

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

Agreement number: NMNM068294X

Agreement name:

Keep application confidential? NO

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

Operator letter of designation:

Operator Info

Operator Organization Name: XTO PERMIAN OPERATING LLC

Operator Address: 6401 Holiday Hill Road, Bldg 5

Zip: 79707

Operator PO Box:

Operator City: Midland **State:** TX

Operator Phone: (432)682-8873

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC WILLIAMS SINK; BONE SPRING **Pool Name:**

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Describe other minerals:

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** BEU DI **Number:** 30

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: 24.38 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 435 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: BEU30_Sky_101H_C102_20190312082506.pdf

Well work start Date: 05/01/2019 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	1540	FSL	435	FWL	20S	31E	14	Aliquot NWSW	32.570286	-103.847043	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063667	3449	0	0
KOP Leg #1	1540	FSL	435	FWL	20S	31E	14	Aliquot NWSW	32.570286	-103.847043	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063667	1449	2000	2000
PPP Leg #1	1980	FNL	660	FWL	20S	31E	14	Aliquot SWNW	32.57521	-103.846315	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063667	-5941	10100	9390

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

	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
PPP Leg #1	1980	FNL	660	FEL	20S	31E	14	Aliquot SENE	32.575188	-103.833479	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063674	-6042	14000	9491
EXIT Leg #1	1980	FNL	100	FWL	20S	31E	13	Aliquot SENE	32.57522	-103.814476	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063484	-6042	19724	9491
BHL Leg #1	1980	FNL	50	FEL	20S	31E	13	Aliquot SENE	32.57522	-103.814314	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC0063484	-6025	20224	9474

APD ID: 10400039860 **Submission Date:** 03/25/2019

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

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

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3449	0	0	OTHER : Alluvium	NONE	No
2	RUSTLER	2763	686	686	SILTSTONE	USEABLE WATER	No
3	TOP SALT	2499	950	950	SALT	POTASH	No
4	BASE OF SALT	1480	1969	1969	SALT	POTASH	No
5	CAPITAN REEF	713	2736	2736	LIMESTONE	USEABLE WATER	No
6	DELAWARE	-568	4017	4017	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
7	BONE SPRING	-3922	7371	7371	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
8	BONE SPRING 1ST	-5128	8577	8577	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
9	BONE SPRING 2ND	-5883	9332	9332	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 820

Equipment: The blow out preventer equipment (BOP) on surface casing temporary wellhead will consist of a 21-1/4" minimum 2M Hydril.
Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.
Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up, the BOP test will be limited to 1500 psi. All BOP tests will include a low pressure test as per BLM regulations. The 2M BOP diagram is attached.

Choke Diagram Attachment:

BEU30_2MCM_20190312053134.pdf

BOP Diagram Attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

BEU30_2MCM_20190312053134.pdf

BEU30_2MBOP_20190312053147.pdf

BEU30_MBS_20190529124404.pdf

Pressure Rating (PSI): 3M **Rating Depth:** 9491

Equipment: The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M Double Ram BOP.

Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors. XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint. Permanent Wellhead – GE RSH Multibowl System A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange Wellhead will be installed by manufacturer's representatives. Manufacturer will monitor welding process to ensure appropriate temperature of seal. Operator will test the 9-5/8" casing per BLM Onshore Order 2 Wellhead Manufacturer representative will not be present for BOP test plug installation

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up, the BOP test will be limited to 3,000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 3M BOP diagram is attached. Blind rams will be function tested each trip, pipe rams will be function tested each day.

Choke Diagram Attachment:

BEU30_3MCM_20190218081411.pdf

BOP Diagram Attachment:

BEU30_3MBOP_20190218081426.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	820	0	820			820	H-40	87.5	STC	1.7	2.46	DRY	7.79	DRY	7.79
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	2170	0	2170			2170	J-55	54.5	STC	1.68	2.71	DRY	4.35	DRY	4.35
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4060	0	4060			4060	J-55	40	LTC	1.63	2.38	DRY	4.48	DRY	4.48

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

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
4	PRODUCTION	8.75	5.5	NEW	API	N	0	19774	0	9491			19774	P-110	17	BUTT	1.67	1.12	DRY	2.35	DRY	2.35

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU30_Sky_101H_Csg_20190312082211.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU30_Sky_101H_Csg_20190312082220.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU30_Sky_101H_Csg_20190312082230.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU30_Sky_101H_Csg_20190312082237.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	820	690	1.87	12.9	1290.3	100	EconoCem-HLTRRC	None
SURFACE	Tail				550	1.35	14.8	742.5	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		0	2170	1380	1.87	12.9	2580.6	100	EconoCem-HLTRRC	None
INTERMEDIATE	Tail				300	1.35	14.8	405	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		0	2270	580	1.88	12.9	1090.4	100	Halcem-C	2% CaCl

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	2270	2270	4060	420	1.88	12.9	789.6	100	EconoCem-HCL	2% CaCl
INTERMEDIATE	Tail				230	1.33	14.8	305.9	100	HalCem-C	2% CaCl
PRODUCTION	Lead		0	19774	650	2.69	10.5	1748.5	30	NeoCem	None
PRODUCTION	Tail				2300	1.61	13.2	3703	30	VersaCem	None

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
2170	4060	OTHER : FW	8.7	9							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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	820	OTHER : FW/Native	8.4	8.7							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
4060	9491	OTHER : FW/Cut Brine/Polymer	9.1	9.2							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
820	2170	OTHER : Brine/Gel Sweeps	9.8	10.1							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system

Section 6 - Test, Logging, Coring

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

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

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

CBL,CNL,DS,GR

Coring operation description for the well:

No coring will take place on this well.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4540 **Anticipated Surface Pressure:** 2455.71

Anticipated Bottom Hole Temperature(F): 160

Anticipated abnormal pressures, temperatures, or potential geologic hazards? YES

Describe:

Potential loss of circulation through the Capitan Reef.

Contingency Plans geoharzards description:

The necessary mud products for weight addition and fluid loss control will be on location at all times.A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BEU30_H2S_Dia_20190218114621.pdf

BEU30_H2S_20190218114648.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

BEU30_Sky_101H_DD_20190312082407.pdf

Other proposed operations facets description:

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.

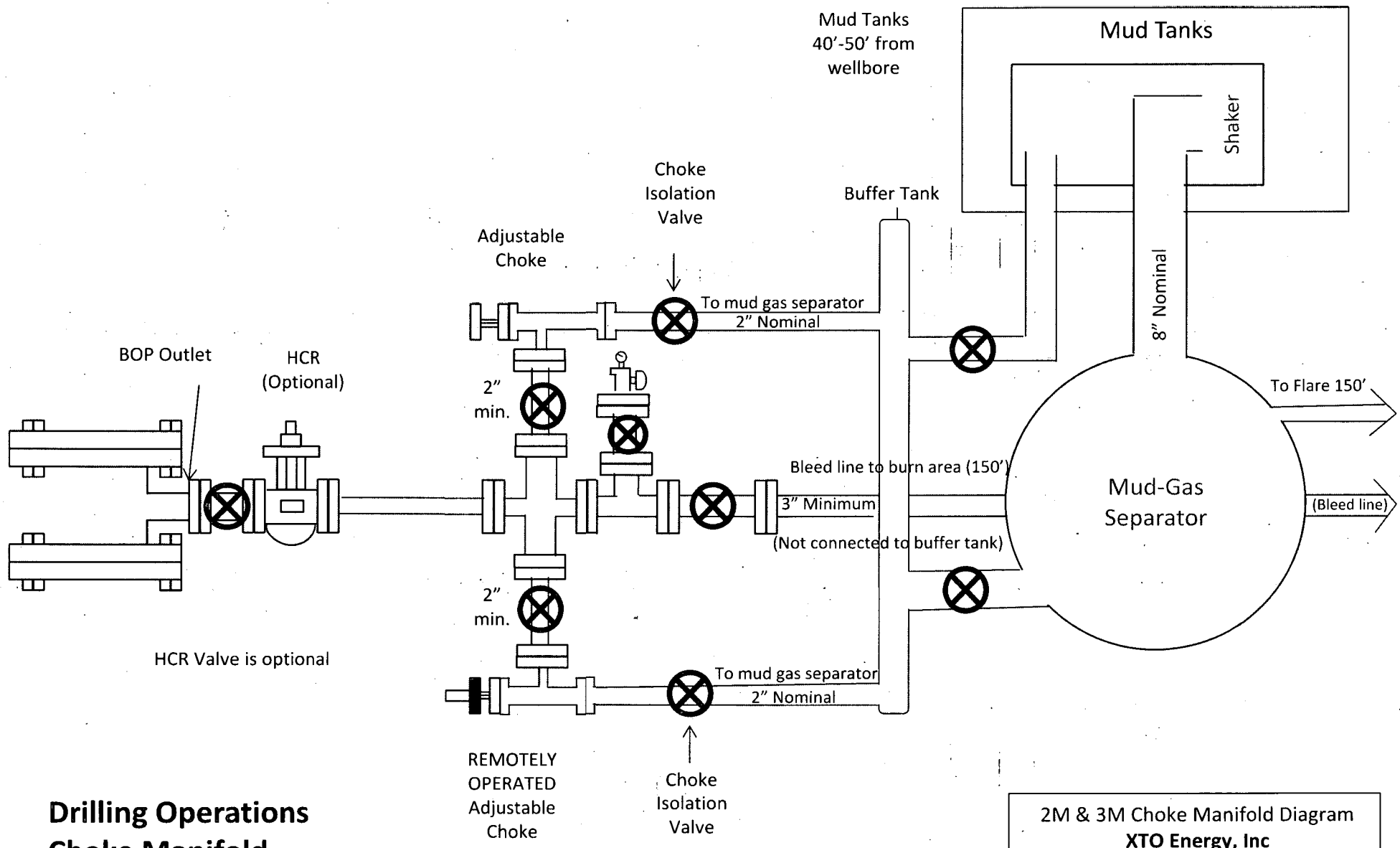
Other proposed operations facets attachment:

BEU30_Sky_101H_GCP_20190312082420.pdf

Other Variance attachment:

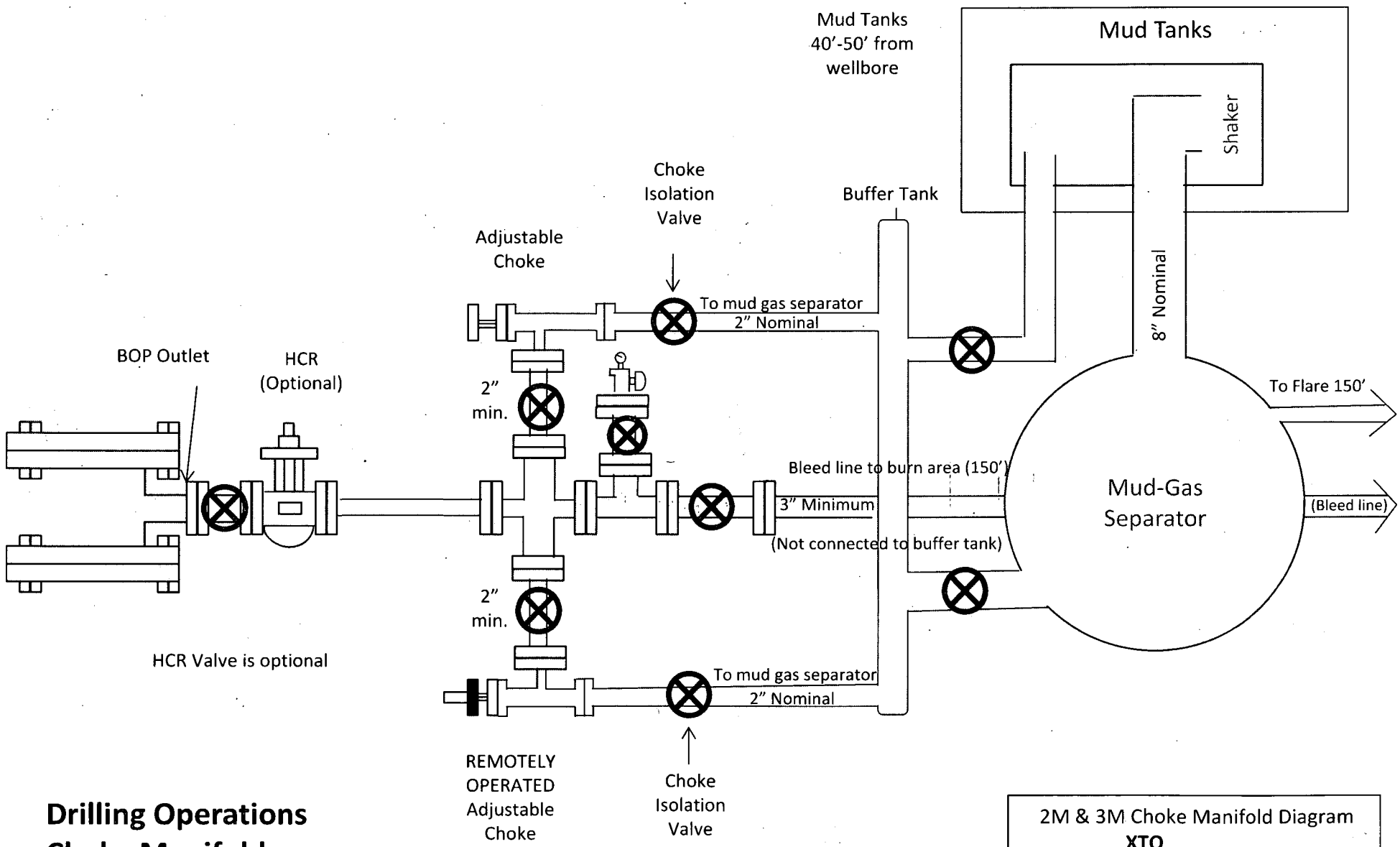
BEU30_FH_20190218114835.pdf

BEU30_MBS_20190530120604.pdf



Drilling Operations
Choke Manifold
2M & 3M Service

2M & 3M Choke Manifold Diagram
XTO Energy, Inc



Drilling Operations
Choke Manifold
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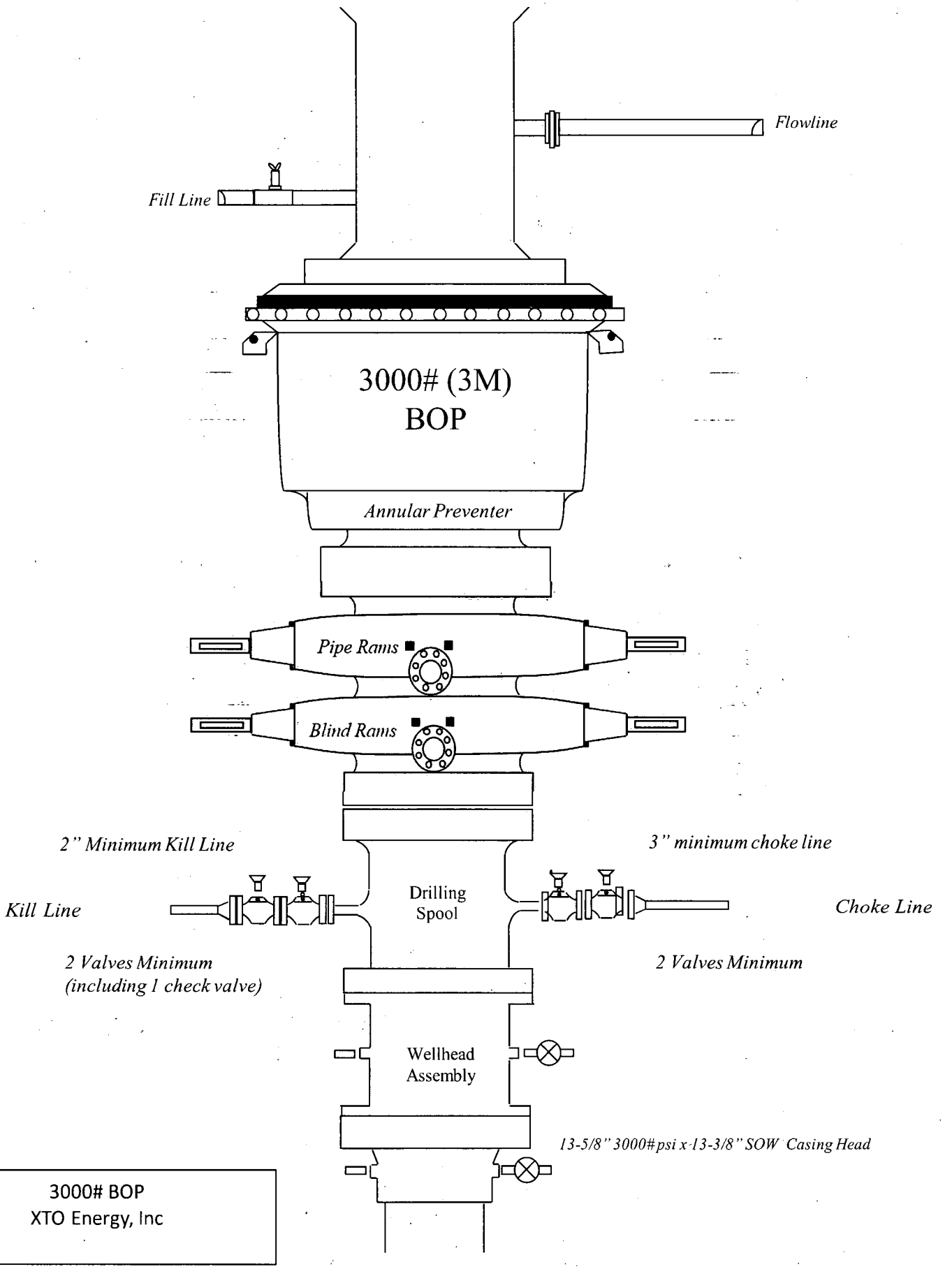
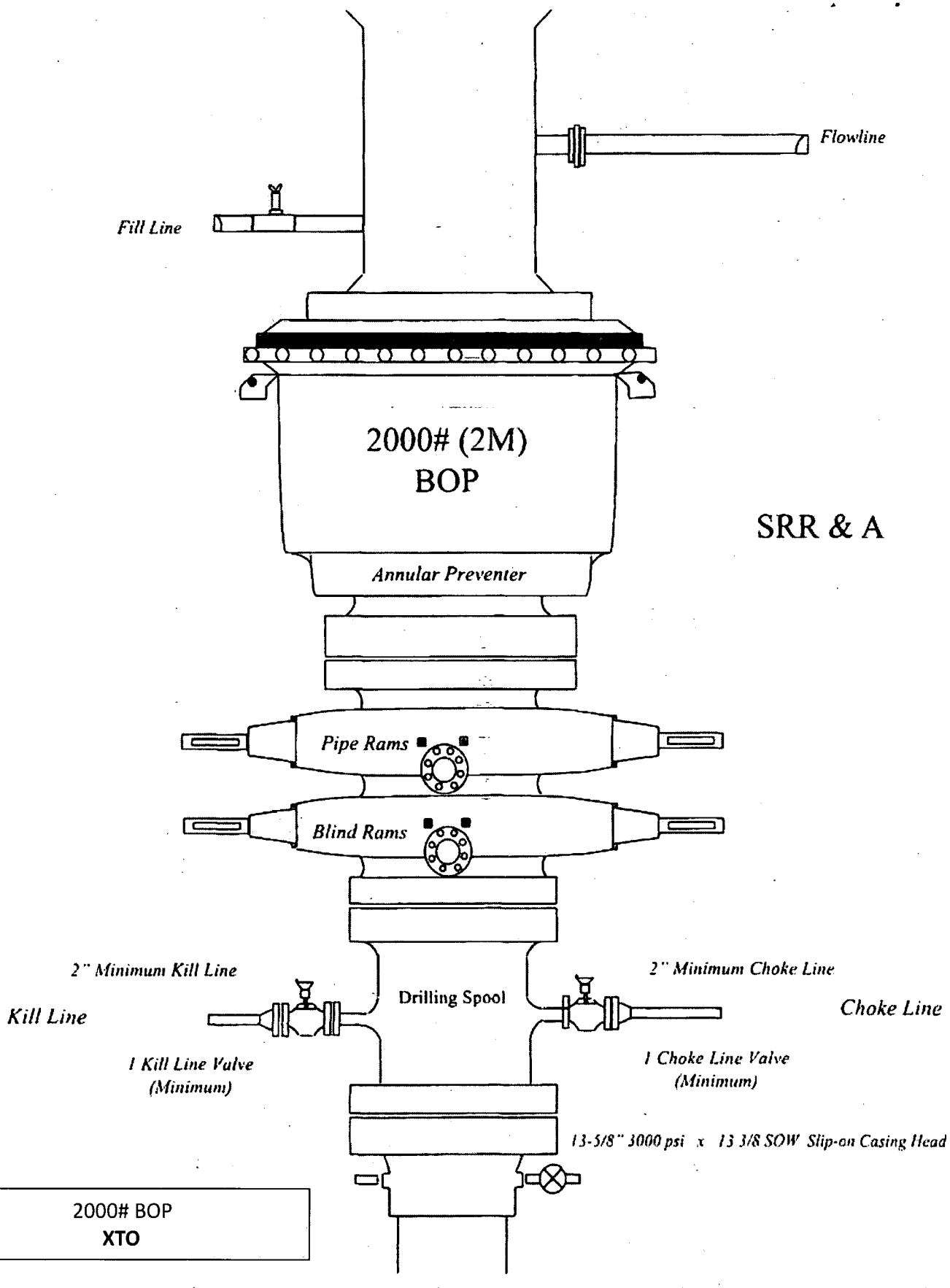
2M & 3M Choke Manifold Diagram
XTO

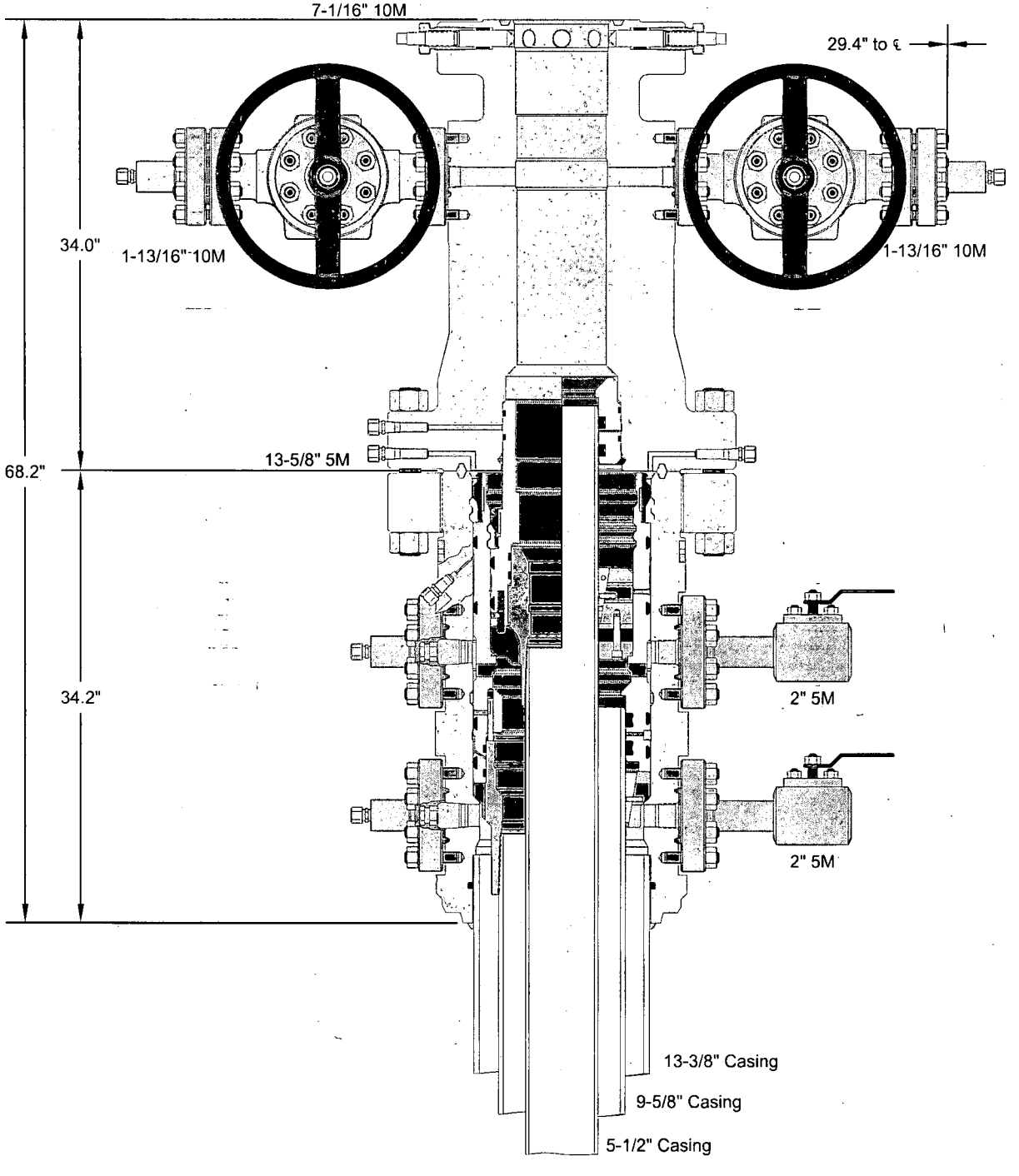


3000# BOP
XTO Energy, Inc


Flowline
Fill Line
2000# (2M)
BOP
SRR & A
Annular Preventer
Pipe Rams
Blind Rams
2" Minimum Kill Line
Kill Line
Drilling Spool
2" Minimum Choke Line
Choke Line
1 Kill Line Valve
(Minimum)
1 Choke Line Valve
(Minimum)
13-5/8" 3000 psi x 13 3/8 SOW Slip-on Casing Head

2000# BOP
XTO

GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead Assembly, With T-EBS-F Tubing Head

DRAWN	VJK	16FEB17
APPRV	KN	16FEB17

FOR REFERENCE ONLY
DRAWING NO. 10012842

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 820'	18-5/8"	87.5	STC	H-40	New	2.46	1.70	7.79
17-1/2"	0' – 2170'	13-3/8"	54.5	STC	J-55	New	2.71	1.68	4.35
12-1/4"	0' – 4060'	9-5/8"	40	LTC	J-55	New	2.38	1.63	4.48
8-3/4"	0' – 20224'	5-1/2"	17	BTC	P-110	New	1.12	1.67	2.32

- 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.
- 5-1/2" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on 2M Annular & 18-5/8" casing will be limited to 70% burst of the casing or 1500 psi, whichver is less

Wellhead:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.

Permanent Wellhead – GE RSH Multibowl System

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

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

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

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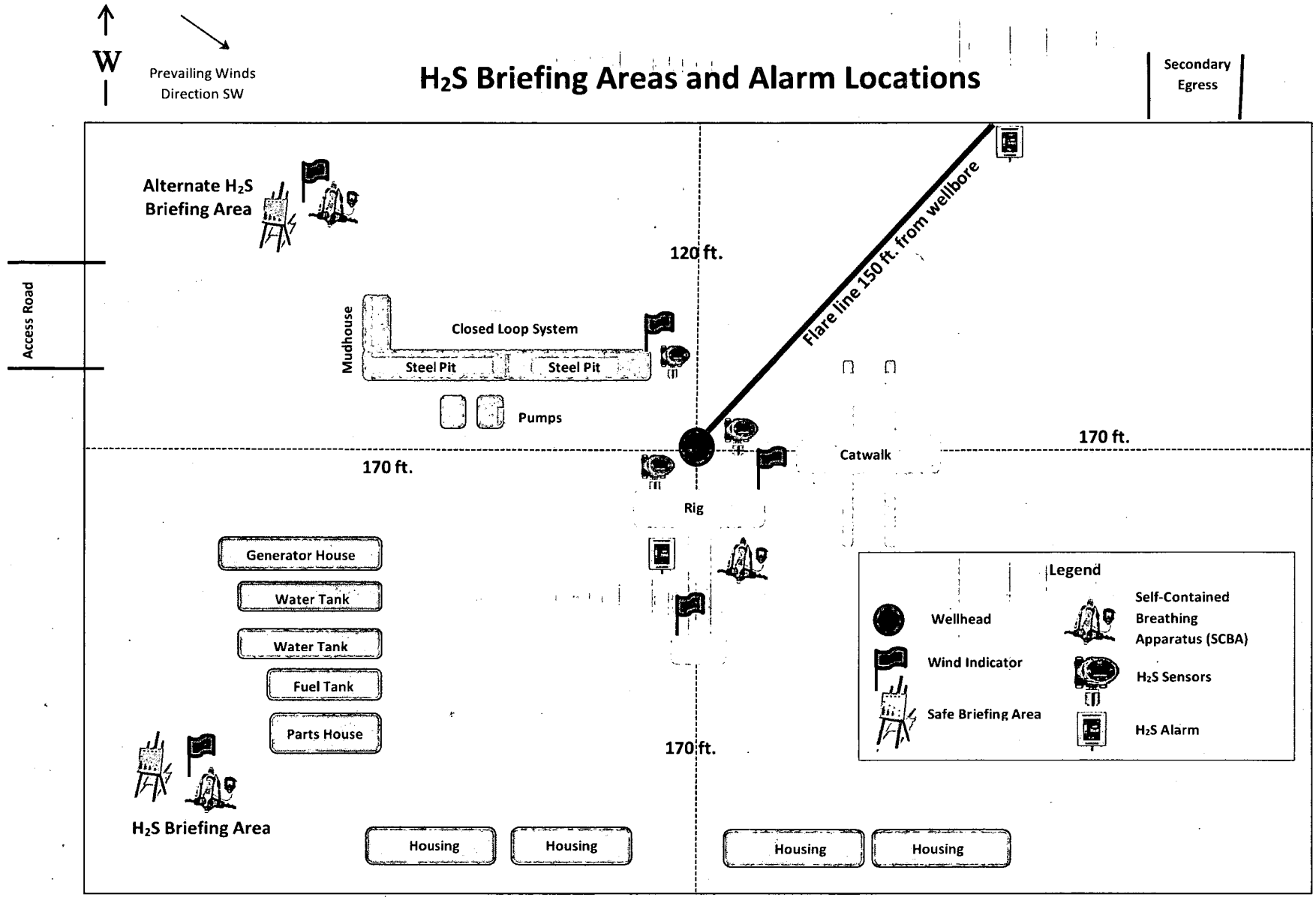
H_2S Briefing Areas and Alarm Locations



GENERAL OFFICES – MIDLAND, TEXAS

BOPCO, L.P.

6401 Holiday Hill Road
Midland, Tx 79707
(432) 683-2277

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

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

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

Ignition of Gas source

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

Characteristics of H_2S and SO_2

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

Contacting Authorities

BOPCO, L.P. 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
BOPCO, L.P. PERSONNEL:	
Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147
SHERIFF DEPARTMENTS:	
Eddy County	575-887-7551
Lea County	575-396-3611
NEW MEXICO STATE POLICE:	575-392-5588
FIRE DEPARTMENTS:	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS:	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS:	
For Lea County:	
Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161
For Eddy County:	
Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283

XTO Energy

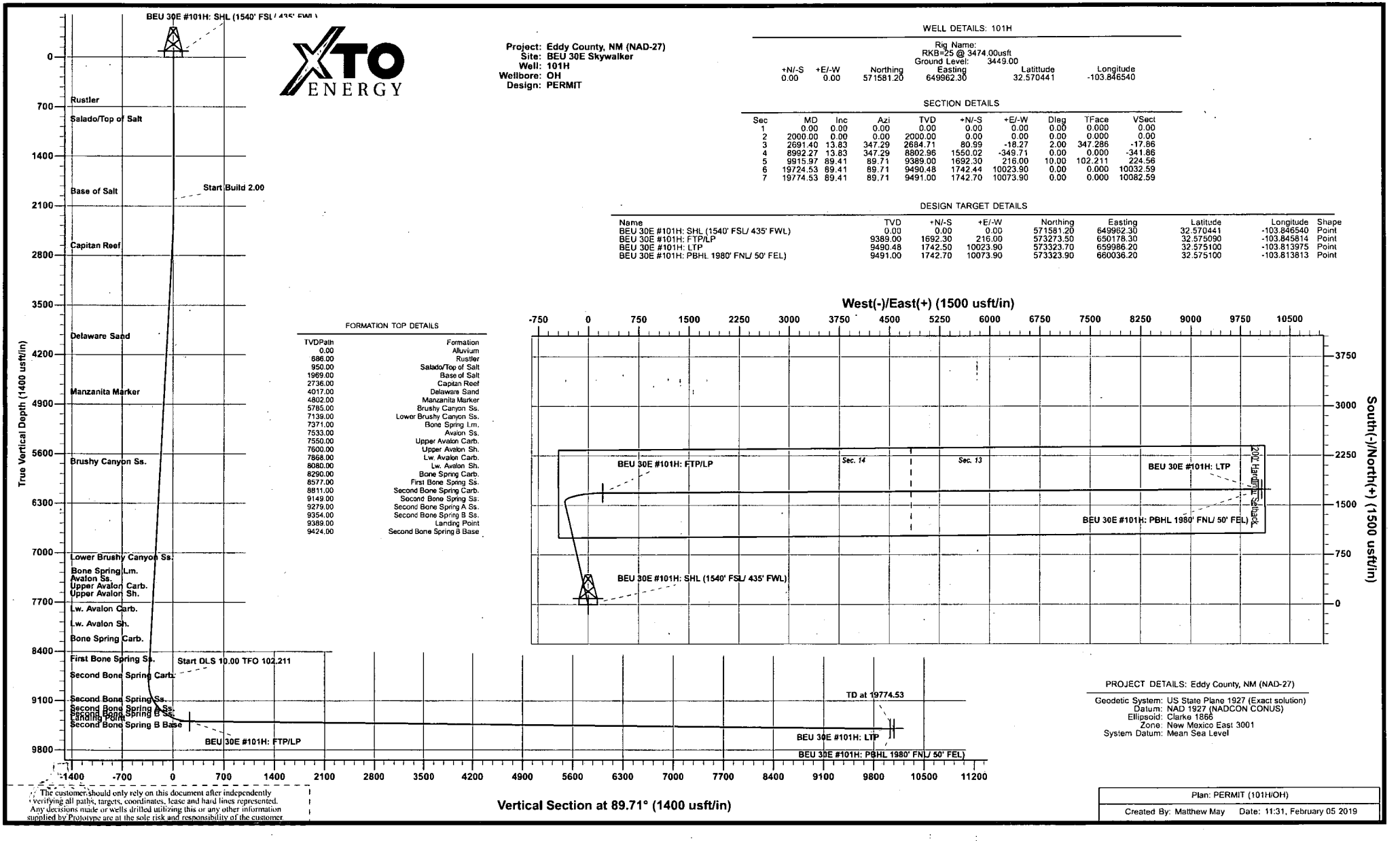
Eddy County, NM (NAD-27)
BEU 30E Skywalker
101H

OH

Plan: PERMIT

Standard Planning Report

05 February, 2019



XTO ENERGY

Project: Eddy County, NM (NAD-27)
Site: BEU 30E Skywalker
Well: 101H
Wellbore: OH
Design: PERMIT

WELL DETAILS: 101H

Rig Name:
RKB=25 @ 3474.00usft
Ground Level: 3449.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	571581.20	649962.30	32.570441	-103.846540

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	0.000	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.000	0.00
3	2691.40	13.83	347.29	2684.71	80.99	-18.27	2.00	347.286	-17.86
4	8992.27	13.83	347.29	8802.96	1550.02	-349.71	0.00	0.000	-341.86
5	9915.97	89.41	89.71	9389.00	1692.30	216.00	10.00	102.211	224.56
6	19724.53	89.41	89.71	9490.48	1742.44	10023.90	0.00	0.000	10032.59
7	19774.53	89.41	89.71	9491.00	1742.70	10073.90	0.00	0.000	10082.59

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BEU 30E #101H: SHL (1540' FSL/ 435' FWL)	0.00	0.00	0.00	571581.20	649962.30	32.570441	-103.846540	Point
BEU 30E #101H: FTP/LP	9389.00	1692.30	216.00	573273.50	650178.30	32.575090	-103.845814	Point
BEU 30E #101H: LTP	9490.48	1742.50	10023.90	573323.70	659986.20	32.575100	-103.813975	Point
BEU 30E #101H: PBHL 1980' FNL/ 50' FEL)	9491.00	1742.70	10073.90	573323.90	660036.20	32.575100	-103.813813	Point

FORMATION TOP DETAILS

TVDPath	Formation
0.00	Alluvium
686.00	Rustler
950.00	Salado/Top of Salt
1969.00	Base of Salt
2736.00	Capitan Reef
4017.00	Delaware Sand
4802.00	Manzanita Marker
5785.00	Brushy Canyon Ss.
7139.00	Lower Brushy Canyon Ss.
7371.00	Bone Spring Lm.
7533.00	Avalon Ss.
7550.00	Upper Avalon Carb.
7600.00	Upper Avalon Sh.
7868.00	Lw. Avalon Carb.
8080.00	Lw. Avalon Sh.
8290.00	Bone Spring Carb.
8577.00	First Bone Spring Ss.
8811.00	Second Bone Spring Carb.
9149.00	Second Bone Spring Ss.
9279.00	Second Bone Spring A Ss.
9354.00	Second Bone Spring B Ss.
9389.00	Landing Point
9424.00	Second Bone Spring B Base

PROJECT DETAILS: Eddy County, NM (NAD-27)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Plan: PERMIT (101H/OH)
Created By: Matthew May Date: 11:31, February 05 2019

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 101H
Company:	XTO Energy	**TVD Reference:**	RKB=25 @ 3474.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB=25 @ 3474.00usft
Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Project Eddy County, NM (NAD-27)

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

Site BEU 30E Skywalker

Site Position:		**Northing:**	571,481.50 usft	**Latitude:**	32.570166
From:	Map	**Easting:**	649,992.30 usft	**Longitude:**	-103.846445
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.262 °

Well 101H

Well Position	**+N/-S**	99.70 usft	**Northing:**	571,581.20 usft	**Latitude:**	32.570441
	+E/-W	-30.00 usft	**Easting:**	649,962.30 usft	**Longitude:**	-103.846541
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,449.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/4/2019	6.931	60.315	47,946

Design PERMIT

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.71

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	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.000	
2,691.40	13.83	347.29	2,684.71	80.99	-18.27	2.00	2.00	0.00	347.286	
8,992.27	13.83	347.29	8,802.96	1,550.02	-349.71	0.00	0.00	0.00	0.000	
9,915.97	89.41	89.71	9,389.00	1,692.30	216.00	10.00	8.18	11.09	102.211	BEU 30E #101H: F
19,724.53	89.41	89.71	9,490.48	1,742.44	10,023.90	0.00	0.00	0.00	0.000	BEU 30E #101H: L
19,774.53	89.41	89.71	9,491.00	1,742.70	10,073.90	0.00	0.00	0.00	0.000	BEU 30E #101H: P

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Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Alluvium - BEU 30E #101H: SHL (1540' FSL/ 435' FWL)									
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
686.00	0.00	0.00	686.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado/Top of 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
1,969.00	0.00	0.00	1,969.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	347.29	2,099.98	1.70	-0.38	-0.38	2.00	2.00	0.00
2,200.00	4.00	347.29	2,199.84	6.81	-1.54	-1.50	2.00	2.00	0.00
2,300.00	6.00	347.29	2,299.45	15.31	-3.45	-3.38	2.00	2.00	0.00
2,400.00	8.00	347.29	2,398.70	27.20	-6.14	-6.00	2.00	2.00	0.00
2,500.00	10.00	347.29	2,497.47	42.46	-9.58	-9.36	2.00	2.00	0.00
2,600.00	12.00	347.29	2,595.62	61.07	-13.78	-13.47	2.00	2.00	0.00
2,691.40	13.83	347.29	2,684.71	80.99	-18.27	-17.86	2.00	2.00	0.00
2,700.00	13.83	347.29	2,693.06	83.00	-18.73	-18.31	0.00	0.00	0.00
2,744.22	13.83	347.29	2,736.00	93.31	-21.05	-20.58	0.00	0.00	0.00
Capitan Reef									
2,800.00	13.83	347.29	2,790.16	106.31	-23.99	-23.45	0.00	0.00	0.00
2,900.00	13.83	347.29	2,887.26	129.63	-29.25	-28.59	0.00	0.00	0.00
3,000.00	13.83	347.29	2,984.36	152.94	-34.51	-33.73	0.00	0.00	0.00
3,100.00	13.83	347.29	3,081.47	176.26	-39.77	-38.87	0.00	0.00	0.00
3,200.00	13.83	347.29	3,178.57	199.57	-45.03	-44.02	0.00	0.00	0.00
3,300.00	13.83	347.29	3,275.67	222.89	-50.29	-49.16	0.00	0.00	0.00
3,400.00	13.83	347.29	3,372.77	246.20	-55.55	-54.30	0.00	0.00	0.00
3,500.00	13.83	347.29	3,469.87	269.52	-60.81	-59.44	0.00	0.00	0.00
3,600.00	13.83	347.29	3,566.97	292.83	-66.07	-64.59	0.00	0.00	0.00
3,700.00	13.83	347.29	3,664.08	316.14	-71.33	-69.73	0.00	0.00	0.00
3,800.00	13.83	347.29	3,761.18	339.46	-76.59	-74.87	0.00	0.00	0.00
3,900.00	13.83	347.29	3,858.28	362.77	-81.85	-80.01	0.00	0.00	0.00
4,000.00	13.83	347.29	3,955.38	386.09	-87.11	-85.15	0.00	0.00	0.00
4,063.46	13.83	347.29	4,017.00	400.88	-90.45	-88.42	0.00	0.00	0.00
Delaware Sand									

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Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.00	13.83	347.29	4,052.48	409.40	-92.37	-90.30	0.00	0.00	0.00
4,200.00	13.83	347.29	4,149.59	432.72	-97.63	-95.44	0.00	0.00	0.00
4,300.00	13.83	347.29	4,246.69	456.03	-102.89	-100.58	0.00	0.00	0.00
4,400.00	13.83	347.29	4,343.79	479.35	-108.15	-105.72	0.00	0.00	0.00
4,500.00	13.83	347.29	4,440.89	502.66	-113.41	-110.86	0.00	0.00	0.00
4,600.00	13.83	347.29	4,537.99	525.98	-118.67	-116.01	0.00	0.00	0.00
4,700.00	13.83	347.29	4,635.09	549.29	-123.93	-121.15	0.00	0.00	0.00
4,800.00	13.83	347.29	4,732.20	572.61	-129.19	-126.29	0.00	0.00	0.00
4,871.89	13.83	347.29	4,802.00	589.37	-132.97	-129.99	0.00	0.00	0.00
Manzanita Marker									
4,900.00	13.83	347.29	4,829.30	595.92	-134.45	-131.43	0.00	0.00	0.00
5,000.00	13.83	347.29	4,926.40	619.24	-139.71	-136.58	0.00	0.00	0.00
5,100.00	13.83	347.29	5,023.50	642.55	-144.97	-141.72	0.00	0.00	0.00
5,200.00	13.83	347.29	5,120.60	665.86	-150.23	-146.86	0.00	0.00	0.00
5,300.00	13.83	347.29	5,217.70	689.18	-155.49	-152.00	0.00	0.00	0.00
5,400.00	13.83	347.29	5,314.81	712.49	-160.75	-157.14	0.00	0.00	0.00
5,500.00	13.83	347.29	5,411.91	735.81	-166.01	-162.29	0.00	0.00	0.00
5,600.00	13.83	347.29	5,509.01	759.12	-171.27	-167.43	0.00	0.00	0.00
5,700.00	13.83	347.29	5,606.11	782.44	-176.53	-172.57	0.00	0.00	0.00
5,800.00	13.83	347.29	5,703.21	805.75	-181.79	-177.71	0.00	0.00	0.00
5,884.23	13.83	347.29	5,785.00	825.39	-186.22	-182.04	0.00	0.00	0.00
Brushy Canyon Ss.									
5,900.00	13.83	347.29	5,800.32	829.07	-187.05	-182.86	0.00	0.00	0.00
6,000.00	13.83	347.29	5,897.42	852.38	-192.31	-188.00	0.00	0.00	0.00
6,100.00	13.83	347.29	5,994.52	875.70	-197.57	-193.14	0.00	0.00	0.00
6,200.00	13.83	347.29	6,091.62	899.01	-202.83	-198.28	0.00	0.00	0.00
6,300.00	13.83	347.29	6,188.72	922.33	-208.09	-203.42	0.00	0.00	0.00
6,400.00	13.83	347.29	6,285.82	945.64	-213.35	-208.57	0.00	0.00	0.00
6,500.00	13.83	347.29	6,382.93	968.96	-218.62	-213.71	0.00	0.00	0.00
6,600.00	13.83	347.29	6,480.03	992.27	-223.88	-218.85	0.00	0.00	0.00
6,700.00	13.83	347.29	6,577.13	1,015.58	-229.14	-223.99	0.00	0.00	0.00
6,800.00	13.83	347.29	6,674.23	1,038.90	-234.40	-229.13	0.00	0.00	0.00
6,900.00	13.83	347.29	6,771.33	1,062.21	-239.66	-234.28	0.00	0.00	0.00
7,000.00	13.83	347.29	6,868.43	1,085.53	-244.92	-239.42	0.00	0.00	0.00
7,100.00	13.83	347.29	6,965.54	1,108.84	-250.18	-244.56	0.00	0.00	0.00
7,200.00	13.83	347.29	7,062.64	1,132.16	-255.44	-249.70	0.00	0.00	0.00
7,278.64	13.83	347.29	7,139.00	1,150.49	-259.57	-253.75	0.00	0.00	0.00
Lower Brushy Canyon Ss.									
7,300.00	13.83	347.29	7,159.74	1,155.47	-260.70	-254.85	0.00	0.00	0.00
7,400.00	13.83	347.29	7,256.84	1,178.79	-265.96	-259.99	0.00	0.00	0.00
7,500.00	13.83	347.29	7,353.94	1,202.10	-271.22	-265.13	0.00	0.00	0.00
7,517.57	13.83	347.29	7,371.00	1,206.20	-272.14	-266.03	0.00	0.00	0.00
Bone Spring Lm.									
7,600.00	13.83	347.29	7,451.05	1,225.42	-276.48	-270.27	0.00	0.00	0.00
7,684.40	13.83	347.29	7,533.00	1,245.09	-280.92	-274.61	0.00	0.00	0.00
Avalon Ss.									
7,700.00	13.83	347.29	7,548.15	1,248.73	-281.74	-275.41	0.00	0.00	0.00
7,701.91	13.83	347.29	7,550.00	1,249.18	-281.84	-275.51	0.00	0.00	0.00
Upper Avalon Carb.									
7,753.40	13.83	347.29	7,600.00	1,261.18	-284.55	-278.16	0.00	0.00	0.00
Upper Avalon Sh.									
7,800.00	13.83	347.29	7,645.25	1,272.05	-287.00	-280.56	0.00	0.00	0.00
7,900.00	13.83	347.29	7,742.35	1,295.36	-292.26	-285.70	0.00	0.00	0.00

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Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,000.00	13.83	347.29	7,839.45	1,318.68	-297.52	-290.84	0.00	0.00	0.00
8,029.40	13.83	347.29	7,868.00	1,325.53	-299.07	-292.35	0.00	0.00	0.00
Lw. Avalon Carb.									
8,100.00	13.83	347.29	7,936.55	1,341.99	-302.78	-295.98	0.00	0.00	0.00
8,200.00	13.83	347.29	8,033.66	1,365.31	-308.04	-301.12	0.00	0.00	0.00
8,247.73	13.83	347.29	8,080.00	1,376.43	-310.55	-303.58	0.00	0.00	0.00
Lw. Avalon Sh.									
8,300.00	13.83	347.29	8,130.76	1,388.62	-313.30	-306.27	0.00	0.00	0.00
8,400.00	13.83	347.29	8,227.86	1,411.93	-318.56	-311.41	0.00	0.00	0.00
8,464.00	13.83	347.29	8,290.00	1,426.85	-321.93	-314.70	0.00	0.00	0.00
Bone Spring Carb.									
8,500.00	13.83	347.29	8,324.96	1,435.25	-323.82	-316.55	0.00	0.00	0.00
8,600.00	13.83	347.29	8,422.06	1,458.56	-329.08	-321.69	0.00	0.00	0.00
8,700.00	13.83	347.29	8,519.17	1,481.88	-334.34	-326.84	0.00	0.00	0.00
8,759.56	13.83	347.29	8,577.00	1,495.76	-337.47	-329.90	0.00	0.00	0.00
First Bone Spring Ss.									
8,800.00	13.83	347.29	8,616.27	1,505.19	-339.60	-331.98	0.00	0.00	0.00
8,900.00	13.83	347.29	8,713.37	1,528.51	-344.86	-337.12	0.00	0.00	0.00
8,992.27	13.83	347.29	8,802.96	1,550.02	-349.71	-341.86	0.00	0.00	0.00
9,000.00	13.68	350.48	8,810.47	1,551.82	-350.07	-342.21	10.00	-1.85	41.33
9,000.54	13.68	350.71	8,811.00	1,551.95	-350.09	-342.23	10.00	-1.56	41.76
Second Bone Spring Carb.									
9,050.00	13.79	11.65	8,859.07	1,563.50	-349.84	-341.93	10.00	0.23	42.33
9,100.00	15.56	30.21	8,907.47	1,575.14	-345.26	-337.29	10.00	3.54	37.14
9,150.00	18.52	44.04	8,955.29	1,586.65	-336.36	-328.33	10.00	5.93	27.65
9,200.00	22.21	53.80	9,002.17	1,597.95	-323.21	-315.12	10.00	7.37	19.52
9,250.00	26.31	60.78	9,047.75	1,608.94	-305.90	-297.75	10.00	8.21	13.96
9,300.00	30.67	65.95	9,091.69	1,619.56	-284.57	-276.37	10.00	8.71	10.33
9,350.00	35.18	69.92	9,133.66	1,629.71	-259.39	-251.14	10.00	9.02	7.95
9,368.98	36.92	71.20	9,149.00	1,633.42	-248.86	-240.59	10.00	9.18	6.75
Second Bone Spring Ss.									
9,400.00	39.79	73.09	9,173.33	1,639.31	-230.53	-222.23	10.00	9.26	6.07
9,450.00	44.48	75.69	9,210.40	1,648.30	-198.23	-189.89	10.00	9.37	5.20
9,500.00	49.21	77.89	9,244.59	1,656.61	-162.73	-154.34	10.00	9.47	4.40
9,550.00	53.99	79.79	9,275.64	1,664.17	-124.30	-115.87	10.00	9.54	3.81
9,555.76	54.54	80.00	9,279.00	1,664.99	-119.69	-111.26	10.00	9.58	3.55
Second Bone Spring A Ss.									
9,600.00	58.79	81.48	9,303.31	1,670.93	-83.22	-74.76	10.00	9.60	3.35
9,650.00	63.61	83.00	9,327.39	1,676.83	-39.82	-31.34	10.00	9.64	3.05
9,700.00	68.44	84.40	9,347.71	1,681.83	5.57	14.09	10.00	9.67	2.80
9,717.80	70.16	84.88	9,354.00	1,683.38	22.15	30.67	10.00	9.68	2.67
Second Bone Spring B Ss.									
9,750.00	73.28	85.71	9,364.10	1,685.89	52.62	61.15	10.00	9.69	2.59
9,800.00	78.14	86.96	9,376.44	1,688.98	100.96	109.50	10.00	9.70	2.49
9,850.00	82.99	88.16	9,384.63	1,691.08	150.22	158.78	10.00	9.72	2.40
9,900.00	87.85	89.33	9,388.62	1,692.17	200.03	208.60	10.00	9.72	2.35
9,915.97	89.41	89.71	9,389.00	1,692.30	216.00	224.56	10.00	9.72	2.34
Landing Point - BEU 30E #101H: FTP/LP									
10,000.00	89.41	89.71	9,389.87	1,692.73	300.02	308.59	0.00	0.00	0.00
10,100.00	89.41	89.71	9,390.90	1,693.24	400.02	408.58	0.00	0.00	0.00
10,200.00	89.41	89.71	9,391.94	1,693.75	500.01	508.58	0.00	0.00	0.00
10,300.00	89.41	89.71	9,392.97	1,694.26	600.00	608.57	0.00	0.00	0.00
10,400.00	89.41	89.71	9,394.01	1,694.77	700.00	708.56	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 101H
Company:	XTO Energy	**TVD Reference:**	RKB=25 @ 3474.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB=25 @ 3474.00usft
Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.00	89.41	89.71	9,395.04	1,695.29	799.99	808.56	0.00	0.00	0.00
10,600.00	89.41	89.71	9,396.08	1,695.80	899.98	908.55	0.00	0.00	0.00
10,700.00	89.41	89.71	9,397.11	1,696.31	999.98	1,008.55	0.00	0.00	0.00
10,800.00	89.41	89.71	9,398.15	1,696.82	1,099.97	1,108.54	0.00	0.00	0.00
10,900.00	89.41	89.71	9,399.18	1,697.33	1,199.96	1,208.54	0.00	0.00	0.00
11,000.00	89.41	89.71	9,400.22	1,697.84	1,299.96	1,308.53	0.00	0.00	0.00
11,100.00	89.41	89.71	9,401.25	1,698.35	1,399.95	1,408.53	0.00	0.00	0.00
11,200.00	89.41	89.71	9,402.29	1,698.86	1,499.94	1,508.52	0.00	0.00	0.00
11,300.00	89.41	89.71	9,403.32	1,699.38	1,599.94	1,608.52	0.00	0.00	0.00
11,400.00	89.41	89.71	9,404.35	1,699.89	1,699.93	1,708.51	0.00	0.00	0.00
11,500.00	89.41	89.71	9,405.39	1,700.40	1,799.92	1,808.51	0.00	0.00	0.00
11,600.00	89.41	89.71	9,406.42	1,700.91	1,899.92	1,908.50	0.00	0.00	0.00
11,700.00	89.41	89.71	9,407.46	1,701.42	1,999.91	2,008.50	0.00	0.00	0.00
11,800.00	89.41	89.71	9,408.49	1,701.93	2,099.90	2,108.49	0.00	0.00	0.00
11,900.00	89.41	89.71	9,409.53	1,702.44	2,199.90	2,208.48	0.00	0.00	0.00
12,000.00	89.41	89.71	9,410.56	1,702.95	2,299.89	2,308.48	0.00	0.00	0.00
12,100.00	89.41	89.71	9,411.60	1,703.47	2,399.88	2,408.47	0.00	0.00	0.00
12,200.00	89.41	89.71	9,412.63	1,703.98	2,499.88	2,508.47	0.00	0.00	0.00
12,300.00	89.41	89.71	9,413.67	1,704.49	2,599.87	2,608.46	0.00	0.00	0.00
12,400.00	89.41	89.71	9,414.70	1,705.00	2,699.86	2,708.46	0.00	0.00	0.00
12,500.00	89.41	89.71	9,415.74	1,705.51	2,799.86	2,808.45	0.00	0.00	0.00
12,600.00	89.41	89.71	9,416.77	1,706.02	2,899.85	2,908.45	0.00	0.00	0.00
12,700.00	89.41	89.71	9,417.80	1,706.53	2,999.84	3,008.44	0.00	0.00	0.00
12,800.00	89.41	89.71	9,418.84	1,707.04	3,099.84	3,108.44	0.00	0.00	0.00
12,900.00	89.41	89.71	9,419.87	1,707.56	3,199.83	3,208.43	0.00	0.00	0.00
13,000.00	89.41	89.71	9,420.91	1,708.07	3,299.82	3,308.43	0.00	0.00	0.00
13,100.00	89.41	89.71	9,421.94	1,708.58	3,399.82	3,408.42	0.00	0.00	0.00
13,200.00	89.41	89.71	9,422.98	1,709.09	3,499.81	3,508.41	0.00	0.00	0.00
13,298.81	89.41	89.71	9,424.00	1,709.59	3,598.61	3,607.22	0.00	0.00	0.00
Second Bone Spring B Base									
13,300.00	89.41	89.71	9,424.01	1,709.60	3,599.80	3,608.41	0.00	0.00	0.00
13,400.00	89.41	89.71	9,425.05	1,710.11	3,699.80	3,708.40	0.00	0.00	0.00
13,500.00	89.41	89.71	9,426.08	1,710.62	3,799.79	3,808.40	0.00	0.00	0.00
13,600.00	89.41	89.71	9,427.12	1,711.13	3,899.78	3,908.39	0.00	0.00	0.00
13,700.00	89.41	89.71	9,428.15	1,711.65	3,999.78	4,008.39	0.00	0.00	0.00
13,800.00	89.41	89.71	9,429.19	1,712.16	4,099.77	4,108.38	0.00	0.00	0.00
13,900.00	89.41	89.71	9,430.22	1,712.67	4,199.76	4,208.38	0.00	0.00	0.00
14,000.00	89.41	89.71	9,431.25	1,713.18	4,299.76	4,308.37	0.00	0.00	0.00
14,100.00	89.41	89.71	9,432.29	1,713.69	4,399.75	4,408.37	0.00	0.00	0.00
14,200.00	89.41	89.71	9,433.32	1,714.20	4,499.74	4,508.36	0.00	0.00	0.00
14,300.00	89.41	89.71	9,434.36	1,714.71	4,599.74	4,608.36	0.00	0.00	0.00
14,400.00	89.41	89.71	9,435.39	1,715.22	4,699.73	4,708.35	0.00	0.00	0.00
14,500.00	89.41	89.71	9,436.43	1,715.74	4,799.72	4,808.35	0.00	0.00	0.00
14,600.00	89.41	89.71	9,437.46	1,716.25	4,899.72	4,908.34	0.00	0.00	0.00
14,700.00	89.41	89.71	9,438.50	1,716.76	4,999.71	5,008.33	0.00	0.00	0.00
14,800.00	89.41	89.71	9,439.53	1,717.27	5,099.70	5,108.33	0.00	0.00	0.00
14,900.00	89.41	89.71	9,440.57	1,717.78	5,199.70	5,208.32	0.00	0.00	0.00
15,000.00	89.41	89.71	9,441.60	1,718.29	5,299.69	5,308.32	0.00	0.00	0.00
15,100.00	89.41	89.71	9,442.64	1,718.80	5,399.68	5,408.31	0.00	0.00	0.00
15,200.00	89.41	89.71	9,443.67	1,719.31	5,499.68	5,508.31	0.00	0.00	0.00
15,300.00	89.41	89.71	9,444.71	1,719.82	5,599.67	5,608.30	0.00	0.00	0.00
15,400.00	89.41	89.71	9,445.74	1,720.34	5,699.66	5,708.30	0.00	0.00	0.00
15,500.00	89.41	89.71	9,446.77	1,720.85	5,799.66	5,808.29	0.00	0.00	0.00
15,600.00	89.41	89.71	9,447.81	1,721.36	5,899.65	5,908.29	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 101H
Company:	XTO Energy	**TVD Reference:**	RKB=25 @ 3474.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB=25 @ 3474.00usft
Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,700.00	89.41	89.71	9,448.84	1,721.87	5,999.64	6,008.28	0.00	0.00	0.00
15,800.00	89.41	89.71	9,449.88	1,722.38	6,099.64	6,108.28	0.00	0.00	0.00
15,900.00	89.41	89.71	9,450.91	1,722.89	6,199.63	6,208.27	0.00	0.00	0.00
16,000.00	89.41	89.71	9,451.95	1,723.40	6,299.62	6,308.26	0.00	0.00	0.00
16,100.00	89.41	89.71	9,452.98	1,723.91	6,399.62	6,408.26	0.00	0.00	0.00
16,200.00	89.41	89.71	9,454.02	1,724.43	6,499.61	6,508.25	0.00	0.00	0.00
16,300.00	89.41	89.71	9,455.05	1,724.94	6,599.60	6,608.25	0.00	0.00	0.00
16,400.00	89.41	89.71	9,456.09	1,725.45	6,699.60	6,708.24	0.00	0.00	0.00
16,500.00	89.41	89.71	9,457.12	1,725.96	6,799.59	6,808.24	0.00	0.00	0.00
16,600.00	89.41	89.71	9,458.16	1,726.47	6,899.58	6,908.23	0.00	0.00	0.00
16,700.00	89.41	89.71	9,459.19	1,726.98	6,999.58	7,008.23	0.00	0.00	0.00
16,800.00	89.41	89.71	9,460.22	1,727.49	7,099.57	7,108.22	0.00	0.00	0.00
16,900.00	89.41	89.71	9,461.26	1,728.00	7,199.56	7,208.22	0.00	0.00	0.00
17,000.00	89.41	89.71	9,462.29	1,728.52	7,299.56	7,308.21	0.00	0.00	0.00
17,100.00	89.41	89.71	9,463.33	1,729.03	7,399.55	7,408.21	0.00	0.00	0.00
17,200.00	89.41	89.71	9,464.36	1,729.54	7,499.54	7,508.20	0.00	0.00	0.00
17,300.00	89.41	89.71	9,465.40	1,730.05	7,599.54	7,608.20	0.00	0.00	0.00
17,400.00	89.41	89.71	9,466.43	1,730.56	7,699.53	7,708.19	0.00	0.00	0.00
17,500.00	89.41	89.71	9,467.47	1,731.07	7,799.52	7,808.18	0.00	0.00	0.00
17,600.00	89.41	89.71	9,468.50	1,731.58	7,899.52	7,908.18	0.00	0.00	0.00
17,700.00	89.41	89.71	9,469.54	1,732.09	7,999.51	8,008.17	0.00	0.00	0.00
17,800.00	89.41	89.71	9,470.57	1,732.61	8,099.50	8,108.17	0.00	0.00	0.00
17,900.00	89.41	89.71	9,471.61	1,733.12	8,199.50	8,208.16	0.00	0.00	0.00
18,000.00	89.41	89.71	9,472.64	1,733.63	8,299.49	8,308.16	0.00	0.00	0.00
18,100.00	89.41	89.71	9,473.67	1,734.14	8,399.48	8,408.15	0.00	0.00	0.00
18,200.00	89.41	89.71	9,474.71	1,734.65	8,499.48	8,508.15	0.00	0.00	0.00
18,300.00	89.41	89.71	9,475.74	1,735.16	8,599.47	8,608.14	0.00	0.00	0.00
18,400.00	89.41	89.71	9,476.78	1,735.67	8,699.46	8,708.14	0.00	0.00	0.00
18,500.00	89.41	89.71	9,477.81	1,736.18	8,799.46	8,808.13	0.00	0.00	0.00
18,600.00	89.41	89.71	9,478.85	1,736.70	8,899.45	8,908.13	0.00	0.00	0.00
18,700.00	89.41	89.71	9,479.88	1,737.21	8,999.44	9,008.12	0.00	0.00	0.00
18,800.00	89.41	89.71	9,480.92	1,737.72	9,099.44	9,108.12	0.00	0.00	0.00
18,900.00	89.41	89.71	9,481.95	1,738.23	9,199.43	9,208.11	0.00	0.00	0.00
19,000.00	89.41	89.71	9,482.99	1,738.74	9,299.42	9,308.10	0.00	0.00	0.00
19,100.00	89.41	89.71	9,484.02	1,739.25	9,399.42	9,408.10	0.00	0.00	0.00
19,200.00	89.41	89.71	9,485.06	1,739.76	9,499.41	9,508.09	0.00	0.00	0.00
19,300.00	89.41	89.71	9,486.09	1,740.27	9,599.40	9,608.09	0.00	0.00	0.00
19,400.00	89.41	89.71	9,487.13	1,740.79	9,699.40	9,708.08	0.00	0.00	0.00
19,500.00	89.41	89.71	9,488.16	1,741.30	9,799.39	9,808.08	0.00	0.00	0.00
19,600.00	89.41	89.71	9,489.19	1,741.81	9,899.38	9,908.07	0.00	0.00	0.00
19,700.00	89.41	89.71	9,490.23	1,742.32	9,999.38	10,008.07	0.00	0.00	0.00
19,724.53	89.41	89.71	9,490.48	1,742.44	10,023.90	10,032.59	0.00	0.00	0.00
BEU 30E #101H: LTP									
19,774.53	89.41	89.71	9,491.00	1,742.70	10,073.90	10,082.59	0.00	0.00	0.00
BEU 30E #101H: PBHL 1980' FNL/ 50' FEL)									

Database:	EDM 5000.1 Single User Db	**Local Co-ordinate Reference:**	Well 101H
Company:	XTO Energy	**TVD Reference:**	RKB=25 @ 3474.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB=25 @ 3474.00usft
Site:	BEU 30E Skywalker	**North Reference:**	Grid
Well:	101H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BEU 30E #101H: SHL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	571,581.20	649,962.30	32.570441	-103.846541
BEU 30E #101H: FTP - plan hits target center - Point	0.00	0.00	9,389.00	1,692.30	216.00	573,273.50	650,178.30	32.575090	-103.845814
BEU 30E #101H: LTP - plan misses target center by 0.06usft at 19724.53usft MD (9490.48 TVD, 1742.44 N, 10023.90 E) - Point	0.00	0.01	9,490.48	1,742.50	10,023.90	573,323.70	659,986.20	32.575100	-103.813976
BEU 30E #101H: PBH - plan hits target center - Point	0.00	0.00	9,491.00	1,742.70	10,073.90	573,323.90	660,036.20	32.575100	-103.813813

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
0.00	0.00	Alluvium			
686.00	686.00	Rustler			
950.00	950.00	Salado/Top of Salt			
1,969.00	1,969.00	Base of Salt			
2,744.22	2,736.00	Capitan Reef			
4,063.46	4,017.00	Delaware Sand			
4,871.89	4,802.00	Manzanita Marker			
5,884.23	5,785.00	Brushy Canyon Ss.			
7,278.64	7,139.00	Lower Brushy Canyon Ss.			
7,517.57	7,371.00	Bone Spring Lm.			
7,684.40	7,533.00	Avalon Ss.			
7,701.91	7,550.00	Upper Avalon Carb.			
7,753.40	7,600.00	Upper Avalon Sh.			
8,029.40	7,868.00	Lw. Avalon Carb.			
8,247.73	8,080.00	Lw. Avalon Sh.			
8,464.00	8,290.00	Bone Spring Carb.			
8,759.56	8,577.00	First Bone Spring Ss.			
9,000.54	8,811.00	Second Bone Spring Carb.			
9,368.98	9,149.00	Second Bone Spring Ss.			
9,555.76	9,279.00	Second Bone Spring A Ss.			
9,717.80	9,354.00	Second Bone Spring B Ss.			
9,915.97	9,389.00	Landing Point			
13,298.81	9,424.00	Second Bone Spring B Base			

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

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

GRADE D PRESSURE TEST CERTIFICATE

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

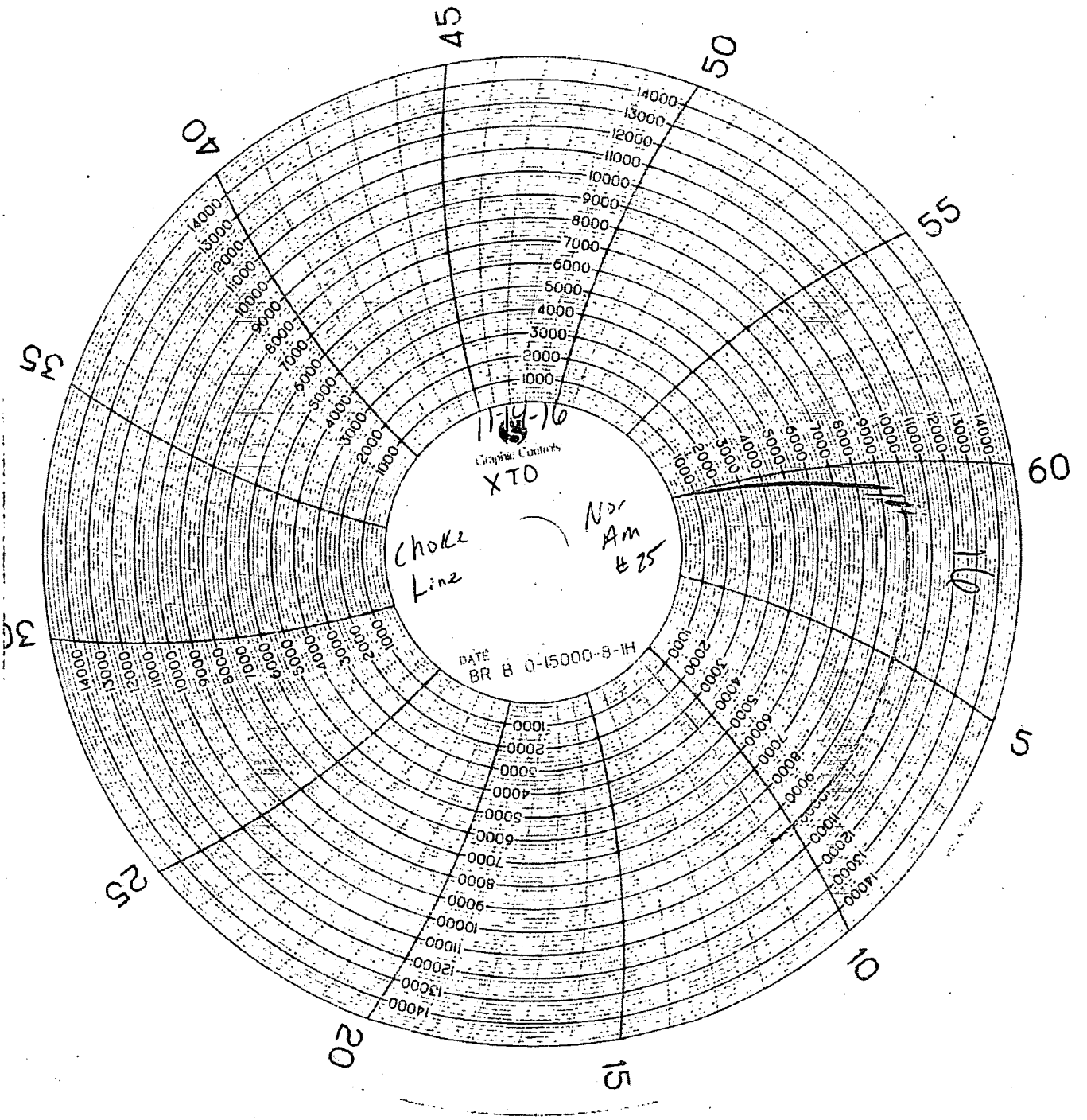
Product Description:	FD3.042.0R41/16.5KFLGE/E LE

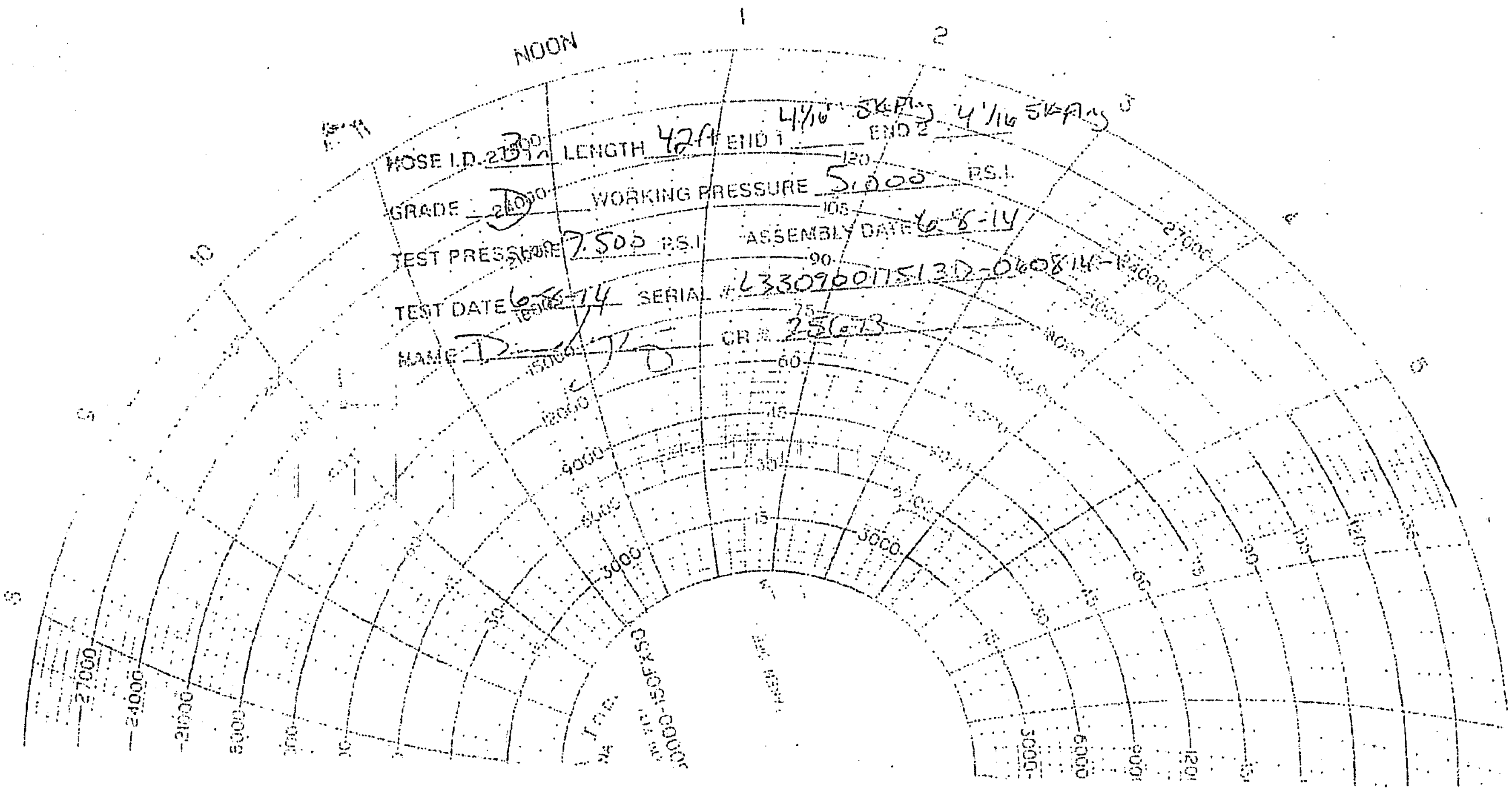
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

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

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

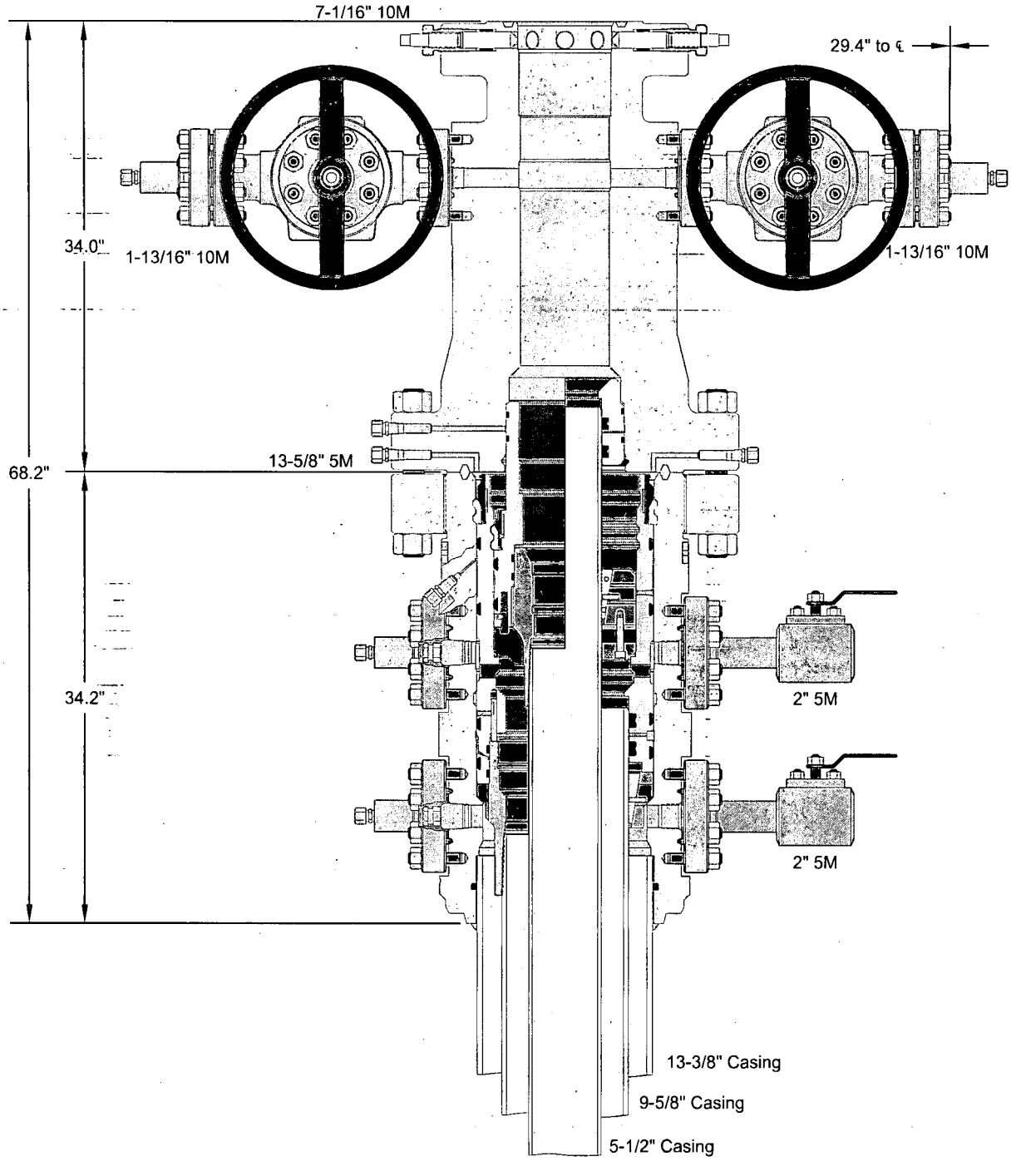
Form PTC - 01 Rev.0 2


11-14-16
XTO
Choke Line
NDC Am #25
DATE
BR B 0-15000-5-IH



NOON
HOSE I.D. 3" LENGTH 42ft END 1 4 1/16 5K Flg END 2 4 1/16 5K Flg
GRADE D WORKING PRESSURE 5,000 P.S.I.
TEST PRESSURE 7,500 P.S.I. ASSEMBLY DATE 6-8-14
TEST DATE 6-8-14 SERIAL # 6330960175130-060814-1
NAME CR # 25673

GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

XTO ENERGY, INC.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead Assembly, With T-EBS-F Tubing Head

DRAWN	VJK	16FEB17
APPRV	KN	16FEB17

FOR REFERENCE ONLY
DRAWING NO. 10012842

APD ID: 10400039860
Submission Date: 03/25/2019
Operator Name: XTO PERMIAN OPERATING LLC
Well Name: BIG EDDY UNIT 30E SKYWALKER
Well Number: 101H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BEU30_Sky_101H_Road_20190312082012.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BEU30_1_Mile_20190218080236.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. No additional production facilities are necessary for Big Eddy Unit DI30 wells. Once drilled and completed, the wells will flow to the Big Eddy Unit DI 30 West or East CTB battery, located approximately 750' from the drill island. No additional surface disturbance is needed. Flowlines. BEU DI30 West CTB: Seven (7) 767.58' buried 6" steel or poly flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 West CTB for future production (oil, gas, water lines). Seven (7) additional 767.58' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 West CTB for gas lift. Total Flowlines to the West Battery with this applications: 14 buried. BEU DI30 East CTB: Seven (7) 731.74' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 East CTB for future production (oil, gas, water lines). Seven (7) additional 731.74' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 East CTB for future gas lift. Total Flowlines to the East Battery with this applications: 14 buried. Gas Pipeline. No Gas Sales line is required for this well. No additional surface disturbance is needed. Disposal Facilities. Produced water will be pumped from the respective Central Tank Battery to the Big Eddy Unit 14 Federal SWD #1 well as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. No flare is required. No additional surface disturbance is needed. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas. Electrical. No additional electrical is required for this well. No additional surface disturbance is needed.

Production Facilities map:

BEU30_FLC_20190218080323.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

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

Water source type: OTHER

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

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT,PRIVATE CONTRACT,PRIVATE CONTRACT

Source land ownership: FEDERAL

Water source transport method: TRUCKING,TRUCKING,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 335000

Source volume (acre-feet): 43.179188

Source volume (gal): 14070000

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Water source use type: INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING **Water source type:** OTHER

Describe type: Fresh Water; Section 21-23S-30E

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: FEDERAL

Water source transport method: TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 335000 **Source volume (acre-feet):** 43.179188

Source volume (gal): 14070000

Water source and transportation map:

BEU30_Sky_101H_Wtr_20190312082042.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 13 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: Select Energy Services [Rockhouse Water] Water for drilling, completion and dust control will be supplied by Select Energy Services for sale to XTO Energy, inc. from Section 21-23S-30E, Eddy County, New Mexico. In the event that Select Energy Services 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.

New water well? NO

New Water Well Info

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

Well target aquifer:

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

Aquifer comments:

Aquifer documentation:

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

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

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

Drilling method: **Drill material:**

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

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 27-T20S-R31E iPit 2: Federal Caliche Pit, Section 5-T21S-R30E

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

Disposal type description:

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

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

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

Safe containmant attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

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

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

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel mud pits

Safe containmant attachment:

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

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

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

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

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

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

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cuttings. The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site. Drilling Fluids. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced Fluids. Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BEU30_Sky_101H_Well_20190312082116.pdf

Comments: Drill Island. The Big Eddy Unit DI 30 drill island is previously approved as a 900'x900' space for use of oil and gas operations inside of the Secretary's Order of Potash Area (SOPA). Approval was made under EA: DOI-BLM-NM-P020-2018-0163-EA. The well pad associated with the drill island is 1500'x1500', overlapping the approved 900'x900' previously approved, and will be used for well locations for wells productive of oil and gas with no surface hole planned outside of the boundary of the approved drill island. BEU DI 30 Centerpoint: 250'FWL & 1112'FSL, Section 14-T20S-R31E, NMPM, Eddy County, NM The total size of the drill island as approved under EA DOI-BLM-NM-P020-2018-0163-EA will be 900'x900', or 18.59acres. The entire well pad, including drill island space, will be: 1500'x1500, or 51.65acres. A current detailed plat of the drill island is attached depicting shallow and deep designation areas, current well pads, pipelines, and existing well pads. Shallow and deep designation areas were determined post-onsite based on ¼ mile or ½ mile from the edge of the drill island to existing mine workings as depicted in BLM shape files. • Well Sites. One (1) 1500'x1500' well pad has been staked on the drill island, known as Big Eddy Unit DI30, in anticipation of drilling 160 wells. Surveys of the drill island location have been completed by FSC, Inc., a registered professional land surveyor and are attached to this application. This application applies to allow the well pads to fall off of the edge of the approved 900'x900' drill island. The wellbore paths will not leave the 900'x900' previously approved drill island until the salt zone is cased and protected pursuant to NMOCD Order R-111-P. Approval of the drill island does not constitute approval to drill. An APD must be submitted and approved for each well

drill island prior to any surface disturbance or drilling activity.

Section 10 - Plans for Surface Reclamation

Type of disturbance: No New Surface Disturbance **Multiple Well Pad Name:** BEU DI

Multiple Well Pad Number: 30

Recontouring attachment:

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

Well pad proposed disturbance (acres): 0	**Well pad interim reclamation (acres):**	**Well pad long term disturbance (acres):**
Road proposed disturbance (acres): 0	**Road interim reclamation (acres):**	**Road long term disturbance (acres):**
Powerline proposed disturbance (acres): 0	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres): 0	**Pipeline interim reclamation (acres):**	**Pipeline long term disturbance (acres):**
Other proposed disturbance (acres): 0	**Other interim reclamation (acres):**	**Other long term disturbance (acres):**
Total proposed disturbance: 0	**Total interim reclamation:**	**Total long term disturbance:**

Disturbance Comments: No surface reclamation is planned for this well. XTO Permian Operating, LLC. requests a variance to interim reclamation until all wells on the drill island have been drilled and completed, at which time, XTO Permian Operating, LLC. will contact the appropriate BLM personnel to discuss appropriate interim reclamation plans.
Reconstruction method: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded.
Topsoil redistribution: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded.
Soil treatment: A self-sustaining, vigorous, diverse, native (or otherwise approved) plan community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.
Existing Vegetation at the well pad: No vegetation exists currently at the well. The well pad has been built and construction has taken place by BOPCO, L.P. prior to XTO Permian Operating, LLC's merger with the company.
Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: No vegetation exists currently at the road. The road has been built and construction has taken place by BOPCO, L.P. prior to XTO Permian Operating, LLC's merger with the company.
Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: No vegetation exists currently at the pipeline. The pipeline has been built and construction has taken place by BOPCO, L.P. prior to XTO Permian Operating, LLC's merger with the company.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jeff **Last Name:** Raines

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

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

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

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

Success standards: 100% compliance with applicable regulations.

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

Section 11 - Surface Ownership

Disturbance type: OTHER

Describe: Flowline

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

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:**

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER **Well Number:** 101H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other Information

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

ROW Type(s):

ROW Applications

SUPO Additional Information: Original 900'x900' DI approved under EA: DOI-BLM-NM-P020-2018-0163-EA. Expansion is 300' on each side of DI.
Use a previously conducted onsite? NO

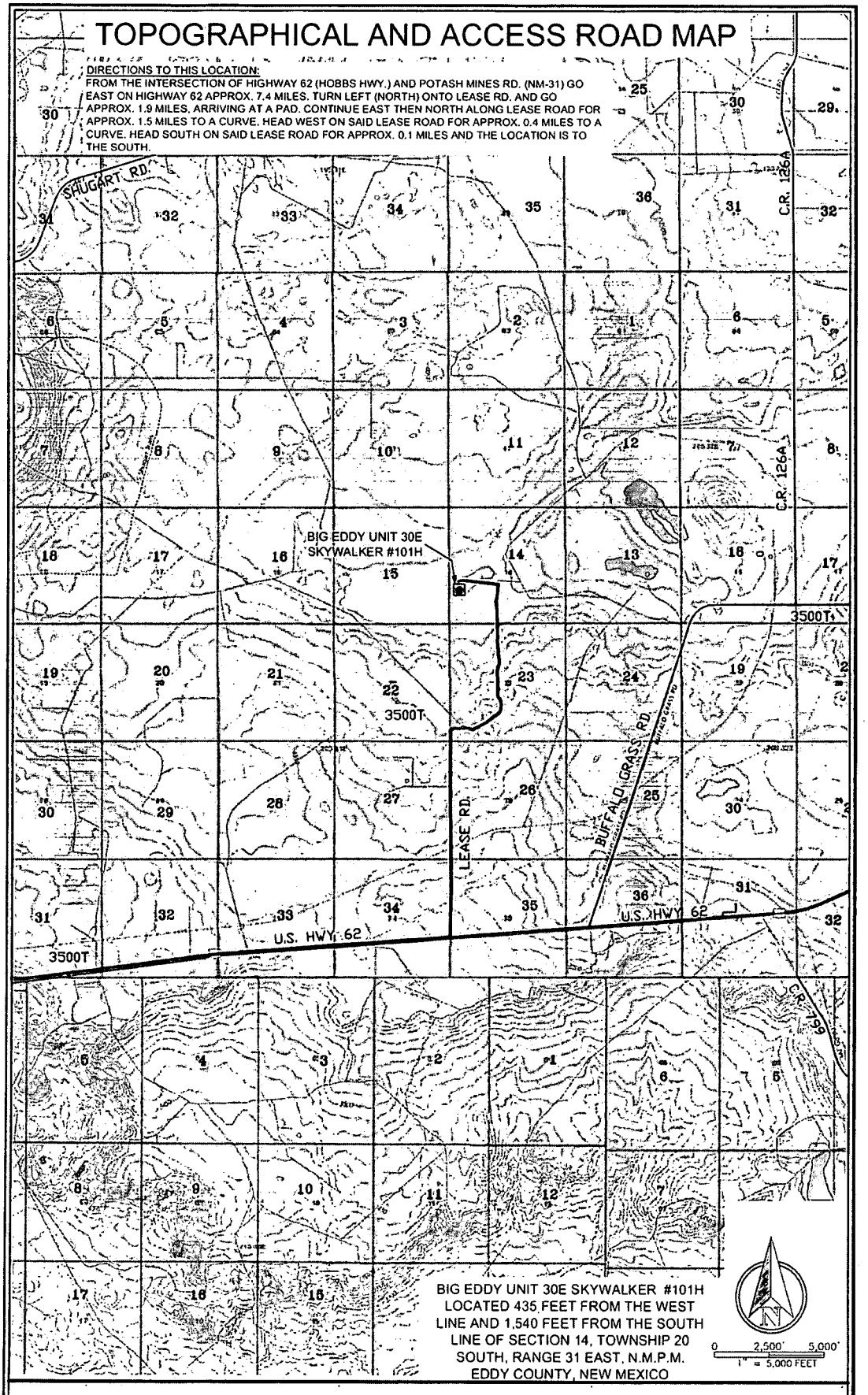
Previous Onsite information:

Other SUPO Attachment

BEU30_SUPO_20190314093850.pdf
BEU30_List_20190314093903.pdf
BEU30_LF_20190314093915.pdf
BEU30_DI_20190314093923.pdf

TOPOGRAPHICAL AND ACCESS ROAD MAP

DIRECTIONS TO THIS LOCATION:
FROM THE INTERSECTION OF HIGHWAY 62 (HOBBS HWY.) AND POTASH MINES RD. (NM-31) GO EAST ON HIGHWAY 62 APPROX. 7.4 MILES. TURN LEFT (NORTH) ONTO LEASE RD. AND GO APPROX. 1.9 MILES, ARRIVING AT A PAD. CONTINUE EAST THEN NORTH ALONG LEASE ROAD FOR APPROX. 1.5 MILES TO A CURVE. HEAD WEST ON SAID LEASE ROAD FOR APPROX. 0.4 MILES TO A CURVE. HEAD SOUTH ON SAID LEASE ROAD FOR APPROX. 0.1 MILES AND THE LOCATION IS TO THE SOUTH.



BIG EDDY UNIT 30E SKYWALKER #101H
LOCATED 435 FEET FROM THE WEST LINE AND 1,540 FEET FROM THE SOUTH LINE OF SECTION 14, TOWNSHIP 20 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

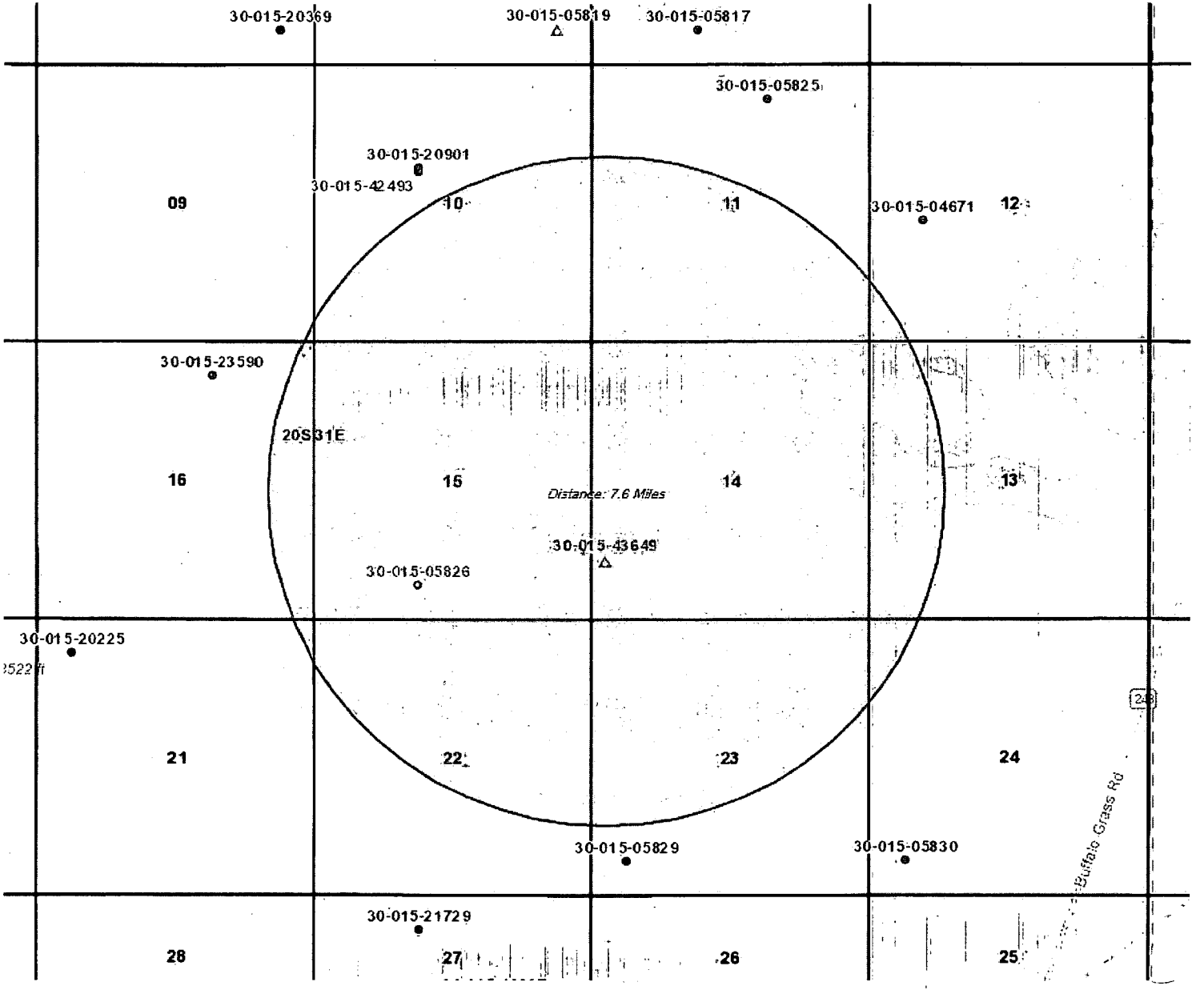
N

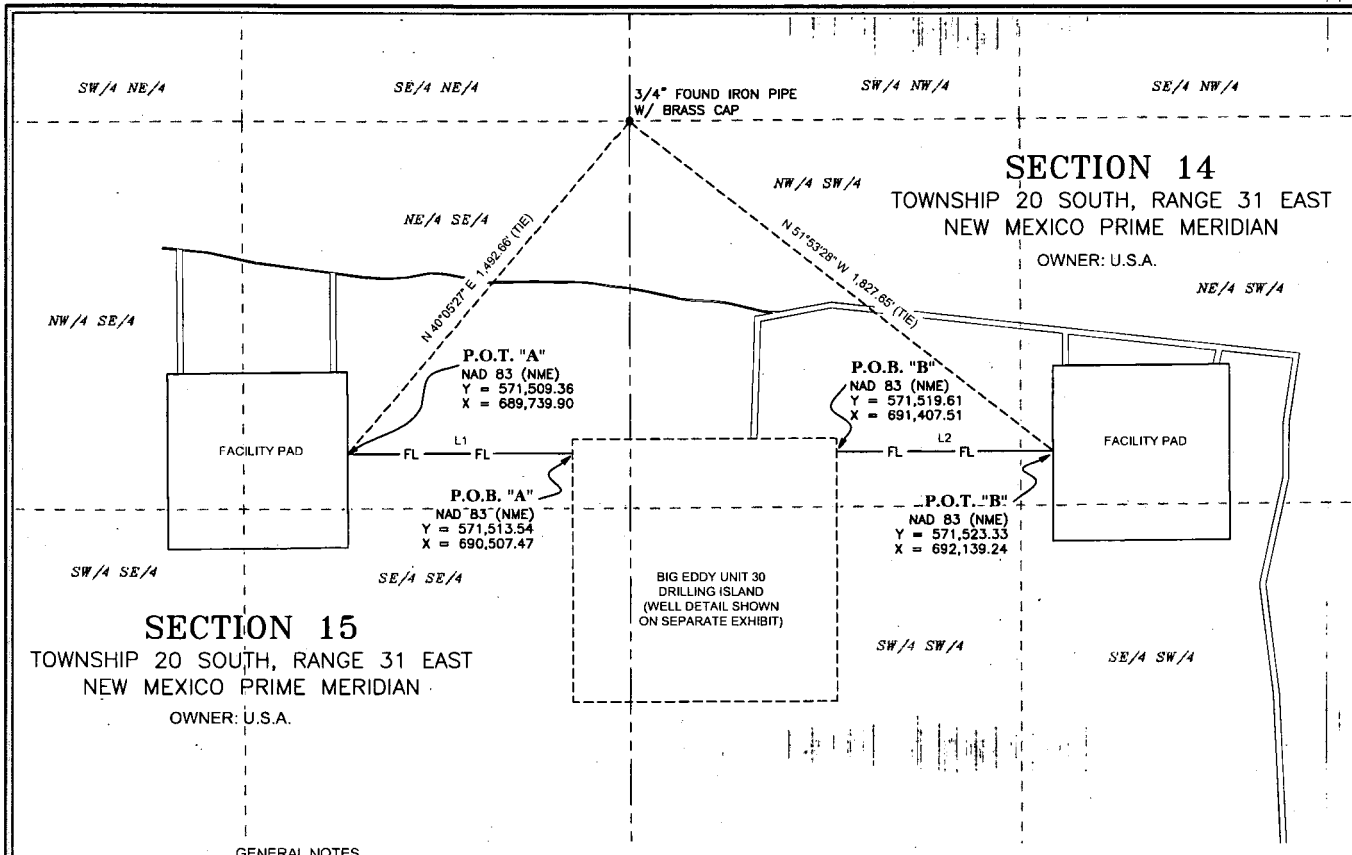
0 2,500' 5,000'
1" = 5,000 FEET

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:	2-5-2019	PROJECT NO:	2017081253
DRAWN BY:	AI	SCALE:	1" = 5,000'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE/KN/CD	REVISION:	NO

Big Eddy Unit DI30 1-Mile Map





SECTION 15
TOWNSHIP 20 SOUTH, RANGE 31 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

SECTION 14
TOWNSHIP 20 SOUTH, RANGE 31 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

BIG EDDY UNIT DI 30 PROPOSED BURIED AND SURFACE FLOWLINES DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1,499.32 FEET, 90.87 RODS, OR 0.28 MILES IN LENGTH CROSSING SECTIONS 14 AND 15 , TOWNSHIP 20 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 FLOW LINE SURVEY, COMPRISING OF 1.04 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 SE/4 SECTION 15 = 767.58 FEET = 46.52 RODS = 0.53 OF AN ACRE
NW/4 SW/4 SECTION 14 = 622.48 FEET = 37.73 RODS = 0.43 OF AN ACRE
NE/4 SW/4 SECTION 14 = 109.26 FEET = 6.62 RODS = 0.08 OF AN ACRE

LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	S 89°41'16" W	767.58'

LINE TABLE "B"

L2	N 89°42'31" E	731.74'

TOTAL LENGTH = 1,499.32 FEET
OR 90.87 RODS

MARK DILLON HARP
NEW MEXICO
23786
PROFESSIONAL SURVEYOR

GENERAL NOTES

1. BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
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:	2-8-2019
DRAWN BY:	AI
CHECKED BY:	DH
FIELD CREW:	
PROJECT NO:	2017111908
SCALE:	1" = 500'
SHEET:	1 OF 1
REVISION:	NONE

PLAT OF:
PROPOSED CENTERLINE OF
BURIED AND SURFACE FLOWLINES FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT DI 30
SITUATED IN SECTIONS 14 AND 15,
TOWNSHIP 20 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO

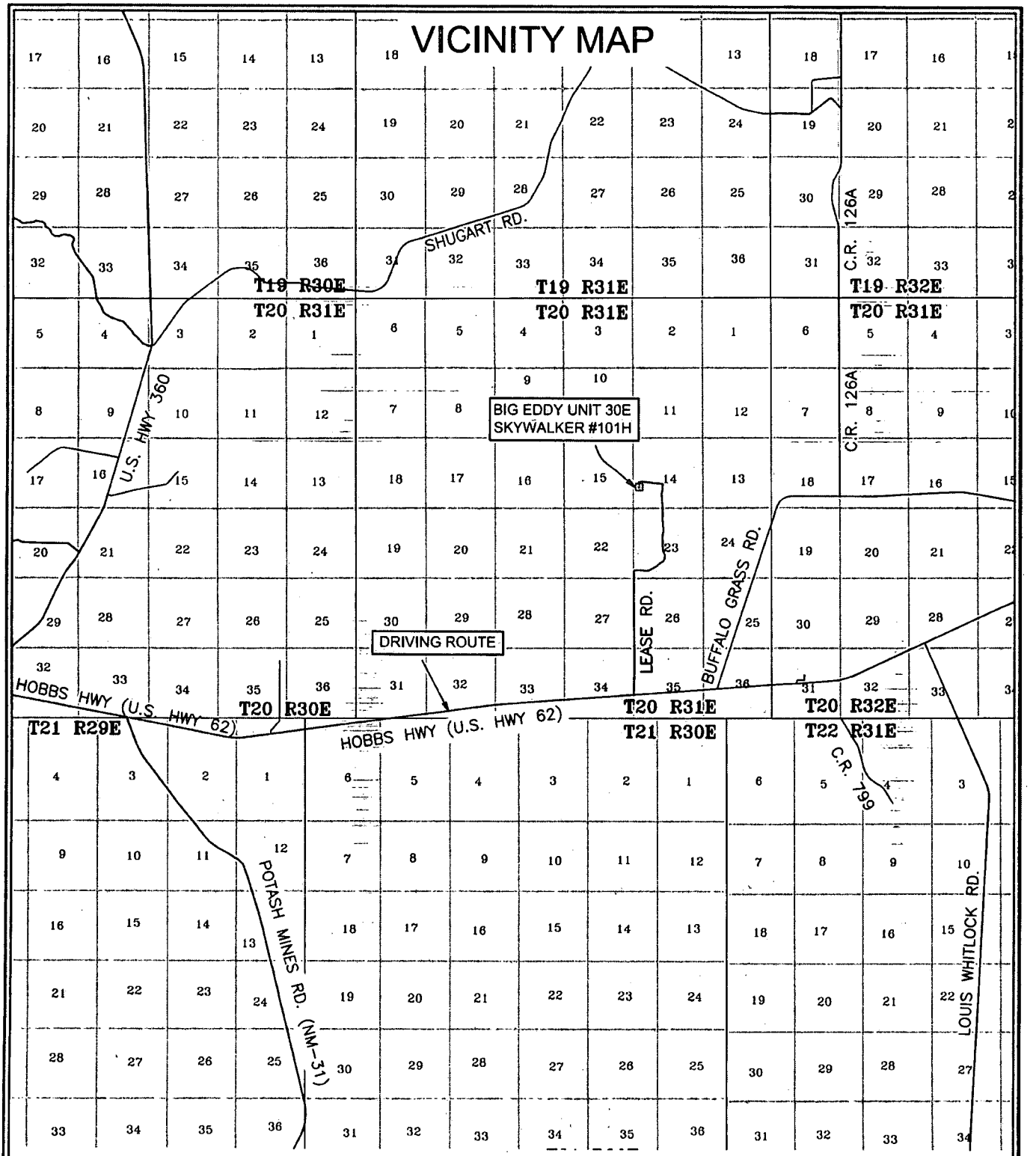
LEGEND

— — — —	SECTION LINE
———	EXISTING ROAD
———	EXISTING PAD
- - - - - - - - - -	PROPOSED DRILLING ISLAND
— FL — FL —	PROPOSED BURIED AND SURFACE FLOWLINES
P.O.B.	POINT OF BEGINNING
P.O.T.	POINT OF TERMINUS
. ●	FOUND MONUMENT AS NOTED

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

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

VICINITY MAP



BIG EDDY UNIT 30E SKYWALKER #101H
LOCATED 435 FEET FROM THE WEST
LINE AND 1,540 FEET FROM THE SOUTH
LINE OF SECTION 14, TOWNSHIP 20
SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

0 5,000' 10,000'
1" = 10,000 FEET

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SURVEYORS+ENGINEERS
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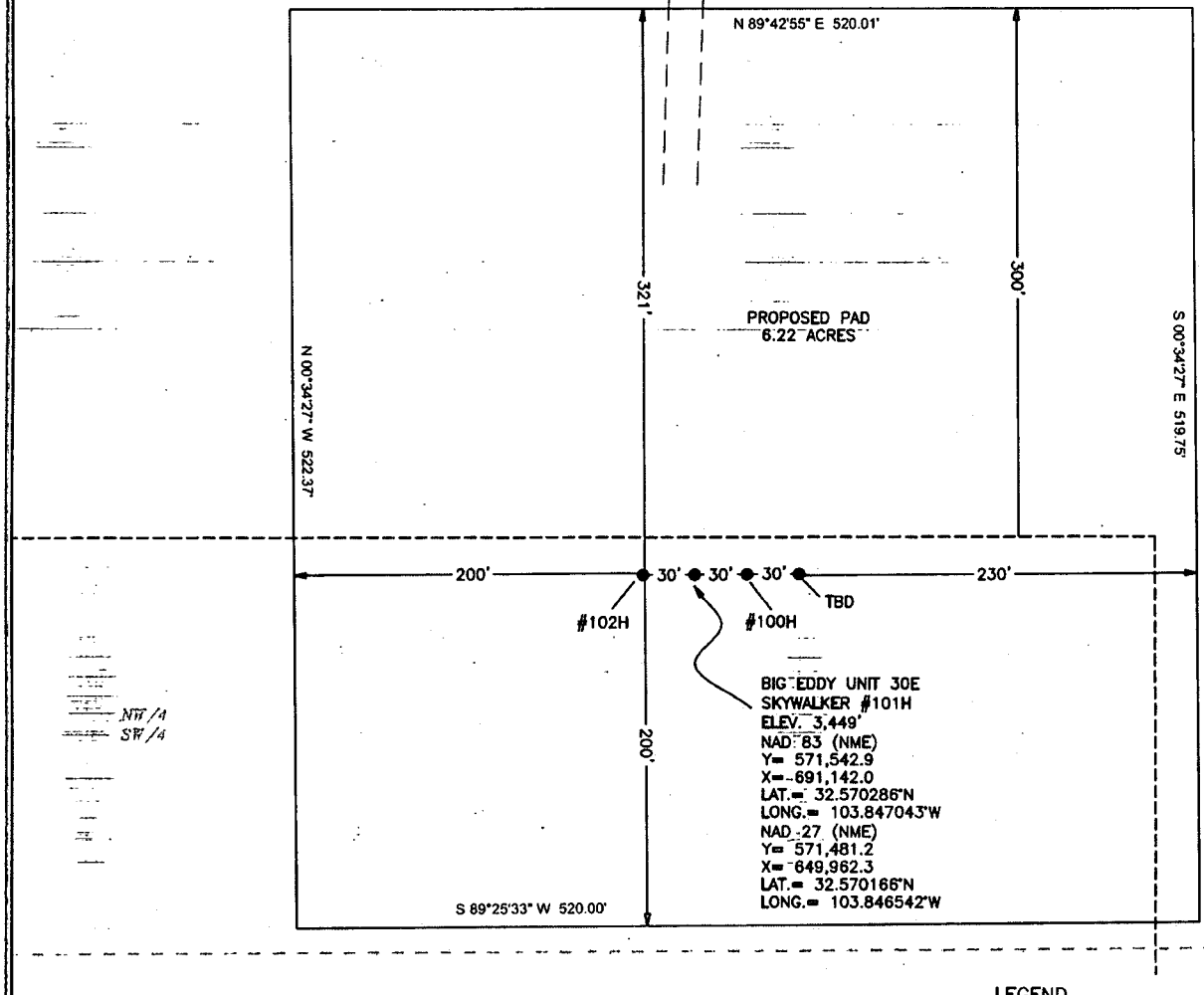
www.fscinc.net

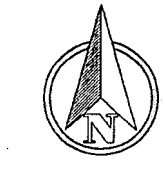
DATE:	2-6-2019
DRAWN BY:	AI
CHECKED BY:	DH
FIELD CREW:	RE/KN/CD
PROJECT NO:	2017081253
SCALE:	1"= 10,000'
SHEET:	1 OF 1
REVISION:	NO

WELL SITE PLAN

SECTION 14
TOWNSHIP 20 SOUTH,
RANGE 31 EAST
NEW MEXICO PRIME
MERIDIAN
OWNER: U.S.A.



LEGEND
- EXISTING ROAD
- PROPOSED PAD
- PROPOSED DRILLING ISLAND



NOTE:

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

DIRECTIONS TO THIS LOCATION:
FROM THE INTERSECTION OF HIGHWAY 62 (HOBBS HWY.) AND POTASH MINES RD. (NM-31) GO EAST ON HIGHWAY 62 APPROX. 7.4 MILES. TURN LEFT (NORTH) ONTO LEASE RD. AND GO APPROX. 1.9 MILES, ARRIVING AT A PAD. CONTINUE EAST THEN NORTH ALONG LEASE ROAD FOR APPROX. 1.5 MILES TO A CURVE. HEAD WEST ON SAID LEASE ROAD FOR APPROX. 0.4 MILES TO A CURVE. HEAD SOUTH ON SAID LEASE ROAD FOR APPROX. 0.1 MILES AND THE LOCATION IS TO THE SOUTH.

XTO PERMIAN OPERATING, LLC.

BIG EDDY UNIT 30E SKYWALKER #101H
LOCATED 435 FEET FROM THE WEST
LINE AND 1,540 FEET FROM THE SOUTH
LINE OF SECTION 14, TOWNSHIP 20
SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DATE:	2-5-2019	PROJECT NO:	2017081253
DRAWN BY:	AI	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	NONE

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

Well Site Locations

The results of Big Eddy Unit 30 Development Program will develop economic quantities of oil and gas in the Big Eddy Unit 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 Big Eddy Unit DI30 Development area is accessed from intersection of Hwy 62 (Hobbs Hwy) Potash Mines Road (NM-31). Go East on Hwy 62 approximately 7.4 miles. Turn left (North) onto lease road and go approximately 1.0 miles, arriving at a pad. Continue East, then North along lease road for approximately 1.5 miles to a curve. Head West on said lease road for approximately .4 miles to a curve. Head South on said lease road for approximately .1 miles and the location is to the South. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Topographical and Access Road Map.'
   B. There are existing access roads to the proposed Big Eddy Unit well locations. 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 24.38 Miles from the city of Carlsbad, New Mexico.

2. **New or Upgraded Access Roads**
   A. **New Roads**. There are no new roads necessary to access the Big Eddy Unit DI 30 locations.
   B. **Well Pads**. The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. No new roads will need to be constructed to access the well pads.
   C. **Anticipated Traffic**. After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Battery is completed. Upon completion of the Central Tank Battery, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Battery only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
   D. **Routing**. All equipment and vehicles will be confined to the travel routes laid out in the 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 20 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.

Level Ground Section

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

3. Location of Existing Wells

A. See attached 1-mile radius well map.

4. Ancillary Facilities

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

5. Location of Proposed Production Facilities

A. **Production Facilities**. No additional production facilities are necessary for Big Eddy Unit DI30 wells. Once drilled and completed, the wells will flow to the Big Eddy Unit DI 30 West or East CTB battery, located approximately 750' from the drill island. No additional surface disturbance is needed.

B. **Flowlines**.

BEU DI30 West CTB: Seven (7) 767.58' buried 6" steel or poly flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 West CTB for future production (oil, gas, water lines). Seven (7) additional 767.58' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 West CTB for gas lift. Total Flowlines to the West Battery with this applications: 14 buried. **BEU DI30 East CTB**: Seven (7) 731.74' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 East CTB for future production (oil, gas, water lines). Seven (7) additional 731.74' buried 6" steel flowlines with a maximum safety pressure rating of 1440psi (operating pressure: 750psi) are requested for the BEU DI30 East CTB for future gas lift. Total Flowlines to the East Battery with this applications: 14 buried.

C. **Gas Pipeline**. No Gas Sales line is required for this well. No additional surface disturbance is needed.

D. **Disposal Facilities**. Produced water will be pumped from the respective Central Tank Battery to the Big Eddy Unit 14 Federal SWD #1 well as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.

E. **Flare**. No flare is required. No additional surface disturbance is needed.

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**. No additional electrical is required for this well. No additional surface disturbance is needed.

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:
Rockhouse

Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO Permian Operating, LLC. from Section 13, T17S-R33E, Lea County, New Mexico. In the event that Rockhouse does not have the appropriate water for XTO Permian Operating, LLC at time of drilling and completion, then XTO Permian Operating, LLC water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico.

Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation.

Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 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

- 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:
    i. Pit 1: Federal Caliche Pit, Section 27-T20S-R31E
    ii. Pit 2: Federal Caliche Pit, Section 5-T21S-R30E

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 approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
   - **Debris**. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
   - **Hazardous Materials.**
     i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
     ii. BOPCO, L.P. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERLCA includes any 'hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.
     iii. No hazardous substances or wastes will be stored on the location after completion of the well.
     iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
     v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

9. **Well Site Layout**
   A. **Rig Plat Diagrams**: There is one (1) multi-well pad in the Big Eddy Unit DI 30 development area anticipated. This will allow enough space for cuts and fills and storm water control. A well list is attached to this application. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. The size of the well pad is expected to be 1500'x1500' for 160 wells

over the project development life. Topsoil will be used for construction. Any leftover topsoil will be hauled to a staging area for use on reclamation projects throughout Big Eddy Unit.

B. **Closed-Loop System**: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
C. **V-Door Orientation**: These wells were staked with multiple v-door orientations.
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:

No surface reclamation is planned for this well. XTO Permian, Operating, LLC. requests a variance to interim reclamation until all wells on the drill island have been drilled and completed, at which time, XTO Permian, Operating, LLC will contact the appropriate BLM personnel to discuss appropriate interim reclamation plans. Surface Ownership.

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

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

Reclamation Standards:

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

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

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

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

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

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

Seeding:

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

- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

11. Surface Ownership

- The Big Eddy Unit 30 is 100% of the surface is under the administrative jurisdiction of the Bureau of Land Management.
- The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

12. **Other Information**

Drill Island

- **Drill Island.** The Big Eddy Unit DI 30 drill island is previously approved as a 900'x900' space for use of oil and gas operations inside of the Secretary's Order of Potash Area (SOPA). Approval was made under EA: DOI-BLM-NM-P020-2018-0163-EA. The well pad associated with the drill island is 1500'x1500', overlapping the approved 900'x900' previously approved, and will be used for well locations for wells productive of oil and gas with no surface hole planned outside of the boundary of the approved drill island.

  BEU DI 30 Centerpoint: 250'FWL & 1112'FSL, Section 14-T20S-R31E, NMPM, Eddy County, NM

  The total size of the drill island as approved under EA DOI-BLM-NM-P020-2018-0163-EA will be 900'x900', or 18.59acres. The entire well pad, including drill island space, will be: 1500'x1500, or 51.65acres.

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

- **Well Sites**. One (1) 1500'x1500' well pad has been staked on the drill island, known as Big Eddy Unit DI30, in anticipation of drilling 160 wells. Surveys of the drill island location have been completed by FSC, Inc., a registered professional land surveyor and are attached to this application. This application applies to allow the well pads to fall off of the edge of the approved 900'x900' drill island. The wellbore paths will not leave the 900'x900' previously approved drill island until the salt zone is cased and protected pursuant to NMOCD Order R-111-P. Approval of the drill island does not constitute approval to drill. An APD must be submitted and approved for each well located on the drill island prior to any surface disturbance or drilling activity.

- **Cultural Resources – Archaeology**: XTO Permian Operating, LLC. previously paid into the PA for the 900'x900' original drill island disturbance area covered under EA: DOI-BLM-NM-P020-2018-0163-EA. XTO Permian Operating, LLC. Has made an additional payment for the additional surface disturbance requested with well pad fall off on this drill island.

- **Facility.** The proposed Central Tank Battery is located off of the proposed drill island to the East and West as depicted on the detailed drill island plat (included) and has been approved via 3160-5.

- **Dwellings and Structures**. There are no dwellings or structures within 2 miles of this location.

Surveying

- **Well Sites**. Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by FSC, Inc., a registered professional land surveyor.

- **Dwellings and Structures**. There are no dwellings or structures within 2 miles of this location.

Soils and Vegetation

- **Environmental Setting**. According to the Natural Resources Conservation Service online database, the project area soils consist of Simona soils. These soils are associated with the Shallow Sandy ecological site (R042CX002NM) which typically supports grama grasslands with an even distribution of yucca, javelin bush, range ratany, prickly pear, and mesquite. The current vegetative community consists of mesquite, soapweed yucca, broom snakeweed, javelin bush, pencil cholla, horse crippler, prickly pear, and desert grasses and forbs. The project area lies on a heavily eroded, relatively flat terrain approximately 0.7miles west of Williams Sink.

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

- **Water**. There is no permanent or live water in the immediate or within the project area.

13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: COB000050

Operator's Representatives:

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

Surface:

Jimie Scott
Construction Lead
XTO Energy, Incorporated
6401 Holiday Hill Road, Bldg 5
Midland, Texas 79707
432-488-9955
james_scott@xtoenergy.com

Well Name	SHL							BHL						
BIG EDDY UNIT 30E SKYWALKER 100H	1540	FSL	465	FWL	14	T20S	R31E	660	FNL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E SKYWALKER 101H	1540	FSL	435	FWL	14	T20S	R31E	1980	FNL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E SKYWALKER 102H	1540	FSL	405	FWL	14	T20S	R31E	1980	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E SKYWALKER 103H	940	FSL	465	FWL	14	T20S	R31E	660	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E SKYWALKER 104H	940	FSL	435	FWL	14	T20S	R31E	660	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30E SKYWALKER 105H	940	FSL	405	FWL	14	T20S	R31E	1980	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 106H	1540	FSL	35	FWL	14	T20S	R31E	660	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 107H	1540	FSL	65	FWL	14	T20S	R31E	1980	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 108H	1540	FSL	95	FWL	14	T20S	R31E	1980	FSL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 109H	940	FSL	35	FWL	14	T20S	R31E	660	FSL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 110H	940	FSL	65	FWL	14	T20S	R31E	660	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 111H	940	FSL	95	FWL	14	T20S	R31E	1980	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W SKYWALKER 112H	940	FSL	125	FWL	14	T20S	R31E	1980	FSL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30E YODA 100H	1340	FSL	680	FWL	14	T20S	R31E	660	FNL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E YODA 101H	1340	FSL	650	FWL	14	T20S	R31E	1980	FNL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E YODA 102H	1340	FSL	620	FWL	14	T20S	R31E	1980	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E YODA 103H	740	FSL	680	FWL	14	T20S	R31E	660	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E YODA 104H	740	FSL	650	FWL	14	T20S	R31E	660	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30E YODA 105H	740	FSL	620	FWL	14	T20S	R31E	1980	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30W YODA 106H	1340	FSL	180	FEL	15	T20S	R31E	660	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W YODA 107H	1340	FSL	150	FEL	15	T20S	R31E	1980	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W YODA 108H	1340	FSL	120	FEL	15	T20S	R31E	1980	FSL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W YODA 109H	740	FSL	180	FEL	15	T20S	R31E	660	FSL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W YODA 110H	740	FSL	150	FEL	15	T20S	R31E	660	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W YODA 111H	740	FSL	120	FEL	15	T20S	R31E	1980	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W YODA 112H	740	FSL	90	FEL	15	T20S	R31E	1980	FSL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30E OBI-WAN 100H	1465	FSL	465	FWL	14	T20S	R31E	660	FNL	50	FEL	13	T20S	R31E
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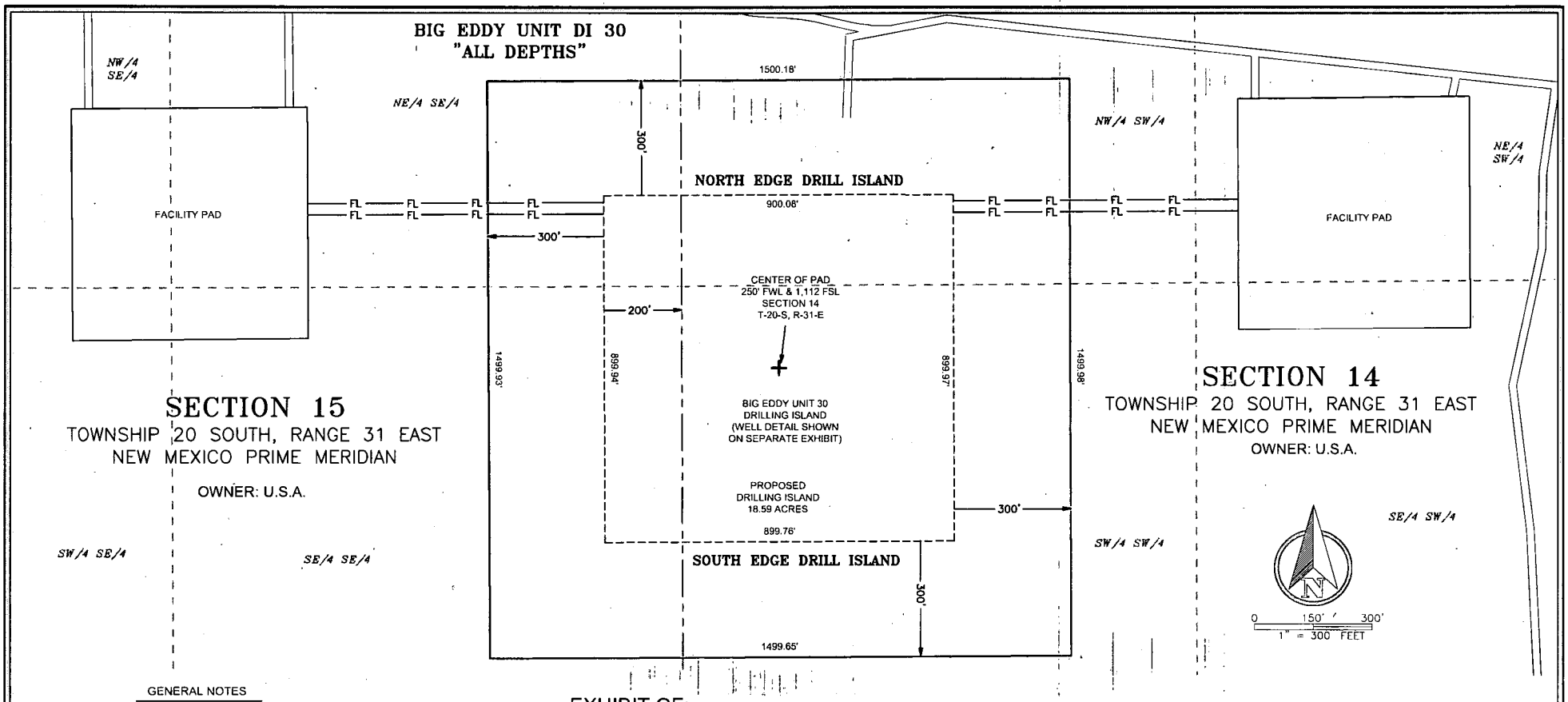
BIG EDDY UNIT 30E OBI-WAN 102H	1465	FSL	405	FWL	14	T20S	R31E	1980	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E OBI-WAN 103H	865	FSL	465	FWL	14	T20S	R31E	660	FSL	50	FEL	13	T20S	R31E
BIG EDDY UNIT 30E OBI-WAN 104H	865	FSL	435	FWL	14	T20S	R31E	660	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30E OBI-WAN 105H	865	FSL	405	FWL	14	T20S	R31E	1980	FNL	50	FEL	24	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 106H	1465	FSL	35	FWL	14	T20S	R31E	660	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 107H	1465	FSL	65	FWL	14	T20S	R31E	1980	FNL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 108H	1465	FSL	95	FWL	14	T20S	R31E	1980	FSL	50	FWL	16	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 109H	865	FSL	35	FWL	14	T20S	R31E	660	FSL	50	FWL	16	T20S	R31E

BIG EDDY UNIT 30W OBI-WAN 110H	865	FSL	65	FWL	14	T20S	R31E		660	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 111H	865	FSL	95	FWL	14	T20S	R31E		1980	FNL	50	FWL	21	T20S	R31E
BIG EDDY UNIT 30W OBI-WAN 112H	865	FSL	125	FWL	14	T20S	R31E		1980	FSL	50	FWL	21	T20S	R31E
Big Eddy Unit 30E Padawan 100H	1540	FSL	680	FWL	14	T20S	R31E		660	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Padawan 101H	1540	FSL	650	FWL	14	T20S	R31E		1980	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Padawan 102H	1541	FSL	620	FWL	14	T20S	R31E		1980	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Padawan 103H	940	FSL	680	FWL	14	T20S	R31E		660	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Padawan 104H	940	FSL	650	FWL	14	T20S	R31E		660	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Padawan 105H	941	FSL	620	FWL	14	T20S	R31E		1980	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Anakin 100H	1140	FSL	650	FWL	14	T20S	R31E		660	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 101H	1141	FSL	620	FWL	14	T20S	R31E		1320	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 102H	1140	FSL	680	FWL	14	T20S	R31E		1980	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 103H	1141	FSL	590	FWL	14	T20S	R31E		1980	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 104H	670	FSL	680	FWL	14	T20S	R31E		2640	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 105H	670	FSL	650	FWL	14	T20S	R31E		1320	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 106H	671	FSL	620	FWL	14	T20S	R31E		660	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 107H	671	FSL	590	FWL	14	T20S	R31E		660	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Anakin 108H	1065	FSL	680	FWL	14	T20S	R31E		1980	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Anakin 200H	1465	FSL	680	FWL	14	T20S	R31E		660	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 201H	1465	FSL	650	FWL	14	T20S	R31E		1320	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 202H	1466	FSL	620	FWL	14	T20S	R31E		1980	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 203H	1466	FSL	590	FWL	14	T20S	R31E		2640	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 204H	865	FSL	680	FWL	14	T20S	R31E		1980	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 205H	865	FSL	650	FWL	14	T20S	R31E		1320	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 206H	866	FSL	620	FWL	14	T20S	R31E		660	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Anakin 207H	866	FSL	590	FWL	14	T20S	R31E		660	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Anakin 208H	941	FSL	590	FWL	14	T20S	R31E		1980	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Qui-Gon 100H	1141	FSL	465	FWL	14	T20S	R31E		660	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Qui-Gon 101H	1141	FSL	435	FWL	14	T20S	R31E		1980	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Qui-Gon 102H	1066	FSL	435	FWL	14	T20S	R31E		1980	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Qui-Gon 103H	1142	FSL	405	FWL	14	T20S	R31E		660	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Qui-Gon 104H	1142	FSL	375	FWL	14	T20S	R31E		660	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Qui-Gon 105H	671	FSL	435	FWL	14	T20S	R31E		1980	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Rey 100H	1266	FSL	465	FWL	14	T20S	R31E		1320	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Rey 101H	1266	FSL	435	FWL	14	T20S	R31E		2640	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Rey 102H	1066	FSL	435	FWL	14	T20S	R31E		1320	FSL	50	FEL	13	T20S	R31E

Big Eddy Unit 30E Rey 103H	1267	FSL	405	FWL	14	T20S	R31E		50	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Rey 104H	1267	FSL	375	FWL	14	T20S	R31E		1320	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Rey 105H	671	FSL	465	FWL	14	T20S	R31E		2640	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Jedi 100H	1341	FSL	465	FWL	14	T20S	R31E		1320	FNL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Jedi 101H	1341	FSL	435	FWL	14	T20S	R31E		2640	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Jedi 102H	1067	FSL	465	FWL	14	T20S	R31E		1320	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Jedi 103H	741	FSL	465	FWL	14	T20S	R31E		50	FSL	50	FEL	13	T20S	R31E
Big Eddy Unit 30E Jedi 104H	741	FSL	435	FWL	14	T20S	R31E		1320	FNL	50	FEL	24	T20S	R31E
Big Eddy Unit 30E Jedi 105H	742	FSL	405	FWL	14	T20S	R31E		2640	FNL	50	FEL	24	T20S	R31E



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).

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:	2-12-2019
DRAWN BY:	AI
CHECKED BY:	DH
FIELD CREW:	
PROJECT NO:	2017111908
SCALE:	1" = 300'
SHEET:	1 OF 1
REVISION:	2

EXHIBIT OF:

LEASE FLOW DIAGRAM FOR:

XTO PERMIAN OPERATING, LLC.

BIG EDDY UNIT DI 30
DRILLING ISLAND
"ALL DEPTHS"

SITUATED IN SECTIONS 14 AND 15,
TOWNSHIP 20 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO

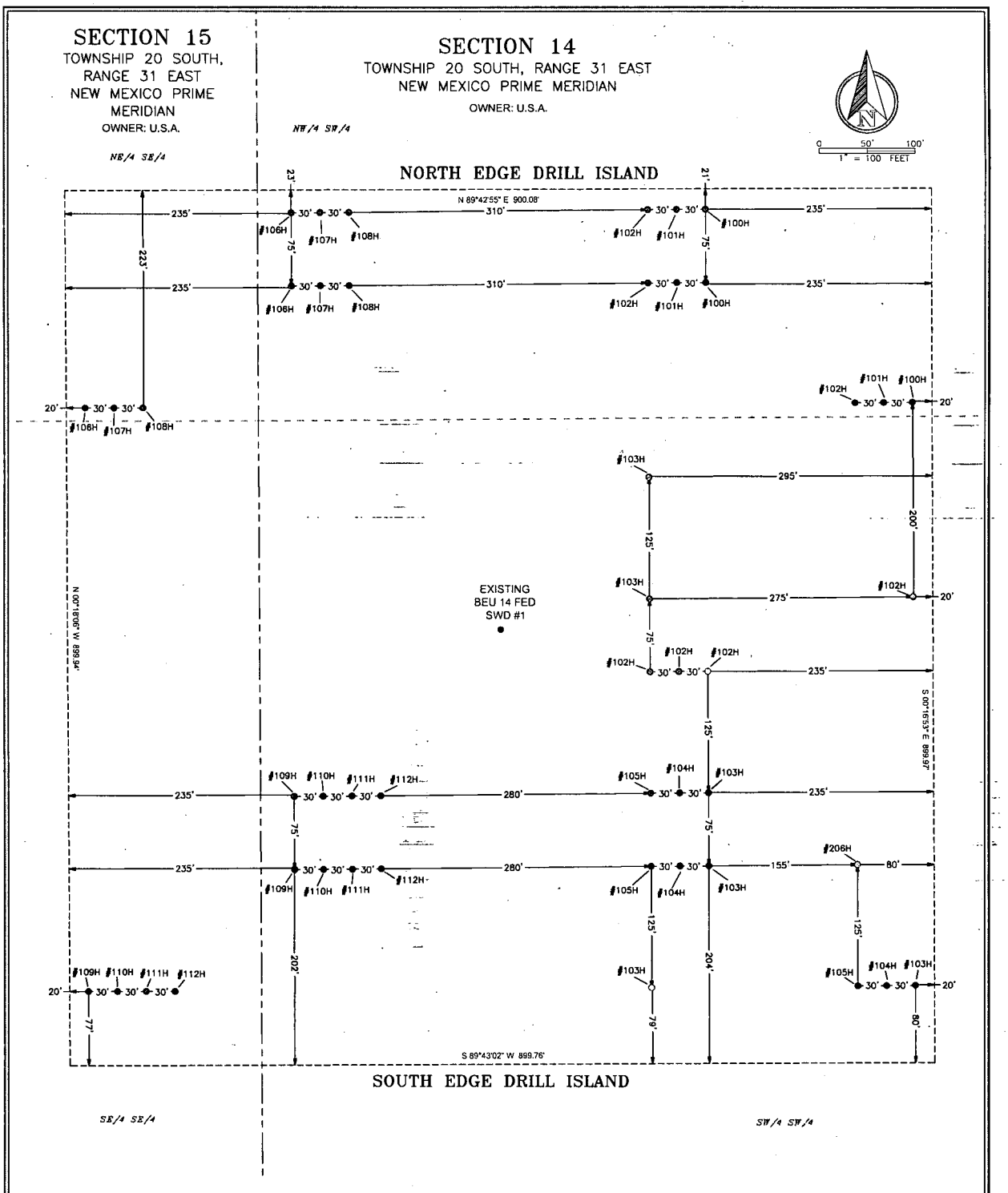
LEGEND

- SECTION LINE
- EXISTING PAD
- PROPOSED DRILLING ISLAND
- PROPOSED PAD EXTENSION
- PROPOSED BURIED AND SURFACE FLOWLINES
- EXISTING ROAD

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.

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

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



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STATE OF NEW MEXICO NO. 23786

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LEGEND

SECTION LINE
PROPOSED DRILLING ISLAND

WELL NAMES

- SKYWALKER
- OBI-WAN
- YODA
- REY
- ANAKIN
- QUI-GON
- JEDI

EXHIBIT OF:
OVERALL PAD DIAGRAM FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT DI 30
DRILLING ISLAND

SITUATED IN SECTIONS 14 AND 15,
TOWNSHIP 20 SOUTH, RANGE 31 EAST,
NEW MEXICO PRIME MERIDIAN,
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DATE:	3-12-2019
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CHECKED BY:	DH
FIELD CREW:	
PROJECT NO:	2017111908
SCALE:	1" = 100'
SHEET:	1 OF 1
REVISION:	1

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

07/08/2019

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: