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Form 3160-3  
(June 2015)

JUL 15 2019

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
DISTRICT OF ARTESIA O.C.D.

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC0063667
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No. BIG EDDY / NMNM068294X
2. Name of Operator XTO PERMIAN OPERATING LLC		8. Lease Name and Well No. BIG EDDY UNIT 30E SKYWALKER 100H 325 955
3a. Address 6401 Holiday Hill Road, Bldg 5 Midland TX 79707	3b. Phone No. (include area code) (432)682-8873	9. APL Well No. 30-015-46194
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW / 1540 FSL / 465 FWL / LAT 32.570286 / LONG -103.846945 At proposed prod. zone NENE / 660 FNL / 50 FEL / LAT 32.578848 / LONG -103.814311		10. Field and Pool, or Exploratory WC WILLIAMS SINK; BONE SPRING
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* 24.38 miles		12. County or Parish EDDY
13. State NM		
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 465 feet	16. No of acres in lease 960	17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 30 feet	19. Proposed Depth 9474 feet / 20224 feet	20. BLM/BIA Bond No. in file FED: COB000050
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3449 feet	22. Approximate date work will start* 05/01/2019	23. Estimated duration 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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) Stephanie Rabadue / Ph: (432)620-6714	Date 03/13/2019
Title Regulatory Coordinator		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 07/05/2019
Title Assistant Field Manager Lands & Minerals Office CARLSBAD		

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

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

**APPROVED WITH CONDITIONS**  
Approval Date: 07/05/2019

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

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

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

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

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

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

## NOTICES

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

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

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

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

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

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

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

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

## **Additional Operator Remarks**

### **Location of Well**

1. SHL: NWSW / 1540 FSL / 465 FWL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.570286 / LONG: -103.846945 ( TVD: 0 feet, MD: 0 feet )  
PPP: NWNW / 660 FNL / 660 FWL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.578838 / LONG: -103.846316 ( TVD: 9474 feet, MD: 10500 feet )  
PPP: NENW / 660 FNL / 660 FEL / TWSP: 20S / RANGE: 31E / SECTION: 14 / LAT: 32.578839 / LONG: -103.833482 ( TVD: 9474 feet, MD: 13500 feet )  
BHL: NENE / 660 FNL / 50 FEL / TWSP: 20S / RANGE: 31E / SECTION: 13 / LAT: 32.578848 / LONG: -103.814311 ( 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

<b>OPERATOR'S NAME:</b>	<b>XTO Permian Operating, LLC</b>
<b>LEASE NO.:</b>	<b>NMLC-0063667</b>
<b>WELL NAME &amp; NO.:</b>	<b>Big Eddy Unit 30E Skywalker 100H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>1540' FSL &amp; 0465' FWL</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>0660' FNL &amp; 0050' FEL Sec. 13, T. 20 S., R 21 E.</b>
<b>LOCATION:</b>	<b>Section 14, T. 20 S., R 31 E., NMPM</b>
<b>COUNTY:</b>	<b>County, New Mexico</b>

### 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 (H<sub>2</sub>S) monitors shall be installed prior to drilling out the surface shoe. If H<sub>2</sub>S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet 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 1<sup>st</sup> 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 1<sup>st</sup> 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 2<sup>nd</sup> 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. **Excess calculates to 23% - Additional cement may be required.**

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

**PECOS DISTRICT  
SURFACE USE  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO PERMIAN OPERATING LLC
WELL NAME & NO.:	Big Eddy Unit 30E Skywalker 100H
SURFACE HOLE FOOTAGE:	1540'/S & 465'/W
BOTTOM HOLE FOOTAGE:	660'/N & 50'/W
LOCATION:	Section 14, T.20 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

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

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
  - Lesser Prairie-Chicken Timing Stipulations
  - Ground-level Abandoned Well Marker
  - Hydrology
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
- Interim Reclamation**
- Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

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

## **II. PERMIT EXPIRATION**

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

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

Any cultural 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.

**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.

### **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.

### **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.

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

## **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**

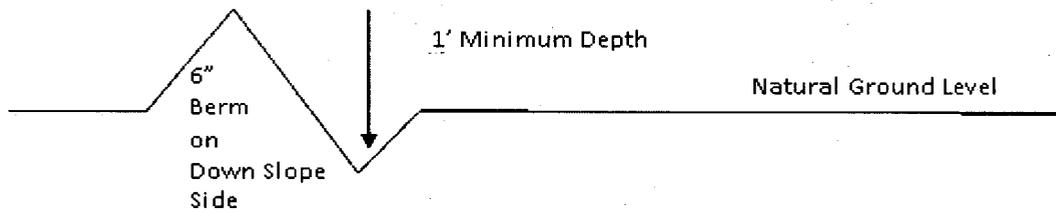
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

**Drainage**

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

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

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



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

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

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

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

#### Cattle guards

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

#### Fence Requirement

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

#### Public Access

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

**Construction Steps**

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

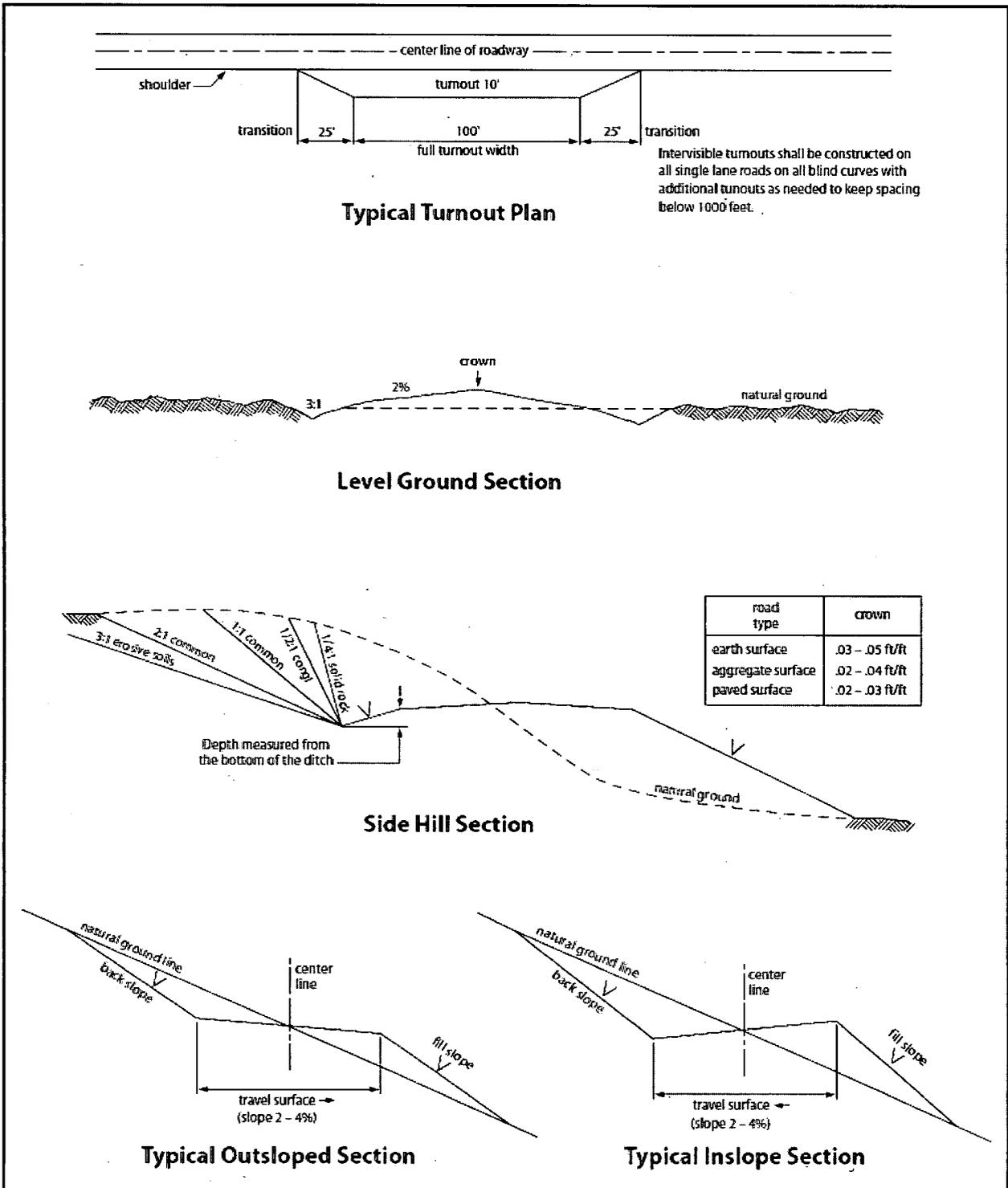


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## **VII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

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

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

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

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

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

#### **Open-Vent Exhaust Stack Exclosures**

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

#### **Containment Structures**

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

**Painting Requirement**

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

**B. PIPELINES**

**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.

- |  |  |
|--|--|
| <input type="checkbox"/> seed mixture 1                | <input type="checkbox"/> seed mixture 3          |
| <input type="checkbox"/> seed mixture 2                | <input type="checkbox"/> seed mixture 4          |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> 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:

<u>Species</u>	<u>lb/acre</u>
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



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:**



<b>APD ID:</b> 10400039235	<b>Submission Date:</b> 03/13/2019	Highlighted data reflects the most recent changes <a href="#">Show Final Text</a>
<b>Operator Name:</b> XTO PERMIAN OPERATING LLC		
<b>Well Name:</b> BIG EDDY UNIT 30E SKYWALKER	<b>Well Number:</b> 100H	
<b>Well Type:</b> OIL WELL	<b>Well Work Type:</b> Drill	

**Section 1 - General**

<b>APD ID:</b> 10400039235	<b>Tie to previous NOS?</b>	<b>Submission Date:</b> 03/13/2019
<b>BLM Office:</b> CARLSBAD	<b>User:</b> Stephanie Rabadue	<b>Title:</b> Regulatory Coordinator
<b>Federal/Indian APD:</b> FED	<b>Is the first lease penetrated for production Federal or Indian?</b> FED	
<b>Lease number:</b> NMLC0063667	<b>Lease Acres:</b> 960	
<b>Surface access agreement in place?</b>	<b>Allotted?</b>	<b>Reservation:</b>
<b>Agreement in place?</b> YES	<b>Federal or Indian agreement:</b> FEDERAL	
<b>Agreement number:</b> NMNM068294X		
<b>Agreement name:</b>		
<b>Keep application confidential?</b> NO		
<b>Permitting Agent?</b> NO	<b>APD Operator:</b> XTO PERMIAN OPERATING LLC	
<b>Operator letter of designation:</b>		

**Operator Info**

**Operator Organization Name:** XTO PERMIAN OPERATING LLC

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

**Operator PO Box:**

**Operator City:** Midland      **State:** TX

**Operator Phone:** (432)682-8873

**Operator Internet Address:**

**Zip:** 79707

**Section 2 - Well Information**

<b>Well in Master Development Plan?</b> NO	<b>Master Development Plan name:</b>	
<b>Well in Master SUPO?</b> NO	<b>Master SUPO name:</b>	
<b>Well in Master Drilling Plan?</b> NO	<b>Master Drilling Plan name:</b>	
<b>Well Name:</b> BIG EDDY UNIT 30E SKYWALKER	<b>Well Number:</b> 100H	<b>Well API Number:</b>
<b>Field/Pool or Exploratory?</b> Field and Pool	<b>Field Name:</b> WC WILLIAMS	<b>Pool Name:</b>
	SINK; BONE SPRING	
<b>Is the proposed well in an area containing other mineral resources?</b> USEABLE WATER,POTASH		

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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    **Number:** 30

**Well Class:** HORIZONTAL

DI

**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:** 465 FT

**Reservoir well spacing assigned acres Measurement:** 320 Acres

**Well plat:** BEU30\_Sky\_100H\_C102\_20190218064656.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	154 0	FSL	465	FWL	20S	31E	14	Aliquot NWS W	32.57028 6	- 103.8469 45	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063667	344 9	0	0
KOP Leg #1	154 0	FSL	465	FWL	20S	31E	14	Aliquot NWS W	32.57028 6	- 103.8469 45	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063667	134 9	210 0	210 0
PPP Leg #1	660	FNL	660	FWL	20S	31E	14	Aliquot NWN W	32.57883 8	- 103.8463 16	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063667	- 602 5	105 00	947 4

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

	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	660	FNL	660	FEL	20S	31E	14	Aliquot NENW	32.57883 9	- 103.8334 82	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063674	- 602 5	135 00	947 4
EXIT Leg #1	660	FNL	100	FEL	20S	31E	13	Aliquot NENE	32.57884 8	- 103.8144 73	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063484	- 602 4	201 73	947 3
BHL Leg #1	660	FNL	50	FEL	20S	31E	13	Aliquot NENE	32.57884 8	- 103.8143 11	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 063484	- 602 5	202 24	947 4



APD ID: 10400039235

Submission Date: 03/13/2019

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

**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 nipping 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: 100H

BEU30\_2MCM\_20190312053134.pdf

BEU30\_2MBOP\_20190312053147.pdf

Pressure Rating (PSI): 3M

Rating Depth: 9474

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 nipping 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
4	PRODUCTION	8.75	5.5	NEW	API	N	0	20224	0	9474			20224	P-110	17	BUTT	1.67	1.12	DRY	2.32	DRY	2.32

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BEU30\_Sky\_100H\_Csg\_20190312065600.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BEU30\_Sky\_100H\_Csg\_20190312065609.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BEU30\_Sky\_100H\_Csg\_20190312065617.pdf

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Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

Casing Attachments

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU30\_Sky\_100H\_Csg\_20190312065624.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
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	2022.4	650	2.69	10.5	1748.5	30	NeoCem	None
PRODUCTION	Tail				2300	1.61	13.2	3703	30	VersaCem	None

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

### 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
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	9474	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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

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
											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.

### Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 4535

**Anticipated Surface Pressure:** 4535

**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 geohazards description:**

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

**Contingency Plans geohazards attachment:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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\_100H\_DD\_20190218114714.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.

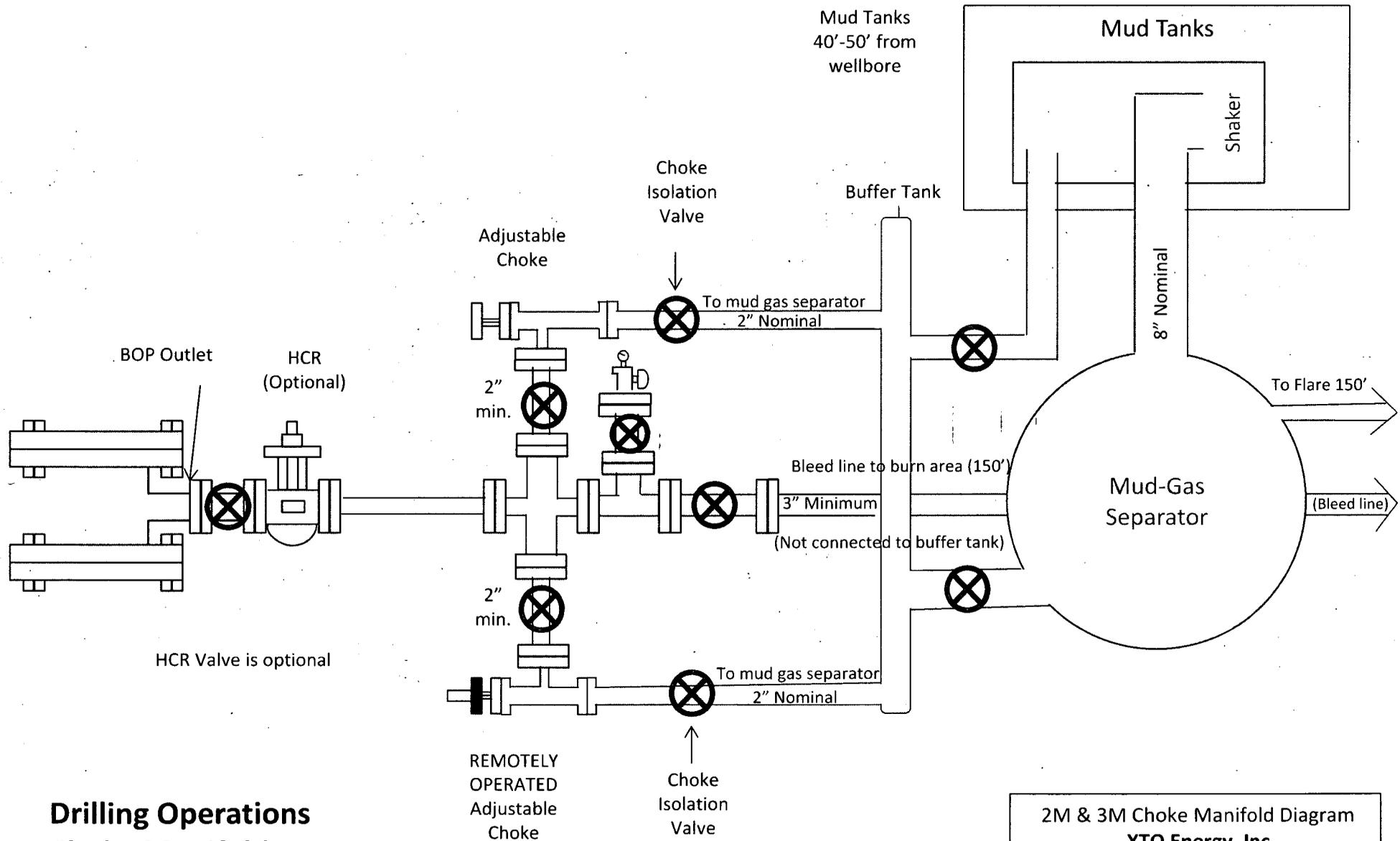
**Other proposed operations facets attachment:**

BEU30\_Sky\_100H\_GCP\_20190218114815.pdf

**Other Variance attachment:**

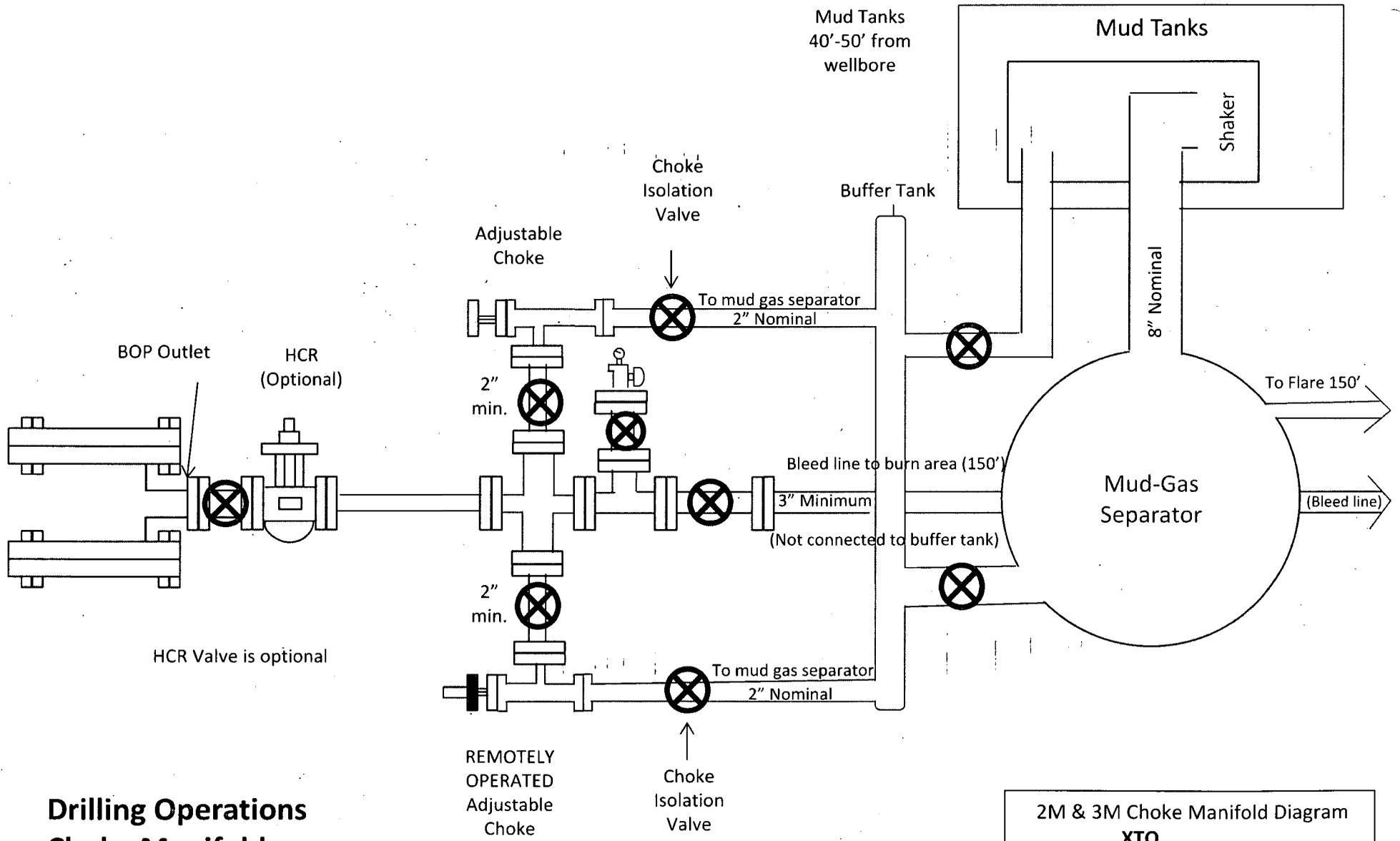
BEU30\_FH\_20190218114835.pdf

BEU30\_MBS\_20190530121112.pdf



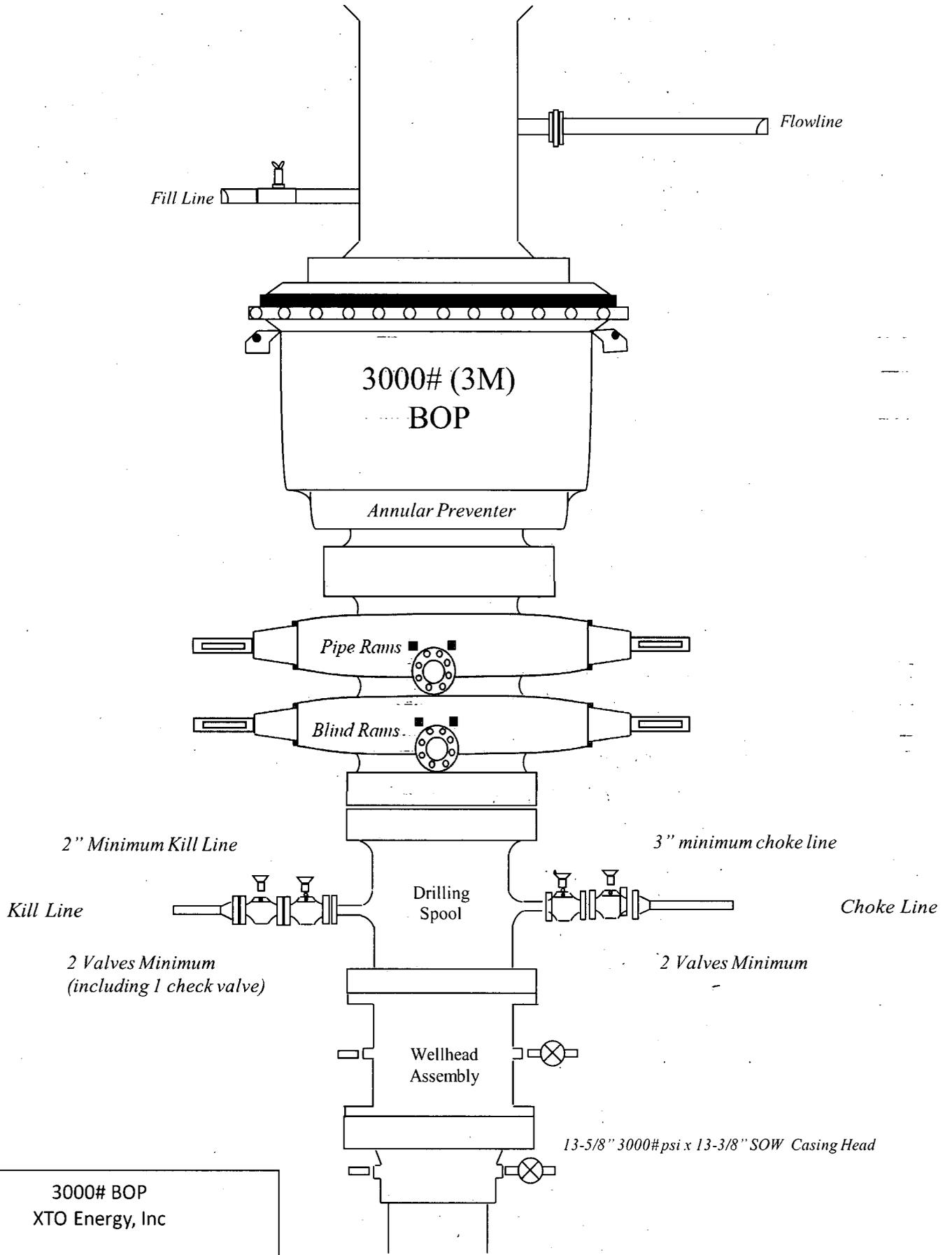
**Drilling Operations  
Choke Manifold  
2M & 3M Service**

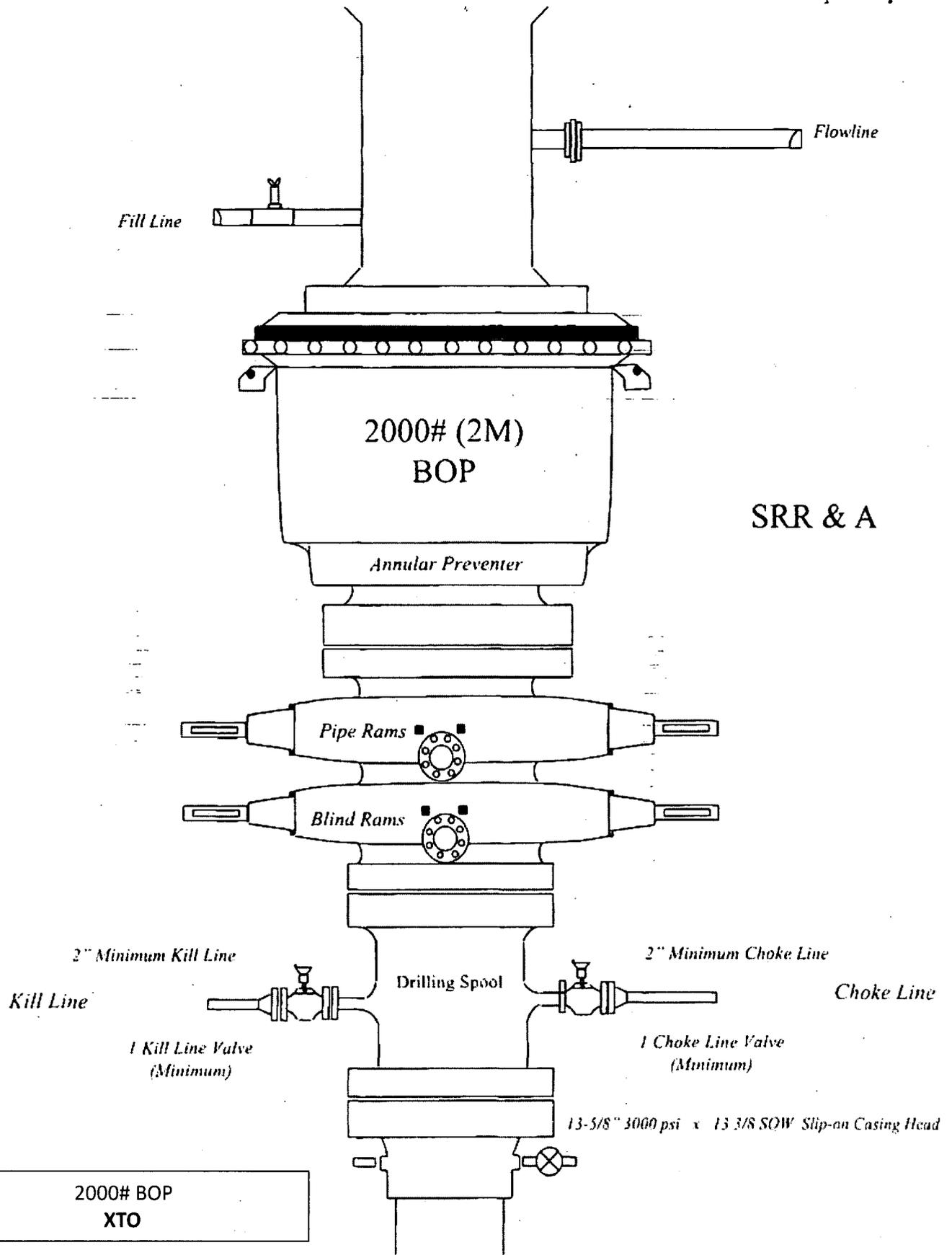
**2M & 3M Choke Manifold Diagram  
XTO Energy, Inc**



**Drilling Operations  
Choke Manifold  
2M & 3M Service**

**2M & 3M Choke Manifold Diagram  
XTO**





## 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, whichever is less

## Wellhead:

### Temporary Wellhead

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

### Permanent Wellhead – GE RSH Multibowl System

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

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

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
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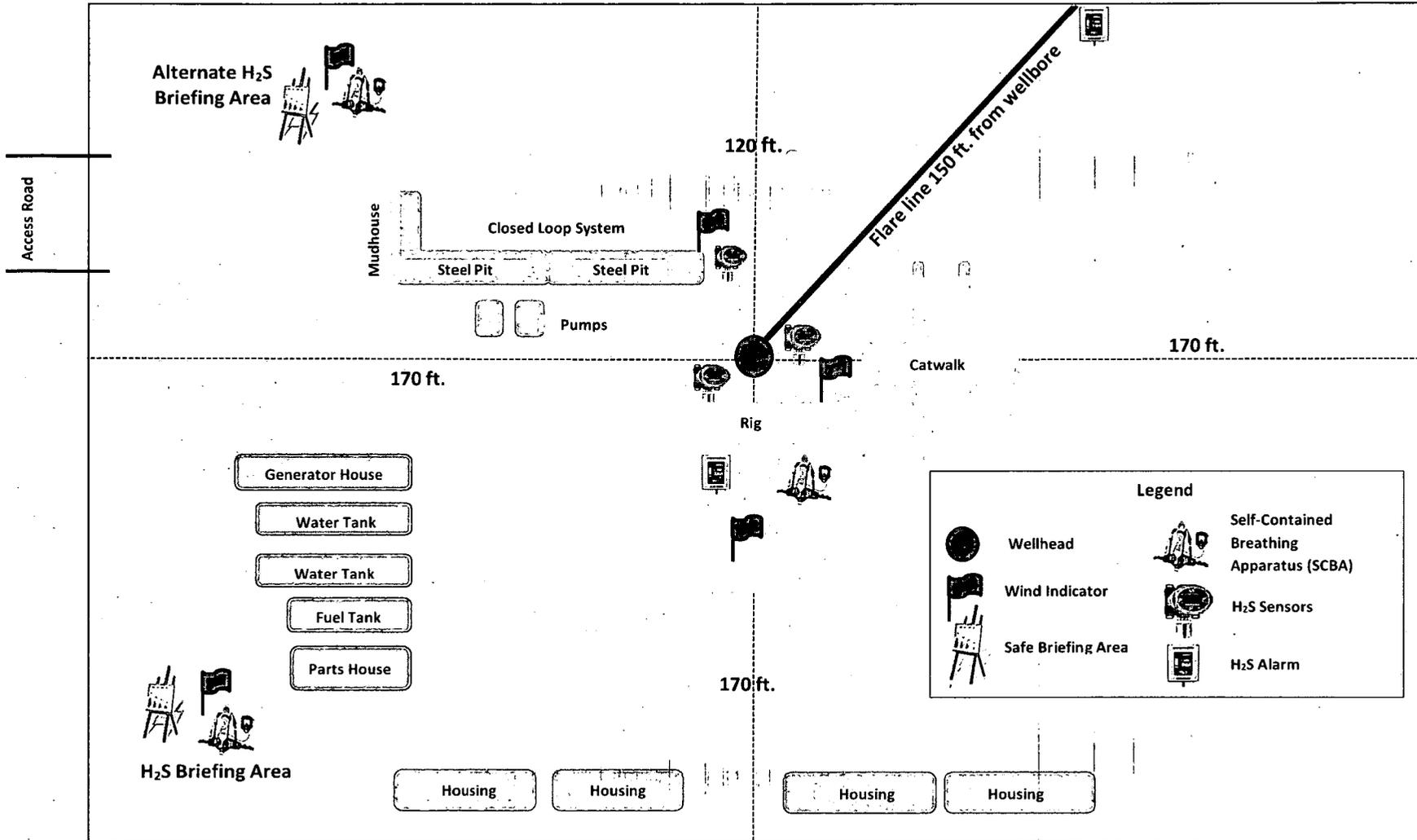
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Prevailing Winds  
Direction SW

# H<sub>2</sub>S Briefing Areas and Alarm Locations

Secondary  
Egress



**Legend**

	Wellhead		Self-Contained Breathing Apparatus (SCBA)
	Wind Indicator		H <sub>2</sub> S Sensors
	Safe Briefing Area		H <sub>2</sub> S Alarm



## **BOPCO, L.P.**

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

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

## **Assumed 100 ppm ROE = 3000'**

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

### **Emergency Procedures**

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

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

### **Ignition of Gas source**

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

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

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

### **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:**

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

**HOSPITALS:**

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

**AGENT NOTIFICATIONS:**

**For Lea County:**

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

**For Eddy County:**

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



## **XTO Energy**

**Eddy County, NM (NAD-27)**

**BEU 30E Skywalker**

**100H**

**OH**

**Plan: PERMIT**

# **Standard Planning Report**

**05 February, 2019**



Project: Eddy County, NM (NAD-27)  
 Site: BEU 30E Skywalker  
 Well: 100H  
 Wellbore: OH  
 Design: PERMIT

WELL DETAILS: 100H

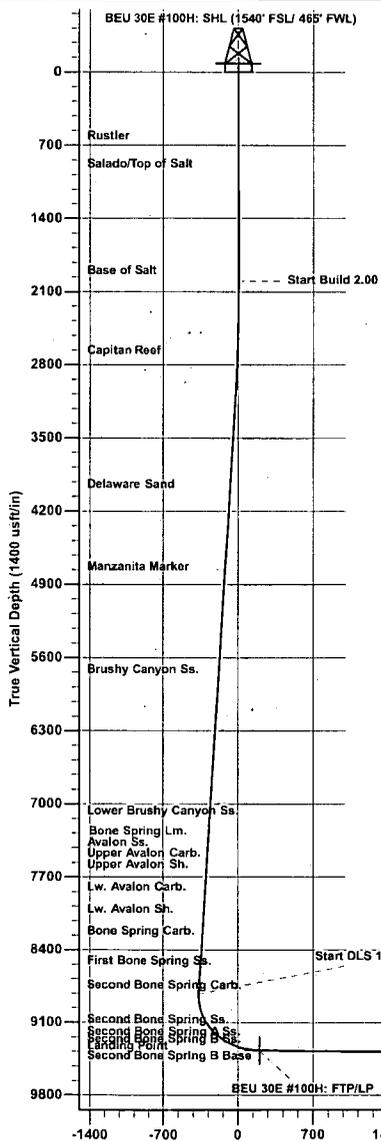
Rig Name:	RKB-25 @ 3474.00usft		
Ground Level:	3449.00		
+N-S	+E-W	Northing	Latitude
0.00	0.00	571481.50	32.570166
		Easting	Longitude
		649992.30	-103.845444

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	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	3250.00	25.00	352.32	3210.72	266.00	-35.89	2.00	352.317	-34.54
4	9438.71	25.00	352.32	8810.58	2857.99	-385.57	0.00	0.000	-371.10
5	10364.34	89.39	89.71	9369.00	3112.00	179.70	10.00	96.961	195.45
6	20173.72	89.39	89.71	9473.47	3162.14	9988.40	0.00	0.000	10004.28
7	20223.72	89.39	89.71	9474.00	3162.40	10038.40	0.00	0.000	10054.28

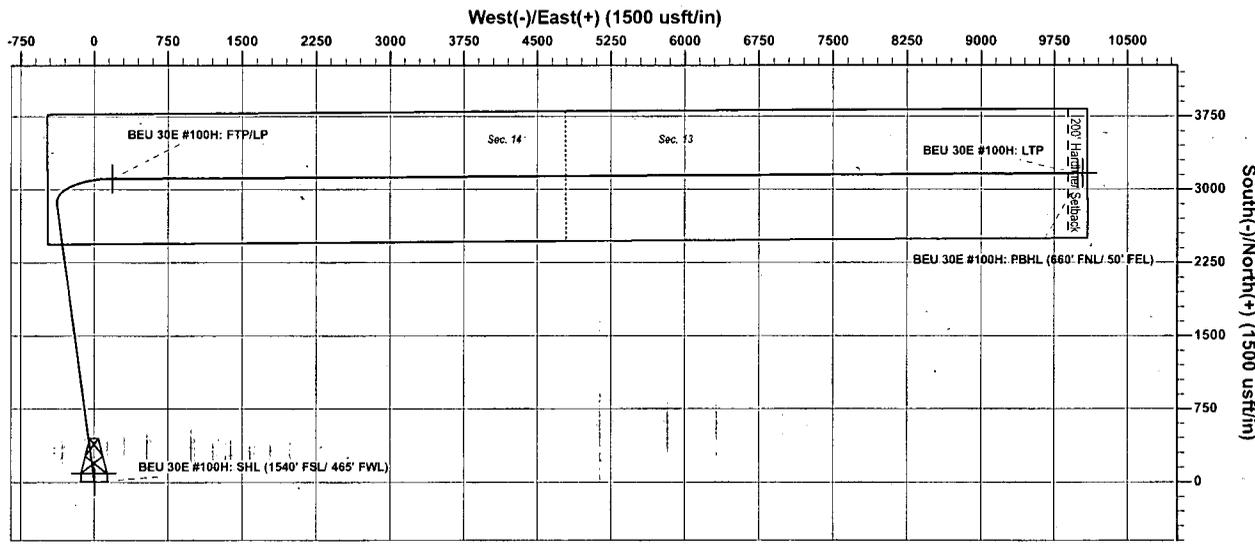
DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
BEU 30E #100H: SHL (1540' FSU/ 465' FWL)	0.00	0.00	0.00	571481.50	649992.30	32.570166	-103.845444	Point
BEU 30E #100H: FTP/LP	9369.00	3112.00	179.70	574593.50	650172.00	32.578718	-103.845815	Point
BEU 30E #100H: LTP	9473.47	3162.20	9988.40	574643.70	659980.70	32.578729	-103.813972	Point
BEU 30E #100H: PBHL (660' FNL/ 50' FEL)	9474.00	3162.40	10038.40	574643.90	660030.70	32.578729	-103.813810	Point



FORMATION TOP DETAILS

TVDPath	Formation
0.00	Alluvium
885.00	Rustler
950.00	Salado/Top of Salt
1569.00	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.
9142.00	Second Bone Spring Ss.
9259.00	Second Bone Spring A Ss.
9332.00	Second Bone Spring B Ss.
9369.00	Landing Point
9404.00	Second Bone Spring B Base
9474.00	TD



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

Vertical Section at 89.71° (1400 usft/in)

Plan: PERMIT (100H/OH)  
 Created By: Matthew May Date: 11:19, February 05 2019

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



Database: EDM 5000.1 Single User Db  
Company: XTO Energy  
Project: Eddy County, NM (NAD-27)  
Site: BEU 30E Skywalker  
Well: 100H  
Wellbore: OH  
Design: PERMIT

Local Co-ordinate Reference: Well 100H  
TVD Reference: RKB=25 @ 3474.00usft  
MD Reference: RKB=25 @ 3474.00usft  
North Reference: Grid  
Survey Calculation Method: Minimum Curvature

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

<b>Site</b>	BEU 30E Skywalker		
<b>Site Position:</b>		<b>Northing:</b>	571,481.50 usft
<b>From:</b>	Map	<b>Easting:</b>	649,992.30 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32.570166
		<b>Longitude:</b>	-103.846445
		<b>Grid Convergence:</b>	0.262 °

<b>Well</b>	100H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 571,481.50 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 649,992.30 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft
		<b>Latitude:</b>	32.570166
		<b>Longitude:</b>	-103.846445
		<b>Ground Level:</b>	3,449.00 usft

<b>Wellbore</b>	OH		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
	IGRF2015	2/4/2019	(°) 6.931
			<b>Dip Angle</b>
			(°) 60.315
			<b>Field Strength</b>
			(nT) 47,945

<b>Design</b>	PERMIT		
<b>Audit Notes:</b>			
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b> 0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			<b>Direction</b>
			(°) 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	
3,250.00	25.00	352.32	3,210.72	266.00	-35.89	2.00	2.00	0.00	352.317	
9,438.71	25.00	352.32	8,819.59	2,857.99	-385.57	0.00	0.00	0.00	0.000	
10,364.34	89.39	89.71	9,369.00	3,112.00	179.70	10.00	6.96	10.52	96.961	BEU 30E #100H: F
20,173.72	89.39	89.71	9,473.47	3,162.14	9,988.40	0.00	0.00	0.00	0.000	BEU 30E #100H: L
20,223.72	89.39	89.71	9,474.00	3,162.40	10,038.40	0.00	0.00	0.00	0.000	BEU 30E #100H: P



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 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Alluvium - BEU 30E #100H: SHL (1540' FSL/ 465' FWL)</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
686.00	0.00	0.00	686.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Rustler</b>									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
950.00	0.00	0.00	950.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Salado/Top of Salt</b>									
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
<b>Base of Salt</b>									
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	352.32	2,099.98	1.73	-0.23	-0.22	2.00	2.00	0.00
2,200.00	4.00	352.32	2,199.84	6.92	-0.93	-0.90	2.00	2.00	0.00
2,300.00	6.00	352.32	2,299.45	15.55	-2.10	-2.02	2.00	2.00	0.00
2,400.00	8.00	352.32	2,398.70	27.63	-3.73	-3.59	2.00	2.00	0.00
2,500.00	10.00	352.32	2,497.47	43.13	-5.82	-5.60	2.00	2.00	0.00
2,600.00	12.00	352.32	2,595.62	62.04	-8.37	-8.06	2.00	2.00	0.00
2,700.00	14.00	352.32	2,693.06	84.33	-11.38	-10.95	2.00	2.00	0.00
2,744.35	14.89	352.32	2,736.00	95.29	-12.86	-12.37	2.00	2.00	0.00
<b>Capitan Reef</b>									
2,800.00	16.00	352.32	2,789.64	109.98	-14.84	-14.28	2.00	2.00	0.00
2,900.00	18.00	352.32	2,885.27	138.95	-18.75	-18.04	2.00	2.00	0.00
3,000.00	20.00	352.32	2,979.82	171.22	-23.10	-22.23	2.00	2.00	0.00
3,100.00	22.00	352.32	3,073.17	206.73	-27.89	-26.84	2.00	2.00	0.00
3,200.00	24.00	352.32	3,165.21	245.45	-33.11	-31.87	2.00	2.00	0.00
3,250.00	25.00	352.32	3,210.72	266.00	-35.89	-34.54	2.00	2.00	0.00
3,300.00	25.00	352.32	3,256.03	286.94	-38.71	-37.26	0.00	0.00	0.00
3,400.00	25.00	352.32	3,346.66	328.82	-44.36	-42.70	0.00	0.00	0.00
3,500.00	25.00	352.32	3,437.29	370.70	-50.01	-48.14	0.00	0.00	0.00
3,600.00	25.00	352.32	3,527.92	412.59	-55.66	-53.57	0.00	0.00	0.00
3,700.00	25.00	352.32	3,618.55	454.47	-61.31	-59.01	0.00	0.00	0.00
3,800.00	25.00	352.32	3,709.18	496.35	-66.96	-64.45	0.00	0.00	0.00
3,900.00	25.00	352.32	3,799.81	538.24	-72.61	-69.89	0.00	0.00	0.00
4,000.00	25.00	352.32	3,890.44	580.12	-78.26	-75.33	0.00	0.00	0.00
4,100.00	25.00	352.32	3,981.07	622.00	-83.91	-80.77	0.00	0.00	0.00
4,139.64	25.00	352.32	4,017.00	638.60	-86.15	-82.92	0.00	0.00	0.00



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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Delaware Sand</b>									
4,200.00	25.00	352.32	4,071.70	663.88	-89.57	-86.20	0.00	0.00	0.00
4,300.00	25.00	352.32	4,162.33	705.77	-95.22	-91.64	0.00	0.00	0.00
4,400.00	25.00	352.32	4,252.97	747.65	-100.87	-97.08	0.00	0.00	0.00
4,500.00	25.00	352.32	4,343.60	789.53	-106.52	-102.52	0.00	0.00	0.00
4,600.00	25.00	352.32	4,434.23	831.41	-112.17	-107.96	0.00	0.00	0.00
4,700.00	25.00	352.32	4,524.86	873.30	-117.82	-113.40	0.00	0.00	0.00
4,800.00	25.00	352.32	4,615.49	915.18	-123.47	-118.83	0.00	0.00	0.00
4,900.00	25.00	352.32	4,706.12	957.06	-129.12	-124.27	0.00	0.00	0.00
5,000.00	25.00	352.32	4,796.75	998.94	-134.77	-129.71	0.00	0.00	0.00
5,005.79	25.00	352.32	4,802.00	1,001.37	-135.10	-130.03	0.00	0.00	0.00
<b>Manzanita Marker</b>									
5,100.00	25.00	352.32	4,887.38	1,040.83	-140.42	-135.15	0.00	0.00	0.00
5,200.00	25.00	352.32	4,978.01	1,082.71	-146.07	-140.59	0.00	0.00	0.00
5,300.00	25.00	352.32	5,068.64	1,124.59	-151.72	-146.03	0.00	0.00	0.00
5,400.00	25.00	352.32	5,159.27	1,166.47	-157.37	-151.46	0.00	0.00	0.00
5,500.00	25.00	352.32	5,249.90	1,208.36	-163.02	-156.90	0.00	0.00	0.00
5,600.00	25.00	352.32	5,340.53	1,250.24	-168.67	-162.34	0.00	0.00	0.00
5,700.00	25.00	352.32	5,431.16	1,292.12	-174.32	-167.78	0.00	0.00	0.00
5,800.00	25.00	352.32	5,521.80	1,334.00	-179.97	-173.22	0.00	0.00	0.00
5,900.00	25.00	352.32	5,612.43	1,375.89	-185.62	-178.66	0.00	0.00	0.00
6,000.00	25.00	352.32	5,703.06	1,417.77	-191.27	-184.09	0.00	0.00	0.00
6,090.41	25.00	352.32	5,785.00	1,455.64	-196.38	-189.01	0.00	0.00	0.00
<b>Brushy Canyon Ss.</b>									
6,100.00	25.00	352.32	5,793.69	1,459.65	-196.92	-189.53	0.00	0.00	0.00
6,200.00	25.00	352.32	5,884.32	1,501.53	-202.57	-194.97	0.00	0.00	0.00
6,300.00	25.00	352.32	5,974.95	1,543.42	-208.22	-200.41	0.00	0.00	0.00
6,400.00	25.00	352.32	6,065.58	1,585.30	-213.87	-205.85	0.00	0.00	0.00
6,500.00	25.00	352.32	6,156.21	1,627.18	-219.53	-211.29	0.00	0.00	0.00
6,600.00	25.00	352.32	6,246.84	1,669.06	-225.18	-216.72	0.00	0.00	0.00
6,700.00	25.00	352.32	6,337.47	1,710.95	-230.83	-222.16	0.00	0.00	0.00
6,800.00	25.00	352.32	6,428.10	1,752.83	-236.48	-227.60	0.00	0.00	0.00
6,900.00	25.00	352.32	6,518.73	1,794.71	-242.13	-233.04	0.00	0.00	0.00
7,000.00	25.00	352.32	6,609.36	1,836.59	-247.78	-238.48	0.00	0.00	0.00
7,100.00	25.00	352.32	6,699.99	1,878.48	-253.43	-243.92	0.00	0.00	0.00
7,200.00	25.00	352.32	6,790.63	1,920.36	-259.08	-249.35	0.00	0.00	0.00
7,300.00	25.00	352.32	6,881.26	1,962.24	-264.73	-254.79	0.00	0.00	0.00
7,400.00	25.00	352.32	6,971.89	2,004.12	-270.38	-260.23	0.00	0.00	0.00
7,500.00	25.00	352.32	7,062.52	2,046.01	-276.03	-265.67	0.00	0.00	0.00
7,584.39	25.00	352.32	7,139.00	2,081.35	-280.80	-270.26	0.00	0.00	0.00
<b>Lower Brushy Canyon Ss.</b>									
7,600.00	25.00	352.32	7,153.15	2,087.89	-281.68	-271.11	0.00	0.00	0.00
7,700.00	25.00	352.32	7,243.78	2,129.77	-287.33	-276.55	0.00	0.00	0.00
7,800.00	25.00	352.32	7,334.41	2,171.65	-292.98	-281.99	0.00	0.00	0.00
7,840.37	25.00	352.32	7,371.00	2,188.56	-295.26	-284.18	0.00	0.00	0.00
<b>Bone Spring Lm.</b>									
7,900.00	25.00	352.32	7,425.04	2,213.54	-298.63	-287.42	0.00	0.00	0.00
8,000.00	25.00	352.32	7,515.67	2,255.42	-304.28	-292.86	0.00	0.00	0.00
8,019.12	25.00	352.32	7,533.00	2,263.43	-305.36	-293.90	0.00	0.00	0.00
<b>Avalon Ss.</b>									
8,037.88	25.00	352.32	7,550.00	2,271.28	-306.42	-294.92	0.00	0.00	0.00
<b>Upper Avalon Carb.</b>									
8,093.05	25.00	352.32	7,600.00	2,294.39	-309.54	-297.92	0.00	0.00	0.00



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<b>Upper Avalon Sh.</b>									
8,100.00	25.00	352.32	7,606.30	2,297.30	-309.93	-298.30	0.00	0.00	0.00
8,200.00	25.00	352.32	7,696.93	2,339.18	-315.58	-303.74	0.00	0.00	0.00
8,300.00	25.00	352.32	7,787.56	2,381.07	-321.23	-309.18	0.00	0.00	0.00
8,388.75	25.00	352.32	7,868.00	2,418.24	-326.25	-314.00	0.00	0.00	0.00
<b>Lw. Avalon Carb.</b>									
8,400.00	25.00	352.32	7,878.19	2,422.95	-326.88	-314.62	0.00	0.00	0.00
8,500.00	25.00	352.32	7,968.82	2,464.83	-332.53	-320.05	0.00	0.00	0.00
8,600.00	25.00	352.32	8,059.46	2,506.71	-338.18	-325.49	0.00	0.00	0.00
8,622.67	25.00	352.32	8,080.00	2,516.21	-339.46	-326.72	0.00	0.00	0.00
<b>Lw. Avalon Sh.</b>									
8,700.00	25.00	352.32	8,150.09	2,548.60	-343.83	-330.93	0.00	0.00	0.00
8,800.00	25.00	352.32	8,240.72	2,590.48	-349.48	-336.37	0.00	0.00	0.00
8,854.38	25.00	352.32	8,290.00	2,613.26	-352.56	-339.33	0.00	0.00	0.00
<b>Bone Spring Carb.</b>									
8,900.00	25.00	352.32	8,331.35	2,632.36	-355.14	-341.81	0.00	0.00	0.00
9,000.00	25.00	352.32	8,421.98	2,674.25	-360.79	-347.25	0.00	0.00	0.00
9,100.00	25.00	352.32	8,512.61	2,716.13	-366.44	-352.68	0.00	0.00	0.00
9,171.05	25.00	352.32	8,577.00	2,745.88	-370.45	-356.55	0.00	0.00	0.00
<b>First Bone Spring Ss.</b>									
9,200.00	25.00	352.32	8,603.24	2,758.01	-372.09	-358.12	0.00	0.00	0.00
9,300.00	25.00	352.32	8,693.87	2,799.89	-377.74	-363.56	0.00	0.00	0.00
9,400.00	25.00	352.32	8,784.50	2,841.78	-383.39	-369.00	0.00	0.00	0.00
9,429.24	25.00	352.32	8,811.00	2,854.02	-385.04	-370.59	0.00	0.00	0.00
<b>Second Bone Spring Carb.</b>									
9,438.71	25.00	352.32	8,819.59	2,857.99	-385.57	-371.10	0.00	0.00	0.00
9,450.00	24.89	354.98	8,829.82	2,862.72	-386.10	-371.61	10.00	-1.00	23.59
9,500.00	24.96	6.86	8,875.19	2,883.69	-385.76	-371.16	10.00	0.15	23.76
9,550.00	25.95	18.28	8,920.37	2,904.56	-381.07	-366.36	10.00	1.98	22.84
9,600.00	27.77	28.61	8,964.99	2,925.19	-372.05	-357.24	10.00	3.62	20.66
9,650.00	30.25	37.57	9,008.74	2,945.41	-358.79	-343.87	10.00	4.97	17.93
9,700.00	33.25	45.18	9,051.27	2,965.07	-341.37	-326.36	10.00	6.01	15.21
9,750.00	36.65	51.59	9,092.26	2,984.01	-319.94	-304.83	10.00	6.79	12.83
9,800.00	40.34	57.02	9,131.40	3,002.10	-294.66	-279.46	10.00	7.38	10.86
9,814.03	41.42	58.40	9,142.00	3,007.01	-286.90	-271.67	10.00	7.67	9.80
<b>Second Bone Spring Ss.</b>									
9,850.00	44.25	61.66	9,168.38	3,019.20	-265.71	-250.42	10.00	7.87	9.09
9,900.00	48.32	65.69	9,202.94	3,035.18	-233.32	-217.95	10.00	8.14	8.05
9,950.00	52.51	69.23	9,234.80	3,049.91	-197.73	-182.30	10.00	8.39	7.08
9,991.45	56.06	71.87	9,259.00	3,061.10	-166.00	-150.51	10.00	8.56	6.37
<b>Second Bone Spring A Ss.</b>									
10,000.00	56.79	72.38	9,263.73	3,063.29	-159.23	-143.72	10.00	8.64	6.04
10,050.00	61.15	75.24	9,289.50	3,075.20	-118.09	-102.52	10.00	8.72	5.72
10,100.00	65.57	77.87	9,311.91	3,085.57	-74.63	-59.01	10.00	8.83	5.26
10,150.00	70.03	80.32	9,330.80	3,094.31	-29.19	-13.53	10.00	8.91	4.90
10,153.53	70.34	80.49	9,332.00	3,094.86	-25.91	-10.25	10.00	8.95	4.74
<b>Second Bone Spring B Ss.</b>									
10,200.00	74.51	82.63	9,346.03	3,101.35	-17.90	33.59	10.00	8.98	4.62
10,250.00	79.03	84.85	9,357.47	3,106.65	66.26	81.99	10.00	9.02	4.43
10,300.00	83.55	87.00	9,365.04	3,110.16	115.55	131.29	10.00	9.05	4.30
10,350.00	88.09	89.11	9,368.68	3,111.85	165.37	181.12	10.00	9.07	4.22
10,364.34	89.39	89.71	9,369.00	3,112.00	179.70	195.45	10.00	9.08	4.20



Database: EDM 5000.1 Single User Db  
 Company: XTO Energy  
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 Site: BEU 30E Skywalker  
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 Design: PERMIT

Local Co-ordinate Reference: Well 100H  
 TVD Reference: RKB=25 @ 3474.00usft  
 MD Reference: RKB=25 @ 3474.00usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Landing Point - BEU 30E #100H: FTP/LP</b>									
10,400.00	89.39	89.71	9,369.38	3,112.18	215.36	231.11	0.00	0.00	0.00
10,500.00	89.39	89.71	9,370.45	3,112.69	315.36	331.11	0.00	0.00	0.00
10,600.00	89.39	89.71	9,371.51	3,113.20	415.35	431.10	0.00	0.00	0.00
10,700.00	89.39	89.71	9,372.57	3,113.72	515.34	531.09	0.00	0.00	0.00
10,800.00	89.39	89.71	9,373.64	3,114.23	615.33	631.09	0.00	0.00	0.00
10,900.00	89.39	89.71	9,374.70	3,114.74	715.33	731.08	0.00	0.00	0.00
11,000.00	89.39	89.71	9,375.77	3,115.25	815.32	831.08	0.00	0.00	0.00
11,100.00	89.39	89.71	9,376.83	3,115.76	915.31	931.07	0.00	0.00	0.00
11,200.00	89.39	89.71	9,377.90	3,116.27	1,015.31	1,031.07	0.00	0.00	0.00
11,300.00	89.39	89.71	9,378.96	3,116.78	1,115.30	1,131.06	0.00	0.00	0.00
11,400.00	89.39	89.71	9,380.03	3,117.29	1,215.29	1,231.05	0.00	0.00	0.00
11,500.00	89.39	89.71	9,381.09	3,117.81	1,315.29	1,331.05	0.00	0.00	0.00
11,600.00	89.39	89.71	9,382.16	3,118.32	1,415.28	1,431.04	0.00	0.00	0.00
11,700.00	89.39	89.71	9,383.22	3,118.83	1,515.27	1,531.04	0.00	0.00	0.00
11,800.00	89.39	89.71	9,384.29	3,119.34	1,615.26	1,631.03	0.00	0.00	0.00
11,900.00	89.39	89.71	9,385.35	3,119.85	1,715.26	1,731.03	0.00	0.00	0.00
12,000.00	89.39	89.71	9,386.42	3,120.36	1,815.25	1,831.02	0.00	0.00	0.00
12,100.00	89.39	89.71	9,387.48	3,120.87	1,915.24	1,931.02	0.00	0.00	0.00
12,200.00	89.39	89.71	9,388.55	3,121.38	-2,015.24	2,031.01	0.00	0.00	0.00
12,300.00	89.39	89.71	9,389.61	3,121.89	-2,115.23	2,131.00	0.00	0.00	0.00
12,400.00	89.39	89.71	9,390.68	3,122.41	-2,215.22	2,231.00	0.00	0.00	0.00
12,500.00	89.39	89.71	9,391.74	3,122.92	-2,315.22	2,330.99	0.00	0.00	0.00
12,600.00	89.39	89.71	9,392.81	3,123.43	-2,415.21	2,430.99	0.00	0.00	0.00
12,700.00	89.39	89.71	9,393.87	3,123.94	-2,515.20	2,530.98	0.00	0.00	0.00
12,800.00	89.39	89.71	9,394.94	3,124.45	-2,615.19	2,630.98	0.00	0.00	0.00
12,900.00	89.39	89.71	9,396.00	3,124.96	-2,715.19	2,730.97	0.00	0.00	0.00
13,000.00	89.39	89.71	9,397.07	3,125.47	-2,815.18	2,830.96	0.00	0.00	0.00
13,100.00	89.39	89.71	9,398.13	3,125.98	-2,915.17	2,930.96	0.00	0.00	0.00
13,200.00	89.39	89.71	9,399.20	3,126.50	-3,015.17	3,030.95	0.00	0.00	0.00
13,300.00	89.39	89.71	9,400.26	3,127.01	-3,115.16	3,130.95	0.00	0.00	0.00
13,400.00	89.39	89.71	9,401.33	3,127.52	-3,215.15	3,230.94	0.00	0.00	0.00
13,500.00	89.39	89.71	9,402.39	3,128.03	-3,315.15	3,330.94	0.00	0.00	0.00
13,600.00	89.39	89.71	9,403.46	3,128.54	-3,415.14	3,430.93	0.00	0.00	0.00
13,650.80	89.39	89.71	9,404.00	3,128.80	-3,465.93	3,481.73	0.00	0.00	0.00
<b>Second Bone Spring B Base</b>									
13,700.00	89.39	89.71	9,404.52	3,129.05	-3,515.13	3,530.92	0.00	0.00	0.00
13,800.00	89.39	89.71	9,405.59	3,129.56	-3,615.13	3,630.92	0.00	0.00	0.00
13,900.00	89.39	89.71	9,406.65	3,130.07	-3,715.12	3,730.91	0.00	0.00	0.00
14,000.00	89.39	89.71	9,407.72	3,130.59	-3,815.11	3,830.91	0.00	0.00	0.00
14,100.00	89.39	89.71	9,408.78	3,131.10	-3,915.10	3,930.90	0.00	0.00	0.00
14,200.00	89.39	89.71	9,409.85	3,131.61	-4,015.10	4,030.90	0.00	0.00	0.00
14,300.00	89.39	89.71	9,410.91	3,132.12	-4,115.09	4,130.89	0.00	0.00	0.00
14,400.00	89.39	89.71	9,411.98	3,132.63	-4,215.08	4,230.88	0.00	0.00	0.00
14,500.00	89.39	89.71	9,413.04	3,133.14	-4,315.08	4,330.88	0.00	0.00	0.00
14,600.00	89.39	89.71	9,414.11	3,133.65	-4,415.07	4,430.87	0.00	0.00	0.00
14,700.00	89.39	89.71	9,415.17	3,134.16	-4,515.06	4,530.87	0.00	0.00	0.00
14,800.00	89.39	89.71	9,416.24	3,134.67	-4,615.06	4,630.86	0.00	0.00	0.00
14,900.00	89.39	89.71	9,417.30	3,135.19	-4,715.05	4,730.86	0.00	0.00	0.00
15,000.00	89.39	89.71	9,418.37	3,135.70	-4,815.04	4,830.85	0.00	0.00	0.00
15,100.00	89.39	89.71	9,419.43	3,136.21	-4,915.03	4,930.85	0.00	0.00	0.00
15,200.00	89.39	89.71	9,420.50	3,136.72	-5,015.03	5,030.84	0.00	0.00	0.00
15,300.00	89.39	89.71	9,421.56	3,137.23	-5,115.02	5,130.83	0.00	0.00	0.00
15,400.00	89.39	89.71	9,422.63	3,137.74	-5,215.01	5,230.83	0.00	0.00	0.00



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 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

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)
15,500.00	89.39	89.71	9,423.69	3,138.25	5,315.01	5,330.82	0.00	0.00	0.00
15,600.00	89.39	89.71	9,424.76	3,138.76	5,415.00	5,430.82	0.00	0.00	0.00
15,700.00	89.39	89.71	9,425.82	3,139.28	5,514.99	5,530.81	0.00	0.00	0.00
15,800.00	89.39	89.71	9,426.89	3,139.79	5,614.99	5,630.81	0.00	0.00	0.00
15,900.00	89.39	89.71	9,427.95	3,140.30	5,714.98	5,730.80	0.00	0.00	0.00
16,000.00	89.39	89.71	9,429.02	3,140.81	5,814.97	5,830.79	0.00	0.00	0.00
16,100.00	89.39	89.71	9,430.08	3,141.32	5,914.96	5,930.79	0.00	0.00	0.00
16,200.00	89.39	89.71	9,431.15	3,141.83	6,014.96	6,030.78	0.00	0.00	0.00
16,300.00	89.39	89.71	9,432.21	3,142.34	6,114.95	6,130.78	0.00	0.00	0.00
16,400.00	89.39	89.71	9,433.28	3,142.85	6,214.94	6,230.77	0.00	0.00	0.00
16,500.00	89.39	89.71	9,434.34	3,143.36	6,314.94	6,330.77	0.00	0.00	0.00
16,600.00	89.39	89.71	9,435.41	3,143.88	6,414.93	6,430.76	0.00	0.00	0.00
16,700.00	89.39	89.71	9,436.47	3,144.39	6,514.92	6,530.75	0.00	0.00	0.00
16,800.00	89.39	89.71	9,437.54	3,144.90	6,614.92	6,630.75	0.00	0.00	0.00
16,900.00	89.39	89.71	9,438.60	3,145.41	6,714.91	6,730.74	0.00	0.00	0.00
17,000.00	89.39	89.71	9,439.67	3,145.92	6,814.90	6,830.74	0.00	0.00	0.00
17,100.00	89.39	89.71	9,440.73	3,146.43	6,914.89	6,930.73	0.00	0.00	0.00
17,200.00	89.39	89.71	9,441.80	3,146.94	7,014.89	7,030.73	0.00	0.00	0.00
17,300.00	89.39	89.71	9,442.86	3,147.45	7,114.88	7,130.72	0.00	0.00	0.00
17,400.00	89.39	89.71	9,443.93	3,147.97	7,214.87	7,230.71	0.00	0.00	0.00
17,500.00	89.39	89.71	9,444.99	3,148.48	7,314.87	7,330.71	0.00	0.00	0.00
17,600.00	89.39	89.71	9,446.06	3,148.99	7,414.86	7,430.70	0.00	0.00	0.00
17,700.00	89.39	89.71	9,447.12	3,149.50	7,514.85	7,530.70	0.00	0.00	0.00
17,800.00	89.39	89.71	9,448.19	3,150.01	7,614.85	7,630.69	0.00	0.00	0.00
17,900.00	89.39	89.71	9,449.25	3,150.52	7,714.84	7,730.69	0.00	0.00	0.00
18,000.00	89.39	89.71	9,450.32	3,151.03	7,814.83	7,830.68	0.00	0.00	0.00
18,100.00	89.39	89.71	9,451.38	3,151.54	7,914.83	7,930.68	0.00	0.00	0.00
18,200.00	89.39	89.71	9,452.45	3,152.06	8,014.82	8,030.67	0.00	0.00	0.00
18,300.00	89.39	89.71	9,453.51	3,152.57	8,114.81	8,130.66	0.00	0.00	0.00
18,400.00	89.39	89.71	9,454.58	3,153.08	8,214.80	8,230.66	0.00	0.00	0.00
18,500.00	89.39	89.71	9,455.64	3,153.59	8,314.80	8,330.65	0.00	0.00	0.00
18,600.00	89.39	89.71	9,456.71	3,154.10	8,414.79	8,430.65	0.00	0.00	0.00
18,700.00	89.39	89.71	9,457.77	3,154.61	8,514.78	8,530.64	0.00	0.00	0.00
18,800.00	89.39	89.71	9,458.84	3,155.12	8,614.78	8,630.64	0.00	0.00	0.00
18,900.00	89.39	89.71	9,459.90	3,155.63	8,714.77	8,730.63	0.00	0.00	0.00
19,000.00	89.39	89.71	9,460.97	3,156.14	8,814.76	8,830.62	0.00	0.00	0.00
19,100.00	89.39	89.71	9,462.03	3,156.66	8,914.76	8,930.62	0.00	0.00	0.00
19,200.00	89.39	89.71	9,463.10	3,157.17	9,014.75	9,030.61	0.00	0.00	0.00
19,300.00	89.39	89.71	9,464.16	3,157.68	9,114.74	9,130.61	0.00	0.00	0.00
19,400.00	89.39	89.71	9,465.23	3,158.19	9,214.73	9,230.60	0.00	0.00	0.00
19,500.00	89.39	89.71	9,466.29	3,158.70	9,314.73	9,330.60	0.00	0.00	0.00
19,600.00	89.39	89.71	9,467.36	3,159.21	9,414.72	9,430.59	0.00	0.00	0.00
19,700.00	89.39	89.71	9,468.42	3,159.72	9,514.71	9,530.58	0.00	0.00	0.00
19,800.00	89.39	89.71	9,469.49	3,160.23	9,614.71	9,630.58	0.00	0.00	0.00
19,900.00	89.39	89.71	9,470.55	3,160.75	9,714.70	9,730.57	0.00	0.00	0.00
20,000.00	89.39	89.71	9,471.62	3,161.26	9,814.69	9,830.57	0.00	0.00	0.00
20,100.00	89.39	89.71	9,472.68	3,161.77	9,914.69	9,930.56	0.00	0.00	0.00
20,173.72	89.39	89.71	9,473.47	3,162.14	9,988.40	10,004.28	0.00	0.00	0.00
<b>BEU 30E #100H: LTP</b>									
20,200.00	89.39	89.71	9,473.75	3,162.28	10,014.68	10,030.56	0.00	0.00	0.00
20,223.72	89.39	89.71	9,474.00	3,162.40	10,038.40	10,054.28	0.00	0.00	0.00
<b>TD - BEU 30E #100H: PBHL (660' FNL/ 50' FEL)</b>									



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 Design: PERMIT

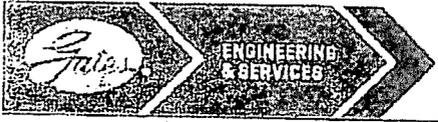
Local Co-ordinate Reference: Well 100H  
 TVD Reference: RKB=25 @ 3474.00usft  
 MD Reference: RKB=25 @ 3474.00usft  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature

**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 #100H: SHL - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	571,481.50	649,992.30	32.570166	-103.846445
BEU 30E #100H: FTP - plan hits target center - Point	0.00	0.00	9,369.00	3,112.00	179.70	574,593.50	650,172.00	32.578718	-103.845815
BEU 30E #100H: LTP - plan misses target center by 0.06usft at 20173.72usft MD (9473.47 TVD, 3162.14 N, 9988.40 E) - Point	0.00	0.00	9,473.47	3,162.20	9,988.40	574,643.70	659,980.70	32.578729	-103.813972
BEU 30E #100H: PBI - plan hits target center - Point	0.00	0.01	9,474.00	3,162.40	10,038.40	574,643.90	660,030.70	32.578729	-103.813810

**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			
2,744.35	2,736.00	Capitan Reef			
4,139.64	4,017.00	Delaware Sand			
5,005.79	4,802.00	Manzanita Marker			
6,090.41	5,785.00	Brushy Canyon Ss.			
7,584.39	7,139.00	Lower Brushy Canyon Ss.			
7,840.37	7,371.00	Bone Spring Lm.			
8,019.12	7,533.00	Avalon Ss.			
8,037.88	7,550.00	Upper Avalon Carb.			
8,093.05	7,600.00	Upper Avalon Sh.			
8,388.75	7,868.00	Lw. Avalon Carb.			
8,622.67	8,080.00	Lw. Avalon Sh.			
8,854.38	8,290.00	Bone Spring Carb.			
9,171.05	8,577.00	First Bone Spring Ss.			
9,429.24	8,811.00	Second Bone Spring Carb.			
9,814.03	9,142.00	Second Bone Spring Ss.			
9,991.45	9,259.00	Second Bone Spring A Ss.			
10,153.53	9,332.00	Second Bone Spring B Ss.			
10,364.34	9,369.00	Landing Point			
13,650.80	9,404.00	Second Bone Spring B Base			
20,223.72	9,474.00	TD			



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

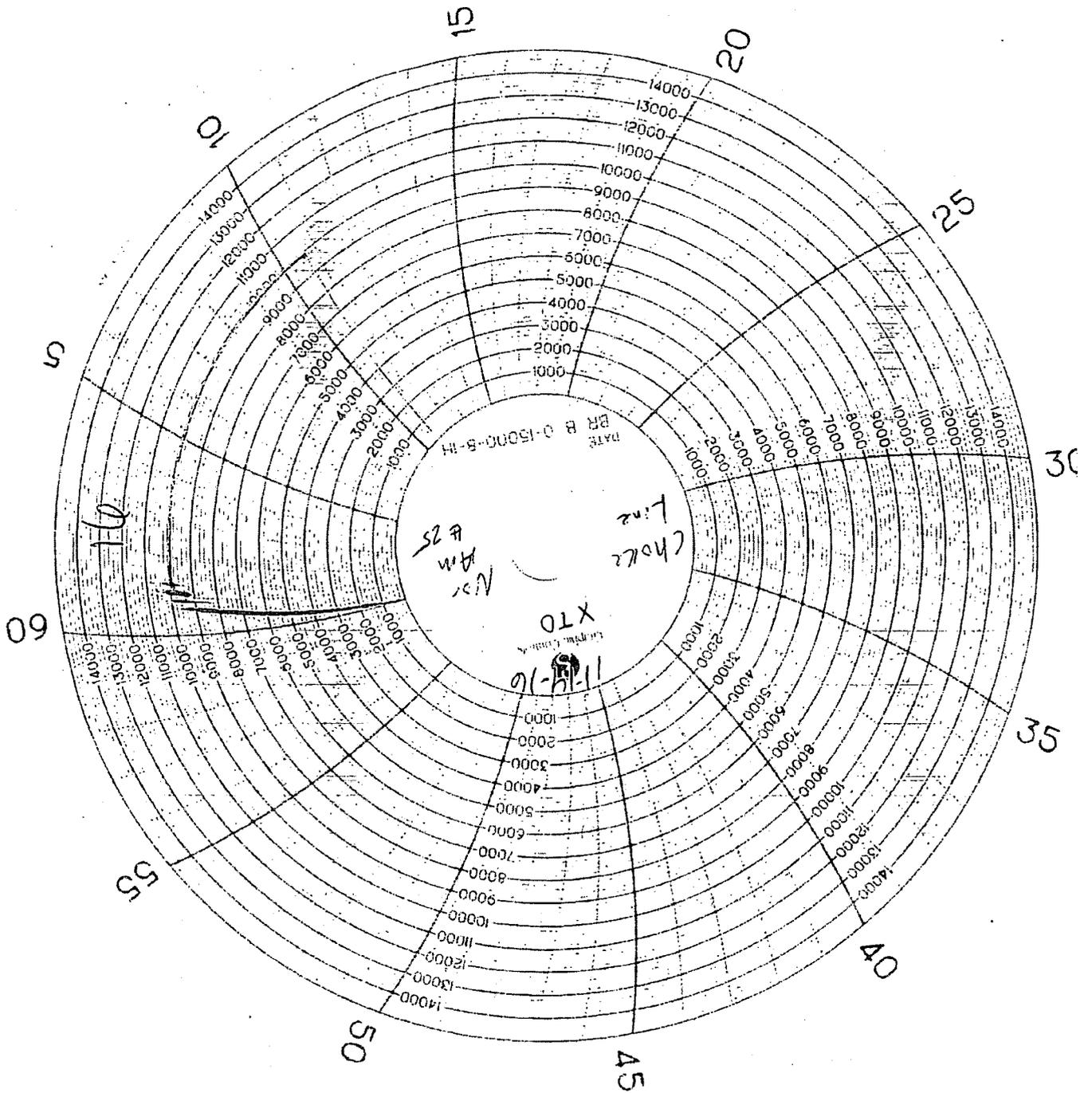
PHONE: 361-887-9807  
 FAX: 361-887-0812  
 EMAIL: crpe@s@gates.com  
 WEB: www.gates.com

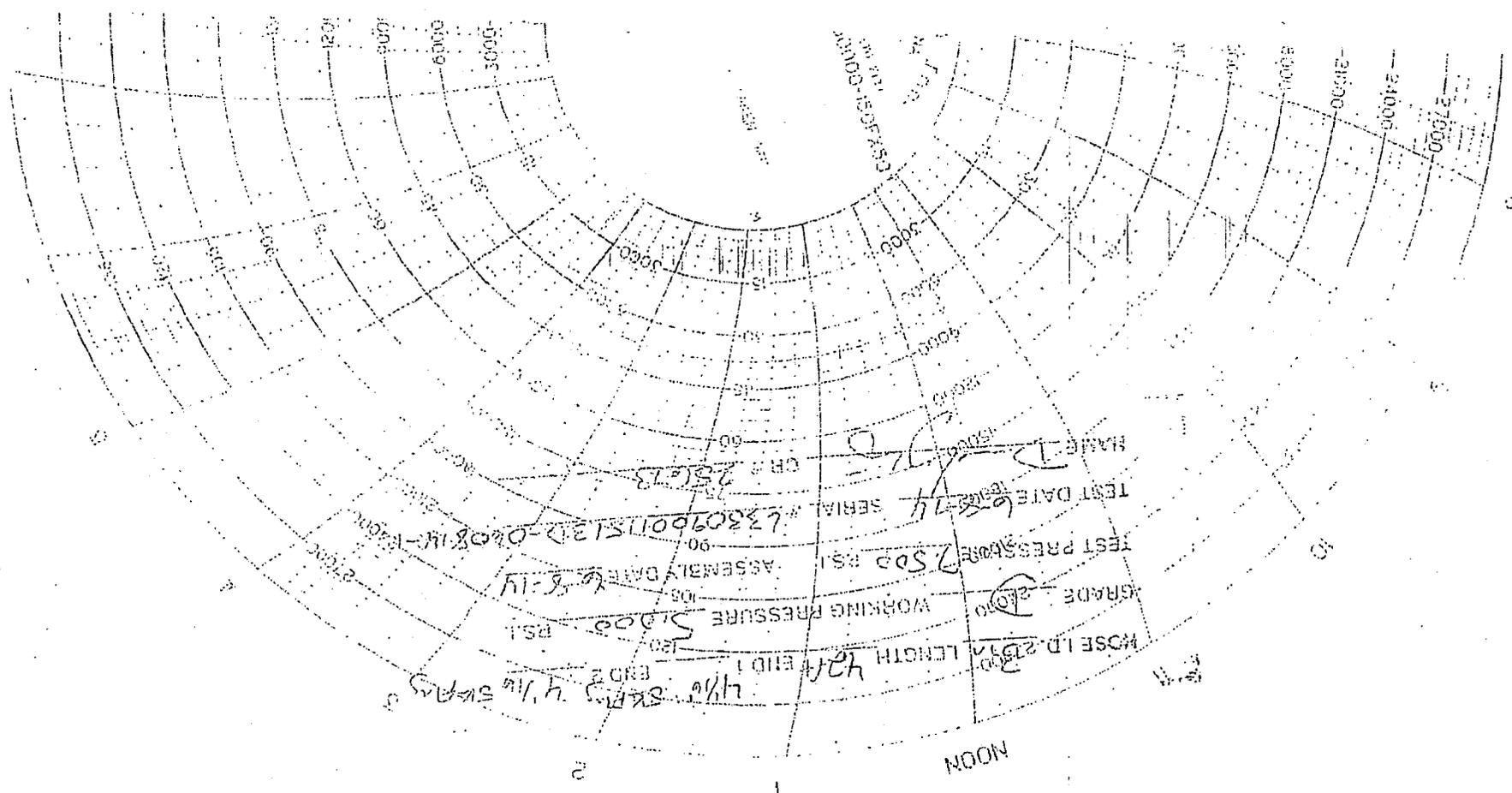
**GRADE D PRESSURE TEST CERTIFICATE**

Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORI-VA
Product Description:	FD3.0+2.0R41/16.5KFLGE/E LE		
End Fitting 1 :	4 1/16 in. SK FLG	End Fitting 2 :	4 1/16 in. SK FLG
Gates Part No. :	4774-6001	Assembly Code:	L33090011S13D-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.

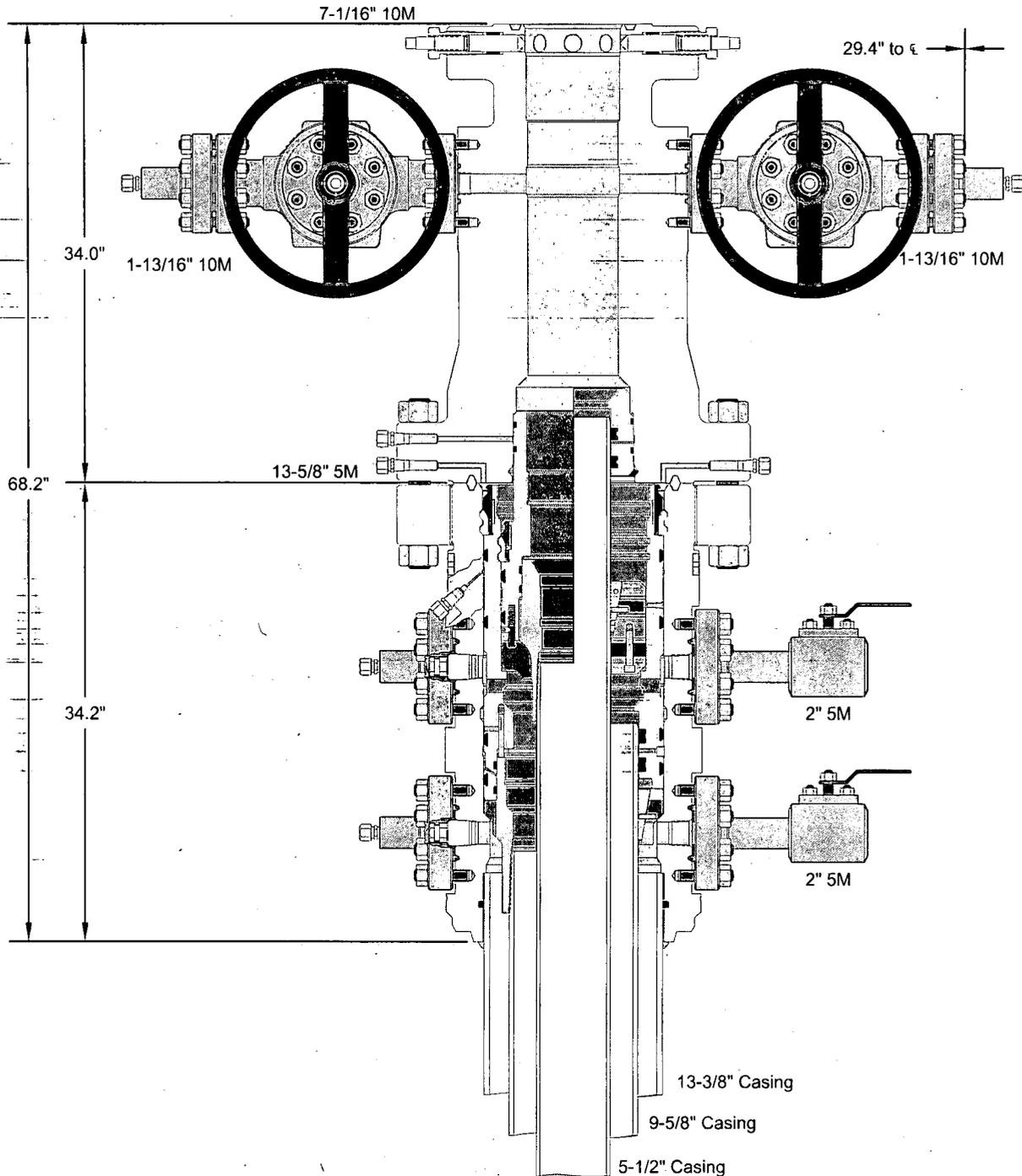
Quality:	QUALITY	Technical Supervisor:	PRODUCTION
Date:	6/8/2014	Date:	6/8/2014
Signature:	<i>[Signature]</i>	Signature:	<i>[Signature]</i>







GE Oil & Gas



ALL DIMENSIONS ARE APPROXIMATE

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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: 10400039235

Submission Date: 03/13/2019

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

### Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BEU30\_Sky\_100H\_Road\_20190218065012.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

**Existing Road Improvement Description:** 19,454.93' of existing roads for the location are requested to be upgraded to a 50' ROW corridor with 30' maximum width of driving surface from the turnout at 62/180 (Hobbs Hwy) to the Big Eddy Unit DI 30 location for traffic safety. The roads currently have a 14' maximum width of driving surface. A plat of the requested upgraded roads is attached.

**Existing Road Improvement Attachment:**

BEU30\_RoadExi\_20190515122253.pdf

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

BEU30\_RoadNew\_20190515122403.pdf

New road type: RESOURCE

Length: 337 Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

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

New road access plan or profile prepared? NO

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**Access surfacing type:** OTHER

**Access topsoil source:** ONSITE

**Access surfacing type description:** Surface material will be native caliche

**Access onsite topsoil source depth:** 6

**Offsite topsoil source description:**

**Onsite topsoil removal process:** Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.

**Access other construction information:** Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.

**Access miscellaneous information:** The Big Eddy Unit D130 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.' 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. The project is located approximately 24.38 Miles from the city of Carlsbad, New Mexico.

**Number of access turnouts:** 0

**Access turnout map:**

### Drainage Control

**New road drainage crossing:** OTHER

**Drainage Control comments:** The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

**Road Drainage Control Structures (DCS) description:** No drainage control structures were identified at onsite. Drainage control structures will be applied for as-needed and be in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

**Road Drainage Control Structures (DCS) attachment:**

### Access Additional Attachments

**Additional Attachment(s):**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

**Attach Well map:**

BEU30\_1\_Mile\_20190218080236.pdf

**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: Eighty (80) 767.58' buried 10" or less 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). Eighty (80) additional 767.58' buried 10" or less 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: 160 buried. BEU DI30 East CTB: Eighty (80) 731.74' buried 10" or less steel or poly 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). Eighty (80) additional 731.74' long buried 10" or less steel or poly 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: 160 buried. Total lines in this application: 320. The anticipated width of the corridor to both West and East batteries is anticipated to be 120' wide. A 30' wide corridor for flowlines has been previously approved via 3160-5 sundry. 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 1/2 times the capacity of the largest tank and away from cut or fill areas. Electrical. No additional electrical is required for this well or drill island. No additional surface disturbance is needed.

**Production Facilities map:**

BEU30\_FL\_20190515122420.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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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

**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\_100H\_Wtr\_20190218080400.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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

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

**Safe containmant attachment:**

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

**Disposal type description:**

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

**Waste type:** 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?**

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 30E SKYWALKER

Well Number: 100H

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\_100H\_Well\_20190218080518.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

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

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.

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

<b>Well pad proposed disturbance (acres):</b> 0	<b>Well pad interim reclamation (acres):</b>	<b>Well pad long term disturbance (acres):</b>
<b>Road proposed disturbance (acres):</b> 0	<b>Road interim reclamation (acres):</b>	<b>Road long term disturbance (acres):</b>
<b>Powerline proposed disturbance (acres):</b> 0	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 0
<b>Pipeline proposed disturbance (acres):</b> 0	<b>Pipeline interim reclamation (acres):</b>	<b>Pipeline long term disturbance (acres):</b>
<b>Other proposed disturbance (acres):</b> 0	<b>Other interim reclamation (acres):</b>	<b>Other long term disturbance (acres):</b>
<b>Total proposed disturbance:</b> 0	<b>Total interim reclamation:</b>	<b>Total long term disturbance:</b>

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

**Existing Vegetation at the well pad:** 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.

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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.

**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	
Seed Type	Pounds/Acre

**Total pounds/Acre:**

**Seed reclamation attachment:**

**Operator Contact/Responsible Official Contact Info**

**First Name:** Jeff

**Last Name:** Raines

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**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:**

**Operator Name:** XTO PERMIAN OPERATING LLC

**Well Name:** BIG EDDY UNIT 30E SKYWALKER

**Well Number:** 100H

**State Local Office:** NEW MEXICO STATE LAND OFFICE

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:** \_\_\_\_\_

**USFS Ranger District:** \_\_\_\_\_

### Section 12 - Other Information

**Right of Way needed?** NO

**Use APD as ROW?**

**ROW Type(s):**

#### ROW Applications

**SUPO Additional Information:** -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\_DID\_20190515122454.pdf

BEU30\_OL\_20190515122502.pdf

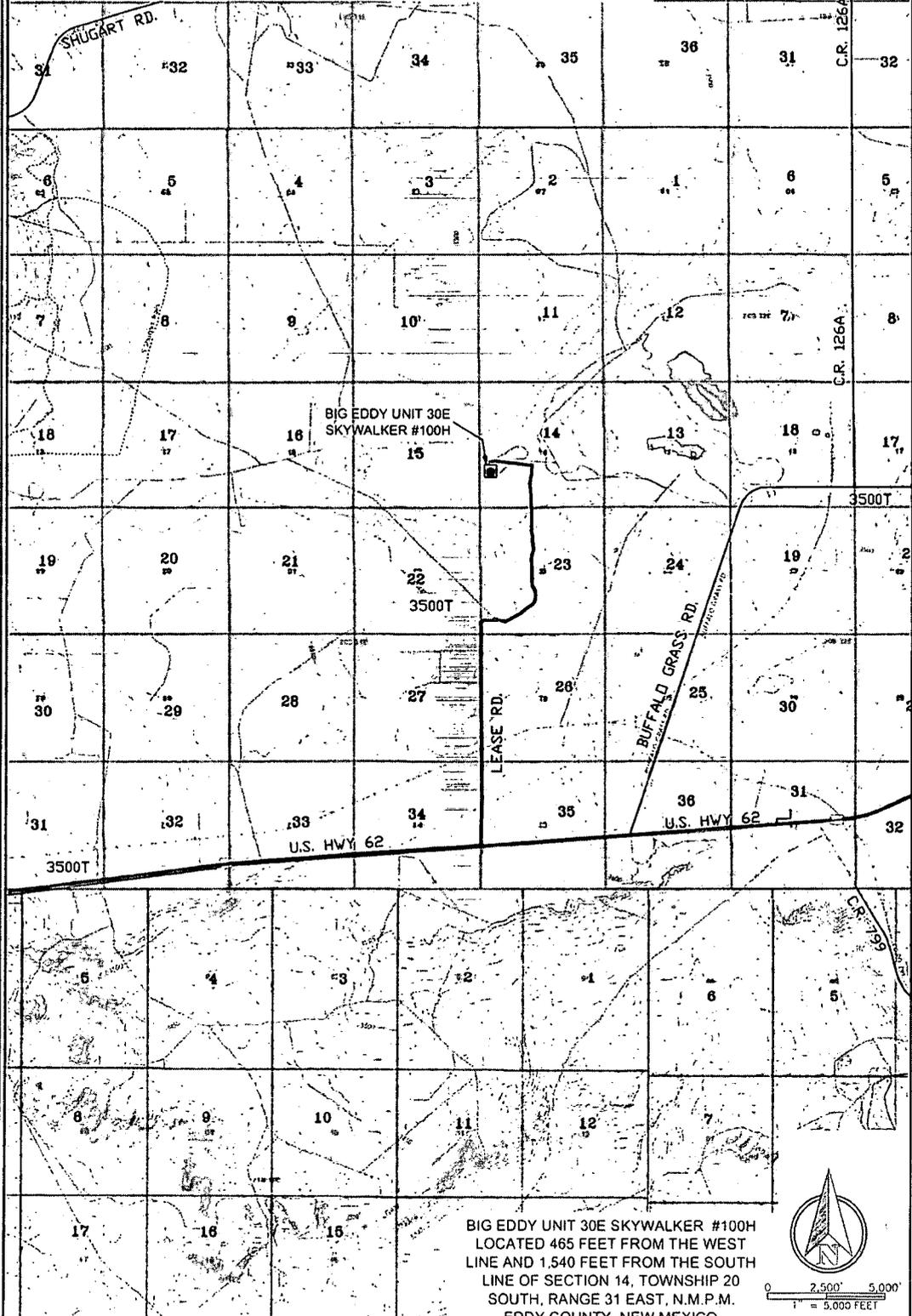
BEU30\_Well\_List\_20190515122529.pdf

BEU30\_SUPO\_20190515122540.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 #100H  
 LOCATED 465 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

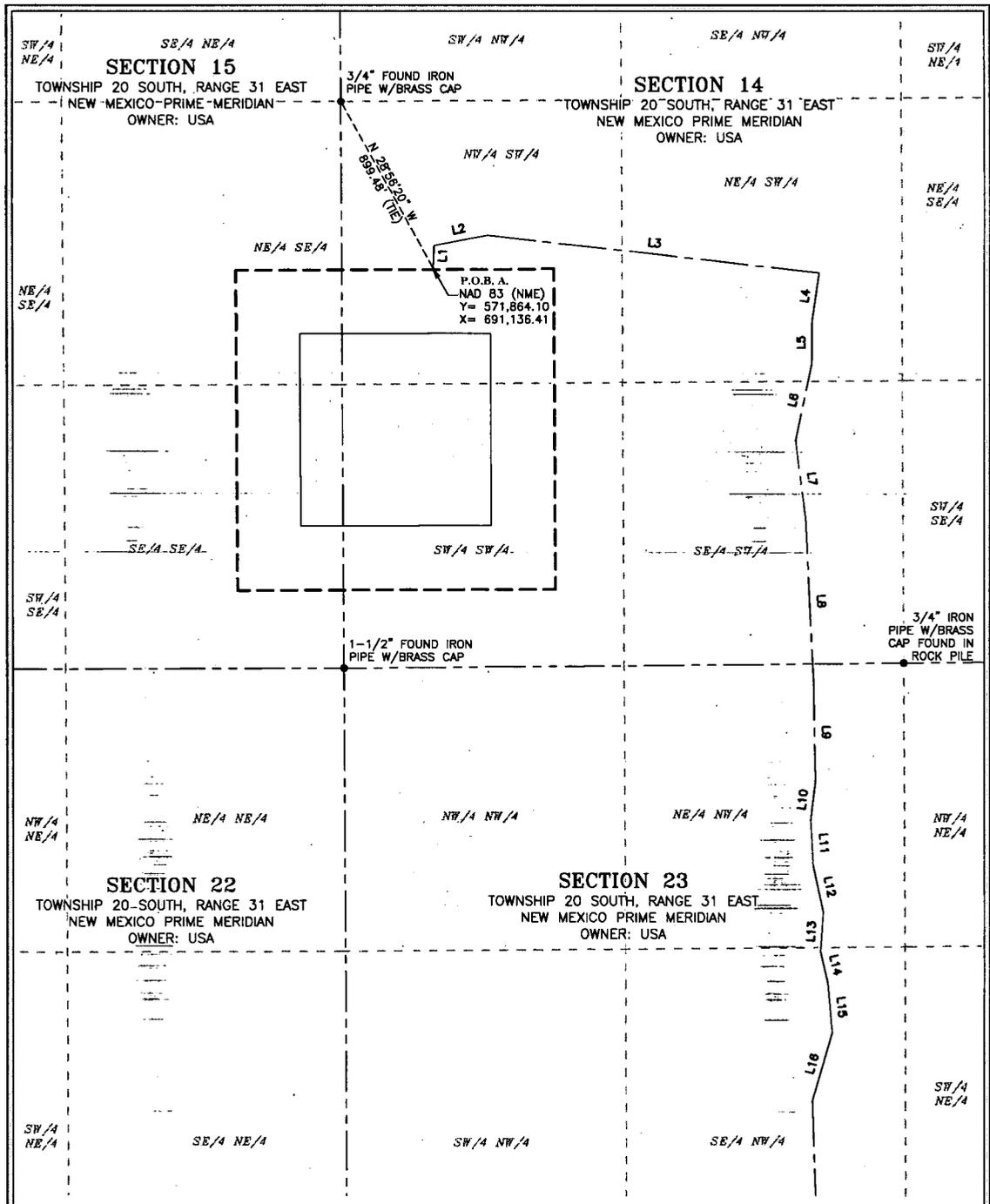


0 2,500' 5,000'  
 1" = 5,000 FEET



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DATE:	2-5-2019	PROJECT NO.:	2017081252
DRAWN BY:	AM	SCALE:	1" = 5,000'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE/KN/CO	REVISION:	NO



MATCHLINE SHEET 2

**GENERAL NOTES**

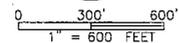
1. BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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

*[Signature]*

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

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**LEGEND**

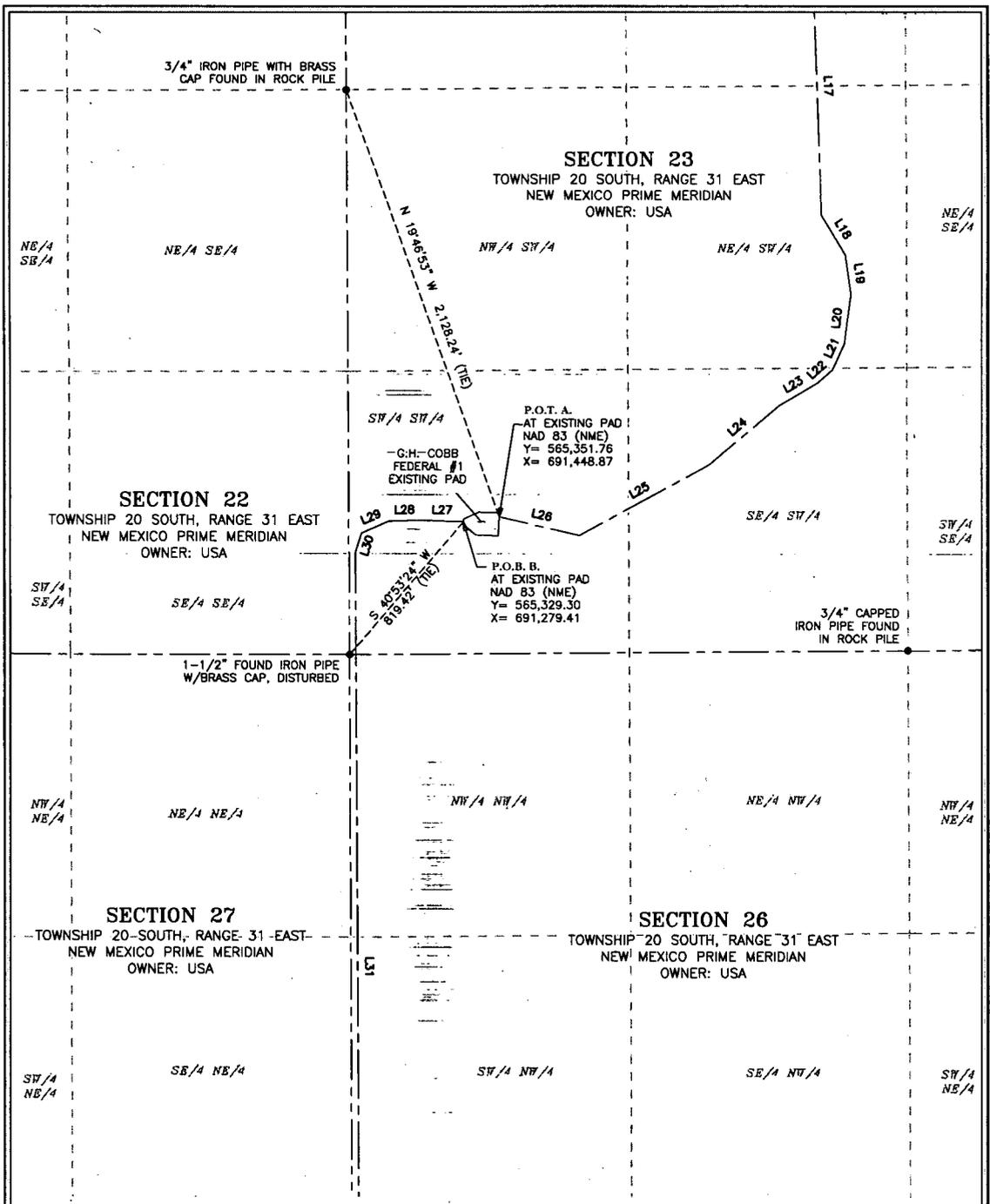
- SECTION LINE
- EXISTING ROAD
- PROPOSED PAD EXPANSION
- PROPOSED DRILLING ISLAND
- PROPOSED ROAD CENTERLINE
- P.O.B.
- P.O.T.
- FOUND MONUMENT AS NOTED

PLAT OF:  
PROPOSED CENTERLINE OF  
ACCESS ROADS FOR:

**XTO PERMIAN OPERATING, LLC.**  
BIG EDDY UNIT DI 30

SITUATED IN SECTIONS 14, 15, 23, 26, 34, AND 35,  
TOWNSHIP 20 SOUTH, RANGE 31 EAST,  
NEW MEXICO PRIME MERIDIAN,  
EDDY COUNTY, NEW MEXICO

DATE: 05-08-2019  
DRAWN BY: AI/TM/AW  
CHECKED BY: DH  
FIELD CREW: KN/RE  
PROJECT NO: 2017111908  
SCALE: 1" = 600'  
SHEET: 1 OF 4  
REVISION: 2



MATCHLINE SHEET 3

**GENERAL NOTES**

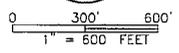
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*[Signature]*

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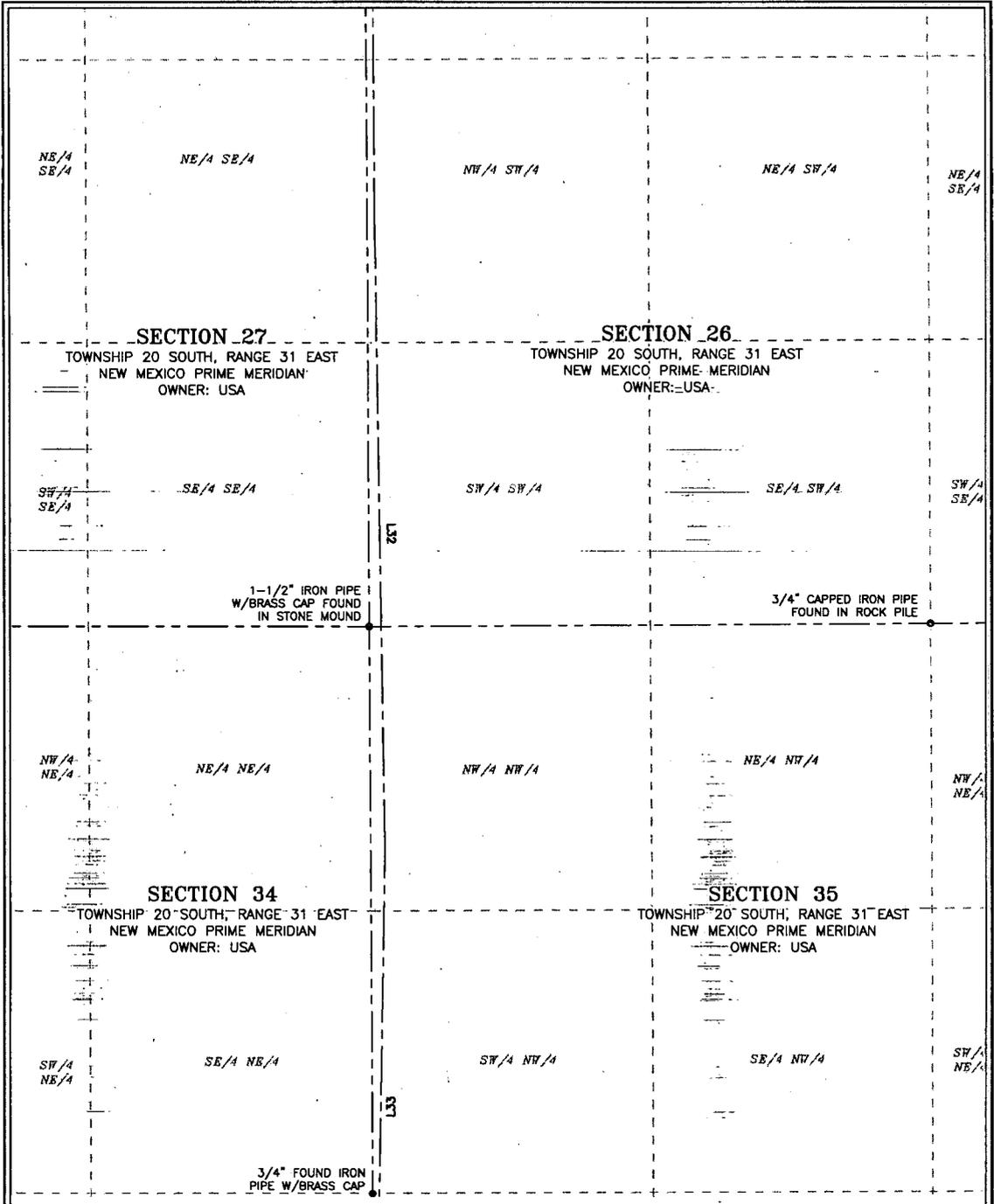


**LEGEND**

- SECTION LINE
- EXISTING ROAD
- PROPOSED PAD EXPANSION
- PROPOSED DRILLING ISLAND
- PROPOSED ROAD CENTERLINE
- P.O.B.
- P.O.T.
- FOUND MONUMENT AS NOTED

PLAT OF:  
PROPOSED CENTERLINE OF  
ACCESS ROADS FOR:  
**XTO PERMIAN OPERATING, LLC.**  
BIG EDDY UNIT DI 30  
SITUATED IN SECTIONS 14, 15, 23, 26, 34, AND 35,  
TOWNSHIP 20 SOUTH, RANGE 31 EAST,  
NEW MEXICO PRIME MERIDIAN,  
EDDY COUNTY, NEW MEXICO

DATE: 05-08-2019  
DRAWN BY: AI/TM/AW  
CHECKED BY: DH  
FIELD CREW: KN/RE  
PROJECT NO: 2017111908  
SCALE: 1" = 600'  
SHEET: 2 OF 4  
REVISION: 2



MATCHLINE SHEET 4

**GENERAL NOTES**

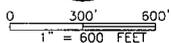
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*[Signature]*

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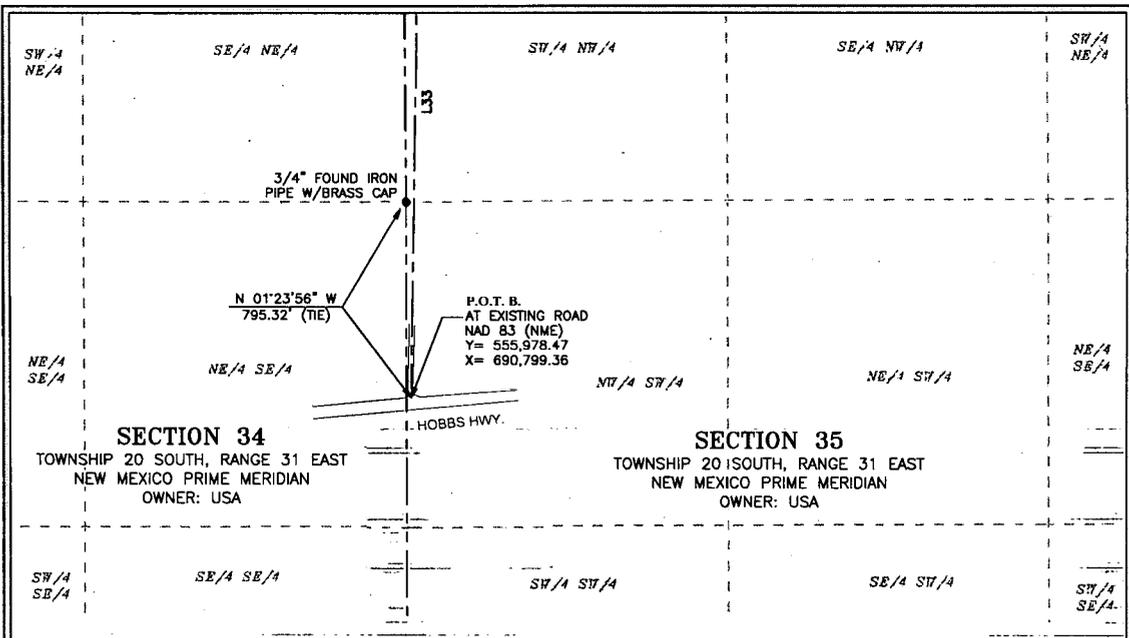


**LEGEND**

- SECTION LINE
- EXISTING ROAD
- PROPOSED PAD EXPANSION
- PROPOSED DRILLING ISLAND
- PROPOSED ROAD CENTERLINE
- POINT OF BEGINNING
- POINT OF TERMINUS
- FOUND MONUMENT AS NOTED

PLAT OF:  
PROPOSED CENTERLINE OF  
ACCESS ROADS FOR:  
**XTO PERMIAN OPERATING, LLC.**  
BIG EDDY UNIT DI 30  
SITUATED IN SECTIONS 14, 15, 23, 26, 34, AND 35,  
TOWNSHIP 20 SOUTH, RANGE 31 EAST,  
NEW MEXICO PRIME MERIDIAN,  
EDDY COUNTY, NEW MEXICO

DATE: 05-08-2019  
DRAWN BY: AI/TM/AW  
CHECKED BY: DH  
FIELD CREW: KN/RE  
PROJECT NO: 2017111908  
SCALE: 1" = 600'  
SHEET: 3 OF 4  
REVISION: 2



LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	N 01°48'27" E	109.42'
L2	N 79°22'10" E	254.38'
L3	S 83°42'39" E	1,582.25'
L4	S 08°21'57" W	226.75'
L5	S 00°41'09" W	197.73'
L6	S 12°03'21" W	366.20'
L7	S 07°04'03" E	378.17'
L8	S 02°48'59" E	763.27'
L9	S 01°05'24" E	455.59'
L10	S 06°58'38" W	183.86'
L11	S 03°19'21" E	213.57'
L12	S 12°02'37" E	221.88'
L13	S 03°55'32" W	184.15'
L14	S 12°48'42" E	153.58'
L15	S 05°28'02" E	230.49'
L16	S 16°22'35" W	333.10'
L17	S 01°54'03" E	1,216.27'
L18	S 31°38'16" E	219.65'
L19	S 07°51'17" E	186.09'
L20	S 07°12'09" W	233.11'
L21	S 25°40'05" W	132.79'
L22	S 48°10'34" W	92.47'
L23	S 60°18'04" W	210.61'
L24	S 49°50'46" W	432.18'
L25	S 61°43'26" W	696.55'
L26	N 77°14'45" W	388.59'

**BIG EDDY UNIT DI 30 PROPOSED ACCESS ROADS DESCRIPTION:**

SURVEY OF A STRIP OF LAND 50.00 FEET WIDE AND 19,454.93 FEET, 1,179.09 RODS, OR 3.68 MILES IN LENGTH CROSSING SECTIONS 14, 23, 26, 34, AND 35, TOWNSHIP 20 SOUTH, RANGE 31 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 25.0 FEET RIGHT AND 25.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 22.34 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

- NW/4 SW/4 SECTION 14 = 1,005.67 FEET = 60.95 RODS = 1.15 ACRES
- NE/4 SW/4 SECTION 14 = 1,448.59 FEET = 87.80 RODS = 1.66 ACRES
- SE/4 SW/4 SECTION 14 = 1,332.29 FEET = 80.75 RODS = 1.53 ACRES
- NE/4 NW/4 SECTION 23 = 1,330.79 FEET = 80.65 RODS = 1.53 ACRES
- SE/4 NW/4 SECTION 23 = 1,342.91 FEET = 81.39 RODS = 1.54 ACRES
- NE/4 SW/4 SECTION 23 = 1,370.81 FEET = 83.08 RODS = 1.57 ACRES
- SE/4 SW/4 SECTION 23 = 1,181.38 FEET = 71.60 RODS = 1.36 ACRES
- SW/4 SW/4 SECTION 23 = 1,710.14 FEET = 103.65 RODS = 1.97 ACRES
- NW/4 SECTION 26 = 1,322.16 FEET = 80.13 RODS = 1.52 ACRES
- SW/4 NW/4 SECTION 26 = 1,322.16 FEET = 80.13 RODS = 1.52 ACRES
- NW/4 SW/4 SECTION 26 = 1,322.18 FEET = 80.13 RODS = 1.52 ACRES
- SW/4 SW/4 SECTION 26 = 1,322.21 FEET = 80.13 RODS = 1.52 ACRES
- NW/4 NW/4 SECTION 35 = 1,324.33 FEET = 80.26 RODS = 1.52 ACRES
- SW/4 NW/4 SECTION 35 = 1,324.52 FEET = 80.27 RODS = 1.52 ACRES
- NW/4 SW/4 SECTION 35 = 794.79 FEET = 48.17 RODS = 0.88 OF AN ACRE
- NE/4 SE/4 SECTION 34 (EASEMENT ONLY) = 0.03 OF AN ACRE

LINE TABLE "B"

L27	N 88°32'58" W	200.58'
L28	S 88°51'24" W	149.53'
L29	S 86°32'05" W	139.52'
L30	S 17°42'47" W	94.70'
L31	S 00°17'10" E	3,868.31'
L32	S 00°55'00" E	2,930.70'
L33	S 00°56'18" W	2,408.89'

TOTAL LENGTH = 19,454.93 FEET  
OR 1,179.09 RODS



0 300' 600'  
1" = 600' FEET

**GENERAL NOTES**

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

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*[Signature]*

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

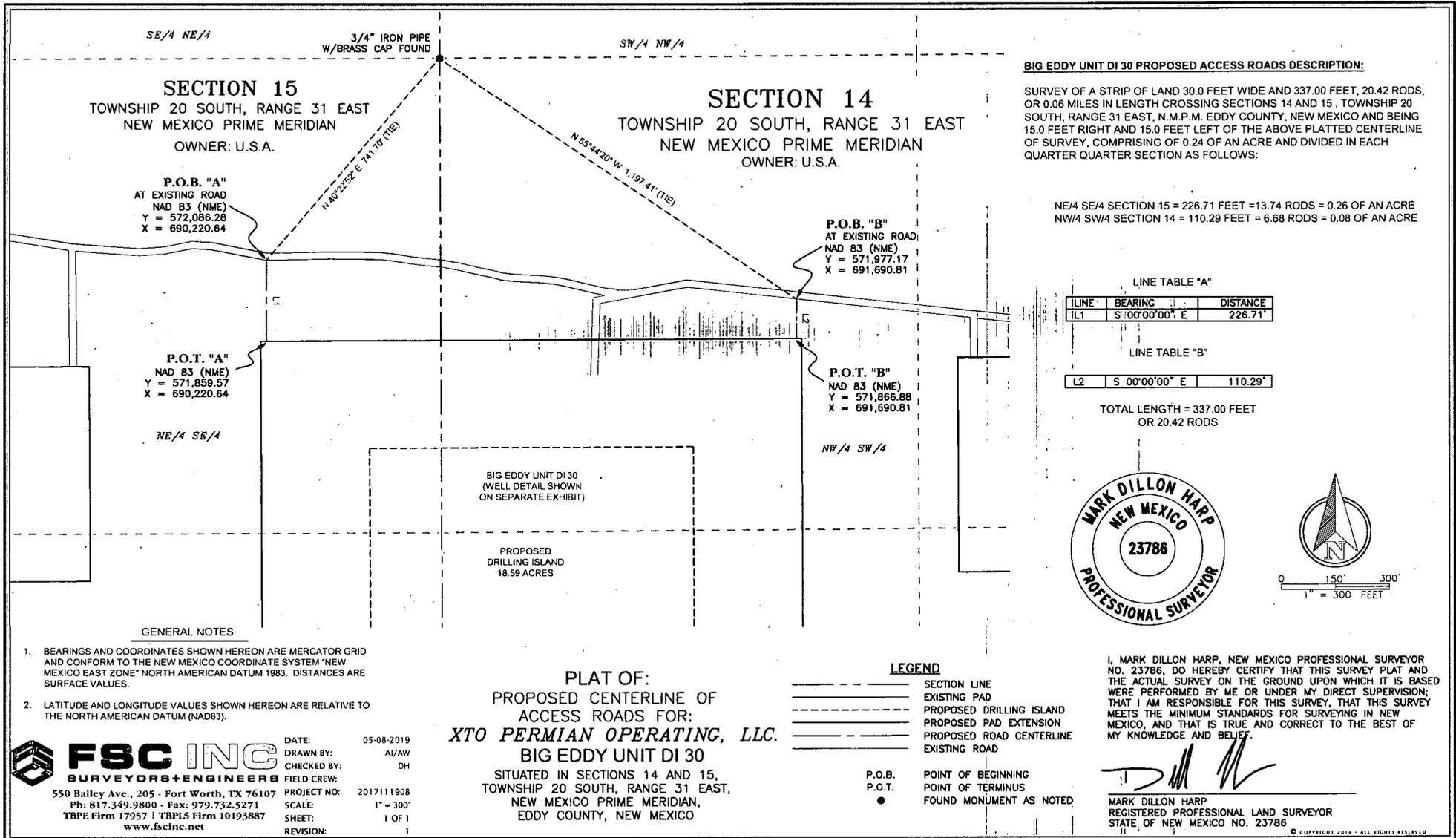
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SURVEYORS+ENGINEERS  
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- LEGEND**
- SECTION LINE
  - EXISTING ROAD
  - - - PROPOSED PAD EXPANSION
  - - - PROPOSED DRILLING ISLAND
  - - - PROPOSED ROAD CENTERLINE
  - P.O.B. POINT OF BEGINNING
  - P.O.T. POINT OF TERMINUS
  - FOUND MONUMENT AS NOTED

PLAT OF:  
PROPOSED CENTERLINE OF  
ACCESS ROADS FOR:  
**XTO PERMIAN OPERATING, LLC.**  
BIG EDDY UNIT DI 30  
SITUATED IN SECTIONS 14, 15, 23, 26, 34, AND 35,  
TOWNSHIP 20 SOUTH, RANGE 31 EAST,  
NEW MEXICO PRIME MERIDIAN,  
EDDY COUNTY, NEW MEXICO

DATE: 05-08-2019  
DRAWN BY: AI/TM/AW  
CHECKED BY: DH  
FIELD CREW: KN/RE  
PROJECT NO: 2017111908  
SCALE: 1" = 600'  
SHEET: 4 OF 4  
REVISION: 2



**BIG EDDY UNIT DI 30 PROPOSED ACCESS ROADS DESCRIPTION:**

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 337.00 FEET, 20.42 RODS, OR 0.06 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 OF SURVEY, COMPRISING OF 0.24 OF AN ACRE AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 SE/4 SECTION 15 = 226.71 FEET = 13.74 RODS = 0.26 OF AN ACRE  
 NW/4 SW/4 SECTION 14 = 110.29 FEET = 6.68 RODS = 0.08 OF AN ACRE

LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	S 10°00'00" E	226.71'

LINE TABLE "B"

L2	S 00°00'00" E	110.29'
----	---------------	---------

TOTAL LENGTH = 337.00 FEET  
 OR 20.42 RODS



0 150' 300'  
 1" = 300 FEET

GENERAL NOTES

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

PLAT OF:  
 PROPOSED CENTERLINE OF  
 ACCESS ROADS 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 PAD
- - - PROPOSED DRILLING ISLAND
- - - PROPOSED PAD EXTENSION
- - - PROPOSED ROAD CENTERLINE
- EXISTING ROAD

- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINUS
- FOUND MONUMENT AS NOTED

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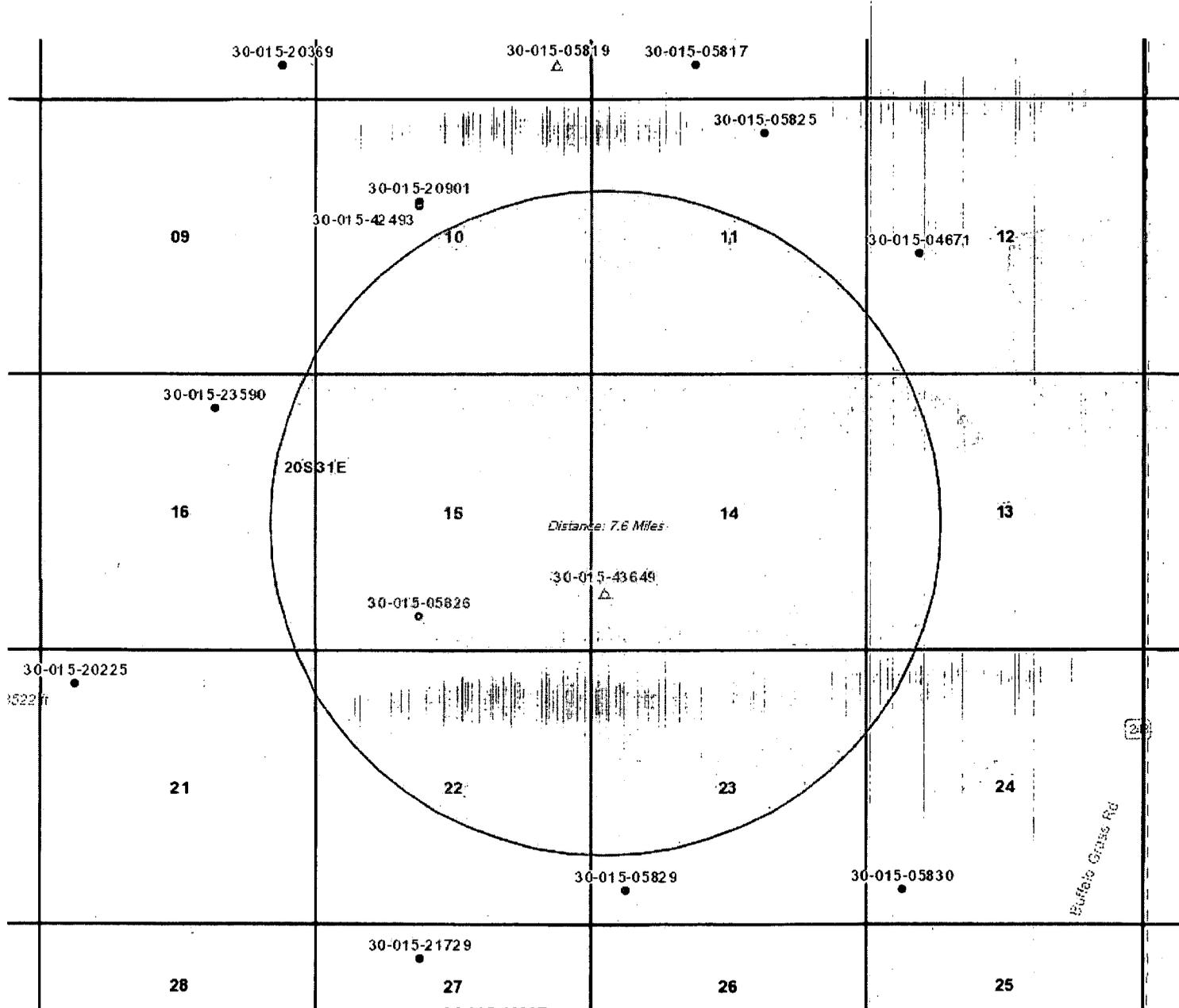
*(Signature)*

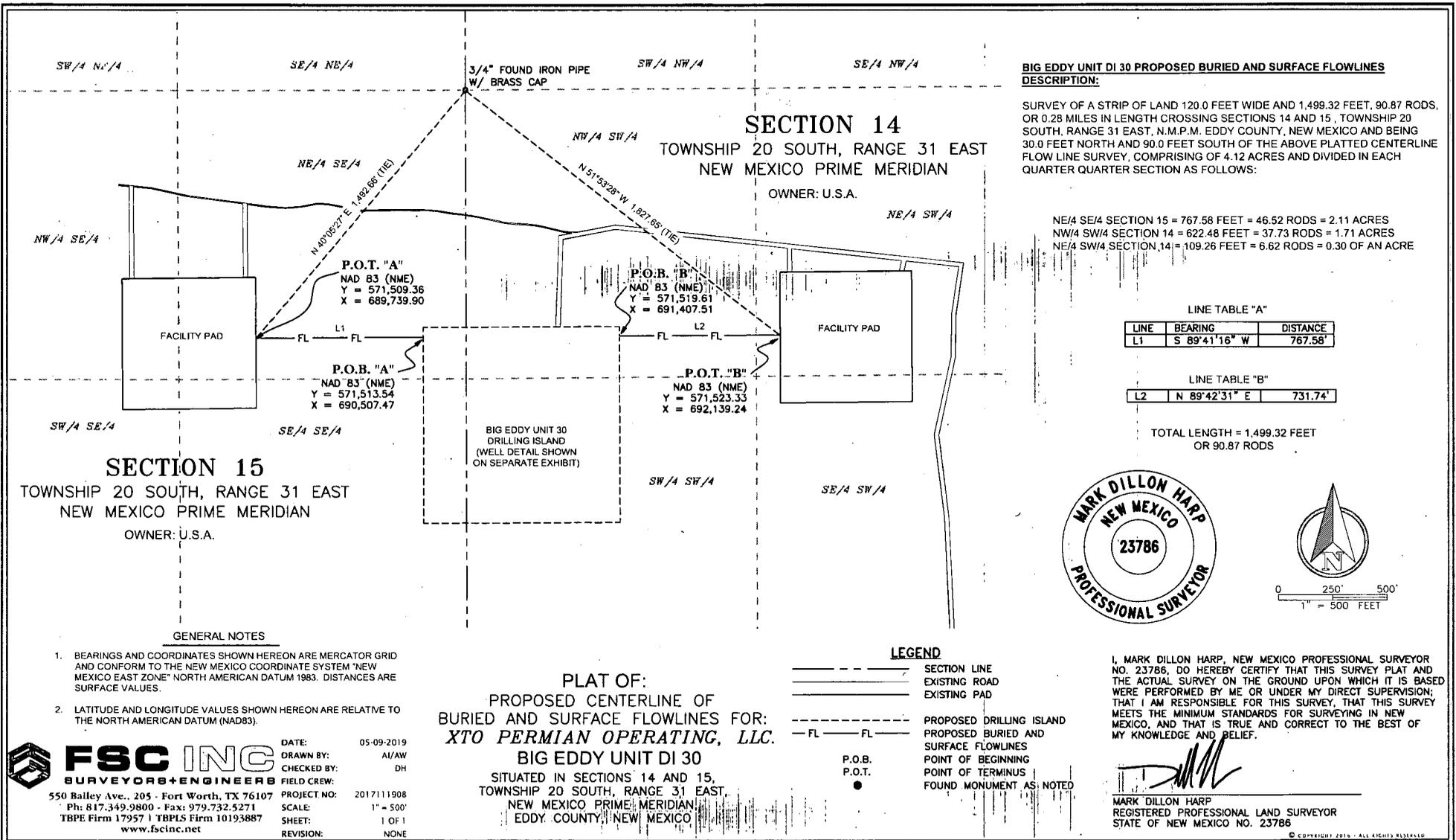
MARK DILLON HARP  
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 STATE OF NEW MEXICO NO. 23786

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 www.fscinc.net

DATE: 05-08-2019  
 DRAWN BY: AJ/AW  
 CHECKED BY: DH  
 FIELD CREW:  
 PROJECT NO: 2017111908  
 SCALE: 1" = 300'  
 SHEET: 1 OF 1  
 REVISION: 1

# Big Eddy Unit DI30 1-Mile Map





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

SURVEY OF A STRIP OF LAND 120.0 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 30.0 FEET NORTH AND 90.0 FEET SOUTH OF THE ABOVE PLATTED CENTERLINE FLOW LINE SURVEY, COMPRISING OF 4.12 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NE/4 SE/4 SECTION 15 = 767.58 FEET = 46.52 RODS = 2.11 ACRES  
NW/4 SW/4 SECTION 14 = 622.48 FEET = 37.73 RODS = 1.71 ACRES  
NE/4 SW/4 SECTION 14 = 109.26 FEET = 6.62 RODS = 0.30 OF AN ACRE

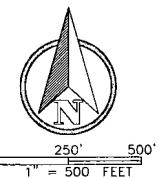
**LINE TABLE "A"**

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**



**GENERAL NOTES**

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

**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

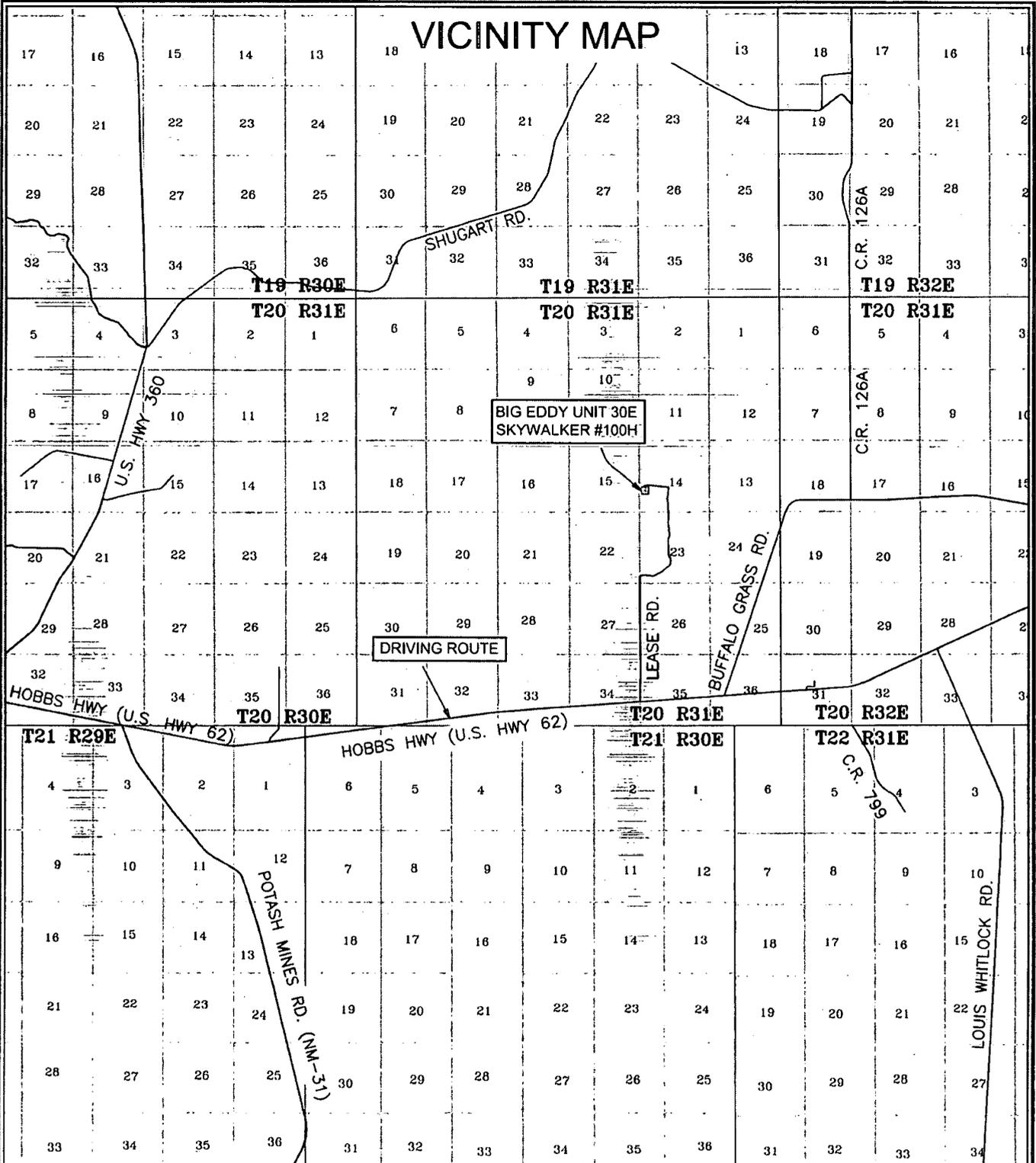
- LEGEND**
- SECTION LINE
  - EXISTING ROAD
  - EXISTING PAD
  - PROPOSED DRILLING ISLAND
  - PROPOSED BURIED AND SURFACE FLOWLINES
  - POINT OF BEGINNING
  - POINT OF TERMINUS
  - FOUND MONUMENT AS NOTED
- P.O.B.  
P.O.T.

**FSC INC**  
SURVEYORS+ENGINEERS

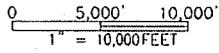
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DRAWN BY: AI/AW  
CHECKED BY: DH  
FIELD CREW:  
PROJECT NO: 2017111908  
SCALE: 1" = 500'  
SHEET: 1 OF 1  
REVISION: NONE

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Ph: 817.349.9800 - Fax: 979.732.5271  
TBPE Firm 17957 | TBPLS Firm 10193887  
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# VICINITY MAP



BIG EDDY UNIT 30E SKYWALKER #100H  
 LOCATED 465 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

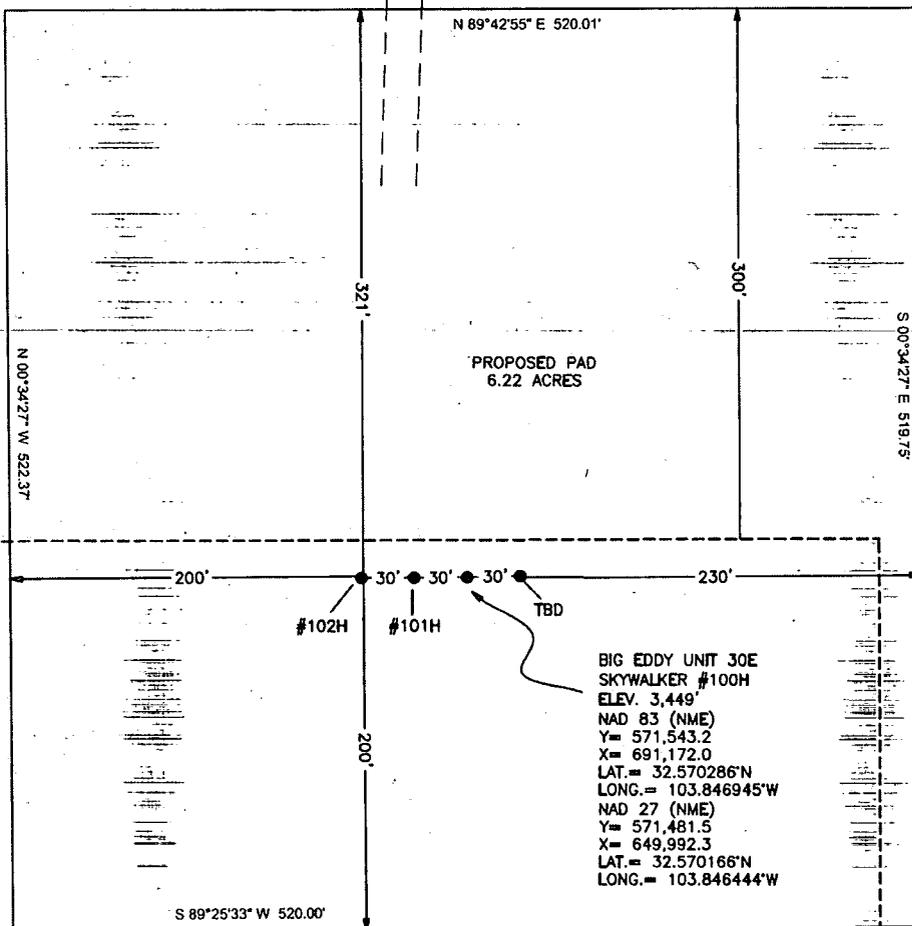


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DATE: 2-6-2019  
 DRAWN BY: AI  
 CHECKED BY: DH  
 FIELD CREW: RE/KN/CD  
 PROJECT NO: 2017081252  
 SCALE: 1" = 10,000'  
 SHEET: 1 OF 1  
 REVISION: NO

# SECTION 14 WELL SITE PLAN

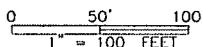
TOWNSHIP 20 SOUTH,  
RANGE 31 EAST  
NEW MEXICO PRIME  
MERIDIAN  
OWNER: U.S.A.



BIG EDDY UNIT 30E  
SKYWALKER #100H  
ELEV. 3,449'  
NAD 83 (NME)  
Y= 571,543.2  
X= 691,172.0  
LAT.= 32.570286°N  
LONG.= 103.846945°W  
NAD 27 (NME)  
Y= 571,481.5  
X= 649,992.3  
LAT.= 32.570166°N  
LONG.= 103.846444°W

## 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 #100H  
LOCATED 465 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



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

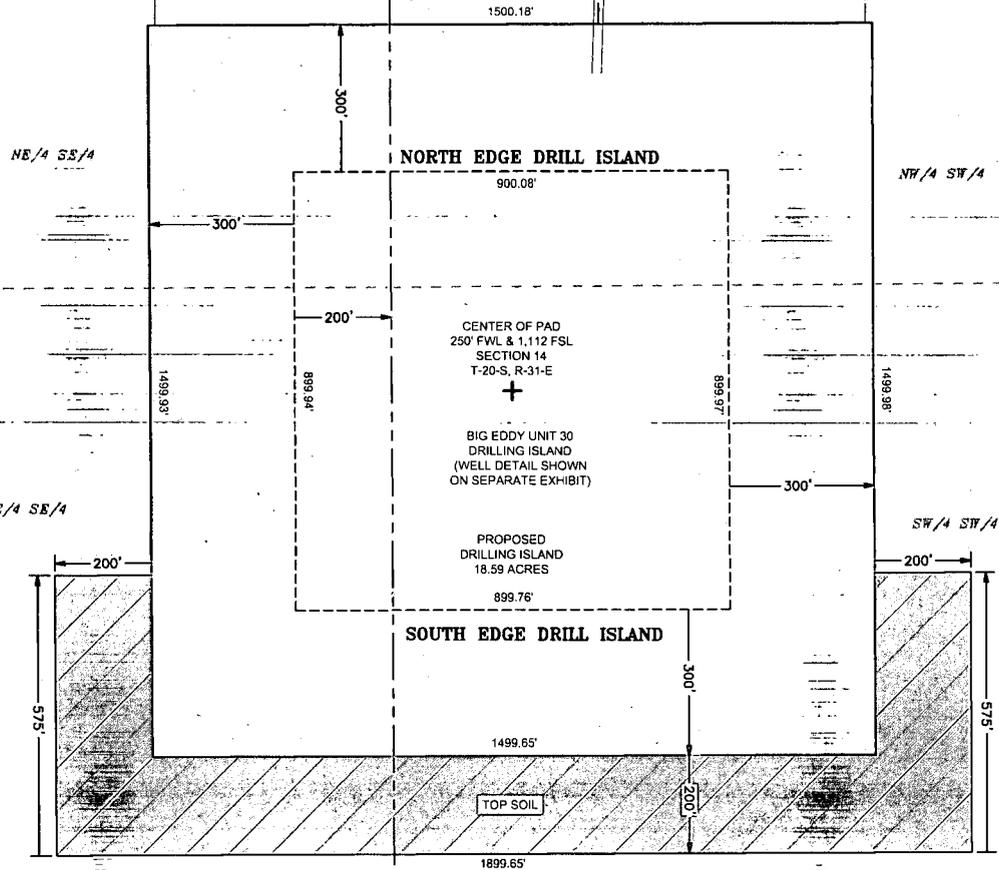
© COPYRIGHT 2018 - ALL RIGHTS RESERVED

DATE:	2-5-2019	PROJECT NO:	2017081252
DRAWN BY:	AI	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	NONE

**SECTION 15**  
TOWNSHIP 20 SOUTH, RANGE 31 EAST  
NEW MEXICO PRIME MERIDIAN

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

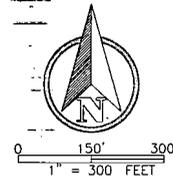
OWNER: U.S.A.



**BIG EDDY UNIT DI 30**  
**"ALL DEPTHS"**

**LEGEND**

- SECTION LINE
- EXISTING PAD
- - - PROPOSED DRILLING ISLAND
- PROPOSED PAD EXTENSION
- PROPOSED ACCESS ROAD
- EXISTING ROAD



**GENERAL NOTES**

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

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

*(Signature)*

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

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

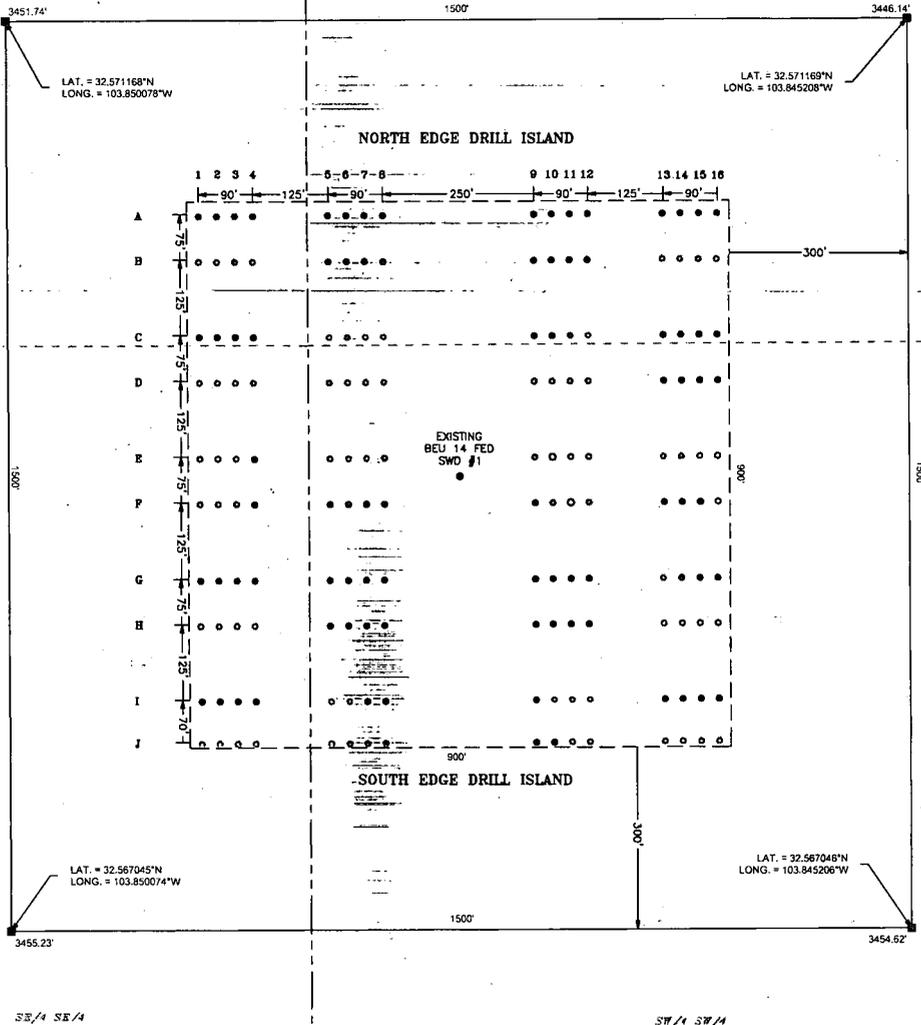
DATE: 05-09-2019  
DRAWN BY: AI/AW  
CHECKED BY: DH  
FIELD CREW: RE  
PROJECT NO: 2017111908  
SCALE: 1" = 300'  
SHEET: 1 OF 1  
REVISION: 2

**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.

NE/4 SE/4

NW/4 SW/4



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

*[Signature]*

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



0 100' 200'  
 1" = 200 FEET

**LEGEND**

- SECTION LINE
- - - - PROPOSED DRILLING ISLAND
- PROPOSED PAD EXPANSION

**WELL NAMES**

- ANAKIN
- JEDI
- OBI-WAN
- PADAWAN
- QUI-GON
- REY
- SKYWALKER
- YODA
- FUTURE WELL

**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).

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,  
 EDDY COUNTY, NEW MEXICO

DATE: 05-15-2019  
 DRAWN BY: AJ/AW  
 CHECKED BY: DH  
 FIELD CREW:  
 PROJECT NO: 2017111908  
 SCALE: 1" = 200'  
 SHEET: 1 OF 2  
 REVISION: 2

**FSC INC**  
 SURVEYORS+ENGINEERS  
 550 Bailey Ave., 205 - Fort Worth, TX 76107  
 Ph: 817-349-0800 - Fax: 979-732-5271  
 TBPE Firm 17957 | TRPLS Firm 10193887  
 www.fscinc.net

WELL	FOOTAGE CALLS
A1	180' FEL & 1,539' FSL SEC. 15
A2	150' FEL & 1,539' FSL SEC. 15
A3	120' FEL & 1,539' FSL SEC. 15
A4	90' FEL & 1,540' FSL SEC. 15
A5	35' FWL & 1,540' FSL SEC. 14
A6	65' FWL & 1,540' FSL SEC. 14
A7	95' FWL & 1,540' FSL SEC. 14
A8	125' FWL & 1,540' FSL SEC. 14
A9	375' FWL & 1,540' FSL SEC. 14
A10	405' FWL & 1,540' FSL SEC. 14
A11	435' FWL & 1,540' FSL SEC. 14
A12	465' FWL & 1,540' FSL SEC. 14
A13	589' FWL & 1,540' FSL SEC. 14
A14	619' FWL & 1,540' FSL SEC. 14
A15	650' FWL & 1,540' FSL SEC. 14
A16	680' FWL & 1,540' FSL SEC. 14

WELL	FOOTAGE CALLS
B1	180' FEL & 1,464' FSL SEC. 15
B2	150' FEL & 1,464' FSL SEC. 15
B3	120' FEL & 1,464' FSL SEC. 15
B4	90' FEL & 1,465' FSL SEC. 15
B5	35' FWL & 1,465' FSL SEC. 14
B6	65' FWL & 1,465' FSL SEC. 14
B7	95' FWL & 1,465' FSL SEC. 14
B8	125' FWL & 1,465' FSL SEC. 14
B9	375' FWL & 1,465' FSL SEC. 14
B10	405' FWL & 1,465' FSL SEC. 14
B11	435' FWL & 1,465' FSL SEC. 14
B12	465' FWL & 1,465' FSL SEC. 14
B13	590' FWL & 1,466' FSL SEC. 14
B14	619' FWL & 1,465' FSL SEC. 14
B15	650' FWL & 1,465' FSL SEC. 14
B16	680' FWL & 1,465' FSL SEC. 14

WELL	FOOTAGE CALLS
C1	180' FEL & 1,340' FSL SEC. 15
C2	150' FEL & 1,340' FSL SEC. 15
C3	120' FEL & 1,340' FSL SEC. 15
C4	90' FEL & 1,340' FSL SEC. 15
C5	35' FWL & 1,340' FSL SEC. 14
C6	65' FWL & 1,340' FSL SEC. 14
C7	95' FWL & 1,340' FSL SEC. 14
C8	125' FWL & 1,340' FSL SEC. 14
C9	375' FWL & 1,340' FSL SEC. 14
C10	405' FWL & 1,340' FSL SEC. 14
C11	435' FWL & 1,340' FSL SEC. 14
C12	465' FWL & 1,340' FSL SEC. 14
C13	590' FWL & 1,340' FSL SEC. 14
C14	620' FWL & 1,340' FSL SEC. 14
C15	650' FWL & 1,340' FSL SEC. 14
C16	680' FWL & 1,340' FSL SEC. 14

WELL	FOOTAGE CALLS
D1	180' FEL & 1,265' FSL SEC. 15
D2	150' FEL & 1,265' FSL SEC. 15
D3	120' FEL & 1,265' FSL SEC. 15
D4	90' FEL & 1,265' FSL SEC. 15
D5	35' FWL & 1,265' FSL SEC. 14
D6	65' FWL & 1,265' FSL SEC. 14
D7	95' FWL & 1,265' FSL SEC. 14
D8	125' FWL & 1,265' FSL SEC. 14
D9	375' FWL & 1,265' FSL SEC. 14
D10	405' FWL & 1,265' FSL SEC. 14
D11	435' FWL & 1,265' FSL SEC. 14
D12	465' FWL & 1,265' FSL SEC. 14
D13	590' FWL & 1,265' FSL SEC. 14
D14	620' FWL & 1,265' FSL SEC. 14
D15	650' FWL & 1,265' FSL SEC. 14
D16	680' FWL & 1,265' FSL SEC. 14

WELL	FOOTAGE CALLS
E1	180' FEL & 1,140' FSL SEC. 15
E2	150' FEL & 1,140' FSL SEC. 15
E3	120' FEL & 1,140' FSL SEC. 15
E4	90' FEL & 1,140' FSL SEC. 15
E5	35' FWL & 1,140' FSL SEC. 14
E6	65' FWL & 1,140' FSL SEC. 14
E7	95' FWL & 1,140' FSL SEC. 14
E8	125' FWL & 1,140' FSL SEC. 14
E9	375' FWL & 1,140' FSL SEC. 14
E10	405' FWL & 1,140' FSL SEC. 14
E11	435' FWL & 1,140' FSL SEC. 14
E12	465' FWL & 1,140' FSL SEC. 14
E13	590' FWL & 1,140' FSL SEC. 14
E14	620' FWL & 1,140' FSL SEC. 14
E15	650' FWL & 1,140' FSL SEC. 14
E16	680' FWL & 1,140' FSL SEC. 14

WELL	FOOTAGE CALLS
F1	180' FEL & 1,065' FSL SEC. 15
F2	150' FEL & 1,065' FSL SEC. 15
F3	120' FEL & 1,065' FSL SEC. 15
F4	90' FEL & 1,065' FSL SEC. 15
F5	35' FWL & 1,065' FSL SEC. 14
F6	65' FWL & 1,065' FSL SEC. 14
F7	95' FWL & 1,065' FSL SEC. 14
F8	125' FWL & 1,065' FSL SEC. 14
F9	375' FWL & 1,065' FSL SEC. 14
F10	405' FWL & 1,065' FSL SEC. 14
F11	435' FWL & 1,065' FSL SEC. 14
F12	465' FWL & 1,065' FSL SEC. 14
F13	590' FWL & 1,065' FSL SEC. 14
F14	620' FWL & 1,065' FSL SEC. 14
F15	650' FWL & 1,065' FSL SEC. 14
F16	680' FWL & 1,065' FSL SEC. 14

WELL	FOOTAGE CALLS
G1	180' FEL & 940' FSL SEC. 15
G2	150' FEL & 940' FSL SEC. 15
G3	120' FEL & 940' FSL SEC. 15
G4	90' FEL & 940' FSL SEC. 15
G5	35' FWL & 940' FSL SEC. 14
G6	65' FWL & 940' FSL SEC. 14
G7	95' FWL & 940' FSL SEC. 14
G8	125' FWL & 940' FSL SEC. 14
G9	375' FWL & 940' FSL SEC. 14
G10	405' FWL & 940' FSL SEC. 14
G11	435' FWL & 940' FSL SEC. 14
G12	465' FWL & 940' FSL SEC. 14
G13	589' FWL & 940' FSL SEC. 14
G14	619' FWL & 941' FSL SEC. 14
G15	649' FWL & 940' FSL SEC. 14
G16	679' FWL & 940' FSL SEC. 14

WELL	FOOTAGE CALLS
H1	180' FEL & 865' FSL SEC. 15
H2	150' FEL & 865' FSL SEC. 15
H3	120' FEL & 865' FSL SEC. 15
H4	90' FEL & 865' FSL SEC. 15
H5	35' FWL & 865' FSL SEC. 14
H6	65' FWL & 865' FSL SEC. 14
H7	95' FWL & 865' FSL SEC. 14
H8	125' FWL & 865' FSL SEC. 14
H9	375' FWL & 865' FSL SEC. 14
H10	405' FWL & 865' FSL SEC. 14
H11	435' FWL & 865' FSL SEC. 14
H12	465' FWL & 865' FSL SEC. 14
H13	589' FWL & 865' FSL SEC. 14
H14	620' FWL & 865' FSL SEC. 14
H15	649' FWL & 865' FSL SEC. 14
H16	679' FWL & 865' FSL SEC. 14

WELL	FOOTAGE CALLS
I1	180' FEL & 740' FSL SEC. 15
I2	150' FEL & 740' FSL SEC. 15
I3	120' FEL & 740' FSL SEC. 15
I4	90' FEL & 740' FSL SEC. 15
I5	35' FWL & 740' FSL SEC. 14
I6	65' FWL & 740' FSL SEC. 14
I7	95' FWL & 740' FSL SEC. 14
I8	125' FWL & 743' FSL SEC. 14
I9	375' FWL & 740' FSL SEC. 14
I10	405' FWL & 740' FSL SEC. 14
I11	435' FWL & 740' FSL SEC. 14
I12	465' FWL & 740' FSL SEC. 14
I13	590' FWL & 740' FSL SEC. 14
I14	620' FWL & 740' FSL SEC. 14
I15	650' FWL & 740' FSL SEC. 14
I16	680' FWL & 740' FSL SEC. 14

WELL	FOOTAGE CALLS
J1	180' FEL & 670' FSL SEC. 15
J2	150' FEL & 670' FSL SEC. 15
J3	120' FEL & 670' FSL SEC. 15
J4	90' FEL & 670' FSL SEC. 15
J5	35' FWL & 670' FSL SEC. 14
J6	65' FWL & 670' FSL SEC. 14
J7	95' FWL & 670' FSL SEC. 14
J8	125' FWL & 670' FSL SEC. 14
J9	375' FWL & 670' FSL SEC. 14
J10	405' FWL & 670' FSL SEC. 14
J11	435' FWL & 670' FSL SEC. 14
J12	465' FWL & 670' FSL SEC. 14
J13	590' FWL & 670' FSL SEC. 14
J14	620' FWL & 670' FSL SEC. 14
J15	650' FWL & 670' FSL SEC. 14
J16	680' FWL & 670' FSL SEC. 14

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



GENERAL NOTES

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

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,  
 EDDY COUNTY, NEW MEXICO

DATE: 05-15-2019  
 DRAWN BY: AL/AW  
 CHECKED BY: DH  
 FIELD CREW:  
 PROJECT NO: 2017111908  
 SCALE: 1" = 200'  
 SHEET: 2 OF 2  
 REVISIONS:



**XTO Permian Operating, LLC**  
**Big Eddy Unit DI 30 Associated Well List**  
**5/15/2019**

*Slot Locations Correspond to BEU30\_OL.pdf*  
*Exhibit Attached to APD*

**Big Eddy Unit 30E Anakin #100H: Slot E15**  
**Surface Hole Location:** 1,140' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #101H: Slot E14**  
**Surface Hole Location:** 1,140' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #102H: Slot E16**  
**Surface Hole Location:** 1,140' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #103H: Slot E13**  
**Surface Hole Location:** 1,140' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #104H: Slot J16**  
**Surface Hole Location:** 670' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #105H: Slot J15**  
**Surface Hole Location:** 670' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #106H: Slot J14**  
**Surface Hole Location:** 670' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #107H: Slot J13**  
**Surface Hole Location:** 670' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #108H: Slot F16**  
**Surface Hole Location:** 1,065' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #109H: Slot B1**  
**Surface Hole Location:** 1,464' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #110H: Slot B2**  
**Surface Hole Location:** 1,464' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #111H: Slot B3**  
**Surface Hole Location:** 1,464' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #112H: Slot B4**

**Surface Hole Location:** 1,465' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #113H: Slot E1**

**Surface Hole Location:** 1,140' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #114H: Slot E2**

**Surface Hole Location:** 1,140' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #115H: Slot E3**

**Surface Hole Location:** 1,140' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #116H: Slot H1**

**Surface Hole Location:** 865' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 50' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #117H: Slot H2**

**Surface Hole Location:** 865' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #118H: Slot H3**

**Surface Hole Location:** 865' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #119H: Slot H4**

**Surface Hole Location:** 865' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #200H: Slot B16**

**Surface Hole Location:** 1,465' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #201H: Slot B15**

**Surface Hole Location:** 1,465' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #202H: Slot B14**

**Surface Hole Location:** 1,465' FSL & 619' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #203H: Slot B13**

**Surface Hole Location:** 1,466' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #204H: Slot H16**

**Surface Hole Location:** 865' FSL & 679' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #205H: Slot H15**

**Surface Hole Location:** 865' FSL & 649' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #206H: Slot H14**

**Surface Hole Location:** 865' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #207H: Slot H13**

**Surface Hole Location:** 865' FSL & 589' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Anakin #208H: Slot G13**

**Surface Hole Location:** 940' FSL & 589' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #209H: Slot D1**

**Surface Hole Location:** 1,265' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #210H: Slot D2**

**Surface Hole Location:** 1,265' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #211H: Slot D3**

**Surface Hole Location:** 1,265' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #212H: Slot D4**

**Surface Hole Location:** 1,265' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #213H: Slot F1**

**Surface Hole Location:** 1,065' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #214H: Slot F2**

**Surface Hole Location:** 1,065' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #215H: Slot F3**

**Surface Hole Location:** 1,065' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #216H: Slot J1**

**Surface Hole Location:** 670' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 50' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #217H: Slot J2**

**Surface Hole Location:** 670' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #218H: Slot J3**

**Surface Hole Location:** 670' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Anakin #219H: Slot J4**

**Surface Hole Location:** 670' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #100H:** Slot C12  
**Surface Hole Location:** 1,340' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #101H:** Slot C11  
**Surface Hole Location:** 1,340' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #102H:** Slot F12  
**Surface Hole Location:** 1,065' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #103H:** Slot I12  
**Surface Hole Location:** 740' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 20' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #104H:** Slot I11  
**Surface Hole Location:** 740' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Jedi #105H:** Slot I10  
**Surface Hole Location:** 740' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #106H:** Slot C5  
**Surface Hole Location:** 1,340' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #107H:** Slot C6  
**Surface Hole Location:** 1,340' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #108H:** Slot C7  
**Surface Hole Location:** 1,340' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #109H:** Slot C8  
**Surface Hole Location:** 1,340' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 50' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #110H:** Slot I5  
**Surface Hole Location:** 740' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Jedi #110H:** Slot I6  
**Surface Hole Location:** 740' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #100H:** Slot B12  
**Surface Hole Location:** 1,465' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #101H:** Slot B11  
**Surface Hole Location:** 1,465' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #102H: Slot B10**

**Surface Hole Location:** 1,465' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #103H: Slot H12**

**Surface Hole Location:** 865' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #104H: Slot H11**

**Surface Hole Location:** 865' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Obi-Wan #105H: Slot H10**

**Surface Hole Location:** 865' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #106H: Slot B5**

**Surface Hole Location:** 1,465' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #107H: Slot B6**

**Surface Hole Location:** 1,465' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #108H: Slot B7**

**Surface Hole Location:** 1,465' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #109H: Slot H5**

**Surface Hole Location:** 865' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #110H: Slot H6**

**Surface Hole Location:** 865' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #111H: Slot H7**

**Surface Hole Location:** 865' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Obi-Wan #112H: Slot H8**

**Surface Hole Location:** 865' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #100H: Slot A16**

**Surface Hole Location:** 1,540' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #101H: Slot A15**

**Surface Hole Location:** 1,540' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #102H: Slot A14**

**Surface Hole Location:** 1,540' FSL & 619' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #103H: Slot G16**

**Surface Hole Location:** 940' FSL & 679' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #104H: Slot G15**

**Surface Hole Location:** 940' FSL & 649' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Padawan #105H: Slot G14**

**Surface Hole Location:** 941' FSL & 619' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #106H: Slot A1**

**Surface Hole Location:** 1,539' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #107H: Slot A2**

**Surface Hole Location:** 1,539' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #108H: Slot A3**

**Surface Hole Location:** 1,539' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #109H: Slot G1**

**Surface Hole Location:** 940' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #110H: Slot G2**

**Surface Hole Location:** 940' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #111H: Slot G3**

**Surface Hole Location:** 940' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Padawan #112H: Slot G4**

**Surface Hole Location:** 940' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #100H: Slot E12**

**Surface Hole Location:** 1,140' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #101H: Slot E11**

**Surface Hole Location:** 1,140' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #102H: Slot F11**

**Surface Hole Location:** 1,065' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #103H: Slot E10**

**Surface Hole Location:** 1,140' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #104H: Slot E9**  
**Surface Hole Location:** 1,140' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 660' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Qui-Gon #105H: Slot J11**  
**Surface Hole Location:** 670' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #106H: Slot E5**  
**Surface Hole Location:** 1,140' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #107H: Slot E6**  
**Surface Hole Location:** 1,140' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #108H: Slot E7**  
**Surface Hole Location:** 1,140' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #109H: Slot E8**  
**Surface Hole Location:** 1,140' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 50' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #110H: Slot J5**  
**Surface Hole Location:** 670' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Qui-Gon #111H: Slot J6**  
**Surface Hole Location:** 670' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #100H: Slot D12**  
**Surface Hole Location:** 1,265' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #101H: Slot D11**  
**Surface Hole Location:** 1,265' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #102H: Slot F10**  
**Surface Hole Location:** 1,065' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #103H: Slot D10**  
**Surface Hole Location:** 1,265' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 20' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #104H: Slot D9**  
**Surface Hole Location:** 1,265' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 1,320' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Rey #105H: Slot J12**  
**Surface Hole Location:** 670' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.  
**Bottom Hole Location:** 2,640' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #106H: Slot D5**

**Surface Hole Location:** 1,265' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #107H: Slot D6**

**Surface Hole Location:** 1,265' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #108H: Slot D7**

**Surface Hole Location:** 1,265' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #109H: Slot D8**

**Surface Hole Location:** 1,265' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 50' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #110H: Slot J7**

**Surface Hole Location:** 670' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,320' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Rey #111H: Slot J8**

**Surface Hole Location:** 670' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 2,640' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #100H: Slot A12**

**Surface Hole Location:** 1,540' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #101H: Slot A11**

**Surface Hole Location:** 1,540' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #102H: Slot A10**

**Surface Hole Location:** 1,540' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #103H: Slot G12**

**Surface Hole Location:** 940' FSL & 465' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #104H: Slot G11**

**Surface Hole Location:** 940' FSL & 435' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Skywalker #105H: Slot G10**

**Surface Hole Location:** 940' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 50' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #106H: Slot A5**

**Surface Hole Location:** 1,540' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #107H: Slot A6**

**Surface Hole Location:** 1,540' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1980' FNL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #108H: Slot A7**

**Surface Hole Location:** 1,540' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #109H: Slot G5**

**Surface Hole Location:** 940' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #110H: Slot G6**

**Surface Hole Location:** 940' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #111H: Slot G7**

**Surface Hole Location:** 940' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Skywalker #112H: Slot G8**

**Surface Hole Location:** 940' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 50' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #100H: Slot C16**

**Surface Hole Location:** 1,340' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #101H: Slot C15**

**Surface Hole Location:** 1,340' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #102H: Slot C14**

**Surface Hole Location:** 1,340' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #103H: Slot I16**

**Surface Hole Location:** 740' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 200' FEL, Section 13, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #104H: Slot I15**

**Surface Hole Location:** 740' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 200' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30E Yoda #105H: Slot I14**

**Surface Hole Location:** 740' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 200' FEL, Section 24, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #106H: Slot C1**

**Surface Hole Location:** 1,340' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 200' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #107H: Slot C2**

**Surface Hole Location:** 1,340' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 200' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #108H: Slot C3**

**Surface Hole Location:** 1,340' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 200' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #109H: Slot I1**

**Surface Hole Location:** 740' FSL & 180' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FSL & 50' FWL, Section 16, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #110H: Slot I2**

**Surface Hole Location:** 740' FSL & 150' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 660' FNL & 200' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #111H: Slot I3**

**Surface Hole Location:** 740' FSL & 120' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FNL & 200' FWL, Section 21, T. 20 S. R. 31 E.

**Big Eddy Unit 30W Yoda #112H: Slot I4**

**Surface Hole Location:** 740' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** 1,980' FSL & 200' FWL, Section 21, T. 20 S. R. 31 E.

**Future Well #1: Slot A9**

**Surface Hole Location:** 1,540' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #2: Slot A13**

**Surface Hole Location:** 1,540' FSL & 589' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #3: Slot B9**

**Surface Hole Location:** 1,465' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #4: Slot C9**

**Surface Hole Location:** 1,340' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #5: Slot C10**

**Surface Hole Location:** 1,340' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #6: Slot C13**

**Surface Hole Location:** 1,340' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #7: Slot D13**

**Surface Hole Location:** 1,265' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #8: Slot D14**

**Surface Hole Location:** 1,265' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #9: Slot D15**

**Surface Hole Location:** 1,265' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #10: Slot D16**

**Surface Hole Location:** 1,265' FSL & 680' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #11: Slot F9**

**Surface Hole Location:** 1,065' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #12: Slot F13**

**Surface Hole Location:** 1,065' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #13: Slot F14**

**Surface Hole Location:** 1,065' FSL & 620' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #14: Slot F15**

**Surface Hole Location:** 1,065' FSL & 650' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #15: Slot G9**

**Surface Hole Location:** 940' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #16: Slot H9**

**Surface Hole Location:** 865' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #17: Slot I9**

**Surface Hole Location:** 740' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #18: Slot I13**

**Surface Hole Location:** 740' FSL & 590' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #19: Slot J9**

**Surface Hole Location:** 670' FSL & 375' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #20: Slot J10**

**Surface Hole Location:** 670' FSL & 405' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #21: Slot A4**

**Surface Hole Location:** 1,540' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #22: Slot A8**

**Surface Hole Location:** 1,540' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #23: Slot B8**

**Surface Hole Location:** 1,465' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #24: Slot C4**

**Surface Hole Location:** 1,340' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #25: Slot E4**

**Surface Hole Location:** 1,140' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #26: Slot F4**

**Surface Hole Location:** 1,065' FSL & 90' FEL, Section 15, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #27: Slot F5**

**Surface Hole Location:** 1,065' FSL & 35' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #28: Slot F6**

**Surface Hole Location:** 1,065' FSL & 65' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #29: Slot F7**

**Surface Hole Location:** 1,065' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #30: Slot F8**

**Surface Hole Location:** 1,065' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #31: Slot I7**

**Surface Hole Location:** 740' FSL & 95' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

**Future Well #32: Slot I8**

**Surface Hole Location:** 740' FSL & 125' FWL, Section 14, T. 20 S. R. 31 E.

**Bottom Hole Location:** To Be Determined

## Well Site Locations

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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

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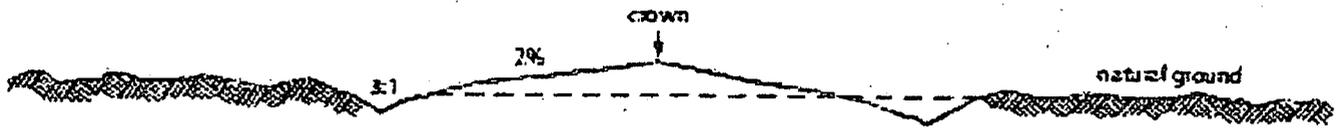
### 1. Existing Roads

- 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.** A total of 337' of new roads will be necessary to access the Big Eddy Unit DI 30 location for safety. The roads will require a 30' ROW corridor with 14' maximum width of driving space. Road 1 is noted as L1 on the attached plat and is anticipated to be 226.71' in length. Road-2 is noted as L2 on the attached plat and is anticipated to be 110.29'.
- B. **Road Upgrades.** 19,454.93' of existing roads for the location are requested to be upgraded to a 50' ROW corridor with 30' maximum width of driving surface from the turnout at 62/180 (Hobbs Hwy) to the Big Eddy Unit DI 30 location for traffic safety. The roads currently have a 14' maximum width of driving surface. A plat of the requested upgraded roads is attached.
- C. **Well Pads.** The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. 337 feet of new roads will need to be constructed to access the well pads.
- D. **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.
- E. **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.

- F. **Road Dimensions.** The maximum width of the driving surface of upgraded roads will be 30 feet. The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



### Level Ground Section

- G. **Surface Material.** Surface material will be native caliche. The average grade of all roads will be approximately 3%.
- H. **Fence Cuts:** No.
- I. **Fences:** No.
- J. **Cattle Guards:** No.
- K. **Turnouts:** No.
- L. **Culverts:** No.
- M. **Cuts and Fills:** Not significant.
- N. **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 200' of the South, West, and East of the drill island and be used for future reclamation projects throughout Big Eddy Unit via sundry 3160-5 approval per project. The topsoil will be seeded with the proper seed mix designated by the BLM.
- O. **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.
- P. **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:** Eighty (80) 767.58' buried 10" or less 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). Eighty (80) additional 767.58' buried 10" or less 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: 160 buried. **BEU DI30 East CTB:** Eighty (80) 731.74' buried 10" or less steel or poly 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). Eighty (80) additional 731.74' long buried 10" or less steel or poly 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: 160 buried. Total lines in this application: 320. The anticipated width of the corridor to both West and East batteries is anticipated to be 120' wide. A 30' wide corridor for flowlines has been previously approved via 3160-5 sundry.

- 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 or drill island. 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 3<sup>rd</sup> party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

Water for drilling, completion and dust control will be purchased from the following company:  
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 approved sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
- **Debris.** Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- **Hazardous Materials.**
  - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
  - ii. 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 CERCLA includes any "hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.S.C. 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 reclamation projects within Big Eddy Unit and be stockpiled 200' to the South, East, and West of the drill island pad.
- 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 plans attached).

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

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

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

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

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

**Seeding:**

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

**11. Surface Ownership**

- 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, NMMPM, 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 is for allowing the well pads to fall off 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.
  - A full list of XTO Permian Operating, LLC wells anticipated to be located on Big Eddy Unit DI 30 is attached.

- 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:** BOPCO, L.P. 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 cripper, prickly pear, and desert grasses and forbs. The project area lies on a heavily eroded, relatively flat terrain approximately 0.7 miles 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



**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:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

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:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

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:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Injection well name:

Injection well API number:

### 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:



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

**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: