Form 3160 -3 (March 2012)				OMB N	APPROVE to. 1004-013 October 31, 2	7		
UNITED STATES DEPARTMENT OF THE I	5. Lease Serial No. NMNM111533							
BUREAU OF LAND MAN APPLICATION FOR PERMIT TO	6. If Indian, Allotee or Tribe Name							
la. Type of work: DRILL REENTE	ER			7. If Unit or CA Agre	ement, Na			
lb. Type of Well: 🔲 Oil Well 🖌 Gas Well 🗌 Other	🖌 Sir	ngle Zone 🔲 Multip	ole Zone	8. Lease Name and V ROADHOUSE FED		— З2//ЛД 2н		
2. Name of Operator XTO ENERGY INCORPORATED		5380)	9. API Well No. 30 - 015	44	279		
3a. Address 810 Houston St. Ft. Worth TX 76102	3b. Phone No. (432)620-6	. (include area code) 5700		10. Field and Pool, or H PURPLE-SAGE W	• •			
4. Location of Well (Report location clearly and in accordance with an	y State requirem	ents.*)		11. Sec., T. R. M. or B	lk. and Sur	vey or Area		
At surface SWSE / 180 FSL / 2040 FEL / LAT 32.15246	1 / LONG -10	04.021796		SEC 6 / T25S / R29	9F / NMF	0		
At proposed prod. zone NWSW / 2440 FSL / 2040 FEL / LA	AT 32.17319	1 / LONG -104.021	702					
14. Distance in miles and direction from nearest town or post office*			<u> </u>	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)	16. No. of a 360	cres in lease	17. Spacin 480	g Unit dedicated to this v	well			
18. Distance from proposed location*	19. Proposed	l Depth	20. BLM/I	/BIA Bond No. on file				
to nearest well, drilling, completed, 30 feet applied for, on this lease, ft.	10022 feet	t / 17317 feet	FED: U	JTB000138				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 2905 feet	22. Approxir 02/28/201	nate date work will sta 8	rt*	23. Estimated duration 90 days	n			
	24. Attac	hments						
The following, completed in accordance with the requirements of Onshot			ttached to th	is form	<u> </u>			
	te on une ous							
 Well plat certified by a registered surveyor. A Drilling Plan. 		4. Bond to cover t Item 20 above).	he operatio	ns unless covered by an	existing b	ond on file (see		
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 BLM.	specific info	ormation and/or plans as	may be re	equired by the		
25. Signature (Electronic Submission)		(Printed/Typed) nanie Rabadue / Pr		0-6714	2017			
Title	0.0p.							
Regulatory Compliance Analyst								
Approved by (Signature)	1	(Printed/Typed)			Date			
(Electronic Submission)	Office	Layton / Ph: (575)2	234-5959	03/22/2018				
Title Supervisor Multiple Resources								
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.		_SBAD table title to those righ	its in the sub	ject lease which would e	ntitle the a	pplicant to		
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a ci States any false, fictitious or fraudulent statements or representations as	rime for any pe to any matter w	erson knowingly and v /ithin its jurisdiction.	willfully to n	nake to any department o	or agency (of the United		
(Continued on page 2)				*(Inst	ructions	on page 2)		
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Approval Date: 03/22/2018

RW 4-9-18 RECEIVED

PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy, INC.
LEASE NO.:	NMNM111533
WELL NAME & NO.:	Roadhouse Federal 2H
SURFACE HOLE FOOTAGE:	180'/S & 2040'/E
BOTTOM HOLE FOOTAGE	2440'/E & 2040'/E
LOCATION:	Section 6, T.25 S., R.29 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.

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Noxious Weeds
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Final Abandonment & Reclamation

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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.

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V. SPECIAL REQUIREMENT(S)

Commingling

The wells oil and gas production will be required metered at the surface well pad location, these meters will be designated as the Facility Measurement Point (FMP) for royalty purposes.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production:

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately. Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

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Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cavebearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

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<u>Range</u>

Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Watershed

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. 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 berm shall be maintained through the life of the well and 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.

Surface Pipeline COAs Only:

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

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)

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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.

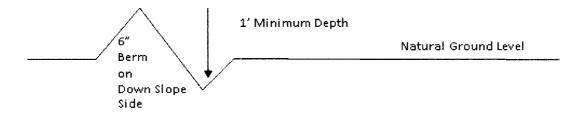
Drainage

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

400 foot road with 4% road slope: 400' + 100' = 200' lead-off ditch interval 4%

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.

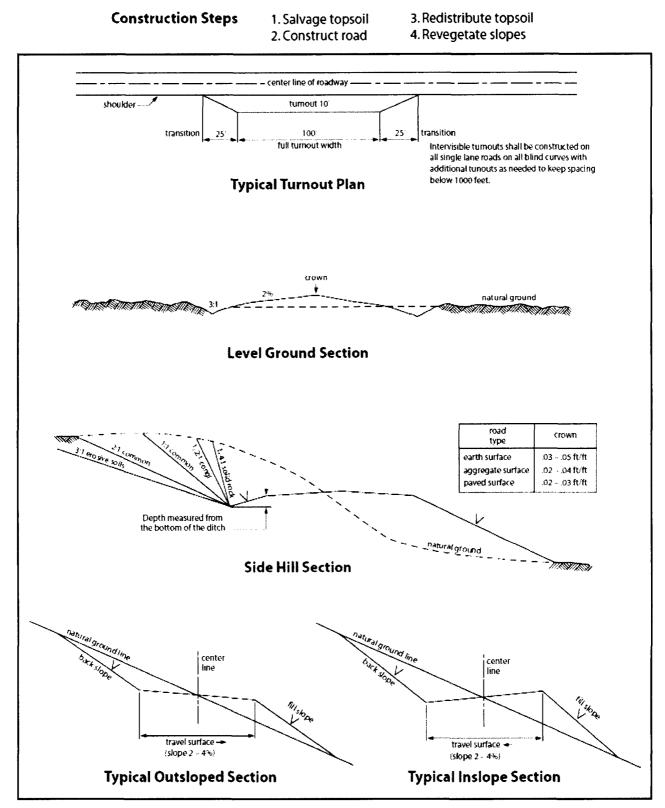
Fence Requirement

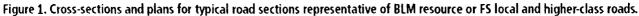
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

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

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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

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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 <u>et seq.</u> (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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, <u>et seq</u>.) 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

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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-ofway.

6. The pipeline will be buried with a minimum cover of $\underline{36}$ inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be $\underline{30}$ feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>20</u> 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 <u>30</u> 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 $\underline{6}$ 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

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passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

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

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

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

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

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

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

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

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

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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. <u>Escape Ramps</u> - 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:

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. 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.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

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

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

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

Page 14 of 21

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

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

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

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

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

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

6. All construction and maintenance activity shall be confined to the authorized rightof-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline

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

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

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

9. The pipeline shall be buried with a minimum of <u>24</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

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

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

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

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

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

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15. Any cultural and/or paleontological resource (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 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.

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

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

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 <u>et seq</u>. (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

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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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

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

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

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

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

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

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

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

10. Any cultural and/or paleontological resource (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.

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

VIII. INTERIM RECLAMATION

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

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

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

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

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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).

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Seed Mixture 2, for Sandy Sites

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

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

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

Species	l <u>b/acre</u>
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

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BUREAU OF LAND MANAGEMENT



Zip:

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.

ue	Signed on: 11/02/2017
nce Analyst	
llínois St, Ste 100	
State: TX	Zip : 79701
e_rabadue@xtoenergy.com	
ntative	
	nce Analyst Ilinois St, Ste 100 State: TX e_rabadue@xtoenergy.com ntative

State:

City:

Phone:

Email address:



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



APD ID: 10400024217 Operator Name: XTO ENERGY INCORPORATED Well Name: ROADHOUSE FEDERAL Well Type: CONVENTIONAL GAS WELL

Submission Date: 11/02/2017

Well Number: 2H Well Work Type: Drill Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400024217	Tie to previous NOS	Submission Date: 11/02/2017
BLM Office: CARLSBAD	User: Stephanie Rab	adue Title: Regulatory Compliance Analyst
Federal/Indian APD: FED	Is the first lease per	etrated for production Federal or Indian? FED
Lease number: NMNM111533	Lease Acres: 360	
Surface access agreement in	place? Allotted?	Reservation:
Agreement in place? NO	Federal or Indian ag	reement:
Agreement number:		
Agreement name:		
Keep application confidentia	I? NO	
Permitting Agent? NO	APD Operator: XTO	ENERGY INCORPORATED
Operator letter of designation	n: Roadhouse_Fed_2H_Op_Righ	ts_20171102060113.pdf

Operator Info

Operator Organization Name: XTO	ENERGY INCORPORATED	
Operator Address: 810 Houston St.		Zip: 76102
Operator PO Box:	2.1p. 70102	
Operator City: Ft. Worth	State: TX	
Operator Phone: (432)620-6700		
Operator Internet Address: Richard	d_redus@xtoenergy.com	

Section 2 - Well Information

Well in Master Development Plan? NO	Mater Development Plan name:						
Well in Master SUPO? NO	Master SUPO name:						
Well in Master Drilling Plan? NO	Master Drilling Plan name:						
Well Name: ROADHOUSE FEDERAL	Well Number: 2H	Well API Number:					
Field/Pool or Exploratory? Field and Pool	Field Name: PURPLE-SAGE WOLFCAMP GAS	Pool Name:					
In the many part of the second second states and the second							

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

Well Number: 2H

Describe other minerals:			
Is the proposed well in a Helium produ	uction area? N	Use Existing Well Pad? YE	S New surface disturbance? Y
Type of Well Pad: MULTIPLE WELL		Multiple Well Pad Name:	Number: 2
Well Class: HORIZONTAL		STEAKHOUSE Number of Legs: 1	
Well Work Type: Drill			
Well Type: CONVENTIONAL GAS WEL	L		
Describe Well Type:			
Well sub-Type: DELINEATION			
Describe sub-type:			
Distance to town:	Distance to ne	arest well: 30 FT Di	stance to lease line: 180 FT
Reservoir well spacing assigned acres	s Measurement	: 480 Acres	
Well plat: Roadhouse_Fed_2H_C10	2_20171102060	237.pdf	
Well work start Date: 02/28/2018		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	180	FSL	204 0	FEL	25S	29E	6	Aliquot SWSE	32.15246 1	- 104.0217 96	EDD Y	NEW MEXI CO	NEW MEXI CO	s	STATE	290 5	173 17	100 50
KOP Leg #1	180	FSL	204 0	FEL	25S	29E	6	Aliquot SWSE	32.15246 1		EDD Y	NEW MEXI CO		S	STATE	- 654 4	944 9	944 9
PPP Leg #1	800	FSL	204 3	FEL	25S	29E	6	Aliquot SWSE	32.15416 5	- 104.0217 88	EDD Y	NEW MEXI CO		S	STATE	- 711 7	104 00	100 22

Operator Name: XTO ENERGY INCORPORATED Well Name: ROADHOUSE FEDERAL

Well Number: 2H

	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
EXIT Leg	231 0	FSL	204	FEL	24S	29E	31	Aliquot	32.17283 4	- 104.0217	EDD		NEW MEXI	F	NMNM 111533	- 711	171 87	100 22
#1	0							NWSE	7	04		CO	CO			7	07	22
BHL		FSL	204	FEL	24S	29E	31	Aliquot	32.17319		EDD			F	NMNM	-	173	100
Leg	0		0					NWS	1	104.0217 02	Y	MEXI CO	MEXI CO		111533	711	17	22
#1								W		02		00				/		



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



APD ID: 10400024217

Operator Name: XTO ENERGY INCORPORATED

Well Name: ROADHOUSE FEDERAL

Well Type: CONVENTIONAL GAS WELL

Submission Date: 11/02/2017

Highlighted data reflects the most recent changes

Show Final Text

Well Work Type: Drill

Well Number: 2H

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1		2905	0	Ó	ALLUVIUM,OTHER : Quaternary	NONE	No
2	RUSTLER	2630	275	275	SANDSTONE	USEABLE WATER	No
3	TOP SALT	2281	624	624	SALT	NONE	No
4	BASE OF SALT	374	2531	2531	SALT	NONE	No
5	DELAWARE	175	2730	2730	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
6	CHERRY CANYON	-732	3637	3637	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
7	BRUSHY CANYON	-2301	5206	5206	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
8	BONE SPRING 1ST	-3278	6183	6183	SANDSTONE	NATURAL GAS,POTASH,OTHER : Produced Water	No
9	BONE SPRING 2ND	-5314	8219	8219	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	No
10	BONE SPRING 3RD	-5568	8473	8473	SANDSTONE	NATURAL GAS,OIL,OTHER : Produced Water	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 10050

Equipment: The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. Max bottom hole pressure should not exceed 3945 psi. **Requesting Variance?** YES

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

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13-5/8" 5M bradenhead and flange, the BOP test will be limited to 5000psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

Well Number: 2H

Roadhouse_Fed_2H_5MCM_20171102063751.pdf

BOP Diagram Attachment:

Roadhouse_Fed_2H_5MBOP_20171102063803.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	600	0	600			600	H-40	48	STC	2.7	5.77	DRY	11.1 8	DRY	11.1 8
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	2575	0	2575			2575	J- 55	36	LTC	1.48	2.71	DRY	4.89	DRY	4.89
	PRODUCTI ON	8.75	5.5	NEW	API	N	0	10250	0	10250			10250	P- 110	17	витт	1.74	1.18	DRY	2.68	DRY	2.68
4	LINER	6.12 5	4.5	NEW	API	N	9420	17317	9420	17317			7897	P- 110	13.5	BUTT	1.74	1.31	DRY	2.05	DRY	2.05

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Roadhouse_Fed_2H_Csg_20171102063858.pdf

Well Number: 2H

Casing Attachments
Casing ID: 2 String Type: INTERMEDIATE
Inspection Document:
Spec Document:
Tapered String Spec:
Casing Design Assumptions and Worksheet(s):
Roadhouse_Fed_2H_Csg_20171102063908.pdf
Casing ID: 3 String Type: PRODUCTION
Inspection Document:
Spec Document:
Tapered String Spec:
Casing Design Assumptions and Worksheet(s):
Roadhouse_Fed_2H_Csg_20171102063916.pdf
Casing ID: 4 String Type:LINER
Inspection Document:
Spec Document:
Tapered String Spec:
Casing Design Assumptions and Worksheet(s):
Roadhouse_Fed_2H_Csg_20171102063924.pdf

Section 4 - Cement

Operator Name: XTO ENERGY INCORPORATED

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	600	617	1.35	14.8	832.9 5	100	HalCem-C	+ 2% CaCl

INTERMEDIATE	Lead	0	2575	522	2.49	11.9	1299. 78	100	EconoCem-HLC	3lbm/sk Kol-Seal + .025lbm D-air 5000
INTERMEDIATE	Tail			235	1.33	14.8	312.5 5	100	Halcem-C	none
PRODUCTION	Lead	0	1025 0	450	2.99	10.5	1345. 5	30	Tuned Light	2lbm/sk Kol-Seal + 0.3lbm/sk CFR-3
PRODUCTION	Tail			210	1.33	14.5	279.3	30	VersaCem	2lbm/sk Kol-Seal + 0.3lbm/sk CFR-3 + 0.4% Halad 344 + 0.3% Super CBL + 0.25lbm/sk D-air 5000
LINER	Lead	9420	1731 7	610	1.59	13.2	969.9	30	VersaCem PBHS2	0.25lbm/sk D-air 5000 + 0.5% Halad 344 + 0.3% CFR-3

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

Operator Name: XTO ENERGY INCORPORATED

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (lbs/gal)	Density (Ibs/cu ft)	Gel Strength (lbs/100 sqft)	Hd	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1025 0	1731 7	OIL-BASED MUD	10	13.5							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system
0	600	OTHER : FW/Native	8.4	8.8							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system
600	2575	OTHER : Brine/Gel Sweeps	9.8	10.2							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system
2575	1025 0	OTHER : FW/Cut Brine/Gel- Sweeps	8.4	9.2							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system

Operator Name: XTO ENERGY INCORPORATED

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

Section 6 - Test, Logging, Coring

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

Mud Logger: Mud Logging Unit (2 man) on @ 2575'. Catch 100' samples from 2575' to TD

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

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

CBL,CNL,DS,GR,MUDLOG

Coring operation description for the well:

No coring will take place on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 3945

Anticipated Surface Pressure: 1734

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Potential loss of circulation through the Capitan Reef.

Contingency Plans geoharzards description:

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

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Roadhouse_Fed_2H_H2S_Dia_20171102062438.pdf Roadhouse_Fed_2H_H2S_Plan_20171102062445.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Roadhouse_Fed_2H_DS_20171102062457.pdf

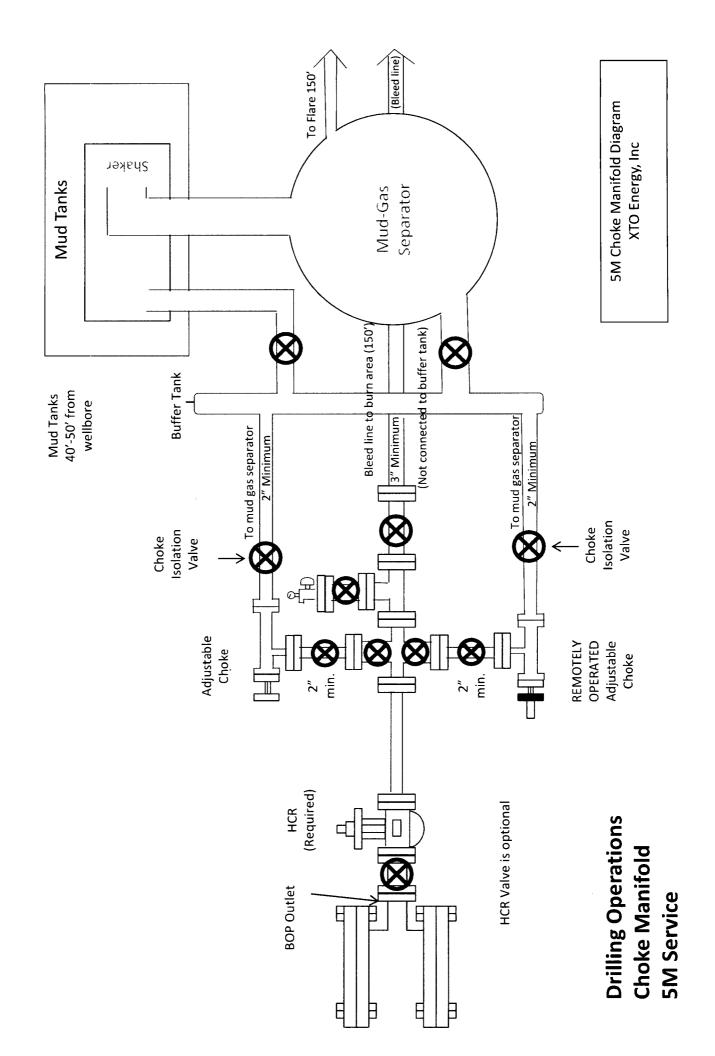
Other proposed operations facets description:

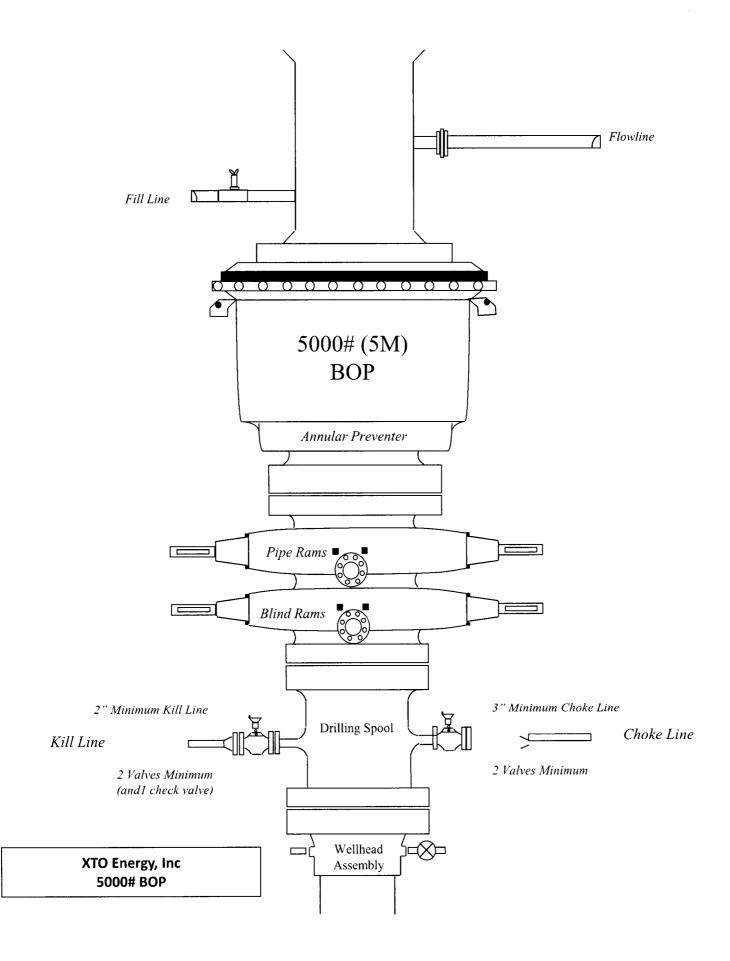
Other proposed operations facets attachment:

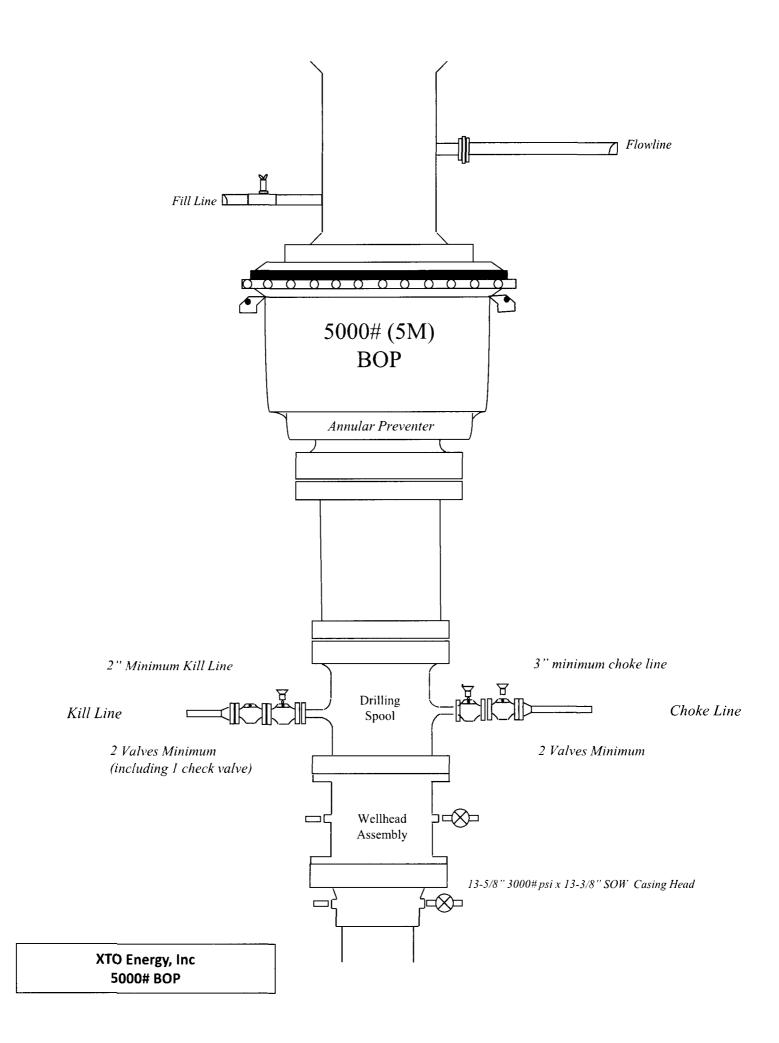
Roadhouse_Fed_2H_GCP_20171102062504.pdf

Other Variance attachment:

Roadhouse_Fed_2H_FH_20171102062512.pdf







XTO Energy Inc. Roadhouse Federal 2H Projected TD: 17317' MD / 10050' TVD SHL: 180' FSL & 2040' FEL, SECTION 6, T25S, R29E BHL: 2440' FSL & 2040' FEL, SECTION 31, T24S, R29E Eddy County, NM

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF	SF Collapse	SF Tension
							Burst		•
17-1/2"	0' - 600'	13-3/8"	48#	STC ·	H-40	New	5.77	2.70	11.18
12-1/4"	0' – 2575'	9-5/8"	36#	LTC	J-55	New	2.71	1.48	4.89
8-3/4"	0'-10250'	7"	29#	LTC	P-110	New	1.18	1.74	2.68
6-1/8"	9420' – 17317'	4-1/2"	13.5#	BTC	P-110	New	1.31	1.74	2.05

XTO Energy Inc. Roadhouse Federal 2H Projected TD: 17317' MD / 10050' TVD SHL: 180' FSL & 2040' FEL, SECTION 6, T25S, R29E BHL: 2440' FSL & 2040' FEL, SECTION 31, T24S, R29E Eddy County, NM

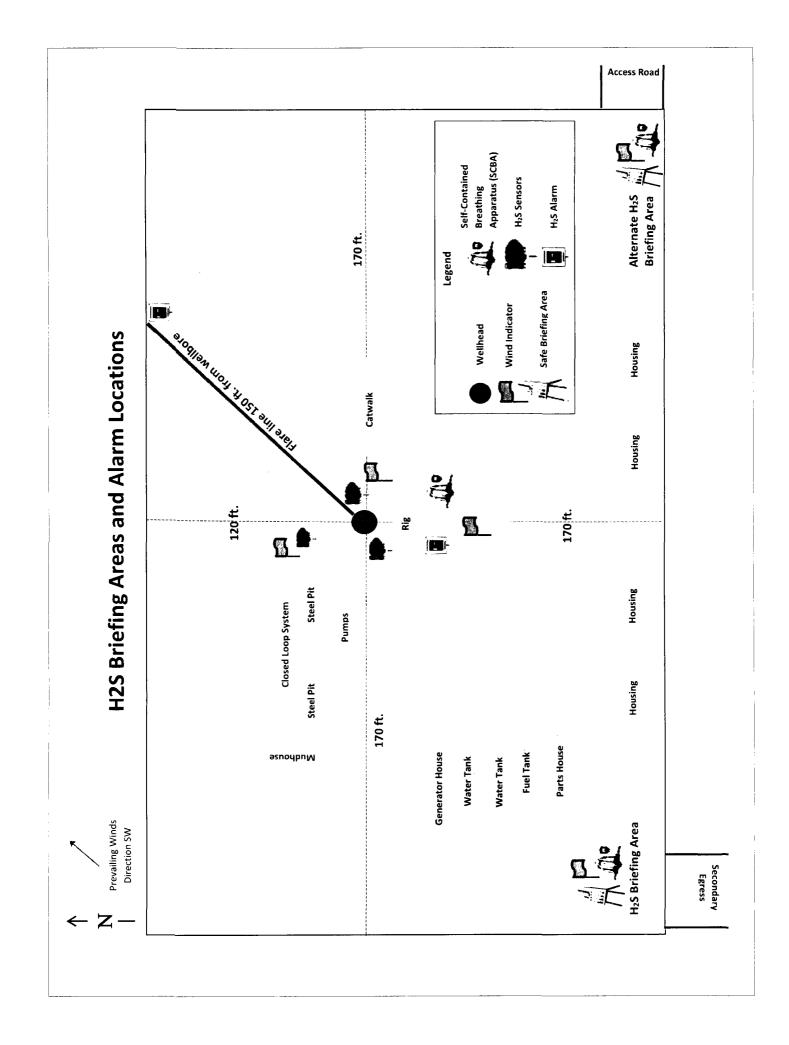
Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF	SF Collapse	SF Tension
							Burst		
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12-1/4"	0' – 2575'	9-5/8"	36#	LTC	J-55	New	2.71	1.48	4.89
8-3/4"	0' - 10250'	7"	29#	LTC	P-110	New	1.18	1.74	2.68
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6-1/8"	9420' – 17317'	4-1/2"	13.5#	BTC	P-110	New	1.31	1.74	2.05





HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

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

Contacting Authorities

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

CARLSBAD OFFICE – EDDY & LEA COUNTIES

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

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



<u>5D Plan Report</u>

XTO Energy

Field Name:	Eddy Co., NM (NAD 27 NME)
Site Name:	Roadhouse State #2H
Well Name:	Roadhouse State #2H
Plan:	P1:V2

11 July 2017



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Plan Survevs for Roadhouse State #2H

Map Units: US ft Vertical Reference Datum (VRD): Projected Coordinate System: NAD27 / New Mexico East Comment:	Units: US ft North Reference: Grid Convergence Angle: 0.17 Northing: 419281.90 US ft Latitude: 32° 9' 8.42" Position: Easting: 595566.00 US ft Longitude: -104° 1' 16.71" Comment: Comment: Convergence Angle: -104° 1' 16.71"	Position (Relative to Site Centre) i: 0.00 US ft Northing: 419281.90 US ft Latitude: 3299'8.42" i: 0.00 US ft Easting: 59656.00 US ft Latitude: 329'8.42" VD Reference: Gound Elevation Longitudes 104"116.71" vion above Field Reference: 2905.00 US ft Longitudes 104"116.71"	Type:Main well UWI: UWI: Plan:P1:V2 File Number: Comment: Comment: Comment: Closure Distance:7541US ft Closure Azimuth:0.06° Vertical Section: Position of Origin (Relative to Slot centre) Vertical Section: Position of Origin (Relative to Slot centre) +A/-S: 0.00 US ft +E/-W: 0.00 US ft	etic Parameters: : bggm2016 Field Strength: 47965.4nT Declination: 7.24° Dip: 59.92° Date: 30/Apr/2017 Is t Elevation above Field Reference: Inclination: 0.00° Azimuth: 0.00°	
	Units: US ft Position: Elevation above Field Referenc Comment:	+N/-S: 0.00 US ft +E/-W: 0.00 US ft Slot TVD Reference Elevation above Fi Comment:		Parameters: gm2016 Elevation 2930.000s	
Field Name: Eddy Co., NM (NAD 27 NME)	Site: Roadhouse State #2H	Slot: Roadhouse State #2H	Well: Roadhouse State #2H	Magnetic Model: bg Drill floor: Plan: P1:V2 Rig Height (Drill Floor): 25.00us ft	

Comment C.Pt.TVD (US ft) 10022.00 C.Pt.MD (USFt) 10395.98 C.Pt.Distance (US ft) 0.01 Easting (USFt) 596566.60 Northing (USFt) 419901.80 E.Offset (US ft) 0.60 N. Offset (US ft) 619.90 TVD (US ft) 10022.00 Target set: Roadhouse State #2H Comment: Shape: Point Target Name: ЧF

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	Comment		
	C.Pt.TVD (US ft)	10022,00	10022.00
	C.Pt.MD (USFt)	17187.09	17317.09
	C.Pt.Distance (US ft)	0.03	0.00
	Easting (USFt)	596573.30	596573.40
	Northing (USFt)	426692.90	426822.90
	E.Offset (US ft)	7.30	7.40
	N.Offset (US ft)	7411.00	7541.00
ient:	TVD (US ft)	10022.00	10022.00
t set: Roadhouse State #2H Comment:	Shape:	Point	Cuboid
Target set: Roadhou	Target Name:	LTP	PBHL 2H

Wellpath created using minimum curvature.

JSFt		Comment		KOP-Build @ 10° DLS	Landing Pt	LTP	330' Offset Crossing	PBHL 2H		Comment				Rustler :					Top Salt :										
East Offset: 0.00USFt		DLS (°/100US ft)	0.00	0.00 K	10.00	0.00	0.00	0.00		Easting (US ft)	596566.00	596566.00	596566.00	596566,00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00	596566.00
East Of		T.Rate (°/100US ft) (°.	0.00	0.00	0.00	0.00	0.00	0.00		Northing (US ft)	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90
)0USFt										DLS (°/100US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00
North Offset: 0.00USFt		B.Rate (°/100US ft)	0.00	0.00	10.00	0.00	0.00	0.00		T.Rate (°/100US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00
North (T.Face (°)	00.0	0.00	0.06	0.00	0.00	0.00		B.Rate (°/100US ft) (0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TVD: 0.00USFt		E.Offset (US ft)	0.00	0.00	0.56	7.27	7.30	7,40		T.Face (°)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
:UVI		N.Offset (US ft)	0.00	0.00	572.96	7410.91	7441.91	7541.00		E.Offset (US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
uth: 0.00°		VS (US ft)	0.00	0.00	572.96	7410.92	7441.92	7541.00		N.Offset (US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00
Azimı	loor)	TVD (US ft)	0.00	9449.04	10022.00	10022.00	10022.00	10022.00	Drill Floor)	VS (US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.00	0.00	0.00	0.00
n: 0.00°	tive to Drill F	⊤))	0	94	100	100	100	100	D relative to	TVD (US ft)	0.00	100.00	200.00	275.00	300.00	400.00	500.00	600.00	624.00	700,00	800.00	00,006	1000.00	1100.00	1200,00	1300.00	1400.00	1500.00	1600.00
Inclination: 0.00°	itre)(TVD rela	Az (°)	00.0	0.00	0.06	0.06	0.06	0.06	ot centre)(TV	Az (°)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	elative to Slot cer	Inc (°)	0.00	0.00	90.00	90.00	90.06	90.00	ts: (Relative to Si	Inc (°)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tie Point: MD: 0.00USFt	Salient Points: (Relative to Slot centre)(TVD relative to Drill Floor)	MD (US ft)	0.00	9449.04	10349.04	17187.00	17218.00	17317.09	Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)	MD (US ft)	0.00	100.00	200.00	275.00	300.00	400.00	500.00	600.00	624.00	700,00	800.00	900,00	1000.00	1100.00	1200,00	1300.00	1400.00	1500,00	1600.00

									(1) 20021 ()	(°/100US ft)	(US ft)	(US ft)	
1700.00	0.00	0.00	1700.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
1800.00	0.00	0.00	1800.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2300.00	0.00	0.00	2300.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2400.00	00.0	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2500.00	0.00	0,00	2500.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2531.00	0.00	0.00	2531.00	0,00	00'0	0.00	0.00	0,00	0.00	00.00	419281.90	596566.00	Base Salt :
2600.00	0.00	0.00	2600.00	0.00	00.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2732.00	0.00	0.00	2732.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	Delaware :
2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3100.00	0.00	0.00	3100.00	0.00	00.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3200.00	0.00	0.00	3200.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3700.00	0.00	0.00	3700.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3800.00	0.00	0.00	3800.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
3900,00	0.00	0.00	3900,00	0.00	00'0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4000,00	0.00	0,00	4000.00	0,00	0,00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4100.00	0.00	0.00	4100.00	0.00	00.0	0.00	0.00	0.00	0.00	00.0	419281.90	596566.00	
4200.00	0.00	0.00	4200.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4300.00	0.00	0.00	4300.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	419281.90	596566.00	
4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4800.00	0.00	0.00	4800.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
4900,00	0.00	0.00	4900.00	0.00	00.0	0.00	0.00	0.00	0.00	00.0	419281.90	596566.00	
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
5100.00	0.00	0.00	5100.00	0.00	00.0	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
5200.00	0.00	0.00	5200.00	0.00	00.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
5300.00	0.00	0.00	5300.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419281.90	596566.00	
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0.00 0.00 0.00 112/81.90 59556.00 0.01 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 59556.00 0.00 0.00 0.00 112/81.90 <t< th=""><th>(°) (US ft) (US ft)</th><th>(US ft) (US ft)</th><th>(US ft)</th><th></th><th>(US ft)</th><th></th><th>(US ft) 0 00</th><th>(°)</th><th>(°/100US ft)</th><th>(°/100US ft)</th><th>(°/100US ft)</th><th>(US ft)</th><th>(US ft)</th><th></th></t<>	(°) (US ft) (US ft)	(US ft) (US ft)	(US ft)		(US ft)		(US ft) 0 00	(°)	(°/100US ft)	(°/100US ft)	(°/100US ft)	(US ft)	(US ft)	
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Comment				3rd Bone Spring Ss :		KOP-Build @ 10° DLS			3rd Bone Spring "Red Hills" :	Wolfcamp :		Wolfcamp X :	Wolfcamp Y :		Wolfcamp "A" Shale Top :						: d)	Landing Pt																
Easting (US ft)	596566.00	596566.00	596566.00	596566,00	596566.00	596566.00	596566.00	596566.02	596566.02	596566.05	596566.05	596566.06	596566.10	596566.10	596566.13	596566.17	596566,24	596566.33	596566.42	596566.51	596566.56	596566.56	596566.61	596566.71	596566.81	596566.91	596567.00	596567.10	596567.20	596567.30	596567.40	596567.50	596567,59	596567.69	596567.79	596567.89	596567.99	596568.08
Northing (US ft)	419281.90	419281.90	419281.90	419281.90	419281.90	419281.90	419284.16	419301.67	419304.97	419329.20	419335.99	419341.75	419381.59	419386.07	419416.51	419450.39	419527.01	419613.59	419707.49	419805.88	419853.75	419854.86	419905.82	420005.82	420105.82	420205.82	420305.82	420405.82	420505.82	420605.82	420705.82	420805.82	420905.82	421005.82	421105.82	421205.82	421305.82	421405.82
DLS (°/100US ft)	0.00	0.00	0.00	0.00	0.00	0.00	10.00	10.00	10,00	10.00	10.00	10.00	10.00	10,00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T.Rate (°/100US ft)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	-0.00	0.00	0.00	-0.00	-0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00'0	0.00	0.00	0.00	0.00	00.00
B.Rate (°/100US ft)	0.00	0,00	0.00	0.00	0.00	0.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	00.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
T.Face (°)	0.00	0,00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0,00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
E.Offset (US ft)	0.00	00.00	0.00	0.00	0.00	0.00	0.00	0.02	0.02	0.05	0.05	0.06	01.0	0.10	0.13	0.17	0.24	0.33	0.42	0.51	0.56	0.56	0.61	0.71	0.81	0.91	1.00	1.10	1.20	1.30	1.40	1.50	1.59	1.69	1.79	1.89	1.99	2.08
N.Offset (US ft)	0.00	00.00	0.00	0.00	0.00	0.00	2.26	19.77	23.07	47.30	54.09	59.85	99.69	104.17	134.61	168.49	245.11	331.69	425.59	523.98	571.85	572.96	623.92	723.92	823.92	923.92	1023.92	1123.92	1223.92	1323.92	1423.92	1523.92	1623.92	1723.92	1823.92	1923.92	2023.92	2123.92
Drill Floor) VS (US ft)	0.00	0.00	0.00	0.00	0.00	0.00	2.26	19.77	23.07	47.30	54.09	59.85	69.66	104.17	134.61	168.49	245.11	331.69	425.59	523.98	571.85	572.96	623.92	723,92	823,92	923.92	1023.92	1123.92	1223.92	1323.92	1423.92	1523.92	1623.92	1723.92	1823.92	1923.92	2023.92	2123.92
TVD relative to TVD (US ft)	00.0019	9200.00	9300.00	9323.00	9400.00	9449.04	9499,93	9598.26	9610.00	9677.00	9692.05	9704.00	9772.00	9778.46	9818,00	9854.86	9918.93	9968.72	10002.72	10019.90	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00	10022.00
to Slot centre)(Az (°)	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.06	0,06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
ints: (Relative Inc (°)	0.00	0.00	0.00	0.00	0.00	0.00	5,10	15,10	16.32	23.44	25.10	26.42	34.31	35.10	40.09	45,10	55.10	65.10	75.10	85.10	89.89	90.00	00.09	90.00	00.06	00.06	00.06	90.00	00.06	00.06	00.06	00.06	00.06	90'06	00.00	00'06	90.00	90.00
Interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor) MD inc A2 TVD VS (US ft) (US ft) (US ft) (US ft)	9100.00	9200.00	9300.00	9323,00	9400.00	9449.04	9500.00	9600.00	9612.20	9683.48	9700.00	9713.27	9792.14	9800.00	9849.91	00.0066	10000.00	10100.00	10200.00	10300.00	10347.93	10349.04	10400.00	10500.00	10600.00	10700.00	10800.00	10900.00	11000.00	11100.00	11200.00	11300.00	11400.00	11500.00	11600.00	11700.00	11800.00	11900.00

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Interpolated Po	pints: (Relative	interpolated Points: (Relative to Slot centre)(TVD relative to Drill Floor)	IVD relative to D	brill Floor)									
MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	VS (US ft)	N.Offset (US ft)	E.Offset (US ft)	T.Face (°)	B.Rate (°/100US ft)	T.Rate (°/100US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)	Comment
12000.00	00.06	0.06	10022.00	2223.92	2223,92	2.18	0.00	0.00	0.00	0.00	421505.82	596568.18	
12100.00	90.00	0.06	10022.00	2323.92	2323.92	2.28	0.00	0.00	0.00	0.00	421605.82	596568.28	
12200.00	90.06	0.06	10022.00	2423.92	2423.92	2.38	0.00	0.00	0.00	0.00	421705.82	596568.38	
12300.00	90.00	0.06	10022.00	2523.92	2523.92	2.48	0.00	0.00	0.00	0.00	421805.82	596568.48	
12400.00	90.00	0.06	10022.00	2623.92	2623,92	2.57	0.00	0.00	0.00	0.00	421905.82	596568.57	
12500.00	00.06	0.06	10022.00	2723.92	2723.92	2.67	0.00	0.00	0.00	0.00	422005.82	596568.67	
12600.00	00'06	0.06	10022.00	2823.92	2823,92	2.77	0.00	0.00	0.00	0.00	422105.82	596568.77	
12700.00	00.06	0.06	10022.00	2923.92	2923.92	2.87	0.00	0.00	0.00	00'0	422205.82	596568.87	
12800.00	90.00	0.06	10022.00	3023.92	3023,92	2.97	0.00	00.0	0.00	0.00	422305.82	596568.97	
12900.00	90.00	0.06	10022.00	3123.92	3123.92	3.07	0.00	0.00	0.00	0.00	422405.82	596569.07	
13000.00	90.00	0.06	10022.00	3223.92	3223.92	3,16	0.00	0.00	0.00	0.00	422505.82	596569.16	
13100.00	90.00	0.06	10022.00	3323.92	3323.92	3.26	0.00	0.00	0.00	0.00	422605.82	596569.26	
13200.00	90.00	0.06	10022.00	3423.92	3423.92	3.36	0.00	0.00	0.00	0.00	422705.82	596569.36	
13300.00	90.00	0.06	10022.00	3523.92	3523.92	3.46	0.00	0.00	0.00	0,00	422805.82	596569.46	
13400.00	90.00	0.06	10022.00	3623.92	3623.92	3.56	0.00	0.00	0.00	0,00	422905.82	596569.56	
13500.00	90.00	0.06	10022.00	3723.92	3723.92	3.65	0.00	0.00	0.00	0.00	423005.82	596569.65	
13600.00	00.06	0.06	10022.00	3823,92	3823.92	3,75	0.00	0.00	0.00	0.00	423105.82	596569.75	
13700.00	90.00	0.06	10022.00	3923,92	3923.92	3,85	0.00	00.00	0.00	0.00	423205.82	596569.85	
13800.00	90.00	0.06	10022.00	4023,92	4023.92	3.95	0.00	0.00	0.00	0.00	423305.82	596569,95	
13900.00	00.06	0.06	10022.00	4123.92	4123.92	4.05	0.00	0.00	0.00	0.00	423405.82	596570.05	
14000.00	90.00	0.06	10022.00	4223.92	4223.92	4.14	0.00	0.00	0.00	0.00	423505.82	596570.14	
14100.00	90.00	0.06	10022.00	4323.92	4323.92	4.24	0.00	0.00	0.00	0.00	423605.82	596570.24	
14200.00	90.00	0.06	10022.00	4423.92	4423.92	4.34	0.00	0.00	0.00	0.00	423705.82	596570.34	
14300.00	90.00	0.06	10022.00	4523.92	4523.92	4.44	0.00	0.00	0.00	0.00	423805.82	596570.44	
14400.00	90.00	0.06	10022.00	4623.92	4623.92	4.54	0.00	0.00	0.00	0.00	423905.82	596570.54	
14500.00	90.00	0.06	10022.00	4723.92	4723.92	4,64	0.00	00.00	0.00	0.00	424005.82	596570.64	
14600.00	90.00	0.06	10022.00	4823.92	4823.92	4.73	0.00	0.00	0.00	0.00	424105.82	596570.73	
14700.00	90,00	0.06	10022.00	4923.92	4923.92	4.83	0.00	0.00	0.00	0.00	424205.82	596570.83	
14800,00	90,00	0.06	10022.00	5023.92	5023,92	4.93	0.00	0.00	0.00	0.00	424305.82	596570.93	
14900.00	90.00	0.06	10022.00	5123.92	5123.92	5.03	0.00	0.00	0.00	0.00	424405.82	596571.03	
15000.00	90.00	0.06	10022.00	5223.92	5223.92	5.13	0.00	0.00	0.00	0.00	424505.82	596571.13	
15100.00	90.00	0.06	10022.00	5323.92	5323.92	5.22	0.00	0.00	0.00	0.00	424605.82	596571.22	
15200.00	90.00	0.06	10022.00	5423.92	5423.92	5.32	0.00	0.00	0.00	0.00	424705.82	596571.32	
15300.00	90.00	0.06	10022,00	5523.92	5523.92	5.42	0.00	0.00	0.00	0.00	424805.82	596571.42	
15400.00	00.06	0.06	10022.00	5623.92	5623.92	5,52	0.00	0.00	0.00	0.00	424905.82	596571.52	
15500.00	00'06	0.06	10022.00	5723.92	5723.92	5.62	0.00	0.00	0.00	0.00	425005.82	596571.62	
15600,00	00.06	0.06	10022.00	5823.92	5823.91	5.72	0.00	0.00	0.00	0.00	425105.81	596571.72	
15700.00	00.06	0.06	10022,00	5923.92	5923.91	5.81	0.00	0.00	0.00	0.00	425205.81	596571.81	
15800.00	90.00	0.06	10022.00	6023.92	6023.91	5.91	0.00	0.00	0.00	0.00	425305.81	596571.91	
15900.00	90.00	0.06	10022.00	6123.92	6123.91	6.01	0.00	0.00	0.00	0.00	425405.81	596572.01	
16000.00	00.06	0.06	10022.00	6223.92	6223.91	6.11	0.00	0.00	0.00	00.0	425505.81	596572.11	

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MD Inc Az TVD VS (v5 ft) (°) (v5 ft) (u5 ft)	Inc (°)	Az (°)	TVD (US ft)	VS SV	N.Offset (US ft)	E.Offset (US ft)	T.Face (°)	B.Rate (°/100US ft)	T.Rate (°/100US ft)	DLS (°/100US ft)	Northing (US ft)	Easting (US ft)
16100.00	90.00	0.06	10022.00	6323.92	6323.91	6.21	0,00	0.00	0.00	0.00	425605.81	596572.21
16200.00	90,00	0.06	10022.00	6423,92	6423,91	6.30	0,00	0.00	0.00	0,00	425705.81	596572.30
16300.00	90.00	0.06	10022.00	6523,92	6523.91	6.40	0.00	0.00	0.00	0.00	425805.81	596572.40
16400.00	90.00	0.06	10022.00	6623.92	6623.91	6.50	0.00	0.00	0.00	0.00	425905.81	596572.50
16500.00	90.00	0.06	10022.00	6723.92	6723.91	6.60	0.00	0.00	0.00	0.00	426005.81	596572.60
16600.00	90.00	0.06	10022.00	6823,92	6823,91	6.70	0.00	0.00	0.00	0.00	426105.81	596572.70
16700.00	90.00	0.06	10022.00	6923.92	6923.91	6.79	0.00	0.00	0.00	0.00	426205.81	596572.79
16800.00	90,00	0,06	10022.00	7023,92	7023,91	6.89	0.00	0.00	0.00	0.00	426305.81	596572.89
16900.00	90.00	0.06	10022.00	7123.92	7123.91	6,99	0.00	0.00	0.00	0.00	426405.81	596572.99
17000.00	90.00	0.06	10022.00	7223,92	7223.91	7.09	0.00	0.00	0.00	0.00	426505.81	596573.09
17100.00	90.00	0.06	10022.00	7323.92	7323.91	7.19	0.00	0.00	0.00	0.00	426605.81	596573.19
17187.00	90.00	0.06	10022.00	7410.92	7410.91	7.27	0.00	0.00	0.00	0.00	426692.81	596573.27
17200.00	90.00	0.06	10022.00	7423.92	7423.91	7.29	0.00	0.00	0.00	0.00	426705.81	596573,29
17218.00	90.00	0.06	10022.00	7441.92	7441.91	7.30	0.00	0.00	0.00	0.00	426723.81	596573.30
17300.00	90,00	0.06	10022.00	7523.92	7523,91	7.38	0.00	>	0,00	0.00	426805.81	596573.38
17317.09		2				1		0.00				596573.40
Name	90,00 (Relative to	0.06 Slot centre)(1	17317.09 90.00 0.06 10022.00 7541 Formation Points: (Relative to Slot centre)(TVD relative to Drill Floor)	.00	7541.00	7.40	0,00		0.00	0.00	426822.90	
Name	90.00 (Relative to	0.06 Slot centre)(1	10022.00 (TVD relative to D MD (US ft)	.00	7541,00 Inc (°)		0.00 Az (^P)			0.00 TVD 6 (U	0 426822.90 TVD below Slot (US ft)	
Name Wolfcamp "A" Shale Base	90,00 (Relative to hale Base	0.06 Slat centre)(1	10022.00 TVD relative to D MD US ft) N/A	.00			0		0.00 TVD (US ft) 10126.00	0.00 TVD b: 101	426622.90 D below Slot (US ft) 10126.00	
Name Wolfcamp "A" SH Rustler	90.00 (Relative to hale Base	0.06 Slot centre)(1 (1	10022.00 (TVD relative to D (MD (US ft) N/A 275.00	.00						0.00 TVD b (U 101 27	426822.90 below Slot (US ft) 0126.00 275.00	
Wolfcamp "A" Sh Rustler Top Salt	90.00 (Relative to) hale Base	0.06 Slot centre)(1 (1 2)	10022.00 (TVD relative to D (MS ft) N/A 275.00 624.00	.00						0.00 TVD 5: 101 27 62	426822.90 below Slot (US ft) 0126.00 275.00 624.00	
Wolfcamp "A" Sha Rustler Top Salt Base Salt	90.00 (Relative to hale Base It It	0.06 Slot centre)(1 () 25 25	10022.00 (TVD relative to D MD (US ft) N/A 275.00 624.00 2531.00							0.00 TVD b 101 27 62 25:	426822.90 0 below Slot (US ft) 10126.00 275.00 624.00 2531.00	Comment
Wolfcamp "A" Sha Rustler Top Salt Base Salt Delaware	90.00 Relative to hale Base ft ft ft	0.06 Slot centre)(1 () 2: 2:5 2:5 2:5	10022.00 (TVD relative to D MD (US ft) N/A 275.00 624.00 2531.00 2531.00 2732.00							0.00 TVD b 101 27 25: 27:	426822.90 (US ft) (US ft) (0126.00 275.00 624.00 624.00 2531.00 2532.00	0
Venre Wolfcamp "A" Shale Ba Rustler Top Salt Base Salt Delaware Basal Brushy Canyon	90.00 Relative to hale Base r It It It	0.06 Slot centre)(1 () 2: 2:5 2:5 2:5 2:5 6:1	10022.00 (TVD relative to D (US ft) N/A 275.00 624.00 2531.00 2532.00 6185.00							0.00 TVD b 101 27 25 27 27	426822.90 (US ft) (US ft) 10126.00 275.00 624.00 2531.00 2532.00 2732.00 6185.00	0
Wolfcamp "A" Shai Rustler Top Salt Base Salt Delaware Basal Brushy Car Bone Spring	90.00 Relative to hale Base It It It It It	0.06 Slot centre)(1 () 2: 2:5 2:5 2:5 6:6 6:4	10022.00 MD (US ft) N/A 275.00 624.00 2531.00 2532.00 6185.00 6465.00							0.00 TVD b 101 27 27 27 518 618	426822.90 (US ft) (US ft) 10126.00 275.00 624.00 2531.00 2532.00 2732.00 6185.00 6465.00	0
Wolfcamp "A" Shale B Rustler Top Salt Base Salt Delaware Basal Brushy Canyo Bone Spring 1st Bone Spring Ss	90.00 Relative to hale Base It It It It It It It It It It It It It	0.06 Slot centre)((2: 25 27 61 61 64 74	10022.00 PD (US ft) N/A 275.00 624.00 624.00 2531.00 2531.00 2532.00 6185.00 6465.00 7415.00							0.00 TVD b 101 27 27 27 516 618 649 741	426822.90 (US ft) (0126.00 275.00 624.00 624.00 2531.00 2531.00 2732.00 6185.00 6185.00 7415.00	
Wolfcamp "A" Shale Be Rustler Top Salt Base Salt Delaware Basal Brushy Canyor Bone Spring Ss 2nd Bone Spring Ss	90.00 (Relative to hale Base r f f f f Canyon Canyon Canyon ring Ss ring Ss	0.06 Slot centre)(1 2: 2: 2: 2: 2: 6: 6: 6: 6: 7:4 8:2 8:2	10022.00 MD MD (US ft) 102 103 103 103 103 103 103 103 103							0.00 TVD b 101 27 27 27 516 618 649 741	426822.90 (US ft) (US ft) 10126.00 275.00 624.00 2531.00 2531.00 2732.00 6185.00 6185.00 6465.00 7415.00 8219.00	
Wolfcamp "A" Shale B Rustler Top Salt Base Salt Delaware Basal Brushy Canyor Bone Spring Ss 2nd Bone Spring Ss 3rd Bone Spring Ss	90.00 Fraie Base Free Canyon Canyon Canyon Fing Ss Fing Ss	0.06 Slot centre)(2: 2: 2: 2: 2: 2: 5: 6: 6: 6: 6: 7:4 5: 8:2 9:3	10022.00 MD MD (US ft) N/A 275.00 624.00 624.00 2531.00 2531.00 2732.00 6465.00 6185.00 6465.00 7415.00 8219.00 8219.00							0.00 TVD b 101 27 27 27 27 51 618 646 741 741 82 33	426822.90 (US ft) (0126.00 275.00 624.00 2531.00 2531.00 2532.00 6185.00 6185.00 6465.00 7415.00 8219.00 8219.00	
Wolfcamp "A" Si Rustler Top Sal Base Sa Delawar Basal Brushy Bane Spri 1st Bone Spri 2nd Bone Spring 3rd Bone Spring	90.00 Hale Base r f f f f f f f f f f f f f f f f f f	0.06 Slot centre)(2: 2: 2: 2: 2: 2: 5: 6: 6: 6: 6: 6: 7:4 8:2 9:3 9:6 9:6	10022.00 PD (US ft) N/A 275.00 624.00 624.00 2531.00 62531.00 6245.00 6185.00 6185.00 6465.00 7415.00 8219.00 8219.00 9512.20	0	1-		•			0.00 TVD by 101 27 27 27 51 618 646 741 82 93 93	426822.90 (US ft) (0126.00 275.00 624.00 22531.00 22531.00 2532.00 6185.00 6185.00 6465.00 7415.00 8219.00 8219.00 9512.00	
Wolfcamp "A" Shale Base Rustler Top Salt Base Salt Delaware Basal Brushy Canyon Bone Spring Ss 2nd Bone Spring Ss 3rd Bone Spring Ss 3rd Bone Spring Ss Wolfcamp	90.00 Hale Base f f f f f f f f f f f f f f f f f f f	0.06 Slot centre)(2: 2: 2: 2: 2: 5: 6: 6: 6: 6: 6: 6: 6: 7:4 6: 9:9 9:9 9:9 9:9 9:9	10022.00 PD (US ft) N/A 275.00 624.00 2531.00 2531.00 2532.00 6465	0			•	0.00 00		0.00 TVD by 101 27 27 27 51 618 646 741 93 93 95	426822.90 (US ft) 10126.00 275.00 624.00 6231.00 2732.00 6185.00 6185.00 6185.00 6185.00 9315.00 9315.00 9323.00 9517.00	
Wolfcamp "A" Sha Rustler Top Salt Base Salt Delaware Basal Brushy Ca Bone Spring 1st Bone Spring 2nd Bone Spring 3rd Bone Spring 3rd Bone Spring 3rd Bone Spring Wolfcamp X	90.00 Hale Base f f f f f f f f f f f f f f f f f f f	0.06 Slot centre)(1 2.7 2.7 2.7 2.7 6.1 6.1 6.1 8.2 9.9 9.9 9.9 9.9 9.9	10022.00 (IVD relative to D (US ft) (VA 275.00 624.00 2531.00 2731.00 27415.00 6485.00 6485.00 6485.00 6485.00 9415.00 9513.27				•	0.00 00		0.00 TVD by 101 27 27 51 618 646 741 93 941 95 95	426822.90 0 below Slot 10126.00 275.00 624.00 6232.00 6185.00 6185.00 6185.00 6465.00 6465.00 9645.00 9645.00 9510.00 9510.00 9577.00	
Wolfcamp "A" Shal Rustler Top Salt Base Salt Delaware Basal Brushy Ca Bone Spring 1st Bone Spring 2nd Bone Spring 3rd Bone Spring 3rd Bone Spring 3rd Bone Spring Wolfcamp X Wolfcamp X	90.00 Hale Base f f f f f f f f f f f f f f f f f f f	0.06 Slot centre)(1 2: 2: 2: 2: 2: 2: 2: 5: 6: 6: 6: 6: 6: 6: 9: 9: 9: 9: 9: 9: 9: 9: 9: 9: 9: 9: 9:	10022.00 (IVD relative to D (US ft) N/A 275.00 624.00 2732.00 6185.00 6185.00 6185.00 6185.00 9323.00 9323.00 9512.20 9612.20 9612.20				· · · · ·	0.00 00		0.00 TVD by 101 27 27 51 618 741 933 95 95 977 977	426822.90 10126.00 275.00 624.00 22531.00 22532.00 6185.00 6145.00 6145.00 6445.00 645.00 9323.00 9523.00 9577.00 9577.00	
Wolfcamp "A" Shale Base Rustler Top Salt Base Salt Delaware Basal Brushy Canyon Bone Spring 1st Bone Spring Ss 2nd Bone Spring "Red Hills Wolfcamp X Wolfcamp Y Wolfcamp "A" Shale Top	90.00 Hale Base f f f f f r f Canyon Canyon Canyon Canyon S f ring Ss ring Sss ring Ssss ring Sss ring Sss ring Ssss ring Sss ring Ssss ring Ssss ring Ssss ring Ssss ring Sssss ring Sssss ring Sssss ring Sssss ring Sssss ring Sssss ring Sssss ring Sssss ring Sssss ring Ssssss ring Sssss ring Ssssss ring Ssssss ring Ssssss ring Ssssss ring Sssssss ring Ssssss ring Ssssssss ring Ssssssss ring Ssssss ring Sssssss ring Sssssssss	0.06 Slot centre)(1 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 4 6.1 6.1 6.1 9.9 9.9 9.9 9.9 9.9 9.9 9.9 9.9 9.9 9	10022.00 (ITVD relative to D (US ft) V/A 275.00 624.00 2732.00 2732.00 6185.00 6185.00 6185.00 6465.00 9415.00 9512.20 9612.20 9612.20 9612.20 9612.21 9683.48 9713.27				•	0.00 00		0.00 TVD b 101 27 27 51 618 93 94 94 95 97 97 97 97 97 98	426822.90 10126.00 275.00 624.00 6232.00 6185.00 6185.00 6185.00 6465.00 6465.00 9323.00 9510.00 9510.00 9577.00 9577.00 9572.00 9818.00	

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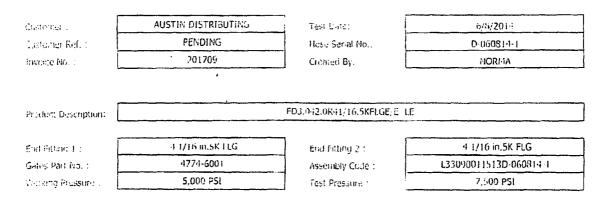
the concrete set of the week proved and a structure set.

a standarda



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

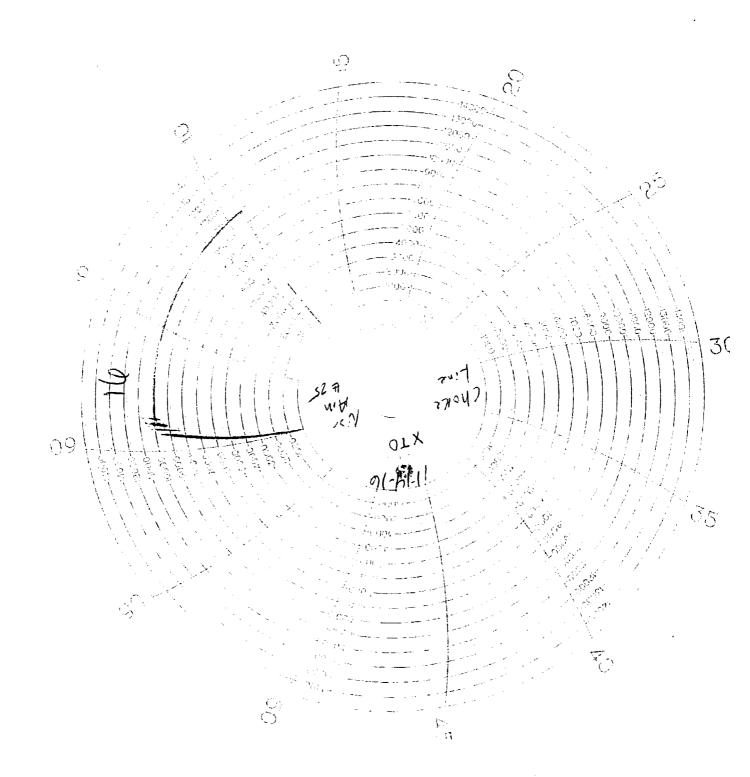
GRADE D PRESSURE TEST CERTIFICATE

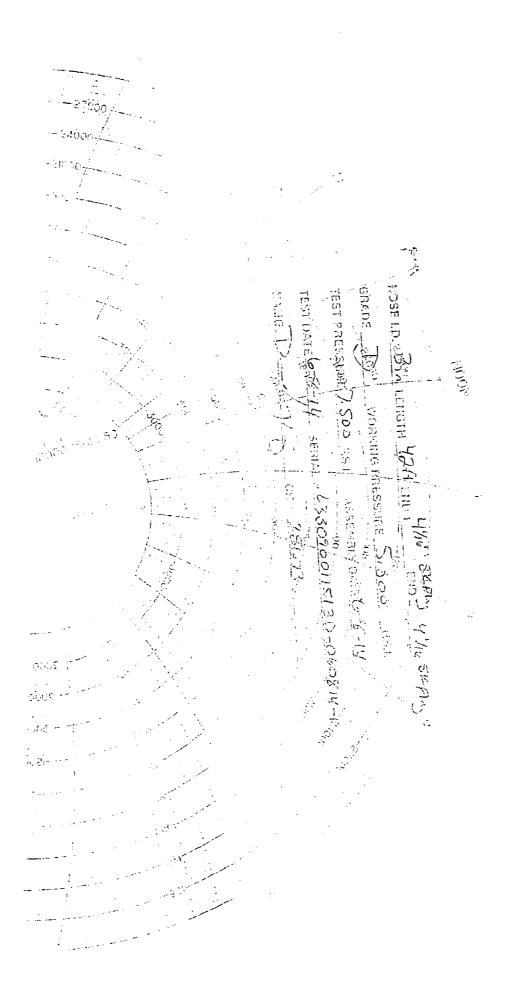


Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance 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: Dial Signature :	QUALITY 0/8/2014/// /////////////////////////////////	Termical Supervisor : Date : Signature :	PRODUCTION 5/8/2014

Form PTC = 01 Rev.0 2





WAFMSS

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



Highlighted data reflects the most

recent changes

Show Final Text

Submission Date: 11/02/2017

Well Number: 2H

Well Work Type: Drill

APD ID: 10400024217

Operator Name: XTO ENERGY INCORPORATED

Well Name: ROADHOUSE FEDERAL

Well Type: CONVENTIONAL GAS WELL

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Roadhouse_Fed_2H_Vic_20180227052949.pdf

Existing Road Purpose: ACCESS, FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Roadhouse_Fed_2H_Road_20180227053002.pdf

New road type: RESOURCE

Length: 303
Feet

Width (ft.): 30

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

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route. **New road access plan or profile prepared?** NO

New road access plan attachment:

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

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:

Number of access turnouts: 1 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):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Roadhouse_Fed_2H_1_Mile_20171102062928.pdf

Existing Wells description:

Operator Name: XTO ENERGY INCORPORATED Well Name: ROADHOUSE FEDERAL

Well Number: 2H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production facilities are located in Section 6-T25S-R29E and are already built as a state land facility. No additional surface disturbance is associated with this facility. The facility location did not require an onsite at the time of permitting as it was originally staked and permitted as a state facility. No new surface disturbance is associated with this facility.All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted to BLM specifications. 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. Flowlines: 5 surface flowlines will be necessary for the wells located on the pad. All surface flowlines will be 4" or less made of flexpipe or steel with a maximum operating pressure of 125psi and a safety rating of 750psi for full-stream (transporting: oil, gas, water). An additional 5 HP (Operating: 725psi, Max: 1250psi) flowlines will be buried a min. of 36" within the existing road corridors for gas lift purposes (transporting: gas). The total approximate distance of each surface and buried flowline is as follows: i. Cattle Baron Federal 2H: 2375' ii. Roadhouse Federal 1H: 2375' iii. Roadhouse Federal 2H: 2375' iv. Golden Corral Federal 2H: 2375' v. Sizzler Federal 2H: 2375' Electrical: All electrical poles and lines will be placed within existing and proposed lease roads corridors. Approximately 2545' of12,740 volt electrical will be run from the anticipated tie-in point from an existing well pad going cross-country then joining with proposed road corridors with a request for 30' ROW construction and maintenance buffer; 15' on either side of the electrical centerline. This distance is a maximum approximation and may vary based on the lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached. Gas Sales Line: The Goldenchild Tank Battery is already connected to a gas sales line. No additional disturbance is necessary for gas sales purposes.

Production Facilities map:

Roadhouse_Fed_1H_CTB_20180227053029.pdf Roadhouse_Fed_2H_FL_20180227053038.pdf Roadhouse_Fed_2H_OHE_20180227053046.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE CASING Describe type: Fresh Water; 6-T26S-R30E	Water source type: OTHER
Source latitude:	Source longitude:
Source datum:	
Water source permit type: PRIVATE CONTRACT,PRIVATE CONTRACT Source land ownership: FEDERAL	
Water source transport method: TRUCKING,TRUCKING	
Source transportation land ownership: FEDERAL	
Water source volume (barrels): 85000	Source volume (acre-feet): 10.955914

Source volume (gal): 3570000

Vell Name: ROADHOUSE FEDERAL Well N	lumber: 2H
Water source use type: INTERMEDIATE/PRODUCTION CASING STIMULATION, SURFACE CASING Describe type: Fresh Water; 5-T26S-R30E	G, Water source type: OTHER
Source latitude:	Source longitude:
Source datum:	
Water source permit type: PRIVATE CONTRACT,PRIVATE CONTRACT,PRIVATE CONTRACT Source land ownership: FEDERAL	
Water source transport method: TRUCKING,TRUCKING,TRUC	KING
Source transportation land ownership: FEDERAL	
Water source volume (barrels): 85000	Source volume (acre-feet): 10.955914
Source volume (gal): 3570000	

Water source and transportation map:

Roadhouse Fed_2H_Vic_20180227053121.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 6 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. Water for drilling, completion and dust control will be supplied by Rockhouse Water for sale to XTO Energy, Inc. from Section 5-T26S-R30E, Eddy County, New Mexico. In the event that the well does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Rockhouse Water with the location of the well being in Section 6-T26S-R30E, 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 aqu	uifer:
Aquifer comments:		
Aquifer documentation:		
Well depth (ft):	Well casing type:	
Well casing outside diameter (in.):	Well casing inside dia	meter (in.):
New water well casing?	Used casing source:	
Drilling method:	Drill material:	

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

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: a. Pit 1: Federal Caliche Pit, Section 2-T24S-R29E b. Pit 2: State Caliche Pit, Section 22-T25S-R28E **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 Disposal location ownership: COMMERCIAL FACILITY Disposal type description:

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

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

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

Safe containmant attachment:

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

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

Disposal type description:

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

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

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

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

Disposal type description:

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

Waste type: 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 Disposal location ownership: COMMERCIAL FACILITY Disposal type description:

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

Reserve Pit

 Reserve Pit being used? NO

 Temporary disposal of produced water into reserve pit?

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

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

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

 Reserve pit liner

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

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 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:

Roadhouse_Fed_2H_Well_20180227053145.pdf

Roadhouse_Fed_2H_Topo_20180227053153.pdf

Comments: This location is already built as was originally permitted as a New Mexico State land well. XTO Energy, Inc. built the location as permitted under State conditions. The decision was later made to extend the lateral into a 40-acre Federal mineral tract so as to not strand Federal acreage. Original New Mexico State permits for all wells on the pad are attached as issued by the NMOCD.

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: STEAKHOUSE

Multiple Well Pad Number: 2

Recontouring attachment:

Roadhouse_Fed_2H_Int_Rec_20171102063130.pdf

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

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

Well pad proposed disturbance (acres): 6.24	Well pad interim reclamation (acres): 0.063	Well pad long term disturbance (acres): 6.177
Road proposed disturbance (acres): 0.208	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0.208
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres):	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance
(acres): 0 Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	(acres): 0 Other long term disturbance (acres): 0
Total proposed disturbance: 6.448	Total interim reclamation: 0.063	Total long term disturbance: 6.385

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

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

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

Existing Vegetation at the well pad: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Well Name: ROADHOUSE FEDERAL

Well Number: 2H

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

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:
Sood Summary	Total pounds/Acre:

Seed Summary

Operator Name: XTO ENERGY INCORPORATED Well Name: ROADHOUSE FEDERAL

Well Number: 2H

Seed Type Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jeff	Last Name: Raines
Phone: (432)620-4349	Email: jeffrey_raines@xtoenergy.com

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

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

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

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

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

Success standards: 100% compliance with applicable regulations.

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

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

Operator Name: XTO ENERGY INCORPORATED Well Name: ROADHOUSE FEDERAL

Well Number: 2H

COE Local Office:	
DOD Local Office:	
NPS Local Office:	
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? YES

Use APD as ROW? YES

ROW Type(s): 281001 ROW - ROADS,289001 ROW- O&G Well Pad

ROW Applications

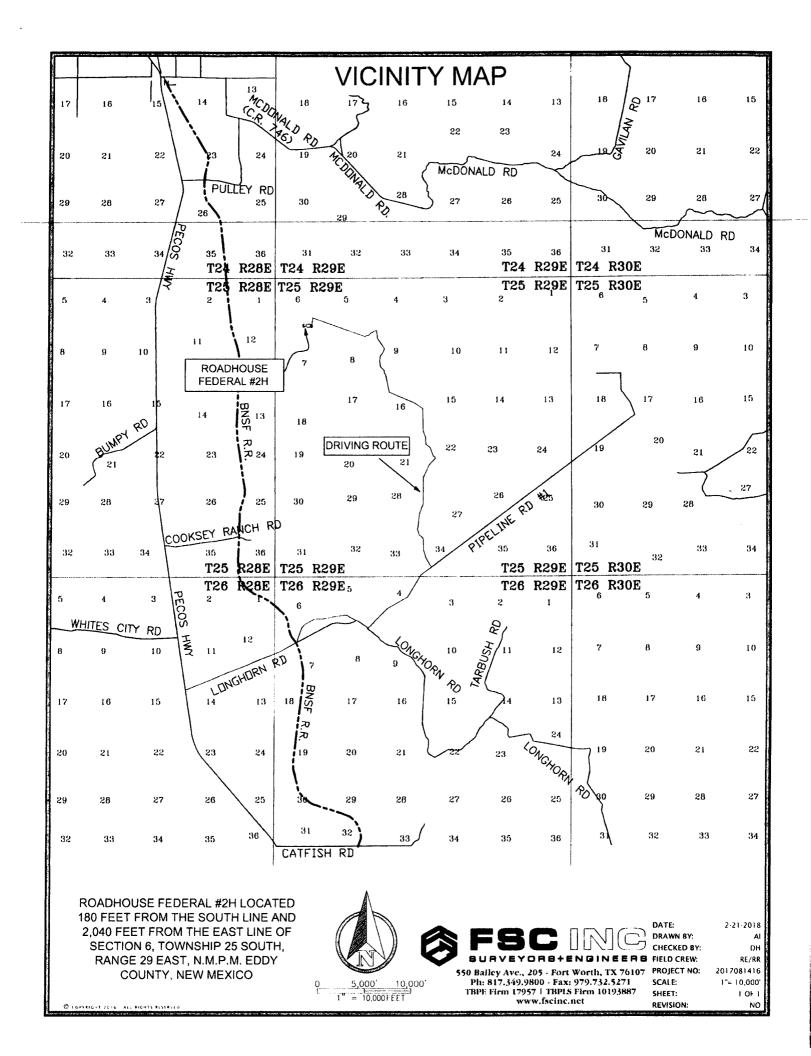
SUPO Additional Information: See Attached. NMOCD permit was issued when well was a 1-mile lateral. XTO decided to extend lateral to a 1.5 mile lateral to prevent stranding acreage. Federal minerals are associated only with the 'toe' of the well or the last 40-acre tract. This location is already built as was originally permitted as a New Mexico State land well. XTO Energy, Inc. built the location as permitted under State conditions. The decision was later made to extend the lateral into a 40-acre Federal mineral tract so as to not strand Federal acreage. Original New Mexico State permits for all wells on the pad are attached as issued by the NMOCD

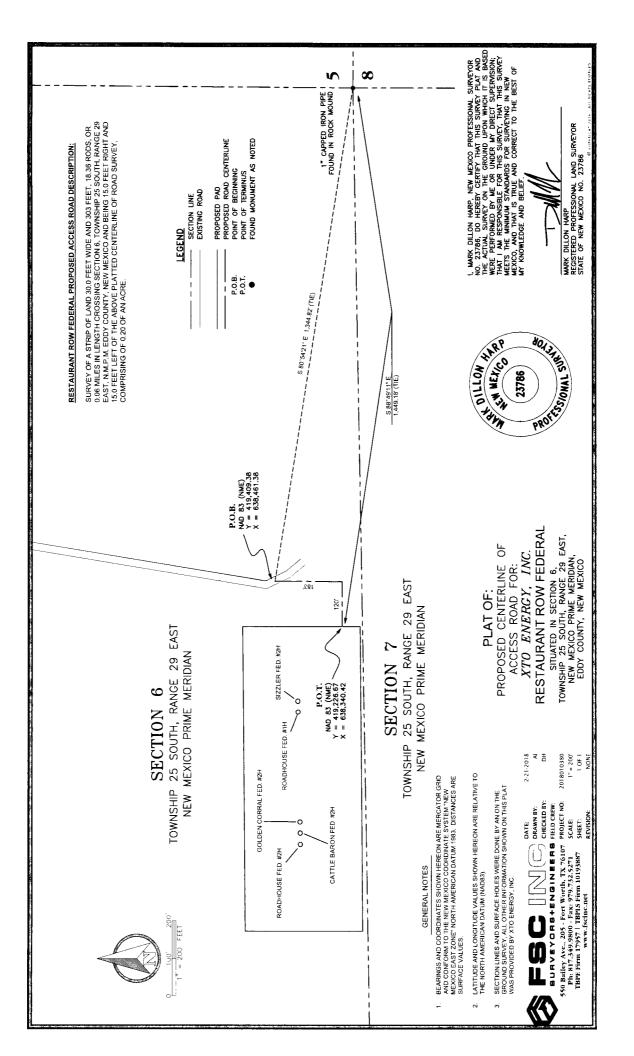
Use a previously conducted onsite? NO

Previous Onsite information:

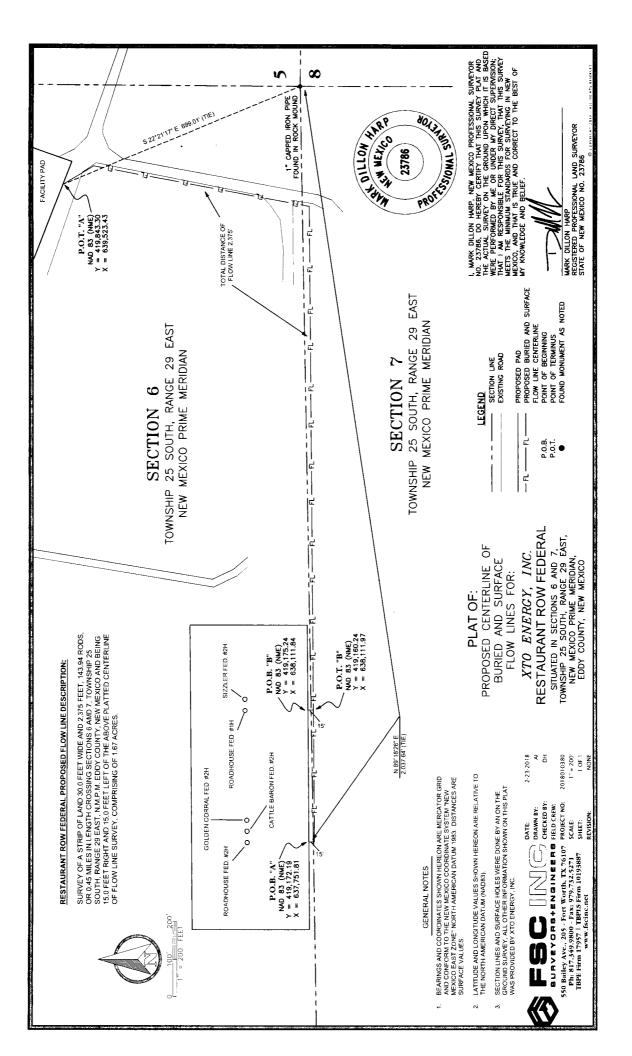
Other SUPO Attachment

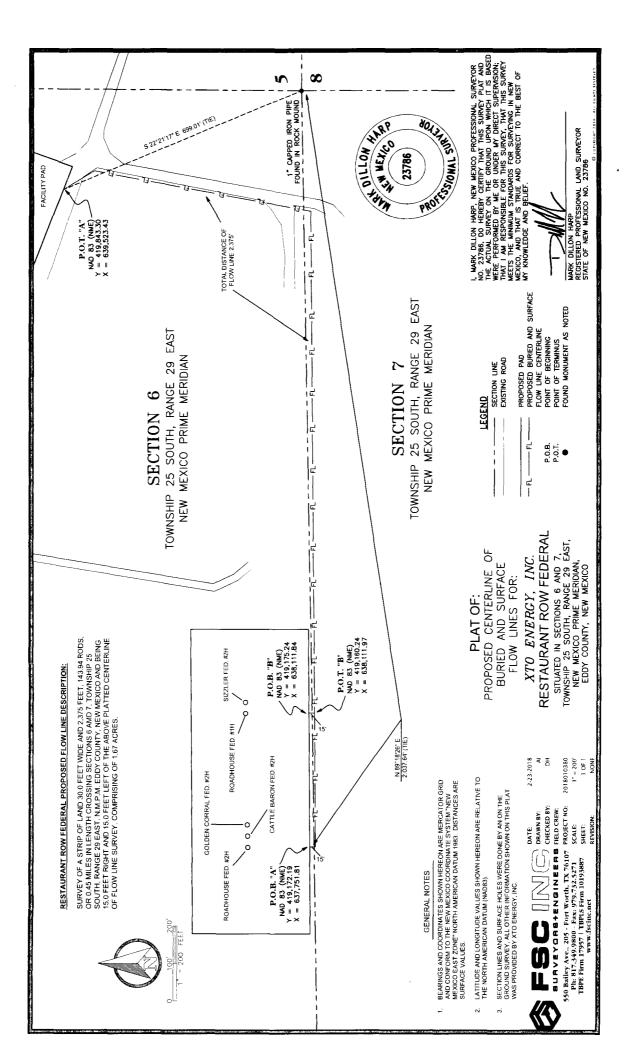
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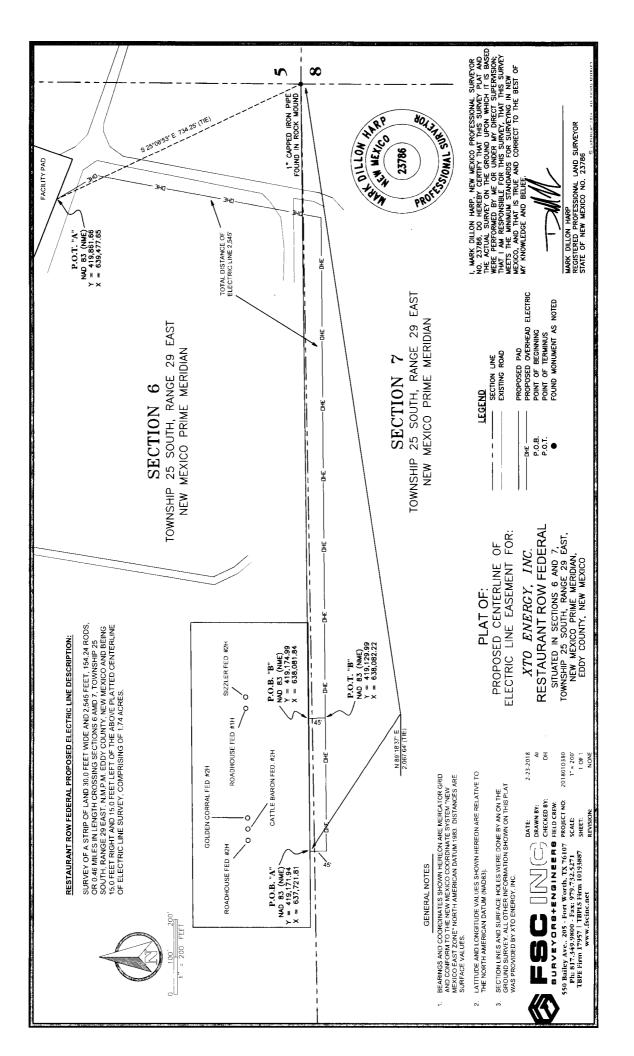


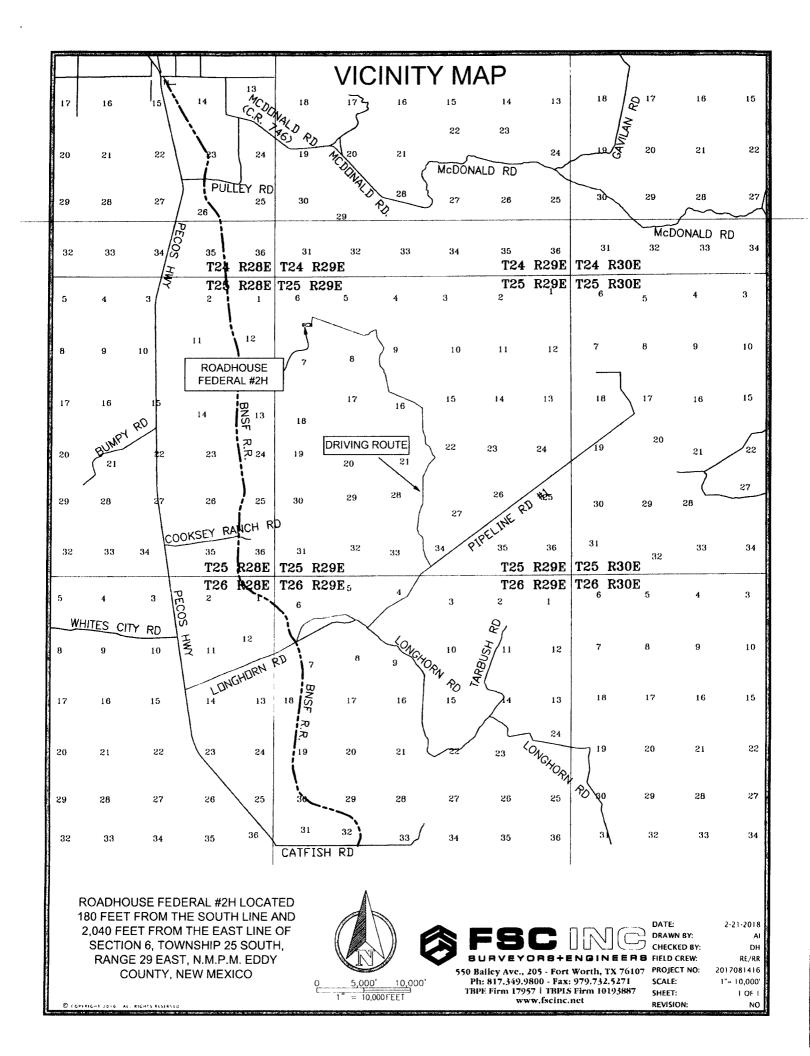
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CHIMAYO 18 SAILE 3 CHIMAYO 18 STATE 2 X BIOCETT DOAM 1			MUDA I
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AVO SLIDER '8'FEOERAL 4H = COOTER 16' STATE 3H		RAVERBEND 12 FEDERAL 2H RAVERBEND 12 FEDERAL 2H RAVERBEND 12 FEDERAL 2H	(STATE (RIVERDEND 11 FEDERAL 21 • RIVERDEND 11 FEDERAL 21 • RIVERDEND 11 FEDERAL 21 • RIVERDEND 11 FEDERAL 21
SUDER BFEDERAL 3H	SUDER	265 28	25S 20E
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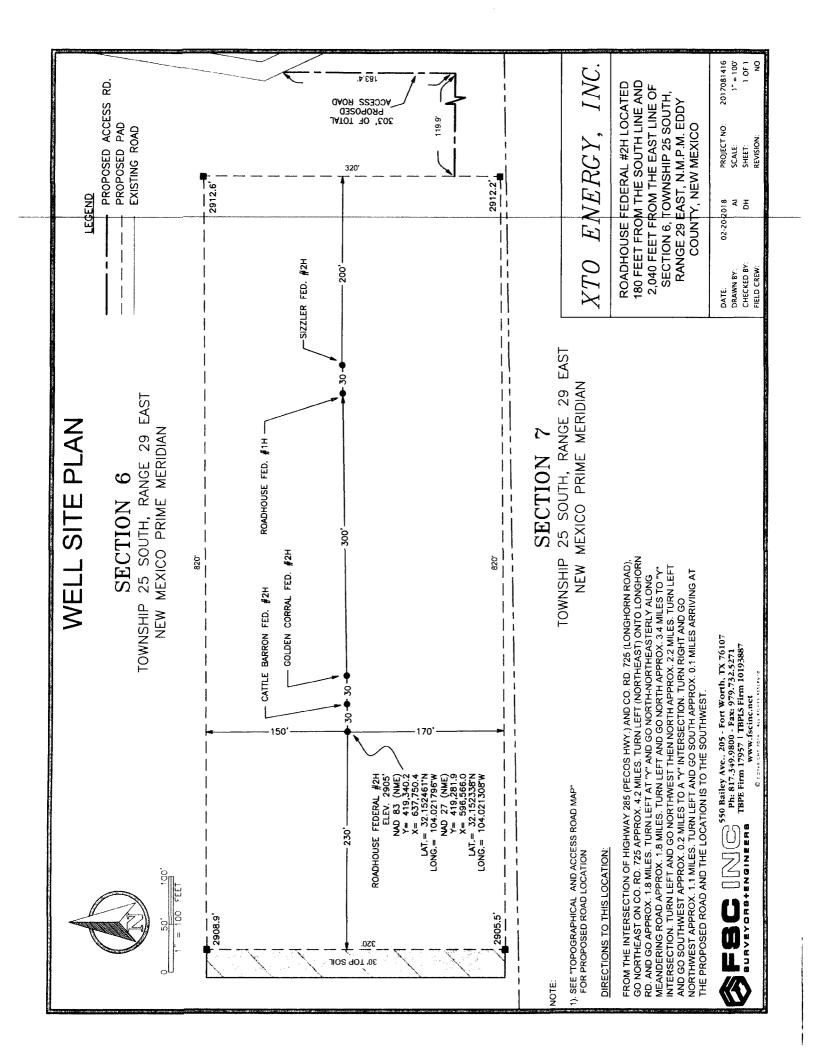


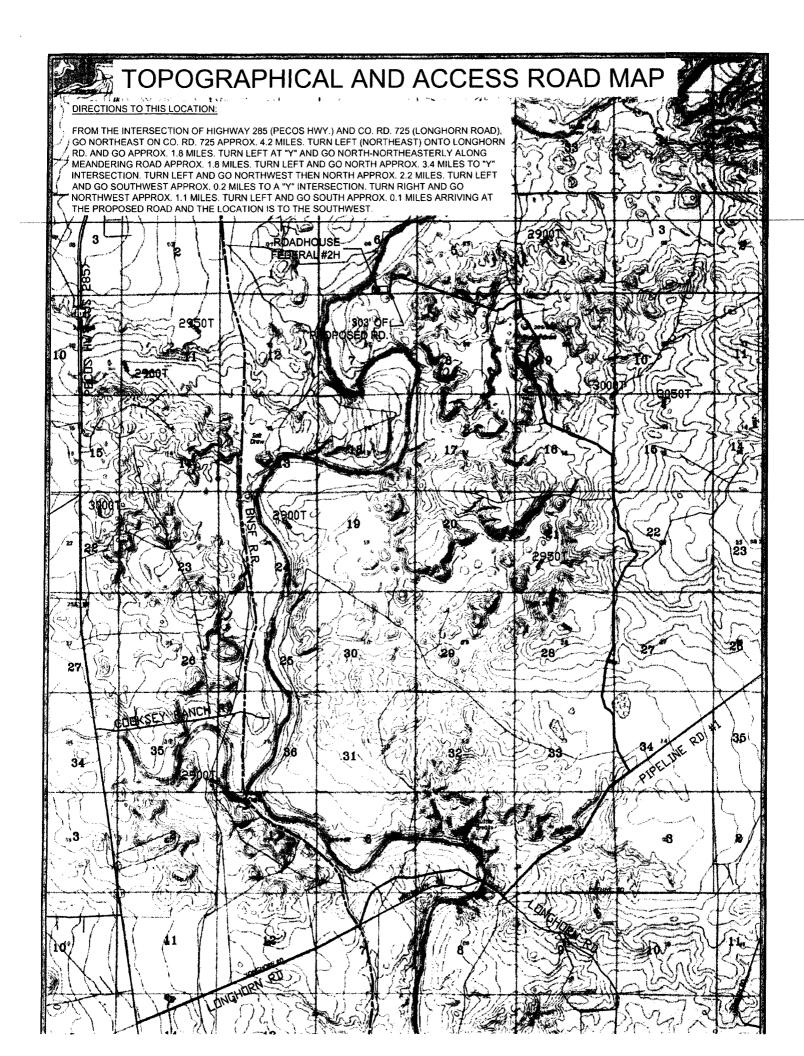


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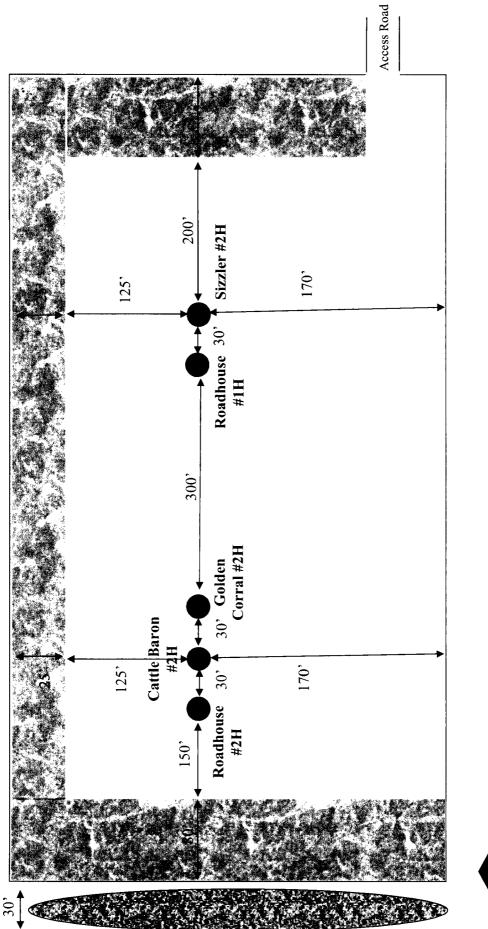






Roadhouse Federal #2H, Cattle baron Federal #2H, Golden Corral Federal #2H, Roadhouse Interim Reclamation Diagram





Ditch & Berm LEGEND Topsoil Interim Reclamation Wellbore кŦ. Z

Date

6/22/2017

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

Form C-101 August 1, 2011

Permit 238086

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

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Conditions of Approval Attached

Phone: 303-397-3676

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

 811 S. First St., Artesia, NM 88210

 Phone:(575) 748-1283 Fax:(575) 748-9720

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

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

Permit 238086

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 2. Pool C						3. Pool Name				
30-015-44279 9822			98220			PURPLE SAGE; WOLFCAMP (GAS)				
4. Property Code 5. Property Name						6. Well No.				
			ROADHOUSE S	TATE		002H				
7. OGRID No. 8, Operator Name						9. Elevation				
5380 XTO			XTO ENERGY, INC			2905				
					10.	Surface Locatio	n			
UL - Lot	Section	Township		Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
0	6	25	5S	29E		180	S	2040	E	Eddy
				11. E	Bottom Hole L	ocation If Differe	nt From Surface			
UL - Lot	Section	Township		Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
В	6	25	s	29E	2	20	D N	1680	E	Eddy
12. Dedicated Acres 13. Joint			13. Joint or Infill		14. Consolida	tion Code		15. Order No.		
320.00										
	BLE WILL BE ASS	SIGNED TO TH	IS COMI				OPERATOR	CERTIFICATION		
	BLE WILL BE ASS	SIGNED TO TH	IS COMI	l hereby organiza a right to	certify that the i bition either owns o drill this well at ent or a compulsi	nformation containe a working interest this location pursu	OPERATOR d herein is true and cor or unleased mineral int ant to a contract with ai retofore entered by the	CERTIFICATION nplete to the best of my l erest in the land including n owner of such a minera	knowledge and belie g the proposed botto	OVED BY THE DIVISIO f, and that this m hole location(s) or has , or to a voluntary pooling
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Form APD Comments

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

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

District III

1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 District IV 1220 S. St Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3470 Fax: (505) 476-3462

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

PERMIT COMMENTS

Operator Name and Address:	API Number:
XTO ENERGY, INC [5380]	30-015-44279
9193 S. Jamaica St.	Well:
Englewood, CO 80155	ROADHOUSE STATE #002H
Englewood, CO 80155	ROADHOUSE STATE #002H
Created By Comment	Comment Da

srabadue Unable to attach C-102; file size too large. C-102 was sent via email to Karen Sharp and Raymond Podany at NMOCD District 2 Artesia office. 6/22/2017

Permit 238086

Permit 238086

 District I

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 Phone: (575) 393-6161 Fax: (575) 393-0720

 District II

 811 S. First St., Artesia, NM 88210

 Phone: (575) 748-1283 Fax: (575) 748-9720

 District II

 1000 Rio Brazos Rd., Aztec, NM 87410

 Phone: (505) 334-6178 Fax: (505) 334-6170

 District IV

 1220 S. St Francis Dr., Santa Fe, NM 87505

 Phone: (505) 476-3470 Fax: (505) 476-3462

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

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
XTO ENERGY, INC [5380]	30-015-44279
9193 S. Jamaica St.	Well:
Englewood, CO 80155	ROADHOUSE STATE #002H
	·

OCD Reviewer

Condition

SURFACE USE PLAN

XTO Energy, Inc. Roadhouse Federal 2H Eddy County, NM

This plan is submitted with form 3160-3, Application for Permit to Drill, covering the above described wells. The purpose of this plan is to describe the location of the proposed wells, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

This location is already built as was originally permitted as a New Mexico State land well. XTO Energy, Inc. built the location as permitted under State conditions. The decision was later made to extend the lateral into a 40-acre Federal mineral tract so as to not strand Federal acreage. Original New Mexico State permits for all wells on the pad are attached as issued by the NMOCD.

1. EXISTING ROADS:

- a. DIRECTIONS: From the intersection of Hwy 285 (Pecos Hwy) and Co. Rd 725 (Longhorn Rd), go Northeast on Co. Rd. 725 approximately 4.2 miles passed the Pecos River and go to a "Y" intersection. Turn left and go Northeast approximately 1.8 miles. Turn left and go North approximately 3.4 miles to "Y" intersection. Turn left and go Southwest approximately 0.2 miles to "Y" intersection. Turn right and go Northwest approximately 0.9 miles. Turn left and go South approximately 550' to begin road survey, follow staked road 183' South, then 119' West to the Southeast corner of this location pad.
- b. See attached plats and maps provided by John West Surveying Company.
- c. The access route from Co. Road 725 (Longhorn Rd) to the well location is depicted on the Topographic & Access Road map provided by John West Surveying Company . The route highlighted in red will be the access and ROW is applied for with this well.

2. NEW OR RECONSTRUCTED ACCESS ROADS:

- a. Approximately 303' of new road will be needed for this location. This location is already built as the associated wells were originally permitted as a New Mexico State wells. XTO Energy, Inc. built the location as permitted under State conditions. The decision was later made to extend the lateral into a 40-acre Federal mineral tract so as to not strand Federal acreage. Original New Mexico State permits for all wells on the pad are attached as issued by the NMOCD. Below regards any upgrading of the existing caliche road system to the proposed well location.
- b. The maximum width of the driving surface will be 14 feet. The road 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

- c. Surface material will be native caliche. The average grade of the entire road will be approximately 3%.
- d. Fence Cuts: No.
- e. Cattle Guards: No
- f. Turnouts: No
- g. Culverts: No
- h. Cuts and Fills: Not significant
- i. 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.
- j. 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.
- k. 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:

See attached map showing all wells within a one-mile radius.

- 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:
 - a. Production facilities are located in Section 6-T25S-R29E and are already built as a state land facility. No additional surface disturbance is associated with this facility.
 - b. The facility location did not require an onsite at the time of permitting as it was originally staked and permitted as a state facility. No new surface disturbance is associated with this facility.
 - c. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted to BLM specifications.
 - d. 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.
 - e. Flowlines: 5 surface flowlines will be necessary for the wells located on the pad. All surface flowlines will be 4" or less made of flexpipe or steel with a maximum operating pressure of 125psi and a safety rating of 750psi for full-stream (transporting: oil, gas,

water). An additional 5 HP (Operating: 725psi, Max: 1250psi) flowlines will be buried a min. of 36" within the existing road corridors for gas lift purposes (transporting: gas). The total approximate distance of each surface and buried flowline is as follows:

- i. Cattle Baron Federal 2H: 2375'
- ii. Roadhouse Federal 1H: 2375'
- iii. Roadhouse Federal 2H: 2375'
- iv. Golden Corral Federal 2H: 2375'
- v. Sizzler Federal 2H: 2375'
- f. Electrical: All electrical poles and lines will be placed within existing and proposed lease roads corridors. Approximately 2545' of12,740 volt electrical will be run from the anticipated tie-in point from an existing well pad going cross-country then joining with proposed road corridors with a request for 30' ROW construction and maintenance buffer; 15' on either side of the electrical centerline. This distance is a maximum approximation and may vary based on the lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.
- g. Gas Sales Line: The Goldenchild Tank Battery is already connected to a gas sales line. No additional disturbance is necessary for gas sales purposes.
- 5. LOCATION AND TYPE OF WATER SUPPLY:

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 6 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.

Water for drilling, completion and dust control will be supplied by Rockhouse Water for sale to XTO Energy, Inc. from Section 5-T26S-R30E, Eddy County, New Mexico. In the event that the well does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Rockhouse Water with the location of the well being in Section 5-T26S-R30E, 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 asneeded 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.

6. SOURCE OF CONSTRUCTION MATERIALS:

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:

- a. Pit 1: Federal Caliche Pit, Section 2-T24S-R29E
- b. Pit 2: State Caliche Pit, Section 22-T25S-R28E
- 7. METHODS OF HANDLING WASTE DISPOSAL:
 - a. 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 an NMOCD approved disposal site.
 - b. Drilling fluids will be contained in steel mud pits.
 - c. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
 - d. Oil produced during operations will be stored in tanks until sold.
 - e. Portable, self-contained chemical toilets will be provided for human waste disposal. Upon completion of operations, 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 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.
 - f. All trash, junk, and other waste materials will be contained in trash cages or bins 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.
 - g. Hazardous Materials.
 - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
 - ii. XTO Energy, Incorporated and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERLCA includes any 'hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any

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

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

8. ANCILLARY FACILITIES:

No campsite, airstrip or other facilities will be built as a result of the operation of this well. No staging areas are needed.

9. WELL SITE LAYOUT:

- a. The included plat by John West Surveying shows the dimensions of the existing 5-well pad that is 820'x320'.
- b. This location is already built as was originally permitted as a New Mexico State land well. XTO Energy, Inc. built the location as permitted under State conditions. The decision was later made to extend the lateral into a 40-acre Federal mineral tract so as to not strand Federal acreage.
- c. Original New Mexico State permits for all wells on the pad are attached as issued by the NMOCD.
- d. Wells Associated with this SUPO/Well Pad:
 - i. Cattle Baron Federal 2H
 - ii. Roadhouse Federal 1H
 - iii. Roadhouse Federal 2H
 - iv. Sizzler Federal 2H
 - v. Golden Corral 2H
- e. There will be no reserve pit due to the well being drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
- f. All 5 wells on the pad have a V-Door orientation of East.
- g. A 600' x 600' area has been staked and flagged.
- h. 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:

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.

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

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

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

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

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

Seeding:

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

11. SURFACE OWNERSHIP:

a. The surface is owned by the New Mexico State Land Office (NMSLO). The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.

12. OTHER INFORMATION:

- a. Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.
- b. There is permanent or live water in the immediate area lying approximately .5 miles to the North/Northwest and West (Pecos River).
- c. There are no dwellings within 2 miles of this location.
- d. A Class III Cultural Resources Examination has been completed by Boone Archaeological Services and the results will be forwarded to the BLM office.
- 13. BOND COVERAGE:
 - a. Bond Coverage is Nationwide; Bond Number UTB000138.

OPERATORS RESPRESENTATIVE:

The XTO Energy, Inc. representatives for ensuring compliance of the surface use plan are listed below: Surface:

. Jeff Raines XTO Energy, Inc 500 W. Illinois St, Suite 100 Midland, TX 79701 432-620-4349 (Office)





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: Lined pit PWD on or off channel: Lined pit PWD discharge volume (bbl/day): Lined pit specifications: Pit liner description: Pit liner manufacturers information: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Lined pit precipitated solids disposal schedule: Lined pit precipitated solids disposal schedule attachment: Lined pit reclamation description: Lined pit reclamation attachment: Leak detection system description: Leak detection system attachment: Lined pit Monitor description: Lined pit Monitor attachment: Lined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Lined pit bond number: Lined pit bond amount: Additional bond information attachment:

PWD disturbance (acres):

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

PWD disturbance (acres):

PWD disturbance (acres):

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:

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: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: Other PWD discharge volume (bbl/day): Other PWD type description: Other PWD type attachment: Have other regulatory requirements been met? Other regulatory requirements attachment:

PWD disturbance (acres):

Injection well name: Injection well API number:

ÂFMSS

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

Bond Information

Federal/Indian APD: FED

BLM Bond number: UTB000138

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Bond Info Data Report

03/22/2018

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:

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