Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

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



District 1
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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

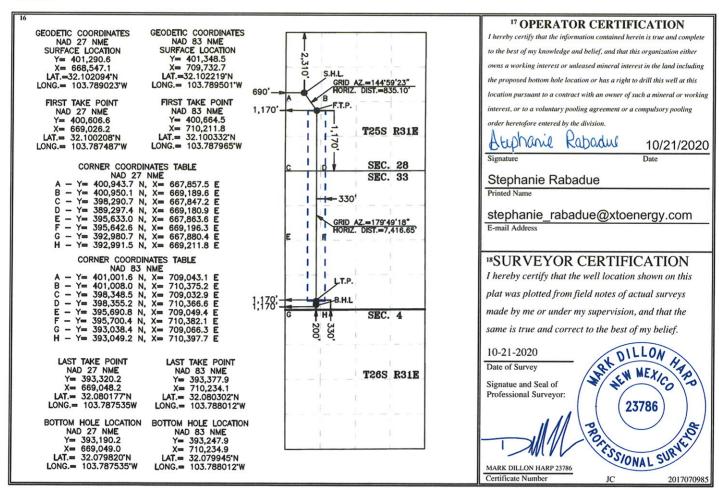
¹ API Numbe	er	2	Pool Code	³ Pool Name	
30-015-		98220		Purple Sage; Wolfcamp (Gas)	
⁴ Property Code			⁵ Pr	operty Name	⁶ Well Number
			POKER L	AKE UNIT 28 BS	122H
7 OGRID No.			8 Op	perator Name	⁹ Elevation
373075			XTO PERMIA	N OPERATING, LLC.	3,329'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	28	25 S	31 E		2,310	NORTH	690	WEST	EDDY
			11 Bot	ttom Hol	e Location If	Different From	n Surface		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	33	25 S	31 E		200	SOUTH	1,170	WEST	EDDY
12 Dedicated Acres	s 13 Joint or	r Infill 14 C	onsolidation (Code 15 Or	der No.				

12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



Intent	t	As Dril	ed											
API#														
Ope	rator Nar	me:				Pro	perty N	lame:						Well Number
Kick C	Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	ıde				Longitu	ide							NAD	
	Take Poin				T		ı						Г	
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	ıde				Longitu	ide							NAD	
Last T	ake Poin	+ (I TP)												
UL	Section	Township	Range	Lot	Feet	Fro	m N/S	Feet		From	E/W	Count	y	
Latitu	ıde				Longitu	ıde						NAD		
Is this	well the	defining w	vell for th	e Hori	zontal S _l	oacin	g Unit?							
Is this	well an i	infill well?												
If infil	l is ves n	lease nrovi	de API if	availal	ale One	rator	Name	and w	ıell nı	umhei	for I	Definir	ng well fo	r Horizontal
	ng Unit.	icase provi	GC / II I II	avandi	ne, ope	ator	Nume	ana v		ambe	101 1	JC111111	ib Well 10	
API#														
Ope	rator Nar	me:	ı			Pro	perty N	lame:						Well Number

KZ 06/29/2018

Additional Operator Remarks

Location of Well

 $0. \, SHL: \, SWNW \, / \, 2310 \, FNL \, / \, 690 \, FWL \, / \, TWSP: \, 25S \, / \, RANGE: \, 31E \, / \, SECTION: \, 28 \, / \, LAT: \, 32.102219 \, / \, LONG: \, -103.789501 \, (TVD: \, 7900 \, feet, \, MD: \, 7900 \, feet \,)$ $PPP: \, NWSW \, / \, 1170 \, FSL \, / \, 1170 \, FWL \, / \, TWSP: \, 25S \, / \, RANGE: \, 31E \, / \, SECTION: \, 28 \, / \, LAT: \, 32.100332 \, / \, LONG: \, -103.787965 \, (TVD: \, 11733 \, feet, \, MD: \, 12100 \, feet \,)$ $BHL: \, SWSW \, / \, 200 \, FSL \, / \, 1170 \, FWL \, / \, TWSP: \, 25S \, / \, RANGE: \, 31E \, / \, SECTION: \, 33 \, / \, LAT: \, 32.079945 \, / \, LONG: \, -103.788012 \, (TVD: \, 11699 \, feet, \, MD: \, 19503 \, feet \,)$

BLM Point of Contact

Name: Priscilla Perez

Title: Legal Instruments Examiner

Phone: (575) 234-5934 Email: pperez@blm.gov

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | XTO Permian Operating, LLC

LEASE NO.: | **NMLC-062140**

WELL NAME & NO.: Poker Lake Unit 28 BS 122H SURFACE HOLE FOOTAGE: 2310' FNL & 0690' FWL

BOTTOM HOLE FOOTAGE | 0200' FSL & 1170' FWL Sec. 33, T.25 S., R.31 E.

LOCATION: | Section 28, T.25 S., R.31 E., NMPM

COUNTY: | **Eddy County, New Mexico**

COA

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

Medium Cave/Karst

Possibility of water flows in the Salado and Castile.

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

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

A. HYDROGEN SULFIDE

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

B. CASING

- 1. The **11-3/4** inch surface casing shall be set at approximately **1220** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

- 2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

- 1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000** (**5M**) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

BOP Break Testing Variance

- Shelll testing is not approved for any portion of the hole with a MASP of 5000 psi or greater.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOP Break Testing operations.
- A full BOP test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOP test will be required.

D. SPECIAL REQUIREMENT (S)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

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

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - ☑ Eddy CountyCall the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

Page 5 of 8

Approval Date: 12/09/2020

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 4. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 5. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- d. The results of the test shall be reported to the appropriate BLM office.
- e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JAM 12072020



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

Drilling Plan Data Report

12/09/2020

APD ID: 10400064188

Submission Date: 10/23/2020

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Number: 122H

Show Final Text

Well Name: POKER LAKE UNIT 28 BS
Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1097142	QUATERNARY	3329	Ö	Ö	ALLUVIUM	USEABLE WATER	N
1097143	RUSTLER	2503	826	826	SANDSTONE	USEABLE WATER	N
1097144	TOP SALT	2132	1197	1197	SALT	NONE	N
1097145	BASE OF SALT	-832	4161	4161	SALT	NONE	N
1097146	DELAWARE	-833	4162	4162	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, USEABLE WATER	Y
1097147	BONE SPRING	-4754	8083	8083	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, USEABLE WATER	Y
1097148	WOLFCAMP	-8112	11441	11441	LIMESTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL, USEABLE WATER	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 11733

Equipment: Once the permanent WH is installed on the 11-3/4" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8 minimum 5M Hydril and a 13-5/8 minimum 5M 3-Ram BOP. MASP should not exceed 4652 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M). Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 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. A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to ONLY retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad (First well will be the deepest Intermediate) 2. When skidding to drill an intermediate section does not penetrate into the Wolfcamp 3. Full BOP test will be required prior to drilling the production hole. Permanent Wellhead – Multibowl System A. Starting Head: 13-5/8" 10M top flange x 11-3/4" SOW bottom B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange · Wellhead will be installed by manufacturer's representatives. · Manufacturer will monitor welding process to ensure appropriate temperature of seal. · Operator will test the 7-5/8" casing per BLM Onshore Order 2 · Wellhead Manufacturer representative will not be present for BOP test plug installation

Well Name: POKER LAKE UNIT 28 BS Well Number: 122H

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 70% of the working pressure. When nippling up on the 11-3/4", 5M bradenhead and flange, the BOP test will be limited to 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

PLU_28_BS_5MBOP_20201023083040.pdf

BOP Diagram Attachment:

PLU_28_BS_5MCM_20201023083046.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	14.7 5	11.75	NEW	API	N	0	1220	0	1220	-4571	-5791	1220	J-55	47	BUTT	2.38	1.17	DRY	8.32	DRY	8.32
2		10.6 25	8.625	NEW	API	N	0	10600	0	10600	3329	- 15171	10600	HCL -80	32	BUTT	1.43	1.09	DRY	2.16	DRY	2.16
3	PRODUCTI ON	7.87 5	5.5	NEW	API	N	0	19503	0	11699	3329	- 16270	19503	P- 110	20	BUTT	1.47	1.18	DRY	2.27	DRY	2.27

Casing Attachments

Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_28_BS_122H_Csg_20201023104256.pdf

Well Name: POKER LAKE UNIT 28 BS Well Number: 122H

Casing Attachments

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_28_BS_122H_Csg_20201023104227.pdf

Casing ID: 3

String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_28_BS_122H_Csg_20201023104244.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1220	610	1.88	12.8	7808	100	Halc-C	2% CaCL

INTERMEDIATE	Lead	1270	0	1270	80	1.35	14.8	108	100	Halcem-C	2% CaCl

INTERMEDIATE	Lead	1270	1270	1060	1840	1.88	12.8	3459.	100	Halcem-C	2% CaCl
				0				2			

Well Name: POKER LAKE UNIT 28 BS Well Number: 122H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
INTERMEDIATE	Tail		1270	1060 0	310	1.33	14.8	19.68	100	Halcem-C	2% CaCl
PRODUCTION	Lead		1030 0	1950 3	2180	1.88	11.5	4098. 4	100	Halcem-C	2% CaCl
PRODUCTION	Tail		1030 0	1950 3	2180	1.35	13.2	2943	100	Versacem	None

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: Spud with fresh water/native mud and set 11-3/4" surface casing, isolating the fresh water aquifer. Drill out from under 11-3/4 surface casing with a brine/oil direct emulsion mud system. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. 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.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1220	SPUD MUD	8.4	8.8							
1220	1060 0	OTHER : Brine / Cut Brine / Direct Emulsion	8.4	9.7							
1060 0	1169 9	OTHER : Cut Brine / WBM / OBM	10.8	11.8							

Well Name: POKER LAKE UNIT 28 BS Well Number: 122H

Section 6 - Test, Logging, Coring

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

Mud Logger: Mud Logging Unit (2 man) below intermediate casing. Open hole logging will not be done on this well.

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

CEMENT BOND LOG, DIRECTIONAL SURVEY,

Coring operation description for the well:

No Coring Operations for Well

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6570 Anticipated Surface Pressure: 3988

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

PLU_28_BS_H2S_Dia_P1_20201023083411.pdf PLU_28_BS_H2S_Plan_20201023083416.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

PLU_28_BS_122H_DD_20201023104441.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

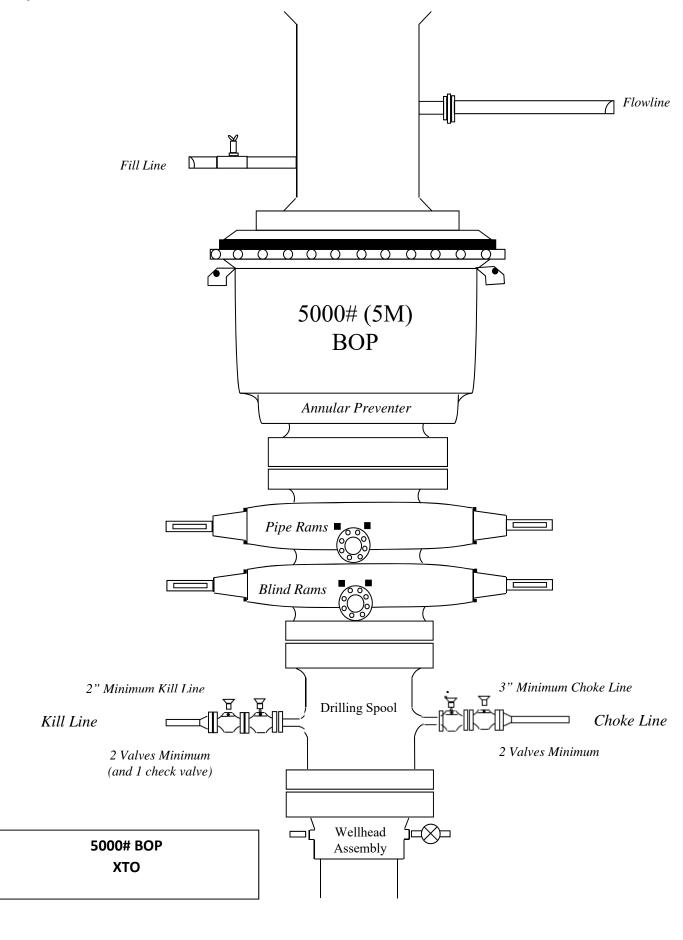
PLU_28_BS_BOP_BTV_20201023083537.pdf

PLU 28 BS FH 20201023091054.pdf

PLU_28_BS_MBD_20201023083545.PDF

PLU 28 BS OCV 20201023083553.pdf

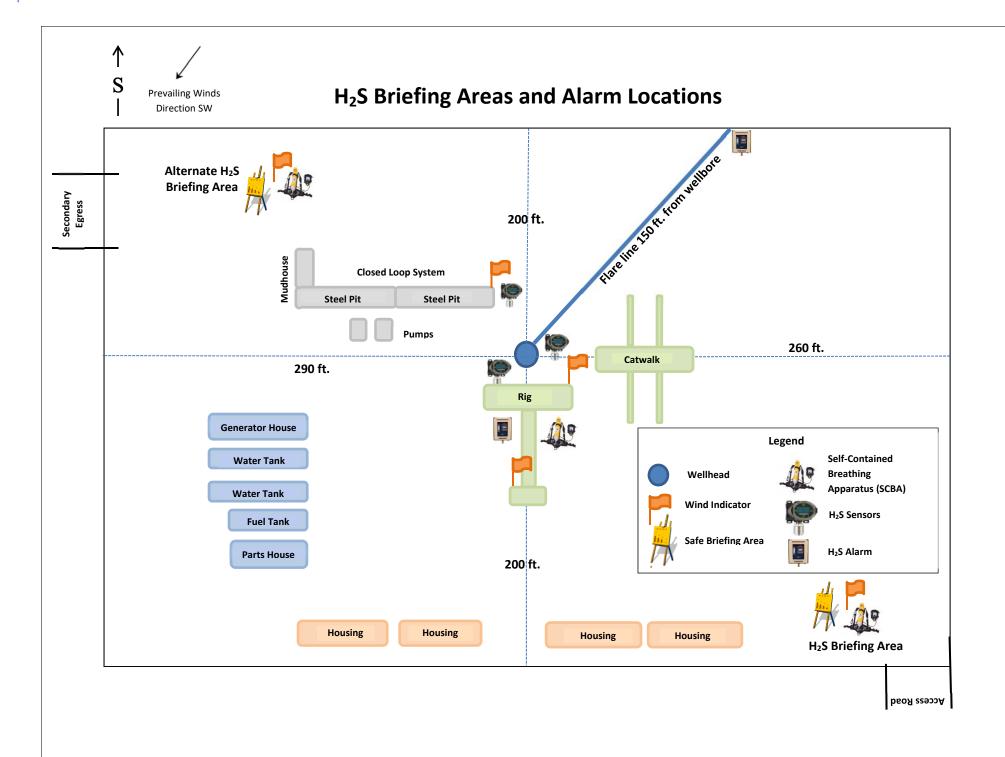
PLU_28_BS_Spudder_20201023083559.pdf



Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' - 1220'	11-3/4"	47	BTC	J-55	New	1.17	2.38	8.32
10-5/8"	0' - 10600'	8-5/8"	32	BTC	HCL-80	New	1.09	1.43	2.16
7-7/8"	0' – 19503'	5-1/2"	20	BTC	P-110	New	1.18	1.47	2.27
	to not utilize cer se analyzed usi			d lateral sed on regional e	sperience.				

sing	g Design									
	Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
-	14-3/4"	0' - 1220'	11-3/4"	47	BTC	J-55	New	1.17	2.38	8.32
-	10-5/8"	0' - 10600'	8-5/8"	32	BTC	HCL-80	New	1.09	1.43	2.16
	7-7/8"	0' – 19503'	5-1/2"	20	BTC	P-110	New	1.18	1.47	2.27
	•	to not utilize cer			d lateral sed on regional e	merience				
-	•					ral weight multiplie	d by a fric	tion fa	ctor of 0.2	35
	· Test on Casin	g will be limited t	o 70% burst	of the casin	g or 1500 psi, whic	chever is less				

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' - 1220'	11-3/4"	47	BTC	J-55	New	1.17	2.38	8.32
10-5/8"	0' - 10600'	8-5/8"	32	BTC	HCL-80	New	1.09	1.43	2.16
7-7/8"	0' – 19503'	5-1/2"	20	BTC	P-110	New	1.18	1.47	2.27
	to not utilize cer se analyzed usi			d lateral sed on regional e	sperience.				





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

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

<u>CARLSBAD OFFICE – EDDY & LEA COUNTIES</u>

3104 E. Greene St., Carlsbad, NM 88220 Carlsbad, NM	575-887-7329
XTO PERSONNEL: Kendall Decker, Drilling Manager Milton Turman, Drilling Superintendent Jeff Raines, Construction Foreman Toady Sanders, EH & S Manager Wes McSpadden, Production Foreman	903-521-6477 817-524-5107 432-557-3159 903-520-1601 575-441-1147
SHERIFF DEPARTMENTS: Eddy County Lea County	575-887-7551 575-396-3611
NEW MEXICO STATE POLICE:	575-392-5588
FIRE DEPARTMENTS: Carlsbad Eunice Hobbs Jal Lovington	911 575-885-2111 575-394-2111 575-397-9308 575-395-2221 575-396-2359
HOSPITALS: Carlsbad Medical Emergency Eunice Medical Emergency Hobbs Medical Emergency Jal Medical Emergency Lovington Medical Emergency	911 575-885-2111 575-394-2112 575-397-9308 575-395-2221 575-396-2359
AGENT NOTIFICATIONS: For Lea County: Bureau of Land Management – Hobbs New Mexico Oil Conservation Division – Hobbs	575-393-3612 575-393-6161
For Eddy County: Bureau of Land Management - Carlsbad New Mexico Oil Conservation Division - Artesia	575-234-5972 575-748-1283



XTO Energy

Eddy County, NM (NAD-27)
Poker Lake Unit 28 Big Sinks
#122H

OH

Plan: PERMIT-v2

Standard Planning Report

06 October, 2020

2200

Project: Eddy County, NM (NAD-27) Site: Poker Lake Unit 28 Big Sinks Well: #122H Wellbore: OH Design: PERMIT-v2

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

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

WELL DETAILS: #122H

Rig Name:
RKB = 30' @ 3359.00usft
Ground Level: 3329.00
Easting
668547.10 32. +N/-S 0.00 +E/-W 0.00 Northing 401290.70 Latittude 32.1020946 Longitude -103.7890233

DESIGN TARGET DETAILS

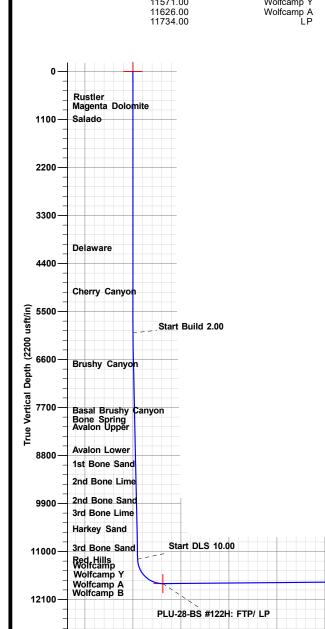
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude Shape
PLU-28-BS #122H: SHL (2310' FNL/ 690' FWL),	0.00	0.00	0.00	401290.70	668547.1Ŏ	32.1020946	-103.7890233 Point
PLU-28-BS #122H: PBHL (200' FSL/ 1170' FWL),	11669.28	-8100.50	501.90	393190.20	669049.00	32.0798199	-103.7875349 Point
PLU-28-BS #122H: LTP	11670.41	-7970.50	501.10	393320.20	669048.20	32.0801773	-103.7875354 Point
PLU-28-BS #122H: FTP/ LP	11734.00	-684.10	479.10	400606.60	669026.20	32.1002074	-103.7874873 Point

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.0ŏ	0.00	0.00
2	5990.00	0.00	0.00	5990.00	0.00	0.00	0.00	0.00	0.00
3	6239.88	5.00	103.92	6239.57	-2.62	10.57	2.00	103.92	2.65
4	11194.41	5.00	103.92	11175.26	-106.44	429.52	0.00	0.00	107.79
5	12087.24	90.50	179.82	11734.00	-684.10	479.10	10.00	75.91	685.60
6	19373.95	90.50	179.82	11670.41	-7970.50	501.50	0.00	0.00	7972.03
7	19503.96	90.50	179.82	11669.28	-8100.50	501.90	0.00	0.00	8102.04

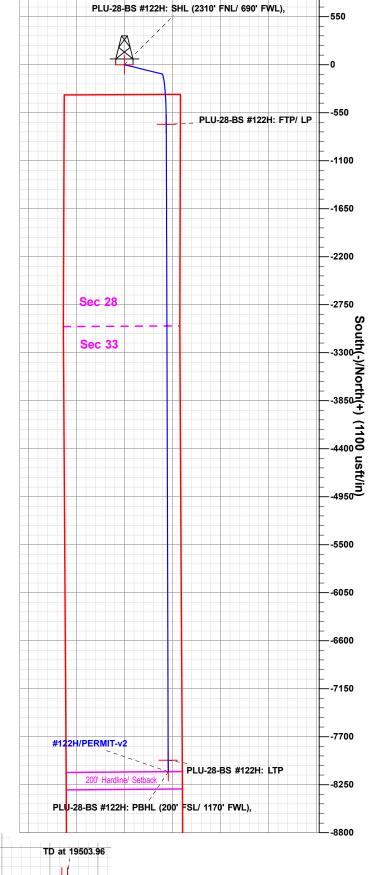
SECTION DETAILS

FORMATION TOP DETAILS

DPath	Formation
26.00	Rustler
99.00	Magenta Dolomite
97.00	Salado
62.00	Delaware
57.00	Cherry Canyon
14.00	Brushy Canyon
80.00	Basal Brushy Canyon
83.00	Bone Spring
34.00	Bone Spring Lime
53.00	Avalon Upper
82.00	Avalon Lower
92.00	1st Bone Lime
10.00	1st Bone Sand
11.00	2nd Bone Lime
39.00	2nd Bone Sand
26.00	3rd Bone Lime
90.00	Harkey Sand
36.00	3rd Bone Sand
73.00	Red Hills
41.00	Wolfcamp
76.00	Wolfcamp X
71.00	Wolfcamp Y
7 1.00	Wollcamp 1



2200



Plan: PERMIT-v2 (#122H/OH) Created By: Matthew May Date: 14:05, October 06 2020

PLU-28-BS/ #122H: LTP

PLU-28-B\$ #122H: PBHL (200' F\$L/ 1170' FWL),

6600

Vertical Section at 179.82° (2200 usft/in)

West(-)/East(+) (1100 usft/in)

550

District I

District IV

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

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

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

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Numbe	¹ API Number		² Pool Code ³ Pool Name			
30-015-						
⁴ Property Code		⁵ Pr	roperty Name	⁶ Well Number		
		POKER L	LAKE UNIT 28 BS	122H		
⁷ OGRID No.		8 O _l	perator Name	⁹ Elevation		
373075		XTO PERMIA	3,329'			

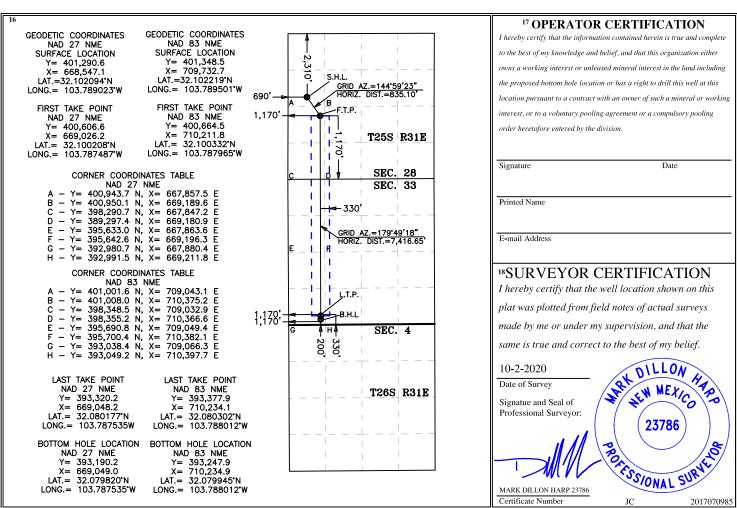
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	l
Е	28	25 S	31 E		2,310	NORTH	690	WEST	EDDY	

¹¹ Bottom Hole Location If Different From Surface

				ttom Ho	e Becauten n	Different Free	II Sulluce		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	33	25 S	31 E		200	SOUTH	1,170	WEST	EDDY
12 Dedicated Acres	s 13 Joint o	r Infill 14 C	Consolidation	Code 15 Or	der No.				

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.





Database: EDM 5000.1.13 Single User Db

Company: XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 28 Big Sinks

Well: #122H
Wellbore: OH
Design: PERMIT-v2

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft RKB = 30' @ 3359.00usft

Grid

Minimum Curvature

Project Eddy County, NM (NAD-27)

Map System: Geo Datum:

Map Zone:

US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum: Mean Sea Level

Site Poker Lake Unit 28 Big Sinks

Site Position: Northing: 401,295.70 usft Latitude: 32.1020896 From: Мар Easting: 669,897.10 usft Longitude: -103.7846636 **Position Uncertainty:** 0.00 usft Slot Radius: 13-3/16 " **Grid Convergence:** 0.29°

Well #122H

 Well Position
 +N/-S
 -5.00 usft
 Northing:
 401,290.70 usft
 Latitude:
 32.1020946

 +E/-W
 -1,350.00 usft
 Easting:
 668,547.10 usft
 Longitude:
 -103.7890233

Position Uncertainty 0.00 usft Wellhead Elevation: 0.00 usft Ground Level: 3,329.00 usft

Wellbore OH

 Magnetics
 Model Name
 Sample Date (°)
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2015
 10/04/20
 6.69
 59.87
 47,505

Design PERMIT-v2

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.00

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

 0.00
 0.00
 0.00
 179.82

Plan Section	s									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,990.00	0.00	0.00	5,990.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,239.88	5.00	103.92	6,239.57	-2.62	10.57	2.00	2.00	0.00	103.92	
11,194.41	5.00	103.92	11,175.26	-106.44	429.52	0.00	0.00	0.00	0.00	
12,087.24	90.50	179.82	11,734.00	-684.10	479.10	10.00	9.58	8.50	75.91	PLU-28-BS #122H:
19,373.95	90.50	179.82	11,670.41	-7,970.50	501.50	0.00	0.00	0.00	0.00	PLU-28-BS #122H:
19,503.96	90.50	179.82	11,669.28	-8,100.50	501.90	0.00	0.00	0.00	0.00	PLU-28-BS #122H:



Database: EDM 5000.1.13 Single User Db Company:

XTO Energy

Eddy County, NM (NAD-27) Project: Poker Lake Unit 28 Big Sinks Site:

#122H Well: Wellbore: ОН PERMIT-v2 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft

RKB = 30' @ 3359.00usft

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00 2,000.00 2,100.00 2,200.00 2,300.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	1,900.00 2,000.00 2,100.00 2,200.00 2,300.00	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
2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 2,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 2,900.00	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 0.00 0.00 0.00 0.00 0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Database: EDM 5000.1.13 Single User Db Company:

XTO Energy

Eddy County, NM (NAD-27) Project: Poker Lake Unit 28 Big Sinks Site:

#122H Well: ОН Wellbore: PERMIT-v2 Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft

RKB = 30' @ 3359.00usft

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,990.00	0.00	0.00	5,990.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.20	103.92	6,000.00	0.00	0.02	0.00	2.00	2.00	0.00
6,100.00	2.20	103.92	6,099.97	-0.51	2.05	0.51	2.00	2.00	0.00
6,200.00	4.20	103.92	6,199.81	-1.85	7.47	1.87	2.00	2.00	0.00
6,239.88	5.00	103.92	6,239.57	-2.62	10.57	2.65	2.00	2.00	0.00
6,300.00	5.00	103.92	6,299.45	-3.88	15.65	3.93	0.00	0.00	0.00
6,400.00	5.00	103.92	6,399.07	-5.97	24.11	6.05	0.00	0.00	0.00
6,500.00	5.00	103.92	6,498.69	-8.07	32.57	8.17	0.00	0.00	0.00
6,600.00	5.00	103.92	6,598.31	-10.17	41.02	10.29	0.00	0.00	0.00
6,700.00	5.00	103.92	6,697.93	-12.26	49.48	12.42	0.00	0.00	0.00
6,800.00	5.00	103.92	6,797.55	-14.36	57.93	14.54	0.00	0.00	0.00
6,900.00	5.00	103.92	6,897.17	-16.45	66.39	16.66	0.00	0.00	0.00
7,000.00	5.00	103.92	6,996.79	-18.55	74.85	18.78	0.00	0.00	0.00
7,100.00	5.00	103.92	7,096.41	-20.64	83.30	20.90	0.00	0.00	0.00
7,200.00	5.00	103.92	7,196.03	-22.74	91.76	23.03	0.00	0.00	0.00
7,300.00	5.00	103.92	7,295.65	-24.83	100.21	25.15	0.00	0.00	0.00
7,400.00	5.00	103.92	7,395.27	-26.93	108.67	27.27	0.00	0.00	0.00
7,500.00	5.00	103.92	7,494.89	-29.02	117.12	29.39	0.00	0.00	0.00
7,600.00	5.00	103.92	7,594.51	-31.12	125.58	31.51	0.00	0.00	0.00
7,700.00	5.00	103.92	7,694.13	-33.22	134.04	33.64	0.00	0.00	0.00
7,800.00	5.00	103.92	7,793.75	-35.31	142.49	35.76	0.00	0.00	0.00
7,900.00	5.00	103.92	7,893.37	-37.41	150.95	37.88	0.00	0.00	0.00
8,000.00	5.00	103.92	7,992.99	-39.50	159.40	40.00	0.00	0.00	0.00
8,100.00	5.00	103.92	8,092.61	-41.60	167.86	42.12	0.00	0.00	0.00
8,200.00	5.00	103.92	8,192.23	-43.69	176.31	44.25	0.00	0.00	0.00
8,300.00	5.00	103.92	8,291.85	-45.79	184.77	46.37	0.00	0.00	0.00
8,400.00	5.00	103.92	8,391.47	-47.88	193.23	48.49	0.00	0.00	0.00
8,500.00	5.00	103.92	8,491.09	-49.98	201.68	50.61	0.00	0.00	0.00
8,600.00	5.00	103.92	8,590.71	-52.07	210.14	52.73	0.00	0.00	0.00
8,700.00	5.00	103.92	8,690.33	-54.17	218.59	54.86	0.00	0.00	0.00
8,800.00	5.00	103.92	8,789.95	-56.27	227.05	56.98	0.00	0.00	0.00
8,900.00	5.00	103.92	8,889.57	-58.36	235.50	59.10	0.00	0.00	0.00
9,000.00	5.00	103.92	8,989.19	-60.46	243.96	61.22	0.00	0.00	0.00
9,100.00	5.00	103.92	9,088.81	-62.55	252.42	63.34	0.00	0.00	0.00
9,200.00	5.00	103.92	9,188.43	-64.65	260.87	65.47	0.00	0.00	0.00
9,300.00	5.00	103.92	9,288.05	-66.74	269.33	67.59	0.00	0.00	0.00
9,400.00	5.00	103.92	9,387.67	-68.84	277.78	69.71	0.00	0.00	0.00
9,500.00	5.00	103.92	9,487.29	-70.93	286.24	71.83	0.00	0.00	0.00
9,600.00	5.00	103.92	9,586.91	-73.03	294.70	73.95	0.00	0.00	0.00
9,700.00	5.00	103.92	9,686.53	-75.12	303.15	76.08	0.00	0.00	0.00
9,800.00	5.00	103.92	9,786.15	-77.22	311.61	78.20	0.00	0.00	0.00
9,900.00	5.00	103.92	9,885.77	-79.32	320.06	80.32	0.00	0.00	0.00
10,000.00	5.00	103.92	9,985.39	-81.41	328.52	82.44	0.00	0.00	0.00
10,100.00	5.00	103.92	10,085.01	-83.51	336.97	84.56	0.00	0.00	0.00
10,200.00	5.00	103.92	10,184.63	-85.60	345.43	86.69	0.00	0.00	0.00
10,300.00	5.00	103.92	10,284.25	-87.70	353.89	88.81	0.00	0.00	0.00
10,400.00	5.00	103.92	10,383.87	-89.79	362.34	90.93	0.00	0.00	0.00
10,500.00	5.00	103.92	10,483.49	-91.89	370.80	93.05	0.00	0.00	0.00



Database: EDM 5000.1.13 Single User Db

Company: XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 28 Big Sinks

Well: #122H Wellbore: OH Design: PERMIT-v2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft

RKB = 30' @ 3359.00usft

Grid

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,600.00	5.00	103.92	10,583.11	-93.98	379.25	95.17	0.00	0.00	0.00
10,700.00	5.00	103.92	10,682.73	-96.08	387.71	97.30	0.00	0.00	0.00
10,800.00	5.00	103.92	10,782.35	-98.17	396.16	99.42	0.00	0.00	0.00
10,900.00	5.00	103.92	10,881.97	-100.27	404.62	101.54	0.00	0.00	0.00
11,000.00	5.00	103.92	10,981.59	-102.37	413.08	103.66	0.00	0.00	0.00
11,100.00	5.00	103.92	11,081.21	-104.46	421.53	105.78	0.00	0.00	0.00
11,194.41	5.00	103.92	11,175.26	-106.44	429.52	107.79	0.00	0.00	0.00
11,200.00	5.16	109.95	11,180.83	-106.58	429.99	107.93	10.00	2.94	108.00
11,250.00	8.33	144.37	11,230.49	-110.30	434.21	111.66	10.00	6.33	68.84
11,300.00	12.72	157.72	11,279.65	-118.34	438.41	119.72	10.00	8.79	26.70
11,350.00	17.44	164.13	11,327.91	-130.65	442.55	132.04	10.00	9.44	12.81
11,400.00	22.29	167.84	11,374.93	-147.14	446.60	148.54	10.00	9.68	7.43
11,450.00	27.18	170.28	11,420.33	-167.67	450.53	169.09	10.00	9.79	4.87
11,500.00	32.11	172.01	11,463.77	-192.10	454.31	193.53	10.00	9.85	3.48
11,550.00	37.05	173.33	11,504.92	-220.24	457.91	221.68	10.00	9.89	2.64
11,600.00	42.01	174.38	11,543.48	-251.87	461.30	253.32	10.00	9.91	2.09
11,650.00	46.97	175.24	11,579.14	-286.76	464.45	288.21	10.00	9.93	1.73
11,700.00 11,750.00 11,800.00 11,850.00 11,900.00	51.94 56.91 61.89 66.87 71.85	175.97 176.61 177.18 177.71 178.19	11,611.63 11,640.71 11,666.15 11,687.77 11,705.39	-324.63 -365.20 -408.16 -453.18 -499.93	467.35 469.97 472.29 474.30 475.97	326.10 366.67 409.64 454.67 501.42	10.00 10.00 10.00 10.00 10.00	9.94 9.95 9.95 9.96	1.47 1.28 1.14 1.04 0.97
11,950.00	76.83	178.64	11,718.89	-548.04	477.30	549.53	10.00	9.96	0.91
12,000.00	81.81	179.08	11,728.15	-597.15	478.27	598.64	10.00	9.96	0.88
12,050.00	86.79	179.51	11,733.12	-646.88	478.88	648.38	10.00	9.96	0.85
12,087.24	90.50	179.82	11,734.00	-684.10	479.10	685.60	10.00	9.96	0.85
12,100.00	90.50	179.82	11,733.89	-696.86	479.14	698.36	0.00	0.00	0.00
12,200.00	90.50	179.82	11,733.02	-796.86	479.45	798.36	0.00	0.00	0.00
12,300.00	90.50	179.82	11,732.14	-896.85	479.75	898.35	0.00	0.00	0.00
12,400.00	90.50	179.82	11,731.27	-996.85	480.06	998.35	0.00	0.00	0.00
12,500.00	90.50	179.82	11,730.40	-1,096.84	480.37	1,098.35	0.00	0.00	0.00
12,600.00	90.50	179.82	11,729.53	-1,196.84	480.68	1,198.34	0.00	0.00	0.00
12,700.00	90.50	179.82	11,728.65	-1,296.83	480.98	1,298.34	0.00	0.00	0.00
12,800.00	90.50	179.82	11,727.78	-1,396.83	481.29	1,398.34	0.00	0.00	0.00
12,900.00	90.50	179.82	11,726.91	-1,496.83	481.60	1,498.33	0.00	0.00	0.00
13,000.00	90.50	179.82	11,726.04	-1,596.82	481.91	1,598.33	0.00	0.00	0.00
13,100.00	90.50	179.82	11,725.16	-1,696.82	482.21	1,698.32	0.00	0.00	0.00
13,200.00	90.50	179.82	11,724.29	-1,796.81	482.52	1,798.32	0.00	0.00	0.00
13,300.00	90.50	179.82	11,723.42	-1,896.81	482.83	1,898.32	0.00	0.00	0.00
13,400.00	90.50	179.82	11,722.54	-1,996.80	483.14	1,998.31	0.00	0.00	0.00
13,500.00	90.50	179.82	11,721.67	-2,096.80	483.44	2,098.31	0.00	0.00	0.00
13,600.00	90.50	179.82	11,720.80	-2,196.80	483.75	2,198.30	0.00	0.00	0.00
13,700.00	90.50	179.82	11,719.93	-2,296.79	484.06	2,298.30	0.00	0.00	0.00
13,800.00	90.50	179.82	11,719.05	-2,396.79	484.37	2,398.30	0.00	0.00	0.00
13,900.00	90.50	179.82	11,718.18	-2,496.78	484.67	2,498.29	0.00	0.00	0.00
14,000.00	90.50	179.82	11,717.31	-2,596.78	484.98	2,598.29	0.00	0.00	0.00
14,100.00	90.50	179.82	11,716.44	-2,696.77	485.29	2,698.29	0.00	0.00	0.00
14,200.00	90.50	179.82	11,715.56	-2,796.77	485.59	2,798.28	0.00	0.00	0.00
14,300.00	90.50	179.82	11,714.69	-2,896.77	485.90	2,898.28	0.00	0.00	0.00
14,400.00	90.50	179.82	11,713.82	-2,996.76	486.21	2,998.27	0.00	0.00	0.00
14,500.00	90.50	179.82	11,712.95	-3,096.76	486.52	3,098.27	0.00	0.00	0.00
14,600.00	90.50	179.82	11,712.07	-3,196.75	486.82	3,198.27	0.00	0.00	0.00
14,700.00	90.50	179.82	11,711.20	-3,296.75	487.13	3,298.26	0.00	0.00	0.00
14,800.00	90.50	179.82	11,710.33	-3,396.74	487.44	3,398.26	0.00	0.00	0.00



Database: EDM 5000.1.13 Single User Db

Company: XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 28 Big Sinks

Well: #122H Wellbore: OH Design: PERMIT-v2 **Local Co-ordinate Reference:**

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft

RKB = 30' @ 3359.00usft

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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900.00	90.50	179.82	11,709.45	-3,496.74	487.75	3,498.26	0.00	0.00	0.00
15,000.00	90.50	179.82	11,708.58	-3,596.74	488.05	3,598.25	0.00	0.00	0.00
15,100.00	90.50	179.82	11,707.71	-3,696.73	488.36	3,698.25	0.00	0.00	0.00
15,200.00	90.50	179.82	11,706.84	-3,796.73	488.67	3,798.24	0.00	0.00	0.00
15,300.00	90.50	179.82	11,705.96	-3,896.72	488.98	3,898.24	0.00	0.00	0.00
15,400.00	90.50	179.82	11,705.09	-3,996.72	489.28	3,998.24	0.00	0.00	0.00
15,500.00	90.50	179.82	11,704.22	-4,096.71	489.59	4,098.23	0.00	0.00	0.00
15,600.00	90.50	179.82	11,703.35	-4,196.71	489.90	4,198.23	0.00	0.00	0.00
15,700.00	90.50	179.82	11,702.47	-4,296.71	490.21	4,298.23	0.00	0.00	0.00
15,800.00	90.50	179.82	11,701.60	-4,396.70	490.51	4,398.22	0.00	0.00	0.00
15,900.00	90.50	179.82	11,700.73	-4,496.70	490.82	4,498.22	0.00	0.00	0.00
16,000.00	90.50	179.82	11,699.86	-4,596.69	491.13	4,598.21	0.00	0.00	0.00
16,100.00	90.50	179.82	11,698.98	-4,696.69	491.44	4,698.21	0.00	0.00	0.00
16,200.00	90.50	179.82	11,698.11	-4,796.68	491.74	4,798.21	0.00	0.00	0.00
16,300.00	90.50	179.82	11,697.24	-4,896.68	492.05	4,898.20	0.00	0.00	0.00
16,400.00	90.50	179.82	11,696.36	-4,996.68	492.36	4,998.20	0.00	0.00	0.00
16,500.00	90.50	179.82	11,695.49	-5,096.67	492.67	5,098.19	0.00	0.00	0.00
16,600.00	90.50	179.82	11,694.62	-5,196.67	492.97	5,198.19	0.00	0.00	0.00
16,700.00	90.50	179.82	11,693.75	-5,296.66	493.28	5,298.19	0.00	0.00	0.00
16,800.00	90.50	179.82	11,692.87	-5,396.66	493.59	5,398.18	0.00	0.00	0.00
16,900.00	90.50	179.82	11,692.00	-5,496.65	493.90	5,498.18	0.00	0.00	0.00
17,000.00	90.50	179.82	11,691.13	-5,596.65	494.20	5,598.18	0.00	0.00	0.00
17,100.00	90.50	179.82	11,690.26	-5,696.65	494.51	5,698.17	0.00	0.00	0.00
17,200.00	90.50	179.82	11,689.38	-5,796.64	494.82	5,798.17	0.00	0.00	0.00
17,300.00	90.50	179.82	11,688.51	-5,896.64	495.12	5,898.16	0.00	0.00	0.00
17,400.00	90.50	179.82	11,687.64	-5,996.63	495.43	5,998.16	0.00	0.00	0.00
17,500.00	90.50	179.82	11,686.77	-6,096.63	495.74	6,098.16	0.00	0.00	0.00
17,600.00	90.50	179.82	11,685.89	-6,196.62	496.05	6,198.15	0.00	0.00	0.00
17,700.00	90.50	179.82	11,685.02	-6,296.62	496.35	6,298.15	0.00	0.00	0.00
17,800.00	90.50	179.82	11,684.15	-6,396.62	496.66	6,398.15	0.00	0.00	0.00
17,900.00	90.50	179.82	11,683.27	-6,496.61	496.97	6,498.14	0.00	0.00	0.00
18,000.00	90.50	179.82	11,682.40	-6,596.61	497.28	6,598.14	0.00	0.00	0.00
18,100.00	90.50	179.82	11,681.53	-6,696.60	497.58	6,698.13	0.00	0.00	0.00
18,200.00	90.50	179.82	11,680.66	-6,796.60	497.89	6,798.13	0.00	0.00	0.00
18,300.00	90.50	179.82	11,679.78	-6,896.59	498.20	6,898.13	0.00	0.00	0.00
18,400.00	90.50	179.82	11,678.91	-6,996.59	498.51	6,998.12	0.00	0.00	0.00
18,500.00	90.50	179.82	11,678.04	-7,096.59	498.81	7,098.12	0.00	0.00	0.00
18,600.00	90.50	179.82	11,677.17	-7,196.58	499.12	7,198.11	0.00	0.00	0.00
18,700.00	90.50	179.82	11,676.29	-7,296.58	499.43	7,298.11	0.00	0.00	0.00
18,800.00	90.50	179.82	11,675.42	-7,396.57	499.74	7,398.11	0.00	0.00	0.00
18,900.00	90.50	179.82	11,674.55	-7,496.57	500.04	7,498.10	0.00	0.00	0.00
19,000.00	90.50	179.82	11,673.68	-7,596.57	500.35	7,598.10	0.00	0.00	0.00
19,100.00	90.50	179.82	11,672.80	-7,696.56	500.66	7,698.10	0.00	0.00	0.00
19,200.00	90.50	179.82	11,671.93	-7,796.56	500.97	7,798.09	0.00	0.00	0.00
19,300.00	90.50	179.82	11,671.06	-7,896.55	501.27	7,898.09	0.00	0.00	0.00
19,373.95	90.50	179.82	11,670.41	-7,970.50	501.50	7,972.04	0.00	0.00	0.00
19,400.00	90.50	179.82	11,670.19	-7,996.55	501.58	7,998.08	0.00	0.00	0.00
19,503.96	90.50	179.82	11,669.28	-8,100.50	501.90	8,102.04	0.00	0.00	0.00



Database: EDM 5000.1.13 Single User Db

Company: XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 28 Big Sinks

Well: #122H Wellbore: OH Design: PERMIT-v2 **Local Co-ordinate Reference:**

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #122H

RKB = 30' @ 3359.00usft RKB = 30' @ 3359.00usft

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLU-28-BS #122H: SI - plan hits target ce - Point	0.00 enter	0.00	0.00	0.00	0.00	401,290.70	668,547.10	32.1020946	-103.7890233
PLU-28-BS #122H: PI - plan hits target ce - Point	0.00 enter	0.00	11,669.28	-8,100.50	501.90	393,190.20	669,049.00	32.0798200	-103.7875349
PLU-28-BS #122H: LT - plan misses targe - Point	0.00 t center by		11,670.41 19373.95u	-7,970.50 sft MD (1167	501.10 0.41 TVD, -7	393,320.20 970.50 N, 501.50	669,048.20 DE)	32.0801773	-103.7875353
PLU-28-BS #122H: F ⁻ - plan hits target ce - Point	0.00 enter	0.00	11,734.00	-684.10	479.10	400,606.60	669,026.20	32.1002074	-103.7874873

Formations						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	826.00	826.00	Rustler			
	899.00	899.00	Magenta Dolomite			
	1,197.00	1,197.00	Salado			
	4,162.00	4,162.00	Delaware			
	5,157.00	5,157.00	Cherry Canyon			
	6,816.51	6,814.00	Brushy Canyon			
	7,886.58	7,880.00	Basal Brushy Canyon			
	8,090.35	8,083.00	Bone Spring			
	8,141.55	8,134.00	Bone Spring Lime			
	8,261.00	8,253.00	Avalon Upper			
	8,792.02	8,782.00	Avalon Lower			
	9,103.20	9,092.00	1st Bone Lime			
	9,121.27	9,110.00	1st Bone Sand			
	9,523.80	9,511.00	2nd Bone Lime			
	9,953.44	9,939.00	2nd Bone Sand			
	10,241.53	10,226.00	3rd Bone Lime			
	10,606.92	10,590.00	Harkey Sand			
	11,054.62	11,036.00	3rd Bone Sand			
	11,397.92	11,373.00	Red Hills			
	11,473.49	11,441.00	Wolfcamp			
	11,514.56	11,476.00	Wolfcamp X			
	11,638.20	11,571.00	Wolfcamp Y			
	11,723.95	11,626.00	Wolfcamp A			
	12,087.24	11,734.00	LP			

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Onshore Oil and Gas Order (OOGO) No. 2, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. OOGO No. 2, Section I.D.2 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per OOGO No. 2, Section IV., XTO Energy submits this request for the variance.

Supporting Documentation

OOGO No. 2 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since OOGO No. 2 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. OOGO No. 2 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states "A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component." See Table C.4 below for reference.

Tal	ole C.4—Initial Pressure Te	sting, Surface BOP Stacks		
Proceura Taet Lligh Proceura				
Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket	
Annular preventer ^b	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.	
Fixed pipe, variable bore, blind, and BSR preventers ^{bd}	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP	
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP	
Choke manifold—upstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP	
Choke manifold—downstream of chokese	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or M whichever is lower	MASP for the well program,	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program		
	during the evaluation period. The p	pressure shall not decrease below the	•	
	from one wellhead to another within when the integrity of a pressure se	n the 21 days, pressure testing is req al is broken.	uired for pressure-containing and	
^d For surface offshore operations, the	ne ram BOPs shall be pressure tes land operations, the ram BOPs sha	ted with the ram locks engaged and all be pressure tested with the ram lo		
e Adjustable chokes are not required	to be full sealing devices. Pressure	e testing against a closed choke is no	t required.	

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

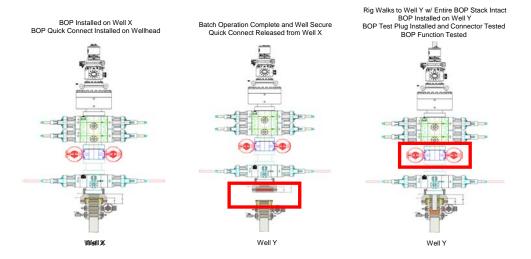
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of OOGO No. 2 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the OOGO No.2.

Procedures

- XTO Energy will use this document for our break testing plan for New Mexico Delaware basin.
 The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
- 2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
 - a. A full BOP test will be conducted on the first well on the pad.
 - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
 - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
 - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
 - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
 - d. A full BOP test will be required prior to drilling any production hole.
- 3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
 - a. Between the HCV valve and choke line connection
 - b. Between the BOP guick connect and the wellhead
- 4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
- 5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
- 6. The connections mentioned in 3a and 3b will then be reconnected.
- 7. Install test plug into the wellhead using test joint or drill pipe.
- 8. A shell test is performed against the upper pipe rams testing the two breaks.
- 9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
- 10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

- 11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
- 12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



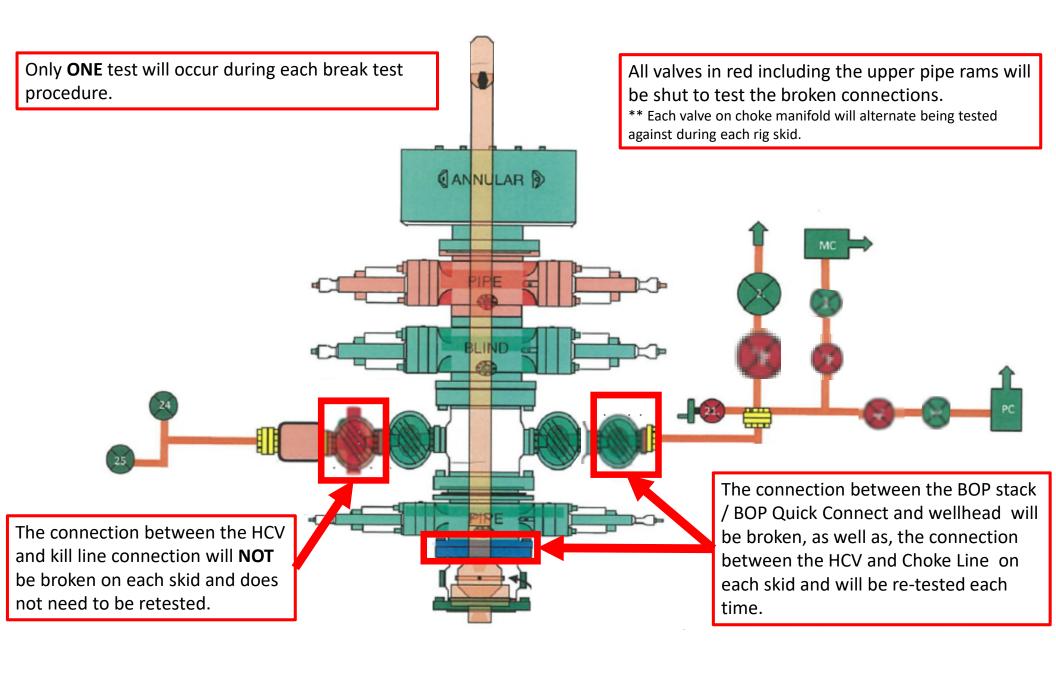
Summary

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API Standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.

The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, we will request permission to ONLY retest broken pressure seals if the following conditions are met:

- 1. After a full BOP test is conducted on the first well on the pad.
- 2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
- 3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
- 4. Full BOP test will be required prior to drilling the production hole.





GATES E & S NORTH AMERICA, INC

DU-TEX

134 44TH STREET

CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807

FAX: 361-887-0812

EMAIL: crpe&s@gates.com

WEB: www.gates.com

GRADE D PRESSURE TEST CERTIFICATE

Customer: Customer Ref. :

Invoice No.:

AUSTIN DISTRIBUTING

PENDING

201709

Test Date:

Hose Senal No.:

Created By:

6/8/2014

D-060814-1

NORMA

Product Description:

FD3.042.0R41/16.5KFLGE/E LE

End Filting 1:

Gates Part No. :

Working Pressure:

4 1/16 in.5K FLG 4774-6001

5,000 PSI

End Fitting 2:

Assembly Code:

Test Pressure:

4 1/16 in.5K FLG

L33090011513D-060814-1

7,500 PSI

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

Quality:

Date:

Signature:

QUALITY

6/8/2014

Technical Supervisor:

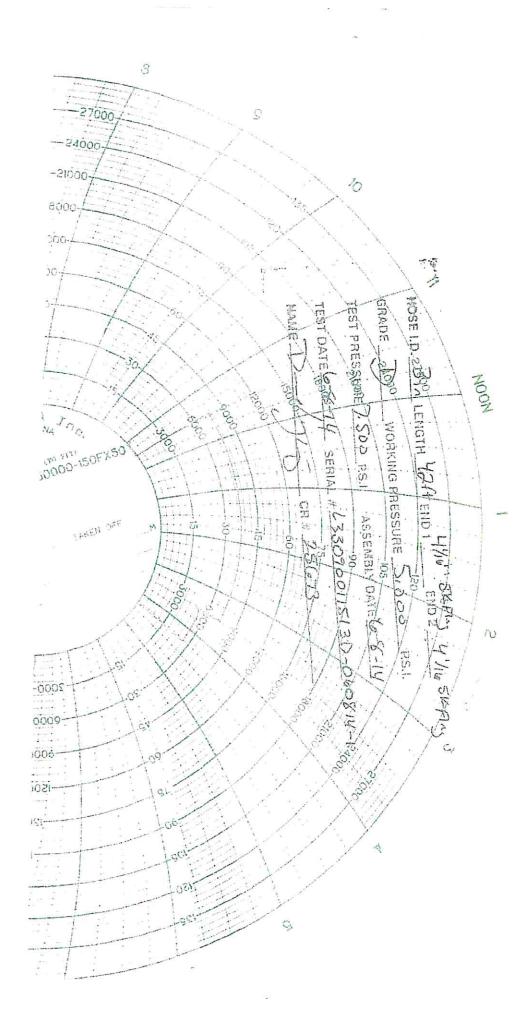
Date:

Signature:

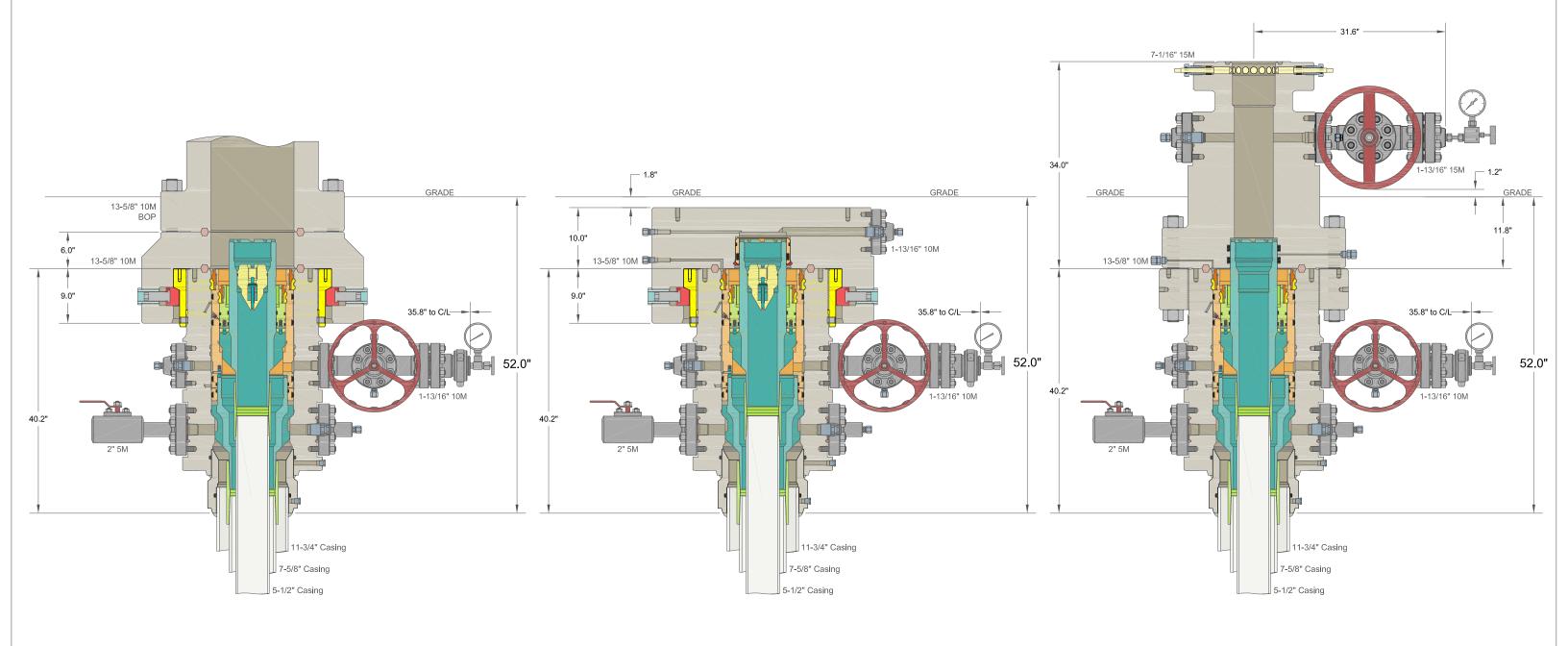
PRODUCTION

6/8/2014

Form PTC - 01 Rev.0 2



by OCD: 12/11/2020 2:47:48 PM



DRILLING SKID COMPLETION

ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		XTO ENERGY II POKER LAKE, N	
30" x 11-3/4" x 7-5/8" x 5-1/2" MBU-3T-SF SOW Wellhead System	DRAWN	DLE	09DEC19
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head	APPRV		
· · · · · · · · · · · · · · · · · · ·		00000	
And 7-5/8" & 5-1/2" Fluted Mandrel Casing Hangers	DRAWING N	O. ODE000	13261

AFORMATION CONTAINED HEREIN IS THE PROPERTY OF CACTUS WELLHEAD, LLC. REPRODUCTION, SCLOSURE, OR USE THEREOF IS PERMISSIBLE ONLY AS PROVIDED BY CONTRACT OR AS EXPRESSLY UTHORIZED BY CACTUS WELLHEAD, LLC.

XTO Permian Operating, LLC Offline Cementing Variance Request

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

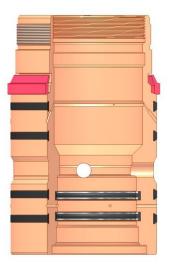
1. Cement Program

No changes to the cement program will take place for offline cementing.

2. Offline Cementing Procedure

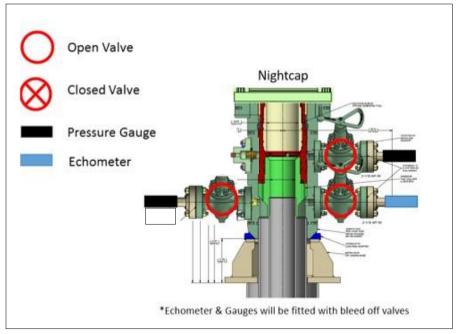
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
- 2. Land casing with mandrel
- 3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
- 4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
 - a. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



Annular packoff with both external and internal seals

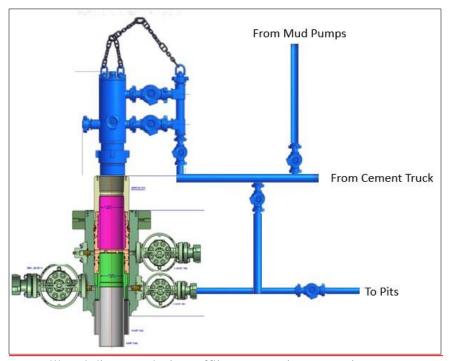
XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nippling up for further remediation.
 - a. Well Control Plan
 - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
 - ii. Rig pumps or a 3rd party pump will be tied into the upper casing valve to pump down the casing ID
 - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
 - v. Well will be confirmed static
 - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
- 8. Install offline cement tool
- 9. Rig up cement equipment

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during offline cementing operations

- 10. Circulate bottoms up with cement truck
 - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
 - b. Max anticipated time before circulating with cement truck is 6 hrs
- 11. Perform cement job taking returns from the annulus wellhead valve
- 12. Confirm well is static and floats are holding after cement job
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

- 1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
 - a. After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
- 2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
- 3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
- 4. Spudder rig operations are expected to take 2-3 days per well on the pad.
- 5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 180 days from the point at which the wells are secured and the spudder rig is moved off location.
 - b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
- 7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
- 8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.

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

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Date: 10/23/2020	GAS CAPTURE PLAN
 ☑ Original ☐ Amended - Reason for Amendment: 	Operator & OGRID No.: XTO Permian Operating, LLC [373075]

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

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

Well(s)/Production Facility - Name of facility: Poker Lake Unit 28 BS CTB East

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Poker Lake Unit 28 BS 701H		E-28-25S-31E	2310'FNL & 600'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 703H		E-28-25S-31E	2310'FNL & 1920'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 901H		E-28-25S-31E	2310'FNL & 630'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 903H		E-28-25S-31E	2310'FNL & 1950'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 102H		E-28-25S-31E	2310'FNL & 720'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 104H		E-28-25S-31E	2310'FNL & 2040'FWL	5000	Sold	CTB Connected to P/L
Poker Lake Unit 28 BS 122H		E-28-25S-31E	2310'FNL & 690'FWL	5000	Sold	CTB Connected to P/L

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place.
The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high
pressure gathering system located in _Eddy County, New Mexico. It will require0' of pipeline to connect
the facility to low/high pressure gathering system. XTO Permian Operating, LLC. provides (periodically) to XTO Energy, Inc
a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In
addition, XTO Permian Operating, LLC. and XTO Energy have periodic conference calls to discuss changes to drilling and
completion schedules. Gas from these wells will be processed at XTO Energy Processing Plant located in Sec1,
Twn25S, Rng30E, _Eddy County, New Mexico. The actual flow of the gas will be based on compression
operating parameters and gathering system pressures.

Flowback Strategy

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

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

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

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

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

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

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**

COMMENTS

Action 11783

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
XTO PERMIAN	OPERATING LLC.	6401 HOLIDAY HILL ROAD	373075	11783	FORM 3160-3
BUILDING 5 M	IIDLAND, TX79707				

Created By	Comment	Comment Date
kpickford	GEO Review 12/11/2020	12/11/2020

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

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 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**

CONDITIONS

Action 11783

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
	IIAN OPERATING LLC.	6401 HOLIDAY HILL ROAD	373075	11783	FORM 3160-3
BUILDING 5	MIDLAND, TX79707				

OCD Reviewer	Condition
kpickford	Will require a directional survey with the C-104
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.