Form 3160-3 FORM APPROVED (June 2015) OMB No. 1004-0137 Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT NMNM0506A APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. la. Type of work: ✓ DRILL REENTER POKER LAKE / NMNM 071016X 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: ✓ Single Zone Hydraulic Fracturing Multiple Zone POKER LAKE UNIT 16 TWR 2. Name of Operator 9. API Well No. XTO PERMIAN OPERATING LLC 30-015-49440 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 6401 Holiday Hill Road, Bldg 5, Midland, TX 79707 (432) 682-8873 PURPLE SAGE/null 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 SEC 21/T24S/R31E/NMP At surface NENW / 515 FNL / 2290 FWL / LAT 32.208675 / LONG -103.78389 At proposed prod. zone SESW / 200 FSL / 2178 FWL / LAT 32.181603 / LONG -103.784216 14. Distance in miles and direction from nearest town or post office* 12. County or Parish 13. State **FDDY** NM 15. Distance from proposed* 16. No of acres in lease 17. Spacing Unit dedicated to this well 330 feet 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, 30 feet applied for, on this lease, ft. 11919 feet / 22326 feet FED: COB000050 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start* 23. Estimated duration 3512 feet 07/01/2020 30 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 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. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the BLM. 25. Signature Name (Printed/Typed) (Electronic Submission) KELLY KARDOS / Ph: (432) 682-8873 03/10/2020 Regulatory Coordinator Approved by (Signature) Name (Printed/Typed) Date (Electronic Submission) Cody Layton / Ph: (575) 234-5959 06/30/2020 Title Office Assistant Field Manager Lands & Minerals Carlsbad Field 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, APPROVED WITH CONDITIONS (Continued on page 2) *(Instructions on page 2) **Approval Date: 06/30/2020**

Phone: (575) 748-1283 Fux: (575) 748-9720 <u>District III</u> 1000 Rio Brazos Road, Aztec, 8M 87410 Phone: (505) 334-6178 Fux: (505) 334-6170

<u>District IV</u> 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-1/02
Revised August 1, 2011
Submit one copy to appropriate
District Office

■ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		² Pool Code	³ Pool No	ame
30-015-4	9440	98220	Purple Sage; Wolfcamp	
⁴ Property Code 332739		P	⁵ Property Name POKER LAKE UNIT 16 TWR	⁶ Well Number 124H
⁷ OGRID No. ⁸ Op			⁸ Operator Name D PERMIAN OPERATING, LLC.	⁹ Elevation 3,512'

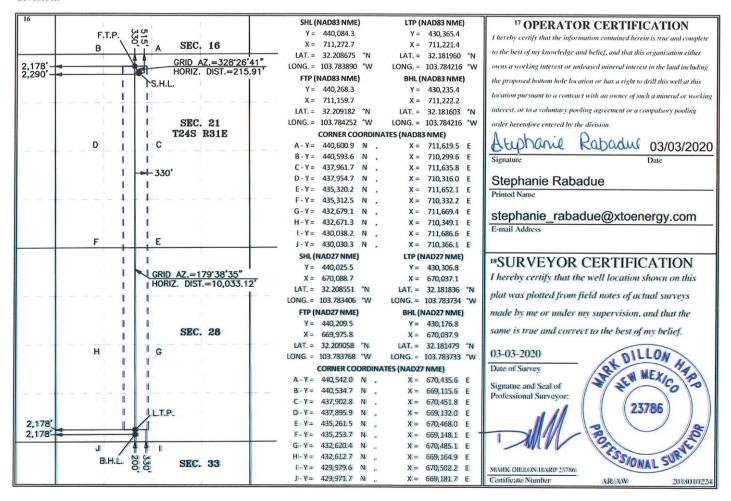
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	21	24 S	31 E		515	NORTH	2,290	WEST	EDDY

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	28	24 S	31 E		200	SOUTH	2,178	WEST	EDDY
12 Dedicated Acres	¹³ Joint or	· Infill 14 C	Consolidation C	ode 15 Orde	er 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.



State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description Effective May 25, 2021

I. Operator: _XTO Permian	Operating,	LLC	OG	RID: _373075	Date: _04/08/2022					
II. Type: ⊠ Original □ Amendment due to □ 19.15.27.9.D(6)(a) NMAC □ 19.15.27.9.D(6)(b) NMAC □ Other.										
If Other, please describe:										
III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.										
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D				
Poker Lake Unit 16 TWR 156H		B-21-24S-31E	485'FNL & 2437'FEL	1500	2700	3000				
Poker Lake Unit 16 TWR 124H		C-21-24S-31E	515'FNL & 2290'FWL	1500	2700	3000				
Poker Lake Unit 16 TWR 124H C-21-24S-31E 515'FNL & 2290'FWL 1500 2700 3000 IV. Central Delivery Point Name: _Poker Lake Unit 28 BS CTBE / CTBW [See 19.15.27.9(D)(1) NMAC] V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.										

П	Well Name	API	Spud Date	TD Reached	Completion	Initial Flow	First Production
Ш				Date	Commencement Date	Back Date	Date
П							
l	Poker Lake Unit 16 TWR 156H		TBD	TBD	TBD	TBD	TBD
П	Poker Lake Unit 16 TWR 124H		TBD	TBD	TBD	TBD	TBD

- VI. Separation Equipment: ⊠ Attach a complete description of how Operator will size separation equipment to optimize gas capture.
- VIII. Best Management Practices:

 ☐ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🖾 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. \square Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system	☐ will ☐ will not have capacit	ty to gather 100% of the	e anticipated natural gas
production volume from the well prior to the date of fir	st production.		

XIII. Line Pressure. Operator \square does \square does not anticipate that its existing well(s) connected to the same segments.	ent, or portion,	, of th
natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused	by the new w	ell(s).

	Attach O	nerator's	nlan to	manage	production	in rec	nonce to	a the	increased	line -	nrecentre
\Box	Attach	perator s	pian ic	manage	production	111 103	ponse u	o me	mercaseu	IIIIC	pressure

XIV. Co	onfidentiality:	□ Operator as	sserts confident	iality pursu	ant to S	Section	71-2-8	NMSA	1978 fo	r the i	nformation	provided:	in
Section	2 as provided in	Paragraph (2)	of Subsection D	of 19.15.2	7.9 NM	AC, and	d attache	es a full	descript	ion of	the specific	informatio	n
for whic	h confidentiality	y is asserted an	d the basis for s	uch assertio	n.								

Section 3 - Certifications <u>Effective May 25, 2021</u>

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

□ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☑ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. *If Operator checks this box, Operator will select one of the following:*

Well Shut-In. ⊠ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- **(b)** power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Stephanie Rabadue
Printed Name: Stephanie Rabadue
Title: Regulatory Supervisor
E-mail Address: <u>Stephanie.rabadue@exxonmobil.com</u>
Date: 04/09/2022
Phone: 432-620-6714
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. Separation Equipment:

XTO Permian Operating, LLC. production tank batteries include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to or existing within the facility. Separation equipment is upgraded prior to well being drilled or completed, if determined to be undersized or needed. The separation equipment is designed and built according to the relevant industry specifications (API Specification 12J and ASME Sec VIII Div I). Other recognized industry publications such as the Gas Processors Suppliers Association (GPSA) are referenced when designing separation equipment to optimize gas capture.

VII. Operational Practices:

1. Subsection B.

- During drilling, flare stacks will be located a minimum of 150 feet from the nearest surface hole location. All gas is captured or combusted. If an emergency or malfunction occurs, gas will be flared or vented for public health, safety and the environment and be properly reported to the NMOCD pursuant to 19.15.27.8.G.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

2. Subsection C.

 During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.

For emergencies, equipment malfunction, or if the operator decides to produce oil and gas during well completion:

- Flowlines will be routed for flowback fluids into a completion or storage tank and, if feasible under well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
- Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

3. Subsection D.

- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Monitor manual liquid unloading for wells on-site or in close proximity (<30 minutes' drive time), take reasonable actions to achieve a stabilized rate and pressure at the earliest practical time, and take reasonable actions to minimize venting to the maximum extent practicable.

 Measure or estimate the volume of natural gas that is vented, flared or beneficially used during drilling, completion and production operations, regardless of the reason or authorization for such venting or flaring.

4. Subsection E.

- All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste.
- Flare stack was installed prior to May 25, 2021 but has been designed for proper size and combustion efficiency. Flare currently has a continuous pilot and is located more than 100 feet from any known well and storage tanks.
- At any point in the well life (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly (at minimum) to confirm that all production equipment is operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.

5. Subsection F.

- Measurement equipment is installed to measure the volume of natural gas flared from process piping or a flowline piped from the equipment associated with a well and facility associated with the approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas.
- Measurement equipment installed is not designed or equipped with a manifold to allow diversion of natural gas around the metering equipment, except for the sole purpose of inspecting and servicing the measurement equipment, as noted in NMAC 19.15.27.8 Subsection G.

VIII. Best Management Practices:

- 1. During completion operations, operator does not produce oil or gas but maintains adequate well control through completion operations.
- 2. Operator does not flow well (well shut in) during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational.
- 3. Operator equips storage tanks with an automatic gauging system to reduce venting of natural gas.
- 4. Operator reduces the number of blowdowns by looking for opportunities to coordinate repair and maintenance activities.
- 5. Operator combusts natural gas that would otherwise be vented or flared, when feasible.
- 6. Operator has a flare stack designed in accordance with need and to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are equipped with continuous pilots and securely anchored at least 100 feet (at minimum) from storage tanks and wells.
- 7. Operator minimizes venting (when feasible) through pump downs of vessels and reducing time required to purge equipment before returning equipment to service.
- 8. Operator will shut in wells (when feasible) in the event of a takeaway disruption, emergency situation, or other operations where venting or flaring may occur due to equipment failures.

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

Drilling Plan Data Report

04/09/2022

APD ID: 10400055018

Submission Date: 03/10/2020

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Number: 124H

Show Final Text

Well Name: POKER LAKE UNIT 16 TWR 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
684813	PERMIAN	3512	0	0	OTHER : Quaternary	NONE	N
684804	RUSTLER	2878	634	634	SILTSTONE	USEABLE WATER	N
684805	TOP SALT	2542	970	970	SALT	OTHER : Produced Water	N
684806	BASE OF SALT	-678	4190	4190	SALT	OTHER : Produced Water	N
684802	DELAWARE	-901	4413	4413	SANDSTONE	NATURAL GAS, OIL, OTHER: Produced Water	N
684803	BONE SPRING	-4732	8244	8244	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
684801	BONE SPRING 1ST	-5792	9304	9304	SANDSTONE	NATURAL GAS, OIL, OTHER: Produced Water	N
684800	BONE SPRING 2ND	-6504	10016	10016	SANDSTONE	NATURAL GAS, OIL, OTHER: Produced Water	N
684819	BONE SPRING 3RD	-7626	11138	11138	SANDSTONE	NATURAL GAS, OIL, OTHER: Produced Water	N
684821	WOLFCAMP	-8092	11604	11604	SHALE	NATURAL GAS, OIL, OTHER: Produced Water	Υ

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M Rating Depth: 11919

Equipment: Once the permanent WH is installed on the 13-3/8 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 4505 psi.

Requesting Variance? YES

Variance request: 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. 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. Permanent Wellhead – GE RSH Multibowl System A. Starting Head (RSH System): 13-3/8" SOW bottom x 13-5/8" 5M top flange B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange · Wellhead will be installed by manufacturer's representatives. · Manufacturer will monitor welding process to ensure appropriate temperature of seal. · Operator will test the 9-5/8" casing per Onshore Order 2.

Well Name: POKER LAKE UNIT 16 TWR Well Number: 124H

· Wellhead manufacturer representative may not be present for BOP test plug installation XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set each casing string and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per GE recommendations, XTO will contact the BLM on each rig skid on the pad. Once surface and intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

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 13-3/8", 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_16_TWR_10MCM_20200304132209.pdf PLU_16_TWR_5MCM_20200309122009.pdf

BOP Diagram Attachment:

PLU_16_TWR_5M10MBOP_20200304111945.pdf PLU_16_TWR_5MBOP_20200309122018.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	820	0	820	3512	2692	820	J-55	68	BUTT	5.26	1.25	BUOY	19.1 7	DRY	19.1 7
2	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	10435	0	10435	3509	-6923	10435	HCL -80	40	BUTT	1.38	1.19	DRY	2.19	DRY	2.19
3	PRODUCTI ON	8.75	5.5	NEW	API	N	0	22326	0	11919	3370	-8407	22326	P- 110	20	BUTT	1.55	1.18	DRY	2.03	DRY	2.03

Casing Attachments

Well Name: POKER LAKE UNIT 16 TWR

Well Number: 124H

Casing	Attac	hment	S
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Casing ID: 1

String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_16_TWR_124H_Csg_20200310121655.pdf

Casing ID: 2

String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_16_TWR_124H_Csg_20200310121718.pdf

Casing ID: 3

String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

PLU_16_TWR_124H_Csg_20200310121631.pdf

Section 4 - Cement

Well Name: POKER LAKE UNIT 16 TWR Well Number: 124H

String Type	Lead/Tail	Stage Tool Depth	Тор МD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	820	380	1.87	12.8	710.6	100	Halcem-C	2% CaCl
SURFACE	Tail				300	1.35	14.8	405	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead		0	1043 5	920	3.45	11	3174	100	Halcem-C	2%CaCl
INTERMEDIATE	Tail		0	1043 5	470	1.32	14.8	620.4	100	Halcem-C	2%CaCl
INTERMEDIATE	Lead	4335	4335	1043 5	620	3.45	11	2139	100	Halcem-C	2%CaCl
INTERMEDIATE	Tail				410	1.32	14.8	541.2	100	Halcem-C	2% CaCl
PRODUCTION	Lead		0	2232 6	110	1.88	11.5	206.8	20	Halcem-C	2% CaCl
PRODUCTION	Tail				2620	1.33	13.2	3484. 6	20	VersaCem	none

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	ЬН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1043 5	1191 9	OTHER : FW / Cut Brine / Poly /	11.2	12							A mud test will be performed every 24 hours to determine:

Page 4 of 7

Well Name: POKER LAKE UNIT 16 TWR

Well Number: 124H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	РН	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
		ОВМ									density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system
0	820	OTHER : FW/Native	8.4	8.8							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
820	1043 5	OTHER : FW / Cut Brine / Direct Emulsion	8.8	9.8							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

Section 6 - Test, Logging, Coring

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

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

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

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

Coring operation description for the well:

No coring will take place on this well.

Well Name: POKER LAKE UNIT 16 TWR Well Number: 124H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7128

Anticipated Surface Pressure: 4505

Anticipated Bottom Hole Temperature(F): 165

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:

PLU_16_TWR_H2S_Dia_Pad_2E_20200309084233.pdf PLU_16_TWR_H2S_Dia_Pad_2W_20200309084415.pdf PLU_16_TWR_H2S_Plan_20200304122105.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

PLU_16_TWR_124H_DD_20200310122156.pdf

Other proposed operations facets description:

The surface fresh water sands will be protected by setting 13-3/8 inch casing @ 820' (156' above the salt) and circulating cement back to surface. A 12-1/4 inch vertical hole will be drilled to 10435' and 9-5/8 inch casing ran and cemented 200' into the 13-3/8 inch casing. An 8-3/4 inch / 8-1/2 inch curve and lateral hole will be drilled to MD/TD and 5-1/2 casing will be set at TD and cemented back 300' into the 9-5/8 inch casing shoe.

9-5/8" Collapse analyzed using 50% evacuation based on regional experience.

5-1/2 tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

Other proposed operations facets attachment:

PLU_16_TWR_GCPE_20200304122649.pdf PLU_16_TWR_GCPW_20200304122702.pdf

Other Variance attachment:

PLU_16_TWR_FH_20200304122358.pdf PLU_16_TWR_MBD_20200304122432.pdf PLU_16_TWR_WWC_20200304122416.pdf

Casing Assumption Worksheet

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 820'	13-3/8"	68	втс	J-55	New	1.25	5.26	19.17
12-1/4"	0' – 10435'	9-5/8"	40	втс	HCL-80	New	1.19	1.38	2.19
8-3/4"	0' – 22326'	5-1/2"	20	втс	P-110	New	1.18	1.55	2.03

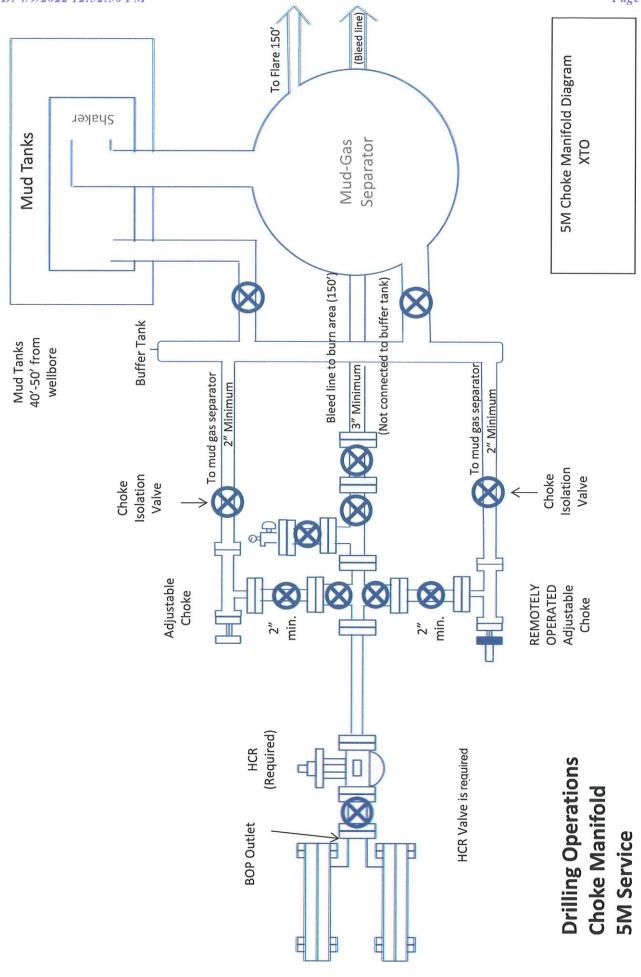
XTO requests to utilize centralizers after KOP and only a minimum of one every 4th joint.

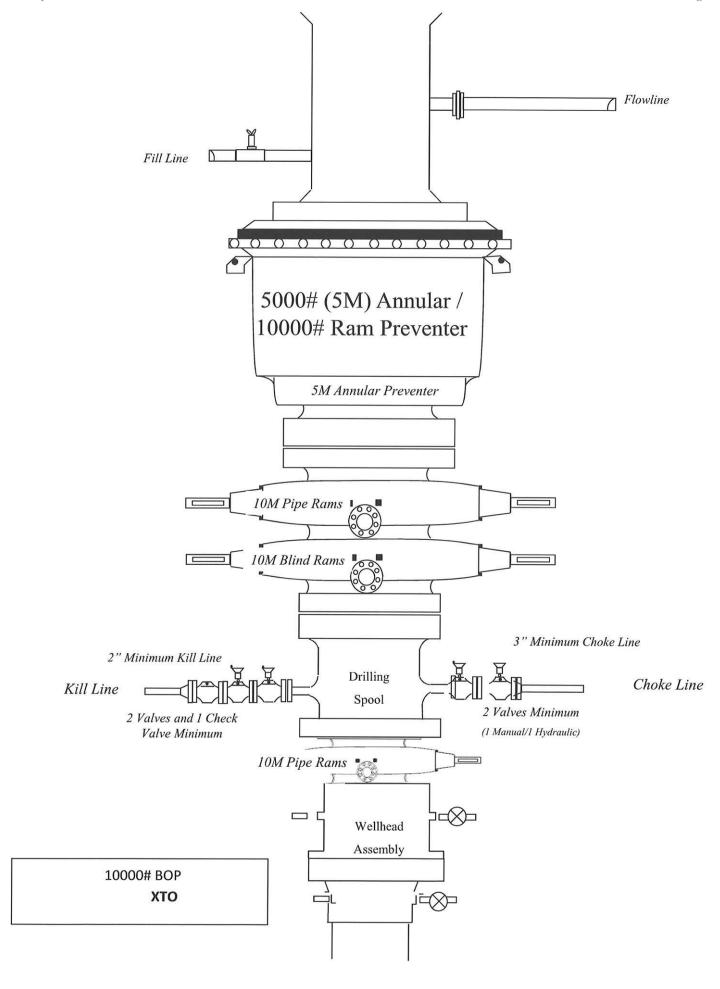
Permanent Wellhead - GE RSH Multibowl System

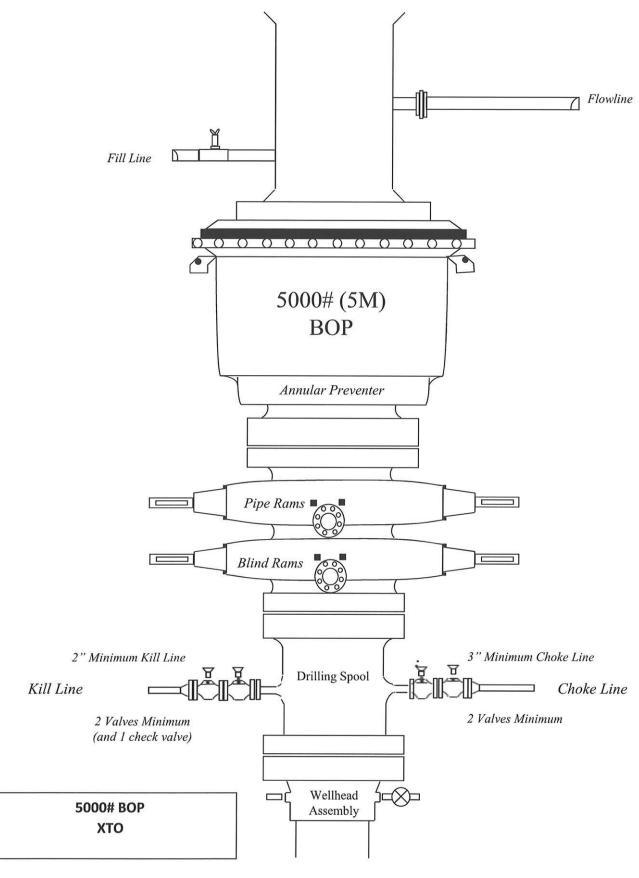
- A. Starting Head (RSH System): 13-3/8" SOW bottom x 13-5/8" 5M top flange
- B. Tubing Head: 13-5/8" 5M bottom flange x 7-1/16" 10M top flange
 - · Wellhead will be installed by manufacturer's representatives.
 - Manufacturer will monitor welding process to ensure appropriate temperature of seal.
 - Operator will test the 9-5/8" casing per Onshore Order 2.
 - Wellhead manufacturer representative may not be present for BOP test plug installation

^{9-5/8&}quot; Collapse analyzed using 50% evacuation based on regional experience.

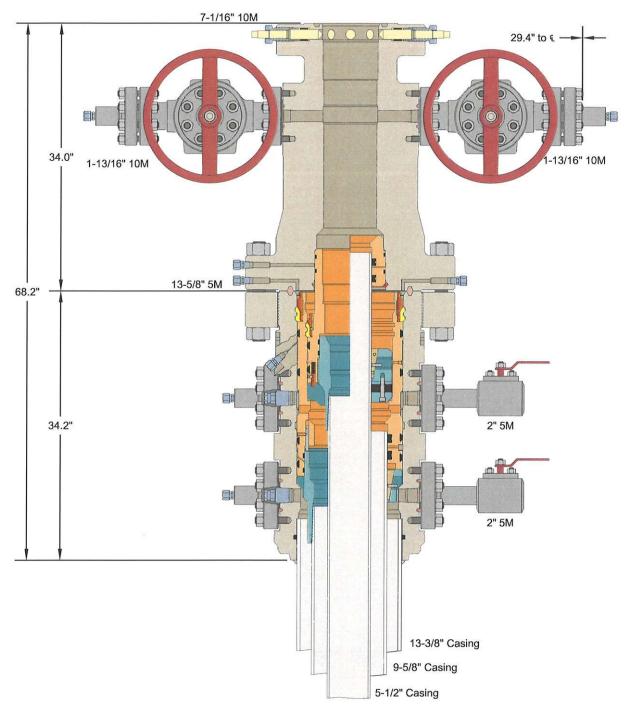
^{5-1/2&}quot; tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35











ALL	DIMENSIO	ONS ARE A	APPROXIM	ATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing, neither it nor its contents may be used, copied, transmitted or reproduced except for the sole purpose of GE Oil & Gas Pressure Control LP.	хто	D ENERGY	, INC.
13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead	DRAWN	VJK	16FEB17
	APPRV	KN	16FEB17
Assembly, With T-EBS-F Tubing Head	FOR REFERENCE DRAWING NO	100	12842



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

MORMA

Product Description:

FD3.042.0R41/16.5KFLGE/E_LE

End Fitting 1:

Gales Part No. :

Warking Pressure:

4 1/16 m.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

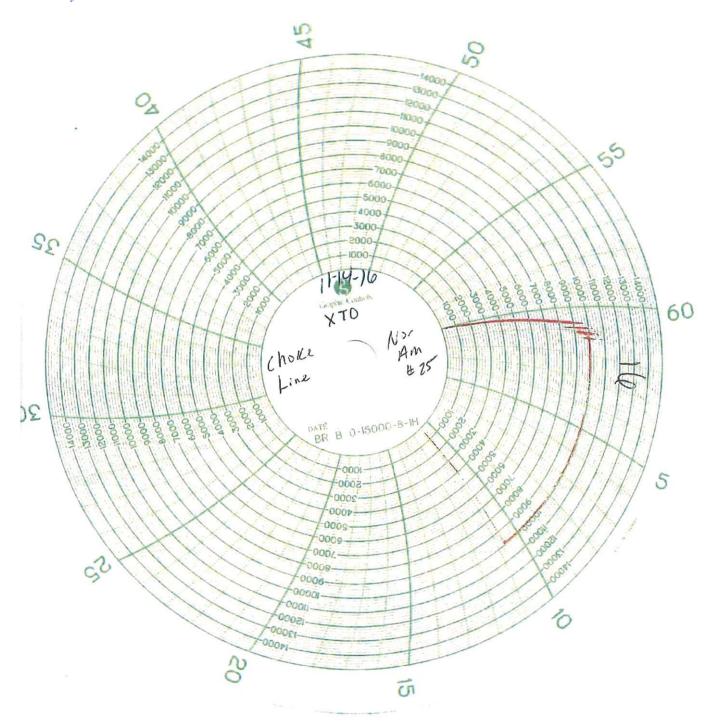
Technical Supervisor:

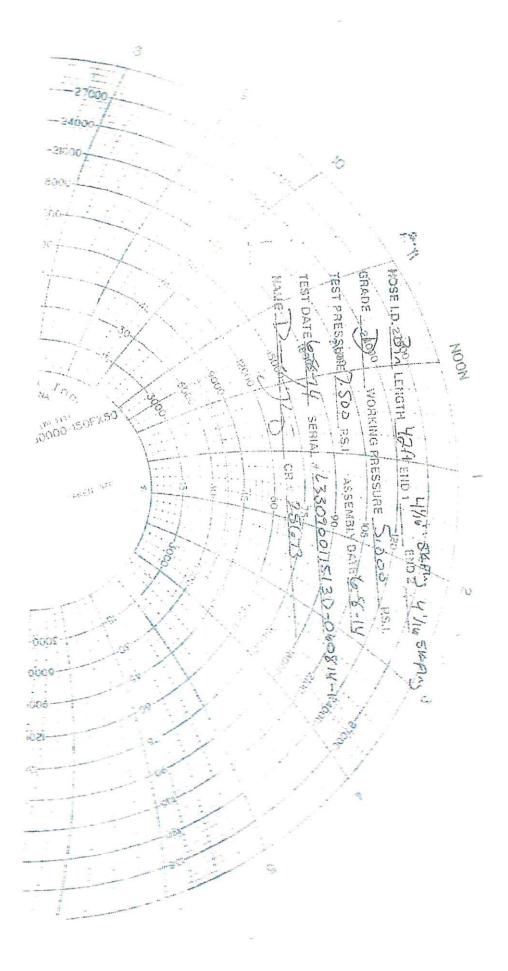
Date

Signature:

PRODUCTION 6/8/2014

Form PTC - 01 Rev.0 2







XTO Energy

Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR #124H

OH

Plan: PERMIT v2

Standard Planning Report

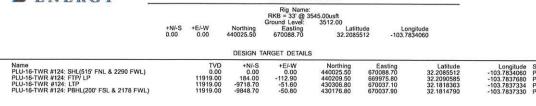
09 March, 2020

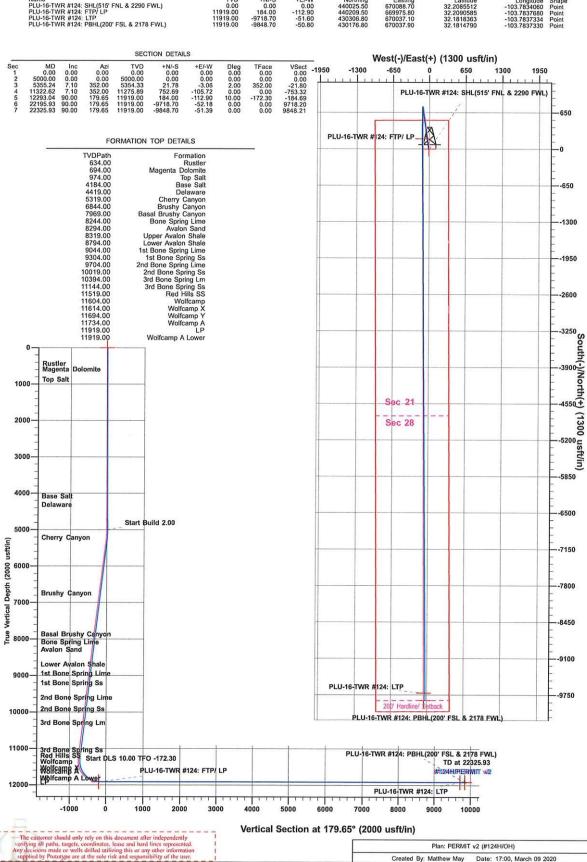
Project: Eddy County, NM (NAD-27) Site: Poker Lake Unit 16 TWR Well: #124H Wellbore: OH

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

Created By: Matthew May Date: 17:00, March 09 2020

Design: PERMIT v2 WELL DETAILS: #124H







Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Site:

Eddy County, NM (NAD-27)

Poker Lake Unit 16 TWR #124H

Well: Wellbore: Design:

OH PERMIT v2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

Project

Eddy County, NM (NAD-27)

Map System:

US State Plane 1927 (Exact solution)

Geo Datum: Map Zone:

NAD 1927 (NADCON CONUS) New Mexico East 3001

System Datum:

Mean Sea Level

Site

From:

Poker Lake Unit 16 TWR

Site Position:

Мар

Northing:

440,861.50 usft

Latitude:

Longitude:

32.2108713

Position Uncertainty:

0.00 usft

Easting: **Slot Radius:** 668,513.80 usft 13-3/16 "

Grid Convergence:

-103.7884840

0.29

Well

Well Position

#124H

+E/-W

+N/-S

-836.00 usft 1,574.90 usft

Northing: Easting:

440,025.50 usft 670,088.70 usft

6.96

Latitude: Longitude: 32.2085512

Position Uncertainty

0.00 usft

Wellhead Elevation:

0.00 usft

Ground Level:

60.00

-103.7834060 3,512.00 usft

Wellbore

ОН

Magnetics

Model Name

Sample Date

04/16/18

Declination (°)

Dip Angle (°)

Field Strength (nT)

47,821

Design

PERMIT v2

Audit Notes: Version:

Phase:

179.65

IGRF2015

PLAN

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD) (usft)

0.00

11,919.00

-9,848.70

+N/-S (usft) 0.00

+E/-W (usft) 0.00

0.00

0.00

Direction (°) 179.65

0.00

Plan Sections Measured Vertical Build Dogleg Turn Inclination Depth **Azimuth** Depth +N/-S +E/-W Rate Rate Rate TFO (°/100usft) (usft) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°) (°) **Target** 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 5,000.00 0.00 0.01 5,000.00 0.00 0.00 0.00 0.00 0.00 0.01 5,355.24 7.10 352.00 5,354.33 21.78 -3.062.00 2.00 0.00 352.00 11,322.62 7.10 352.00 11,275.89 752.69 -105.72 0.00 0.00 0.00 0.00 12,293.04 90.00 179.65 11,919.00 184.00 -112.90 10.00 8.54 -17.76 -172.30 PLU-16-TWR #124 22,195.93 90.00 179.65 11,919.00 -9,718.70 -52.18 0.00 0.00 0.00 0.00 PLU-16-TWR #124

-51.39

22,325.93

0.00 PLU-16-TWR #124

90.00



Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 16 TWR

Well: Wellbore: #124H OH

Design: PERMIT v2

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method: Well #124H

RKB = 33' @ 3545.00usft

RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

Design:	PERMIT v2								
Planned Survey	Market						TEREST N		
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
634.00	0.00	0.00	634.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler		of united states	Control March	REPARK W	Kalifornia in Alberta	A CONTRACTOR OF THE CONTRACTOR	-12444	0.00	0.00
694.00	0.00	0.00	694.00	0.00	0.00	0.00	0.00	0.00	0.00
Magenta E		0.00	004.00	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
						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
974.00	0.00	0.00	974.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt		312000				PART PROPERTY			Strategic Strate
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00 2,800.00	0.00	0.00	2,700.00 2,800.00	0.00	0.00 0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00 0.00	0.00 0.00	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 0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
AS 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2									
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 3,600.00	0.00 0.00	0.00	3,500.00 3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
(2)			4.5	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
4,184.00	0.00	0.00	4,184.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt									
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
4,419.00	0.00	0.00	4,419.00	0.00	0.00	0.00	0.00	0.00	0.00

03/09/20 5:02:18PM

Page 3

COMPASS 5000.1 Build 74



Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Eddy County, NM (NAD-27)
Site: Poker Lake Unit 16 TWR

Well: Wellbore: #124H OH Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

esign:	PERMIT v2								
lanned 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)
Delaware									
4,500.00 4,600.00 4,700.00 4,800.00 4,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	4,500.00 4,600.00 4,700.00 4,800.00 4,900.00	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
5,000.00 5,100.00 5,200.00 5,300.00 5,319.66	0.00 2.00 4.00 6.00 6.39	0.01 352.00 352.00 352.00 352.00	5,000.00 5,099.98 5,199.84 5,299.45 5,319.00	0.00 1.73 6.91 15.54 17.64	0.00 -0.24 -0.97 -2.18 -2.48	0.00 -1.73 -6.92 -15.55 -17.66	0.00 2.00 2.00 2.00 2.00	0.00 2.00 2.00 2.00 2.00	0.00 0.00 0.00 0.00 0.00
Cherry Ca									
5,355.24 5,400.00 5,500.00 5,600.00 5,700.00	7.10 7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00 352.00	5,354.33 5,398.75 5,497.98 5,597.21 5,696.44	21.78 27.27 39.51 51.76 64.01	-3.06 -3.83 -5.55 -7.27 -8.99	-21.80 -27.29 -39.55 -51.81 -64.06	2.00 0.00 0.00 0.00 0.00	2.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
5,800.00 5,900.00 6,000.00 6,100.00 6,200.00	7.10 7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00 352.00	5,795.68 5,894.91 5,994.14 6,093.37 6,192.60	76.26 88.51 100.76 113.00 125.25	-10.71 -12.43 -14.15 -15.87 -17.59	-76.32 -88.58 -100.84 -113.10 -125.36	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
6,300.00 6,400.00 6,500.00 6,600.00	7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00	6,291.84 6,391.07 6,490.30 6,589.53	137.50 149.75 162.00 174.25	-19.31 -21.03 -22.75 -24.47	-137.62 -149.88 -162.13 -174.39	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
6,700.00	7.10	352.00	6,688.76	186.49	-26.20	-186.65	0.00	0.00	0.00
6,800.00 6,856.44	7.10 7.10	352.00 352.00	6,788.00 6,844.00	198.74 205.66	-27.92 -28.89	-198.91 -205.83	0.00 0.00	0.00 0.00	0.00 0.00
Brushy Ca 6,900.00	nyon 7.10	352.00	6,887.23	210.99	-29.64	-211.17	0.00	0.00	0.00
7,000.00 7,100.00	7.10 7.10 7.10	352.00 352.00	6,986.46 7,085.69	223.24 235.49	-31.36 -33.08	-223.43 -235.69	0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
7,200.00 7,300.00 7,400.00 7,500.00 7,600.00	7.10 7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00 352.00	7,184.93 7,284.16 7,383.39 7,482.62 7,581.85	247.74 259.98 272.23 284.48 296.73	-34.80 -36.52 -38.24 -39.96 -41.68	-247.94 -260.20 -272.46 -284.72 -296.98	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
7,700.00 7,800.00 7,900.00 7,990.14	7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00	7,681.09 7,780.32 7,879.55 7,969.00	308.98 321.23 333.48 344.52	-43.40 -45.12 -46.84 -48.39	-309.24 -321.50 -333.75 -344.81	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
	shy Canyon					and the second second			
8,000.00	7.10	352.00	7,978.78	345.72	-48.56	-346.01	0.00	0.00	0.00
8,100.00 8,200.00 8,267.27	7.10 7.10 7.10	352.00 352.00 352.00	8,078.01 8,177.25 8,244.00	357.97 370.22 378.46	-50.28 -52.00 -53.16	-358.27 -370.53 -378.78	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
Bone Sprir		050.00	0.070.10	000 17		000 75	ALL ESTATES		
8,300.00 8,317.66 Avalon Sa i	7.10 7.10	352.00 352.00	8,276.48 8,294.00	382.47 384.63	-53.72 -54.03	-382.79 -384.95	0.00	0.00	0.00 0.00
8,342.85 Upper Ava	7.10	352.00	8,319.00	387.72	-54.46	-388.04	0.00	0.00	0.00

03/09/20 5:02:18PM

Page 4

COMPASS 5000.11 Build 7/4



Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Site:

Well:

Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR

#124H Wellbore: ОН

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

esign:	PERMIT v2								
lanned Survey	Places								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.00 8,500.00 8,600.00 8,700.00	7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00	8,375.71 8,474.94 8,574.18 8,673.41	394.72 406.97 419.21 431.46	-55.44 -57.16 -58.88 -60.60	-395.05 -407.31 -419.57 -431.82	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8,800.00 8,821.53	7.10 7.10 7.10	352.00 352.00	8,772.64 8,794.00	443.71 446.35	-62.32 -62.69	-431.82 -444.08 -446.72	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
CAN MADE AND AND AND SHARE OF	alon Shale 7.10	352.00	8,871.87	455.96					
9,000.00 9,073.46	7.10 7.10 7.10	352.00 352.00 352.00	8,971.10 9,044.00	468.21 477.20	-64.04 -65.76 -67.03	-456.34 -468.60 -477.61	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
1st Bone S	Spring Lime								
9,100.00 9,200.00 9,300.00 9,335.47 1st Bone \$	7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00	9,070.34 9,169.57 9,268.80 9,304.00	480.46 492.70 504.95 509.30	-67.49 -69.21 -70.93 -71.54	-480.86 -493.12 -505.38 -509.72	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
9,400.00	7.10	352.00	9,368.03	517.20	-72.65	-517.63	0.00	0.00	0.00
9,500.00 9,600.00 9,700.00 9,738.57	7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00	9,467.26 9,566.50 9,665.73 9,704.00	529.45 541.70 553.95 558.67	-74.37 -76.09 -77.81 -78.47	-529.89 -542.15 -554.41 -559.14	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
2nd Bone	Spring Lime				K CENTRE	144.50	0.00	0.00	0.00
9,800.00	7.10	352.00	9,764.96	566.19	-79.53	-566.67	0.00	0.00	0.00
9,900.00 10,000.00 10,056.01	7.10 7.10 7.10	352.00 352.00 352.00	9,864.19 9,963.43 10,019.00	578.44 590.69 597.55	-81.25 -82.97 -83.93	-578.93 -591.19 -598.05	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
2nd Bone 10,100.00	Spring Ss 7.10	252.00	10.000.00	602.04	04.00	000.45	0.00	0.00	
10,100.00	7.10	352.00 352.00	10,062.66 10,161.89	602.94 615.19	-84.69 -86.41	-603.45 -615.70	0.00 0.00	0.00 0.00	0.00 0.00
10,300.00 10,400.00 10,433.91	7.10 7.10 7.10	352.00 352.00 352.00	10,261.12 10,360.35 10,394.00	627.44 639.68 643.84	-88.13 -89.85 -90.43	-627.96 -640.22 -644.38	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
3rd Bone S	Spring Lm		KIND OF STREET	a extingtion of		ATTACK TO	Trees of the	0.00	0.00
10,500.00 10,600.00	7.10 7.10	352.00 352.00	10,459.59 10,558.82	651.93 664.18	-91.57 -93.29	-652.48 -664.74	0.00 0.00	0.00 0.00	0.00 0.00
10,700.00 10,800.00 10,900.00 11,000.00 11,100.00	7.10 7.10 7.10 7.10 7.10	352.00 352.00 352.00 352.00 352.00	10,658.05 10,757.28 10,856.51 10,955.75 11,054.98	676.43 688.68 700.93 713.17 725.42	-95.01 -96.73 -98.45 -100.17 -101.89	-677.00 -689.26 -701.51 -713.77 -726.03	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
11,189.71	7.10	352.00	11,144.00	736.41	-103.44	-737.03	0.00	0.00	0.00
3rd Bone 9		252.00	11 154 04	707.07	400.04	700.00	0.00	2.00	
11,200.00 11,300.00 11,322.62 11,350.00	7.10 7.10 7.10 4.41	352.00 352.00 352.00 347.23	11,154.21 11,253.44 11,275.89 11,303.13	737.67 749.92 752.69 755.39	-103.61 -105.33 -105.72 -106.19	-738.29 -750.55 -753.32 -756.03	0.00 0.00 0.00 10.00	0.00 0.00 0.00 -9.85	0.00 0.00 0.00 -17.46
11,400.00 11,450.00 11,500.00 11,550.00 11,568.68	1.18 5.77 10.74 15.72 17.59	233.41 189.09 184.66 183.02 182.65	11,353.08 11,402.98 11,452.45 11,501.11 11,519.00	756.96 754.17 747.04 735.62 730.28	-107.03 -107.84 -108.62 -109.35 -109.62	-757.60 -754.82 -747.69 -736.28 -730.93	10.00 10.00 10.00 10.00 10.00	-6.46 9.19 9.93 9.97 9.98	-227.63 -88.65 -8.84 -3.28 -2.02
Red Hills S				PLEASURE IN					2.02
11,600.00	20.72	182.16	11,548.58	720.01	-110.04	-720.67	10.00	9.99	-1.55

03/09/20 5:02:18PM

Page 5

COMPASS 5000.11 Build 74



Database: Company: EDM 5000.1.13 Single User Db XTO Energy

Project: Site:

Well:

Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR

#124H Wellbore: OH

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

Design:	PERMIT v2								
Planned Survey	To the same								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,650.00 11,660.57 Wolfcamp	25.71 26.77	181.62 181.53	11,594.52 11,604.00	700.32 695.65	-110.69 -110.81	-700.98 -696.31	10.00 10.00	9.99 9.99	-1.08 -0.85
11,671.83 Wolfcamp	27.89	181.44	11,614.00	690.48	-110.95	-691.15	10.00	9.99	-0.79
11,700.00	30.71	181.25	11,638.57	676.70	-111.27	-677.37	10.00	9.99	-0.69
11,750.00 11,766.95	35.71 37.40	180.97 180.89	11,680.39 11,694.00	649.33 639.24	-111.80 -111.96	-650.00 -639.91	10.00 10.00	10.00 10.00	-0.56 -0.47
Wolfcamp	Υ		PENASTAS.				Maria Salahara	Market Branch	
11,800.00 11,819.19	40.71 42.62	180.75 180.68	11,719.67 11,734.00	618.42 605.66	-112.26 -112.42	-619.09 -606.34	10.00 10.00	10.00 10.00	-0.42 -0.38
Wolfcamp									
11,850.00	45.70	180.58	11,756.10	584.20	-112.65	-584.88	10.00	10.00	-0.34
11,900.00 11,950.00 12,000.00 12,050.00 12,100.00	50.70 55.70 60.70 65.70 70.70	180.43 180.30 180.18 180.08 179.98	11,789.41 11,819.35 11,845.69 11,868.23 11,886.79	546.94 506.91 464.43 419.82 373.41	-112.98 -113.23 -113.40 -113.50 -113.53	-547.62 -507.59 -465.12 -420.50 -374.09	10.00 10.00 10.00 10.00 10.00	10.00 10.00 10.00 10.00 10.00	-0.30 -0.26 -0.23 -0.21 -0.19
12,150.00 12,200.00 12,250.00	75.70 80.70 85.70	179.89 179.80 179.72	11,901.24 11,911.46 11,917.38	325.56 276.63 227.00	-113.47 -113.34 -113.14	-326.24 -277.32 -227.68	10.00 10.00 10.00	10.00 10.00 10.00	-0.18 -0.17 -0.17
12,293.04	90.00	179.65	11,919.00	184.00	-112.90	-184.69	10.00	10.00	-0.17
	amp A Lower								
12,300.00	90.00	179.65	11,919.00	177.04	-112.86	-177.72	0.00	0.00	0.00
12,400.00 12,500.00 12,600.00 12,700.00 12,800.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	77.04 -22.96 -122.96 -222.95 -322.95	-112.24 -111.63 -111.02 -110.40 -109.79	-77.72 22.28 122.28 222.28 322.28	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
12,900.00 13,000.00 13,100.00 13,200.00 13,300.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	-422.95 -522.95 -622.95 -722.94 -822.94	-109.18 -108.57 -107.95 -107.34 -106.73	422.28 522.28 622.28 722.28 822.28	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
13,400.00 13,500.00 13,600.00 13,700.00 13,800.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	-922.94 -1,022.94 -1,122.94 -1,222.93 -1,322.93	-106.11 -105.50 -104.89 -104.27 -103.66	922.28 1,022.28 1,122.28 1,222.28 1,322.28	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
13,900.00 14,000.00 14,100.00 14,200.00 14,300.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	-1,422.93 -1,522.93 -1,622.93 -1,722.93 -1,822.92	-103.05 -102.43 -101.82 -101.21 -100.59	1,422.28 1,522.28 1,622.28 1,722.28 1,822.28	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
14,400.00 14,500.00 14,600.00 14,700.00 14,800.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	-1,922.92 -2,022.92 -2,122.92 -2,222.92 -2,322.91	-99.98 -99.37 -98.76 -98.14 -97.53	1,922.28 2,022.28 2,122.28 2,222.28 2,322.28	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
14,900.00 15,000.00 15,100.00 15,200.00 15,300.00	90.00 90.00 90.00 90.00 90.00	179.65 179.65 179.65 179.65 179.65	11,919.00 11,919.00 11,919.00 11,919.00 11,919.00	-2,422.91 -2,522.91 -2,622.91 -2,722.91 -2,822.90	-96.92 -96.30 -95.69 -95.08 -94.46	2,422.28 2,522.28 2,622.28 2,722.28 2,822.28	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

03/09/20 5:02:18PM

Page 6

COMPASS 5000.11 Build 74



Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Site: Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR

Well: #124H Wellbore: OH Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

Design:	PERMIT v2								
Planned Survey									7.01 STAN MARCH 1877
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,400.00	90.00	179.65	11,919.00	-2,922.90	-93.85	2,922.28	0.00	0.00	0.00
15,500.00	90.00	179.65	11,919.00	-3,022.90	-93.24	3,022.28	0.00	0.00	0.00
15,600.00	90.00	179.65	11,919.00	-3,122.90	-92.62	3,122.28	0.00	0.00	0.00
15,700.00	90.00	179.65	11,919.00	-3,222.90	-92.01	3,222.28	0.00	0.00	0.00
15,800.00	90.00	179.65	11,919.00	-3,322.90	-91.40	3,322.28	0.00	0.00	0.00
15,900.00	90.00	179.65	11,919.00	-3,422.89	-90.78	3,422.28	0.00	0.00	0.00
16,000.00	90.00	179.65	11,919.00	-3,522.89	-90.17	3,522.28	0.00	0.00	0.00
16,100.00	90.00	179.65	11,919.00	-3,622.89	-89.56	3,622.28	0.00	0.00	0.00
16,200.00	90.00	179.65	11,919.00	-3,722.89	-88.95	3,722.28	0.00	0.00	0.00
16,300.00	90.00	179.65	11,919.00	-3,822.89	-88.33	3,822.28	0.00	0.00	0.00
16,400.00	90.00	179.65	11,919.00	-3,922.88	-87.72	3,922.28	0.00	0.00	0.00
16,500.00	90.00	179.65	11,919.00	-4,022.88	-87.11	4,022.28	0.00	0.00	0.00
16,600.00	90.00	179.65	11,919.00	-4,122.88	-86.49	4,122.28	0.00	0.00	0.00
16,700.00	90.00	179.65	11,919.00	-4,222.88	-85.88	4,222.28	0.00	0.00	0.00
16,800.00	90.00	179.65	11,919.00	-4,322.88	-85.27	4,322.28	0.00	0.00	0.00
16,900.00	90.00	179.65	11,919.00	-4,422.87	-84.65	4,422.28	0.00	0.00	0.00
17,000.00	90.00	179.65	11,919.00	-4,522.87	-84.04	4,522.28	0.00	0.00	0.00
17,100.00	90.00	179.65	11,919.00	-4,622.87	-83.43	4,622.28	0.00	0.00	0.00
17,200.00	90.00	179.65	11,919.00	-4,722.87	-82.81	4,722.28	0.00	0.00	0.00
17,300.00	90.00	179.65	11,919.00	-4,822.87	-82.20	4,822.28	0.00	0.00	0.00
17,400.00	90.00	179.65	11,919.00	-4,922.87	-81.59	4,922.28	0.00	0.00	0.00
17,500.00	90.00	179.65	11,919.00	-5,022.86	-80.97	5,022.28	0.00	0.00	0.00
17,600.00	90.00	179.65	11,919.00	-5,122.86	-80.36	5,122.28	0.00	0.00	0.00
17,700.00	90.00	179.65	11,919.00	-5,222.86	-79.75	5,222.28	0.00	0.00	0.00
17,800.00	90.00	179.65	11,919.00	-5,322.86	-79.14	5,322.28	0.00	0.00	0.00
17,900.00	90.00	179.65	11,919.00	-5,422.86	-78.52	5,422.28	0.00	0.00	0.00
18,000.00	90.00	179.65	11,919.00	-5,522.85	-77.91	5,522.28	0.00	0.00	0.00
18,100.00	90.00	179.65	11,919.00	-5,622.85	-77.30	5,622.28	0.00	0.00	0.00
18,200.00	90.00	179.65	11,919.00	-5,722.85	-76.68	5,722.28	0.00	0.00	0.00
18,300.00	90.00	179.65	11,919.00	-5,822.85	-76.07	5,822.28	0.00	0.00	0.00
18,400.00	90.00	179.65	11,919.00	-5,922.85	-75.46	5,922.28	0.00	0.00	0.00
18,500.00	90.00	179.65	11,919.00	-6,022.84	-74.84	6,022.28	0.00	0.00	0.00
18,600.00	90.00	179.65	11,919.00	-6,122.84	-74.23	6,122.28	0.00	0.00	0.00
18,700.00	90.00	179.65	11,919.00	-6,222.84	-73.62	6,222.28	0.00	0.00	0.00
18,800.00	90.00	179.65	11,919.00	-6,322.84	-73.00	6,322.28	0.00	0.00	0.00
18,900.00	90.00	179.65	11,919.00	-6,422.84	-72.39	6,422.28	0.00	0.00	0.00
19,000.00	90.00	179.65	11,919.00	-6,522.84	-71.78	6,522.28	0.00	0.00	0.00
19,100.00	90.00	179.65	11,919.00	-6,622.83	-71.17	6,622.28	0.00	0.00	0.00
19,200.00	90.00	179.65	11,919.00	-6,722.83	-70.55	6,722.28	0.00	0.00	0.00
19,300.00	90.00	179.65	11,919.00	-6,822.83	-69.94	6,822.28	0.00	0.00	0.00
19,400.00	90.00	179.65	11,919.00	-6,922.83	-69.33	6,922.28	0.00	0.00	0.00
19,500.00	90.00	179.65	11,919.00	-7,022.83	-68.71	7,022.28	0.00	0.00	0.00
19,600.00	90.00	179.65	11,919.00	-7,122.82	-68.10	7,122.28	0.00	0.00	0.00
19,700.00	90.00	179.65	11,919.00	-7,222.82	-67.49	7,222.28	0.00	0.00	0.00
19,800.00	90.00	179.65	11,919.00	-7,322.82	-66.87	7,322.28	0.00	0.00	0.00
19,900.00	90.00	179.65	11,919.00	-7,422.82	-66.26	7,422.28	0.00	0.00	0.00
20,000.00	90.00	179.65	11,919.00	-7,522.82	-65.65	7,522.28	0.00	0.00	0.00
20,100.00	90.00	179.65	11,919.00	-7,622.81	-65.03	7,622.28	0.00	0.00	0.00
20,200.00	90.00	179.65	11,919.00	-7,722.81	-64.42	7,722.28	0.00	0.00	0.00
20,300.00	90.00	179.65	11,919.00	-7,822.81	-63.81	7,822.28	0.00	0.00	0.00
20,400.00	90.00	179.65	11,919.00	-7,922.81	-63.19	7,922.28	0.00	0.00	0.00
20,500.00	90.00	179.65	11,919.00	-8,022.81	-62.58	8,022.28	0.00	0.00	0.00
20,600.00	90.00	179.65	11,919.00	-8,122.81	-61.97	8,122.28	0.00	0.00	0.00
20,700.00	90.00	179.65	11,919.00	-8,222.80	-61.36	8,222.28	0.00	0.00	0.00

03/09/20 5:02:18PM

Page 7

COMPASS 5000.11 Build 74



Database: Company: EDM 5000.1.13 Single User Db

XTO Energy

Project: Site: Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR

Well: Wellbore: Design: #124H OH PERMIT v2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

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)
20,800.00	90.00	179.65	11,919.00	-8,322.80	-60.74	8,322.28	0.00	0.00	0.00
20,900.00	90.00	179.65	11,919.00	-8,422.80	-60.13	8,422.28	0.00	0.00	0.00
21,000.00	90.00	179.65	11,919.00	-8,522.80	-59.52	8,522.28	0.00	0.00	0.00
21,100.00	90.00	179.65	11,919.00	-8,622.80	-58.90	8,622.28	0.00	0.00	0.00
21,200.00	90.00	179.65	11,919.00	-8,722.79	-58.29	8,722.28	0.00	0.00	0.00
21,300.00	90.00	179.65	11,919.00	-8,822.79	-57.68	8,822.28	0.00	0.00	0.00
21,400.00	90.00	179.65	11,919.00	-8,922.79	-57.06	8,922.28	0.00	0.00	0.00
21,500.00	90.00	179.65	11,919.00	-9,022.79	-56.45	9,022.28	0.00	0.00	0.00
21,600.00	90.00	179.65	11,919.00	-9,122.79	-55.84	9,122.28	0.00	0.00	0.00
21,700.00	90.00	179.65	11,919.00	-9,222.78	-55.22	9,222.28	0.00	0.00	0.00
21,800.00	90.00	179.65	11,919.00	-9,322.78	-54.61	9,322.28	0.00	0.00	0.00
21,900.00	90.00	179.65	11,919.00	-9,422.78	-54.00	9,422.28	0.00	0.00	0.00
22,000.00	90.00	179.65	11,919.00	-9,522.78	-53.38	9,522.28	0.00	0.00	0.00
22,100.00	90.00	179.65	11,919.00	-9,622.78	-52.77	9,622.28	0.00	0.00	0.00
22,195.93	90.00	179.65	11,919.00	-9,718.70	-52.18	9,718.20	0.00	0.00	0.00
22,200.00	90.00	179.65	11,919.00	-9,722.78	-52.16	9,722.28	0.00	0.00	0.00
22,300.00	90.00	179.65	11,919.00	-9,822.77	-51.55	9,822.28	0.00	0.00	0.00
22,325.93	90.00	179.65	11,919.00	-9,848.70	-51.39	9,848.21	0.00	0.00	0.00

Design Targets									
Target Name - hit/miss target Dip - Shape	Angle	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PLU-16-TWR #124: S - plan hits target cente - Point	0.00 er	0.01	0.00	0.00	0.00	440,025.50	670,088.70	32.2085512	-103.7834060
PLU-16-TWR #124: L' - plan misses target ce - Point	0.00 enter by		11,919.00 22195.93u	-9,718.70 sft MD (1191	-51.60 9.00 TVD, -9	430,306.80 9718.70 N, -52.18	670,037.10 BE)	32.1818364	-103.7837334
PLU-16-TWR #124: P - plan misses target ce - Point	0.00 enter by ((A) (B) (B) (B) (B) (B)	11,919.00 22325.93u	-9,848.70 sft MD (1191	-50.80 9.00 TVD, -9	430,176.80 9848.70 N, -51.39	670,037.90 (E)	32.1814790	-103.7837330
PLU-16-TWR #124: F - plan hits target cente - Point	0.00	0.01	11,919.00	184.00	-112.90	440,209.50	669,975.80	32.2090586	-103.7837680



Database: Company: EDM 5000.1.13 Single User Db XTO Energy

Project: Site:

Eddy County, NM (NAD-27) Poker Lake Unit 16 TWR

Well: Wellbore: Design:

#124H OH PERMIT v2 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #124H

RKB = 33' @ 3545.00usft RKB = 33' @ 3545.00usft

Grid

Minimum Curvature

Meas De (us	oth Depth	Name	Lithology	Dip (°)	Dip Direction (°)
(34.00 634.0	0 Rustler	3,	V	
6	94.00 694.0	Magenta Dolomite			
9	74.00 974.0	Top Salt			
4,1	84.00 4,184.0	Base Salt			
4,4	19.00 4,419.0) Delaware			
5,3	19.66 5,319.0	Cherry Canyon			
6,8	56.44 6,844.0	Brushy Canyon			
7,9	90.14 7,969.0	Basal Brushy Canyon			
8,2	67.27 8,244.0	Bone Spring Lime			
8,3	17.66 8,294.0	Avalon Sand			
8,3	42.85 8,319.0	Upper Avalon Shale			
8,8	21.53 8,794.0	Lower Avalon Shale			
9,0	73.46 9,044.0	1st Bone Spring Lime			
9,3	35.47 9,304.0	1st Bone Spring Ss			
9,7	38.57 9,704.0	2nd Bone Spring Lime			
10,0	56.01 10,019.0	2nd Bone Spring Ss			
10,4	33.91 10,394.0	3rd Bone Spring Lm			
11,1	89.71 11,144.0	3rd Bone Spring Ss			
11,5	68.68 11,519.0	Red Hills SS			
11,6	60.57 11,604.0) Wolfcamp			
11,6	71.83 11,614.0	Wolfcamp X			
11,7	66.95 11,694.0	Wolfcamp Y			
11,8	19.19 11,734.00	Wolfcamp A			
12,2	93.04 11,919.00) LP			
12.2	93.04 11,919.00	Wolfcamp A Lower			

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Permian Operating, LLC

LEASE NO.: | NMNM-0000506A

WELL NAME & NO.: Poker Lake Unit 16 TWR 124H

SURFACE HOLE FOOTAGE: 0515' FNL & 2290' FWL

BOTTOM HOLE FOOTAGE | 0200' FSL & 2178' FWL Sec. 28, T.24 S., R.31 E.

LOCATION: Section 21, T.24 S., R.31 E., NMPM

COUNTY: Eddy County, New Mexico

COA

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

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.

Page 1 of 7

B. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 820 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 9-5/8 inch intermediate casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool:
 - Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
- 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. Excess calculates to 14%
 Additional cement may be required.

Page 2 of 7

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. 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.

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.

Page 3 of 7

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 County
 Call 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 4 of 7

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

 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.

Page 5 of 7

- 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.
 - 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.

Page 6 of 7

- 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.

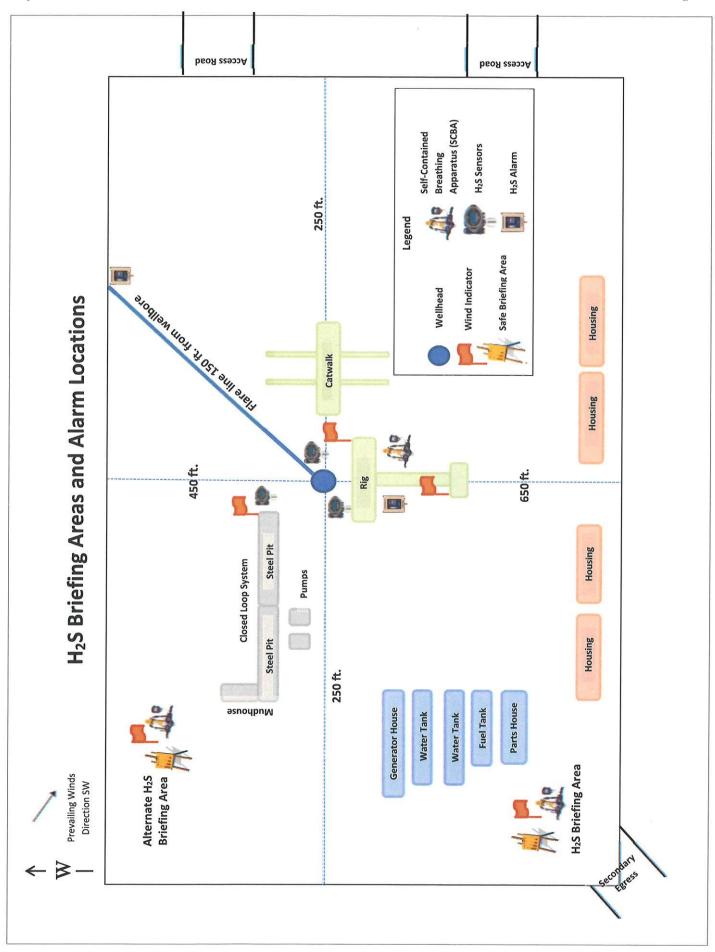
D. WASTE MATERIAL AND FLUIDS

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 06192020

Page 7 of 7





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

Well Name: POKER LAKE UNIT 16 TWR Well Number: 124H

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: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency: One Time Only Safe containment description: Steel mud pits

Safe containment 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? NO

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

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

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

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

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

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

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 97097

CONDITIONS

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD	Action Number:
MIDLAND, TX 79707	97097
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify OCD 24 hours prior to casing & cement	4/13/2022
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104	4/13/2022
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	4/13/2022
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing	4/13/2022
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	4/13/2022