Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM105216

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other
1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☑ Multiple Zone

7. If Unit or CA Agreement, Name and No.
JAMES RANCH / NMNM 0070965X

8. Lease Name and Well No.
JAMES RANCH UNIT DI 11 EKALAKA
115H

2. Name of Operator
XTO PERMIAN OPERATING LLC

9. API Well No. 30-015-53991

3a. Address
6401 Holiday Hill Road, Bldg 5, Midland, TX 79707

3b. Phone No. *(include area code)*
(432) 682-8873

10. Field and Pool, or Exploratory
Wildcat; Wolfcamp

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NWSE / 2335 FSL / 2516 FEL / LAT 32.391406 / LONG -103.903108
At proposed prod. zone SESE / 330 FSL / 50 FEL / LAT 32.400315 / LONG -103.860408

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 17/T22S/R30E/NMP

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
EDDY

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
2335 feet

16. No of acres in lease

17. Spacing Unit dedicated to this well
400.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.
30 feet

19. Proposed Depth
10826 feet / 24790 feet

20. BLM/BIA Bond No. in file
FED: COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3111 feet

22. Approximate date work will start*
01/31/2021

23. Estimated duration
45 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	STEPHANIE RABADUE / Ph: (432) 682-8873	06/11/2021

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	09/21/2021

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)

Approval Date: 09/21/2021

*(Instructions on page 2)

Additional Operator Remarks

Location of Well

0. SHL: NWSE / 2335 FSL / 2516 FEL / TWSP: 22S / RANGE: 30E / SECTION: 17 / LAT: 32.391406 / LONG: -103.903108 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 330 FSL / 2540 FEL / TWSP: 22S / RANGE: 30E / SECTION: 8 / LAT: 32.400399 / LONG: -103.903192 (TVD: 10618 feet, MD: 11600 feet)
BHL: SESE / 330 FSL / 50 FEL / TWSP: 22S / RANGE: 30E / SECTION: 10 / LAT: 32.400315 / LONG: -103.860408 (TVD: 10826 feet, MD: 24790 feet)

BLM Point of Contact

Name: PRISCILLA PEREZ
Title: Legal Instruments Examiner
Phone: (575) 234-5934
Email: pperez@blm.gov

Approval Date: 09/21/2021

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>
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
<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-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-015-53991	96597	Los Medanos;Wolfcamp

4 Property Code	5 Property Name	6 Well Number
331690	JAMES RANCH UNIT DI 11 EKALAKA	115H
7 OGRID No.	**8 Operator Name**	**9 Elevation**
373075	XTO PERMIAN OPERATING, LLC.	3,111'

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
J	17	22S	30E		2,335	SOUTH	2,516	EAST	EDDY

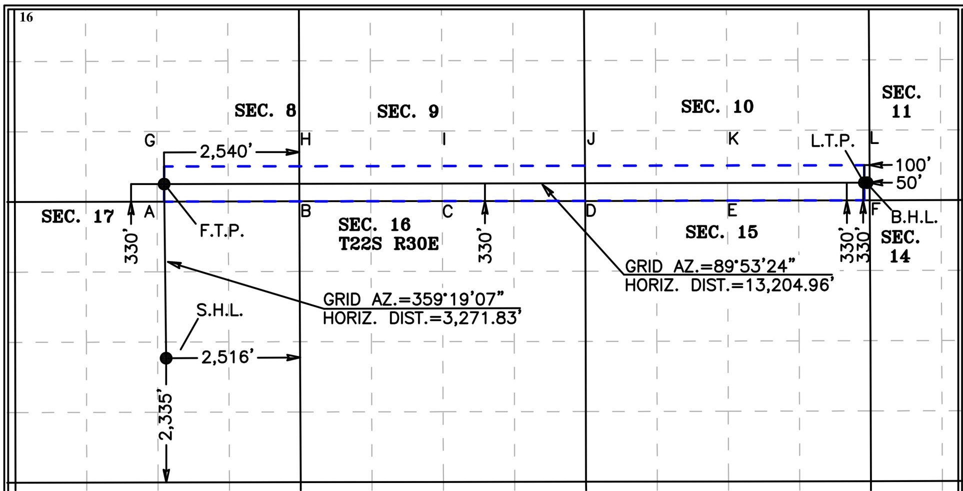
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	10	22S	30E		330	SOUTH	50	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
400			

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.

16



SHL (NAD83 NME)		LTP (NAD83 NME)		SHL (NAD27 NME)		LTP (NAD27 NME)	
Y =	506,391.9	Y =	509,688.7	Y =	506,331.1	Y =	509,627.9
X =	674,133.0	X =	687,249.0	X =	632,951.6	X =	646,067.7
LAT. =	32.391406 °N	LAT. =	32.400316 °N	LAT. =	32.391283 °N	LAT. =	32.400193 °N
LONG. =	103.903108 °W	LONG. =	103.860570 °W	LONG. =	103.902613 °W	LONG. =	103.860074 °W
FTP (NAD83 NME)		**BHL (NAD83 NME)**		**FTP (NAD27 NME)**		**BHL (NAD27 NME)**	
Y =	509,663.5	Y =	509,688.8	Y =	509,602.6	Y =	509,628.1
X =	674,094.1	X =	687,299.0	X =	632,912.7	X =	646,117.7
LAT. =	32.400399 °N	LAT. =	32.400315 °N	LAT. =	32.400276 °N	LAT. =	32.400193 °N
LONG. =	103.903192 °W	LONG. =	103.860408 °W	LONG. =	103.902696 °W	LONG. =	103.859912 °W

CORNER COORDINATES (NAD83 NME)		CORNER COORDINATES (NAD27 NME)	
A - Y = 509,333.1 N	X = 673,963.4 E	A - Y = 509,272.2 N	X = 632,782.1 E
B - Y = 509,341.7 N	X = 676,634.9 E	B - Y = 509,280.9 N	X = 635,453.5 E
C - Y = 509,344.4 N	X = 679,319.8 E	C - Y = 509,283.5 N	X = 638,138.4 E
D - Y = 509,345.5 N	X = 682,005.1 E	D - Y = 509,284.6 N	X = 640,823.8 E
E - Y = 509,353.1 N	X = 684,679.9 E	E - Y = 509,292.3 N	X = 643,498.6 E
F - Y = 509,358.9 N	X = 687,350.6 E	F - Y = 509,298.2 N	X = 646,169.4 E
G - Y = 510,652.8 N	X = 673,959.9 E	G - Y = 510,591.9 N	X = 632,778.7 E
H - Y = 510,661.3 N	X = 676,631.6 E	H - Y = 510,600.4 N	X = 635,450.3 E
I - Y = 510,663.5 N	X = 679,314.5 E	I - Y = 510,602.6 N	X = 638,133.2 E
J - Y = 510,665.0 N	X = 681,997.2 E	J - Y = 510,604.1 N	X = 640,815.9 E
K - Y = 510,672.3 N	X = 684,671.0 E	K - Y = 510,611.5 N	X = 643,489.8 E
L - Y = 510,678.8 N	X = 687,344.1 E	L - Y = 510,618.0 N	X = 646,162.8 E

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stephanie Rabadue 06/10/2021
Signature Date

Stephanie Rabadue
Printed Name

stephanie.rabadue@exxonmobil.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

6-10-2021
Date of Survey

Signature and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number RM 2019072019

P:\PROJECTS\2019\2019072019-XTO-JRU_DI_11_EKALAKA_115H-EDDY\DWG\2019072019-XTO-JAMES_RANCH_UNIT_DI_11_EKALAKA_115H_C-102.dwg

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________________________ **OGRID:** _373075________ **Date:** _7/14/2023_____

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
James Ranch Unit DI 11 Ekalaka 115H		J-17-22S-30E	2335'FSL & 2516'FEL	2000	3200	3500

IV. Central Delivery Point Name: _James Ranch Unit DI 11 battery located in Section 16-T22S-R30E______ [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.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
James Ranch Unit DI 11 Ekalaka 115H		TBD	TBD	TBD	TBD	TBD

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

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. ☐ 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 capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

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

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

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: Jessica Dooling
Printed Name: Jessica Dooling
Title: Regulatory Coordinator
E-mail Address: Jessica.dooling@exxonmobil.com
Date: 7/14/2023
Phone: 970-769-6048

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.

AFMSS

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

Drilling Plan Data Report

07/12/2023

APD ID: 10400075956

Submission Date: 06/11/2021

Highlighted data reflects the most recent changes

Show Final Text

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA

Well Number: 115H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
5450168	QUATERNARY	3111	0	0	ALLUVIUM	USEABLE WATER	N
5450175	RUSTLER	3047	64	64	SANDSTONE, SILTSTONE	USEABLE WATER	N
5450170	TOP SALT	2424	687	687	SALT	POTASH	N
5450171	BASE OF SALT	-69	3180	3180	SALT	POTASH	N
5450172	DELAWARE	-311	3422	3422	SANDSTONE, SILTSTONE	NATURAL GAS, OIL, USEABLE WATER	Y
5450173	BONE SPRING	-4102	7213	7213	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, USEABLE WATER	Y
5450176	WOLFCAMP	-7416	10527	10527	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : PW	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 10826

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. 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 Permanent Wellhead – Cactus CRC-MBU-3T-CFL Multibowl System Permanent Wellhead – Multibowl System A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom B. Tubing Head: 13-5/8" 10M bottom flange x 7-

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

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

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:

JRU_DI_11_5MCM_20201229051632.pdf

BOP Diagram Attachment:

JRU_DI_11_5MBOP_20201229051638.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	656	0	656	3111	2455	656	J-55	54.5	BUTT	3.81	2.33	DRY	23.86	DRY	23.86
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	3667	0	3667	3344	-556	3667	J-55	40	BUTT	2.16	1.39	DRY	4.3	DRY	4.3
3	INTERMEDIATE	8.75	7.625	NEW	API	N	0	10015	0	10015	3344	-6904	10015	HCL-80	29.7	BUTT	2.66	1.95	DRY	2.19	DRY	2.19
4	PRODUCTION	6.75	5.5	NEW	API	Y	0	24790	0	10826	3344	-7715	24790	HCP-110	23	LT&C	2.28	1.16	DRY	5.49	DRY	5.49

Casing Attachments

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_11_Ekalaka_115H_Csg_20210611054059.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_11_Ekalaka_115H_Csg_20210611054136.pdf

Casing ID: 3 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

JRU_DI_11_Ekalaka_115H_Csg_20210611054210.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

Casing Attachments

Casing ID: 4 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

JRU_DI_11_Ekalaka_115H_Csg_20210611054242.pdf

Casing Design Assumptions and Worksheet(s):

JRU_DI_11_Ekalaka_115H_Csg_20210611054250.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	656	260	1.87	12.9	561	100	EconoCem-HLTRRC	None
SURFACE	Tail		0	656	300	1.35	14.8	459	100	Halcem-C	2% CaCL
INTERMEDIATE	Lead	3467	0	3467	150	2.16	12.9	64.8	100	Halcem-C	2% CaCl
INTERMEDIATE	Tail		0	3467	330	1.33	14.8	199.5	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead		0	3667	1510	1.39	12.9	2529.8	100	EconoCem-HLTRRC	None
INTERMEDIATE	Tail		0	3667	130	1.35	14.8	256.5	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	3467	3467	10015	0	2.11	12.9	2363.2	100	Halcem-C	2% CaCL
INTERMEDIATE	Tail		3467	10015	390	1.2	14.8	204	100	Halcem-C	2% CaCL
PRODUCTION	Lead		9515	24790	300	2.69	11.5	807	100	NeoCem	None
PRODUCTION	Tail		0	24790	1990	1.51	13.2	3004.9	100	VersaCem	None

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

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. Drill out from under 13-3/8" surface casing with brine solution. A 9.8 ppg -10.2 ppg brine mud will be used while drilling through the salt formation. 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)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	656	SPUD MUD	8.7	9.2							
656	3667	SALT SATURATED	10.4	10.9							
3667	10015	OTHER : FW / Cut Brine	9.7	10.2							
10015	24790	OTHER : OBM/WBM/Cut Brine/Polymer	10.5	11							

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

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: 5910 **Anticipated Surface Pressure:** 3528

Anticipated Bottom Hole Temperature(F): 180

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

JRU_DI_2_H2S_Dia_20201026062603.pdf

JRU_DI_2_H2S_Plan_20201026062608.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

JRU_DI_11_Ekalaka_115H_DD_20210611053614.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

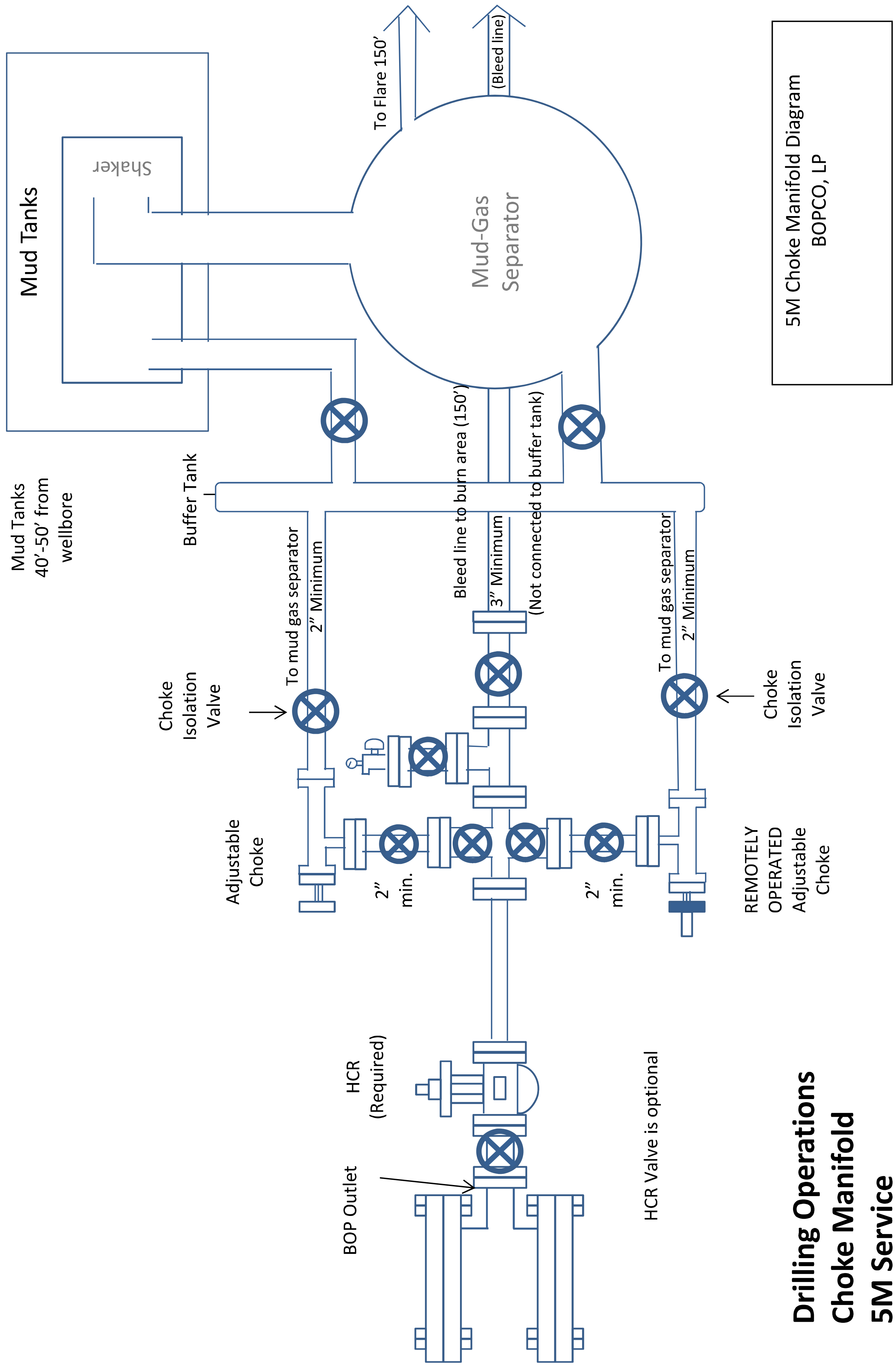
Other Variance attachment:

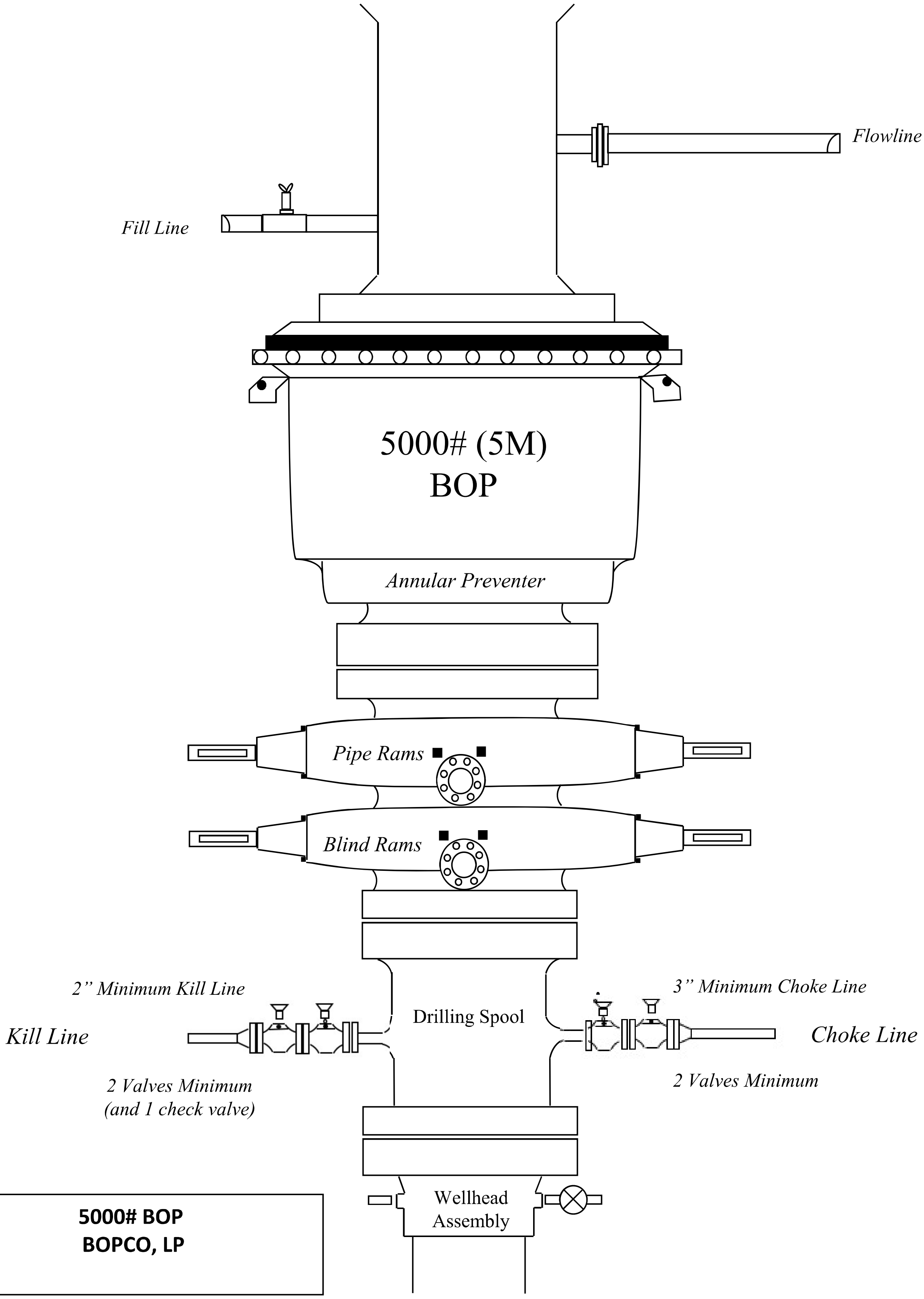
JRU_DI_11_BOP_BTV_20201229053233.pdf

JRU_DI_11_BatchSpud_20201229053227.pdf

JRU_DI_11_MBS_20201229053248.pdf

JRU_DI_11_OLCV_20201229053242.pdf


5M Choke Manifold Diagram
BOPCO, LP
Mud Tanks
Shaker
Mud-Gas Separator
To Flare 150'
(Bleed line)
Mud Tanks 40'-50' from wellbore
Buffer Tank
To mud gas separator
2" Minimum
Bleed line to burn area (150')
3" Minimum
(Not connected to buffer tank)
To mud gas separator
2" Minimum
Choke Isolation Valve
Choke Isolation Valve
Adjustable Choke
2" min.
2" min.
REMOTELY OPERATED Adjustable Choke
HCR (Required)
HCR Valve is optional
BOP Outlet
Drilling Operations
Choke Manifold
5M Service



5000# BOP
BOPCO, LP

Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 656'	13.375	54.5	J-55	BTC	New	2.33	3.81	23.86
12.25	0' – 3667'	9.625	40	J-55	BTC	New	1.39	2.16	4.30
8.75	0' – 3767'	7.625	29.7	RY P-110	Flush Joint	New	2.68	2.82	1.88
8.75	3767' – 10015'	7.625	29.7	HC L-80	Flush Joint	New	1.95	2.66	2.19
6.75	0' – 9915'	5.5	23	RY P-110	Semi-Premium	New	1.21	2.69	2.12
6.75	9915' - 10346'	5.5	23	RY P-110	Semi-Flush	New	1.21	2.57	5.24
6.75	10346' - 24790'	5	18	RY P-110	Semi-Premium	New	1.16	2.28	5.49

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry
· XTO requests to not utilize centralizers in the curve and lateral
· 9.625 Collapse analyzed using 50% evacuation based on regional experience.
· 7.625 Collapse analyzed using 50% evacuation based on regional experience.
· 5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
· Test on 2M annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
· XTO requests the option to use 5" BTC Float equipment for the the production casing

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

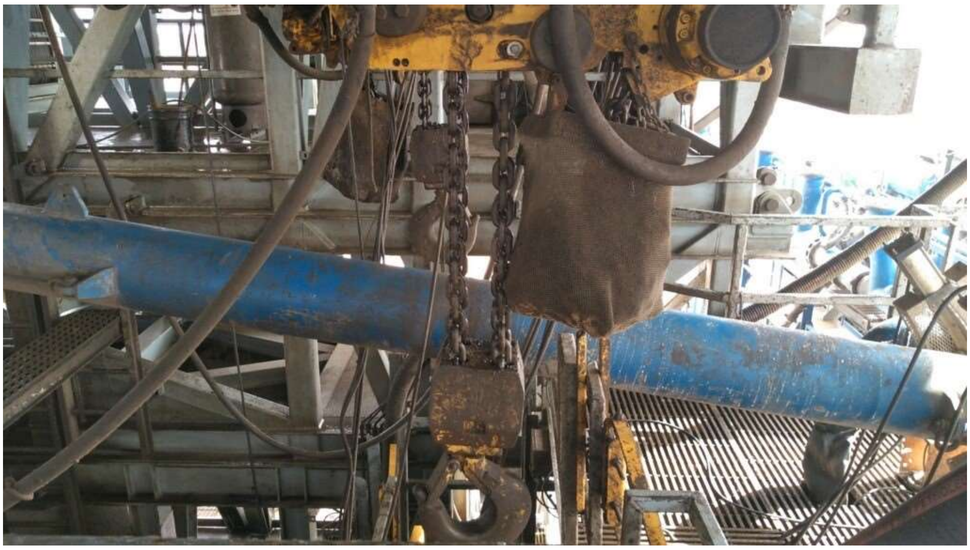


Figure 2: BOP Winch System

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.

62 API STANDARD 53

Table C.4—Initial Pressure Testing, Surface BOP Stacks

Component to be Pressure Tested	Pressure Test—Low Pressure[a,c] psig (MPa)	Pressure Test—High Pressure[a,c]	
		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[b,d]	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 chokes[e]	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	

[a] Pressure test evaluation periods shall be a minimum of five minutes.
No visible leaks.
The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure.
[b] Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program.
[c] For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.
[d] For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually.
[e] Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not 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.

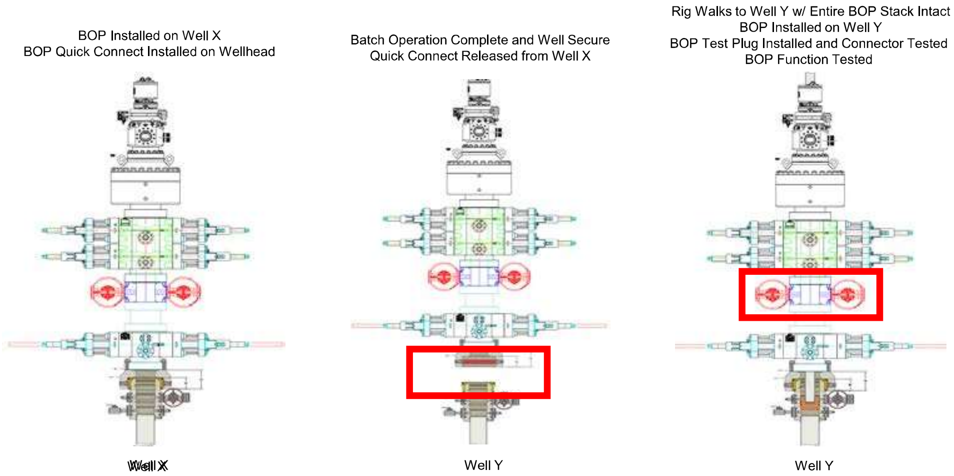
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that 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

1. 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 quick 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.

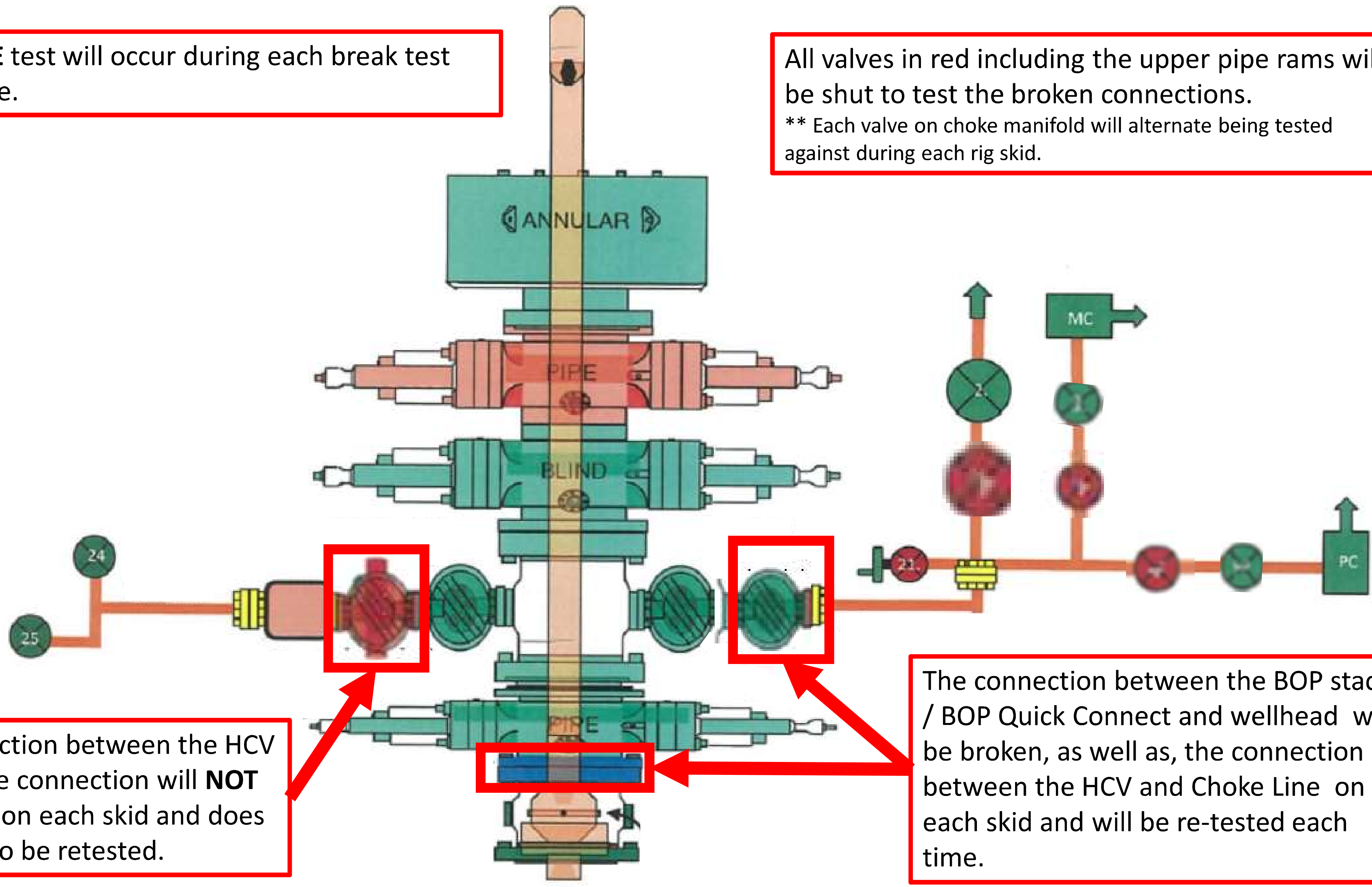
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.

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.

Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



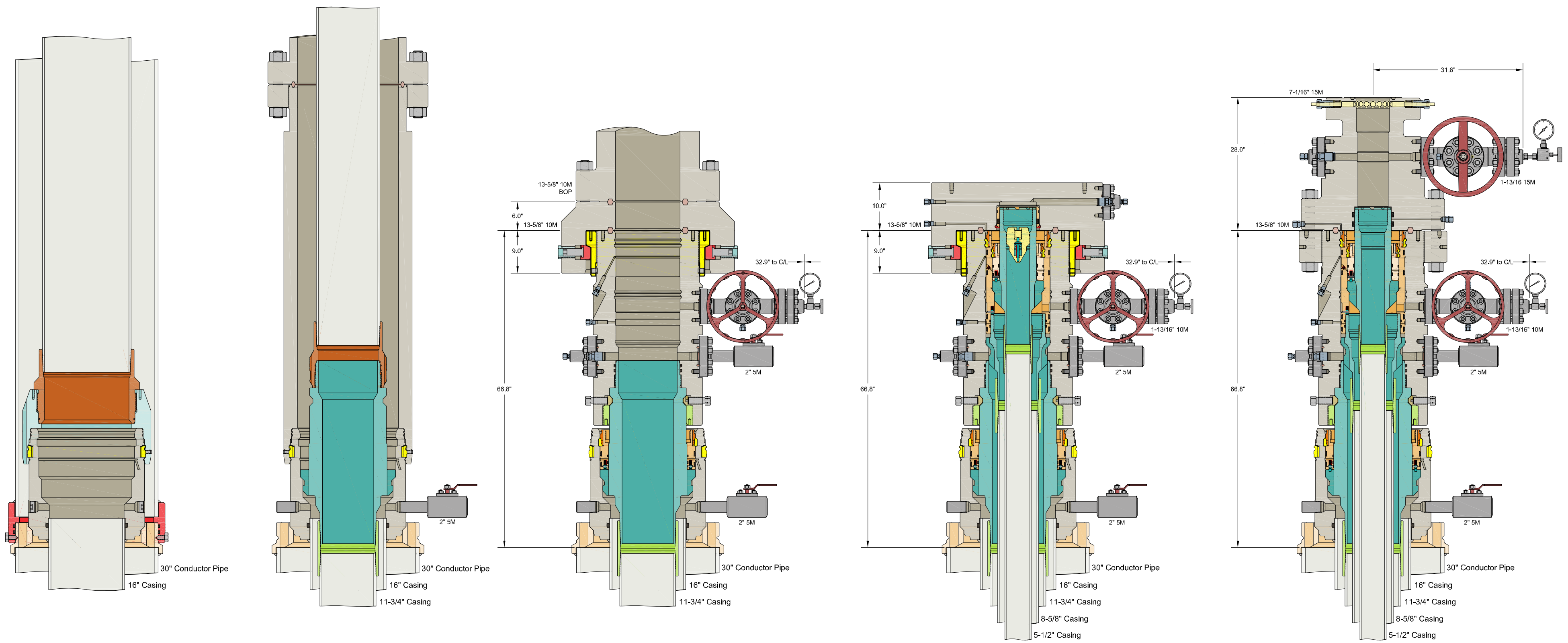
The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.

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.



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ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

30" x 16" x 11-3/4" x 8-5/8" x 5-1/2" CRC/MBU-3T-CFL Wellhead
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head
And Drilling & Skid Configurations

XTO ENERGY INC
POTASH

DRAWN	DLE	13JUL20
APPRV		
DRAWING NO.	HBE0000358	

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.

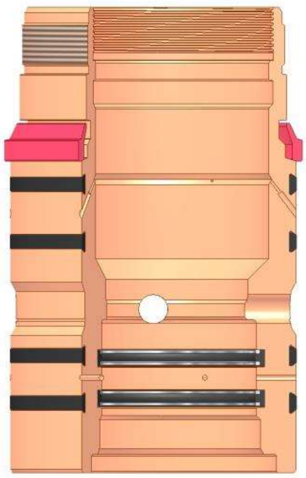
1. Cement Program

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

2. Offline Cementing Procedure

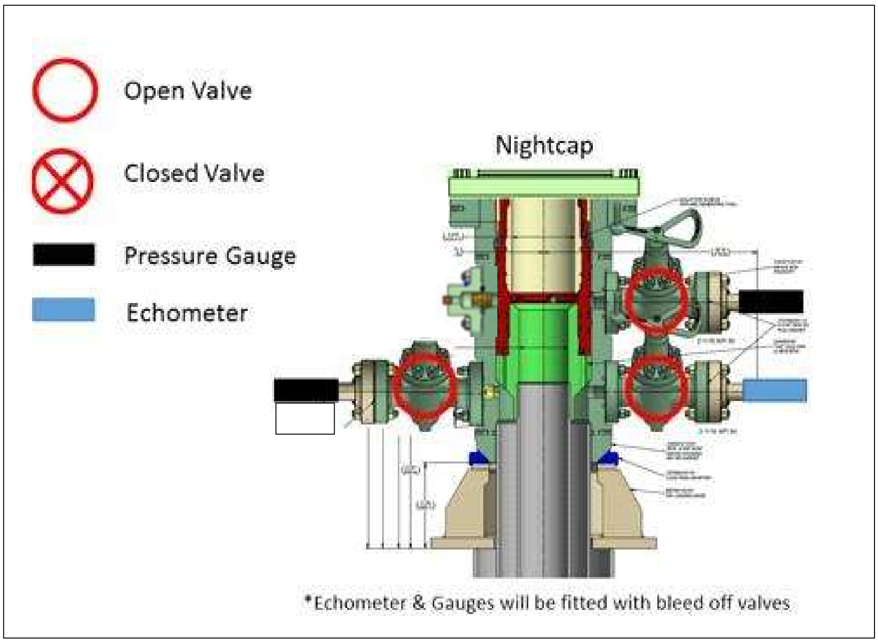
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

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

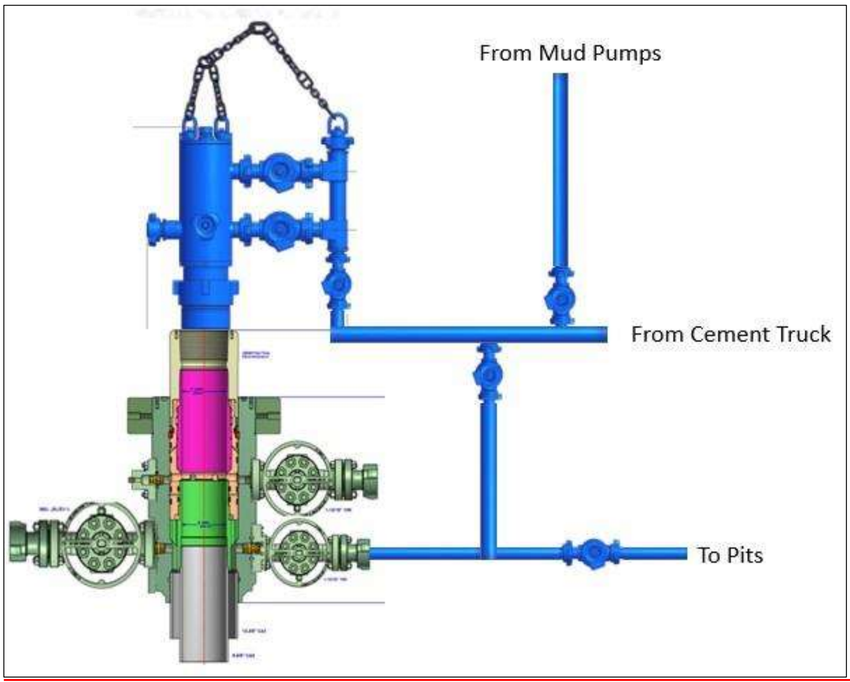
XTO Permian Operating, LLC Offline Cementing Variance Request



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 Energy

Eddy County, NM (NAD-27)
James Ranch Unit DI 11 Ekalaka
#115H

Wellbore #1

Plan: PERMIT

Standard Planning Report

10 June, 2021

Project: Eddy County, NM (NAD-27)
Site: James Ranch Unit DI 11 Ekalaka
Well: #115H
Wellbore: Wellbore #1
Design: PERMIT

WELL DETAILS: #115H

Rig Name:
RKB = 32' @ 3143.00usft
Ground Level: 3111.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	506331.10	632951.60	32.3912828	-103.9026125

SECTION DETAILS

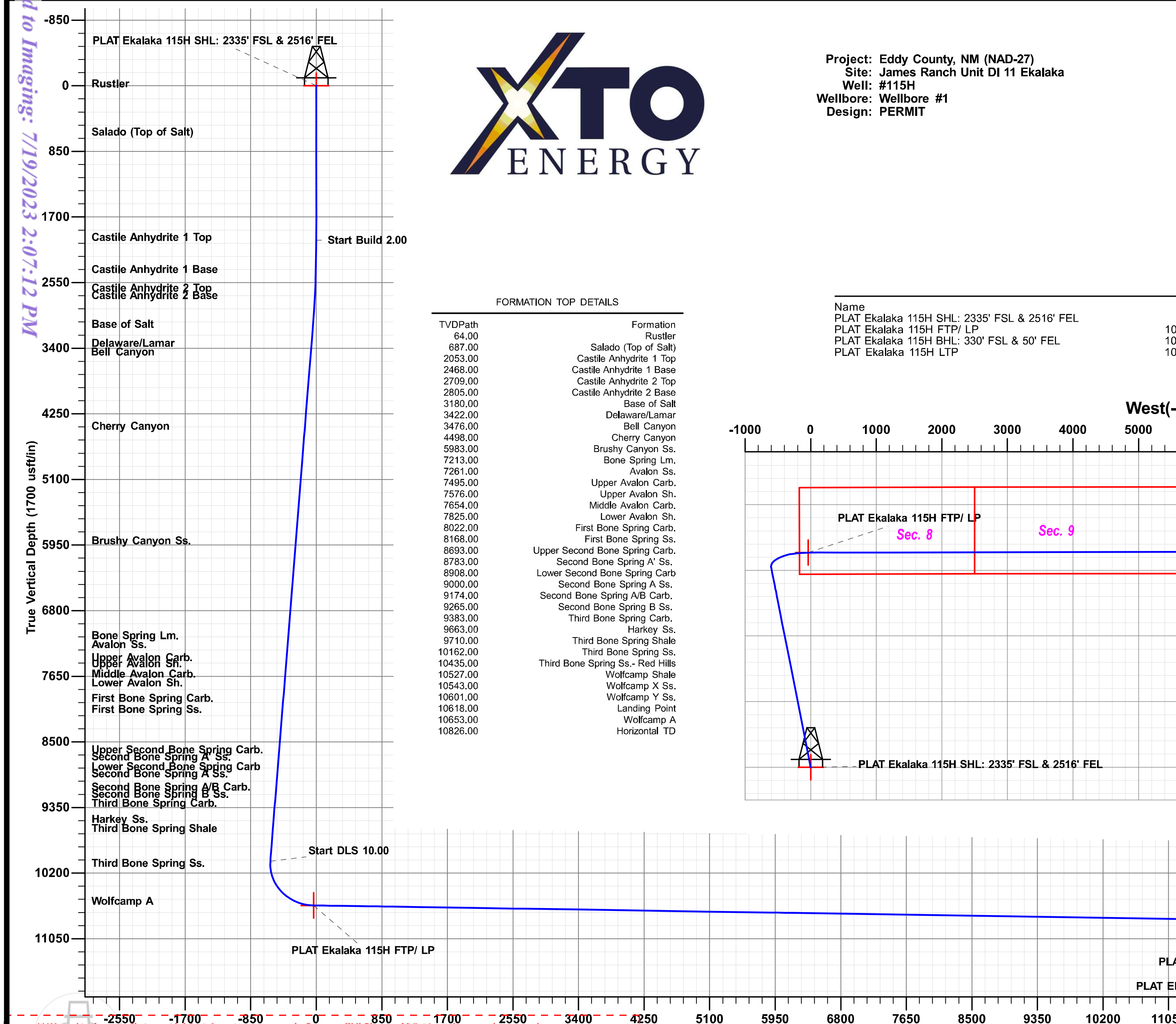
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
3	3126.29	22.53	348.81	3097.50	214.41	-42.40	2.00	348.81	-41.99
4	10649.73	22.53	348.81	10046.96	3041.89	-601.49	0.00	0.00	-595.65
5	11583.58	89.10	89.89	10618.00	3271.50	-38.90	10.00	100.59	-32.62
6	24740.23	89.10	89.89	10825.21	3296.90	13116.10	0.00	0.00	13122.41
7	24790.24	89.10	89.89	10826.00	3297.00	13166.10	0.00	0.00	13172.41

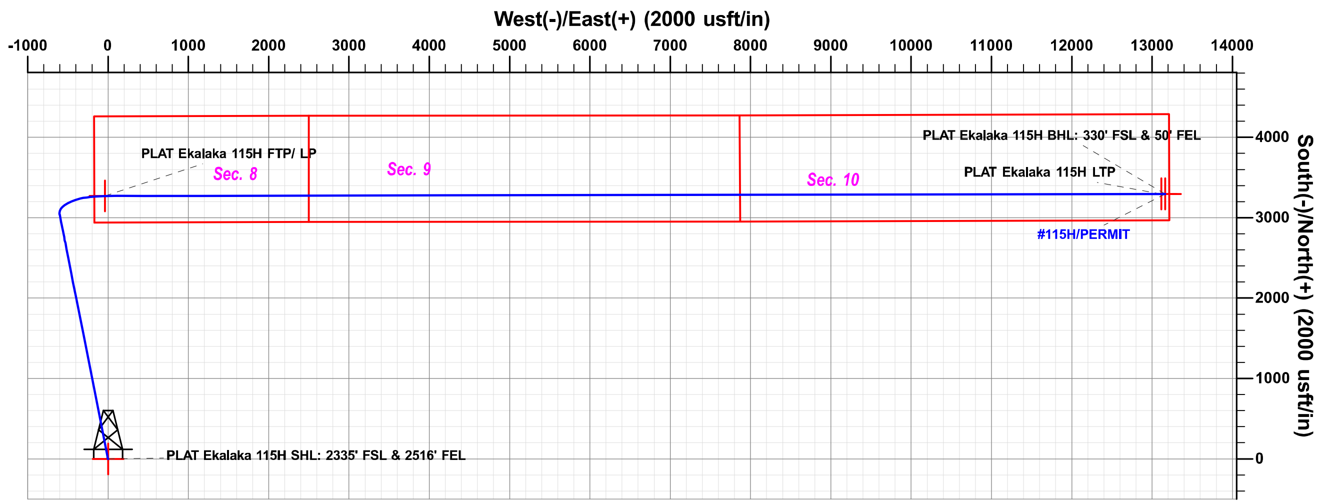
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PLAT Ekalaka 115H SHL: 2335' FSL & 2516' FEL	0.00	0.00	0.00	506331.10	632951.60	32.3912828	-103.9026125	Point
PLAT Ekalaka 115H FTP/ LP	10618.00	3271.50	-38.90	509602.60	632912.70	32.4002761	-103.9026958	Point
PLAT Ekalaka 115H BHL: 330' FSL & 50' FEL	10826.00	3297.00	13166.10	509628.10	646117.70	32.4001927	-103.8599124	Point
PLAT Ekalaka 115H LTP	10826.00	3296.80	13116.10	509627.90	646067.70	32.4001928	-103.8600744	Point

FORMATION TOP DETAILS

TVDPath	Formation
64.00	Rustler
687.00	Salado (Top of Salt)
2053.00	Castile Anhydrite 1 Top
2468.00	Castile Anhydrite 1 Base
2709.00	Castile Anhydrite 2 Top
2805.00	Castile Anhydrite 2 Base
3180.00	Base of Salt
3422.00	Delaware/Lamar
3476.00	Bell Canyon
4498.00	Cherry Canyon
5983.00	Brushy Canyon Ss.
7213.00	Bone Spring Lm.
7261.00	Avalon Ss.
7495.00	Upper Avalon Carb.
7576.00	Upper Avalon Sh.
7654.00	Middle Avalon Carb.
7825.00	Lower Avalon Sh.
8022.00	First Bone Spring Carb.
8168.00	First Bone Spring Ss.
8693.00	Upper Second Bone Spring Carb.
8783.00	Second Bone Spring A' Ss.
8908.00	Lower Second Bone Spring Carb
9000.00	Second Bone Spring A Ss.
9174.00	Second Bone Spring A/B Carb.
9265.00	Second Bone Spring B Ss.
9383.00	Third Bone Spring Carb.
9663.00	Harkey Ss.
9710.00	Third Bone Spring Shale
10162.00	Third Bone Spring Ss.
10435.00	Third Bone Spring Ss.- Red Hills
10527.00	Wolfcamp Shale
10543.00	Wolfcamp X Ss.
10601.00	Wolfcamp Y Ss.
10618.00	Landing Point
10653.00	Wolfcamp A
10826.00	Horizontal TD





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

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

Plan: PERMIT (#115H/Wellbore #1)

Created By: Matthew May Date: 15:04, June 10 2021

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

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

Site	James Ranch Unit DI 11 Ekalaka				
Site Position:		**Northing:**	506,101.30 usft	**Latitude:**	32.3906505
From:	Map	**Easting:**	633,012.00 usft	**Longitude:**	-103.9024198
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.23 °

Well	#115H						
Well Position	**+N/-S**	229.80 usft	**Northing:**	506,331.10 usft	**Latitude:**	32.3912828
	+E/-W	-60.40 usft	**Easting:**	632,951.60 usft	**Longitude:**	-103.9026125
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	3,111.00 usft

Wellbore	Wellbore #1

Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2020	06/10/21	6.71	60.00	47,562

Design	PERMIT				
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	89.89

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,126.29	22.53	348.81	3,097.50	214.41	-42.40	2.00	2.00	0.00	348.81	
10,649.74	22.53	348.81	10,046.96	3,041.89	-601.49	0.00	0.00	0.00	0.00	
11,583.58	89.10	89.89	10,618.00	3,271.50	-38.90	10.00	7.13	10.82	100.59	PLAT Ekalaka 115H
24,740.23	89.10	89.89	10,825.21	3,296.90	13,116.10	0.00	0.00	0.00	0.00	PLAT Ekalaka 115H
24,790.24	89.10	89.89	10,826.00	3,297.00	13,166.10	0.00	0.00	0.00	0.00	PLAT Ekalaka 115H

XTO ENERGY

Planning Report

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Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
64.00	0.00	0.00	64.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
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
687.00	0.00	0.00	687.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado (Top of Salt)									
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	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
2,053.00	1.06	348.81	2,053.00	0.48	-0.10	-0.09	2.00	2.00	0.00
Castile Anhydrite 1 Top									
2,100.00	2.00	348.81	2,099.98	1.71	-0.34	-0.34	2.00	2.00	0.00
2,200.00	4.00	348.81	2,199.84	6.85	-1.35	-1.34	2.00	2.00	0.00
2,300.00	6.00	348.81	2,299.45	15.40	-3.04	-3.01	2.00	2.00	0.00
2,400.00	8.00	348.81	2,398.70	27.35	-5.41	-5.36	2.00	2.00	0.00
2,470.11	9.40	348.81	2,468.00	37.75	-7.47	-7.39	2.00	2.00	0.00
Castile Anhydrite 1 Base									
2,500.00	10.00	348.81	2,497.47	42.70	-8.44	-8.36	2.00	2.00	0.00
2,600.00	12.00	348.81	2,595.62	61.41	-12.14	-12.03	2.00	2.00	0.00
2,700.00	14.00	348.81	2,693.06	83.48	-16.51	-16.35	2.00	2.00	0.00
2,716.44	14.33	348.81	2,709.00	87.43	-17.29	-17.12	2.00	2.00	0.00
Castile Anhydrite 2 Top									
2,800.00	16.00	348.81	2,789.64	108.87	-21.53	-21.32	2.00	2.00	0.00
2,815.99	16.32	348.81	2,805.00	113.23	-22.39	-22.17	2.00	2.00	0.00
Castile Anhydrite 2 Base									
2,900.00	18.00	348.81	2,885.27	137.55	-27.20	-26.93	2.00	2.00	0.00
3,000.00	20.00	348.81	2,979.82	169.49	-33.51	-33.19	2.00	2.00	0.00
3,100.00	22.00	348.81	3,073.17	204.64	-40.46	-40.07	2.00	2.00	0.00
3,126.29	22.53	348.81	3,097.50	214.41	-42.40	-41.99	2.00	2.00	0.00
3,200.00	22.53	348.81	3,165.59	242.11	-47.87	-47.41	0.00	0.00	0.00
3,215.61	22.53	348.81	3,180.00	247.98	-49.03	-48.56	0.00	0.00	0.00
Base of Salt									
3,300.00	22.53	348.81	3,257.96	279.70	-55.31	-54.77	0.00	0.00	0.00
3,400.00	22.53	348.81	3,350.33	317.28	-62.74	-62.13	0.00	0.00	0.00
3,477.59	22.53	348.81	3,422.00	346.44	-68.50	-67.84	0.00	0.00	0.00
Delaware/Lamar									
3,500.00	22.53	348.81	3,442.70	354.86	-70.17	-69.49	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
3,536.05	22.53	348.81	3,476.00	368.41	-72.85	-72.14	0.00	0.00	0.00
Bell Canyon									
3,600.00	22.53	348.81	3,535.07	392.44	-77.60	-76.85	0.00	0.00	0.00
3,700.00	22.53	348.81	3,627.44	430.02	-85.03	-84.21	0.00	0.00	0.00
3,800.00	22.53	348.81	3,719.81	467.61	-92.46	-91.57	0.00	0.00	0.00
3,900.00	22.53	348.81	3,812.18	505.19	-99.89	-98.92	0.00	0.00	0.00
4,000.00	22.53	348.81	3,904.55	542.77	-107.33	-106.28	0.00	0.00	0.00
4,100.00	22.53	348.81	3,996.92	580.35	-114.76	-113.64	0.00	0.00	0.00
4,200.00	22.53	348.81	4,089.29	617.94	-122.19	-121.00	0.00	0.00	0.00
4,300.00	22.53	348.81	4,181.66	655.52	-129.62	-128.36	0.00	0.00	0.00
4,400.00	22.53	348.81	4,274.03	693.10	-137.05	-135.72	0.00	0.00	0.00
4,500.00	22.53	348.81	4,366.41	730.68	-144.48	-143.08	0.00	0.00	0.00
4,600.00	22.53	348.81	4,458.78	768.26	-151.91	-150.44	0.00	0.00	0.00
4,642.46	22.53	348.81	4,498.00	784.22	-155.07	-153.56	0.00	0.00	0.00
Cherry Canyon									
4,700.00	22.53	348.81	4,551.15	805.85	-159.35	-157.80	0.00	0.00	0.00
4,800.00	22.53	348.81	4,643.52	843.43	-166.78	-165.16	0.00	0.00	0.00
4,900.00	22.53	348.81	4,735.89	881.01	-174.21	-172.52	0.00	0.00	0.00
5,000.00	22.53	348.81	4,828.26	918.59	-181.64	-179.88	0.00	0.00	0.00
5,100.00	22.53	348.81	4,920.63	956.17	-189.07	-187.23	0.00	0.00	0.00
5,200.00	22.53	348.81	5,013.00	993.76	-196.50	-194.59	0.00	0.00	0.00
5,300.00	22.53	348.81	5,105.37	1,031.34	-203.93	-201.95	0.00	0.00	0.00
5,400.00	22.53	348.81	5,197.74	1,068.92	-211.36	-209.31	0.00	0.00	0.00
5,500.00	22.53	348.81	5,290.11	1,106.50	-218.80	-216.67	0.00	0.00	0.00
5,600.00	22.53	348.81	5,382.48	1,144.09	-226.23	-224.03	0.00	0.00	0.00
5,700.00	22.53	348.81	5,474.85	1,181.67	-233.66	-231.39	0.00	0.00	0.00
5,800.00	22.53	348.81	5,567.22	1,219.25	-241.09	-238.75	0.00	0.00	0.00
5,900.00	22.53	348.81	5,659.60	1,256.83	-248.52	-246.11	0.00	0.00	0.00
6,000.00	22.53	348.81	5,751.97	1,294.41	-255.95	-253.47	0.00	0.00	0.00
6,100.00	22.53	348.81	5,844.34	1,332.00	-263.38	-260.83	0.00	0.00	0.00
6,200.00	22.53	348.81	5,936.71	1,369.58	-270.82	-268.19	0.00	0.00	0.00
6,250.12	22.53	348.81	5,983.00	1,388.41	-274.54	-271.87	0.00	0.00	0.00
Brushy Canyon Ss.									
6,300.00	22.53	348.81	6,029.08	1,407.16	-278.25	-275.55	0.00	0.00	0.00
6,400.00	22.53	348.81	6,121.45	1,444.74	-285.68	-282.90	0.00	0.00	0.00
6,500.00	22.53	348.81	6,213.82	1,482.33	-293.11	-290.26	0.00	0.00	0.00
6,600.00	22.53	348.81	6,306.19	1,519.91	-300.54	-297.62	0.00	0.00	0.00
6,700.00	22.53	348.81	6,398.56	1,557.49	-307.97	-304.98	0.00	0.00	0.00
6,800.00	22.53	348.81	6,490.93	1,595.07	-315.40	-312.34	0.00	0.00	0.00
6,900.00	22.53	348.81	6,583.30	1,632.65	-322.84	-319.70	0.00	0.00	0.00
7,000.00	22.53	348.81	6,675.67	1,670.24	-330.27	-327.06	0.00	0.00	0.00
7,100.00	22.53	348.81	6,768.04	1,707.82	-337.70	-334.42	0.00	0.00	0.00
7,200.00	22.53	348.81	6,860.42	1,745.40	-345.13	-341.78	0.00	0.00	0.00
7,300.00	22.53	348.81	6,952.79	1,782.98	-352.56	-349.14	0.00	0.00	0.00
7,400.00	22.53	348.81	7,045.16	1,820.57	-359.99	-356.50	0.00	0.00	0.00
7,500.00	22.53	348.81	7,137.53	1,858.15	-367.42	-363.86	0.00	0.00	0.00
7,581.71	22.53	348.81	7,213.00	1,888.85	-373.50	-369.87	0.00	0.00	0.00
Bone Spring Lm.									
7,600.00	22.53	348.81	7,229.90	1,895.73	-374.86	-371.21	0.00	0.00	0.00
7,633.67	22.53	348.81	7,261.00	1,908.38	-377.36	-373.69	0.00	0.00	0.00
Avalon Ss.									
7,700.00	22.53	348.81	7,322.27	1,933.31	-382.29	-378.57	0.00	0.00	0.00
7,800.00	22.53	348.81	7,414.64	1,970.89	-389.72	-385.93	0.00	0.00	0.00
7,887.00	22.53	348.81	7,495.00	2,003.59	-396.18	-392.34	0.00	0.00	0.00

XTO ENERGY

Planning Report

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Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Upper Avalon Carb.									
7,900.00	22.53	348.81	7,507.01	2,008.48	-397.15	-393.29	0.00	0.00	0.00
7,974.69	22.53	348.81	7,576.00	2,036.55	-402.70	-398.79	0.00	0.00	0.00
Upper Avalon Sh.									
8,000.00	22.53	348.81	7,599.38	2,046.06	-404.58	-400.65	0.00	0.00	0.00
8,059.13	22.53	348.81	7,654.00	2,068.28	-408.97	-405.00	0.00	0.00	0.00
Middle Avalon Carb.									
8,100.00	22.53	348.81	7,691.75	2,083.64	-412.01	-408.01	0.00	0.00	0.00
8,200.00	22.53	348.81	7,784.12	2,121.22	-419.44	-415.37	0.00	0.00	0.00
8,244.25	22.53	348.81	7,825.00	2,137.85	-422.73	-418.63	0.00	0.00	0.00
Lower Avalon Sh.									
8,300.00	22.53	348.81	7,876.49	2,158.81	-426.87	-422.73	0.00	0.00	0.00
8,400.00	22.53	348.81	7,968.86	2,196.39	-434.31	-430.09	0.00	0.00	0.00
8,457.52	22.53	348.81	8,022.00	2,218.01	-438.58	-434.32	0.00	0.00	0.00
First Bone Spring Carb.									
8,500.00	22.53	348.81	8,061.23	2,233.97	-441.74	-437.45	0.00	0.00	0.00
8,600.00	22.53	348.81	8,153.61	2,271.55	-449.17	-444.81	0.00	0.00	0.00
8,615.58	22.53	348.81	8,168.00	2,277.41	-450.33	-445.95	0.00	0.00	0.00
First Bone Spring Ss.									
8,700.00	22.53	348.81	8,245.98	2,309.13	-456.60	-452.17	0.00	0.00	0.00
8,800.00	22.53	348.81	8,338.35	2,346.72	-464.03	-459.53	0.00	0.00	0.00
8,900.00	22.53	348.81	8,430.72	2,384.30	-471.46	-466.88	0.00	0.00	0.00
9,000.00	22.53	348.81	8,523.09	2,421.88	-478.89	-474.24	0.00	0.00	0.00
9,100.00	22.53	348.81	8,615.46	2,459.46	-486.33	-481.60	0.00	0.00	0.00
9,183.95	22.53	348.81	8,693.00	2,491.01	-492.56	-487.78	0.00	0.00	0.00
Upper Second Bone Spring Carb.									
9,200.00	22.53	348.81	8,707.83	2,497.04	-493.76	-488.96	0.00	0.00	0.00
9,281.38	22.53	348.81	8,783.00	2,527.63	-499.80	-494.95	0.00	0.00	0.00
Second Bone Spring A' Ss.									
9,300.00	22.53	348.81	8,800.20	2,534.63	-501.19	-496.32	0.00	0.00	0.00
9,400.00	22.53	348.81	8,892.57	2,572.21	-508.62	-503.68	0.00	0.00	0.00
9,416.70	22.53	348.81	8,908.00	2,578.49	-509.86	-504.91	0.00	0.00	0.00
Lower Second Bone Spring Carb									
9,500.00	22.53	348.81	8,984.94	2,609.79	-516.05	-511.04	0.00	0.00	0.00
9,516.30	22.53	348.81	9,000.00	2,615.92	-517.26	-512.24	0.00	0.00	0.00
Second Bone Spring A Ss.									
9,600.00	22.53	348.81	9,077.31	2,647.37	-523.48	-518.40	0.00	0.00	0.00
9,700.00	22.53	348.81	9,169.68	2,684.96	-530.91	-525.76	0.00	0.00	0.00
9,704.67	22.53	348.81	9,174.00	2,686.71	-531.26	-526.10	0.00	0.00	0.00
Second Bone Spring A/B Carb.									
9,800.00	22.53	348.81	9,262.05	2,722.54	-538.35	-533.12	0.00	0.00	0.00
9,803.19	22.53	348.81	9,265.00	2,723.74	-538.58	-533.35	0.00	0.00	0.00
Second Bone Spring B Ss.									
9,900.00	22.53	348.81	9,354.43	2,760.12	-545.78	-540.48	0.00	0.00	0.00
9,930.94	22.53	348.81	9,383.00	2,771.75	-548.08	-542.75	0.00	0.00	0.00
Third Bone Spring Carb.									
10,000.00	22.53	348.81	9,446.80	2,797.70	-553.21	-547.84	0.00	0.00	0.00
10,100.00	22.53	348.81	9,539.17	2,835.28	-560.64	-555.20	0.00	0.00	0.00
10,200.00	22.53	348.81	9,631.54	2,872.87	-568.07	-562.55	0.00	0.00	0.00
10,234.06	22.53	348.81	9,663.00	2,885.67	-570.60	-565.06	0.00	0.00	0.00
Harkey Ss.									
10,284.94	22.53	348.81	9,710.00	2,904.79	-574.38	-568.81	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Third Bone Spring Shale									
10,300.00	22.53	348.81	9,723.91	2,910.45	-575.50	-569.91	0.00	0.00	0.00
10,400.00	22.53	348.81	9,816.28	2,948.03	-582.93	-577.27	0.00	0.00	0.00
10,500.00	22.53	348.81	9,908.65	2,985.61	-590.37	-584.63	0.00	0.00	0.00
10,600.00	22.53	348.81	10,001.02	3,023.20	-597.80	-591.99	0.00	0.00	0.00
10,649.74	22.53	348.81	10,046.96	3,041.89	-601.49	-595.65	0.00	0.00	0.00
10,700.00	22.13	2.03	10,093.49	3,060.81	-603.03	-597.15	10.00	-0.78	26.29
10,750.00	22.80	15.02	10,139.72	3,079.59	-600.18	-594.27	10.00	1.34	25.98
10,774.23	23.48	20.94	10,162.00	3,088.63	-597.24	-591.31	10.00	2.82	24.42
Third Bone Spring Ss.									
10,800.00	24.44	26.83	10,185.56	3,098.19	-592.99	-587.05	10.00	3.72	22.87
10,850.00	26.88	36.94	10,230.64	3,116.46	-581.53	-575.54	10.00	4.87	20.21
10,900.00	29.92	45.31	10,274.64	3,134.28	-565.86	-559.84	10.00	6.07	16.74
10,950.00	33.39	52.17	10,317.21	3,151.50	-546.12	-540.07	10.00	6.94	13.74
11,000.00	37.17	57.84	10,358.03	3,167.98	-522.45	-516.37	10.00	7.57	11.33
11,050.00	41.18	62.57	10,396.79	3,183.62	-495.03	-488.92	10.00	8.02	9.46
11,100.00	45.36	66.59	10,433.19	3,198.28	-464.08	-457.94	10.00	8.35	8.03
11,102.58	45.58	66.78	10,435.00	3,199.00	-462.39	-456.25	10.00	8.49	7.41
Third Bone Spring Ss.- Red Hills									
11,150.00	49.66	70.06	10,466.97	3,211.85	-429.82	-423.65	10.00	8.60	6.91
11,200.00	54.04	73.11	10,497.85	3,224.24	-392.52	-386.33	10.00	8.78	6.10
11,250.00	58.50	75.83	10,525.61	3,235.34	-352.46	-346.25	10.00	8.91	5.45
11,252.68	58.74	75.97	10,527.00	3,235.90	-350.25	-344.03	10.00	8.97	5.17
Wolfcamp Shale									
11,284.86	61.64	77.58	10,543.00	3,242.28	-323.06	-316.84	10.00	9.01	5.00
Wolfcamp X Ss.									
11,300.00	63.01	78.31	10,550.03	3,245.08	-309.95	-303.72	10.00	9.05	4.80
11,350.00	67.56	80.59	10,570.93	3,253.38	-265.31	-259.07	10.00	9.10	4.57
11,400.00	72.14	82.73	10,588.15	3,260.17	-218.88	-212.62	10.00	9.16	4.28
11,447.59	76.52	84.66	10,601.00	3,265.19	-173.35	-167.08	10.00	9.20	4.06
Wolfcamp Y Ss.									
11,450.00	76.74	84.76	10,601.56	3,265.41	-171.02	-164.75	10.00	9.22	3.98
11,500.00	81.36	86.72	10,611.05	3,269.05	-122.08	-115.80	10.00	9.23	3.91
11,550.00	85.99	88.62	10,616.56	3,271.06	-72.44	-66.16	10.00	9.25	3.81
11,583.58	89.10	89.89	10,618.00	3,271.50	-38.90	-32.62	10.00	9.26	3.77
Landing Point									
11,600.00	89.10	89.89	10,618.26	3,271.53	-22.48	-16.20	0.00	0.00	0.00
11,700.00	89.10	89.89	10,619.83	3,271.72	77.51	83.79	0.00	0.00	0.00
11,800.00	89.10	89.89	10,621.41	3,271.92	177.50	183.78	0.00	0.00	0.00
11,900.00	89.10	89.89	10,622.98	3,272.11	277.48	283.77	0.00	0.00	0.00
12,000.00	89.10	89.89	10,624.56	3,272.30	377.47	383.75	0.00	0.00	0.00
12,100.00	89.10	89.89	10,626.13	3,272.50	477.46	483.74	0.00	0.00	0.00
12,200.00	89.10	89.89	10,627.71	3,272.69	577.45	583.73	0.00	0.00	0.00
12,300.00	89.10	89.89	10,629.28	3,272.88	677.43	683.72	0.00	0.00	0.00
12,400.00	89.10	89.89	10,630.86	3,273.08	777.42	783.70	0.00	0.00	0.00
12,500.00	89.10	89.89	10,632.43	3,273.27	877.41	883.69	0.00	0.00	0.00
12,600.00	89.10	89.89	10,634.01	3,273.46	977.40	983.68	0.00	0.00	0.00
12,700.00	89.10	89.89	10,635.58	3,273.66	1,077.38	1,083.67	0.00	0.00	0.00
12,800.00	89.10	89.89	10,637.16	3,273.85	1,177.37	1,183.65	0.00	0.00	0.00
12,900.00	89.10	89.89	10,638.73	3,274.04	1,277.36	1,283.64	0.00	0.00	0.00
13,000.00	89.10	89.89	10,640.31	3,274.23	1,377.35	1,383.63	0.00	0.00	0.00
13,100.00	89.10	89.89	10,641.88	3,274.43	1,477.33	1,483.62	0.00	0.00	0.00
13,200.00	89.10	89.89	10,643.46	3,274.62	1,577.32	1,583.60	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,300.00	89.10	89.89	10,645.03	3,274.81	1,677.31	1,683.59	0.00	0.00	0.00
13,400.00	89.10	89.89	10,646.61	3,275.01	1,777.29	1,783.58	0.00	0.00	0.00
13,500.00	89.10	89.89	10,648.18	3,275.20	1,877.28	1,883.57	0.00	0.00	0.00
13,600.00	89.10	89.89	10,649.76	3,275.39	1,977.27	1,983.55	0.00	0.00	0.00
13,700.00	89.10	89.89	10,651.33	3,275.59	2,077.26	2,083.54	0.00	0.00	0.00
13,800.00	89.10	89.89	10,652.91	3,275.78	2,177.24	2,183.53	0.00	0.00	0.00
13,805.85	89.10	89.89	10,653.00	3,275.79	2,183.10	2,189.38	0.00	0.00	0.00
Wolfcamp A									
13,900.00	89.10	89.89	10,654.48	3,275.97	2,277.23	2,283.52	0.00	0.00	0.00
14,000.00	89.10	89.89	10,656.06	3,276.17	2,377.22	2,383.50	0.00	0.00	0.00
14,100.00	89.10	89.89	10,657.63	3,276.36	2,477.21	2,483.49	0.00	0.00	0.00
14,200.00	89.10	89.89	10,659.21	3,276.55	2,577.19	2,583.48	0.00	0.00	0.00
14,300.00	89.10	89.89	10,660.78	3,276.75	2,677.18	2,683.47	0.00	0.00	0.00
14,400.00	89.10	89.89	10,662.36	3,276.94	2,777.17	2,783.46	0.00	0.00	0.00
14,500.00	89.10	89.89	10,663.93	3,277.13	2,877.16	2,883.44	0.00	0.00	0.00
14,600.00	89.10	89.89	10,665.51	3,277.32	2,977.14	2,983.43	0.00	0.00	0.00
14,700.00	89.10	89.89	10,667.08	3,277.52	3,077.13	3,083.42	0.00	0.00	0.00
14,800.00	89.10	89.89	10,668.66	3,277.71	3,177.12	3,183.41	0.00	0.00	0.00
14,900.00	89.10	89.89	10,670.23	3,277.90	3,277.11	3,283.39	0.00	0.00	0.00
15,000.00	89.10	89.89	10,671.81	3,278.10	3,377.09	3,383.38	0.00	0.00	0.00
15,100.00	89.10	89.89	10,673.38	3,278.29	3,477.08	3,483.37	0.00	0.00	0.00
15,200.00	89.10	89.89	10,674.96	3,278.48	3,577.07	3,583.36	0.00	0.00	0.00
15,300.00	89.10	89.89	10,676.53	3,278.68	3,677.06	3,683.34	0.00	0.00	0.00
15,400.00	89.10	89.89	10,678.11	3,278.87	3,777.04	3,783.33	0.00	0.00	0.00
15,500.00	89.10	89.89	10,679.68	3,279.06	3,877.03	3,883.32	0.00	0.00	0.00
15,600.00	89.10	89.89	10,681.26	3,279.26	3,977.02	3,983.31	0.00	0.00	0.00
15,700.00	89.10	89.89	10,682.83	3,279.45	4,077.01	4,083.29	0.00	0.00	0.00
15,800.00	89.10	89.89	10,684.41	3,279.64	4,176.99	4,183.28	0.00	0.00	0.00
15,900.00	89.10	89.89	10,685.98	3,279.83	4,276.98	4,283.27	0.00	0.00	0.00
16,000.00	89.10	89.89	10,687.56	3,280.03	4,376.97	4,383.26	0.00	0.00	0.00
16,100.00	89.10	89.89	10,689.13	3,280.22	4,476.95	4,483.24	0.00	0.00	0.00
16,200.00	89.10	89.89	10,690.71	3,280.41	4,576.94	4,583.23	0.00	0.00	0.00
16,300.00	89.10	89.89	10,692.28	3,280.61	4,676.93	4,683.22	0.00	0.00	0.00
16,400.00	89.10	89.89	10,693.86	3,280.80	4,776.92	4,783.21	0.00	0.00	0.00
16,500.00	89.10	89.89	10,695.43	3,280.99	4,876.90	4,883.19	0.00	0.00	0.00
16,600.00	89.10	89.89	10,697.01	3,281.19	4,976.89	4,983.18	0.00	0.00	0.00
16,700.00	89.10	89.89	10,698.58	3,281.38	5,076.88	5,083.17	0.00	0.00	0.00
16,800.00	89.10	89.89	10,700.16	3,281.57	5,176.87	5,183.16	0.00	0.00	0.00
16,900.00	89.10	89.89	10,701.73	3,281.77	5,276.85	5,283.15	0.00	0.00	0.00
17,000.00	89.10	89.89	10,703.31	3,281.96	5,376.84	5,383.13	0.00	0.00	0.00
17,100.00	89.10	89.89	10,704.88	3,282.15	5,476.83	5,483.12	0.00	0.00	0.00
17,200.00	89.10	89.89	10,706.46	3,282.34	5,576.82	5,583.11	0.00	0.00	0.00
17,300.00	89.10	89.89	10,708.03	3,282.54	5,676.80	5,683.10	0.00	0.00	0.00
17,400.00	89.10	89.89	10,709.61	3,282.73	5,776.79	5,783.08	0.00	0.00	0.00
17,500.00	89.10	89.89	10,711.18	3,282.92	5,876.78	5,883.07	0.00	0.00	0.00
17,600.00	89.10	89.89	10,712.76	3,283.12	5,976.77	5,983.06	0.00	0.00	0.00
17,700.00	89.10	89.89	10,714.33	3,283.31	6,076.75	6,083.05	0.00	0.00	0.00
17,800.00	89.10	89.89	10,715.91	3,283.50	6,176.74	6,183.03	0.00	0.00	0.00
17,900.00	89.10	89.89	10,717.48	3,283.70	6,276.73	6,283.02	0.00	0.00	0.00
18,000.00	89.10	89.89	10,719.06	3,283.89	6,376.72	6,383.01	0.00	0.00	0.00
18,100.00	89.10	89.89	10,720.63	3,284.08	6,476.70	6,483.00	0.00	0.00	0.00
18,200.00	89.10	89.89	10,722.21	3,284.28	6,576.69	6,582.98	0.00	0.00	0.00
18,300.00	89.10	89.89	10,723.78	3,284.47	6,676.68	6,682.97	0.00	0.00	0.00

XTO ENERGY

Planning Report

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Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
18,400.00	89.10	89.89	10,725.36	3,284.66	6,776.67	6,782.96	0.00	0.00	0.00
18,500.00	89.10	89.89	10,726.93	3,284.85	6,876.65	6,882.95	0.00	0.00	0.00
18,600.00	89.10	89.89	10,728.51	3,285.05	6,976.64	6,982.93	0.00	0.00	0.00
18,700.00	89.10	89.89	10,730.08	3,285.24	7,076.63	7,082.92	0.00	0.00	0.00
18,800.00	89.10	89.89	10,731.66	3,285.43	7,176.62	7,182.91	0.00	0.00	0.00
18,900.00	89.10	89.89	10,733.23	3,285.63	7,276.60	7,282.90	0.00	0.00	0.00
19,000.00	89.10	89.89	10,734.81	3,285.82	7,376.59	7,382.88	0.00	0.00	0.00
19,100.00	89.10	89.89	10,736.38	3,286.01	7,476.58	7,482.87	0.00	0.00	0.00
19,200.00	89.10	89.89	10,737.96	3,286.21	7,576.56	7,582.86	0.00	0.00	0.00
19,300.00	89.10	89.89	10,739.53	3,286.40	7,676.55	7,682.85	0.00	0.00	0.00
19,400.00	89.10	89.89	10,741.11	3,286.59	7,776.54	7,782.84	0.00	0.00	0.00
19,500.00	89.10	89.89	10,742.68	3,286.79	7,876.53	7,882.82	0.00	0.00	0.00
19,600.00	89.10	89.89	10,744.26	3,286.98	7,976.51	7,982.81	0.00	0.00	0.00
19,700.00	89.10	89.89	10,745.83	3,287.17	8,076.50	8,082.80	0.00	0.00	0.00
19,800.00	89.10	89.89	10,747.41	3,287.36	8,176.49	8,182.79	0.00	0.00	0.00
19,900.00	89.10	89.89	10,748.98	3,287.56	8,276.48	8,282.77	0.00	0.00	0.00
20,000.00	89.10	89.89	10,750.56	3,287.75	8,376.46	8,382.76	0.00	0.00	0.00
20,100.00	89.10	89.89	10,752.13	3,287.94	8,476.45	8,482.75	0.00	0.00	0.00
20,200.00	89.10	89.89	10,753.71	3,288.14	8,576.44	8,582.74	0.00	0.00	0.00
20,300.00	89.10	89.89	10,755.28	3,288.33	8,676.43	8,682.72	0.00	0.00	0.00
20,400.00	89.10	89.89	10,756.86	3,288.52	8,776.41	8,782.71	0.00	0.00	0.00
20,500.00	89.10	89.89	10,758.43	3,288.72	8,876.40	8,882.70	0.00	0.00	0.00
20,600.00	89.10	89.89	10,760.01	3,288.91	8,976.39	8,982.69	0.00	0.00	0.00
20,700.00	89.10	89.89	10,761.58	3,289.10	9,076.38	9,082.67	0.00	0.00	0.00
20,800.00	89.10	89.89	10,763.16	3,289.30	9,176.36	9,182.66	0.00	0.00	0.00
20,900.00	89.10	89.89	10,764.73	3,289.49	9,276.35	9,282.65	0.00	0.00	0.00
21,000.00	89.10	89.89	10,766.31	3,289.68	9,376.34	9,382.64	0.00	0.00	0.00
21,100.00	89.10	89.89	10,767.88	3,289.87	9,476.33	9,482.62	0.00	0.00	0.00
21,200.00	89.10	89.89	10,769.46	3,290.07	9,576.31	9,582.61	0.00	0.00	0.00
21,300.00	89.10	89.89	10,771.03	3,290.26	9,676.30	9,682.60	0.00	0.00	0.00
21,400.00	89.10	89.89	10,772.61	3,290.45	9,776.29	9,782.59	0.00	0.00	0.00
21,500.00	89.10	89.89	10,774.18	3,290.65	9,876.28	9,882.57	0.00	0.00	0.00
21,600.00	89.10	89.89	10,775.76	3,290.84	9,976.26	9,982.56	0.00	0.00	0.00
21,700.00	89.10	89.89	10,777.33	3,291.03	10,076.25	10,082.55	0.00	0.00	0.00
21,800.00	89.10	89.89	10,778.91	3,291.23	10,176.24	10,182.54	0.00	0.00	0.00
21,900.00	89.10	89.89	10,780.48	3,291.42	10,276.22	10,282.53	0.00	0.00	0.00
22,000.00	89.10	89.89	10,782.06	3,291.61	10,376.21	10,382.51	0.00	0.00	0.00
22,100.00	89.10	89.89	10,783.63	3,291.81	10,476.20	10,482.50	0.00	0.00	0.00
22,200.00	89.10	89.89	10,785.20	3,292.00	10,576.19	10,582.49	0.00	0.00	0.00
22,300.00	89.10	89.89	10,786.78	3,292.19	10,676.17	10,682.48	0.00	0.00	0.00
22,400.00	89.10	89.89	10,788.35	3,292.38	10,776.16	10,782.46	0.00	0.00	0.00
22,500.00	89.10	89.89	10,789.93	3,292.58	10,876.15	10,882.45	0.00	0.00	0.00
22,600.00	89.10	89.89	10,791.50	3,292.77	10,976.14	10,982.44	0.00	0.00	0.00
22,700.00	89.10	89.89	10,793.08	3,292.96	11,076.12	11,082.43	0.00	0.00	0.00
22,800.00	89.10	89.89	10,794.65	3,293.16	11,176.11	11,182.41	0.00	0.00	0.00
22,900.00	89.10	89.89	10,796.23	3,293.35	11,276.10	11,282.40	0.00	0.00	0.00
23,000.00	89.10	89.89	10,797.80	3,293.54	11,376.09	11,382.39	0.00	0.00	0.00
23,100.00	89.10	89.89	10,799.38	3,293.74	11,476.07	11,482.38	0.00	0.00	0.00
23,200.00	89.10	89.89	10,800.95	3,293.93	11,576.06	11,582.36	0.00	0.00	0.00
23,300.00	89.10	89.89	10,802.53	3,294.12	11,676.05	11,682.35	0.00	0.00	0.00
23,400.00	89.10	89.89	10,804.10	3,294.32	11,776.04	11,782.34	0.00	0.00	0.00
23,500.00	89.10	89.89	10,805.68	3,294.51	11,876.02	11,882.33	0.00	0.00	0.00
23,600.00	89.10	89.89	10,807.25	3,294.70	11,976.01	11,982.31	0.00	0.00	0.00
23,700.00	89.10	89.89	10,808.83	3,294.89	12,076.00	12,082.30	0.00	0.00	0.00

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
23,800.00	89.10	89.89	10,810.40	3,295.09	12,175.99	12,182.29	0.00	0.00	0.00
23,900.00	89.10	89.89	10,811.98	3,295.28	12,275.97	12,282.28	0.00	0.00	0.00
24,000.00	89.10	89.89	10,813.55	3,295.47	12,375.96	12,382.26	0.00	0.00	0.00
24,100.00	89.10	89.89	10,815.13	3,295.67	12,475.95	12,482.25	0.00	0.00	0.00
24,200.00	89.10	89.89	10,816.70	3,295.86	12,575.94	12,582.24	0.00	0.00	0.00
24,300.00	89.10	89.89	10,818.28	3,296.05	12,675.92	12,682.23	0.00	0.00	0.00
24,400.00	89.10	89.89	10,819.85	3,296.25	12,775.91	12,782.21	0.00	0.00	0.00
24,500.00	89.10	89.89	10,821.43	3,296.44	12,875.90	12,882.20	0.00	0.00	0.00
24,600.00	89.10	89.89	10,823.00	3,296.63	12,975.89	12,982.19	0.00	0.00	0.00
24,700.00	89.10	89.89	10,824.58	3,296.83	13,075.87	13,082.18	0.00	0.00	0.00
24,740.23	89.10	89.89	10,825.21	3,296.90	13,116.10	13,122.41	0.00	0.00	0.00
24,790.24	89.10	89.89	10,826.00	3,297.00	13,166.10	13,172.41	0.00	0.00	0.00
Horizontal TD									

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
PLAT Ekalaka 115H S - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	506,331.10	632,951.60	32.3912828	-103.9026125
PLAT Ekalaka 115H F - plan hits target center - Point	0.00	0.00	10,618.00	3,271.50	-38.90	509,602.60	632,912.70	32.4002761	-103.9026958
PLAT Ekalaka 115H B - plan hits target center - Point	0.00	0.00	10,826.00	3,297.00	13,166.10	509,628.10	646,117.70	32.4001928	-103.8599124
PLAT Ekalaka 115H L - plan misses target center by 0.79usft at 24740.23usft MD (10825.21 TVD, 3296.90 N, 13116.10 E) - Point	0.00	0.00	10,826.00	3,296.80	13,116.10	509,627.90	646,067.70	32.4001928	-103.8600744

XTO ENERGY

Planning Report

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #115H
Company:	XTO Energy	**TVD Reference:**	RKB = 32' @ 3143.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	RKB = 32' @ 3143.00usft
Site:	James Ranch Unit DI 11 Ekalaka	**North Reference:**	Grid
Well:	#115H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PERMIT		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
64.00	64.00	Rustler			
687.00	687.00	Salado (Top of Salt)			
2,053.00	2,053.00	Castile Anhydrite 1 Top			
2,470.11	2,468.00	Castile Anhydrite 1 Base			
2,716.44	2,709.00	Castile Anhydrite 2 Top			
2,815.99	2,805.00	Castile Anhydrite 2 Base			
3,215.61	3,180.00	Base of Salt			
3,477.59	3,422.00	Delaware/Lamar			
3,536.05	3,476.00	Bell Canyon			
4,642.46	4,498.00	Cherry Canyon			
6,250.12	5,983.00	Brushy Canyon Ss.			
7,581.71	7,213.00	Bone Spring Lm.			
7,633.67	7,261.00	Avalon Ss.			
7,887.00	7,495.00	Upper Avalon Carb.			
7,974.69	7,576.00	Upper Avalon Sh.			
8,059.13	7,654.00	Middle Avalon Carb.			
8,244.25	7,825.00	Lower Avalon Sh.			
8,457.52	8,022.00	First Bone Spring Carb.			
8,615.58	8,168.00	First Bone Spring Ss.			
9,183.95	8,693.00	Upper Second Bone Spring Carb.			
9,281.38	8,783.00	Second Bone Spring A' Ss.			
9,416.70	8,908.00	Lower Second Bone Spring Carb			
9,516.30	9,000.00	Second Bone Spring A Ss.			
9,704.67	9,174.00	Second Bone Spring A/B Carb.			
9,803.19	9,265.00	Second Bone Spring B Ss.			
9,930.94	9,383.00	Third Bone Spring Carb.			
10,234.06	9,663.00	Harkey Ss.			
10,284.94	9,710.00	Third Bone Spring Shale			
10,774.23	10,162.00	Third Bone Spring Ss.			
11,102.58	10,435.00	Third Bone Spring Ss.- Red Hills			
11,252.68	10,527.00	Wolfcamp Shale			
11,284.86	10,543.00	Wolfcamp X Ss.			
11,447.59	10,601.00	Wolfcamp Y Ss.			
11,583.58	10,618.00	Landing Point			
13,805.85	10,653.00	Wolfcamp A			
24,790.24	10,826.00	Horizontal TD			

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Permian Operating LLC
WELL NAME & NO.:	James Ranch Unit DI 11 Ekalaka 115H
LOCATION:	Sec 17-22S-30E-NMP
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	○ Other
Wellhead	○ Conventional	○ Multibowl	● Both
Other	☑ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit

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 **16** inch surface casing shall be set at approximately 660 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 **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

Approval Date: 09/21/2021

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 **11 ¾** 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 or potash.**

❖ 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.

❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing string must come to surface.

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

3. The minimum required fill of cement behind the **8 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 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 or potash.**

4. The minimum required fill of cement behind the Choose an item. inch production casing is:

    - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.

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. (This is not necessary for secondary recovery unit wells)

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

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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.

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 Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. 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.

4. 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.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. 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.

7. 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.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 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. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. 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).

d. 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.

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

f. 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.

g. 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.

h. 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.

Approval Date: 09/21/2021

HYDROGEN SULFIDE (H2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

Emergency Procedures

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

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

Ignition of Gas source

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

Characteristics of H_2S and SO_2

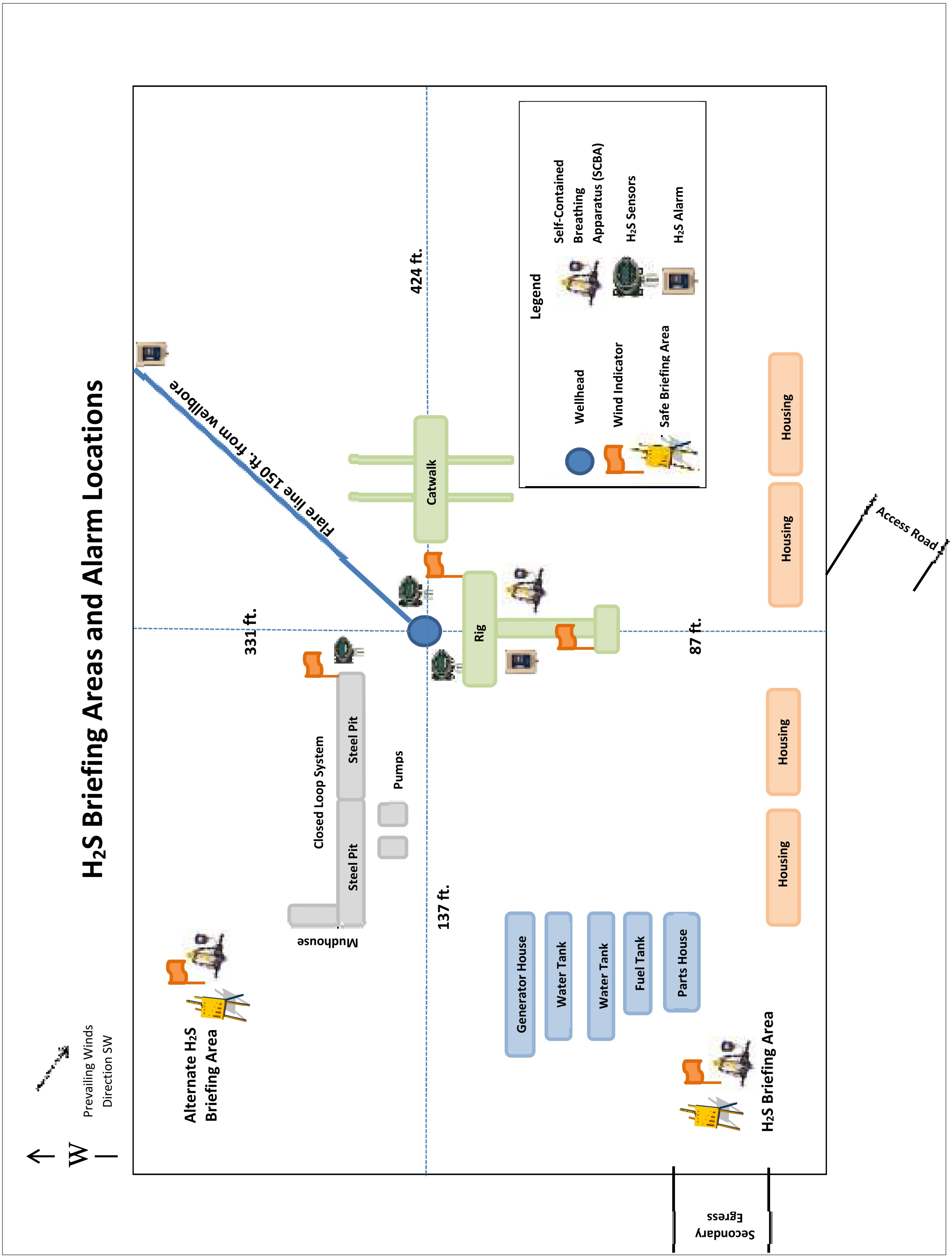
Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	2 ppm	N/A	1000 ppm

Contacting Authorities

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).

CARLSBAD OFFICE – EDDY & LEA COUNTIES

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


H2S Briefing Areas and Alarm Locations
Flare line 150 ft. from wellbore
424 ft.
331 ft.
87 ft.
137 ft.
Catwalk
Rig
Closed Loop System
Steel Pit
Steel Pit
Pumps
Mudhouse
Generator House
Water Tank
Water Tank
Fuel Tank
Parts House
Housing
Housing
Housing
Housing
Access Road
Secondary Egress
Alternate H2S Briefing Area
H2S Briefing Area
Prevailing Winds Direction SW
W
Legend
Wellhead
Wind Indicator
Safe Briefing Area
Self-Contained Breathing Apparatus (SCBA)
H2S Sensors
H2S Alarm

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: JAMES RANCH UNIT DI 11 EKALAKA **Well Number:** 115H

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

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 cutting will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site. Drilling fluids. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced fluids. water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. oil produced during operations will be stored in tanks until sold.

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

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

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

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 240163

CONDITIONS

Operator:	
XTO PERMIAN OPERATING LLC. 6401 HOLIDAY HILL ROAD MIDLAND, TX 79707	OGRID: 373075
	Action Number: 240163
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	7/19/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/19/2023
ward.rikala	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	7/19/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	7/19/2023
ward.rikala	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	7/19/2023