Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No. 30-015-55955 10. Field and Pool, or Exploratory 3a. Address 3b. Phone No. (include area code) 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above). 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. SUPO must be filed with the appropriate Forest Service Office). 6. Such other site specific information and/or plans as may be requested by the 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Name (Printed/Typed) Date Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

APPROVED WITH CONDITIONS

Approval Date: 12/19/2024

\*(Instructions on page 2)

#### **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

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

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

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

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

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

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

### NOTICES

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

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

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

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

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

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

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

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

## **Additional Operator Remarks**

### **Location of Well**

0. SHL: SESE / 645 FSL / 517 FEL / TWSP: 24S / RANGE: 30E / SECTION: 14 / LAT: 32.212413 / LONG: -103.844633 ( TVD: 0 feet, MD: 0 feet )

PPP: NENE / 100 FNL / 1017 FEL / TWSP: 24S / RANGE: 30E / SECTION: 23 / LAT: 32.210363 / LONG: -103.846259 ( TVD: 10595 feet, MD: 11200 feet )

PPP: NENE / 0 FSL / 992 FEL / TWSP: 24S / RANGE: 30E / SECTION: 26 / LAT: 32.196144 / LONG: -103.846235 ( TVD: 10595 feet, MD: 16500 feet )

BHL: SENE / 2627 FNL / 1003 FEL / TWSP: 24S / RANGE: 30E / SECTION: 35 / LAT: 32.174401 / LONG: -103.846197 ( TVD: 10595 feet, MD: 23496 feet )

### **BLM Point of Contact**

Name: MARIAH HUGHES Title: Land Law Examiner Phone: (575) 234-5972 Email: mhughes@blm.gov

## **Review and Appeal Rights**

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.



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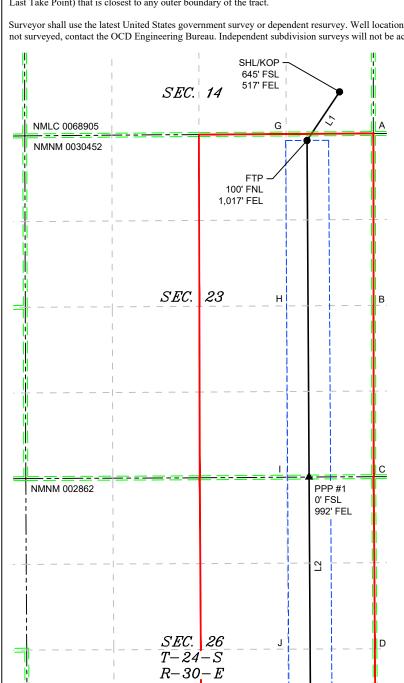
	2 electronically D Permitting		State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION				t	Submital Type:    Amended Report			
					WELL LOCAT	ΓΙΟΝ INFORMATION			•		
API Nu		5-55955	Pool Code	97798		Pool Name	T G 06 82	43026M+ I	BONE SPRI	NC	
Property		20900	Property N		<u> </u>	WILDCA	11 G-00 32	43020IVI, I	Well Number		
	325598	3			POKER L	AKE UNIT 23 DTD			,	545H	
OGRID	No. <b>37307</b>	5	Operator N	Vame	XTO PERMIA	N OPERATING, LL	С		Ground Level	Elevation 3,443'	
Surface	Owner: S	tate	Tribal <b>⊠</b> Fe	deral		Mineral Owner: □S		□Tribal <b>⊠</b> F	ederal	·	
UL	Section	Township	Range	Lot	Surface Ft. from N/S	Ft. from E/W	Latitude	L	ongitude	County	
Р	14	248	30E		645 FSL	517 FEL	32.212		03.844633	EDDY	
UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	L	ongitude	County	
н	35	248	30E		2,627 FNL	1,003 FEL	32.174	401 -1	03.846197	EDDY	
	ed Acres	Infill or Defin		Defining	Well API	Overlapping Spacing	Unit (Y/N)	Consolidation	on Code		
Order N	lumbers.					Well Setbacks are und	ler Common O	wnership:	iip: ⊠Yes □No		
UL	Section	Township	Range	Lot	Ft. from N/S	Off Point (KOP)  Ft. from E/W	Latitude	L	ongitude	County	
P	14	248	30E	201	645 FSL	517 FEL	32.212		03.844633	EDDY	
		246					02.212			2551	
UL	Section	Township	Range	Lot	Ft. from N/S	Ake Point (FTP)  Ft. from E/W	Latitude	L	ongitude	County	
Α	23	248	30E		100 FNL	1,017 FEL	32.210		03.846259	EDDY	
UL	Section	Township	Range	Lot	Ft. from N/S	Richard (LTP)  Ft. from E/W	Latitude	L	ongitude	County	
н	35	248	30E		2,537 FNL	1,004 FEL	32.174		03.846199	EDDY	
						.,					
Unitize	d Area or Are	a of Interest		Spacing Un	nit Type : 🛚 Horiz	ontal □Vertical	Grour	nd Elevation	3,443'		
	TOR CERTI		contained her	rein is true ar	nd complete to the	SURVEYOR CERTIFIC  I hereby certify that the v		nown on this p	olat was plotted j	from field notes of	
that this in the la at this la unlease	organization and including ocation pursu d mineral inte	either owns a v	working interest ottom hole located with an own tary pooling of	est or unlease ation or has ner of a work agreement or		actual surveys made by n correct to the best of my		supervision,	-1110	te is true and	
If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.					1/	1/			NO N		
Tenna	Sebastia	n.	10/2	9/2024			<b>/</b> //	-8	ONAL S	0.	
Signatu			Date			Signature and Seal of Pro	ofessional Surv	reyor			
Terro	a Sebast Name	ian				MARK DILLON HARP 237: Certificate Number		Survey	10/28/2024		
terra Email A	.b.sebasi address	tian@exxo	onmobil.	com							
						DN			618.01300	3.09-71	

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

#### ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated acreage in a red box, clearly show the well surface location and bottom hole location, if it is a directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the Completed interval (other then the First Take Point and Last Take Point) that is closest to any outer boundary of the tract.

Surveyor shall use the latest United States government survey or dependent resurvey. Well locations will be in reference to the New Mexico Principal Meridian. If the land in not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be acceptable.



Κ

LTP 2,537' FNL 1,004' FEL

> BHL 2,627' FNL 1,003' FEL

SEC.

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h

PPP #2

0' FSL 998' FEL

NMNM 0157779A

	<u>LEG</u>	<u>END</u>
	_	SECTION LINE PROPOSED WELL BORE
_====	_	NEW MEXICO MINERAL LEASE
	_	330' BUFFER ALLOCATION AREA

	LINE TABLE								
LINE	AZIMUTH	LENGTH							
L1	213°43'53"	899.32'							
L2	179 <b>°</b> 39'23"	13,082.43							

			TE TAB		
SHL/KOF	(NAD 83 N	ME)		(NAD 27 NI	
Y =	441,353.4	N	Y =	441,294.4	Ν
X =	692,479.3	Ε	X =	651,295.5	Е
LAT. =	32.212413	°N	LAT. =	32.212289	٩N
LONG. =	103.844633	°W	LONG. =	103.844147	°W
	NAD 83 NME			NAD 27 NME	
Y =	440,605.5	_		440,546.5	
X =	691,979.9	$\overline{}$		650,796.1	
LAT. =			LAT. =		
	103.846259			103.845773	
	(NAD 83 NM			(NAD 27 NM	
	435,432.7			435,373.8	
	· · · · · · · · · · · · · · · · · · ·				
	692,010.6		X =	,	
	32.196144			32.196020	
	103.846235			103.845750	
	(NAD 83 NM			(NAD 27 NM	
Y =	430,150.9			430,092.1	
X =	692,042.0		X =	,	
LAT. =	32.181624	°N	LAT. =	32.181500	٥N
LONG. =	103.846211	°W	LONG. =	103.845726	٥N
LTP (N	NAD 83 NME	)	LTP (I	NAD 27 NME	)
Y =	427,613.3	_		427,554.6	
X =	692,057.1		X =	650,872.8	
LAT. =			LAT. =		
	103.846199			103.845715	
	127 F22 2			NAD 27 NME	
	427,523.3			427,464.6	
X =	692,058.3		X =	650,874.1	
LAT. =	32.174401		LAT. =	32.174277	
				103.845712	۰W
COR	NER COOR		ATES (NA		
A - Y =	440,711.4	N	A - X =		
B-Y=	438,070.5	Ν	B-X=	693,001.3	Е
C - Y =	435,439.4	N	C-X=	693,002.2	Е
D-Y=	432,784.0	-	D-X=	690,347.4	
E-Y=	430,154.0		E-X=		
F-Y=	427,516.4		F-X=		
G-Y=	440,703.6		G-X=		
H-Y=	438,063.2				
I-Y=	435,430.3		H - X =		
J-Y=	432,788.9		J-X=		
K-Y=	430,149.6		K-X=	691,701.7	
L - Y =	427,512.3		L - X =		E
	NER COOR				
A - Y =	440,652.4		A - X =	651,813.3	
B - Y =	438,011.6	N	B - X =	651,817.4	Е
C - Y =	435,380.5	N	C - X =	651,818.3	Е
D - Y =	432,725.2		D-X=	649,163.4	
E - Y =	430,095.2		E-X=	651,855.6	
F-Y=	427,457.7		F-X=	651,877.6	
G-Y=	440,644.6		G-X=	650,474.1	
H-Y=	438,004.2		H-X=	650,479.3	_
I-Y=					
	435,371.5		I-X=	650,482.8 650,500.4	
J - Y =	432,730.1	IN	J-X=	650,500.1	
17	100 0	N 2	12 32		
K-Y= L-Y=	430,090.8 427,453.6		K-X= L-X=	650,517.5 650,543.6	

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NMLC 0061705B

## 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

L. Operator: X10 Permian Operating, LLC	OGRID: 3/30/5	<b>Date:</b> 10/21/2024
<b>II. Type:</b> ⊠ Original □ Amendment due to □ 19.1	5.27.9.D(6)(a) NMAC □ 19.15.27.9	.D(6)(b) NMAC $\Box$ 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	Anticipat ed Oil BBL/D	3 yr Anticipat ed Decline oil BBL/D	Anticipat ed Gas MCF/D	3 yr anticipated decline Gas MCF/D	Anticipated Produced Water BBL/D	3 yr anticipated decline Water BBL/D
Poker Lake Unit 23 DTD 104H	TBD	14 T24S R30E	556 FSL 310 FWL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 193H	TBD	14 T24S R30E	556 FSL 280 FWL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 441H	TBD	23 T24S R30E	1152 FNL 1771 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 442H	TBD	23 T24S R30E	1152 FNL 1741 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 443H	TBD	23 T24S R30E	1152 FNL 1711 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 444H	TBD	23 T24S R30E	1152 FNL 1681 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 445H	TBD	23 T24S R30E	1152 FNL 1651 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 451H	TBD	23 T24S R30E	1247 FNL 1771 FEL	1,900	200	3,250	900	3,750	400

Poker Lake Unit 23 DTD 452H	TBD	23 T24S R30E	1247 FNL 1741 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 453H	TBD	23 T24S R30E	1247 FNL 1711 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 454H	TBD	23 T24S R30E	1247 FNL 1681 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 455H	TBD	23 T24S R30E	1247 FNL 1651 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 456H	TBD	23 T24S R30E	1247 FNL 1621 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 541H	TBD	14 T24S R30E	645 FSL 637 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 542H	TBD	14 T24S R30E	645 FSL 607 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 543H	TBD	14 T24S R30E	645 FSL 577 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 544H	TBD	14 T24S R30E	645 FSL 547 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 545H	TBD	14 T24S R30E	645 FSL 517 FEL	1,900	200	3,250	900	3,750	400
Poker Lake Unit 23 DTD 546H	TBD	14 T24S R30E	645 FSL 487 FEL	1,800	200	7,500	1,200	7,000	800
Poker Lake Unit 23 DTD 705H	TBD	14 T24S R30E	556 FSL 340 FWL	1,800	200	7,500	1,200	7,000	800

IV. Central Delivery Point Name: Poker Lake Unit 23 DTD CVB [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	Completion	Initial Flow	First Production
			Date	Commencement Date	Back Date	Date
Poker Lake Unit 23 DTD 104H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 193H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 441H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 442H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 443H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 444H	TBD	TBD	TBD	TBD	TBD	TBD

Poker Lake Unit 23 DTD 445H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 451H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 452H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 453H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 454H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 455H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 456H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 541H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 542H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 543H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 544H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 545H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 546H	TBD	TBD	TBD	TBD	TBD	TBD
Poker Lake Unit 23 DTD 705H	TBD	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:** X 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. $\square$ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting	the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity	y of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.	

XII. Lin	<b>e Capacity.</b> The natural g	gas gathering system	$\square$ will $\square$ will	not have capacity	to gather 1	100% of the	anticipated	natural gas
producti	on volume from the well p	rior to the date of firs	st production.					

XIII. Line	Pressure.	Operator $\square$	does $\square$ does r	not anticipate	that its existing	well(s) conne	cted to the san	ne segment,	or portion,	of the
natural gas	gathering	system(s) des	scribed above	will continue	to meet anticipa	ated increases	in line pressur	e caused by	the new we	ell(s).

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L	 Auaci	.1 (	Sperator	sγ	iaii u	o manag	_	production	1 111	rresp	onsc	ш	uic	mercasee	1.	IIIC	pressu	$\pi$

XIV. Confidentiality: U Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided
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

<u>Effective May 25, 2021</u>
Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:
☑ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or
Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following:
<b>Well Shut-In.</b> □ 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

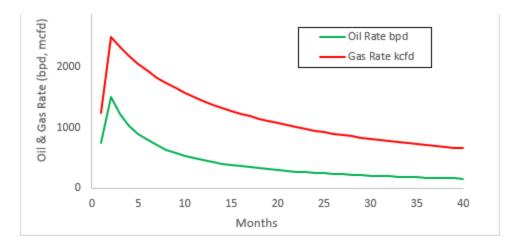
- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production 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.

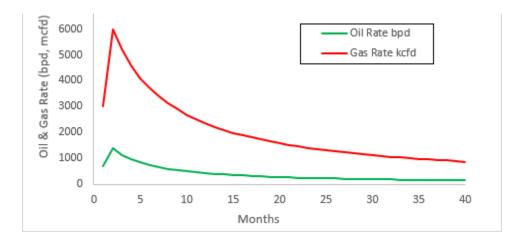
Signature: Srinivas Naveen
Printed Name: Srinivas Naveen Laghuvarapu
Title: Regulatory Analyst
E-mail Address: Srinivas.n.laghuvarapu@exxonmobil.com
Date: 10/21/2024
Phone: +91-7780442850
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

## Poker Lake Unit - Decline Curves:

## **Bone Spring:**



## Wolfcamp:



#### VI. Separation Equipment:

XTO Permian Operating LLC. utilizes a "stage separation" process in which oil and gas separation is carried out through a series of separators operating at successively reduced pressures. Hydrocarbon liquids are produced into a high-pressure inlet separator, then carried through one or more lower pressure separation vessels before entering the storage tanks. The purpose of this separation process is to attain maximum recovery of liquid hydrocarbons from the fluids and allow maximum capture of produced gas into the sales pipeline. XTO utilizes a series of Low-Pressure Compression units to capture gas off the staged separation and send it to the sales pipeline. This process minimizes the amount of flash gas that enters the end-stage storage tanks that is subsequently vented or flared.

#### VII. Operational Practices

XTO Permian Operating LLC will employ best management practices and control technologies to maximize the recovery and minimize waste of natural gas through venting and flaring.

- During drilling operations, XTO will utilize flares to capture and control natural gas, where technically feasible. If flaring is deemed technically in-feasible, XTO will employ best management practices to minimize or reduce venting to the extent possible.
- During completions operations, XTO will utilize Green Completion methods to capture gas produced during well completions that is otherwise vented or flared. If capture is technically infeasible, flares will be used to control flow back fluids entering into frac tanks during initial flowback. Upon indication of first measurable hydrocarbon volumes, XTO Permian Operating LLCwill turn operations to onsite separation vessels and flow to the gathering pipeline.
- During production operations, XTO Permian Operating LLC will take every practical effort to minimize waste of natural gas through venting and flaring by:
  - Designing and constructing facilities in a manner consistent to achieve maximum capture and control of hydrocarbon liquids & produced gas
  - Utilizing a closed-loop capture system to collect, and route produced gas to sales line via low pressure compression, or to a flare/combustor
  - Flaring in lieu of venting, where technically feasible
  - Utilizing auto-ignitors or continuous pilots, with thermocouples connected to Scada, to quickly detect and resolve issues related to malfunctioning flares/combustors
  - Employ the use of automatic tank gauging to minimize storage tank venting during loading events
  - Installing air-driven or electric-driven pneumatics & combustion engines, where technically feasible to minimize venting to the atmosphere
  - Confirm equipment is properly maintained and repaired through a preventative maintenance and repair program to ensure equipment meets all manufacturer specifications

• Conduct and document AVO inspections on the frequency set forth in Part 27 to detect and repair any onsite leaks as quickly and efficiently as is feasible.

### VIII. Best Management Practices during Maintenance

XTO Permian Operating LLC. will utilize best management practices to minimize venting during active and planned maintenance activities. XTO is operating under guidance that production facilities permitted under NOI permits have no provisions to allow high pressure flaring and high-pressure flaring is only allowed in disruption scenarios so long as the duration is less than eight hours. When technically feasible, flaring during maintenance activities will be utilized in lieu of venting to the atmosphere. XTO will work with third-party operators during scheduled maintenance of downstream pipeline or processing plants to address those events ahead of time to minimize venting. Actions considered include identifying alternative capture approaches or planning to temporarily reduce production or shut in the well to address these circumstances.

Well Name: POKER LAKE UNIT 23 DTD



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

# Drilling Plan Data Report

12/20/2024

APD ID: 10400098063

Submission Date: 04/18/2024

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Number: 545H

Well Type: OIL WELL

Well Work Type: Drill

**Show Final Text** 

## **Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
14719625	QUATERNARY	3443	0	0	ALLUVIUM	USEABLE WATER	N
14719626	RUSTLER	2090	1353	1353	ANHYDRITE	USEABLE WATER	N
14719627	SALADO	1687	1756	1756	SALT	POTASH	N
14719628	BASE OF SALT	-506	3949	3949	SALT	POTASH	N
14719629	DELAWARE	-700	4143	4143	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14719630	BRUSHY CANYON	-3206	6649	6649	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
14719631	BONE SPRING	-4495	7938	7938	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
14719632	BONE SPRING 1ST	-5266	8709	8709	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
14719633	BONE SPRING 2ND	-5868	9311	9311	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y
14719634	BONE SPRING 3RD	-7002	10445	10445	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	Y

### **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 5M Rating Depth: 10595

Equipment: Once the permanent WH is installed on the surface casing, the blow out preventer equipment (BOP) will consist of a 5M Hydril Annular and a 5M Double Ram BOP. XTO will use a 4 string Slim Hole Multi-Bowl system which is attached.

### Requesting Variance? YES

Variance request: A variance is requested to allow use of a flex hose: See Attached. XTO requests a variance to be able batch drill this well if necessary. XTO request a break test variance: See Attached. XTO requests a variance to utilize a spudder rig: See Attached.

Testing Procedure: All BOP testing will be done by an independent service company. Operator will test as per 43 CFR 3172

## **Choke Diagram Attachment:**

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

PLU\_23\_DTD\_5MCM\_20240410151726.pdf

## **BOP Diagram Attachment:**

5MBOP\_20240928093506.pdf

## **Section 3 - Casing**

L Casing ID	String Type	Hole Size	OSG Size	E Condition	N Standard	Z Tapered String	O Top Set MD	Bottom Set MD	O Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight 74:2	G Joint Type	Collapse SF	Burst SF	Joint SF Type	9.64	Body SF Type	S kpod 9.64
	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	4049	0	4049	3446	-606	4049	J-55	40	BUTT	2.81	1.72	DRY	3.89	DRY	3.89
- 1	INTERMED IATE	8.75	7.625	NEW	API	Y	0	9679	0	9552	3446	-6109	9679	L-80	29.7	FJ	3.52	2.09	DRY	2.47	DRY	2.47
	PRODUCTI ON	6.75	5.5	NEW	NON API	Υ	0	23496	0	10595	3446	-7152	23496	P- 110		OTHER - Freedom HTQ/Talon HTQ	1.98	1.05	DRY	5.45	DRY	5.45

## **Casing Attachments**

Casing ID: 1 String SURFACE

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

PLU\_23\_DTD\_545H\_Csg\_20241011111305.pdf

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

**Casing Attachments** 

Casing ID: 2

String

**INTERMEDIATE** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

PLU\_23\_DTD\_545H\_Csg\_20241011111222.pdf

Casing ID: 3

String

**INTERMEDIATE** 

**Inspection Document:** 

**Spec Document:** 

**Tapered String Spec:** 

PLU\_23\_DTD\_545H\_Csg\_20241011111247.pdf

Casing Design Assumptions and Worksheet(s):

PLU\_23\_DTD\_545H\_Csg\_20241011111251.pdf

Casing ID: 4

String

**PRODUCTION** 

**Inspection Document:** 

**Spec Document:** 

Freedom\_semi\_premium\_5.5\_production\_casing\_20240928093647.pdf

Talon\_\_\_semiflush\_5.5\_production\_casing\_20240928093702.pdf

**Tapered String Spec:** 

PLU\_23\_DTD\_545H\_Csg\_20241011111230.pdf

Casing Design Assumptions and Worksheet(s):

PLU\_23\_DTD\_545H\_Csg\_20241011111235.pdf

**Section 4 - Cement** 

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1731	1490	1.33	12.8	1981. 7	100	EconoCem- HLTRRC	NA
SURFACE	Tail		0	1731	310	1.33	14.8	412.3	100	Class C	2% CaCl
INTERMEDIATE	Lead		0	4049	850	2.06	14.8	1751	100	Class C	NA
INTERMEDIATE	Tail		0	4049	60	2.06	15.6	123.6	100	Class C	2% CaCl
INTERMEDIATE	Lead		3749	6649	320	1.27	14.8	406.4	100	Class C	NA
INTERMEDIATE	Tail		6649	9679	130	2.77	14.8	360.1	100	Class C	NA
PRODUCTION	Lead		9379	1000 5	20	2.69	11.5	53.8	30	NeoCem	NA
PRODUCTION	Tail		1000 5	2349 6	850	1.51	13.2	1283. 5	30	VersaCem	NA

## **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 surface casing with Saturated Salt solution. Saturated Salt 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**

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
9679	2349 6	OIL-BASED MUD	10.2	10.7							
4049	9679	OTHER : BDE/OBM	8.8	9.3							
0	1731	WATER-BASED MUD	8.4	8.9							
1731	4049	SALT SATURATED	10.5	11							

## **Section 6 - Test, Logging, Coring**

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

Open hole logging will not be done on this well.

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

GAMMA RAY LOG,CEMENT BOND LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring is planned for the well.

## **Section 7 - Pressure**

Anticipated Bottom Hole Pressure: 5895 Anticipated Surface Pressure: 3564

Anticipated Bottom Hole Temperature(F): 190

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

XTO\_Energy\_H2S\_Plan\_Updated\_20240928093228.pdf

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

## **Section 8 - Other Information**

## Proposed horizontal/directional/multi-lateral plan submission:

PLU\_23\_DTD\_545H\_DD\_20240414192906.pdf

## Other proposed operations facets description:

## Other proposed operations facets attachment:

PLU\_23\_DTD\_545H\_Cmt\_20240414193149.pdf

13.375\_9.625\_7.625\_5.5\_4\_String\_Slimhole\_SDT\_3301\_1\_20240928094314.pdf

PLU\_23\_DTD\_H2S\_DiaD\_20241011121744.pdf

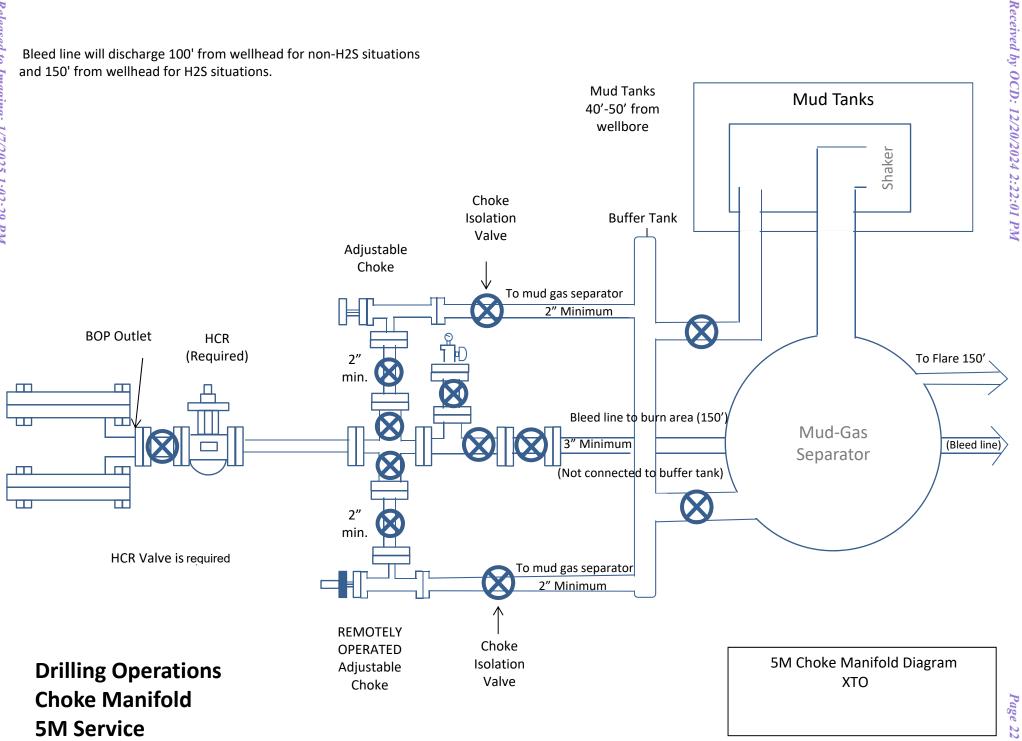
PLU\_23\_DTD\_H2S\_DiaA\_20241011121744.pdf

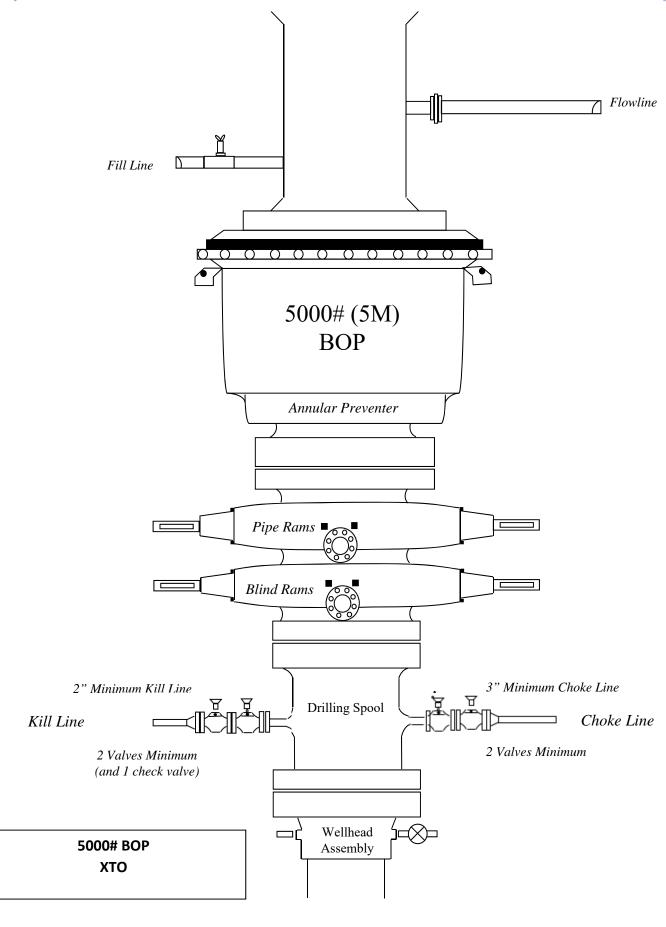
PLU\_23\_DTD\_H2S\_DiaC\_20241011121744.pdf

23\_DTD\_\_GCP\_20241101093841.pdf

#### Other Variance attachment:

Updated\_Flex\_Hose\_20240928094338.pdf Spudder\_Rig\_Request\_20240928094351.pdf Offline\_Cement\_Variance\_Surf\_\_\_Interm\_Csg\_20240928094406.pdf BOP\_Break\_Test\_Variance\_20241001140624.pdf Bleed line will discharge 100' from wellhead for non-H2S situations





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## **U. S. Steel Tubular Products** 5.500" 20.00lb/ft (0.361" Wall)

## P110 RY USS-FREEDOM HTQ®

Pipe	USS-FREEDOM HTQ®		
110,000		psi	
125,000		psi	
125,000		psi	
Pipe	USS-FREEDOM HTQ®		
5.500	6.300	in.	
0.361		in.	
4.778	4.778	in.	
4.653	4.653	in.	
		in.	
20.00		lb/ft	
19.83		lb/ft	
Pipe	USS-FREEDOM HTQ <sup>®</sup>		
5.828	5.828	sq. in.	
	100.0	%	
Pipe	USS-FREEDOM HTQ®		
11,100	11,100	psi	
12,640	12,640	psi	
641,000		lb	
	641,000	lb	
	641,000	lb	
	21,370	ft	
	91.7	deg/100 ft	
Pipe	USS-FREEDOM HTQ <sup>®</sup>		
	4.13	in.	
	15,000	ft-lb	
	21,000	ft-lb	
	29,500	ft-lb	
	110,000 125,000 125,000 125,000 Pipe 5.500 0.361 4.778 4.653 20.00 19.83 Pipe 5.828 Pipe 11,100 12,640 641,000	110,000 125,000 125,000  Pipe USS-FREEDOM HTQ®  5.500 6.300 0.361 4.778 4.778 4.653 4.653 20.00 19.83  Pipe USS-FREEDOM HTQ®  5.828 5.828 100.0  Pipe USS-FREEDOM HTQ®  11,100 11,100 12,640 12,640 641,000 641,000 91.7  Pipe USS-FREEDOM HTQ®  4.13 15,000 21,000	110,000 psi 125,000 psi 125,000 psi  125,000 psi  Pipe USS-FREEDOM HTQ <sup>®</sup> 5.500 6.300 in. 0.361 in. 4.778 4.778 in. 4.653 4.653 in in. 20.00 lb/ft  19.83 lb/ft  Pipe USS-FREEDOM HTQ <sup>®</sup> 5.828 5.828 sq. in 100.0 %  Pipe USS-FREEDOM HTQ <sup>®</sup> 11,100 11,100 psi 12,640 12,640 psi 641,000 lb 641,000 lb 641,000 lb 21,370 ft 91.7 deg/100 ft  Pipe USS-FREEDOM HTQ <sup>®</sup> 4.13 in 15,000 ft-lb 21,000 ft-lb

## **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 4. Reference length is calculated by joint strength divided by plain end weight with 1.5 safety factor.

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11/29/2021 4·16·04 PM

## U. S. Steel Tubular Products 5.500" 20.00lb/ft (0.361" Wall)

## P110 RY USS-TALON HTQ™ RD

MECHANICAL PROPERTIES	Pipe	USS-TALON HTQ™ RD		[6]
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
DIMENSIONS	Pipe	USS-TALON HTQ™ RD		
Outside Diameter	5.500	5.900	in.	
Wall Thickness	0.361		in.	
Inside Diameter	4.778	4.778	in.	
Standard Drift	4.653	4.653	in.	
Alternate Drift			in.	
Nominal Linear Weight, T&C	20.00		lb/ft	
Plain End Weight	19.83		lb/ft	
SECTION AREA	Pipe	USS-TALON HTQ™ RD		
Critical Area	5.828	5.828	sq. in.	
Joint Efficiency		100.0	%	[2]
PERFORMANCE	Pipe	USS-TALON HTQ™ RD		
Minimum Collapse Pressure	11,100	11,100	psi	
Minimum Internal Yield Pressure	12,640	12,640	psi	
Minimum Pipe Body Yield Strength	641,000		lb	
Joint Strength		641,000	lb	
Compression Rating		641,000	lb	
Reference Length		21,370	ft	[5]
Maximum Uniaxial Bend Rating		91.7	deg/100 ft	[3]
MAKE-UP DATA	Pipe	USS-TALON HTQ™ RD		
Make-Up Loss		5.58	in.	
Minimum Make-Up Torque		17,000	ft-lb	[4]
Maximum Make-Up Torque		20,000	ft-lb	[4]
Maximum Operating Torque		39,500	ft-lb	[4]

## **Notes**

- 1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2. Joint efficiencies are calculated by dividing the connection critical area by the pipe body area.
- 3. Uniaxial bend rating shown is structural only.
- 4. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 5. Reference length is calculated by Joint Strength divided by Nominal Linear Weight, T&C with a 1.5 Safety factor.
- 6. Coupling must meet minimum mechanical properties of the pipe.

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## **Casing Assumptions**

## Casing Design



Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 1731'	13.375	54.5	J-55	BTC	New	2.85	1.49	9.64
12.25	0' – 4049'	9.625	40	J-55	BTC	New	1.72	2.81	3.89
8.75	0' – 4149'	7.625	29.7	RY P-110	Flush Joint	New	2.88	2.82	1.94
8.75	4149' – 9679'	7.625	29.7	HC L-80	Flush Joint	New	2.09	3.52	2.47
6.75	0' – 9579'	5.5	20	RY P-110	Freedom HTQ	New	1.05	2.18	2.07
6.75	9579' - 23496'	5.5	20	RY P-110	Talon HTQ	New	1.05	1.98	5.45

## Well Plan Report - Poker Lake Unit 23 DTD South 545H

 Measured Depth:
 23495.99 ft

 TVD RKB:
 10595.00 ft

Location

Cartographic New Mexico East -Reference System: NAD 27 441294.40 ft Northing: Easting: 651295.50 ft RKB: 3475.00 ft Ground Level: 3443.00 ft North Reference: Grid **Convergence Angle:** 0.26 Deg

**Plan Sections** Poker Lake Unit 23 DTD South 545H

Measured			TVD			Build	Turn	Dogleg
Depth	Inclination	Azimuth	RKB	Y Offset	X Offset	Rate	Rate	Rate
(ft)	(Deg)	(Deg)	(ft)	(ft)	(ft)	(Deg/100ft)	(Deg/100ft)	(Deg/100ft) Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00
4889.25	17.78	213.73	4875.04	-113.86	-76.03	2.00	0.00	2.00
6937.04	17.78	213.73	6824.96	-634.04	<b>-</b> 423.37	0.00	0.00	0.00
7826.29	0.00	0.00	7700.00	-747.90	-499.40	<b>-</b> 2.00	0.00	2.00
10005.09	0.00	0.00	9878.80	-747.90	-499.40	0.00	0.00	0.00
11130.09	90.00	179.66	10595.00	-1464.08	-495.18	8.00	0.00	8.00
23406.00	90.00	179.66	10595.00	-13739.78	<b>-</b> 422.76	0.00	0.00	0.00 LTP 22
23495.99	90.00	179.66	10595.00	<b>-</b> 13829.77	-422.23	0.00	0.00	0.00 BHL 22

Position Uncertainty Poker Lake Unit 23 DTD South 545H

Measured	TVD Hig	ghside		Lateral		Vertical		Magnitude	Semı- major	Semi- Semi- najor minor		Tool
Denth Inclination Azimuth	RKR	Frror	Rias	Frror	Rias	Frror	Rias	of Rias	Frror	Frror	Δzimuth	Haall

(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
100.000	0.000	0.000	100.000	0.358	0.000	0.179	0.000	2.300	0.000	0.000	0.358	0.179	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
200.000	0.000	0.000	200.000	0.717	0.000	0.538	0.000	2.310	0.000	0.000	0.717	0.538	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
300.000	0.000	0.000	300.000	1.075	0.000	0.896	0.000	2,326	0.000	0.000	1.075	0.896	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
400.000	0.000	0.000	400.000	1.434	0.000	1.255	0.000	2.347	0.000	0.000	1.434	1.255	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
500.000	0.000	0.000	500.000	1.792	0.000	1.613	0.000	2.375	0.000	0.000	1.792	1.613	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
600.000	0.000	0.000	600.000	2.151	0.000	1.972	0.000	2.407	0.000	0.000	2.151	1.972	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
700.000	0.000	0.000	700.000	2.509	0.000	2.330	0.000	2.445	0.000	0.000	2.509	2.330	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
800.000	0.000	0.000	800.000	2.868	0.000	2.689	0.000	2.487	0.000	0.000	2.868	2.689	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
900.000	0.000	0.000	900.000	3.226	0.000	3.047	0.000	2.533	0.000	0.000	3.226	3.047	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1000.000	0.000	0.000	1000.000	3.585	0.000	3.405	0.000	2.583	0.000	0.000	3.585	3.405	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1100.000	0.000	0.000	1100.000	3.943	0.000	3.764	0.000	2.636	0.000	0.000	3.943	3.764	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1200.000	0.000	0.000	1200.000	4.302	0.000	4.122	0.000	2.693	0.000	0.000	4.302	4.122	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1300.000	0.000	0.000	1300.000	4.660	0.000	4.481	0.000	2.753	0.000	0.000	4.660	4.481	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1400.000	0.000	0.000	1400.000	5.019	0.000	4.839	0.000	2.816	0.000	0.000	5.019	4.839	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1500.000	0.000	0.000	1500.000	5.377	0.000	5.198	0.000	2.881	0.000	0.000	5.377	5.198	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1600.000	0.000	0.000	1600.000	5.736	0.000	5.556	0.000	2.949	0.000	0.000	5.736	5.556	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1700.000	0.000	0.000	1700.000	6.094	0.000	5.915	0.000	3.018	0.000	0.000	6.094	5.915	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1800.000	0.000	0.000	1800.000	6.452	0.000	6.273	0.000	3.090	0.000	0.000	6.452	6.273	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
1900.000	0.000	0.000	1900.000	6.811	0.000	6.632	0.000	3.164	0.000	0.000	6.811	6.632	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2000.000	0.000	0.000	2000.000	7.169	0.000	6.990	0.000	3.239	0.000	0.000	7.169	6.990	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2100.000	0.000	0.000	2100.000	7.528	0.000	7.349	0.000	3.317	0.000	0.000	7.528	7.349	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2200.000	0.000	0.000	2200.000	7.886	0.000	7.707	0.000	3.395	0.000	0.000	7.886	7.707	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2300.000	0.000	0.000	2300.000	8.245	0.000	8.066	0.000	3.476	0.000	0.000	8.245	8.066	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2400.000	0.000	0.000	2400.000	8.603	0.000	8.424	0.000	3.557	0.000	0.000	8.603	8.424	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2500.000	0.000	0.000	2500.000	8.962	0.000	8.783	0.000	3.640	0.000	0.000	8.962	8.783	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2600.000	0.000	0.000	2600.000	9.320	0.000	9.141	0.000	3.725	0.000	0.000	9.320	9.141	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2700.000	0.000	0.000	2700.000	9.679	0.000	9.499	0.000	3.811	0.000	0.000	9.679	9.499	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2800.000	0.000	0.000	2800.000	10.037	0.000	9.858	0.000	3.898	0.000	0.000	10.037	9.858	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
2900.000	0.000	0.000	2900.000	10.396	0.000	10.216	0.000	3.986	0.000	0.000	10.396	10.216	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3000.000	0.000	0.000	3000.000	10.754	0.000	10.575	0.000	4.076	0.000	0.000	10.754	10.575	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3100.000	0.000	0.000	3100.000	11.113	0.000	10.933	0.000	4.167	0.000	0.000	11.113	10.933	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3200.000	0.000	0.000	3200.000	11.471	0.000	11.292	0.000	4.259	0.000	0.000	11,471	11.292	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3300.000	0.000	0.000	3300.000	11.830	0.000	11.650	0.000	4.352	0.000	0.000	11.830	11.650	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

3400.000	0.000	0.000	3400.000	12.188	0.000	12.009	0.000	4.447 0.000	0.000	12.188	12.009	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3500.000	0.000	0.000	3500.000	12.547	0.000	12.367	0.000	4.543 0.000	0.000	12.547	12.367	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3600.000	0.000	0.000	3600.000	12.905	0.000	12.726	0.000	4.641 0.000	0.000	12.905	12.726	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3700.000	0.000	0.000	3700.000	13.263	0.000	13.084	0.000	4.740 0.000	0.000	13.263	13.084	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3800.000	0.000	0.000	3800.000	13.622	0.000	13.443	0.000	4.840 0.000	0.000	13.622	13.443	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
3900.000	0.000	0.000	3900.000	13.980	0.000	13.801	0.000	4.941 0.000	0.000	13.980	13.801	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4000.000	0.000	0.000	4000.000	14.339	0.000	14.160	0.000	5.045 0.000	0.000	14.339	14.160	90.000	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4100.000	2.000	213.732	4099.980	14.618 -	0.000	14.556	0.000	5.149 0.000	0.000	14.681	14.501	89.984	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4200.000	4.000	213.732	4199.838	14.919 -	0.000	14.881	0.000	5.254 0.000	0.000	15.007	14.825	89.951	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4300.000	6.000	213.732	4299.452	15.205 -	0.000	15.207	0.000	5.359 0.000	0.000	15.335	15.149	89.810	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4400.000	8.000	213.732	4398.702	15.475 -	0.000	15.533	0.000	5.464 0.000	0.000	15.663	15.472	89.483	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4500.000	10.000	213.732	4497.465	15.728 -	0.000	15.859	0.000	5.570 0.000	0.000	15.990	15.795	88.896	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4600.000	12.000	213.732	4595.623	15.963 -	0.000	16.186	0.000	5.678 0.000	0.000	16.318	16.117	87.976	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4700.000	14.000	213.732	4693.055	16.181 -	0.000	16.513	0.000	5.786 0.000	0.000	16.644	16.438	86.652	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4800.000	16.000	213.732	4789.643	16.380 -	0.000	16.842	0.000	5.896 0.000	0.000	16.969	16.758	84.850	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4889.249	17.785	213.732	4875.037	16.542 -	0.000	17.135	0.000	5.996 0.000	0.000	17.258	17.043	82.817	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
4900.000	17.785	213.732	4885.275	16.577 -	0.000	17.171	0.000	6.005 0.000	0.000	17.293	17.077	82.696	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5000.000	17.785	213.732	4980.496	16.901 -	0.000	17.503	0.000	6.129 0.000	0.000	17.617	17.395	79.665	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5100.000	17.785	213.732	5075.717	17.227 -	0.000	17.838	0.000	6.256 0.000	0.000	17.945	17.714	76.615	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5200.000	17.785	213.732	5170.938	17.554 -	0.000	18.177	0.000	6.386 0.000	0.000	18.275	18.035	73.599	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5300.000	17.785	213.732	5266.158	17.884 -	0.000	18.519	0.000	6.519 0.000	0.000	18.609	18.357	70.668	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5400.000	17.785	213.732	5361.379	18.215 -	0.000	18.863	0.000	6.655 0.000	0.000	18.947	18.680	67.867	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5500.000	17.785	213.732	5456.600	18.547 -	0.000	19.211	0.000	6.794 0.000	0.000	19.288	19.004	65.230	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5600.000	17.785	213.732	5551.821	18.881 -	0.000	19.561	0.000	6.936 0.000	0.000	19.631	19.329	62.778	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5700.000	17.785	213.732	5647.042	19.216 -	0.000	19.913	0.000	7.081 0.000	0.000	19.978	19.654	60.519	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5800.000	17.785	213.732	5742.263	19.553 -	0.000	20.268	0.000	7.229 0.000	0.000	20.328	19.981	58.453	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
5900.000	17.785	213.732	5837.484	19.891 -	0.000	20.624	0.000	7.379 0.000	0.000	20.680	20.308	56.572	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6000.000	17.785	213.732	5932.705	20.229 -	0.000	20.983	0.000	7.533 0.000	0.000	21.035	20.635	54.866	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6100.000	17.785	213,732	6027.926	20.569 -	0.000	21.344	0.000	7.689 0.000	0.000	21.392	20.964	53.319	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6200.000	17.785	213.732	6123.147	20.910 -	0.000	21.707	0.000	7.847 0.000	0.000	21.751	21.293	51.917	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6300.000	17.785	213.732	6218.368	21.252 -	0.000	22.072	0.000	8.009 0.000	0.000	22.113	21.623	50.645	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6400.000	17.785	213.732	6313.589	21.595 -	0.000	22.438	0.000	8.172 0.000	0.000	22.476	21.953	49.490	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6500.000	17.785	213.732	6408.810	21.939 -	0.000	22.806	0.000	8.339 0.000	0.000	22.841	22.284	48.439	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6600.000	17.785	213.732	6504.031	22.284 -	0.000	23.175	0.000	8.508 0.000	0.000	23.208	22.616	47.481	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6700.000	17.785	213.732	6599.252	22.629 -	0.000	23.546	0.000	8.679 0.000	0.000	23.577	22.949	46.604	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

6800.000	17.785	213.732	6694.473	22.975	-0.000	23.919	0.000	8.854 0.000	0.000	23.947 23.282	45.801	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6900.000	17.785	213.732	6789.694	23.322	-0.000	24.292	0.000	9.030 0.000	0.000	24.319 23.616	45.063	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
6937.039	17.785	213.732	6824.963	23.451	-0.000	24.431	0.000	9.096 0.000	0.000	24.457 23.740	44.809	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7000.000	16.526	213.732	6885.121	23.757	-0.000	24.666	0.000	9.211 0.000	0.000	24.691 23.951	44.398	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7100.000	14.526	213.732	6981.467	24,225	-0.000	25.039	0.000	9.394 0.000	0.000	25.063 24.289	43.836	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7200.000	12.526	213.732	7078.689	24.667	-0.000	25.410	0.000	9.577 0.000	0.000	25.432 24.630	43.377	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7300.000	10.526	213.732	7176.667	25.084	-0.000	25.777	0.000	9.760 0.000	0.000	25.798 24.975	43.001	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7400.000	8.526	213.732	7275.283	25.474	-0.000	26.141	0.000	9.941 0.000	0.000	26.162 25.321	42.693	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7500.000	6.526	213.732	7374.417	25.836	-0.000	26.502	0.000	10.121 0.000	0.000	26.521 25.669	42.437	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7600.000	4.526	213.732	7473.947	26.171	-0.000	26.858	0.000	10.299 0.000	0.000	26.876 26.017	42.225	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7700.000	2.526	213.732	7573.753	26.476	-0.000	27.210	0.000	10.476 0.000	0.000	27.227 26.365	42.047	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7800.000	0.526	213.732	7673.712	26.751	-0.000	27.557	0.000	10.651 0.000	0.000	27.574 26.711	41.895	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7826.288	0.000	0.000	7700.000	27.189	0.000	27.282	0.000	10.697 0.000	0.000	27.663 26.801	41.907	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
7900.000	0.000	0.000	7773.712	27.444	0.000	27.532	0.000	10.826 0.000	0.000	27.913 27.056	42.077	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8000.000	0.000	0.000	7873.712	27.791	0.000	27.871	0.000	11.004 0.000	0.000	28.253 27.402	42.306	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8100.000	0.000	0.000	7973.712	28.138	0.000	28.210	0.000	11.185 0.000	0.000	28.593 27.748	42.533	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8200.000	0.000	0.000	8073.712	28.484	0.000	28.550	0.000	11.368 0.000	0.000	28.933 28.095	42.758	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8300.000	0.000	0.000	8173.712	28.832	0.000	28.890	0.000	11.555 0.000	0.000	29.274 28.442	42.980	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8400.000	0.000	0.000	8273.712	29.179	0.000	29.231	0.000	11.744 0.000	0.000	29.616 28.789	43.200	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8500.000	0.000	0.000	8373.712	29.527	0.000	29.572	0.000	11.937 0.000	0.000	29.958 29.136	43.418	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8600.000	0.000	0.000	8473.712	29.875	0.000	29.914	0.000	12.132 0.000	0.000	30.300 29.484	43.634	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8700.000	0.000	0.000	8573.712	30.223	0.000	30.256	0.000	12.331 0.000	0.000	30.642 29.831	43.848	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
000.0088	0.000	0.000	8673.712	30.572	0.000	30.598	0.000	12.532 0.000	0.000	30.985 30.179	44.059	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
8900.000	0.000	0.000	8773.712	30.921	0.000	30.941	0.000	12.736 0.000	0.000	31.329 30.528	44.268	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9000.000	0.000	0.000	8873.712	31.270	0.000	31.284	0.000	12.944 0.000	0.000	31.673 30.876	44.475	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9100.000	0.000	0.000	8973.712	31.619	0.000	31.628	0.000	13.154 0.000	0.000	32.017 31.225	44.680	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9200.000	0.000	0.000	9073.712	31.968	0.000	31.971	0.000	13.368 0.000	0.000	32.361 31.573	44.883	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9300.000	0.000	0.000	9173.712	32.318	0.000	32.315	0.000	13.584 0.000	0.000	32.706 31.923	45.083	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9400.000	0.000	0.000	9273.712	32.667	0.000	32.660	0.000	13.804 0.000	0.000	33.051 32.272	45.282	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9500.000	0.000	0.000	9373.712	33.017	0.000	33.004	0.000	14.026 0.000	0.000	33.396 32.621	45.478	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9600.000	0.000	0.000	9473.712	33.367	0.000	33.349	0.000	14.252 0.000	0.000	33.742 32.971	45.673	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9700.000	0.000	0.000	9573.712	33.718	0.000	33.695	0.000	14.481 0.000	0.000	34.088 33.320	45.865	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9800.000	0.000	0.000	9673.712	34.068	0.000	34.040	0.000	14.712 0.000	0.000	34.434 33.670	46.055	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
9900.000	0.000	0.000	9773.712	34.419	0.000	34.386	0.000	14.947 0.000	0.000	34.780 34.020	46.243	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10005.088	0.000	0.000	9878.800	34.788	0.000	34.750	0.000	15.197 0.000	0.000	35.144 34.389	46.439	MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

10100.000	7.593	179.662 9973.434	35.129 0.000	35.074 -0.000	15.428 0.000	0.000	35.471 34.717	46.371 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10200.000	15.593	179.662 10071.315	34.936 0.000	35.421 -0.000	15.671 0.000	0.000	35.813 35.057	45.910 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10300.000	23.593	179.662 10165.448	34.196 0.000	35.767 -0.000	15.910 0.000	0.000	36.150 35.388	44.968 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10400.000	31.593	179.662 10254.002	32.932 0.000	36.106 -0.000	16.138 0.000	0.000	36.474 35.699	43.341 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10500.000	39.593	179.662 10335.253	31.191 0.000	36.435 -0.000	16.352 0.000	0.000	36.781 35.982	40.942 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10600.000	47.593	179.662 10407.620	29.043 0.000	36.750 -0.000	16.550 0.000	0.000	37.069 36.229	37.860 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10700.000	55.593	179.662 10469.694	26.589 0.000	37.046 -0.000	16.730 0.000	0.000	37.337 36.432	34.378 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10800.000	63.593	179.662 10520.267	23.971 0.000	37.321 -0.000	16.891 0.000	0.000	37.586 36.589	30.890 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
10900.000	71.593	179.662 10558.355	21.394 0.000	37.571 -0.000	17.033 0.000	0.000	37.816 36.699	27.761 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11000.000	79.593	179.662 10583.215	19.140 0.000	37.793 -0.000	17.158 0.000	0.000	38.023 36.767	25.215 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11100.000	87.593	179.662 10594.365	17.575 0.000	37.983 -0.000	17.267 0.000	0.000	38.206 36.802	23.332 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11130.088	90.000	179.662 10594.997	17.297 0.000	38.033 -0.000	17.297 0.000	0.000	38.255 36.807	22.921 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11200.000	90.000	179.662 10594.997	17.367 0.000	38.148 -0.000	17.367 0.000	0.000	38.369 36.817	21.996 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11300.000	90.000	179.662 10594.997	17.477 0.000	38.326 -0.000	17.477 0.000	0.000	38.543 36.831	20.737 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11400.000	90.000	179.662 10594.997	17.598 0.000	38.516 -0.000	17.598 0.000	0.000	38.729 36.847	19.580 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11500.000	90.000	179.662 10594.997	17.730 0.000	38.716 -0.000	17.730 0.000	0.000	38.927 36.863	18.518 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11600.000	90.000	179.662 10594.997	17.873 0.000	38.929 -0.000	17.873 0.000	0.000	39.136 36.880	17.545 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11700.000	90.000	179.662 10594.997	18.026 0.000	39.152 -0.000	18.026 0.000	0.000	39.356 36.897	16.650 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11800.000	90.000	179.662 10594.997	18.189 0.000	39.386 -0.000	18.189 0.000	0.000	39.587 36.915	15.829 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
11900.000	90.000	179.662 10594.997	18.362 0.000	39.632 -0.000	18.362 0.000	0.000	39.829 36.933	15.073 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12000.000	90.000	179.662 10594.997	18.544 0.000	39.887 -0.000	18.544 0.000	0.000	40.082 36.952	14.376 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12100.000	90.000	179.662 10594.997	18.736 0.000	40.153 -0.000	18.736 0.000	0.000	40.345 36.971	13.733 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12200.000	90.000	179.662 10594.997	18.937 0.000	40.430 -0.000	18.937 0.000	0.000	40.618 36.991	13.138 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12300.000	90.000	179.662 10594.997	19.146 0.000	40.716 -0.000	19.146 0.000	0.000	40.901 37.012	12.586 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12400.000	90.000	179.662 10594.997	19.364 0.000	41.012 -0.000	19.364 0.000	0.000	41.195 37.033	12.074 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12500.000	90.000	179.662 10594.997	19.589 0.000	41.317 -0.000	19.589 0.000	0.000	41.497 37.055	11.599 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12600.000	90.000	179.662 10594.997	19.823 0.000	41.632 -0.000	19.823 0.000	0.000	41.810 37.077	11.155 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12700.000	90.000	179.662 10594.997	20.064 0.000	41.956 -0.000	20.064 0.000	0.000	42.131 37.100	10.741 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12800.000	90.000	179.662 10594.997	20.313 0.000	42.289 -0.000	20.313 0.000	0.000	42.461 37.123	10.354 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
12900.000	90.000	179.662 10594.997	20.568 0.000	42.630 -0.000	20.568 0.000	0.000	42.800 37.147	9.992 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13000.000	90.000	179.662 10594.997	20.831 0.000	42.980 -0.000	20.831 0.000	0.000	43.148 37.172	9.652 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13100.000	90.000	179.662 10594.997	21.099 0.000	43.339 -0.000	21.099 0.000	0.000	43.504 37.197	9.332 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13200.000	90.000	179.662 10594.997	21.375 0.000	43.705 -0.000	21.375 0.000	0.000	43.868 37.223	9.031 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13300.000	90.000	179.662 10594.997	21.656 0.000	44.079 -0.000	21.656 0.000	0.000	44.240 37.249	8.748 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13400.000	90.000	179.662 10594.997	21.943 0.000	44.461 -0.000	21.943 0.000	0.000	44.620 37.276	8.480 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

13500.000	90.000	179.662 1059	4.997 22.235	0.000	44.851 -0.000	22.235 0.000	0.000	45.007 37.304	8.227 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13600.000	90.000	179.662 1059	4.997 22.533	0.000	45.248 -0.000	22.533 0.000	0.000	45.402 37.332	7.988 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13700.000	90.000	179.662 1059	4.997 22.836	0.000	45.652 -0.000	22.836 0.000	0.000	45.804 37.360	7.761 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13800.000	90.000	179.662 1059	4.997 23.144	0.000	46.062 -0.000	23.144 0.000	0.000	46.213 37.390	7.546 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
13900.000	90.000	179.662 1059	4.997 23.457	0.000	46.480 -0.000	23.457 0.000	0.000	46,628 37,420	7.341 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14000.000	90.000	179.662 1059	4.997 23.775	0.000	46.904 -0.000	23.775 0.000	0.000	47.051 37.450	7.147 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14100.000	90.000	179.662 1059	4.997 24.096	0.000	47.335 -0.000	24.096 0.000	0.000	47.479 37.481	6.962 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14200.000	90.000	179.662 1059	4.997 24.422	0.000	47.771 -0.000	24.422 0.000	0.000	47.914 37.513	6.785 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14300.000	90.000	179.662 1059	4.997 24.752	0.000	48.214 -0.000	24.752 0.000	0.000	48.355 37.545	6.617 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14400.000	90.000	179.662 1059	4.997 25.086	0.000	48.663 -0.000	25.086 0.000	0.000	48.802 37.578	6.456 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14500.000	90.000	179.662 1059	4.997 25.424	0.000	49.117 -0.000	25.424 0.000	0.000	49.254 37.611	6.302 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14600.000	90.000	179.662 1059	4.997 25.765	0.000	49.577 -0.000	25.765 0.000	0.000	49.712 37.645	6.155 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14700.000	90.000	179.662 1059	4.997 26.110	0.000	50.042 -0.000	26.110 0.000	0.000	50.176 37.680	6.014 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14800.000	90.000	179.662 1059	4.997 26.458	0.000	50.512 -0.000	26.458 0.000	0.000	50.645 37.715	5.879 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
14900.000	90.000	179.662 1059	4.997 26.809	0.000	50.988 -0.000	26.809 0.000	0.000	51.119 37.751	5.749 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15000.000	90.000	179.662 1059	4.997 27.163	0.000	51.469 -0.000	27.163 0.000	0.000	51.598 37.787	5.625 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15100.000	90.000	179.662 1059	4.997 27.521	0.000	51.954 -0.000	27.521 0.000	0.000	52.082 37.824	5.506 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15200.000	90.000	179.662 1059	4.997 27.881	0.000	52.444 -0.000	27.881 0.000	0.000	52.570 37.862	5.391 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15300.000	90.000	179.662 1059	4.997 28.243	0.000	52.939 -0.000	28.243 0.000	0.000	53.064 37.900	5.280 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15400.000	90.000	179.662 1059	4.997 28.609	0.000	53.438 -0.000	28.609 0.000	0.000	53.561 37.939	5.174 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15500.000	90.000	179.662 1059	4.997 28.977	0.000	53.941 -0.000	28.977 0.000	0.000	54.063 37.978	5.071 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15600.000	90.000	179.662 1059	4.997 29.347	0.000	54.449 -0.000	29.347 0.000	0.000	54.569 38.018	4.972 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15700.000	90.000	179.662 1059	4.997 29.720	0.000	54.961 -0.000	29.720 0.000	0.000	55.080 38.059	4.877 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15800.000	90.000	179.662 1059	4.997 30.094	0.000	55.476 -0.000	30.094 0.000	0.000	55.594 38.100	4.785 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
15900.000	90.000	179.662 1059	4.997 30.471	0.000	55.996 -0.000	30.471 0.000	0.000	56.112 38.141	4.696 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16000.000	90.000	179.662 1059	4.997 30.851	0.000	56.519 -0.000	30.851 0.000	0.000	56.634 38.184	4.610 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16100.000	90.000	179.662 1059	4.997 31.232	0.000	57.046 -0.000	31.232 0.000	0.000	57.160 38.226	4.527 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16200.000	90.000	179.662 1059	4.997 31.615	0.000	57.576 -0.000	31.615 0.000	0.000	57.689 38.270	4.446 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16300.000	90.000	179.662 1059	4.997 32.000	0.000	58.110 -0.000	32.000 0.000	0.000	58.222 38.314	4.369 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16400.000	90.000	179.662 1059	4.997 32.387	0.000	58.648 -0.000	32.387 0.000	0.000	58.758 38.358	4.293 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16500.000	90.000	179.662 1059	4.997 32.775	0.000	59.188 -0.000	32.775 0.000	0.000	59.297 38.404	4.220 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16600.000	90.000	179.662 1059	4.997 33.165	0.000	59.732 -0.000	33.165 0.000	0.000	59.839 38.449	4.149 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16700.000	90.000	179.662 1059	4.997 33.557	0.000	60.279 -0.000	33.557 0.000	0.000	60.385 38.496	4.081 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16800.000	90.000	179.662 1059	4.997 33.950	0.000	60.828 -0.000	33.950 0.000	0.000	60.934 38.542	4.014 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
16900.000	90.000	179.662 1059	4.997 34.345	0.000	61.381 -0.000	34.345 0.000	0.000	61.485 38.590	3.950 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

17000.000	90.000	179.662 10594.997	34.741 0.000	61.937 -0.000	34.741 0.000	0.000	62.040 38.638	3.887 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17100.000	90.000	179.662 10594.997	35.139 0.000	62.495 -0.000	35.139 0.000	0.000	62.597 38.686	3.826 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17200.000	90.000	179.662 10594.997	35.538 0.000	63.056 -0.000	35.538 0.000	0.000	63.157 38.735	3.767 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17300.000	90.000	179.662 10594.997	35.939 0.000	63.620 -0.000	35.939 0.000	0.000	63.720 38.785	3.709 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17400.000	90.000	179.662 10594.997	36.340 0.000	64.186 -0.000	36.340 0.000	0.000	64.285 38.835	3.653 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17500.000	90.000	179.662 10594.997	36.743 0.000	64.755 -0.000	36.743 0.000	0.000	64.852 38.886	3.598 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17600.000	90.000	179.662 10594.997	37.147 0.000	65.326 -0.000	37.147 0.000	0.000	65.423 38.937	3.545 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17700.000	90.000	179.662 10594.997	37.552 0.000	65.899 -0.000	37.552 0.000	0.000	65.995 38.989	3.494 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17800.000	90.000	179.662 10594.997	37.959 0.000	66.475 -0.000	37.959 0.000	0.000	66.570 39.042	3.443 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
17900.000	90.000	179.662 10594.997	38.366 0.000	67.053 -0.000	38.366 0.000	0.000	67.147 39.095	3.394 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18000.000	90.000	179.662 10594.997	38.775 0.000	67.633 -0.000	38.775 0.000	0.000	67.726 39.148	3.347 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18100.000	90.000	179.662 10594.997	39.184 0.000	68.215 -0.000	39.184 0.000	0.000	68.308 39.202	3.300 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18200.000	90.000	179.662 10594.997	39.595 0.000	68.800 -0.000	39.595 0.000	0.000	68.891 39.257	3.255 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18300.000	90.000	179.662 10594.997	40.006 0.000	69.386 -0.000	40.006 0.000	0.000	69.477 39.312	3.210 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18400.000	90.000	179.662 10594.997	40.418 0.000	69.975 -0.000	40.418 0.000	0.000	70.064 39.368	3.167 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18500.000	90.000	179.662 10594.997	40.832 0.000	70.565 -0.000	40.832 0.000	0.000	70.654 39.424	3.125 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18600.000	90.000	179.662 10594.997	41.246 0.000	71.157 -0.000	41.246 0.000	0.000	71.245 39.481	3.084 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18700.000	90.000	179.662 10594.997	41.661 0.000	71.751 -0.000	41.661 0.000	0.000	71.838 39.538	3.043 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18800.000	90.000	179.662 10594.997	42.076 0.000	72.347 -0.000	42.076 0.000	0.000	72.433 39.596	3.004 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
18900.000	90.000	179.662 10594.997	42.493 0.000	72.945 -0.000	42.493 0.000	0.000	73.030 39.654	2.966 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19000.000	90.000	179.662 10594.997	42.910 0.000	73.544 -0.000	42.910 0.000	0.000	73.629 39.713	2.928 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19100.000	90.000	179.662 10594.997	43.328 0.000	74.145 -0.000	43.328 0.000	0.000	74.229 39.772	2.891 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19200.000	90.000	179.662 10594.997	43.747 0.000	74.747 -0.000	43.747 0.000	0.000	74.830 39.832	2.855 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19300.000	90.000	179.662 10594.997	44.166 0.000	75.351 -0.000	44.166 0.000	0.000	75.434 39.892	2.820 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19400.000	90.000	179.662 10594.997	44.587 0.000	75.957 -0.000	44.587 0.000	0.000	76.039 39.953	2.786 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19500.000	90.000	179.662 10594.997	45.007 0.000	76.564 -0.000	45.007 0.000	0.000	76.645 40.015	2.752 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19600.000	90.000	179.662 10594.997	45.429 0.000	77.173 -0.000	45.429 0.000	0.000	77.253 40.077	2.719 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19700.000	90.000	179.662 10594.997	45.851 0.000	77.783 -0.000	45.851 0.000	0.000	77.862 40.139	2.687 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19800.000	90.000	179,662 10594,997	46.274 0.000	78.394 -0.000	46.274 0.000	0.000	78.473 40.202	2.656 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
19900.000	90.000	179.662 10594.997	46.697 0.000	79.007 -0.000	46.697 0.000	0.000	79.085 40.266	2.625 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
20000.000	90.000	179.662 10594.997	47.121 0.000	79.621 -0.000	47.121 0.000	0.000	79.699 40.329	2.594 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
20100.000	90.000	179.662 10594.997	47.545 0.000	80.236 -0.000	47.545 0.000	0.000	80.313 40.394	2.565 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
20200.000	90.000	179.662 10594.997	47.970 0.000	80.853 -0.000	47.970 0.000	0.000	80.929 40.459	2.536 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
20300.000	90.000	179.662 10594.997	48.396 0.000	81.471 -0.000	48.396 0.000	0.000	81.547 40.524	2.507 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23
20400.000	90.000	179.662 10594.997	48.822 0.000	82.090 -0.000	48.822 0.000	0.000	82.165 40.590	2.479 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23

20500.000	90.000	179.662 10594.997	49.248 0.000	82.710 -0.000	49.248 0.000	0.000	82.785 40.657	2.452 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
20600.000	90.000	179.662 10594.997	49.676 0.000	83.332 -0.000	49.676 0.000	0.000	83.406 40.724	2.425 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
20700.000	90.000	179.662 10594.997	50.103 0.000	83.955 -0.000	50.103 0.000	0.000	84.028 40.791	2.398 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
20800.000	90.000	179.662 10594.997	50.531 0.000	84.578 -0.000	50.531 0.000	0.000	84.651 40.859	2.373 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
20900.000	90.000	179.662 10594.997	50.960 0.000	85.203 -0.000	50.960 0.000	0.000	85.275 40.927	2.347 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21000.000	90.000	179.662 10594.997	51.388 0.000	85.829 -0.000	51.388 0.000	0.000	85.901 40.996	2.322 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21100.000	90.000	179.662 10594.997	51.818 0.000	86.456 -0.000	51.818 0.000	0.000	86.527 41.065	2.298 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21200.000	90.000	179.662 10594.997	52.248 0.000	87.084 -0.000	52.248 0.000	0.000	87.154 41.135	2.274 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21300.000	90.000	179.662 10594.997	52.678 0.000	87.713 -0.000	52.678 0.000	0.000	87.783 41.205	2.250 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21400.000	90.000	179.662 10594.997	53.108 0.000	88.343 -0.000	53.108 0.000	0.000	88.412 41.276	2.227 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21500.000	90.000	179.662 10594.997	53.539 0.000	88.974 -0.000	53.539 0.000	0.000	89.043 41.347	2.204 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21600.000	90.000	179.662 10594.997	53.971 0.000	89.606 -0.000	53.971 0.000	0.000	89.674 41.419	2.182 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21700.000	90.000	179.662 10594.997	54.402 0.000	90.238 -0.000	54.402 0.000	0.000	90.306 41.491	2.160 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21800.000	90.000	179.662 10594.997	54.835 0.000	90.872 -0.000	54.835 0.000	0.000	90.939 41.564	2.138 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
21900.000	90.000	179.662 10594.997	55.267 0.000	91.507 -0.000	55.267 0.000	0.000	91.573 41.637	2.117 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22000.000	90.000	179.662 10594.997	55.700 0.000	92.142 -0.000	55.700 0.000	0.000	92.208 41.710	2.096 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22100.000	90.000	179.662 10594.997	56.133 0.000	92.778 -0.000	56.133 0.000	0.000	92.844 41.784	2.076 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22200.000	90.000	179.662 10594.997	56.566 0.000	93.415 -0.000	56.566 0.000	0.000	93.480 41.858	2.056 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22300.000	90.000	179.662 10594.997	57.000 0.000	94.053 -0.000	57.000 0.000	0.000	94.118 41.933	2.036 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22400.000	90.000	179.662 10594.997	57.434 0.000	94.692 -0.000	57.434 0.000	0.000	94.756 42.008	2.016 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22500.000	90.000	179.662 10594.997	57.869 0.000	95.331 -0.000	57.869 0.000	0.000	95.395 42.084	1.997 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22600.000	90.000	179.662 10594.997	58.304 0.000	95.971 -0.000	58.304 0.000	0.000	96.035 42.160	1.978 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22700.000	90.000	179.662 10594.997	58.739 0.000	96.612 -0.000	58.739 0.000	0.000	96.675 42.237	1.959 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22800.000	90.000	179.662 10594.997	59.174 0.000	97.254 -0.000	59.174 0.000	0.000	97.316 42.314	1.941 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
22900.000	90.000	179.662 10594.997	59.610 0.000	97.896 -0.000	59.610 0.000	0.000	97.958 42.391	1.923 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23000.000	90.000	179.662 10594.997	60.045 0.000	98.539 -0.000	60.045 0.000	0.000	98.601 42.469	1.905 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23100.000	90.000	179.662 10594.997	60.482 0.000	99.183 -0.000	60.482 0.000	0.000	99.244 42.548	1.888 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23200.000	90.000	179.662 10594.997	60.918 0.000	99.828 -0.000	60.918 0.000	0.000	99.888 42.626	1.871 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23300.000	90.000	179.662 10594.997	61.355 0.000	100.473 -0.000	61.355 0.000	0.000	100.533 42.705	1.854 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23405.998	90.000	179.662 10594.997	61.818 0.000	101.157 -0.000	61.818 0.000	0.000	101.217 42.790	1.836 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	
23495.993	90.000	179.662 10594.997	62.211 0.000	101.739 -0.000	62.211 0.000	0.000	101.798 42.862	1.821 MWD+IFR1+SAG+MS+GS_XTO_PLUDTD_23	

Plan Targets

Poker Lake Unit 23 DTD South 545H

Measured Depth Grid Northing Grid Easting TVD MSL Target Shape

Target Name	(ft)	(ft)	(ft)	(ft)
FTP 22	10899.15	440546.50	650796.10	7120.00 RECTANGLE
SHL 22	11291.75	441292.32	651313.48	6949.54 RECTANGLE
LTP 22	23406.06	427554.60	650872.80	7120.00 RECTANGLE
BHL 22	23496.82	427464.60	650874.10	7120.00 RECTANGLE

### **Cement Variance Request**

## Intermediate Casing:

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6649') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to 3749'.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface. If cement reaches the desired height, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure the first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per wellhead provider procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

## **Production Casing:**

XTO requests the option to offline cement and remediate (if needed) surface and intermediate casing strings where batch drilling is approved and if unplanned remediation is needed. XTO will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed when applicable per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence.

ALL DIMENSIONS APPROXIMAN

# CACTUS WELLHEAD LLC

(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations

	XTO ENERGY INDELAWARE BASI	_
DRAWN	VJK	31MA
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DRAWING NO.

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

SDT-3301



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NEW CHOKE HOSE

INSTAUED 02-10-2024

# CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER:

NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA

CUSTOMER P.O.#:

15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)

CUSTOMER P/N:

IMR RETEST SN 74621 ASSET #66-1531

PART DESCRIPTION:

RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K

FLANGES

SALES ORDER #:

529480

QUANTITY:

1

SERIAL #:

74621 H3-012524-1

SIGNATURE: 7. CUSTUS &

TITLE: QUALITY ASSURANCE

DATE: 1/25/2024

# H3-15/16

1/25/2024 11:48:06 AM



# **TEST REPORT**

CUSTOMER

Company:

Nabors Industries Inc.

**TEST OBJECT** 

Serial number:

H3-012524-1

Production description:

74621/66-1531

Lot number: Description:

74621/66-1531

Sales order #:

529480

Customer reference:

FG1213

Hose ID:

3" 16C CK

**TEST INFORMATION** 

Test procedure:

GTS-04-053

Fitting 1:

Test pressure:

15000.00 3600.00

Part number:

3.0 x 4-1/16 10K

Test pressure hold:

Description:

Part number:

Work pressure:

10000.00

sec psi

psi

3.0 x 4-1/16 10K

Work pressure hold: Length difference:

Length difference:

900.00 0.00

0.00

sec % inch Fitting 2: Part number:

Description:

Visual check:

Pressure test result:

PASS

Length measurement result:

Length:

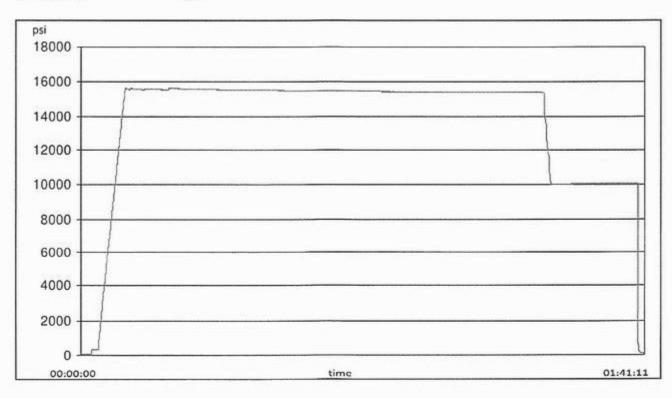
45

feet

n . . . . /n

Test operator:

Travis





H3-15/16

1/25/2024 11:48:06 AM

# **TEST REPORT**

# **GAUGE TRACEABILITY**

Serial number	Calibration date	Calibration due date
110D3PHO	2023-06-06	2024-06-06
110IQWDG	2023-05-16	2024-05-16
	110D3PHO	110D3PHO 2023-06-06

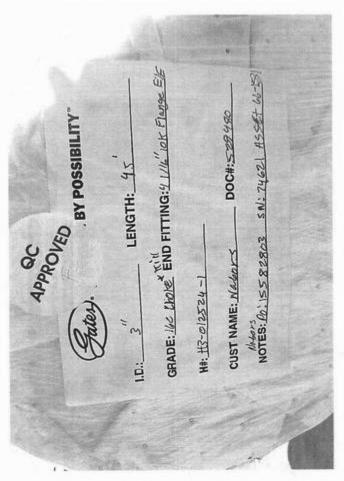


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XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

# Description of Operations:

- 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 90 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.

#### **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

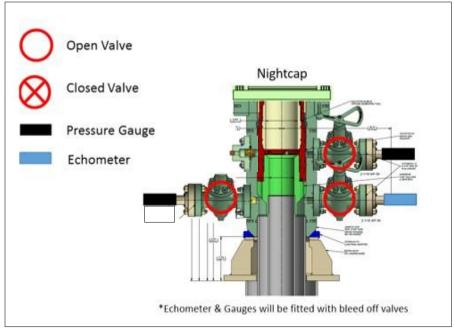
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

- 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

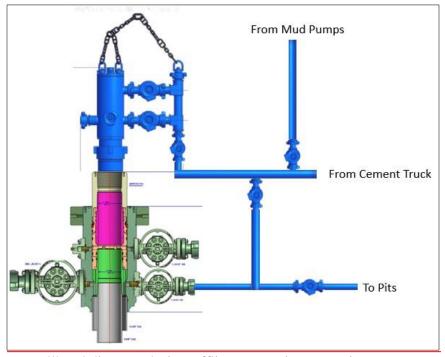
#### **XTO Permian Operating, LLC Offline Cementing Variance Request**



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 3<sup>rd</sup> 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.

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 CFR Title 43 Part 3170, 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. CFR Title 43 Part 3170 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 CFR Title 43 Part 3170, XTO Energy submits this request for the variance.

# **Supporting Documentation**

CFR Title 43 Part 3170 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 CFR Title 43 Part 3170 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. CFR Title 43 Part 3170recognizes 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.

Table C.4—Initial Pressure Testing, Surface BOP Stacks Pressure Test—High Pressur			
Pressure Test—Low Pressure <sup>ac</sup> psig (MPa)	Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket	
250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.	
250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ПР	
250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP	
250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP	
250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or M whichever is lower	ASP for the well program,	
250 to 350 (1.72 to 2.41)	MASP for the well program		
sure tested on the largest and sm from one wellhead to another within	allest OD drill pipe to be used in well n the 21 days, pressure testing is req	program.	
	psig (MPa)  250 to 350 (1.72 to 2.41)  all be a minimum of five minutes. turing the evaluation period. The psure tested on the largest and sm om one wellhead to another with when the integrity of a pressure sesure sessent sesure sesure sesure sesure sesure sesure sesure sesure ses	250 to 350 (1.72 to 2.41)  250 to 350 (1.72 to 2.41)  RWP of annular preventer  RWP of ram preventer or wellhead system, whichever is lower  RWP of side outlet valve or wellhead system, whichever is lower  RWP of ram preventer or wellhead system, whichever is lower  RWP of side outlet valve or wellhead system, whichever is lower  RWP of ram preventers or wellhead system, whichever is lower  RWP of valve(s), line(s), or Nowhichever is lower  RWP of valve(s), line(s), or Nowhichever is lower  MASP for the well program	

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 CFR Title 43 Part 317 Oand 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 CFR Title 43 Part 3170 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after

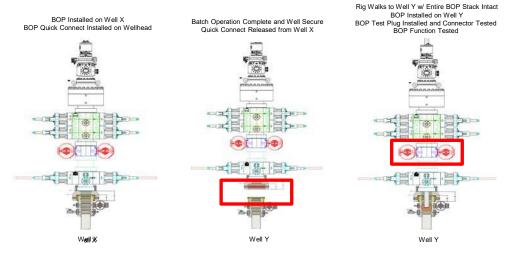
each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the CFR Title 43 Part 3170.

# **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



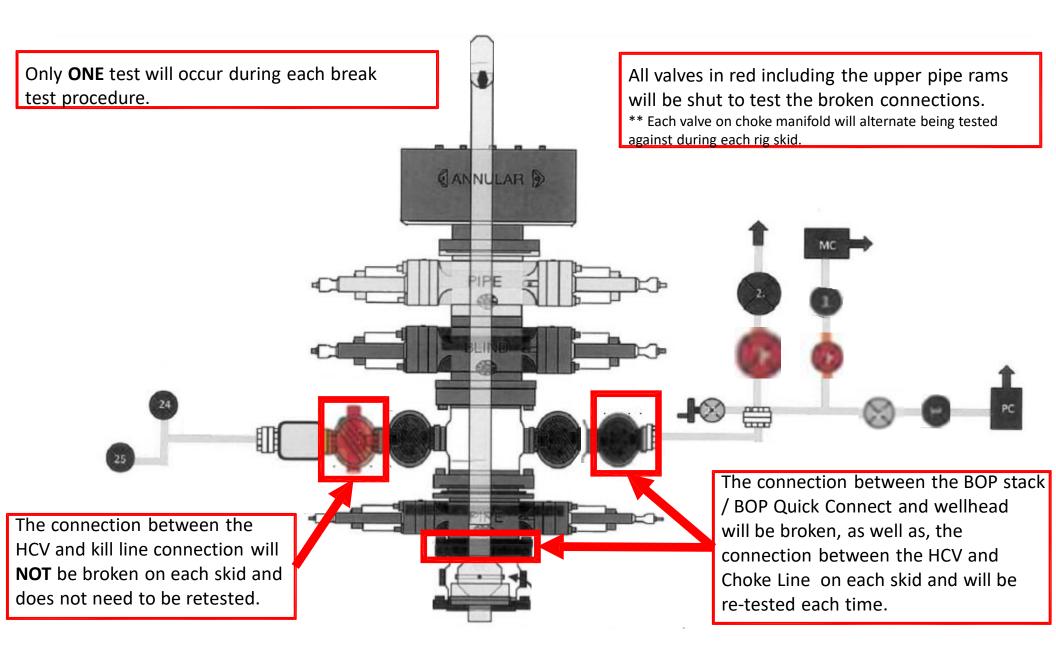
#### **Summary**

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.



# PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Permian Operating LLC
LEASE NO.: NMNM030452
COUNTY: Eddy

#### Wells:

POKER LAKE UNIT 23 DTD FED STATE COM #103H (AS-DRILLED): Pad B – B1 Surface Hole Location: 1,792' FWL & 262' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: NOT AVAILABLE

POKER LAKE UNIT 23 DTD FED STATE COM #105H (AS-DRILLED): Pad B – B3 Surface Hole Location: 1,852' FWL & 262' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,224' FWL & 231' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #107H (AS-DRILLED): Pad D – C1 Surface Hole Location: 608' FEL & 845' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,213' FEL & 7' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #122H (AS-DRILLED): Pad A – C9 Surface Hole Location: 651' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 213' FWL & 32' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #123H (AS-DRILLED): Pad B – B2 Surface Hole Location: 1,822' FWL & 261' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: NOT AVAILABLE

POKER LAKE UNIT 23 DTD FED STATE COM #125H (AS-DRILLED): Pad B – B4 Surface Hole Location: 1,882' FWL & 262' FNL, Section 23, T. 24 S, R. 30 E. Bottom Hole Location: 1,697' FWL & 223' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #128H (AS-DRILLED): Pad C – B3 Surface Hole Location: 1,713' FEL & 837' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,393' FEL & 224' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #151H (AS-DRILLED): Pad A – C8 Surface Hole Location: 621' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 674' FWL & 254' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #151R (AS-DRILLED): Pad A – C10 Surface Hole Location: 681' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: NOT AVAILABLE

POKER LAKE UNIT 23 DTD FED STATE COM #152H (AS-DRILLED): Pad A – C12 Surface Hole Location: 741' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,795' FWL & 234' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #154H (AS-DRILLED): Pad B – C5 Surface Hole Location: 2,282' FWL & 337' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,085' FWL & 232' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #155H (AS-DRILLED): Pad B – C7 Surface Hole Location: 2,342' FWL & 337' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,313' FEL & 222' FNL, Section 2, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #157H (AS-DRILLED): Pad C – B2 Surface Hole Location: 1,742' FEL & 836' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: NOT AVAILABLE

POKER LAKE UNIT 23 DTD FED STATE COM #171H (AS-DRILLED): Pad A – C7 Surface Hole Location: 591' FWL & 366' FSL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,125' FWL & 25' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #171R (AS-DRILLED): Pad A – C11 Surface Hole Location: 711' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: NOT AVAILABLE

POKER LAKE UNIT 23 DTD FED STATE COM #172H (AS-DRILLED): Pad A – C13 Surface Hole Location: 771' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 2,043' FWL & 22' FNL, Section 2, T. 24 S, R. 30 E

POKER LAKE UNIT 23 DTD FED STATE COM #175H (AS-DRILLED): Pad B – C8 Surface Hole Location: 2,372' FWL & 337' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,870' FEL & 229' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #176H (AS-DRILLED): Pad B – C6 Surface Hole Location: 2,312' FWL & 337' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,553' FWL & 234' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #177H (AS-DRILLED): Pad D – C4 Surface Hole Location: 548' FEL & 845' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,297' FEL & 268' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #178H (AS-DRILLED): Pad D – C5 Surface Hole Location: 518' FEL & 845' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 338' FEL & 239' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD FED STATE COM #179H (AS-DRILLED): Pad D – C3 Surface Hole Location: 578' FEL & 845' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 2,522' FEL & 264' FNL, Section 2, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #101H: Pad A – A1 Surface Hole Location: 190' FWL & 556'FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 327' FWL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD #102H: Pad A – A3 Surface Hole Location: 250' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 457' FWL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD #104H: Pad A – A5 Surface Hole Location: 310' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 839' FWL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD #121H: Pad A – A2 Surface Hole Location: 220' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 391' FWL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD #131H: Pad A – B1 Surface Hole Location: 191' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #132H: Pad A – B2 Surface Hole Location: 221' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #133H: Pad A – B3 Surface Hole Location: 251' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #134H: Pad A – B4 Surface Hole Location: 251' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #135H: Pad A – B8 Surface Hole Location: 681' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #136H: Pad A – B9 Surface Hole Location: 701' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #137H: Pad A – B10 Surface Hole Location: 741' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #138H: Pad A – B13 Surface Hole Location: 771' FWL & 461' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FWL & 50' FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #139H: Pad A – C4 Surface Hole Location: 366' FWL & 281' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,870' FWL & 50 FSL, Section 2, T. 25 S. R. 30 E.

POKER LAKE UNIT 23 DTD #158H: Pad C – D6 Surface Hole Location: 1,621' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,083' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #193H: Pad A – A4 Surface Hole Location: 280' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 584' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #231H: Pad B – C1 Surface Hole Location: 1,792' FWL & 357' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #232H: Pad B – C2 Surface Hole Location: 1,822' FWL & 357' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,178' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #233H: Pad B – C3 Surface Hole Location: 1,852' FWL & 357' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,178' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #234H: Pad B – C4 Surface Hole Location: 1,884' FWL & 357' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 330' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #235H: Pad B – B5 Surface Hole Location: 2,282' FWL & 261' FNL, Section 17, T. 24 S. R. 30 E. Bottom Hole Location: 1,485' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #236H: Pad B – B6 Surface Hole Location: 2,312' FWL & 261' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,640' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #237H: Pad B – B7 Surface Hole Location: 2,342' FWL & 262' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,485' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #238H: Pad B – B8 Surface Hole Location: 2,372' FWL & 262' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #335H: Pad C – F2 Surface Hole Location: 1,740' FEL & 1,342' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,178' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #336H: Pad C – F3 Surface Hole Location: 1,710' FEL & 1,341' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,178' FWL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #337H: Pad C – F4 Surface Hole Location: 1,740' FEL & 1,342' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,178' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #338H: Pad C – F5 Surface Hole Location: 1,650' FEL & 1,342' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #431H: Pad D – E2 Surface Hole Location: 606' FEL & 550' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FEL & 50 FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #432H: Pad D – E3 Surface Hole Location: 576' FEL & 550' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 25 S, R. 30 F.

POKER LAKE UNIT 23 DTD #433H: Pad D – E4 Surface Hole Location: 546' FEL & 550' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #434H: Pad D – E5 Surface Hole Location: 516' FEL & 550' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #435H: Pad D – F2 Surface Hole Location: 606' FEL & 455' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 25 S, R. 30 F.

POKER LAKE UNIT 23 DTD #436H: Pad D – F3 Surface Hole Location: 576' FEL & 455' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,254' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #437H: Pad D – F4 Surface Hole Location: 546' FEL & 455' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 25 S, R. 30 E.

POKER LAKE UNIT 23 DTD #438H: Pad D – F5 Surface Hole Location: 516' FEL & 455' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 330' FEL & 50' FSL, Section 2, T. 24 S, R. 30 F

POKER LAKE UNIT 23 DTD #441H: Pad C – D1 Surface Hole Location: 1,771' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,475' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #442H: Pad C – D2 Surface Hole Location: 1,741' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,730' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #443H: Pad C – D3 Surface Hole Location: 1,711' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,173' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #444H: Pad C – D4 Surface Hole Location: 1,681' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,366' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #445H: Pad C – D5 Surface Hole Location: 1,651' FEL & 1,152' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,277' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #451H: Pad C – E1 Surface Hole Location: 1,771' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,348' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #452H: Pad C – E2 Surface Hole Location: 1,741' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 1,664' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #453H: Pad C – E3 Surface Hole Location: 1,711' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,239' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #454H: Pad C – E4 Surface Hole Location: 1,681' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,621' FWL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #455H: Pad C – E5 Surface Hole Location: 1,651' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,340' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #456H: Pad C – E6 Surface Hole Location: 1,621' FEL & 1,247' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: 2,210' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #541H: Pad D – D1 Surface Hole Location: 637' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,827' FEL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

POKER LAKE UNIT 23 DTD #542H: Pad D – D2 Surface Hole Location: 607' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,385' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #543H: Pad D – D3 Surface Hole Location: 577' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,315' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #544H: Pad D – D4 Surface Hole Location: 547' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,191' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #545H: Pad D – D5 Surface Hole Location: 517' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,003' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #546H: Pad D – D6 Surface Hole Location: 487' FEL & 645' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 936' FEL & 2,627' FNL, Section 35, T. 24 S, R. 30 E.

POKER LAKE UNIT 23 DTD #705H: Pad A – A6 Surface Hole Location: 340' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: 1,282' FWL & 2,627' FNL, Section 35, T. 24 S. R. 30 E.

FUTURE WELL #1: Pad A – A10 Surface Hole Location: 680' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #2: Pad A – A11 Surface Hole Location: 710' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #3: Pad A – A12 Surface Hole Location: 740' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #4: Pad A – A13 Surface Hole Location: 770' FWL & 556' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #5: Pad A – C1 Surface Hole Location: 191' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #6: Pad A – C2 Surface Hole Location: 221' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #7: Pad A – C3 Surface Hole Location: 251' FWL & 366' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #8: Pad B – A1 Surface Hole Location: 1,792' FWL & 186' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #9: Pad B – A2 Surface Hole Location: 1,822' FWL & 186' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #10: Pad B – A3 Surface Hole Location: 1,852' FWL & 187' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #11: Pad B – A4 Surface Hole Location: 1,882' FWL & 187' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #12: Pad B – A5 Surface Hole Location: 2,281' FWL & 186' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #13: Pad B – A6 Surface Hole Location: 2,311' FWL & 187' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #14: Pad B – A7 Surface Hole Location: 2,341' FWL & 187' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #15: Pad B – A8 Surface Hole Location: 2,371' FWL & 186' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #16: Pad C – A2 Surface Hole Location: 1,743' FEL & 742' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #17: Pad C – A3 Surface Hole Location: 1,713' FEL & 742' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #18: Pad C – A4 Surface Hole Location: 1,683' FEL & 742' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #19: Pad C – A5 Surface Hole Location: 1,653' FEL & 742' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #20: Pad C – B4 Surface Hole Location: 1,682' FEL & 837' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #21: Pad C – B5 Surface Hole Location: 1,652' FEL & 837' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #22: Pad C – C2 Surface Hole Location: 1,742' FEL & 932' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #23: Pad C – C3 Surface Hole Location: 1,712' FEL & 932' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #24: Pad C – C4 Surface Hole Location: 1,682' FEL & 932' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #25: Pad C – C5 Surface Hole Location: 1,652' FEL & 932' FNL, Section 23, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #26: Pad D – A2 Surface Hole Location: 609' FEL & 1,035' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #27: Pad D – A3 Surface Hole Location: 579' FEL & 1,035' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #28: Pad D – A4 Surface Hole Location: 549' FEL & 1,035' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #29: Pad D – A5 Surface Hole Location: 519' FEL & 1,035' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #30: Pad D – B2 Surface Hole Location: 608' FEL & 940' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #31: Pad D – B3 Surface Hole Location: 578' FEL & 940' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #32: Pad D – B4 Surface Hole Location: 548' FEL & 940' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

FUTURE WELL #33: Pad D – B5 Surface Hole Location: 518' FEL & 940' FSL, Section 14, T. 24 S. R. 30 E. Bottom Hole Location: To Be Determined

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

<ul><li>□General Provisions</li><li>□Permit Expiration</li><li>□Archaeology, Paleontology, and Historical Sites</li></ul>
□Noxious Weeds
<b>⊠Special Requirements</b>
Watershed
Range
Potash Resources
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□ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
□Road Section Diagram
⊠Production (Post Drilling)
Well Structures & Facilities
Pipelines
Electric Lines
□Interim Reclamation
☐ Final Abandonment & Reclamation

# I. GENERAL PROVISIONS

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

#### II. PERMIT EXPIRATION

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

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

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 6 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

#### IV. NOXIOUS WEEDS

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

#### V. SPECIAL REQUIREMENT(S)

# Watershed:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

#### TANK BATTERY:

Tank battery locations will be lined and bermed. A 20-mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24-hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

# **BURIED/SURFACE LINE(S):**

When crossing ephemeral drainages, the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present.

The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

# **ELECTRIC LINE(S):**

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

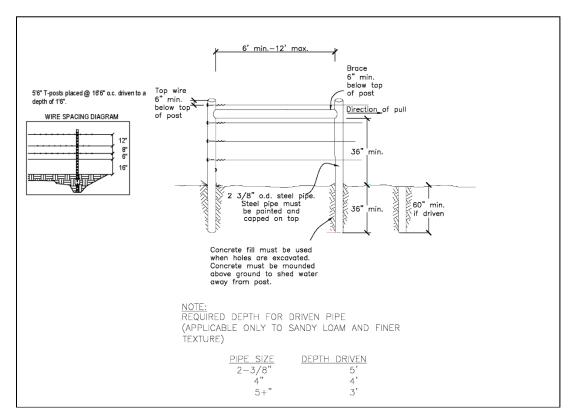
#### Range:

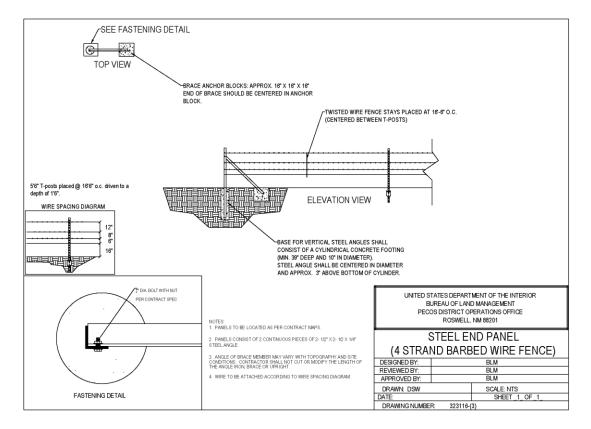
#### Cattleguards

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

#### **Fence Requirement**

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





# **Livestock Watering Requirement**

Structures that provide water to livestock, such as windmills, pipelines, drinking troughs, and earthen reservoirs, will be avoided by moving the proposed action.

-OR-

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

#### **Potash Resources**

Lessees must comply with the 2012Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed wells in Section 14, 15 and 16 in T24S R30E, is confined within the boundaries of the established Guitar Pick Drill Island.

#### VRM IV:

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

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint

color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

#### VI. CONSTRUCTION

#### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

#### B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

# C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

#### D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

# E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

# F. EXCLOSURE FENCING (CELLARS & PITS)

# **Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is

free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

#### G. ON LEASE ACCESS ROADS

#### Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

#### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

#### Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

#### Ditching

Ditching shall be required on both sides of the road.

#### **Turnouts**

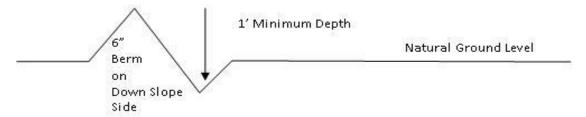
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

# **Drainage**

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

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

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



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

# Formula for Spacing Interval of Lead-off Ditches

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

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

#### **Public Access**

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

# **Construction Steps**

- 1. Salvage topsoil
- 3. Redistribute topsoil
- 2. Construct road
  - 4. Revegetate slopes

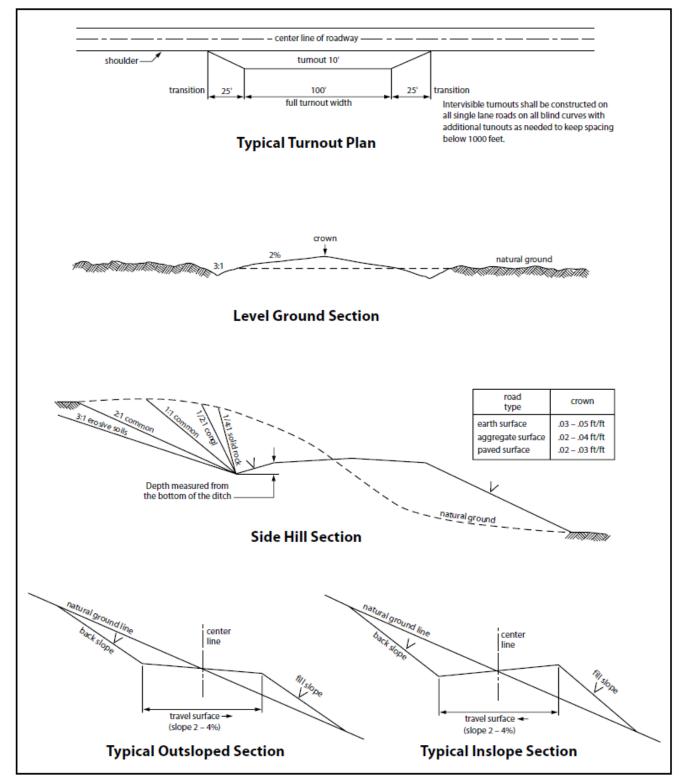


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

#### VII. PRODUCTION (POST DRILLING)

#### Α. **WELL STRUCTURES & FACILITIES**

#### Placement of Production Facilities

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

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

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

## Chemical and Fuel Secondary Containment and Exclosure Screening

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

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

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

#### **Containment Structures**

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

# Painting Requirement

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

#### B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval
  prior to pipeline installation. The method could incorporate gauges to detect pressure
  drops, situating values and lines so they can be visually inspected periodically or
  installing electronic sensors to alarm when a leak is present. The leak detection plan will
  incorporate an automatic shut off system that will be installed for proposed pipelines to
  minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

#### **BURIED PIPELINE STIPULATIONS**

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

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

- 1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the

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Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- 4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.
- 5. All construction and maintenance activity will be confined to the authorized right-of-way.
- 6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

# 30ft wide buried pipeline requirements

- 7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
  - Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (Blading is defined as the complete removal of brush and ground vegetation.)
  - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.)
  - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (Compressing can be caused by vehicle tires, placement of equipment, etc.)

## 50ft wide buried pipeline requirements

The maximum allowable disturbance for construction in this right-of-way will be 50 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 33 feet. The trench is included in this area. (Blading is defined as the complete removal of brush and ground vegetation.)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 50 feet. The trench and bladed area are included in this area. (Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds,

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etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.)

#### **60ft** wide buried pipeline requirements

The maximum allowable disturbance for construction in this right-of-way will be 60 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed <u>40</u> feet. The trench is included in this area. (Blading is defined as the complete removal of brush and ground vegetation.)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed <u>60</u> feet. The trench and bladed area are included in this area. (Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (Compressing can be caused by vehicle tires, placement of equipment, etc.)
- 8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately \_\_\_6\_\_ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
- 9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6-inch berm will be left over the ditch line to allow for settling back to grade.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.
□ Seed Mixture 1  ☑ Seed Mixture 2 □ Seed Mixture 2/LPC □ Seed Mixture 3 □ Seed Mixture 4 □ Seed Mixture Aplomado Falcon Mixture
13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – <b>Shale Green</b> , Munsell Soil Color No. 5Y 4/2.
14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.
15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.
16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
OR
If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

- 17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."
- 18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- 19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 20. <u>Escape Ramps</u> The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:
  - a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
  - b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

### STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

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

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

- 1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (see 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.
- 4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
  - a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
  - b. Activities of other parties including, but not limited to:
    - (1) Land clearing
    - (2) Earth-disturbing and earth-moving work
    - (3) Blasting
    - (4) Vandalism and sabotage;
  - c. Acts of God.

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

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

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

of any responsibility as provided herein.

- 6. All construction and maintenance activity shall be confined to the authorized right-of-way width of 30 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.
- 7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.
- 8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.
- 9. The pipeline shall be buried with a minimum of \_\_\_\_\_\_ inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.
- 15. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized

Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

- 16. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."
- 17. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
- 18. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.
- 19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

#### C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.

- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

#### STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

- 1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
- 4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
- 5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

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

- 6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.
- 8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.
- 9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.
- 10. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

### 13. Special Stipulations:

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

#### VIII. INTERIM RECLAMATION

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

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

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

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

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

# IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

# **Seed Mixture 2, for Sandy Sites**

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

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

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

#### **Species**

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

<sup>\*</sup>Pounds of pure live seed:

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

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO
LEASE NO.: NMNM030452
LOCATION: Sec. 14, T.24 S, R 30 E

COUNTY: Eddy County, New Mexico ▼

WELL NAME & NO.: Poker Lake Unit 23 DTD 545H

SURFACE HOLE FOOTAGE: 645'/S & 517'/E

BOTTOM HOLE FOOTAGE: 2627'/N & 1003'/E

COA

$H_2S$	No		O Yes	
Potash /	O None	Secretary	O R-111-Q	☐ Open Annulus
WIPP	Choose	$\square$ WIPP		
Cave / Karst	• Low	O Medium	O High	Critical
Wellhead	Conventional	<ul><li>Multibowl</li></ul>	O Both	<ul><li>Diverter</li></ul>
Cementing	Primary Squeeze	☐ Cont. Squeeze	EchoMeter	☐ DV Tool
Special Req	☐ Capitan Reef	☐ Water Disposal	$\Box$ COM	Unit
Waste Prev.	O Self-Certification	O Waste Min. Plan	• APD Submitted prior to 06/10/2024	
Additional	▼ Flex Hose	Casing Clearance	☐ Pilot Hole	Break Testing
Language	▼ Four-String	Offline Cementing	✓ Fluid-Filled	

# 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 43 CFR 3176 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 13-3/8 inch surface casing shall be set at approximately 780 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) 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 <u>8 hours</u> or <u>500 pounds compressive strength</u>, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

- 2. The minimum required fill of cement behind the 9-5/8 inch 1st 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.

- 3. The minimum required fill of cement behind the **7-5/8** inch 2<sup>nd</sup> Intermediate casing is: Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.
  - a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon** at 6649'.
  - b. **Second stage:** Operator will perform bradenhead squeeze and top-out. Cement should be tie-back at least **500ft** into previous casing string. If cement does not reach surface, the appropriate BLM office shall be notified. **Excess calculates to 23%. Additional cement maybe required.**

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, or potash.

Operator has proposed to pump down Intermediate 1 X Intermediate 2 annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus OR operator shall run a CBL from TD of the Intermediate 1 casing to tieback requirements listed above after the second stage BH to verify TOC. Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is: Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification. **Excess calculates to 15%. Additional cement maybe required.** 

#### 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).
  - 1. Operator has proposed a multi-bowl wellhead assembly. 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 43 CFR 3172 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)

# **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for intervals utilizing a 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **Offline Cementing**

Contact the BLM prior to the commencement of any offline cementing procedure.

Engineer may elect to vary this language. Speak with Chris about implementing changes and whether that change seems reasonable.

# **Casing Clearance**

String does not meet 0.422" clearance requirement per 43 CFR 3172. Cement tieback requirement increased 100' for Production casing tieback. Operator may contact approving engineer to discuss changing casing set depth or grade to meet clearance requirement.

# **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)

# **Contact Eddy County Petroleum Engineering Inspection Staff:**

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; **BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV**; (575) 361-2822

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - i. Notify the BLM when moving in and removing the Spudder Rig.
    - ii. Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2<sup>nd</sup> 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. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

#### 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.

Page 5 of 9

- 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 of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity 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 integrity 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-Q 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 43 CFR 3172.
- 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:
  - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - ii. 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.
  - iii. Manufacturer representative shall install the test plug for the initial BOP test.
  - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
  - v. 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.
  - i. 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 cement), 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).
  - ii. 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 cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve

- open. (only applies to single stage cement jobs, prior to the cement setting up.)
- iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** 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 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- iv. 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.
- v. The results of the test shall be reported to the appropriate BLM office.
- vi. 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.
- vii. 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.
- viii. 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 43 CFR 3172.

# 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.

Approved by Zota Stevens on 11/27/2024 575-234-5998 / zstevens@blm.gov



# **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<sub>2</sub>S, the first responder(s) must

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

# Ignition of Gas source

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

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

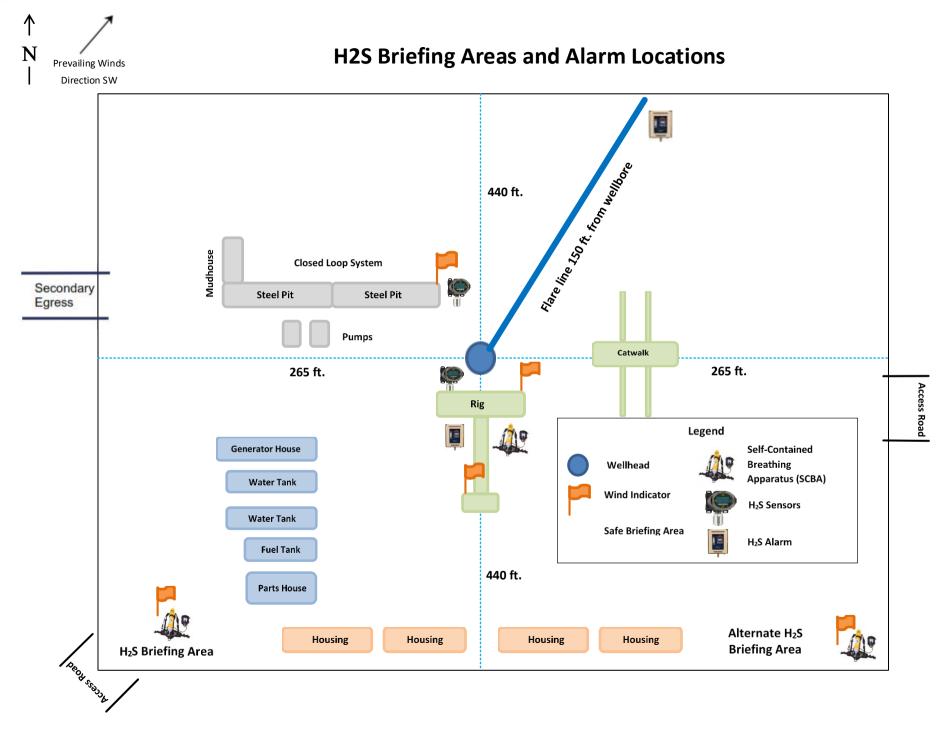
Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = I	2 ppm	N/A	1000 ppm

# **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**

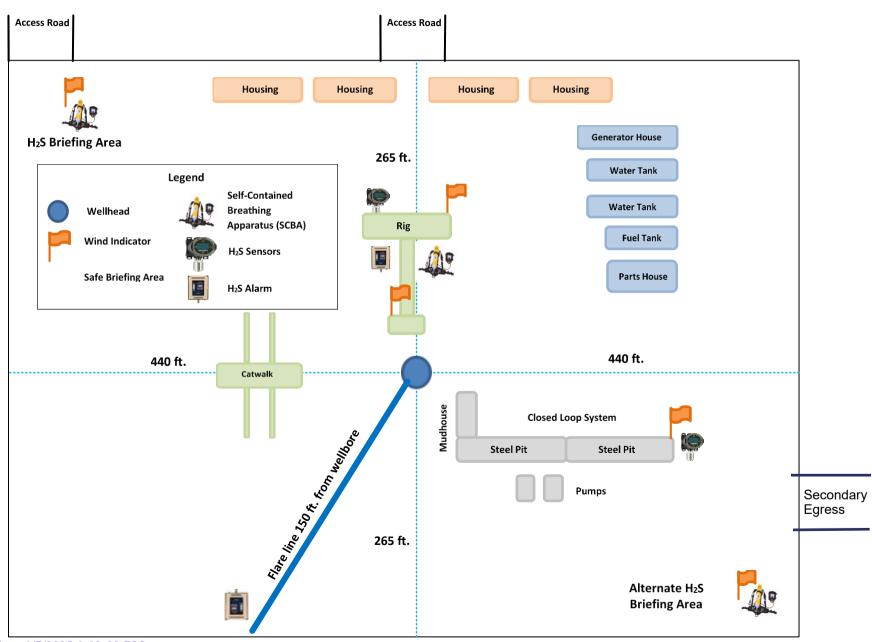
3104 E. Greene St., Carlsbad, NM 88220 Carlsbad, NM	575-887-7329
XTO PERSONNEL: Will Dacus, Drilling Manager Brian Dunn, Drilling Supervisor Robert Bartels, Construction Execution Planner Andy Owens, EH & S Manager Frank Fuentes, Production Foreman	832-948-5021 832-653-0490 406-478-3617 903-245-2602 575-689-3363
SHERIFF DEPARTMENTS:	
Eddy County Lea County	575-887-7551 575-396-3611
NEW MEXICO STATE POLICE:	575-392-5588
FIRE DEPARTMENTS: Carlsbad Eunice Hobbs Jal Lovington	911 575-885-2111 575-394-2111 575-397-9308 575-395-2221 575-396-2359
HOSPITALS: Carlsbad Medical Emergency Eunice Medical Emergency Hobbs Medical Emergency Jal Medical Emergency Lovington Medical Emergency	911 575-885-2111 575-394-2112 575-397-9308 575-395-2221 575-396-2359
AGENT NOTIFICATIONS: For Lea County: Bureau of Land Management – Hobbs New Mexico Oil Conservation Division – Hobbs	575-393-3612 575-393-6161
For Eddy County: Bureau of Land Management - Carlsbad New Mexico Oil Conservation Division - Artesia	575-234-5972 575-748-1283



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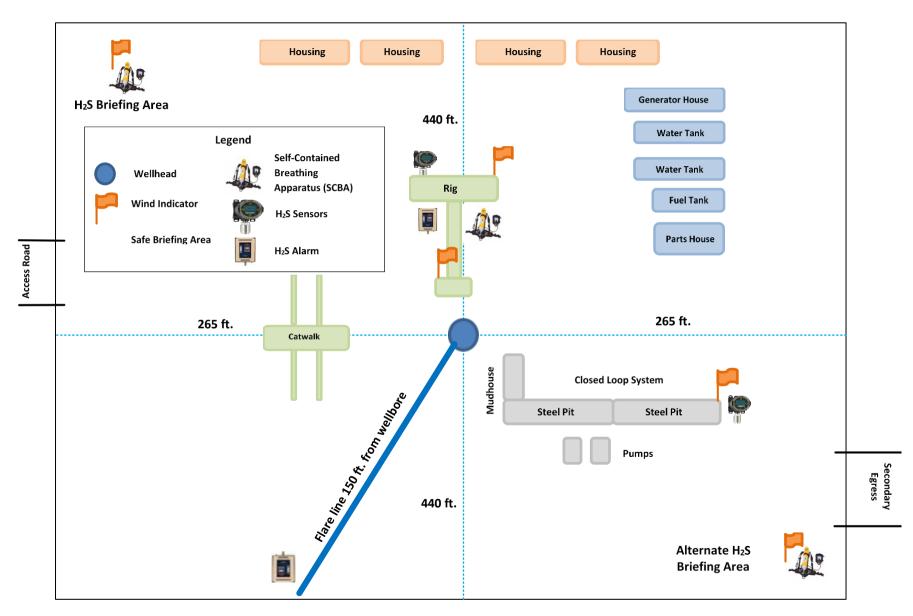
# **H2S Briefing Areas and Alarm Locations**



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# **H2S Briefing Areas and Alarm Locations**





U.S. Department of the Interior **BUREAU OF LAND MANAGEMENT**  SUPO Data Report

APD ID: 10400098063

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: POKER LAKE UNIT 23 DTD

Well Type: OIL WELL

Submission Date: 04/18/2024

Well Number: 545H

Well Work Type: Drill

Highlighted data reflects the most

recent changes Show Final Text

# **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

PLU\_23\_DTD\_545H\_Road\_20240414140146.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID: 281001

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

# Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

# **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

PLU\_23\_DTD\_1Mile\_20240411175145.pdf

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

# Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: A. Production Facilities. We have one existing facility pad PLU 23 DTD CVB, located in Section 14-24S-30E NMPM, Eddy County, New Mexico. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. B. Buried & Surface Flowlines. There are no new flowlines planned for this development as of now and we would be using the existing flowlines for this development phase of this project. C. Midstream Tie-In. no new midstream tie-ins are needed. D. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM. E. Flare. A flare is currently located on the PLU 23 DTD CVB. F. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. G. Containment Berms. Containment berms shall be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 times the capacity of the largest tank and away from cut or fill areas. H. Electrical. No new electrical lines are requested.

# **Section 5 - Location and Types of Water Supply**

# **Water Source Table**

Water source type: OTHER

Describe type: Fresh Water; Described in Water Source Comments

below

Water source use type: DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION

CASING STIMULATION

Source latitude: Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 2000000 Source volume (acre-feet): 257.78619266

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Source volume (gal): 84000000

Water source type: OTHER

Describe type: Brackish Water; Described in Water Source Comments

below

Water source use type: INTERMEDIATE/PRODUCTION

**CASING** 

**STIMULATION** 

Source latitude: Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

**PIPELINE** 

Source land ownership: COMMERCIAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 2000000 Source volume (acre-feet): 257.78619266

Source volume (gal): 84000000

#### Water source and transportation

PLU\_23\_DTD\_545H\_Wtr\_20240414140636.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The fresh water will be obtained from a 3rd party vendor and hauled by transport truck using the existing and proposed roads depicted in the attached exhibits and using 4" HDPE pipelines. No water well will be drilled on the location. Water for drilling, completion and dust control will be purchased from the following company: Texas Pacific Water Resources or Select or XRI Water for drilling, completion and dust control will be supplied by ether of the 3-party company for sale to XTO Permian Operating, LLC from Section 27, T25S-R30E, Eddy County, NM. If Texas Pacific Water Resources does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, NM or from S15 T24S R30E, NM. Anticipated water usage for drilling includes an estimated 50,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 500,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

New water well? N

**New Water Well Info** 

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Well latitude: Well Longitude: Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft): Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft): Well casing type:

Well casing outside diameter (in.): Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

Casing length (ft.): Casing top depth (ft.):

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

# **Section 6 - Construction Materials**

Using any construction materials: NO

**Construction Materials description:** 

Construction Materials source location

# **Section 7 - Methods for Handling**

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency: One Time Only

Safe containment description: Steel mud boxes

Safe containment attachment:

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

**FACILITY** 

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency: One Time Only

Safe containment description: The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off

style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.

Safe containment attachment:

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

**FACILITY** 

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: SEWAGE

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

Amount of waste: 250 gallons

Waste disposal frequency: Weekly

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

#### Safe containment attachment:

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

**FACILITY** 

Disposal type description:

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

Waste type: GARBAGE

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

Amount of waste: 250 pounds

Waste disposal frequency: Weekly

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

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Safe containment attachment:

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

**FACILITY** 

Disposal type description:

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

# **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

# **Cuttings Area**

Cuttings Area being used? NO

Are you storing cuttings on location? Y

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

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

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

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

WCuttings area liner

Cuttings area liner specifications and installation description

# **Section 8 - Ancillary**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities** 

Comments:

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

# Section 9 - Well Site

#### **Well Site Layout Diagram:**

PLU\_23\_DTD\_545H\_Well\_20240414140830.pdf PLU\_23\_DTD\_545H\_RL\_20241008103307.pdf

Comments: Multi-well pad.

# **Section 10 - Plans for Surface Reclamation**

Multiple Well Pad Name: POKER LAKE UNIT 23 DTD **Type of disturbance:** No New Surface Disturbance

Multiple Well Pad Number: D

# Recontouring

PLU\_23\_DTD\_IR1\_20240411181254.pdf PLU 23 DTD IR2 20240411181254.pdf PLU\_23\_DTD\_IR3\_20240411181254.pdf PLU\_23\_DTD\_IR4\_20240411181254.pdf

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

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

Well pad proposed disturbance Well pad interim reclamation (acres): 0 Well pad long term disturbance

(acres): 0

Road proposed disturbance (acres): Road interim reclamation (acres): 0 Road long term disturbance (acres): 0

Powerline proposed disturbance

Other proposed disturbance (acres):

(acres): Pipeline proposed disturbance

(acres):

(acres):

Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0

Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other interim reclamation (acres): 0

Other long term disturbance (acres): 0

Total proposed disturbance: 0 Total interim reclamation: 0 Total long term disturbance: 0

## **Disturbance Comments:**

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

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

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

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

<style isBold=&quot;true&quot;&gt;Existing Vegetation at the well pad:&lt;/style&gt; Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

Existing Vegetation at the well pad

<style isBold=&quot;true&quot;&gt;Existing Vegetation Community at the road:&lt;/style&gt; Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

# **Existing Vegetation Community at the road**

<style isBold=&quot;true&quot;&gt;Existing Vegetation Community at the pipeline:&lt;/style&gt; Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation Community at the pipeline** 

<style isBold=&quot;true&quot;&gt;Existing Vegetation Community at other disturbances:&lt;/style&gt; Soils are classified as Simona Gravelly Fine Sandy Loam and Simona-Bippus Complex. Simona soils are found on alluvial fans and plans and form in mixed alluvium and/or Aeolian sands. Bippus soils are found on alluvial fans and floodplains and form in mixed alluvium. The Simona Bippus soils are dominant to the east and the Simona Gravelly Fine Sandy Loams are dominant to the West. Dominant vegetation species include: mesquite, sumac snakeweed, and various forbs and grasses. Ground cover is minimal, offering 90 percent visibility.

**Existing Vegetation Community at other disturbances** 

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Seed

**Seed Table** 

**Seed Summary** 

Total pounds/Acre:

**Seed Type** 

Pounds/Acre

Seed reclamation

# **Operator Contact/Responsible Official**

First Name: Robert Last Name: Bartels

Phone: (406)478-3617 Email: robert.e.bartels@exxonmobil.com

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

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

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

Existing invasive species? N

# Existing invasive species treatment description:

# **Existing invasive species treatment**

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

Weed treatment plan

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

Monitoring plan

Success standards: 100% compliance with applicable regulations.

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

Pit closure attachment:

# **Section 11 - Surface Ownership**

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

DOD Local Office:

**NPS Local Office:** 

**State Local Office:** 

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

USFS Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

NPS Local Office:

State Local Office:

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

**USFS** Forest/Grassland:

**USFS Ranger District:** 

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

Disturbance type: TRANSMISSION LINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

**NPS Local Office:** 

**State Local Office:** 

**Military Local Office:** 

**USFWS Local Office:** 

Other Local Office:

**USFS** Region:

**USFS** Forest/Grassland:

**USFS Ranger District:** 

Disturbance type: OTHER

**Describe:** FLOWLINE

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

**NPS Local Office:** 

**State Local Office:** 

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

**USFS** Forest/Grassland:

**USFS Ranger District:** 

Well Name: POKER LAKE UNIT 23 DTD Well Number: 545H

**Section 12 - Other** 

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

ROW

SUPO Additional Information: SUPO written for all wells in section/project area.

Use a previously conducted onsite? Y

**Previous Onsite information:** The XTO Permian Operating, LLC. representatives and BLM NRS were on location for onsite on 04/15/2021.

**Other SUPO** 

PLU\_23\_DTD\_SUPO\_Rev2\_20241008103348.pdf

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 414442

#### **CONDITIONS**

| Operator:                  | OGRID:  |
|----------------------------|---|
| XTO PERMIAN OPERATING LLC. | 373075  |
| 6401 HOLIDAY HILL ROAD     | Action Number:  |
| MIDLAND, TX 79707          | 414442  |
|                            | Action Type:  |
|                            | [C-101] BLM - Federal/Indian Land Lease (Form 3160-3) |

#### CONDITIONS

| Created By   | Condition   | Condition Date |
|--------------|---|----------------|
| slaghuvarapu | Cement is required to circulate on both surface and intermediate1 strings of casing.  | 12/20/2024     |
| slaghuvarapu | If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.  | 12/20/2024     |
| ward.rikala  | Notify the OCD 24 hours prior to casing & cement.   | 1/7/2025       |
| ward.rikala  | File As Drilled C-102 and a directional Survey with C-104 completion packet.  | 1/7/2025       |
| 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. | 1/7/2025       |
| 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.                  | 1/7/2025       |