ceived by IOCD: D1/9/2023 4:45:59 PM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Repor
Well Name: POKER LAKE UNIT 13-24 PC	Well Location: T24S / R29E / SEC 13 / SWNE /	County or Parish/State: /
Well Number: 125Y	<b>Type of Well:</b> CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM005912, NMNM05912	Unit or CA Name:	Unit or CA Number: NMNM71016X
US Well Number: 3001553555	Well Status: Plugged and Abandoned	<b>Operator:</b> XTO PERMIAN OPERATING LLC

## **Notice of Intent**

Sundry ID: 2757429

Type of Submission: Notice of Intent

Date Sundry Submitted: 10/27/2023

Date proposed operation will begin: 10/30/2023

Type of Action: APD Change Time Sundry Submitted: 03:58 n

**Procedure Description:** \*\* Skid Original Wellbore, and Surface Hole Location Change XTO Energy, Inc requests permission to skid the original wellbore of the Poker Lake Unit 13-24 PC 125Y (plugged well) and to replace it with a new well skid original wellbore of the Poker Lake Unit 13-24 PC 125H. Original Wellbore of the Poker Lake Unit 13-24 PC 125H, from 2459'FNL & 2310'FEL, LAT 32.21805663, LONG -103.9369702 to New Wellbore: Poker Lake Unit 13-24 PC 125H 2367'FSL & 1986'FEL, LAT 32.218054, LONG -103.936485. No Additional Surface Disturbance Attachments: From 3160-3 C102 Drilling Program Directional Plan Well Site Layout Casing Specs Sheet

**NOI Attachments** 

**Procedure Description** 

PLU\_13\_24\_PC\_NEW\_125H\_Sundry\_Attachments\_v2\_20231102221832.pdf

1	eceived by OCD: 11/9/2023 4:45:59 PM Well Name: POKER LAKE UNIT 13-24 PC	Well Location: T24S / R29E / SEC 13 / SWNE /	County or Parish/State: / Page 2 of 30
	Well Number: 125Y	<b>Type of Well:</b> CONVENTIONAL GAS WELL	Allottee or Tribe Name:
	Lease Number: NMNM005912, NMNM05912	Unit or CA Name:	Unit or CA Number: NMNM71016X
	US Well Number: 3001553555	Well Status: Plugged and Abandoned	Operator: XTO PERMIAN OPERATING LLC

## **Conditions of Approval**

### **Specialist Review**

PLU\_13\_24\_PC\_Batch\_Wells\_Sundries\_COA\_20231105120944.pdf

### Authorized

PLU\_13\_24\_PC\_NEW\_125H\_3160\_3\_signed\_20231106142047.pdf

## **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

**Operator Electronic Signature: CASSIE EVANS** 

Name: XTO PERMIAN OPERATING LLC

Title: Regulatory Analyst

Street Address: 6401 Holiday Hill Road, Bldg 5

City: Midland

Phone: (432) 218-3671

Email address: CASSIE.EVANS@EXXONMOBIL.COM

State: TX

State:

## Field

**Representative Name:** 

Street Address:

City:

Phone:

Email address:

Zip:

## **BLM Point of Contact**

BLM POC Name: CHRISTOPHER WALLS BLM POC Phone: 5752342234 Disposition: Approved

Signature: Chris Walls

BLM POC Title: Petroleum Engineer

BLM POC Email Address: cwalls@blm.gov

Disposition Date: 11/06/2023

Released to Imaging: 11/21/2023 12:53:21 PM

Signed on: NOV 02, 2023 02:04 PM

Form 3160-3 (August 2007) UNITED STATES DEPARTMENT OF THE	INTERIOR			OMB No	APPROVED 5. 1004-0137 uly 31, 2010	
BUREAU OF LAND MAN APPLICATION FOR PERMIT TO	6. If Indian, Allotee	or Tribe Name				
la. Type of work: 🖌 DRILL 🗌 REENTH		7. If Unit or CA Agree	eement, Name and No.			
Ib. Type of Well:       Image: Oil Well       Gas Well       Other         2. Name of Operator XTO Energy, Inc.	ple Zone	8. Lease Name and V Poker Lake Unit 13-2 9. API Well No.				
<sup>3a.</sup> Address 6401 Holiday Hill Road, Bldg 5 Midland, Texas 79701	3b. Phone No 432-214	0. (include area code) -7887		10. Field and Pool, or Purple Sage; Wolfd	1 1	
4. Location of Well ( <i>Report location clearly and in accordance with an</i> At surface SWNE / 2459 FNL / 2220 FEL / LAT 32.21805	55 / LONG -	103.936678 SWNE	1	11. Sec., T. R. M. or B SEC 13 / T24S / R:		
At proposed prod. zone 1959 FNL / 2316 FEL / LAT 32.219 14. Distance in miles and direction from nearest town or post office*	431 / LONG	5-103.936988		12. County or Parish Eddy	13. State NM	
<ul> <li>15. Distance from proposed* 2459 feet location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> </ul>	16. No. of	No. of acres in lease 17. Spacing Unit dedicated to this well 640			well	
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> <li>30 feet</li> </ol>	19. Propose 10586 fee	d Depth t / 20627 feet		BIA Bond No. on file DB000050		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3094 feet	22 Approximate date work will start* 10/27/23			23. Estimated duration 90 Days		
	24. Atta		<u></u>	·		
<ol> <li>The following, completed in accordance with the requirements of Onshor</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO must be filed with the appropriate Forest Service Office).</li> </ol>		<ol> <li>Bond to cover the state of the</li></ol>	he operatio cation	ns unless covered by an	existing bond on file (see s may be required by the	
25. Signature Casoi Wang-	Name	(Printed/Typed) Cassie Evans			Date 10/17/23	
Title Regulatory Coordinator	I					
Approved by (Signature)	Name	(Printed/Typed)			Date 11/6/2023	
Title Sup PE	Office	° CFO				
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	ls legal or equ	itable title to those righ	its in the sub	oject lease which would e	entitle the applicant to	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as	rime for any p to any matter	person knowingly and within its jurisdiction.	willfully to n	nake to any department of	or agency of the United	

(Continued on page 2)

\*(Instructions on page 2)

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l by OCD: 11/9/2023 4:45:59 PM						
Form 3160-3 (August 2007)				OMB	APPROVI No. 1004-01	37
UNITED STA	TES				July 31, 20	010
DEPARTMENT OF TH	<ol> <li>Lease Serial No. NMNM05912</li> </ol>					
BUREAU OF LAND M	6. If Indian, Allote	e or Tribe	Name			
APPLICATION FOR PERMIT	to drill of	R REENTER		0. If mulan, Anote		, ivanie
la. Type of work: 🖌 DRILL 🗌 REE			7. If Unit or CA Ag	reement, N	ame and 1	
lb. Type of Well: 🔽 Oil Well 🗌 Gas Well 🛄 Other	🖌 Si	ngle Zone 🔲 Multij	ole Zone	<ol> <li>Lease Name and Poker Lake Unit 13</li> </ol>		5H
2. Name of Operator XTO Energy, Inc.				9. API Well No. 300155355	5	
<sup>3a.</sup> Address 6401 Holiday Hill Road, Bldg 5 Midland, Texas 79701	3b. Phone No 432-214	. (include area code) .7887		10. Field and Pool, or Purple Sage; Wo	•	ory
4. Location of Well (Report location clearly and in accordance wi	ith any State requiren	nents.*)		11. Sec., T. R. M. or		
At surface SWNE / 2459 FNL / 2220 FEL / LAT 32.2	18055 / LONG -	103.936678 SWNE	/	SEC 13 / T24S / F	R29E / N	MP
At proposed prod. zone 1959 FNL / 2316 FEL / LAT 32.	.219431 / LONG	-103.936988				
14. Distance in miles and direction from nearest town or post office?	*			12. County or Parish Eddy		13. Stat NM
<ol> <li>Distance from proposed* 2459 feet location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> </ol>	16. No. of a	cres in lease	17. Spacin 640	g Unit dedicated to this	well	
<ol> <li>Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.</li> </ol>	19. Propose 10586 feet	posed Depth     20. BLM/BIA Bond No. on file       feet / 20627 feet     FED: COB000050				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3094 feet	22. Approxi 10/27/23	22. Approximate date work will start*       23. Estimated d         10/27/23       90 Days			on	
	24. Atta	chments				
The following, completed in accordance with the requirements of O	nshore Oil and Gas	Order No.1, must be a	ttached to the	s form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>		4. Bond to cover t Item 20 above).	he operation	ns unless covered by a	n existing	bond on
3. A Surface Use Plan (if the location is on National Forest Sys SUPO must be filed with the appropriate Forest Service Office)	stem Lands, the ).	<ol> <li>Operator certific</li> <li>Such other site BLM.</li> </ol>		ormation and/or plans	as may be	required
25. Signature Capoie Wang-	Name	(Printed/Typed)			Date	
		Cassie Evans			10	/17/23
Title Regulatory Coordinator						
Approved by (Signature)	Name	(Printed/Typed)			Date	
Title	Office				1	
Application approval does not warrant or certify that the applicant conduct operations thereon. Conditions of approval, if any, are attached.	holds legal or equi	table title to those righ	ts in the sub	ject lease which would	entitle the	eapplicant
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make i States any false, fictitious or fraudulent statements or representation	t a crime for any p	erson knowingly and vithin its jurisdiction	willfully to m	ake to any department	or agency	y of the U
(Continued on page 2)				*(In	struction	<u> </u>
(Continued on page 2)				(111)		is on p

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## **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 1: 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 well, 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 directionally 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.

## 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 well 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 will 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 collects this information to allow 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 Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 <u>District II</u> 811 S. First St., Artesia, NM 88210

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

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

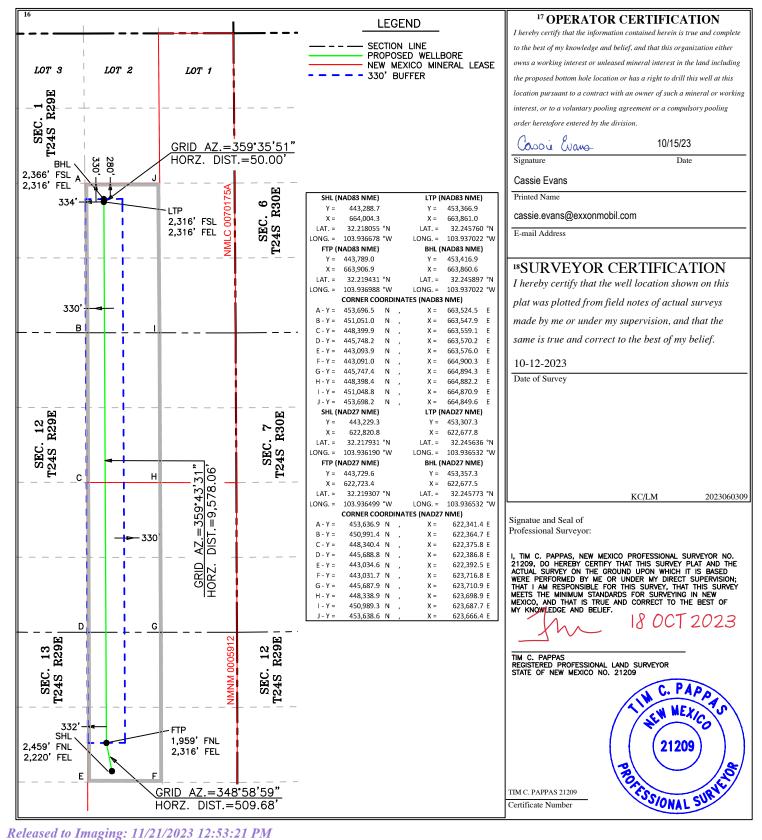
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

AMENDED REPORT

	WELL LOCATION AND ACREAGE DEDICATION PLAT												
1	API Number	r		<sup>2</sup> Pool Code	e		<sup>3</sup> Pool Na	me					
	30-015 5	3555	9	8220		Purple Sage;	Wolfcamp						
<sup>4</sup> Property C	Code				<sup>5</sup> Property N	Name			<sup>6</sup> 1	Well Number			
				]	POKER LAKE UI	NIT 13-24 PC				125H			
<sup>7</sup> OGRID I	No.				<sup>8</sup> Operator 1	Name				elevation			
373075	5	XTO PERMIAN OPERATING, LLC							3,094'				
	<sup>10</sup> Surface Location												
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County			
G	13	24 S	29 E		2,459	NORTH	2,220	EA	ST	EDDY			
			<sup>11</sup> Bo	ttom Ho	le Location If	Different Fron	n Surface						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East	/West line	County			
J	1	24 S	29 E		2,366	SOUTH	2,316	EA	ST	EDDY			
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint o	r Infill	<sup>4</sup> Consolidation	Code 15 Or	rder No.								
640													

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



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#### DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

XTO Energy Inc. Poker Lake Unit 13-24 PC 125H Projected TD: 20627' MD / 10586' TVD SHL: 2459' FNL & 2220' FEL , Section 13, T24S, R29E BHL: 2366' FSL & 2316' FEL , Section 1, T24S, R29E Eddy County, NM

#### 1. Geologic Name of Surface Formation

A. Quaternary

#### 2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	288'	Water
Top of Salt	524'	Water
Base of Salt	3098'	Water
Delaware	3304'	Water
Brushy Canyon	5763'	Water/Oil/Gas
Bone Spring	7061'	Water
1st Bone Spring	7918'	Water/Oil/Gas
2nd Bone Spring	8385'	Water/Oil/Gas
3rd Bone Spring	9178'	Water/Oil/Gas
Wolfcamp	10345'	Water/Oil/Gas
Wolfcamp X	10377'	Water/Oil/Gas
Wolfcamp Y	10441'	Water/Oil/Gas
Wolfcamp A	10486'	Water/Oil/Gas
Target/Land Curve	10586'	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 474.13' (50' above the salt) and circulating cement back to surface. The intermediate will isolate from the top of salt down to the next casing seat by setting 7.625 inch casing at 9826.4' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 20627 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 9526.4 feet).

In the event of wellbore instability, XTO is submitting a secondary 4 string design to run an additional casing string

#### 3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5	0' – 474.13'	13.375	54.5	J-55	BTC	New	18.62	5.46	35.18
12.25	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.54	2.52	1.91
12.25	4000' - 9826.4'	7.625	29.7	HC L-80	Flush Joint	New	1.85	1.87	2.35
6.75	0' – 9726.4'	5.5	23	RY P-110	Semi-Premium	New	1.45	2.61	2.03
6.75	9726.4' - 20627'	5.5	23	RY P-110	Semi-Flush	New	1.45	2.40	2.15

· XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement

surface casing per this Sundry

· XTO requests to not utilize centralizers in the curve and lateral

· 7.625 Collapse analyzed using 50% evacuation based on regional experience.

5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

 $\cdot$  Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

· XTO requests the option to use 5" BTC Float equipment for the the production casing

#### Wellhead:

- Permanent Wellhead Multibowl System A. Starting Head: 13-5/8" 10M top flange x 13-3/8" bottom
- B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange Wellhead will be installed by manufacturer's representatives.

  - · Manufacturer will monitor welding process to ensure appropriate temperature of seal.
  - · Operator will test the 7-5/8" casing per BLM Onshore Order 2
  - $\cdot$  Wellhead Manufacturer representative will not be present for BOP test plug installation

#### Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 474.13'

Tail: 480 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)Top of Cement:SurfaceCompressives:12-hr =900 psi24 hr = 1500 psi

#### 2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9826.4' <u>1st Stage</u> Optional Lead: 1560 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)

TOC: Bushy Canyon @ 5762.52

roo. Draony banyon @ ore	2.02		
Compressives: 1	2-hr =	900 psi	24 hr = 1150 psi

# 2nd Stage Lead: 0 sxs Class C (mixed at 12.9 ppg, 2.16 ft3/sx, 9.61 gal/sx water) Tail: 3250 sxs Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water) Top of Cement: 0 Compressives: 12-hr = 900 psi 24 hr = 1150 psi

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 (5762.52') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement inside the first intermediate casing. 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 Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

#### Production Casing: 5.5, 23 New Semi-Flush, RY P-110 casing to be set at +/- 20627'

Lead: 20 sxs NeoCer	n (mixed at 11.5 p	pg, 2.69 ft3/sx,	15.00 gal/sx water) Top of Cement:	9526.4 feet
Tail: 760 sxs VersaC	em (mixed at 13.2	ppg, 1.51 ft3/sx	k, 8.38 gal/sx water) Top of Cement:	10026.4 feet
Compressives:	12-hr =	800 psi	24 hr = 1500 psi	

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.

#### 5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 3726 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production

hole on each of the wells.

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

#### 6. Proposed Mud Circulation System

INTERVAL Hole Size	Holo Sizo	Mud Type	MW	Viscosity	Fluid Loss
INTERVAL	Tible Size	wuu iype	(ppg)	(sec/qt)	(cc)
0' - 474.13'	17.5	FW/Native	8.4-8.9	35-40	NC
474.13' - 9826.4'	12.25	FW / Cut Brine / Direct Emulsion / WBM	10.2-10.7	30-32	NC
9826.4' - 20627'	6.75	OBM	11-11.5	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 9-5/8" surface casing with brine solution. A 9.7 ppg - 10.2 ppg cut brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

#### 7. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13.375 casing.

#### 8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 6055 psi.

#### 10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

#### DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

XTO Energy Inc. Poker Lake Unit 13-24 PC 125H (Secondary Design) Projected TD: 20627' MD / 10586' TVD SHL: 2459' FNL & 2220' FEL , Section 13, T24S, R29E BHL: 236' FSL & 2316' FEL , Section 1, T24S, R29E Eddy County, NM

#### 1. Geologic Name of Surface Formation Quaternarv

#### 2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	288'	Water
Top of Salt	524'	Water
Base of Salt	3098'	Water
Delaware	3304'	Water
Brushy Canyon	5763'	Water/Oil/Gas
Bone Spring	7061'	Water
1st Bone Spring Ss	7918'	Water/Oil/Gas
2nd Bone Spring Ss	8385'	Water/Oil/Gas
3rd Bone Spring Sh	9178'	Water/Oil/Gas
Wolfcamp	10345'	Water/Oil/Gas
Wolfcamp X	10377'	Water/Oil/Gas
Wolfcamp Y	10441'	Water/Oil/Gas
Wolfcamp A	10486'	Water/Oil/Gas
Target/Land Curve	10586'	Water/Oil/Gas

\*\*\* Hydrocarbons @ Brushy Canyon

\*\*\* Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 inch casing @ 474' (50' above the salt) and circulating cement back to surface. The salt will be isolated by setting 9.625 inch casing at 4257' and circulating cement to surface. The second intermediate will be 7.625 inch casing at 9860' and cementing to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 20627 MD/TD and 5.5 inch production casing will be set at TD and cemented back up to 2nd intermediate (estimated TOC 9360 feet).

This secondary 4 string design is being submitted as a contingency to Poker Lake Unit 13-24 PC 125H primary design

#### 3. Casing Design

Hole Size	MD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collap	SF Tension
17.5	0' – 474'	13.375	54.5	J-55	BTC	New	2.07	5.46	35.19
12.25	0' – 4257'	9.625	40	J-55	BTC	New	1.46	2.05	3.70
8.75	0' – 4357'	7.625	29.7	RY P-110	Flush Joint	New	1.96	2.49	1.91
8.75	4357' – 9860'	7.625	29.7	HC L-80	Flush Joint	New	1.43	2.84	2.48
6.75	0' – 9760'	5.5	23	RY P-110	Semi-Premium	New	1.45	2.20	2.21
6.75	9760' - 20627'	5.5	23	RY P-110	Semi-Flush	New	1.45	2.03	6.74

Production casing meets the clearance requiremenets as tapered string crosses over before encountering the intermediate shoe, per Onshore Order 2.3.B.1

XTO requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface and intermediate 1 casing per this Sundry XTO requests to not utilize centralizers in the curve and lateral

9.625 Collapse analyzed using 50% evacuation based on regional experience. 7.625 Collapse analyzed using 50% evacuation based on regional experience.

5.5 Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35 Test on 2M annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

XTO requests the option to use 5" BTC Float equipment for the the production casing

#### Wellhead:

- Permanent Wellhead – Multibowl Svstem A. Starting Head: 13-5/8" 10M top flange x 13-3/8" bottom B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 15M top flange

Wellhead will be installed by manufacturer's representatives. Manufacturer will monitor welding process to ensure appropriate temperature of seal.

Operator will test the 7-5/8" casing per BLM Onshore Order 2 Wellhead Manufacturer representative will not be present for BOP test plug installation

Check casing size here

Rows hidden for unused formations

#### 4. Cement Program

#### Surface Casing: 13.375, 54.5 New BTC, J-55 casing to be set at +/- 474'

Tail: 480 sxs Clas	ss C + 2% CaCl (	mixed at 14.8 ppg,	1.35 ft3/sx, 6.39	gal/sx water)
Top of Cement:	Surface			
Compressives:	12-hr =	250	osi 24 h	nr = 500 psi

#### 1st Intermediate Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 4257'

Lead: 1780 sxs Class C (mixed at 12.9 ppg, 1.39 ft3/sx, 10.13 gal/sx water) Tail: 130 sxs Class C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water) Top of Cement: Surface Compressives: 12-hr = 900 psi 24 hr = 1500 psi

#### 2nd Intermediate Casing: 7.625, 29.7 New casing to be set at +/- 9860'

Tst Stage			
Optional Lead: 90 sxs	Class C (mixed at	10.5 ppg, 2.77 ft3/s:	k, 15.59 gal/sx water)
TOC: 4057			
Tail: 380 sxs Class C	(mixed at 14.8 ppg,	, 1.35 ft3/sx, 6.39 ga	al/sx water)
TOC: Brushy Canyon	@ 5763		
Compressives:	12-hr =	900 psi	24 hr = 1150 psi
2nd Stage			
Lead: 0 sxs Class C (	mixed at 12.9 ppg, 2	2.16 ft3/sx, 9.61 gal	/sx water)
Tail: 450 sxs Class C	(mixed at 14.8 ppg,	1.33 ft3/sx, 6.39 ga	l/sx water)
<b>T</b> (0) 0			,

		Jo galion water)
Top of Cement: 0		
Compressives: 12-hr	= 900 psi	24 hr = 1150 psi

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 (5763") and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 ydd, 12.91 ppg) will be executed as a contingency. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

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 organizations occur before moving off the rig. The TA cap will also be installed per Cactus procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

#### Production Casing: 5.5, 23 New Semi-Flush, RY P-110 casing to be set at +/- 20627"

Lead: 20 sxs NeoCer	m (mixed at 11.5 ppg	g, 2.69 ft3/sx, 15.00	gal/sx water) Top of Cement:
Tail: 760 sxs VersaC	em (mixed at 13.2 p	pg, 1.51 ft3/sx, 8.38	gal/sx water) Top of Cement:
Compressives:	12-hr =	1375 psi	24 hr = 2285 psi

9360 feet 10026.4 feet

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 oper. Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence. DV Tool can be hidden

#### Bradenhead squeeze hidden if not applicable

Page 14 of 30

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M Double Ram BOP. MASP should not exceed 4827 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13.375, 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 7.625, the BOP will be tested to a minimum of 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

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

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per Cactus recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and both intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells. Temporary wellhead/diverter hidden if not needed

Check casing sizes here

A variance is requested to ONLY test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to ONLY retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad 2. When skidding to drill an intermediate section that does not penetrate into the Wolfcamp.

#### 6. Proposed Mud Circulation System

INTERVAL	Holo Sizo	Hole Size Mud Type		Viscosity	Fluid Loss
INTERVAL	Hole Size	Muu Type	(ppg)	(sec/qt)	(cc)
0' - 474'	17.5	FW/Native	8.4-8.9	35-40	NC
474' - 4257'	12.25	Brine	10.2-10.7	30-32	NC
4257' to 9860'	8.75	BDE/OBM or FW/Brine/WBM	9.5-10	30-32	NC
9860' to 20627'	6.75	OBM	13-13.5	50-60	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 13-3/8" surface casing with brine solution. A 10.0 ppg -10.5 ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

#### 7. Auxiliary Well Control and Monitoring Equipment

- A Kelly cock will be in the drill string at all times. A
- A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times. H2S monitors will be on location when drilling below the 13.375 casing. в
- C.

#### 8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will not be done on this well.

#### 9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 170 to 190 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 7156 psi.

#### 10. Anticipated Starting Date and Duration of Operations

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.

Check properties

Double check casing sizes in this statement

## ROC

HP 532/547/549/552 - Eddy County, NM (NAD 27 NME) (HP552) - Poker Lake Unit 13-24 Pierce Canyon New SHL for 125H

ОН

Plan: Plan 1

## **Standard Planning Report**

11 October, 2023

## ExxonMobil

Database: Company: Project: Site:	LMRKPROD3 ROC HP 532/547/54 27 NME) (HP552) - Poke		County, NM (NAI 3-24 Pierce	TVD Refe	ence:	erence:	RKB30' @ 3124.0u	Well New SHL for 125H RKB30' @ 3124.0usft (HP552) RKB30' @ 3124.0usft (HP552) Grid		
Well: Wellbore: Design:	Canyon New SHL for 1 OH Plan 1	25H		Survey Ca	alculation Me	thod:	Minimum Curvature	3		
Project	HP 532/547/549	9/552 - Eddy C	County, NM (NAD	27 NME)						
Geo Datum:	US State Plane 1 NAD 1927 (NADO New Mexico East	CON CONUS)		System Da	tum:		Mean Sea Level			
Site	(HP552) - Poke	r Lake Unit 13	-24 Pierce Canyo	on						
Site Position: From: Position Uncertainty:	Мар	0.0 usft	Northing: Easting: Slot Radius:	622,	229.66 usft 670.59 usft 3-3/16 "	Latitude: Longitude		32° 13' 4.559 N 103° 56' 12.031 W		
Well	New SHL for 12	5H								
Well Position	+N/-S +E/-W	0.0 usft 0.0 usft	Northing: Easting:		443,229.8 <sup>2</sup> 622,820.36		.atitude: .ongitude:	32° 13' 4.555 N 103° 56' 10.288 W		
Position Uncertainty Grid Convergence:		0.0 usft 0.21 °	Wellhead El	evation:		usft <b>(</b>	Ground Level:	3,094.0 usft		
Wellbore	ОН									
Magnetics	Model Nam	le	Sample Date	Declina (°)	tion	Di	p Angle (°)	Field Strength (nT)		
	IGRF	2020	10/10/2023	3	6.44		59.76	47,214.18348015		
Design	Plan 1									
Audit Notes: Version:			Phase:	PLAN	Ti	e On Depth:	0.0	)		
Vertical Section:		-	rom (TVD) sft)	+N/-S (usft)		E/-W usft)	Directi (°)	ion		
		C	0.0	0.0		0.0	359.7	73		
Plan Survey Tool Pro	gram	Date 10/11/	/2023							
Depth From (usft)	Depth To (usft) S	urvey (Wellbo	ore)	Tool Name		Remarks	;			
1 0.0	20,626.4 P	lan 1 (OH)		XOMR2_OWS OWSG MWD						

## ExxonMobil

**Planning Report** 

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD	MD Reference:	RKB30' @ 3124.0usft (HP552)
	27 NME)		
Site:	(HP552) - Poker Lake Unit 13-24 Pierce	North Reference:	Grid
	Canyon		
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.00	0.00	0.00	0.00	
850.0	3.00	220.00	849.9	-3.0	-2.5	2.00	2.00	0.00	220.00	
1,900.0	3.00	220.00	1,898.5	-45.1	-37.8	0.00	0.00	0.00	0.00	
2,123.2	7.00	245.00	2,120.8	-55.3	-53.9	2.00	1.79	11.20	41.43	
3,523.2	7.00	245.00	3,510.4	-127.4	-208.6	0.00	0.00	0.00	0.00	
3,873.2	0.00	0.00	3,859.5	-136.5	-227.9	2.00	-2.00	0.00	180.00	
10,026.4	0.00	0.00	10,012.7	-136.5	-227.9	0.00	0.00	0.00	0.00	
10,926.4	90.00	9.20	10,585.7	429.1	-136.3	10.00	10.00	0.00	9.20	
11,399.8	90.00	359.73	10,585.7	900.6	-99.5	2.00	0.00	-2.00	-90.00	
20,576.8	90.00	359.73	10,585.7	10,077.5	-142.5	0.00	0.00	0.00	0.00	LTP 13-24 PC 125H
20,626.8	90.00	359.73	10,585.7	10,127.5	-142.8	0.00	0.00	0.00	0.00	BHL 13-24 PC 125H

## ExxonMobil

Databa	ase:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Comp	any:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Projec	ct:	HP 532/547/549/552 - Eddy County, NM (NAD	MD Reference:	RKB30' @ 3124.0usft (HP552)
		27 NME)		
Site:		(HP552) - Poker Lake Unit 13-24 Pierce	North Reference:	Grid
		Canyon		
Well:		New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbo	ore:	OH		
Desig	n:	Plan 1		

**Planned Survey** 

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	2.00	220.00	800.0	-1.3	-1.1	-1.3	2.00	2.00	0.00
850.0	3.00	220.00	849.9	-3.0	-2.5	-3.0	2.00	2.00	0.00
900.0	3.00	220.00	899.9	-5.0	-4.2	-5.0	0.00	0.00	0.00
1,000.0	3.00	220.00	999.7	-9.0	-7.6	-9.0	0.00	0.00	0.00
1,100.0	3.00	220.00	1,099.6	-13.0	-10.9	-13.0	0.00	0.00	0.00
1,200.0	3.00	220.00	1,199.5	-17.0	-14.3	-17.0	0.00	0.00	0.00
1,300.0	3.00	220.00	1,299.3	-21.0	-17.7	-21.0	0.00	0.00	0.00
1,400.0	3.00	220.00	1,399.2	-25.1	-21.0	-25.0	0.00	0.00	0.00
1,500.0	3.00	220.00	1,499.0	-29.1	-24.4	-29.0	0.00	0.00	0.00
1,600.0	3.00	220.00	1,598.9	-33.1	-27.8	-32.9	0.00	0.00	0.00
1,700.0	3.00	220.00	1,698.8	-37.1	-31.1	-36.9	0.00	0.00	0.00
1,800.0	3.00	220.00	1,798.6	-41.1	-34.5	-40.9	0.00	0.00	0.00
1,900.0	3.00	220.00	1,898.5	-45.1	-37.8	-44.9	0.00	0.00	0.00
2,000.0	4.69	236.41	1,998.3	-49.4	-42.9	-49.2	2.00	1.69	16.41
2,100.0	6.56	243.85	2,097.8	-54.1	-51.5	-53.9	2.00	1.87	7.44
2,123.2	7.00	245.00	2,120.8	-55.3	-53.9	-55.1	2.00	1.91	4.98
2,200.0	7.00	245.00	2,197.0	-59.3	-62.4	-59.0	0.00	0.00	0.00
2,300.0	7.00	245.00	2,296.3	-64.4	-73.5	-64.1	0.00	0.00	0.00
2,400.0	7.00	245.00	2,395.6	-69.6	-84.5	-69.2	0.00	0.00	0.00
2,500.0	7.00	245.00	2,494.8	-74.7	-95.6	-74.3	0.00	0.00	0.00
2,600.0	7.00	245.00	2,594.1	-79.9	-106.6	-79.4	0.00	0.00	0.00
2,700.0	7.00	245.00	2,693.3	-85.0	-117.6	-84.5	0.00	0.00	0.00
2,800.0	7.00	245.00	2,792.6	-90.2	-128.7	-89.6	0.00	0.00	0.00
2,900.0	7.00	245.00	2,891.8	-95.3	-139.7	-94.7	0.00	0.00	0.00
3,000.0	7.00	245.00	2,991.1	-100.5	-150.8	-99.8	0.00	0.00	0.00
3,100.0	7.00	245.00	3,090.3	-105.6	-161.8	-104.9	0.00	0.00	0.00
3,200.0	7.00	245.00	3,189.6	-110.8	-172.9	-110.0	0.00	0.00	0.00
3,300.0	7.00	245.00	3,288.8	-115.9	-183.9	-115.1	0.00	0.00	0.00
3,400.0	7.00	245.00	3,388.1	-121.1	-195.0	-120.2	0.00	0.00	0.00
3,500.0	7.00	245.00	3,487.4	-126.2	-206.0	-125.3	0.00	0.00	0.00
3,523.2	7.00	245.00	3,510.4	-127.4	-208.6	-126.5	0.00	0.00	0.00
3,600.0	5.46	245.00	3,586.7	-131.0	-216.1	-129.9	2.00	-2.00	0.00
3,700.0	3.46	245.00	3,686.4	-134.2	-223.2	-133.2	2.00	-2.00	0.00
3,800.0	1.46	245.00	3,786.3	-136.1	-227.1	-135.0	2.00	-2.00	0.00
3,873.2	0.00	0.00	3,859.5	-136.5	-227.1	-135.4	2.00	-2.00	0.00
3,900.0	0.00	0.00	3,886.3	-136.5	-227.9	-135.4	0.00	0.00	0.00
4,000.0	0.00	0.00	3,986.3	-136.5	-227.9	-135.4	0.00	0.00	0.00
4,100.0	0.00	0.00	4,086.3	-136.5	-227.9	-135.4	0.00	0.00	0.00
4,100.0	0.00	0.00	4,086.3 4,186.3	-136.5 -136.5	-227.9 -227.9	-135.4 -135.4	0.00	0.00	0.00
4,200.0	0.00	0.00	4,186.3	-136.5	-227.9	-135.4 -135.4	0.00	0.00	0.00
4,400.0 4,500.0	0.00 0.00	0.00 0.00	4,386.3 4,486.3	-136.5 -136.5	-227.9 -227.9	-135.4 -135.4	0.00 0.00	0.00 0.00	0.00 0.00
-									
4,600.0	0.00	0.00	4,586.3	-136.5	-227.9	-135.4	0.00	0.00	0.00
4,700.0	0.00	0.00	4,686.3	-136.5	-227.9	-135.4	0.00	0.00	0.00

10/11/2023 2:32:57PM

## ExxonMobil

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD 27 NME)	MD Reference:	RKB30' @ 3124.0usft (HP552)
Site:	(HP552) - Poker Lake Unit 13-24 Pierce Canyon	North Reference:	Grid
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Desian:	Plan 1		

**Planned Survey** 

$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
$ \left  \begin{array}{cccccccccccccccccccccccccccccccccccc$	4 800 0	0.00	0.00	4 786 3	-136.5	-227.9	-135 4	0.00	0.00	0.00	
5,000.0         0.00         4,986.3         -138.5         -227.9         -135.4         0.00         0.00         0.00           5,100.0         0.00         0.00         5,066.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,200.0         0.00         0.00         5,266.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,400.0         0.00         0.00         5,266.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,600.0         0.00         0.00         5,868.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         5,868.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         5,868.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         5,868.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00         0.00											
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$											
$ \begin{bmatrix} 5,200.0 & 0.00 & 0.00 & 5,186.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,400.0 & 0.00 & 0.00 & 5,386.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,500.0 & 0.00 & 0.00 & 5,486.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,600.0 & 0.00 & 0.00 & 5,686.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,700.0 & 0.00 & 0.00 & 5,686.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,000.0 & 0.00 & 0.00 & 5,686.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,000.0 & 0.00 & 0.00 & 5,786.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 5,000.0 & 0.00 & 0.00 & 5,886.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 5,886.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,286.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,286.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,286.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,386.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,586.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,686.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,686.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 6,000.0 & 0.00 & 0.00 & 6,766.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 0.00 & 6,766.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 0.00 & 7,286.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 0.00 & 7,286.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 0.00 & 7,866.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 7,866.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 7,866.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 7,000.0 & 0.00 & 7,866.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 8,000.0 & 0.00 & 0.00 & 7,866.3 & -136.5 & -227.9 & -135.4 & 0.00 & 0.00 & 0.00 \\ 8,000.0 & 0.$											
5.300.0         0.00         5.286.3         -136.5         -227.9         -135.4         0.00         0.00           5.500.0         0.00         0.00         5.486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5.600.0         0.00         0.00         5.686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5.700.0         0.00         0.00         5.766.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5.800.0         0.00         0.00         5.766.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6.000.0         0.00         0.00         5.986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6.400.0         0.00         0.00         6.986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6.606.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6.606.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6.6	,			,							
5,400.0         0.00         0.00         5,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,600.0         0.00         0.00         5,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,700.0         0.00         0.00         5,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,800.0         0.00         0.00         5,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,000.0         0.00         0.00         5,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00											
5,500.0         0.00         5,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,600.0         0.00         0.00         5,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,500.0         0.00         0.00         5,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           5,500.0         0.00         0.00         5,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,000.0         0.00         0.00         6,186.3         -136.5         -227.9         -135.4         0.00											
$ \left [ \begin{array}{ccccccccccccccccccccccccccccccccccc$											
$ \left  \begin{array}{cccccccccccccccccccccccccccccccccccc$	5,500.0	0.00	0.00	5,486.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
$ \left  \begin{array}{cccccccccccccccccccccccccccccccccccc$	5 600 0	0.00	0.00	5 586 3	-136.5	-227 9	-135.4	0.00	0.00	0.00	
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6,400.0         0.00         0.00         6,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,500.0         0.00         0.00         6,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,600.0         0.00         0.00         6,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,700.0         0.00         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,900.0         0.00         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0											
6,500.0         0.00         6,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,600.0         0.00         0.00         6,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,700.0         0.00         0.00         6,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,900.0         0.00         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,900.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         7,863.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,400.0         0.00         0.00         7,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00											
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6,700.0         0.00         0.00         6,866.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,800.0         0.00         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,300.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,866.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0	6,500.0	0.00	0.00	6,486.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
6,700.0         0.00         0.00         6,866.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,800.0         0.00         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,300.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,866.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0	6.600.0	0.00	0.00	6.586.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
6,800.0         0.00         6,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           6,900.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,100.0         0.00         0.00         7,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,400.0         0.00         0.00         7,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00											
6,900.0         0.00         0.00         6,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,000.0         0.00         0.00         7,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,400.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0											
7,000.0         0.00         6,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,100.0         0.00         0.00         7,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,200.0         0.00         0.00         7,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,300.0         0.00         0.00         7,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,400.0         0.00         0.00         7,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,700.0         0.00         0.00         7,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00											
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7,400.0         0.00         0.00         7,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,500.0         0.00         0.00         7,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,700.0         0.00         0.00         7,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,100.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,300.0											
7,500.0         0.00         7,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,600.0         0.00         0.00         7,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,700.0         0.00         0.00         7,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00											
$\left(\begin{array}{cccccccccccccccccccccccccccccccccccc$											
7,700.0         0.00         0.00         7,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0	7,500.0	0.00	0.00	7,486.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
7,700.0         0.00         0.00         7,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,800.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0	7.600.0	0.00	0.00	7.586.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
7,800.0         0.00         7,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           7,900.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,100.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,300.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00											
7,900.0         0.00         0.00         7,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00           8,000.0         0.00         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00           8,100.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,300.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00											
8,000.0         0.00         7,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,100.0         0.00         0.00         8,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,200.0         0.00         0.00         8,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,300.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,500.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00											
8,100.0       0.00       0.00       8,086.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,200.0       0.00       0.00       8,186.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,300.0       0.00       0.00       8,286.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,400.0       0.00       0.00       8,286.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,400.0       0.00       0.00       8,386.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,500.0       0.00       0.00       8,586.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,600.0       0.00       0.00       8,586.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,600.0       0.00       0.00       8,686.3       -136.5       -227.9       -135.4       0.00       0.00       0.00         8,800.0       0.00       0.00       8,786.3       -136.5       -227.9       -135.4       0.00											
8,200.0         0.00         0.00         8,186.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,300.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,500.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0											
8,300.0         0.00         0.00         8,286.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00           8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00           8,500.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00				,							
8,400.0         0.00         0.00         8,386.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,500.0         0.00         0.00         8,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0											
8,500.0         0.00         0.00         8,486.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0											
8,600.0         0.00         0.00         8,586.3         -136.5         -227.9         -135.4         0.00         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00											
8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00	8,500.0	0.00	0.00	8,486.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
8,700.0         0.00         0.00         8,686.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00	8,600.0	0.00	0.00	8,586.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
8,800.0         0.00         0.00         8,786.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           8,900.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00	,										
8,900.0         0.00         0.00         8,886.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00											
9,000.0         0.00         0.00         8,986.3         -136.5         -227.9         -135.4         0.00         0.00         0.00           9,100.0         0.00         0.00         9,086.3         -136.5         -227.9         -135.4         0.00         0.00         0.00											
9,100.0 0.00 9,086.3 -136.5 -227.9 -135.4 0.00 0.00 0.00											
				,							
9,200.0 0.00 9,186.3 -136.5 -227.9 -135.4 0.00 0.00 0.00											
9,300.0 0.00 0.00 9,286.3 -136.5 -227.9 -135.4 0.00 0.00 0.00 9,400.0 0.00 0.00 9,386.3 -136.5 -227.9 -135.4 0.00 0.00 0.00											
	-,										
9,500.0 0.00 0.00 9,486.3 -136.5 -227.9 -135.4 0.00 0.00 0.00	9,500.0	0.00	0.00	9,480.3	-130.5	-221.9	-135.4	0.00	0.00	0.00	
9,600.0 0.00 0.00 9,586.3 -136.5 -227.9 -135.4 0.00 0.00 0.00	9,600.0	0.00	0.00	9,586.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
9,700.0 0.00 9,686.3 -136.5 -227.9 -135.4 0.00 0.00 0.00	9,700.0	0.00	0.00	9,686.3	-136.5	-227.9	-135.4	0.00	0.00	0.00	
9,800.0 0.00 0.00 9,786.3 -136.5 -227.9 -135.4 0.00 0.00 0.00									0.00	0.00	
9,900.0 0.00 0.00 9,886.3 -136.5 -227.9 -135.4 0.00 0.00 0.00	9,900.0	0.00	0.00	9,886.3	<u>-1</u> 36.5	-227.9	-135.4	0.00	0.00	0.00	

10/11/2023 2:32:57PM

## ExxonMobil

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD 27 NME)	MD Reference:	RKB30' @ 3124.0usft (HP552)
Site:	(HP552) - Poker Lake Unit 13-24 Pierce Canyon	North Reference:	Grid
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,000.0	0.00	0.00	9,986.3	-136.5	-227.9	-135.4	0.00	0.00	0.00
10,026.4	0.00	0.00	10,012.7	-136.5	-227.9	-135.4	0.00	0.00	0.00
10,020.4	7.36	9.20	10,012.7	-130.5	-227.9	-130.4	10.00	10.00	0.00
10,200.0	17.36	9.20	10,183.7	-110.7	-223.7	-109.6	10.00	10.00	0.00
10,300.0	27.36	9.20	10,276.0	-73.2	-217.7	-72.2	10.00	10.00	0.00
10,400.0	37.36	9.20	10,360.4	-20.4	-209.1	-19.4	10.00	10.00	0.00
10,500.0	47.36	9.20	10,434.2	46.0	-198.4	46.9	10.00	10.00	0.00
10,600.0	57.36	9.20	10,495.2	124.1	-185.7	125.0	10.00	10.00	0.00
10,700.0	67.36	9.20	10,541.5	211.4	-171.6	212.2	10.00	10.00	0.00
10,800.0	77.36	9.20	10,571.8	305.4	-156.4	306.1	10.00	10.00	0.00
10,900.0	87.36	9.20	10,585.1	403.1	-140.5	403.7	10.00	10.00	0.00
10,926.4	90.00	9.20	10,585.7	429.1	-136.3	429.8	10.00	10.00	0.00
11,000.0	90.00	7.73	10,585.7	501.9	-125.5	502.5	2.00	0.00	-2.00
11,100.0	90.00	5.73	10,585.7	601.2	-113.8	601.8	2.00	0.00	-2.00
11,200.0	90.00	3.73	10,585.7	700.9	-105.5	701.4	2.00	0.00	-2.00
11,300.0	90.00	1.73	10,585.7	800.8	-100.8	801.2	2.00	0.00	-2.00
11,399.8	90.00	359.73	10,585.7	900.6	-99.5	901.0	2.00	0.00	-2.00
11,400.0	90.00	359.73	10,585.7	900.8 900.8	-99.5	901.0 901.2	0.00	0.00	-2.00
		359.73					0.00		0.00
11,500.0	90.00		10,585.7	1,000.8	-100.0	1,001.2		0.00	
11,600.0	90.00	359.73	10,585.7	1,100.8	-100.4	1,101.2	0.00	0.00	0.00
11,700.0	90.00	359.73	10,585.7	1,200.8	-100.9	1,201.2	0.00	0.00	0.00
11,800.0	90.00	359.73	10,585.7	1,300.8	-101.4	1,301.2	0.00	0.00	0.00
11,900.0	90.00	359.73	10,585.7	1,400.8	-101.8	1,401.2	0.00	0.00	0.00
12,000.0	90.00	359.73	10,585.7	1,500.8	-102.3	1,501.2	0.00	0.00	0.00
12,100.0	90.00	359.73	10,585.7	1,600.8	-102.8	1,601.2	0.00	0.00	0.00
12,200.0	90.00	359.73	10,585.7	1,700.8	-103.2	1,701.2	0.00	0.00	0.00
12,300.0	90.00	359.73	10,585.7	1,800.8	-103.7	1,801.2	0.00	0.00	0.00
12,400.0	90.00	359.73	10,585.7	1,900.8	-104.2	1,901.2	0.00	0.00	0.00
12,500.0	90.00	359.73	10,585.7	2,000.8	-104.7	2,001.2	0.00	0.00	0.00
12,600.0	90.00	359.73	10,585.7	2,100.8	-105.1	2,101.2	0.00	0.00	0.00
12,700.0	90.00	359.73	10,585.7	2,200.8	-105.6	2,201.2	0.00	0.00	0.00
12,800.0	90.00	359.73	10,585.7	2,300.8	-106.1	2,301.2	0.00	0.00	0.00
12,900.0	90.00	359.73	10,585.7	2,400.8	-106.5	2,401.2	0.00	0.00	0.00
13,000.0	90.00	359.73	10,585.7	2,500.7	-107.0	2,501.2	0.00	0.00	0.00
13,100.0	90.00	359.73	10,585.7	2,600.7	-107.5	2,601.2	0.00	0.00	0.00
13,200.0	90.00	359.73	10,585.7	2,700.7	-107.9	2,701.2	0.00	0.00	0.00
13,300.0	90.00	359.73	10,585.7	2,800.7	-108.4	2,801.2	0.00	0.00	0.00
13,400.0	90.00	359.73	10,585.7	2,900.7	-108.9	2,001.2	0.00	0.00	0.00
13,400.0	90.00	359.73	10,585.7	2,900.7 3,000.7	-108.9	3,001.2	0.00	0.00	0.00
13,600.0	90.00	359.73	10,585.7	3,000.7 3,100.7	-109.3	3,001.2	0.00	0.00	0.00
13,600.0	90.00	359.73 359.73	10,585.7	3,100.7 3,200.7	-109.8 -110.3	3,101.2	0.00	0.00	0.00
13,800.0	90.00	359.73	10,585.7	3,300.7	-110.8	3,301.2	0.00	0.00	0.00
13,900.0	90.00	359.73	10,585.7	3,400.7	-111.2	3,401.2	0.00	0.00	0.00
14,000.0	90.00	359.73	10,585.7	3,500.7	-111.7	3,501.2	0.00	0.00	0.00
14,100.0	90.00	359.73	10,585.7	3,600.7	-112.2	3,601.2	0.00	0.00	0.00
14,200.0	90.00	359.73	10,585.7	3,700.7	-112.6	3,701.2	0.00	0.00	0.00
14,300.0	90.00	359.73	10,585.7	3,800.7	-113.1	3,801.2	0.00	0.00	0.00
14,400.0	90.00	359.73	10,585.7	3,900.7	-113.6	3,901.2	0.00	0.00	0.00
14,500.0	90.00	359.73	10,585.7	4,000.7	-114.0	4,001.2	0.00	0.00	0.00
14,600.0	90.00	359.73	10,585.7	4,100.7	-114.5	4,101.2	0.00	0.00	0.00
14,700.0	90.00	359.73	10,585.7	4,200.7	-115.0	4,201.2	0.00	0.00	0.00
14,800.0	90.00	359.73	10,585.7	4,300.7	-115.4	4,301.2	0.00	0.00	0.00

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## ExxonMobil

**Planning Report** 

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD	MD Reference:	RKB30' @ 3124.0usft (HP552)
	27 NME)		
Site:	(HP552) - Poker Lake Unit 13-24 Pierce	North Reference:	Grid
	Canyon		
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1		

Planned Survey

Measure Depth (usft)	d Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,900		359.73	10,585.7	4,400.7	-115.9	4,401.2	0.00	0.00	0.00
15,000		359.73	10,585.7	4,500.7	-116.4	4,501.2	0.00	0.00	0.00
15,100		359.73	10,585.7	4,600.7	-116.8	4,601.2	0.00	0.00	0.00
15,200		359.73	10,585.7	4,700.7	-117.3	4,701.2	0.00	0.00	0.00
15,300		359.73	10,585.7	4,800.7	-117.8	4,801.2	0.00	0.00	0.00
15,400		359.73	10,585.7	4,900.7	-118.3	4,901.2	0.00	0.00	0.00
15,500	0.0 90.00	359.73	10,585.7	5,000.7	-118.7	5,001.2	0.00	0.00	0.00
15,600	0.0 90.00	359.73	10,585.7	5,100.7	-119.2	5,101.2	0.00	0.00	0.00
15,700	0.0 90.00	359.73	10,585.7	5,200.7	-119.7	5,201.2	0.00	0.00	0.00
15,800	0.0 90.00	359.73	10,585.7	5,300.7	-120.1	5,301.2	0.00	0.00	0.00
15,900	0.0 90.00	359.73	10,585.7	5,400.7	-120.6	5,401.2	0.00	0.00	0.00
16,000	0.0 90.00	359.73	10,585.7	5,500.7	-121.1	5,501.2	0.00	0.00	0.00
16,100		359.73	10,585.7	5,600.7	-121.5	5,601.2	0.00	0.00	0.00
16,200		359.73	10,585.7	5,700.7	-122.0	5,701.2	0.00	0.00	0.00
16,300	0.0 90.00	359.73	10,585.7	5,800.7	-122.5	5,801.2	0.00	0.00	0.00
16,400		359.73	10,585.7	5,900.7	-122.9	5,901.2	0.00	0.00	0.00
16,500		359.73	10,585.7	6,000.7	-123.4	6,001.2	0.00	0.00	0.00
16,600		359.73	10,585.7	6,100.7	-123.9	6,101.2	0.00	0.00	0.00
16,700		359.73	10,585.7	6,200.7	-123.3	6,201.2	0.00	0.00	0.00
16,800		359.73	10,585.7	6,300.7	-124.8	6,301.2	0.00	0.00	0.00
16,900		359.73	10,585.7	6,400.7	-124.8	6,401.2	0.00	0.00	0.00
				,					
17,000		359.73	10,585.7	6,500.7	-125.8	6,501.2	0.00	0.00	0.00
17,100		359.73	10,585.7	6,600.7	-126.2	6,601.2	0.00	0.00	0.00
17,200		359.73	10,585.7	6,700.7	-126.7	6,701.2	0.00	0.00	0.00
17,300	0.0 90.00	359.73	10,585.7	6,800.7	-127.2	6,801.2	0.00	0.00	0.00
17,400	0.0 90.00	359.73	10,585.7	6,900.7	-127.6	6,901.2	0.00	0.00	0.00
17,500	0.0 90.00	359.73	10,585.7	7,000.7	-128.1	7,001.2	0.00	0.00	0.00
17,600	0.0 90.00	359.73	10,585.7	7,100.7	-128.6	7,101.2	0.00	0.00	0.00
17,700	0.0 90.00	359.73	10,585.7	7,200.7	-129.0	7,201.2	0.00	0.00	0.00
17,800	0.0 90.00	359.73	10,585.7	7,300.7	-129.5	7,301.2	0.00	0.00	0.00
17,900	0.0 90.00	359.73	10,585.7	7,400.7	-130.0	7,401.2	0.00	0.00	0.00
18,000	0.0 90.00	359.73	10,585.7	7,500.7	-130.4	7,501.2	0.00	0.00	0.00
18,100		359.73	10,585.7	7,600.7	-130.9	7,601.2	0.00	0.00	0.00
18,200		359.73	10,585.7	7,700.7	-131.4	7,701.2	0.00	0.00	0.00
18,300	0.0 90.00	359.73	10,585.7	7,800.7	-131.9	7,801.2	0.00	0.00	0.00
18,400		359.73	10,585.7	7,900.7	-132.3	7,901.2	0.00	0.00	0.00
18,500		359.73	10,585.7	8,000.7	-132.8	8,001.2	0.00	0.00	0.00
18,600		359.73	10,585.7	8,100.7	-133.3	8,101.2	0.00	0.00	0.00
18,700		359.73	10,585.7	8,200.7	-133.7	8,201.2	0.00	0.00	0.00
18,800	0.0 90.00	359.73	10,585.7	8,300.7	-134.2	8,301.2	0.00	0.00	0.00
18,900		359.73	10,585.7	8,400.7	-134.7	8,401.2	0.00	0.00	0.00
19,000		359.73	10,585.7	8,500.7	-135.1	8,501.2	0.00	0.00	0.00
19,000		359.73	10,585.7	8,600.7	-135.6	8,601.2	0.00	0.00	0.00
19,100		359.73	10,585.7	8,700.7	-136.1	8,701.2	0.00	0.00	0.00
19,300		359.73	10,585.7	8,800.7	-136.5	8,801.2	0.00	0.00	0.00
19,300		359.73 359.73	10,585.7	8,800.7 8,900.7	-136.5 -137.0	8,801.2 8,901.2	0.00	0.00	0.00
19,500		359.73	10,585.7	9,000.7	-137.5	9,001.2	0.00	0.00	0.00
19,600		359.73	10,585.7	9,100.7	-137.9	9,101.2	0.00	0.00	0.00
19,700		359.73	10,585.7	9,200.7	-138.4	9,201.2	0.00	0.00	0.00
19,800		359.73	10,585.7	9,300.7	-138.9	9,301.2	0.00	0.00	0.00
19,900		359.73	10,585.7	9,400.7	-139.4	9,401.2	0.00	0.00	0.00
20,000	0.0 90.00	359.73	10,585.7	9,500.7	-139.8	9,501.2	0.00	0.00	0.00

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## ExxonMobil

**Planning Report** 

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD	MD Reference:	RKB30' @ 3124.0usft (HP552)
	27 NME)		
Site:	(HP552) - Poker Lake Unit 13-24 Pierce	North Reference:	Grid
	Canyon		
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
20,100.0	90.00	359.73	10,585.7	9,600.7	-140.3	9,601.2	0.00	0.00	0.00
20,200.0	90.00	359.73	10,585.7	9,700.7	-140.8	9,701.2	0.00	0.00	0.00
20,300.0	90.00	359.73	10,585.7	9,800.7	-141.2	9,801.2	0.00	0.00	0.00
20,400.0	90.00	359.73	10,585.7	9,900.7	-141.7	9,901.2	0.00	0.00	0.00
20,500.0	90.00	359.73	10,585.7	10,000.7	-142.2	10,001.2	0.00	0.00	0.00
20,576.8	90.00	359.73	10,585.7	10,077.5	-142.5	10,078.1	0.00	0.00	0.00
20,600.0	90.00	359.73	10,585.7	10,100.7	-142.6	10,101.2	0.00	0.00	0.00
20,626.8	90.00	359.73	10,585.7	10,127.5	-142.8	10,128.1	0.00	0.00	0.00

#### Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
New SHL for 125H - plan hits target ce - Rectangle (sides		0.01	0.0	0.0	0.0	443,229.81	622,820.36	32° 13' 4.555 N	103° 56' 10.288 W
BHL 13-24 PC 125H - plan misses targe - Point	0.00 t center by 0.1u	0.01 Isft at 20626	10,585.7 8.8usft MD (1	10,127.5 0585.7 TVD, 1	-142.9 0127.5 N, -14	453,357.32 2.8 E)	622,677.46	32° 14' 44.784 N	103° 56' 11.516 W
FTP 13-24 PC 125H - plan misses targe - Point	0.00 t center by 28.6	0.01 Susft at 1100	10,585.7 1.2usft MD (*	499.8 10585.7 TVD,	-96.9 503.1 N, -125	443,729.61 .3 E)	622,723.43	32° 13' 9.505 N	103° 56' 11.394 W
LTP 13-24 PC 125H - plan hits target ce - Rectangle (sides		0.01 .5 D0.0)	10,585.7	10,077.5	-142.5	453,307.32	622,677.83	32° 14' 44.289 N	103° 56' 11.513 W

## ExxonMobil

**Planning Report** 

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well New SHL for 125H
Company:	ROC	TVD Reference:	RKB30' @ 3124.0usft (HP552)
Project:	HP 532/547/549/552 - Eddy County, NM (NAD	MD Reference:	RKB30' @ 3124.0usft (HP552)
	27 NME)		
Site:	(HP552) - Poker Lake Unit 13-24 Pierce	North Reference:	Grid
	Canyon		
Well:	New SHL for 125H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1		

Formations

	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	289.2	289.2	Rustler			
	525.1	525.1	Salado			
	3,108.7	3,099.0	Base of Salt			
	3,133.9	3,124.0	Formation 26			
	3,315.9	3,304.7	Delaware			
	4,222.1	4,208.4	Cherry Canyon			
	5,777.2	5,763.5	Brushy Canyon			
	6,832.8	6,819.1	Basal Brushy Canyon			
	7,075.6	7,061.9	Bone Spring			
	7,200.5	7,186.8	Avalon Upper			
	7,771.0	7,757.3	Avalon Lower			
	7,933.0	7,919.3	1st Bone Spring Lime			
	8,086.5	8,072.8	1st Bone Spring Sand			
	8,399.4	8,385.8	2nd Bone Spring Lime			
	8,925.0	8,911.3	2nd Bone Spring Sand			
	9,192.9	9,179.2	3rd Bone Spring Lime			
	9,570.2	9,556.5	Harkey Sand			
	9,601.6	9,587.9	3rd Bone Spring Shale			
	10,001.8	9,988.1	3rd Bone Spring Sand			
	10,381.6	10,345.6	Wolfcamp			
	10,422.8	10,378.2	Wolfcamp X			
	10,512.1	10,442.3	Wolfcamp Y			
	10,584.6	10,486.7	Wolfcamp A			

Annotations				
Measured	Vertical	Local Coord	dinates	
Depth	Depth	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	Comment
700.0	700.0	0.0	0.0	Start Build 2.00
850.0	849.9	-3.0	-2.5	Start 1050.0 hold at 850.0 MD
1,900.0	1,898.5	-45.1	-37.8	Start DLS 2.00 TFO 41.43
2,123.2	2,120.8	-55.3	-53.9	Start 1400.0 hold at 2123.2 MD
3,523.2	3,510.4	-127.4	-208.6	Start Drop -2.00
3,873.2	3,859.5	-136.5	-227.9	Start 6153.2 hold at 3873.2 MD
10,026.4	10,012.7	-136.5	-227.9	Start Build 10.00
10,926.4	10,585.7	429.1	-136.3	Start DLS 2.00 TFO -90.00
11,399.8	10,585.7	900.6	-99.5	Start 9177.0 hold at 11399.8 MD
20,576.8	10,585.7	10,077.5	-142.5	Start 50.0 hold at 20576.8 MD
20,626.8	10,585.7	10,127.5	-142.8	TD at 20626.8

## U. S. Steel Tubular Products 13.375" 54.50lb/ft (0.380" Wall) J55 USS-CDC<sup>®</sup>

Page 26 of 30

MECHANICAL PROPERTIES	Pipe	USS-CDC <sup>®</sup>	
Minimum Yield Strength	55,000		psi
Maximum Yield Strength	80,000		psi
Minimum Tensile Strength	75,000		psi
DIMENSIONS	Pipe	USS-CDC <sup>®</sup>	
Outside Diameter	13.375	14.375	in.
Wall Thickness	0.380		in.
Inside Diameter	12.615	12.615	in.
Standard Drift	12.459	12.459	in.
Alternate Drift	12.500	12.500	in.
Nominal Linear Weight, T&C	54.50		lb/ft
Plain End Weight	52.79		lb/ft
SECTION AREA	Pipe	USS-CDC <sup>®</sup>	
Critical Area	15.513	15.513	sq. in.
Joint Efficiency		100.0	%
PERFORMANCE	Pipe	USS-CDC <sup>®</sup>	
Minimum Collapse Pressure	1,130	1,130	psi
External Pressure Leak Resistance		900	psi
Minimum Internal Yield Pressure	2,740	2,740	psi
Minimum Pipe Body Yield Strength	853,000		lb
Joint Strength		909,000	lb
Compression Rating		545,400	lb
Reference Length		11,119	ft
Maximum Uniaxial Bend Rating		12.1	deg/100 ft
MAKE-UP DATA	Pipe	USS-CDC <sup>®</sup>	
Make-Up Loss		5.31	in.
Minimum Make-Up Torque		17,000	ft-lb
Maximum Make-Up Torque		21,000	ft-lb
Connection Yield Torque		35,200	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).

2. 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 nominal threaded and coupled weight with 1.5 safety factor.
- 5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Call II.

#### Legal Notice

USS - CDC<sup>®</sup> (Casing Drilling Connection) is a trademark of U. S. Steel Corporation. This product is a modified API Buttress threaded and coupled connection designed for drilling with casing applications. All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

## U. S. Steel Tubular Products 9.625" 40.00lb/ft (0.395" Wall) J55 USS-CDC<sup>®</sup>

JNCONTROLLED

MECHANICAL PROPERTIES	Pipe	USS-CDC <sup>®</sup>		
Minimum Yield Strength	55,000		psi	
Maximum Yield Strength	80,000		psi	
Minimum Tensile Strength	75,000		psi	
DIMENSIONS	Pipe	USS-CDC <sup>®</sup>		
Outside Diameter	9.625	10.625	in.	
Wall Thickness	0.395		in.	
Inside Diameter	8.835	8.835	in.	
Standard Drift	8.679	8.679	in.	
Alternate Drift	8.750	8.750	in.	
Nominal Linear Weight, T&C	40.00		lb/ft	
Plain End Weight	38.97		lb/ft	
SECTION AREA	Pipe	USS-CDC <sup>®</sup>		
Critical Area	11.454	11.454	sq. in.	
Joint Efficiency		100.0	%	
PERFORMANCE	Pipe	USS-CDC <sup>®</sup>		
Minimum Collapse Pressure	2,570	2,570	psi	
External Pressure Leak Resistance		2,060	psi	
Minimum Internal Yield Pressure	3,950	3,950	psi	
Minimum Pipe Body Yield Strength	630,000		lb	
Joint Strength		714,000	lb	
Compression Rating		428,000	lb	
Reference Length		11,900	ft	
Maximum Uniaxial Bend Rating		17.8	deg/100 ft	
MAKE-UP DATA	Pipe	USS-CDC <sup>®</sup>		
Make-Up Loss		5.31	in.	
Minimum Make-Up Torque		15,000	ft-lb	
Maximum Make-Up Torque		18,500	ft-lb	
Connection Yield Torque		23,100	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).
- 2. 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 nominal threaded and coupled weight with 1.5 safety factor.
- 5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Call II.

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

# U. S. Steel Tubular Products 7/30/2020 3:27:27 PM 7.625" 29.70Ibs/ft (0.375" Wall) P110 RY USS-LIBERTY FJM<sup>®</sup>

Import Network International Parameters         Import Parameters         psi psi psi           ENSIONS         Pipe         USS-LIBERTY FJM <sup>®</sup> psi           ENSIONS         Pipe         USS-LIBERTY FJM <sup>®</sup> ENSIONS         7.625         7.625         in.           all Thickness         0.375          in.           all Thickness         0.375          in.           andard Drift         6.750         6.750         in.           andard Drift          Ibs/ft         in.           andard Drift          Ibs/ft         ibs/ft           ain End Weight, T&C         29.70          Ibs/ft           ain End Weight         29.06          Ibs/ft           ain End Weight         29.06          Ibs/ft           titical Area         8.541         5.074         sq. in.           sint Efficiency          59.4         %         Science           for peesure         5.350         5.350         psi         Science           inimum Collapse Pressure         5.350         5.350         psi         Science           initimum Pipe Body Yield				
aximum Yield Strength 125,000 psi inimum Tensile Strength 125,000 psi ENSIONS Pipe USS-LIBERTY FJM <sup>®</sup> Lutside Diameter 7.625 7.625 in. in. all Thickness 0.375 6.789 in. andard Drift 6.750 6.789 in. andard Drift 6.750 6.750 in. ternate Drift in. bs/ft ain End Weight, T&C 29.70 Ibs/ft ain End Weight, T&C 29.70 Ibs/ft ain End Weight T&C 29.70 Ibs/ft ain End Weight T&C 29.70 Ibs/ft initer Strength 29.06 Ibs/ft tiftical Area 8.541 5.074 sq. in. strence Pipe USS-LIBERTY FJM <sup>®</sup> EFTON AREA Pipe JSS-LIBERTY FJM <sup>®</sup> EFTON AREA Pipe JSS-LIBERTY FJM <sup>®</sup> EFTORMANCE Pipe JSS-LIBERTY FJM <sup>®</sup> tiftical Area 9.460 9.460 psi inimum Collapse Pressure 5.350 5.350 psi inimum Internal Yield Pressure 9.460 9.460 psi inimum Pipe Body Yield Strength 940,000 Ibs inf Strength S58,000 bls ompression Rating ISS,000 Ibs ompression Rating ISS,000 Ibs ference Length ISS,000 Ibs inf Ibs	MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM <sup>®</sup>	
Inimum Tensile Strength         125,000          psi           ENSIONS         Pipe         USS-LIBERTY FJM <sup>®</sup> .           utside Diameter         7.625         7.625         in.           all Thickness         0.375          in.           side Diameter         6.875         6.789         in.           andard Drift         6.750         6.750         in.           ternate Drift           in.           ominal Linear Weight, T&C         29.70          Ibs/ft           ain End Weight         29.06          Ibs/ft           ain End Weight         8.541         5.074         sq. in.           sint Efficiency          59.4         %           VEFORMANCE         Pipe         USS-LIBERTY FJM <sup>®</sup> inimum Notellapse Pressure         5,350         5,350         psi           inimum Pipe Body Yield Strength         940.000          Ibs           opmpression Rating          558,000         Ibs           opmpression Rating          39.3         deg/100 ft           aximum Uniaxial Bend Rating          39.2	Minimum Yield Strength	110,000		psi
ENSIONSPipeUSS-LIBERTY FJM®utside Diameter7.6257.625in.iall Thickness0.375in.side Diameter6.8756.789in.andard Drift6.7506.750in.ternate Driftin.ominal Linear Weight, T&C29.70lbs/ft29.06lbs/ftibs/ftettical Area8.5415.074sq. in.sint Efficiency59.4%etformancePipeUSS-LIBERTY FJM®etformance9.4609.460psiinimum Collapse Pressure5,3505,350psiinimum Pipe Body Yield Strength940,000lbsoppression Rating558,000lbsefference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ftke-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Maximum Yield Strength	125,000		psi
utside Diameter         7.625         7.625         in.           ial Thickness         0.375          in.           iside Diameter         6.875         6.789         in.           iandard Drift         6.750         6.750         in.           ternate Drift           in.           ternate Drift         29.70          Ibs/ft           ain End Weight, T&C         29.70          Ibs/ft           ain End Weight         29.06          Ibs/ft           tical Area         8.541         5.074         sq. in.           tical Area         8.541         5.074         %           tical Area         8.541         5.074         %           tinit Efficiency          59.4         %           tinit Efficiency         9.460         psi            tinitnum Collapse Pressure         5.350         5.350         psi           initnum Pipe Body Yield Strength         940,000          Ibs           opmpression Rating          558,000         Ibs           opmit Strength          12,810         ft           aximum Uniaxia	Minimum Tensile Strength	125,000		psi
all Thickness0.375in.side Diameter6.8756.789in.andard Drift6.750in.ternate Driftominal Linear Weight, T&C29.70ain End Weight29.06 <b>TION AREA</b> PipeUSS-LIBERTY FJM®critical Area8.5415.074bint Efficiency59.4critical Area5,3505,350bint Efficiency94609460critical Methy Yield Strength940,000critical Strength558,000Ibscritical Strength558,000Ibscritical Strength558,000Ibscompression Rating558,000Ibscerter Length39.3deg/100 ftake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	DIMENSIONS	Pipe	USS-LIBERTY FJM <sup>®</sup>	
bide Diameter         6.875         6.789         in.           andard Drift         6.750         6.750         in.           ternate Drift           in.           ominal Linear Weight, T&C         29.70          lbs/ft           ain End Weight         29.06          lbs/ft           trittical Area         8.541         5.074         sq. in.           strift Efficiency          59.4         %         %           trittical Area         8.541         5.074         sq. in.         %           strint Efficiency          59.4         %         %         %           tritte Afficiency         9.460         9.460         psi         %         %           strint Strength          558,000         lbs         %         %           oppression Rating          12,810         ft         %         %           oppression Rating          39.3         deg/100 ft         %           ake-Up Loss          3.92         in.         %	Outside Diameter	7.625	7.625	in.
andard Drift 6.750 6.750 in. ternate Drift	Wall Thickness	0.375		in.
ternate Driftin.ominal Linear Weight, T&C29.70Ibs/ftain End Weight29.06Ibs/ftZHON AREAPipeUSS-LIBERTY FJM®Ibs/ftcritical Area8.5415.074sq. in.sint Efficiency59.4%critical Area5,3505,350psiinimum Collapse Pressure5,3505,350psiinimum Pipe Body Yield Strength940,000Ibsoppression Rating558,000Ibsoppression Rating528,000Ibsoppression Rating39.3deg/100 ftefference Length39.3deg/100 ftake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Inside Diameter	6.875	6.789	in.
Deminal Linear Weight, T&C29.70Ibs/ftin End Weight29.06Ibs/ft29.06Ibs/stIbs/ftETION AREAPipeUSS-LIBERTY FJM®ritical Area8.5415.074sq. in.ritical Area59.4%ritical Area5.3505.350psirinnum Collapse Pressure5.3505.350psiinimum Internal Yield Pressure9.4609.460psiompression Rating558,000Ibsompression Rating558,000Ibseference Length12.810ftaximum Uniaxial Bend Rating3.33deg/100 ftreactPipeUSS-LIBERTY FJM®in.ake-Up Loss3.92in.inimum Make-Up Torque10.800in.	Standard Drift	6.750	6.750	in.
ain End Weight29.06Ibs/ftCTION AREAPipeUSS-LIBERTY FJM®ritical Area8.5415.074sq. in.ritical Area8.5415.074%ritical Area59.4%RFORMANCEPipeUSS-LIBERTY FJM®inimum Collapse Pressure5,3505,350psiinimum Internal Yield Pressure9,4609,460psiinimum Pipe Body Yield Strength940,000Ibsompression Rating558,000Ibseference Length558,000Ibsaximum Uniaxial Bend Rating39.3deg/100 ftke-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Alternate Drift			in.
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Arrian8.5415.074sq. in.pint Efficiency59.4%RFORMANCEPipeUSS-LIBERTY FJM®inimum Collapse Pressure5,3505,350psiinimum Internal Yield Pressure9,4609,460psiinimum Pipe Body Yield Strength940,000Ibsompression Rating558,000Ibsefference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ftKE-UP DATAPipeUSS-LIBERTY FJM®:-ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Plain End Weight	29.06		lbs/ft
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RFORMANCEPipeUSS-LIBERTY FJM®inimum Collapse Pressure5,3505,350psiinimum Internal Yield Pressure9,4609,460psiinimum Pipe Body Yield Strength940,000lbsbint Strength558,000lbscompression Rating558,000lbseference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ftkE-UP DATAPipeUSS-LIBERTY FJM®in.ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Critical Area	8.541	5.074	sq. in.
inimum Collapse Pressure 5,350 5,350 psi inimum Internal Yield Pressure 9,460 9,460 psi inimum Pipe Body Yield Strength 940,000 Ibs bint Strength 558,000 lbs ompression Rating 558,000 lbs eference Length 12,810 ft aximum Uniaxial Bend Rating 39.3 deg/100 ft <b>KE-UP DATA</b> Pipe USS-LIBERTY FJM <sup>®</sup> ake-Up Loss 3.92 in.	Joint Efficiency		59.4	%
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inimum Pipe Body Yield Strength 940,000 Ibs bint Strength 558,000 Ibs ompression Rating 558,000 Ibs eference Length 12,810 ft aximum Uniaxial Bend Rating 39.3 deg/100 ft <b>KE-UP DATA Pipe USS-LIBERTY FJM<sup>®</sup></b> ake-Up Loss 3.92 in. inimum Make-Up Torque 10,800 ft-Ibs	Minimum Collapse Pressure	5,350	5,350	psi
Init Strength558,000Ibscompression Rating558,000Ibseference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ft <b>Pipe</b> USS-LIBERTY FJM®ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Minimum Internal Yield Pressure	9,460	9,460	psi
ompression Rating558,000Ibseference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ft <b>KE-UP DATA</b> PipeUSS-LIBERTY FJM®ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Minimum Pipe Body Yield Strength	940,000		lbs
eference Length12,810ftaximum Uniaxial Bend Rating39.3deg/100 ftKE-UP DATAPipeUSS-LIBERTY FJM®ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Joint Strength		558,000	lbs
aximum Uniaxial Bend Rating39.3deg/100 ftKE-UP DATAPipeUSS-LIBERTY FJM®ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Compression Rating		558,000	lbs
KE-UP DATAPipeUSS-LIBERTY FJM®ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Reference Length		12,810	ft
ake-Up Loss3.92in.inimum Make-Up Torque10,800ft-lbs	Maximum Uniaxial Bend Rating		39.3	deg/100 ft
inimum Make-Up Torque 10,800 ft-lbs	IAKE-UP DATA	Pipe	USS-LIBERTY FJM <sup>®</sup>	
	Make-Up Loss		3.92	in.
aximum Make-Up Torque 15,250 ft-lbs	Minimum Make-Up Torque		10,800	ft-lbs
	Maximum Make-Up Torque		15,250	ft-lbs

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).

Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.

Uniaxial bending rating shown is structural only, and equal to compression efficiency.

4. USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness and cannot be interchanged.

5. 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.).

6. Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.

7. Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

#### Legal Notice

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U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S Spring, Texas 77380 1-877-893-9461 connections@uss.com www.usstubular.com

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5.500 20.00 LB (0.361)	P110 RY	USS-TALO	USS-TALON HTQ™RD5.900	
	PIPE	CONNECTION		
AECHANICAL PROPERTIES			[6]	
Minimum Yield Strength	110,000		psi	
Maximum Yield Strength	125,000		psi	
Minimum Tensile Strength	125,000		psi	
IMENSIONS				
Outside Diameter	5.500	5.900	in.	
Wall Thickness	0.361		in.	
Inside Diameter	4.778	4.778	in.	
Drift - API	4.653		in.	
Nominal Linear Weight, T&C	20.00		lbs/ft	
Plain End Weight	19.83	19.83	lbs/ft	
ECTION AREA				
Cross Sectional Area   Critical Area	5.828	5.828	sq. in.	
Joint Efficiency		100%	% [2]	
ERFORMANCE				
Minimum Collapse Pressure	11,100	11,100	psi	
Minimum Internal Yield Pressure	12,640	12,640	psi	
Minimum Pipe Body Yield Strength	641,000		lbs	
Joint Strength		641,000	lbs	
Compression Rating		641,000	lbs	
Reference Length		21,548	ft <sup>[5]</sup>	
Maximum Uniaxial Bend Rating		91.7	deg/100 ft <sup>[3]</sup>	
IAKE-UP DATA				
Minimum Make-Up Torque		24,700	ft-lbs <sup>[4]</sup>	
Maximum Make-Up Torque		27,700	ft-lbs <sup>[4]</sup>	
Maximum Operating Torque		39,500	ft-lbs <sup>[4]</sup>	
Make-Up Loss		5.58	in.	_

#### Notes:

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 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) Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.

3) Uniaxial bending 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 plain end weight with 1.5 safety factor.

6) Coupling must meet minimum mechanical properties of the pipe

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

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

District III

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

District IV

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

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

Operator:	OGRID:
XTO PERMIAN OPERATING LLC.	373075
6401 HOLIDAY HILL ROAD Action Number:	
MIDLAND, TX 79707	284464
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Original COA's still apply. Additionally, if cement does not circulate during cementing of a string, then a CBL is required for that string.	11/21/2023

CONDITIONS

Action 284464