eceived by OCD: D1/6/2022 5:37:52 PM U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Report 11/05/2022
Well Name: POKER LAKE UNIT 22 DTD	Well Location: T24S / R30E / SEC 22 / NWNW /	County or Parish/State:
Well Number: 151H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM068905	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001549869	Well Status: Approved Application for Permit to Drill	<b>Operator:</b> XTO PERMIAN OPERATING LLC

#### **Notice of Intent**

Sundry ID: 2697954

Type of Submission: Notice of Intent

Date Sundry Submitted: 10/13/2022

Date proposed operation will begin: 10/28/2022

Type of Action: APD Change Time Sundry Submitted: 08:42 6

**Procedure Description:** \*\* Bottom Hole Location Change, First and Last Take Point Changes and Casing/Cement Changes XTO Permian Operating, LLC requests permission to make the following changes to the original APD: No Additional Surface Disturbance Change BHL fr/200'FNL & 534'FWL to 50'FNL & 330'FWL, Section 3-T24S-R30E Change FTP fr/100'FNL & 447'FWL to 100'FSL & 330'FWL Change LTP fr/330'FNL & 533'FWL to 100'FNL & 330'FWL Casing/Cement changes per the attached drilling program. Attachments: C102 Drilling Program Directional Plan

**NOI Attachments** 

**Procedure Description** 

PLU\_22\_DTD\_151H\_Attachments\_20221013084109.pdf

Received by OCD: 11/6/2022 5:37:52 PM Well Name: POKER LAKE UNIT 22 DTD	Well Location: T24S / R30E / SEC 22 / NWNW /	County or Parish/State: Page 2 of 26
Well Number: 151H	<b>Type of Well:</b> CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM068905	Unit or CA Name:	Unit or CA Number:
<b>US Well Number:</b> 3001549869	Well Status: Approved Application for Permit to Drill	<b>Operator:</b> XTO PERMIAN OPERATING LLC

#### 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: JESSICA DOOLING** 

Signed on: OCT 13, 2022 08:41 AM

Name: XTO PERMIAN OPERATING LLC

Title: Lead Regulatory Coordinator

Street Address: 6401 HOLIDAY HILL ROAD BLDG 5

City: MIDLAND

State: TX

Phone: (970) 769-6048

Email address: JESSICA.DOOLING@EXXONMOBIL.COM

Field

Representative Name: Street Address: City: State: Phone: Email address:

## **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: 11/04/2022

Zip:

## 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 <sup>3</sup> Pool Name <sup>1</sup> API Number <sup>2</sup> Pool Code 30-015- 49869 98220 Purple Sage; Wolfcamp <sup>4</sup> Property Code <sup>5</sup> Property Name <sup>6</sup> Well Number POKER LAKE UNIT 22 DTD 151H <sup>8</sup> Operator Name 7 OGRID No. <sup>9</sup> Elevation 373075 **XTO PERMIAN OPERATING, LLC** 3.404 <sup>10</sup> Surface Location UL or lot no. Feet from the North/South line Feet from the East/West line Section Township Range Lot Idn County D 22 24 S 30 E 1,106 NORTH 575 WEST EDDY <sup>11</sup> Bottom Hole Location If Different From Surface UL or lot no. Feet from the North/South line East/West line Section Township Range Lot Idn Feet from the County NORTH 330 WEST 4 3 23 S 30 E 50 EDDY <sup>12</sup> Dedicated Acres <sup>13</sup> Joint or Infill 14 Consolidation Code 15 Order No. 961.04

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.

SHL (NAD83 NME)         LTP (NAD83 NME)         SEC.         B.H.L.         SEC.         34           Y =         439,512.4         Y =         456,362.6         33         T23S         R30E           X =         682,869.1         X =         682,562.2         33         I         N         T23S         R30E	<sup>17</sup> OPERATOR CERTIFICATION
X = 439,512.4 $Y = 456,362.6X = 682,869.1$ $X = 682,562.2$ <b>33 T23S R30E</b>	
	I hereby certify that the information contained herein is true and complete
	to the best of my knowledge and belief, and that this organization either
LAT. = 32.207468 °N LAT. = 32.253790 °N	to the best of my knowledge and bettef, and that this of gamzanon either
	owns a working interest or unleased mineral interest in the land including
FTP (NAD83 NME) BHL (NAD83 NME) SECTION 3 LOT 4	the proposed bottom hole location or has a right to drill this well at this
Y = 440,715.5 Y = 456,412.6 LOT 4 - 40.52 ACRES +	the proposed bollom note location of has a right to ariti this well at this
X = 682,620.3 X = 682,562.0 SEC.	location pursuant to a contract with an owner of such a mineral or working
LAT. = 32.210779 °N LAT. = 32.253928 °N 3	
LONG. = 103.876519 °W LONG. = 103.876492 °W	interest, or to a voluntary pooling agreement or a compulsory pooling
CORNER COORDINATES (NAD83 NME) $A = V = 4000$ G11 6 N $X = 682,290.6$ F SEC.	order heretofore entered by the division.
B-Y= 443,252.8 N , X = 682,283.6 E <b>4</b>	Jessica Booling 10/7/2022 Ognature Date
C-Y= 445,888.8 N , X= 682,284.9 E D-Y= 448,536.7 N Y= 682,273.7 E GRID AZ.=359°47'13" /	Justica Dooling 10/112022
D-Y= 445,526.7 N , X= 682,273.7 E GRUPAC3.53 + 10	Signature Date
E - Y = 451,165.1  N, $X = 682,261.6  E$	-
F - Y = 453,803.1 N , X = 682,246.7 E	Jessica Dooling
G - Y = 456,460.5 N , X = 682,231.7 E E L	
H - Y = 440,627.5 N , X = 683,628.8 E I - Y = 443,268.4 N , X = 683,623.8 E	Printed Name
	_
J - Y = 445,903.9 N , X = 683,623.0 E	jessica.dooling@exxonmobil.com
L - Y = 451, 78.3  N $X = 663, 598.6  E$ SEC.	E-mail Address
<b>9</b>	E-man Address
SHL (NAD27 NME)         LTP (NAD27 NME)           Y =         439.453.2         Y =         456.302.9	18SURVEYOR CERTIFICATION
1 - 439,433.2 1 - 430,302.9 X = 641,685.3 X = 641,379.0	
LAT = 32.207344 *N LAT = 32.253666 *N	I hereby certify that the well location shown on this
LONG = 103.875244 "W LONG = 103.876003 "W	plat was plotted from field notes of actual surveys
FTP (NAD27 MME) BHL (NAD27 MME)	piai was pioliea from fiela noles of actual surveys
Y = 440,656,3 Y = 456,332.9	made by me or under my supervision, and that the
X = 641,436.6 $X = 641,378.7$	made by me of under my supervision, and that the
A = 041,450.0 $A = 041,376.7LAT_{1} = 32,20654 "N LAT_{1} = 32,25380.3 "N$	same is true and correct to the best of my belief.
LONG = 103.876032 *W LONG = 103.87603 *W	same is the and correct to the best of my bellef.
	09-06-2022 Date of Survey Signatue and Seal of
A - Y = 440,552.8 N $X = 641,106.8$ E SEC. SEC.	09-06-2022
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Date of Survey
	MEXI NO
C - Y = 445,829.4 N , X = 641,101.3 E + B	Date of Survey Signatue and Seal of
E-Y= 451,105.6 N , X= 641,078.2 E	Professional Surveyor:
F - Y = 453,743.5 N . X = 641,063.4 E	
G-Y= 456,400.8 N , X= 641,048.5 E H-Y= 440,568.4 N , X= 642,445.1 E F.T.P.	
1-Y= 443,209.2 N , X = 642,440.2 E	
	MARK DILLON HARP 23786
K - Y = 448.481.7 N X = $642.427.6$ E A A A A A A A A A A A A A A A A A A	
K-Y= 448,481.7 N , X= 642,427.6 E L-Y= 451,118.9 N , X= 642,415.3 E SEC. HORIZ. DIST.=1,228.58	S'SION SUR
M-Y = 453,755.8 N , X = 642,400.3 E 21 575' - SEC.	MARK DILLON HARP 23786
N-Y = 456,409.5 N , X = 642,385.3 E	Certificate Number AW 2019051464
	Continent Transer Aw 2019051404

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

XTO Energy Inc. PLU 22 Dog Town Draw 151H Projected TD: 26965' MD / 11348' TVD SHL: 1106' FNL & 575' FWL , Section 22, T24S, R30E BHL: 50' FNL & 330' FWL , Section 3, T23S, R30E Eddy County, NM

#### 1. Geologic Name of Surface Formation

Ā. Quaternary

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	707'	Water
Top of Salt	1066'	Water
Base of Salt	3730'	Water
Delaware	3950'	Water
Brushy Canyon	6187'	Water/Oil/Gas
Bone Spring	7752'	Water
1st Bone Spring Ss	8705'	Water/Oil/Gas
2nd Bone Spring Ss	9562'	Water/Oil/Gas
3rd Bone Spring Ss	10644'	Water/Oil/Gas
Wolfcamp	11029'	Water/Oil/Gas
Wolfcamp X	11051'	Water/Oil/Gas
Wolfcamp Y	11133'	Water/Oil/Gas
Wolfcamp A	11175'	Water/Oil/Gas
Wolfcamp B	11582'	Water/Oil/Gas
Target/Land Curve	11349'	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 9.625 inch casing @ 807' (259' 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 10659' and cemented to surface. A 6.75 inch curve and 6.75 inch lateral hole will be drilled to 26965 MD/TD and 5.5 inch production casing will be set at TD and cemented back up in the intermediate shoe (estimated TOC 10359 feet).

#### 3. Casing Design

Hole Size	Depth	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
12.25	0' – 807'	9.625	40	J-55	BTC	New	1.30	7.04	19.52
8.75	0' – 4000'	7.625	29.7	RY P-110	Flush Joint	New	2.21	2.65	1.76
8.75	4000' – 10659'	7.625	29.7	HC L-80	Flush Joint	New	1.60	1.88	2.05
6.75	0' – 10559'	5.5	23	RY P-110	Semi-Premium	New	1.21	2.30	1.70
6.75	10559' - 26965'	5.5	23	RY P-110	Semi-Flush	New	1.21	2.14	1.84

 $\cdot$  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

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

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

#### Wellhead:

- Permanent Wellhead Multibowl System A. Starting Head: 11" 10M top flange x 9-5/8" bottom B. Tubing Head: 11" 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

#### Surface Casing: 9.625, 40 New BTC, J-55 casing to be set at +/- 807'

Lead: 160 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 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 +/- 10659'1st StageOptional Lead: 330 sxs Class C (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)TOC: SurfaceTail: 410 sxs Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)TOC: Brushy Canyon @ 6187Compressives:12-hr =900 psi24 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: 700 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 (6187') 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 include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

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 +/- 26965'

Lead: 20 sxs NeoCem (	mixed at 11.5 p	og, 2.69 ft3/sx, <sup>-</sup>	15.00 gal/sx water) Top of Cement:	10359 feet
Tail: 1150 sxs VersaCe	m (mixed at 13.2	2 ppg, 1.51 ft3/s	x, 8.38 gal/sx water) Top of Cement:	10859 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 9.625 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 4290 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 9.625, 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		MW	Viscosity	Fluid Loss
INTERVAL		Mud Type	(ppg)	(sec/qt)	(cc)
0' - 807'	12.25	FW/Native	8.7-9.2	35-40	NC
807' - 10659'	8.75	FW / Cut Brine / Direct Emulsion	9.7-10.2	30-32	NC
10659' - 26965'	6.75	OBM	11.5-12	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 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 9.625 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 175 to 195 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 6786 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.

# **Delaware Basin Asset (Plans)**

Eddy County PLU 22 DTD 151H

OH

Plan: Plan 1

# **Standard Planning Report**

28 September, 2022

#### Planning Report

	Page	<i>10</i>	of	<sup>c</sup> 26
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Database: Company: Project: Site: Well: Wellbore: Design:		Eddy C PLU 22 151H OH Plan 1	re Basin Asse ounty DTD			TVD Refe MD Refer North Ref Survey Ca	ence: erence: alculation Met		Well 151H RKB 32 @ 3436 RKB 32 @ 3436 Grid Minimum Curvat	.0usft (X34)	
Project		-	-			rojects in Eddy	-				
Map System: Geo Datum: Map Zone:	1	NAD 1927	Plane 1927 (E ′ (NADCON C co East 3001		n)	System Da	tum:	M	ean Sea Level		
Site		PLU 22 I	DTD								
Site Position: From: Position Uncer	tainty:	Мар	0.	Eas	thing: sting: t Radius:		,453.20 usft ,685.30 usft 13-3/16 "	Latitude: Longitude: Grid Converg	gence:		32° 12' 26.439 N 103° 52' 30.880 W 0.24
Well		151H									
Well Position		+N/-S			Northing:		439,453.20		itude:		32° 12' 26.439 M
Position Uncer	tainty	+E/-W			Easting: Wellhead Eleva	ition:	641,685.30		ngitude: ound Level:		103° 52' 30.880 V 3,404.0 us
Wellbore		OH									
Magnetics		Mod	el Name	Sam	ple Date	Declina (°)	ation	•	Angle °)	Field Str (nT	-
			IGRF2020		9/28/2022	()	6.53		, 59.80		, 8.70961248
Design		Plan 1									
Audit Notes:											
Version:				Ph	ase:	PROTOTYPE	Tie	e On Depth:		0.0	
Vertical Section	n:		C	epth From (usft)	(TVD)	+N/-S (usft)		E/-W Isft)		ection (°)	
				0.0		0.0		).0		8.96	
Plan Survey To Depth Fr (usft) 1	om	Depth (usft	То	9/28/2022 <b>(Wellbore)</b> (OH)		Tool Name XOMR2_OWS OWSG MWD					
Plan Sections											
Measured Depth (usft)	Inclin: (°		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	
3,800.0		0.00	0.00	3,800.0			0.00	0.00		0.00	
5,016.8 6,762.7		24.34 24.34	348.32 348.32	4,980.5 6,571.3			2.00 0.00	2.00 0.00		348.32 0.00	
7,979.4		0.00	0.00	7,751.8		-248.7	2.00	-2.00		180.00	
10,859.4		0.00	0.00	10,631.8		-248.7	0.00	0.00		0.00	
		00.00	250 70	11,348.0	1,919.3	-251.3	0.00	0.00	0.00	359.79	
11,984.4		90.00	359.79	11,340.0	J 1,919.5	-201.0	8.00	8.00	-0.02	559.19	
11,984.4 26,914.9 26,965.0		90.00 90.00 90.00	359.79 359.79 359.79	11,348.0 11,348.0 11,348.0	16,849.7	-306.3	0.00 0.00	0.00 0.00	0.00		ГР 151H

9/28/2022 10:21:04AM

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1		

Planned Survey

$\left( \begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c cccc} 0.00 & 0.00 \\ 0.00$	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
$\left \begin{array}{cccccccccccccccccccccccccccccccccccc$	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
200.0         0.00         0.00         200.0         0.0         0.0         0.0           300.0         0.00         0.00         300.0         0.0         0.0         0.0           400.0         0.00         0.00         400.0         0.0         0.0         0.0           500.0         0.00         0.00         500.0         0.0         0.0         0.0           600.0         0.00         0.00         600.0         0.0         0.0         0.0           700.0         0.00         0.00         700.0         0.0         0.0         0.0           800.0         0.00         0.00         800.0         0.0         0.0         0.0           900.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,300.0         0.0         0.	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
300.0         0.00         0.00         300.0         0.0         0.0         0.0           400.0         0.00         0.00         400.0         0.0         0.0         0.0           500.0         0.00         0.00         500.0         0.0         0.0         0.0           600.0         0.00         0.00         600.0         0.0         0.0         0.0           700.0         0.00         0.00         700.0         0.0         0.0         0.0           700.0         0.00         0.00         700.0         0.0         0.0         0.0           800.0         0.00         0.00         800.0         0.0         0.0         0.0           900.0         0.00         0.00         900.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,300.0         0.0         0.0<	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
600.0         0.00         0.00         600.0         0.0         0.0         0.0           700.0         0.00         0.00         700.0         0.0         0.0         0.0           800.0         0.00         0.00         800.0         0.0         0.0         0.0           900.0         0.00         0.00         900.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,100.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,300.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,400.0         0.0         0.0         0.0	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00 0.00
700.0         0.00         0.00         700.0         0.0         0.0         0.0           800.0         0.00         0.00         800.0         0.0         0.0         0.0           900.0         0.00         0.00         900.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,100.0         0.00         0.00         1,100.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,300.0         0.0         0.0         0.0           1,400.0         0.00         0.00         1,400.0         0.0         0.0         0.0	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00 0.00
800.0         0.00         0.00         800.0         0.0         0.0         0.0           900.0         0.00         0.00         900.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,100.0         0.00         0.00         1,100.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,300.0         0.0         0.0         0.0           1,400.0         0.00         0.00         1,400.0         0.0         0.0         0.0	0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00           0.00         0.00	0.00 0.00 0.00 0.00
900.0         0.00         0.00         900.0         0.0         0.0         0.0           1,000.0         0.00         0.00         1,000.0         0.0         0.0         0.0           1,100.0         0.00         0.00         1,100.0         0.0         0.0         0.0           1,200.0         0.00         0.00         1,200.0         0.0         0.0         0.0           1,300.0         0.00         0.00         1,300.0         0.0         0.0         0.0           1,400.0         0.00         0.00         1,400.0         0.0         0.0         0.0	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
1,000.00.000.001,000.00.00.00.01,100.00.000.001,100.00.00.00.01,200.00.000.001,200.00.00.00.01,300.00.000.001,300.00.00.00.01,400.00.000.001,400.00.00.00.0	0.000.000.000.000.000.000.000.00	0.00 0.00
1,100.00.000.001,100.00.00.00.01,200.00.000.001,200.00.00.00.01,300.00.000.001,300.00.00.00.01,400.00.000.001,400.00.00.00.0	0.000.000.000.000.000.00	0.00
1,200.00.000.001,200.00.00.00.01,300.00.000.001,300.00.00.00.01,400.00.000.001,400.00.00.00.0	0.00 0.00 0.00 0.00	
1,300.00.000.001,300.00.00.00.01,400.00.000.001,400.00.00.00.0	0.00 0.00	
1,400.0 0.00 0.00 1,400.0 0.0 0.0 0.0		
	0.00	0.00 0.00
1,500.0 0.00 1,500.0 0.0 0.0 0.0	0.00 0.00	0.00
1,600.0 0.00 1,600.0 0.0 0.0 0.0	0.00 0.00	0.00
1,700.0 0.00 1,700.0 0.0 0.0 0.0	0.00 0.00	0.00
1,800.0 0.00 1,800.0 0.0 0.0 0.0 0.0	0.00 0.00	0.00
1,900.0 0.00 0.00 1,900.0 0.0 0.0 0.0	0.00 0.00	0.00
2,000.0 0.00 0.00 2,000.0 0.0 0.0 0.0	0.00 0.00	0.00
2,100.0 0.00 0.00 2,100.0 0.0 0.0 0.0	0.00 0.00	0.00
2,200.0 0.00 0.00 2,200.0 0.0 0.0 0.0	0.00 0.00	0.00
2,300.0 0.00 0.00 2,300.0 0.0 0.0 0.0	0.00 0.00	0.00
2,400.0 0.00 0.00 2,400.0 0.0 0.0 0.0	0.00 0.00	0.00
2,500.0 0.00 2,500.0 0.0 0.0 0.0	0.00 0.00	0.00
2,600.0 0.00 2,600.0 0.0 0.0 0.0	0.00 0.00	0.00
2,700.0 0.00 2,700.0 0.0 0.0 0.0	0.00 0.00	0.00
2,800.0 0.00 2,800.0 0.0 0.0 0.0	0.00 0.00	0.00
2,900.0 0.00 0.00 2,900.0 0.0 0.0 0.0	0.00 0.00	0.00
3,000.0 0.00 0.00 3,000.0 0.0 0.0 0.0	0.00 0.00	0.00
3,100.0 0.00 3,100.0 0.0 0.0 0.0	0.00 0.00	0.00
3,200.0 0.00 0.00 3,200.0 0.0 0.0 0.0	0.00 0.00	0.00
3,300.0 0.00 0.00 3,300.0 0.0 0.0 0.0	0.00 0.00	0.00
3,400.0 0.00 0.00 3,400.0 0.0 0.0 0.0	0.00 0.00	0.00
3,500.0 0.00 0.00 3,500.0 0.0 0.0 0.0	0.00 0.00	0.00
3,600.0 0.00 0.00 3,600.0 0.0 0.0 0.0	0.00 0.00	0.00
3,700.0 0.00 0.00 3,700.0 0.0 0.0 0.0	0.00 0.00	0.00
3,800.0 0.00 0.00 3,800.0 0.0 0.0 0.0	0.00 0.00	0.00
3,900.0 2.00 348.32 3,900.0 1.7 -0.4 1.7	2.00 2.00	0.00
4,000.0 4.00 348.32 3,999.8 6.8 -1.4 6.9	2.00 2.00	0.00
4,100.0 6.00 348.32 4,099.5 15.4 -3.2 15.4	2.00 2.00	0.00
4,200.0 8.00 348.32 4,198.7 27.3 -5.6 27.4	2.00 2.00	0.00
4,300.0 10.00 348.32 4,297.5 42.6 -8.8 42.8	2.00 2.00	0.00
4,400.0 12.00 348.32 4,395.6 61.3 -12.7 61.5	2.00 2.00	0.00
4,500.0 14.00 348.32 4,493.1 83.3 -17.2 83.6	2.00 2.00	0.00
4,600.0 16.00 348.32 4,589.6 108.7 -22.5 109.1	2.00 2.00	0.00
4,700.0 18.00 348.32 4,685.3 137.3 -28.4 137.8	2.00 2.00	0.00
4,800.0         20.00         348.32         4,779.8         169.2         -35.0         169.8	2.00 2.00	0.00
4,900.0 22.00 348.32 4,873.2 204.3 -42.2 205.0	2.00 2.00	0.00
5,000.0 24.00 348.32 4,965.2 242.5 -50.1 243.4	2.00 2.00	0.00
5,016.8 24.34 348.32 4,980.5 249.3 -51.5 250.2	2.00 2.00	0.00
5,100.0 24.34 348.32 5,056.3 282.9 -58.5 283.9	0.00 0.00	0.00
5,200.0 24.34 348.32 5,147.5 323.2 -66.8 324.4	0.00 0.00	0.00

9/28/2022 10:21:04AM

Released to Imaging: 11/10/2022 8:00:10 AM

COMPASS 5000.14 Build 83

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Desian:	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)
5,300.0	24.34	348.32	5,238.6	363.6	-75.2	364.9	0.00	0.00	0.00
5,400.0	24.34	348.32	5,329.7	403.9	-83.5	405.4	0.00	0.00	0.00
5,500.0	24.34	348.32	5,420.8	444.3	-91.8	445.9	0.00	0.00	0.00
5,600.0	24.34	348.32	5,511.9	484.6	-100.2	486.4	0.00	0.00	0.00
5,700.0	24.34	348.32	5,603.0	525.0	-108.5	526.9	0.00	0.00	0.00
5,800.0	24.34	348.32	5,694.2	565.3	-116.9	567.4	0.00	0.00	0.00
5,900.0	24.34	348.32	5,785.3	605.7	-125.2	607.9	0.00	0.00	0.00
6,000.0	24.34	348.32	5,876.4	646.1	-133.5	648.4	0.00	0.00	0.00
6,100.0	24.34	348.32	5,967.5	686.4	-141.9	688.9	0.00	0.00	0.00
6,200.0	24.34	348.32	6,058.6	726.8	-150.2	729.4	0.00	0.00	0.00
6,300.0	24.34	348.32	6,149.7	767.1	-158.6	769.9	0.00	0.00	0.00
6,400.0	24.34	348.32	6,240.8	807.5	-166.9	810.4	0.00	0.00	0.00
6,500.0	24.34	348.32	6,332.0	847.8	-175.3	850.9	0.00	0.00	0.00
6,600.0	24.34	348.32	6,423.1	888.2	-183.6	891.4	0.00	0.00	0.00
6,700.0	24.34	348.32	6,514.2	928.5	-191.9	931.9	0.00	0.00	0.00
6,762.7	24.34	348.32	6,571.3	953.8	-197.2	957.2	0.00	0.00	0.00
6,800.0	23.59	348.32	6,605.4	968.7	-200.2	972.1	2.00	-2.00	0.00
6,900.0	21.59	348.32	6,697.7	1,006.3	-208.0	1,009.9	2.00	-2.00	0.00
7,000.0	19.59	348.32	6,791.3	1,040.7	-215.1	1,044.5	2.00	-2.00	0.00
7,100.0	17.59	348.32	6,886.1	1,071.9	-221.6	1,075.8	2.00	-2.00	0.00
7,200.0	15.59	348.32	6,981.9	1,099.9	-227.4	1,103.8	2.00	-2.00	0.00
7,300.0	13.59	348.32	7,078.7	1,124.6	-232.5	1,128.6	2.00	-2.00	0.00
7,300.0	11.59	348.32	7,176.3	1,124.0	-232.5	1,120.0	2.00	-2.00	0.00
7,500.0	9.59	348.32	7,170.5	1,163.9	-240.6	1,168.1	2.00	-2.00	0.00
7,600.0	7.59	348.32	7,373.5	1,178.5	-243.6	1,182.8	2.00	-2.00	0.00
7,700.0	5.59	348.32	7,472.8	1,189.8	-245.9	1,194.0	2.00	-2.00	0.00
7,800.0	3.59	348.32 348.32	7,572.5	1,197.6	-247.6 -248.5	1,201.9	2.00 2.00	-2.00	0.00 0.00
7,900.0	1.59		7,672.4	1,202.0		1,206.3		-2.00	
7,979.4 8,000.0	0.00 0.00	0.00 0.00	7,751.8 7,772.4	1,203.1 1,203.1	-248.7 -248.7	1,207.4 1,207.4	2.00 0.00	-2.00 0.00	0.00 0.00
8,100.0	0.00	0.00	7,872.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,200.0	0.00	0.00	7,972.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,300.0	0.00	0.00	8,072.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,400.0	0.00	0.00	8,172.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,500.0	0.00	0.00	8,272.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,600.0	0.00	0.00	8,372.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,700.0	0.00	0.00	8,472.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,800.0	0.00	0.00	8,572.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
8,900.0	0.00	0.00	8,672.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,000.0	0.00	0.00	8,772.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,100.0	0.00	0.00	8,872.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,200.0	0.00	0.00	8,972.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,300.0	0.00	0.00	9,072.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,400.0	0.00	0.00	9,172.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,500.0	0.00	0.00	9,272.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,600.0	0.00	0.00	9,372.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9.700.0	0.00	0.00	9,472.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,700.0 9,800.0	0.00	0.00	9,472.4 9,572.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
9,800.0 9,900.0	0.00	0.00	9,672.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,000.0	0.00	0.00	9,772.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,000.0	0.00	0.00	9,872.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,200.0	0.00	0.00	9,972.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,300.0	0.00	0.00	10,072.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,400.0	0.00	0.00	10,172.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00

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COMPASS 5000.14 Build 83

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	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)
10,500.0	0.00	0.00	10,272.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,600.0	0.00	0.00	10,372.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10.700.0	0.00	0.00	10.472.4		040.7	1.207.4	0.00	0.00	0.00
-,	0.00	0.00	- ,	1,203.1	-248.7	, -	0.00	0.00	0.00
10,800.0	0.00	0.00	10,572.4	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,859.4	0.00	0.00	10,631.8	1,203.1	-248.7	1,207.4	0.00	0.00	0.00
10,900.0	3.24	359.79	10,672.3	1,204.2	-248.7	1,208.6	8.00	8.00	0.00
11,000.0	11.24	359.79	10,771.5	1,216.8	-248.8	1,221.2	8.00	8.00	0.00
11,100.0	19.24	359.79	10,867.9	1,243.1	-248.8	1,247.4	8.00	8.00	0.00
11,200.0	27.24	359.79	10,959.7	1,282.6	-249.0	1,286.9	8.00	8.00	0.00
11,300.0	35.24	359.79	11,045.1	1,334.4	-249.2	1,338.7	8.00	8.00	0.00
11,400.0	43.24	359.79	11,122.5	1,397.6	-249.4	1,401.9	8.00	8.00	0.00
11,500.0	51.24	359.79	11,190.3	1,471.0	-249.7	1,475.2	8.00	8.00	0.00
11,600.0	59.24	359.79	11,247.3	1,553.1	-250.0	1,557.3	8.00	8.00	0.00
11,700.0	67.24	359.79	11,292.3	1,642.3	-250.3	1,646.5	8.00	8.00	0.00
11,800.0	75.24	359.79	11,324.4	1,736.9	-250.7	1,741.1	8.00	8.00	0.00
11,900.0	83.24	359.79	11,343.0	1,835.0	-251.0	1,839.3	8.00	8.00	0.00
11,984.4	90.00	359.79	11,348.0	1,919.3	-251.3	1,923.5	8.00	8.00	0.00
12,000.0	90.00	359.79	11,348.0	1,934.9	-251.4	1,939.1	0.00	0.00	0.00
12,100.0	90.00	359.79	11,348.0	2,034.9	-251.8	2,039.1	0.00	0.00	0.00
12,200.0	90.00	359.79	11,348.0	2,134.9	-252.1	2,139.1	0.00	0.00	0.00
12,300.0	90.00	359.79	11,348.0	2,234.8	-252.5	2,239.1	0.00	0.00	0.00
12,400.0	90.00	359.79	11,348.0	2,334.8	-252.9	2,339.1	0.00	0.00	0.00
12,500.0	90.00	359.79	11,348.0	2,434.8	-253.2	2,439.0	0.00	0.00	0.00
12,600.0	90.00	359.79	11,348.0	2,534.8	-253.6	2,539.0	0.00	0.00	0.00
12,700.0	90.00	359.79	11,348.0	2,634.8	-254.0	2,639.0	0.00	0.00	0.00
12,800.0	90.00	359.79	11,348.0	2,734.8	-254.3	2,739.0	0.00	0.00	0.00
12,900.0	90.00	359.79	11,348.0	2,834.8	-254.7	2,839.0	0.00	0.00	0.00
13,000.0	90.00	359.79	11,348.0	2,934.8	-255.1	2,939.0	0.00	0.00	0.00
13,100.0	90.00	359.79	11,348.0	3,034.8	-255.4	3,039.0	0.00	0.00	0.00
13,200.0	90.00	359.79	11,348.0	3,134.8	-255.8	3,139.0	0.00	0.00	0.00
13,300.0	90.00	359.79	11,348.0	3,234.8	-256.2	3,239.0	0.00	0.00	0.00
13,400.0	90.00	359.79	11,348.0	3,334.8	-256.5	3,338.9	0.00	0.00	0.00
	00.00	250 70	11 240 0		050.0	2 420 0		0.00	0.00
13,500.0	90.00	359.79	11,348.0	3,434.8	-256.9	3,438.9	0.00	0.00	0.00
13,600.0	90.00	359.79	11,348.0	3,534.8	-257.3	3,538.9	0.00	0.00	0.00
13,700.0	90.00	359.79	11,348.0	3,634.8	-257.7	3,638.9	0.00	0.00	0.00
13,800.0	90.00	359.79	11,348.0	3,734.8	-258.0	3,738.9	0.00	0.00	0.00
13,900.0	90.00	359.79	11,348.0	3,834.8	-258.4	3,838.9	0.00	0.00	0.00
14,000.0	90.00	359.79	11,348.0	3,934.8	-258.8	3,938.9	0.00	0.00	0.00
14,100.0	90.00	359.79	11,348.0	4,034.8	-259.1	4,038.9	0.00	0.00	0.00
14,200.0	90.00	359.79	11,348.0	4,134.8	-259.5	4,138.9	0.00	0.00	0.00
14,300.0	90.00	359.79	11,348.0	4,234.8	-259.9	4,238.9	0.00	0.00	0.00
14,400.0	90.00	359.79	11,348.0	4,334.8	-260.2	4,338.8	0.00	0.00	0.00
14,500.0	90.00	359.79	11,348.0	4,434.8	-260.6	4,438.8	0.00	0.00	0.00
14,600.0	90.00	359.79 359.79	11,348.0	4,434.8 4,534.8	-260.6	4,430.0 4,538.8	0.00	0.00	0.00
14,600.0		359.79 359.79	11,348.0			4,538.8 4,638.8			
	90.00			4,634.8	-261.3		0.00	0.00	0.00
14,800.0	90.00	359.79 359.79	11,348.0	4,734.8	-261.7	4,738.8	0.00	0.00	0.00
14,900.0	90.00	229.19	11,348.0	4,834.8	-262.1	4,838.8	0.00	0.00	0.00
15,000.0	90.00	359.79	11,348.0	4,934.8	-262.4	4,938.8	0.00	0.00	0.00
15,100.0	90.00	359.79	11,348.0	5,034.8	-262.8	5,038.8	0.00	0.00	0.00
15,200.0	90.00	359.79	11,348.0	5,134.8	-263.2	5,138.8	0.00	0.00	0.00
15,300.0	90.00	359.79	11,348.0	5,234.8	-263.5	5,238.7	0.00	0.00	0.00
15,400.0	90.00	359.79	11,348.0	5,334.8	-263.9	5,338.7	0.00	0.00	0.00
15,500.0	90.00	359.79	11,348.0	5,434.8	-264.3	5,438.7	0.00	0.00	0.00
15,600.0	90.00	359.79 359.79	11,348.0	5,434.8 5,534.8	-264.3 -264.6	5,436.7 5,538.7	0.00	0.00	0.00

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COMPASS 5000.14 Build 83

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	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)
15,700.0	90.00	359.79	11,348.0	5,634.8	-265.0	5,638.7	0.00	0.00	0.00
15,800.0	90.00	359.79	11,348.0	5,734.8	-265.4	5,738.7	0.00	0.00	0.00
15,900.0	90.00	359.79	11,348.0	5,834.8	-265.8	5,838.7	0.00	0.00	0.00
16,000.0	90.00	359.79	11,348.0	5,934.8	-266.1	5,938.7	0.00	0.00	0.00
16,100.0	90.00	359.79	11,348.0	6,034.8	-266.5	6,038.7	0.00	0.00	0.00
16,200.0	90.00	359.79	11,348.0	6,134.8	-266.9	6,138.7	0.00	0.00	0.00
16,300.0	90.00	359.79	11,348.0	6,234.8	-267.2	6,238.6	0.00	0.00	0.00
16,400.0	90.00	359.79	11,348.0	6,334.8	-267.6	6,338.6	0.00	0.00	0.00
16,500.0	90.00	359.79	11,348.0	6,434.8	-268.0	6,438.6	0.00	0.00	0.00
16,600.0	90.00	359.79	11,348.0	6,534.8	-268.3	6,538.6	0.00	0.00	0.00
16,700.0	90.00	359.79	11,348.0	6,634.8	-268.7	6,638.6	0.00	0.00	0.00
16,800.0	90.00	359.79	11,348.0	6,734.8	-269.1	6,738.6	0.00	0.00	0.00
16,900.0	90.00	359.79	11,348.0	6,834.8	-269.4	6,838.6	0.00	0.00	0.00
17,000.0	90.00	359.79	11,348.0	6,934.8	-269.8	6,938.6	0.00	0.00	0.00
17,100.0	90.00	359.79	11,348.0	7,034.8	-270.2	7,038.6	0.00	0.00	0.00
17,200.0	90.00	359.79	11,348.0	7,134.8	-270.5	7,138.5	0.00	0.00	0.00
17,300.0	90.00	359.79	11,348.0	7,234.8	-270.9	7,238.5	0.00	0.00	0.00
17,400.0	90.00	359.79	11,348.0	7,334.8	-271.3	7,338.5	0.00	0.00	0.00
17,500.0	90.00	359.79	11,348.0	7,434.8	-271.6	7,438.5	0.00	0.00	0.00
17,600.0	90.00	359.79	11,348.0	7,534.8	-272.0	7,538.5	0.00	0.00	0.00
17,700.0	90.00	359.79	11,348.0	7,634.8	-272.4	7,638.5	0.00	0.00	0.00
17,800.0	90.00	359.79	11,348.0	7,734.8	-272.7	7,738.5	0.00	0.00	0.00
17,900.0	90.00	359.79	11,348.0	7,834.8	-273.1	7,838.5	0.00	0.00	0.00
18,000.0	90.00	359.79	11,348.0	7,934.8	-273.5	7,938.5	0.00	0.00	0.00
18,100.0	90.00	359.79	11,348.0	8,034.8	-273.8	8,038.5	0.00	0.00	0.00
18,200.0	90.00	359.79	11,348.0	8,134.8	-274.2	8,138.4	0.00	0.00	0.00
18,300.0	90.00	359.79	11,348.0	8,234.8	-274.6	8,238.4	0.00	0.00	0.00
18,400.0	90.00	359.79	11,348.0	8,334.8	-275.0	8,338.4	0.00	0.00	0.00
18,500.0	90.00	359.79	11,348.0	8,434.8	-275.3	8,438.4	0.00	0.00	0.00
18,600.0	90.00	359.79	11,348.0	8,534.8	-275.7	8,538.4	0.00	0.00	0.00
18,700.0	90.00	359.79	11,348.0	8,634.8	-276.1	8,638.4	0.00	0.00	0.00
18,800.0	90.00	359.79	11,348.0	8,734.8	-276.4	8,738.4	0.00	0.00	0.00
18,900.0	90.00	359.79	11,348.0	8,834.8	-276.8	8,838.4	0.00	0.00	0.00
19,000.0	90.00	359.79	11,348.0	8,934.8	-277.2	8,938.4	0.00	0.00	0.00
19,100.0	90.00	359.79	11,348.0	9,034.8	-277.5	9,038.4	0.00	0.00	0.00
19,200.0	90.00	359.79	11,348.0	9,134.8	-277.9	9,138.3	0.00	0.00	0.00
19,300.0	90.00	359.79	11,348.0	9,234.8	-278.3	9,238.3	0.00	0.00	0.00
19,400.0	90.00	359.79	11,348.0	9,334.8	-278.6	9,338.3	0.00	0.00	0.00
19,500.0	90.00	359.79	11,348.0	9,434.8	-279.0	9,438.3	0.00	0.00	0.00
19,600.0	90.00	359.79	11,348.0	9,534.8	-279.4	9,538.3	0.00	0.00	0.00
19,700.0	90.00	359.79	11,348.0	9,634.8	-279.7	9,638.3	0.00	0.00	0.00
19,800.0	90.00	359.79	11,348.0	9,734.8	-280.1	9,738.3	0.00	0.00	0.00
19,900.0	90.00	359.79	11,348.0	9,834.8	-280.5	9,838.3	0.00	0.00	0.00
20,000.0	90.00	359.79	11,348.0	9,934.8	-280.8	9,938.3	0.00	0.00	0.00
20,100.0	90.00	359.79	11,348.0	10,034.8	-281.2	10,038.2	0.00	0.00	0.00
20,200.0	90.00	359.79	11,348.0	10,134.8	-281.6	10,138.2	0.00	0.00	0.00
20,300.0	90.00	359.79	11,348.0	10,234.8	-281.9	10,238.2	0.00	0.00	0.00
20,400.0	90.00	359.79	11,348.0	10,334.8	-282.3	10,338.2	0.00	0.00	0.00
20,500.0	90.00	359.79	11,348.0	10,434.8	-282.7	10,438.2	0.00	0.00	0.00
20,600.0	90.00	359.79	11,348.0	10,534.8	-283.1	10,538.2	0.00	0.00	0.00
20,700.0	90.00	359.79	11,348.0	10,634.8	-283.4	10,638.2	0.00	0.00	0.00
00 000 0	90.00	359.79	11,348.0	10,734.8	-283.8	10,738.2	0.00	0.00	0.00
20,800.0									
20,800.0 20,900.0	90.00	359.79	11,348.0	10,834.8	-284.2	10,838.2	0.00	0.00	0.00

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Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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)
21,100.0		359.79	11,348.0	11,034.8	-284.9	11,038.1	0.00	0.00	0.00
21,200.0		359.79	11,348.0	11,134.8	-285.3	11,138.1	0.00	0.00	0.00
21,300.0		359.79	11,348.0	11,234.8	-285.6	11,238.1	0.00	0.00	0.00
21,300.0		359.79	11,348.0	11,334.8	-286.0	11,338.1	0.00	0.00	0.00
21,500.0		359.79	11,348.0	11,434.8	-286.4	11,438.1	0.00	0.00	0.00
21,600.0		359.79	11,348.0	11,534.8	-286.7	11,538.1	0.00	0.00	0.00
21,700.0	0 90.00	359.79	11,348.0	11,634.8	-287.1	11,638.1	0.00	0.00	0.00
21,800.0	0 90.00	359.79	11,348.0	11,734.8	-287.5	11,738.1	0.00	0.00	0.00
21,900.0		359.79	11,348.0	11,834.8	-287.8	11,838.1	0.00	0.00	0.00
22,000.0	0 90.00	359.79	11,348.0	11,934.8	-288.2	11,938.0	0.00	0.00	0.00
22,000.0		359.79	11,348.0	12,034.8	-288.6	12,038.0	0.00	0.00	0.00
22,100.0		359.79	11,348.0	12,134.8	-288.9	12,030.0	0.00	0.00	0.00
22,200.0		359.79	11,348.0	12,234.8	-289.3	12,138.0	0.00	0.00	0.00
22,300.0		359.79	11,348.0	12,334.8	-289.3	12,238.0	0.00	0.00	0.00
22,500.0		359.79	11,348.0	12,434.8	-290.0	12,438.0	0.00	0.00	0.00
22,600.0		359.79	11,348.0	12,534.8	-290.4	12,538.0	0.00	0.00	0.00
22,700.0		359.79	11,348.0	12,634.8	-290.8	12,638.0	0.00	0.00	0.00
22,800.0		359.79	11,348.0	12,734.8	-291.2	12,738.0	0.00	0.00	0.00
22,900.0	0 90.00	359.79	11,348.0	12,834.8	-291.5	12,838.0	0.00	0.00	0.00
23,000.0	0 90.00	359.79	11,348.0	12.934.8	-291.9	12,937.9	0.00	0.00	0.00
23,100.0		359.79	11,348.0	13,034.8	-292.3	13,037.9	0.00	0.00	0.00
23,200.0		359.79	11,348.0	13,134.8	-292.6	13,137.9	0.00	0.00	0.00
23,300.0		359.79	11,348.0	13,234.8	-293.0	13,137.9	0.00	0.00	0.00
23,400.0		359.79	11,348.0	13,334.8	-293.0	13,337.9	0.00	0.00	0.00
23,500.0		359.79	11,348.0	13,434.8	-293.7	13,437.9	0.00	0.00	0.00
23,600.0		359.79	11,348.0	13,534.8	-294.1	13,537.9	0.00	0.00	0.00
23,700.0		359.79	11,348.0	13,634.8	-294.5	13,637.9	0.00	0.00	0.00
23,800.0		359.79	11,348.0	13,734.8	-294.8	13,737.9	0.00	0.00	0.00
23,900.0	0 90.00	359.79	11,348.0	13,834.8	-295.2	13,837.8	0.00	0.00	0.00
24,000.0	0 90.00	359.79	11,348.0	13,934.8	-295.6	13,937.8	0.00	0.00	0.00
24,100.0		359.79	11,348.0	14,034.8	-295.9	14,037.8	0.00	0.00	0.00
24,200.0		359.79	11,348.0	14,134.8	-296.3	14,137.8	0.00	0.00	0.00
24,300.0		359.79	11,348.0	14,234.8	-296.7	14,237.8	0.00	0.00	0.00
24,400.0		359.79	11,348.0	14,334.8	-297.0	14,337.8	0.00	0.00	0.00
24,500.0		359.79	11,348.0	14,434.8	-297.4	14,437.8	0.00	0.00	0.00
24,600.0		359.79	11,348.0	14,534.8	-297.8	14,537.8	0.00	0.00	0.00
24,700.0		359.79	11,348.0	14,634.8	-298.1	14,637.8	0.00	0.00	0.00
24,800.0		359.79	11,348.0	14,734.8	-298.5	14,737.8	0.00	0.00	0.00
24,900.0	0 90.00	359.79	11,348.0	14,834.8	-298.9	14,837.7	0.00	0.00	0.00
25,000.0		359.79	11,348.0	14,934.8	-299.3	14,937.7	0.00	0.00	0.00
25,100.0	0 90.00	359.79	11,348.0	15,034.8	-299.6	15,037.7	0.00	0.00	0.00
25,200.0	0 90.00	359.79	11,348.0	15,134.8	-300.0	15,137.7	0.00	0.00	0.00
25,300.0		359.79	11,348.0	15,234.8	-300.4	15,237.7	0.00	0.00	0.00
25,400.0	0 90.00	359.79	11,348.0	15,334.8	-300.7	15,337.7	0.00	0.00	0.00
25,500.0	0 90.00	359.79	11,348.0	15,434.8	-301.1	15,437.7	0.00	0.00	0.00
25,600.0		359.79	11,348.0	15,434.8	-301.1	15,437.7	0.00	0.00	0.00
25,700.0		359.79	11,348.0	15,534.8	-301.5	15,537.7	0.00	0.00	0.00
25,800.0		359.79	11,348.0	15,734.8	-301.8	15,737.7	0.00	0.00	0.00
25,800.0		359.79	11,348.0	15,734.8	-302.2	15,837.6	0.00	0.00	0.00
26,000.0		359.79	11,348.0	15,934.8	-302.9	15,937.6	0.00	0.00	0.00
26,100.0		359.79	11,348.0	16,034.8	-303.3	16,037.6	0.00	0.00	0.00
26,200.0		359.79	11,348.0	16,134.8	-303.7	16,137.6	0.00	0.00	0.00
26,300.0		359.79	11,348.0	16,234.8	-304.0	16,237.6	0.00	0.00	0.00
26,400.0	0 90.00	359.79	11,348.0	16,334.8	-304.4	16,337.6	0.00	0.00	0.00
20,400.0		000.10	11,040.0	10,004.0	004.4	10,007.0	0.00	0.00	5.00

Released to Imaging: 11/10/2022 8:00:10 AM

#### Planning Report

Database:	LMRKPROD3	Local Co-ordinate Reference:	Well 151H
Company:	Delaware Basin Asset (Plans)	TVD Reference:	RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site:	PLU 22 DTD	North Reference:	Grid
Well:	151H	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)
26,500.0	90.00	359.79	11,348.0	16,434.8	-304.8	16,437.6	0.00	0.00	0.00
26,600.0	90.00	359.79	11,348.0	16,534.8	-305.1	16,537.6	0.00	0.00	0.00
26,700.0	90.00	359.79	11,348.0	16,634.8	-305.5	16,637.6	0.00	0.00	0.00
26,800.0	90.00	359.79	11,348.0	16,734.8	-305.9	16,737.5	0.00	0.00	0.00
26,900.0	90.00	359.79	11,348.0	16,834.8	-306.2	16,837.5	0.00	0.00	0.00
26,914.9	90.00	359.79	11,348.0	16,849.7	-306.3	16,852.5	0.00	0.00	0.00
26,965.0	90.00	359.79	11,348.0	16,899.7	-306.5	16,902.5	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
LTP 151H - plan hits target co - Point	0.00 enter	0.00	11,348.0	16,849.7	-306.3	456,302.90	641,379.00	32° 15' 13.197 N	103° 52' 33.610 W
FTP 151H - plan misses targe - Point	0.00 et center by 297	0.00 0usft at 114.	11,348.0 10.3usft MD	1,203.1 (11129.9 TVD	-248.7 , 1404.7 N, -2	440,656.30 49.4 E)	641,436.60	32° 12' 38.355 N	103° 52' 33.715 W
BHL 151H - plan misses targe - Point	0.00 et center by 0.1u	0.00 usft at 26965	11,348.0 .0usft MD (1 <sup>:</sup>	16,899.7 1348.0 TVD, 1	-306.6 6899.7 N, -30	456,352.90 6.5 E)	641,378.70	32° 15' 13.692 N	103° 52' 33.611 W

Released to Imaging: 11/10/2022 8:00:10 AM

Database: Company:	LMRKPROD3 Delaware Basin Asset (Plans)	Local Co-ordinate Reference: TVD Reference:	Well 151H RKB 32 @ 3436.0usft (X34)
Project:	Eddy County	MD Reference:	RKB 32 @ 3436.0usft (X34)
Site: Well:	PLU 22 DTD 151H	North Reference: Survey Calculation Method:	Grid Minimum Curvature
Wellbore:	ОН	Survey Calculation Method.	
Design:	Plan 1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
706.0	706.0	Rustler		()	
1,065.0	1,065.0	Top Salt			
3,729.0	3,729.0	Base Salt			
3,949.1	3,949.0	Delaware			
4,851.4	4,828.0	Cherry Canyon			
6,339.8	6,186.0	Brushy Canyon			
7,718.3	7,491.0	Basal Brushy Canyon			
7,978.6	7,751.0	Bone Spring			
8,003.6	7,776.0	Bone Spring Lime Fm			
8,100.6	7,873.0	Avalon Shale			
8,435.6	8,208.0	Avalon Lime			
8,582.6	8,355.0	Lower Avalon Shale			
8,765.6	8,538.0	1st Bone Spring Lime			
8,931.6	8,704.0	1st Bone Spring Ss			
9,328.6	9,101.0	2nd Bone Spring Lime			
9,788.6	9,561.0	2nd Bone Spring Ss			
9,843.6	9,616.0	2nd Bone Spring A Sand			
9,908.6	9,681.0	2nd Bone Spring T/B Carb			
10,010.6	9,783.0	2nd Bone Spring C Sand			
10,080.6	9,853.0	3rd Bone Spring Lm			
10,471.6	10,244.0	3rd Bone Spring Sh			
10,655.6	10,428.0	3rd Bone Spring Sh Base			
10,870.6	10,643.0	3rd Bone Spring Ss			
11,179.2	10,941.0	Red Hills SS			
11,279.3	11,028.0	Wolfcamp			
11,306.0	11,050.0	Wolfcamp X			
11,413.2	11,132.0	Wolfcamp Y			
11,474.5	11,174.0	Wolfcamp A			
11,853.2	11,336.0	Wolfcamp A Lower			
11,984.4	11,348.0	TD			
11,984.4	11,348.0	Landing Point			

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	XTO Permian Operating, LLC
LEASE NO.:	NMNM-068905
WELL NAME & NO.:	Poker Lake Unit 22 DTD 151H
SURFACE HOLE FOOTAGE:	1106' FNL & 0575' FWL
<b>BOTTOM HOLE FOOTAGE</b>	0200' FNL & 0534' FWL Sec. 03, T.24 S., R.30 E.
LOCATION:	Section 22, T.24 S., R.30 E., NMPM
	Eddy County, New Mexico

## COA

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

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Red Beds, Rustler, and Delaware. Abnormal pressure may be encountered in the 3rd Bone Spring and all subsequent formations.

## A. HYDROGEN SULFIDE

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

## **B.** CASING

- 1. The **9-5/8** inch surface casing shall be set at approximately **904** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of  $\underline{8}$ <u>hours</u> or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

- 2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
  - Cement as proposed. Report Echo meter results on subsequent sundry.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

## C. PRESSURE CONTROL

- Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
  - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

## **BOP Break Testing Variance**

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

## **D. SPECIAL REQUIREMENT (S)**

## **Unit Wells**

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

## **Commercial Well Determination**

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

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# GENERAL REQUIREMENTS

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

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

## A. CASING

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

## B. PRESSURE CONTROL

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

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

## C. DRILLING MUD

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

## D. WASTE MATERIAL AND FLUIDS

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

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

## JAM 03182022

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

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

District III

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

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

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

CONDITIONS

OGRID:
373075
Action Number:
156448
Action Type:
[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Crea	ated By	Condition	Condition Date
kp	ickford	NSL Will require an administrative order for	11/10/2022
kp	ickford	Adhere to previous NMOCD Conditions of Approval	11/10/2022

CONDITIONS

Action 156448