U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		Sundry Print Report 08/17/2023
(	Well Location: T23S / R32E / SEC 18 / LOT 1 /	County or Parish/State:
Well Number: 832H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM18848	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002551779	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

# **Notice of Intent**

Sundry ID: 2743204

Type of Submission: Notice of Intent

Date Sundry Submitted: 07/31/2023

Date proposed operation will begin: 07/27/2023

Type of Action: APD Change Time Sundry Submitted: 06:32

**Procedure Description:** Devon Energy Production Co., L.P. (Devon) respectfully requests to change the well name, SHL, BHL, and depth on the subject well. Please see attached revised C102, drill plan (break test variance included), and directional plan. Permitted Well name: PURRITO 18-19 FED COM 521H Proposed Well name: PURRITO 18-19 FED COM 832H Permitted SHL: LOT 1, 525 FNL, 560 FWL, 18-23S-32E Proposed SHL: LOT 1, 375 FNL, 635 FWL, 18-23S-32E Permitted BHL: LOT 4, 20 FSL, 400 FWL, 19-23S-32E Proposed BHL: LOT 4, 20 FSL, 1320 FWL, 19-23S-32E Permitted TVD/MD: 9160/19405 - SAND DUNES; BONE SPRING & SAND DUNES; BONE SPRING, SOUTH Proposed TVD/MD: 12110/22419 - WC-025 G-08 S243217P; UPR WOLFCAMP No new leases have been added since approved APD.

# **NOI Attachments**

#### **Procedure Description**

WA018348362\_PURRITO\_18\_19\_FED\_COM\_832H\_WL\_R1\_20230731062907.pdf

break\_test\_variance\_BOP\_20230727140317.pdf

Purrito\_18\_19\_Fed\_Com\_832H\_Directional\_Plan\_07\_10\_23\_20230727140318.pdf

10.750\_40.50lb\_0.350\_J55\_USS\_20230727140316.PDF

Purrito\_18\_19\_Fed\_Com\_832H\_20230727140316.pdf

8.625in\_32lb\_P110EC\_SPRINT\_FJ\_09.16.2022\_20230727140316.pdf

5.5\_17lb\_P110\_BTC\_20230727140247.pdf

R	eceived by OCD: 8/17/2023 5:09:35.4M Well Name: PURRITO 18-19 FED COM	Well Location: T23S / R32E / SEC 18 / LOT 1 /	County or Parish/State: Page 2 of	31
	Well Number: 832H	Type of Well: OIL WELL	Allottee or Tribe Name:	
	Lease Number: NMNM18848	Unit or CA Name:	Unit or CA Number:	
	<b>US Well Number:</b> 3002551779	<b>Well Status:</b> Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP	

# **Conditions of Approval**

#### Additional

Purrito\_18\_19\_Fed\_Com\_582H\_Lea\_NM018848\_20230802081204.pdf

Purrito\_18\_19\_Fed\_Com\_582H\_Sundry\_ID\_2743204\_20230802081204.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: SHAYDA OMOUMI

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Compliance Associate 3

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (405) 235-3611

Email address: SHAYDA.OMOUMI@DVN.COM

State:

#### Field

Representative Name:

Street Address: City:

Phone:

Email address:

# **BLM Point of Contact**

BLM POC Name: CHRISTOPHER WALLS BLM POC Phone: 5752342234 Disposition: Approved Signature: Chris Walls Signed on: JUL 31, 2023 06:32 AM

BLM POC Title: Petroleum Engineer

Zip:

BLM POC Email Address: cwalls@blm.gov

Disposition Date: 08/16/2023

# 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

<sup>1</sup> API Number 30-025-51779				<sup>2</sup> Pool Code 98248		WC-025 G	<sup>3</sup> Pool Name -08 S243217P;UPR WOLFCAMP			
<sup>4</sup> Property (					<sup>5</sup> Property	Name	00 02 1021/1		<sup>6</sup> Well Number	
32701	-			P	URRITO 18 19 <sup>8</sup> Operator 1				832H	
<sup>7</sup> OGRID I	No.			<sup>9</sup> Elevation						
6137			<b>DEVON ENERGY PRODUCTION COMPANY, L.P.</b>							
<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	
1	18	23 S	32 E		375	NORTH	635	WEST	LEA	
			11 H	Bottom H	lole Location	If Different Fr	om Surface			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
4	19	23 S	32 E		20	SOUTH	1320	WEST	LEA	
<sup>2</sup> Dedicated Acre	s <sup>13</sup> Joint	or Infill <sup>14</sup>	Consolidation	n Code			<sup>15</sup> Order No.			
689.36										

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.

B NB 21 290 Y         2840 24 PT         CONDUCT		PURRITO 18 19 FED COM 832H	17 OPERATOR CERTIFICATION
635       FTP         937       SUPFACE         13       Superation         13       Superation         13       Superation         13       Superation         13       Superation         14       Superation         15       Superation         14       Superation         15       Superation         16       Superation         17       Superation         18       Superation         19       Superation         100       Superation         11       Superation         12       Superation         14 <td>B</td> <td>EL. = 3534.8</td> <td>I hereby certify that the information contained herein is true and complete</td>	B	EL. = 3534.8	I hereby certify that the information contained herein is true and complete
SURFACE LOCATION         NAMM 088151 E         SURFACE F         SURFACE F			to the best of my knowledge and belief, and that this organization either
1       LOCATION       Immun 19370       Im			owns a working interest or unleased mineral interest in the land including
11       6       LONG. = 103.7209049W       Iconsec = 103.7209049W       Iconsec = 103.7209049W       Iconsec = 103.7209149W       Iconsec = 103.7180159T       Iconse		E.= 730541.64	the proposed bottom hole location or has a right to drill this well at this
GALLS 30 FSU 1319 FWL N= 477023       Image: 100 FSU 1300 FWL N= 47702437       Image: 100 FSU 1300 FSU 1200 FSU	<sup>10</sup> L1 <u>5</u> <u>NMNM 139370</u> <u> </u>		location pursuant to a contract with an owner of such a mineral or working
00       0       M= 477578.12 L= 731224.97 LOR. = 32.3114387Y LOR. = 32.31144.00 E= 731281.56 E= 731282.95 LOR. = 103.7186969W LOR. = 103.7186989W LOR. = 103.7186980W LOR. = 100.70000W LOR. = 1000W LOR. = 1000W LOR. = 1000W LOR. =	A 89	KICK_QFE_POINT FIRST_TAKE_POINT_(PPP_1)	interest, or to a voluntary pooling agreement or a compulsory pooling order
UT. = 32.31148187 LUNC = -103.7186969'W       LAT. = 32.3114887 LUNC = -103.718697W       LAT. = 32.3114887 LUNC = -103.718697W       Date         UNC = -103.718697W       LAT. = 32.31148187 LUNC = -103.718697W       LAT. = 32.3114887W       Date         UNC = -103.718697W       LAT. = 32.31148187 LUNC = -103.7186969'W       Date       Shayda Omoumi Printed Name         NMMW D1848       NMMM 059553       Date       Shayda.omoumi@dvn.com         U1       2644.57 FT       -2644.51 FT       LONG. = 103.7186969'W       LONG. = 103.7186969'W       LONG. = 103.7186969'W         U1       27       Date       SEC 19       LONG. = 103.7186969'W       LONG. = 103.7186969'W       Secondaria         U1       SEC 19       CORNER COORDINATES TABLE NAM 23 NMSP EAST       NAM 23 NMSP EAST       Secondaria       Secondaria         NAMW D18848       NMMM 0559539       CORNER COORDINATES TABLE NAM 23 NMSP EAST       NAM 23 NMSP EAST       Secondaria       Secondaria         U1       SEC 19       CORNER COORDINATES TABLE NA - N. = 472653.17 E - 729964.77 C - N. = 467140.54 E - 73274.70 D - N. = 467140.54 E - 732778.17       Secondaria       Secondaria         U1       Secondaria       Secondaria       Secondaria       Secondaria       Secondaria         U1       Secondaria       Secondaria       Secondaria       Secondaria       Se	00.2	CALLS <u>50' FNL, 1319' FWL</u> 100' FNL, 1320' FWL N.= 477628 N.= 477578.12	heretofore entered by the division.
Image: SEC 18       LONG. =-103.71877432       LONG. = 103.718679'W       Date         Image: SEC 18         Image: SEC 18       Image: SEC 18       Image: SEC 18       Image: SEC 18       Image: SEC 18       Image: SEC 19			Shauda Smorum 7/31/2023
LAST TAKE POINT 100° FSL, 1320° FNL 100° FSL 100° FSL	SEC 18		- ////////
13       100       FSL, 1320 <sup>2</sup> FWL       20 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         14       100       FSL, 1320 <sup>2</sup> FWL       20 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         14       100       FSL, 1320 <sup>2</sup> FWL       20 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         15       100       FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         14       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       Printed Name         100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL         11       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL         11       10 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL         11       10 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       10 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL       100 <sup>2</sup> FSL, 1320 <sup>2</sup> FWL	21 E		e l
N       N       N       N       A 67 / 23 / 99       N.= 467 / 24 / 00         E       731 / 28 / 156       E       731 / 28 / 25 / E       Printed Name         MB92 / 25 / E       M892 / 25		100' FSL, 1320' FWL 20' FSL, 1320' FWL	
Image: 23/257E       Image: 23/257E       Image: 23/257E       Image: 23/257E         Image: 23/257E       Image: 23/257E       Image: 23/257E       Image: 23/257E       Image: 23/257E         Image: 23/257E       Image: 23			
Image 22 25°E       Image 22 25°E       2641.81°FT         NMMM       2641.81°FT       2641.81°FT         L1       12       12         SEC       19       12         NMMM       26600         SEC       19         No       Name         Participa       12         No	19,58		shayda.omoumi@dvn.com
Image 22 25°E       Image 22 25°E<	Noo		E-mail Address
LI SURVEYOR CERTIFICATION INMIN 01559539 000 II II II II II II II II II	N89°23'25"E U N89°23'25"E		
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	E		<sup>18</sup> SURVEYOR CERTIFICATION
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	о о о о о о о о о о о о о о		I hereby certify that the well location shown on this plat
CORNER COORDINATES TABLE NAD 83 NMSP EAST A - N.= 477695.30 E.= 732744.70 B - N.= 477663.17 E.= 729904.77 C - N.= 475023.97 E.= 72991.08 D - N.= 475023.97 E.= 72994.79 C - N.= 467140.57 E.= 72994.79 D - N.= 475023.97 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 472418.53 E.= 732778.17 D - N.= 467140.55 E.= 732778.17 EEGEND Certificate Number: D - 140 - 15 12797 D - 1320' - 140 - 15 12797 D - 12550 - 140 - 15 12797 D - 15 20 - 15 20 - 15 - 15 - 15 - 15 - 15 - 15 - 15 - 1			was plotted from field notes of actual surveys made by
CORNER COORDINATES TABLE NAD 83 NMSP EAST A - N.= 477695.30 E.= 732744.70 B - N.= 477663.17 E.= 729904.77 C - N.= 475023.97 E.= 72991.08 D - N.= 475023.97 E.= 72994.79 C - N.= 467140.57 E.= 72994.79 D - N.= 475023.97 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 476140.57 E.= 72994.70 D - N.= 472418.53 E.= 732778.17 D - N.= 467140.55 E.= 732778.17 EEGEND Certificate Number: D - 140 - 15 12797 D - 1320' - 140 - 15 12797 D - 12550 - 140 - 15 12797 D - 15 20 - 15 20 - 15 - 15 - 15 - 15 - 15 - 15 - 15 - 1	17'13 		me or under my supervision, and that the same is true
MAD 83 NMSP EASI       Constraint         MAD 83 NMSP EASI       Carter of the constraint       Mater of the constraint         Mad 83 NMSP Easi       Cartif constraint       Mater of the c	z		and correct to the best of my belief.
B - N.= 477663.17 E.= 729904.77 C - N.= 477602.397 E.= 729919.08 D - N.= 477203.397 E.= 729919.08 D - N.= 469748.82 E.= 729934.39 E - N.= 467140.54 E.= 729924.76 Date of Survey D ME ME D ME D ME	© SEC 19	NAD 83 NMSP EAST	JUNE 23, 2023
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$\begin{array}{c c c c c c c c c c c c c c c c c c c $	639.5 193.8	D - N.= 472388.26 E.= 729934.39	ME
LEGEND         LEGEND           © S89'22'51"/ 2849.85 FT         © S89'23'20"W 2639.62 FT         — — — — SECTION LINE         Certificate Number:         DETAILS IN LINE           — — — — — QUARTER LINE         — — — — QUARTER LINE         — — — — QUARTER LINE         — — — — — QUARTER LINE         — — — — — — — — — — — — — — — — — — —		F - N.= 467109.75 E.= 729962.47	- Anni Coox ATH
LEGEND         LEGEND           © S89'22'51"/ 2849.85 FT         © S89'23'20"W 2639.62 FT         — — — — SECTION LINE         Certificate Number:         DETAILS IN LINE           — — — — — QUARTER LINE         — — — — QUARTER LINE         — — — — QUARTER LINE         — — — — — QUARTER LINE         — — — — — — — — — — — — — — — — — — —			
— 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1320' — 1           — 1           — 1	P I/ BUTTOM S		Signature and Seal of Protessional Surveyor:
	→ 1320'→		
WELL DATH	(F) 305 22 51 C 2010.00 11 (G) 505 25 25 25 20 20 20 20 20 20 20 20 20 20 20 20 20	LEASE LINE	POOLEONIO
		WELL PATH	-/LIME /10-100. 9750A

#### Received by OCD: 8/17/2023 5:09:35 AM

Intent	)
--------	---

Х	As Drilled

API #			
Operator Name:		Property Name:	Well Number
DEVON ENERGY P COMPANY, L.P.	RODUCTION	PURRITO 18 19 FED COM	832H

#### Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	18	235	32E	1	50	NORTH	1319	WEST	LEA
Latitude					Longitude		NAD		
32.31148187			-103.71877432			83			
32.31148187			-105./16//45	52			83		

# First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
	18	23S	32E	1	100	NORTH	1320	WEST	LEA
Latitude 32.3114385			Longitude <b>103.7186</b>	6879			NAD 83		

# Last Take Point (LTP)

UL	Section 19	Township 23S	Range 32E	Lot 4	Feet 100	From N/S SOUTH	Feet 1320	From E/W WEST	County LEA
Latitude				Longitud	Longitude			NAD	
32.2829770			103.7	103.7186969			83		

Is this well the defining well for the Horizontal Spacing Unit? Y

Is this well an infill well?

Ν

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

1/18/2017 9:30:29 AM

#### **U. S. Steel Tubular Products** Uss 10.75 40.5/0.35 J55

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000				psi
Maximum Yield Strength	80,000				psi
Minimum Tensile Strength	75,000				psi
DIMENSIONS	Pipe	втс	LTC	STC	
Outside Diameter	10.750	11.750		11.750	in.
Wall Thickness	0.350				in.
Inside Diameter	10.050	10.050		10.050	in.
Standard Drift	9.894	9.894		9.894	in.
Alternate Drift					in.
Nominal Linear Weight, T&C	40.50				lbs/ft
Plain End Weight	20.01				lb c /ft
Fiain Linu Weight	38.91				lbs/ft
PERFORMANCE	Pipe	BTC	LTC	STC	IDS/IC
-					psi
PERFORMANCE	Pipe	BTC	LTC	STC	
PERFORMANCE Minimum Collapse Pressure	<b>Pipe</b> 1,580	<b>BTC</b> 1,580	LTC	<b>STC</b> 1,580	psi
PERFORMANCE Minimum Collapse Pressure Minimum Internal Yield Pressure	<b>Pipe</b> 1,580 3,130	<b>BTC</b> 1,580 3,130	LTC  	<b>STC</b> 1,580 3,130	psi psi
PERFORMANCE Minimum Collapse Pressure Minimum Internal Yield Pressure Minimum Pipe Body Yield Strength	Pipe 1,580 3,130 629,000	<b>BTC</b> 1,580 3,130 	LTC  	<b>STC</b> 1,580 3,130	psi psi Ibs
PERFORMANCE Minimum Collapse Pressure Minimum Internal Yield Pressure Minimum Pipe Body Yield Strength Joint Strength	<b>Pipe</b> 1,580 3,130 629,000 	<b>BTC</b> 1,580 3,130  700	LTC    	<b>STC</b> 1,580 3,130  420	psi psi Ibs Ibs
PERFORMANCE Minimum Collapse Pressure Minimum Internal Yield Pressure Minimum Pipe Body Yield Strength Joint Strength Reference Length	<b>Pipe</b> 1,580 3,130 629,000	<b>BTC</b> 1,580 3,130  700 11,522	LTC    	<b>STC</b> 1,580 3,130  420 6,915	psi psi Ibs Ibs
PERFORMANCE Minimum Collapse Pressure Minimum Internal Yield Pressure Minimum Pipe Body Yield Strength Joint Strength Reference Length MAKE-UP DATA	Pipe 1,580 3,130 629,000   Pipe	BTC 1,580 3,130  700 11,522 BTC	LTC LTC	<b>STC</b> 1,580 3,130  420 6,915 <b>STC</b>	psi psi Ibs Ibs ft

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> U. S. Steel Tubular Products 10343 Sam Houston Park Dr., #120 connections@uss.com Houston, TX 77064

1-877-893-9461 www.usstubular.com



# **U. S. Steel Tubular Products** 5.500" 17.00lbs/ft (0.304" Wall) P110

2/21/2019 8:12:22 AM

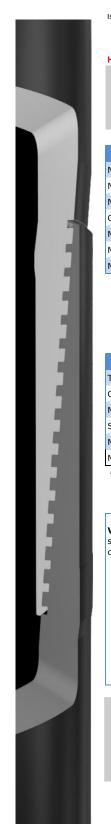
MECHANICAL PROPERTIES	Pipe	втс	LTC	STC	
Minimum Yield Strength	110,000				psi
Maximum Yield Strength	140,000				psi
Minimum Tensile Strength	125,000				psi
DIMENSIONS	Pipe	BTC	LTC	STC	
Outside Diameter	5.500	6.050	6.050		in.
Wall Thickness	0.304				in.
Inside Diameter	4.892	4.892	4.892		in.
Standard Drift	4.767	4.767	4.767		in.
Alternate Drift					in.
Nominal Linear Weight, T&C	17.00				lbs/ft
Plain End Weight	16.89				lbs/ft
PERFORMANCE	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	7,480	7,480	7,480		psi
Minimum Internal Yield Pressure	10,640	10,640	10,640		psi
Minimum Pipe Body Yield Strength	546				1,000 lbs
Joint Strength		568	445		1,000 lbs
Reference Length		22,271	17,449		ft
MAKE-UP DATA	Pipe	BTC	LTC	STC	
Make-Up Loss		4.13	3.50		in.
			2 470		ft-lbs
Minimum Make-Up Torque			3,470		IL-IDS

#### Legal Notice

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> U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S connections@uss.com Spring, Texas 77380

1-877-893-9461 www.usstubular.com



Issued on: 16 Sep. 2022 by Logan Van Gorp



#### **Connection Data Sheet**

HIGHE	R TOR	QUE V	ERSIO	N

OD

8 5/8 in.

			Connection Data Sheet
Wall Th.	Grade	Alt. Drift:	Connection
0.352 in.	P110EC	7.875 in.	VAM <sup>®</sup> SPRINT-FJ

Plain End: 31.13

PIPE PROPERTIES		
Nominal OD	8.625	in.
Nominal ID	7.921	in.
Nominal Cross Section Area	9.149	sqin.
Grade Type	Hig	jh Yield
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

Weight (lb/ft)

Nominal: 32.00

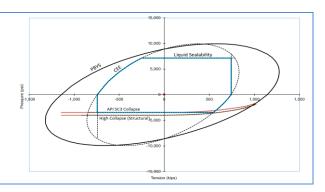
CONNECTION	PROPERTIES
Connection Type	Semi-Premium Integral Flus
Connection OD (nom):	8.665 ir
Connection ID (nom):	7.954 ir
Make-Up Loss	2.614 ir
Critical Cross Section	5.978 sqir
Tension Efficiency	65.0 % of pip
Compression Efficiency	65.0 % of pip
Internal Pressure Efficiency	80.0 % of pip
External Pressure Efficiency	100 % of pip

CONNECTION PERFORMANCES		
Tensile Yield Strength	744	klb
Compression Resistance	744	klb
Max. Internal Pressure	7,150	psi
Structural Collapse Resistance	4,000	psi
Max. Structural Bending	41	°/100ft
Max. Bending with Sealability	10	°/100ft

TORQUE VALUE	ES	
Min. Make-up torque	23,000	ft.lb
Opt. Make-up torque	25,500	ft.lb
Max. Make-up torque	28,000	ft.lb
Max. Torque with Sealability (MTS)	48,000	ft.lb

\* 87.5% RBW

VAM® SPRINT-FJ is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension capacity are required for intermediate casing strings.



Do you need help on this product? - Remember no one knows VAM<sup>®</sup> like VAM<sup>®</sup>

canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com brazil@vamfieldservice.com uk@vamfieldservice.com dubai@vamfieldservice.com nigeria@vamfieldservice.com angola@vamfieldservice.com china@vamfieldservice.com baku@vamfieldservice.com singapore@vamfieldservice.com australia@vamfieldservice.com

Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance



# Section 2 - Blowout Preventer Testing Procedure

# Variance Request

Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. This test will include the Top Pipe Rams, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and Shell of the 10M BOPE to 5M for 10 minutes. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections and no deeper than the Bone Springs Formation where 5M BOP tests are required. The initial BOP test will follow OOGO2.III.A.2.i, and subsequent tests following a skid will only test connections that are broken. The annular preventer will be tested to 100% working pressure. This variance will meet or exceed OOGO2.III.A.2.i per the following: Devon Energy will perform a full BOP test per OOGO2.III.A.2.i before drilling out of the intermediate casing string(s) and starting the production hole, before starting any hole section that requires a 10M test, before the expiration of the allotted 14-days for 5M intermediate batch drilling or when the drilling rig is fully mobilized to a new well pad, whichever is sooner. We will utilize a 200' TVD tolerance between intermediate shoes as the cutoff for a full BOP test. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. Break test will be a 14 day interval and not a 30 day full BOPE test interval. If in the event break testing is not utilized, then a full BOPE test would be conducted.

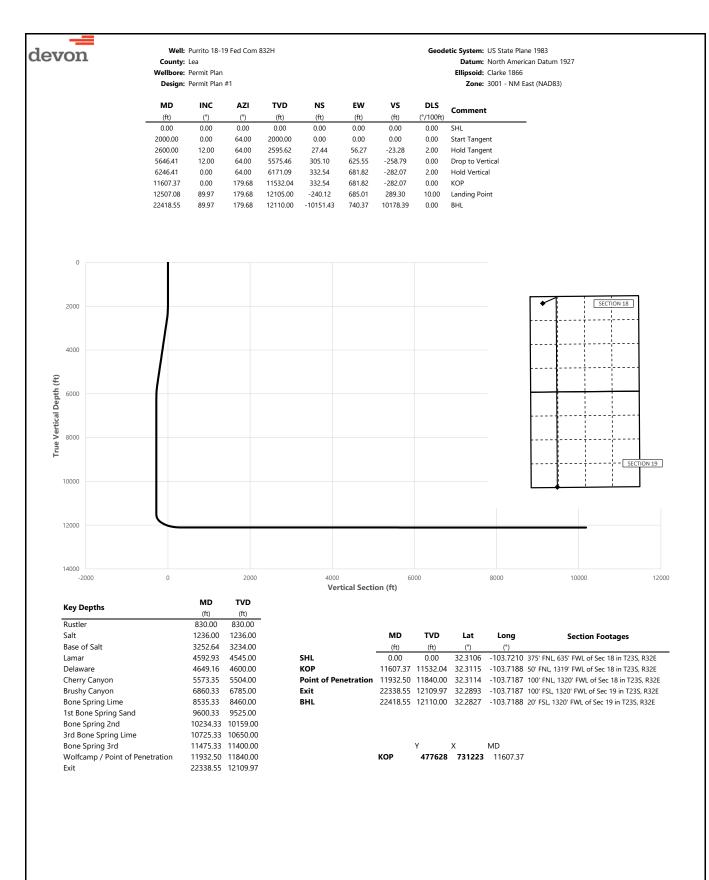
1. Well Control Response:

1. Primary barrier remains fluid

2. In the event of an influx due to being underbalanced and after a realized gain or flow, the order of closing BOPE is as follows:

- a) Annular first
- b) If annular were to not hold, Upper pipe rams second (which were tested on the skid BOP test)
- c) If the Upper Pipe Rams were to not hold, Lower Pipe Rams would be third





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2900,00       12.00       64.00       288.68       63.90       112.33       -64.70       0.00         3100,00       12.00       64.00       3084.70       73.01       14970       -61.93       0.00         3200,00       12.00       64.00       324.10       86.39       176.23       -73.73       0.00         3200,00       12.00       64.00       378.14       107.86       -73.73       0.00         3400,00       12.00       64.00       378.14       107.86       -73.73       0.00         3500,00       12.00       64.00       375.74       10.93       224.45       -28.25       0.00         3600,00       12.00       64.00       367.57       17.77       21.82       -10.83       0.00         3700,00       12.00       64.00       367.57       17.77       21.82       -10.55       0.0         3800,00       12.00       64.00       366.23       17.58       13.11       0.00         4000,00       12.00       64.00       456.26       173.25       -142.70       0.00         4200,00       12.00       64.00       455.24       19.50       32.63       -162.43       0.00         42										
10000       12.00       64.00       286.88       63.90       131.01       64.20       0.00         3100.00       12.00       64.00       3084.70       73.01       169.70       0.00         3220.00       12.00       64.00       3182.51       82.13       168.39       -696.6       0.00         3252.44       12.00       64.00       328.03.8       178.23       -73.73       0.00         3400.00       12.00       64.00       371.41       100.36       205.76       -85.12       0.00         3500.00       12.00       64.00       375.75       11859       23.14       -100.59       0.00         3600.00       12.00       64.00       3675.97       136.11       150.50       0.00         3700.00       12.00       64.00       3676.22       158.13       165.10       1.00         3900.00       12.00       64.00       3676.22       158.13       131.51       0.00         4000.00       12.00       64.00       3676.27       135.25       146.97       0.00         4100.00       12.00       64.00       455.47       12.93       373.44       154.70       0.00         4200.00       12.00										
3100.00       12.00       64.00       3182.51       82.13       168.39       -61.93       0.00         3202.00       12.00       64.00       3224.00       86.93       178.23       -77.37       0.00         3300.00       12.00       64.00       3284.00       187.23       -77.37       0.00         3400.00       12.00       64.00       3378.14       187.09       -77.37       0.00         3500.00       12.00       64.00       375.75       109.47       224.45       -92.85       0.00         3600.00       12.00       64.00       375.75       118.59       24.44       -10.059       0.00         3700.00       12.00       64.00       376.75       125.70       261.82       -108.32       0.00         3900.00       12.00       64.00       3867.22       114.53       280.57       -132.51       0.00         4000.00       12.00       64.00       315.04       115.92       314.8       -131.51       0.00         4000.00       12.00       64.00       455.29       191.50       392.63       -162.43       0.00         4200.00       12.00       64.00       455.29       191.50       392.63       -1										
3252.64       12.00       64.00       328.03       91.24       167.08       -77.73       0.00       Base of Salt         3300.00       12.00       64.00       378.14       107.05       -77.73       0.00         3500.00       12.00       64.00       378.14       100.56       25.76       -85.12       0.00         3600.00       12.00       64.00       375.17       118.59       24.45       -92.85       0.00         3700.00       12.00       64.00       367.17       12.63.2       -108.32       0.00         3900.00       12.00       64.00       3867.20       12.53.3       29.02       -12.37.8       0.00         4000.00       12.00       64.00       3867.22       135.37       131.51       0.00         4100.00       12.00       64.00       416.16       133.27       35.26       -16.497       0.00         4200.00       12.00       64.00       416.16       132.27       155.26       -16.97       0.00         4200.00       12.00       64.00       451.12       20.71       157.00       0.00         4200.00       12.00       64.00       455.10       20.77       160.07       177.75       0										
3400.00       12.00       64.00       3280.33       91.24       107.08       -77.39       0.00         3400.00       12.00       64.00       337.14       100.36       205.76       -85.12       0.00         3600.00       12.00       64.00       337.77       118.59       243.14       -100.59       0.00         3700.00       12.00       64.00       376.77       118.59       243.14       -100.59       0.00         3800.00       12.00       64.00       376.72       145.93       29.20       -13.78       0.00         3800.00       12.00       64.00       3867.22       145.93       235.25       -146.97       0.00         4000.00       12.00       64.00       3865.27       132.52       -176.70       0.00         4200.00       12.00       64.00       456.29       191.50       392.63       -152.43       0.00         4400.00       12.00       64.00       455.02       29.73       43.01       -177.35       0.00         459.02       12.00       64.00       454.50       29.73       43.01       -177.89       0.00         459.02       12.00       64.00       454.510       20.01       -177.8										Develop ( Celle
3400.00       12.00       64.00       3378.14       100.36       205.76       -85.12       0.00         3500.00       12.00       64.00       357.37       118.59       224.45       -92.85       0.00         3700.00       12.00       64.00       357.37       118.59       224.34       -100.32       0.00         3800.00       12.00       64.00       366.12       218.01       -116.05       0.00         3900.00       12.00       64.00       366.21       155.04       317.88       -131.51       0.00         4000.00       12.00       64.00       4056.24       163.65       -132.84       0.00         4200.00       12.00       64.00       455.29       191.50       352.63       -162.43       0.00         4200.00       12.00       64.00       455.12       209.73       430.01       -177.89       0.00         4400.00       12.00       64.00       4551.92       209.73       430.01       -177.89       0.00         450.03       12.00       64.00       4551.92       209.73       430.01       -177.89       0.00         460.00       12.00       64.00       457.12       21.14       499.16 <td< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th>Base of Salt</th></td<>										Base of Salt
3500.00       12.00       64.00       377.97       118.90       243.44       -100.99       0.00         3700.00       12.00       64.00       377.17       118.90       243.14       -100.59       0.00         3800.00       12.00       64.00       3761.90       128.82       108.32       0.00         3800.00       12.00       64.00       3765.00       158.04       280.51       -116.05       0.00         4000.00       12.00       64.00       3867.22       145.93       292.00       -123.78       0.00         4100.00       12.00       64.00       4965.03       155.04       174.86       713.51       0.00         4200.00       12.00       64.00       4565.02       191.50       392.63       -166.43       0.00         4400.00       12.00       64.00       4551.02       209.73       430.10       -177.89       0.00         4592.93       12.00       64.00       4541.00       210.97       474.55       223.44       416.90       12.00       64.00       4541.61       36.77       -177.89       0.00         4592.93       12.00       64.00       4541.56       27.07       467.03       -186.62       0.00										
360000       12.00       64.00       3573.77       118.59       261.82       -108.32       0.00         3700.00       12.00       64.00       3767.59       12.77       261.82       -108.32       0.00         3800.00       12.00       64.00       3767.59       12.77       261.82       -108.32       0.00         4000.00       12.00       64.00       3867.2       145.93       292.0       -123.78       0.00         4100.00       12.00       64.00       4062.44       164.16       336.57       -139.24       0.00         4200.00       12.00       64.00       4268.47       12.39       373.94       -164.70       0.00         4400.00       12.00       64.00       455.19       200.61       411.32       -170.16       0.00         4500.01       12.00       64.00       455.19       209.73       430.01       -177.35       0.00       Lamar         4600.00       12.00       64.00       455.19       209.73       430.01       -177.85       0.00       Lamar         4690.00       12.00       64.00       454.31       21.01       746.07       -201.09       0.00         4690.00       12.00										
3800.00       12.00       64.00       3769.40       136.81       280.51       -116.05       0.00         3900.00       12.00       64.00       3967.22       145.93       299.0       -123.78       0.00         4000.00       12.00       64.00       4062.33       155.04       171.85       1.00         4100.00       12.00       64.00       4062.84       164.16       336.57       -139.24       0.00         4200.00       12.00       64.00       4356.29       173.27       352.65       -154.70       0.00         4400.00       12.00       64.00       4356.29       191.50       392.63       -152.70       0.00         4592.93       12.00       64.00       4551.92       209.73       430.01       -177.89       0.00         46400.00       12.00       64.00       4551.92       209.73       430.01       -177.89       0.00         46400.00       12.00       64.00       4747.50       227.96       467.3       -185.62       0.00         4700.00       12.00       64.00       4747.55       227.96       467.3       -201.84       430.9       -00         500.00       12.00       64.00       531.82									0.00	
3900.00       12.00       64.00       3867.22       145.93       299.20       -123.78       0.00         4000.00       12.00       64.00       3965.03       155.04       317.88       -131.51       0.00         4100.00       12.00       64.00       4056.04       164.16       336.57       -139.24       0.00         4200.00       12.00       64.00       4258.47       182.39       373.44       -154.70       0.00         4400.00       12.00       64.00       4258.47       182.39       373.44       -170.16       0.00         4592.93       12.00       64.00       454.10       200.61       411.32       -170.16       0.00         4649.16       12.00       64.00       454.50       209.73       428.68       -177.35       0.00       Lamar         4649.16       12.00       64.00       454.50       209.73       48.69       -181.69       0.00       Lamar         4649.16       12.00       64.00       454.50       209.73       48.69       -181.69       0.00       Lamar         4649.16       12.00       64.00       454.52       227.97       480.75       -201.99       0.00       Lamar <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>										
4000.0       12.00       64.00       3965.03       155.04       317.88       -131.51       0.00         4100.00       12.00       64.00       4062.84       164.16       336.57       -139.67       0.00         4200.00       12.00       64.00       4258.47       182.39       373.94       -154.70       0.00         4300.00       12.00       64.00       4356.29       191.50       392.63       -162.43       0.00         4500.00       12.00       64.00       455.02       209.08       428.68       -177.35       0.00         4592.93       12.00       64.00       455.02       209.73       430.01       -177.89       0.00         4640.00       12.00       64.00       455.92       209.73       430.11       -177.89       0.00         4640.01       12.00       64.00       4649.75       218.84       448.69       -185.62       0.00         4700.00       12.00       64.00       474.55       227.96       467.38       -193.36       0.00         4900.00       12.00       64.00       538.12       246.17       520.82       0.00         500.00       12.00       64.00       536.62       273.53										
4100.00       12.00       64.00       4062.84       164.16       336.57       -139.24       0.00         4200.00       12.00       64.00       4160.66       173.27       355.26       -146.97       0.00         4300.00       12.00       64.00       4258.47       182.39       373.34       -154.70       0.00         4400.00       12.00       64.00       4356.29       191.50       392.63       -162.43       0.00         4500.00       12.00       64.00       454.10       200.61       411.32       -177.16       0.00         4600.00       12.00       64.00       4545.00       209.73       430.01       -177.89       0.00         4649.16       12.00       64.00       4649.75       212.66       473.8       -193.36       0.00         4700.00       12.00       64.00       4643.73       218.44       446.67       -201.09       0.00         4900.00       12.00       64.00       474.75       227.66       673.88       -193.36       0.00         5000.00       12.00       64.00       538.42       227.07       486.07       -201.69       0.00         5000.00       12.00       64.00       538.42										
4200.00       12.00       64.00       4258.47       182.39       373.94       -154.70       0.00         4300.00       12.00       64.00       4258.47       182.39       373.94       -154.70       0.00         4500.00       12.00       64.00       4356.29       191.50       392.63       -170.16       0.00         4500.00       12.00       64.00       445.10       200.61       411.32       -170.16       0.00         4592.93       12.00       64.00       4551.92       209.73       430.01       -177.78       0.00         4600.00       12.00       64.00       4545.92       209.73       430.01       -177.78       0.00         4600.00       12.00       64.00       4549.72       21.84       448.69       -185.62       0.00         4700.00       12.00       64.00       4747.55       227.96       467.38       -193.36       0.00         5000.00       12.00       64.00       4747.55       227.90       486.07       -201.09       0.00         5000.00       12.00       64.00       538.41       264.11       542.13       -224.28       0.00         5000.00       12.00       64.00       538.44										
4400.00       12.00       64.00       4356.29       191.50       392.63       -162.43       0.00         4500.00       12.00       64.00       4454.10       200.61       411.32       -170.16       0.00         4592.93       12.00       64.00       4551.92       209.73       430.01       -177.39       0.00         4600.00       12.00       64.00       4551.92       209.73       430.01       -177.39       0.00         4649.16       12.00       64.00       4649.73       218.84       448.69       -185.62       0.00         4700.00       12.00       64.00       4747.55       227.96       467.38       -193.36       0.00         4800.00       12.00       64.00       4747.55       227.97       466.7       -201.99       0.00         5000.00       12.00       64.00       4943.18       264.19       504.75       -208.82       0.00         5100.00       12.00       64.00       5138.1       264.11       524.28       0.00         5200.00       12.00       64.00       533.44       262.64       575.00       -239.10       0.00         5400.00       12.00       64.00       534.44       282.64										
4500.00       12.00       64.00       4454.10       200.61       411.32       -170.16       0.00         4592.93       12.00       64.00       4551.92       209.08       428.68       -177.35       0.00       Lamar         4600.00       12.00       64.00       4551.92       209.73       430.01       -177.89       0.00       Lamar         4649.16       12.00       64.00       460.00       214.21       439.19       -181.69       0.00       Delaware         4700.00       12.00       64.00       4747.55       227.96       467.38       -193.36       0.00         4800.00       12.00       64.00       4747.55       227.96       467.38       -193.36       0.00         5000.00       12.00       64.00       4943.18       246.19       504.75       -208.82       0.00         5000.00       12.00       64.00       5138.81       264.11       542.13       -224.28       0.00         5200.00       12.00       64.00       533.44       282.64       579.50       -239.74       0.00         5400.00       12.00       64.00       534.44       282.64       579.50       -239.74       0.00         5500.00										
4592.9312.0064.00454.500209.08428.68-177.350.00Lamar4600.0012.0064.004551.92209.73430.01-177.890.004649.1612.0064.00460.973218.84448.69-185.620.004800.0012.0064.004649.75227.96467.38-193.360.004900.0012.0064.004845.36237.07486.07-201.090.005000.0012.0064.00494.18246.19504.75-208.820.005000.0012.0064.00513.81264.19504.75-208.820.005000.0012.0064.00513.81264.11542.13-224.280.005000.0012.0064.00533.44282.64579.50-239.740.005000.0012.0064.00533.44282.64579.50-239.740.005000.0012.0064.00533.44282.64579.50-239.740.005000.0012.0064.00550.7030.87616.88-252.000.005000.0012.0064.00553.0730.87616.88-252.000.005000.0012.0064.00553.77635.12-268.752.005000.0010.9364.00552.78305.10625.55-258.790.005000.0010.9364.00552.52305.10625.752.005000.00										
4600.0012.0064.004551.92209.73430.01-177.890.004649.1612.0064.004600.00214.21439.19-181.690.00Delaware4700.0012.0064.004649.73218.84448.69-185.620.004800.0012.0064.00445.36237.07486.07-201.090.005000.0012.0064.00445.36237.07486.07-201.090.005000.0012.0064.00443.18246.19504.75-208.820.005100.0012.0064.005138.81264.11542.13-224.280.005200.0012.0064.005236.62273.53560.81-232.010.005300.0012.0064.005334.44282.64579.10-233.740.005500.0012.0064.005334.42282.64579.10-233.740.005500.0012.0064.00530.07300.87616.88-255.200.005500.0012.0064.005530.07300.87616.88-255.200.005600.0012.0064.005530.07300.87616.88-255.200.005600.0010.9364.005525.23323.71635.12-262.752.005600.0010.9364.005525.23323.71635.12-262.752.005600.008.9364.005525.23323.71635.12-262.75<										lamar
4649.1612.0064.004600.00214.21439.19-181.690.00Delaware4700.0012.0064.004649.73218.84448.69-185.620.004800.0012.0064.004747.55227.96467.38-193.360.004900.0012.0064.004845.36237.07486.07-201.990.005000.0012.0064.004943.18246.19502.53523.44-216.550.005100.0012.0064.005138.81264.41542.13-224.280.005200.0012.0064.00523.662273.53560.81-232.010.005300.0012.0064.00533.44282.64579.50-237.470.005500.0012.0064.00533.44282.64579.50-237.470.005500.0012.0064.00530.0730.8761.68-255.200.005503.0012.0064.00550.0730.8761.68-255.200.005503.0012.0064.00550.7730.8761.68-255.200.005600.0012.0064.00552.9830.977635.12-262.752.005600.0019.3964.00552.52323.37663.01-274.292.005800.008.9364.00552.52323.37663.01-274.292.005800.008.9364.00552.52323.37663.01-274.										201101
4800.0012.0064.004747.55227.96467.38-193.360.004900.0012.0064.004845.36237.07486.07-201.090.005000.0012.0064.004943.18246.19504.75-208.820.005100.0012.0064.00504.09255.30523.44-216.550.005200.0012.0064.005138.81264.41542.13-224.280.005300.0012.0064.00538.62273.53560.81-232.010.005400.0012.0064.00538.44282.64579.50-239.740.005500.0012.0064.005334.44282.64579.50-239.740.005500.0012.0064.00530.0730.87616.88-255.200.005600.0012.0064.005530.0730.87616.88-255.200.005600.0012.0064.005530.0730.87616.88-255.200.005600.0012.0064.00552.52305.10625.55-258.790.00Drop to Vertical5700.0010.9364.005627.98307.77655.12-262.752.005800.008.9364.00575.48317.33650.62-269.162.005800.008.9364.005825.52323.37663.01-274.292.005800.008.9364.005825.52323.37650.62-269.16										Delaware
4900.0012.0064.004845.36237.07486.07-201.090.005000.0012.0064.004943.18246.19504.75-208.820.005100.0012.0064.005040.99255.30523.44-216.550.005200.0012.0064.005138.81264.41542.13-224.280.005300.0012.0064.00523.62273.53560.81-232.010.005400.0012.0064.005334.44282.64579.50-239.740.005500.0012.0064.00534.42291.76598.19-247.470.005500.0012.0064.005504.00298.44611.90-253.140.005600.0012.0064.00550.07300.87616.88-255.200.005600.0012.0064.00557.46305.10625.55-258.790.005604.64112.0064.00562.798309.77655.2-262.752.005700.0010.9364.00562.78309.77655.02-200500.005800.008.9364.005825.52323.37663.01-274.292.005800.004.9364.005924.98327.90672.30-278.132.006000.004.9364.005924.98327.90672.30-278.132.006000.004.9364.005924.98327.90672.30-278.132.00						218.84				
5000.00       12.00       64.00       4943.18       246.19       504.75       -208.82       0.00         5100.00       12.00       64.00       5040.99       255.30       523.44       -216.55       0.00         5200.00       12.00       64.00       5138.81       264.41       542.13       -224.28       0.00         5300.00       12.00       64.00       523.62       273.53       560.81       -232.01       0.00         5400.00       12.00       64.00       5334.44       282.64       579.50       -239.74       0.00         5500.00       12.00       64.00       5342.25       291.76       598.19       -247.47       0.00         5500.00       12.00       64.00       554.00       298.44       611.90       -253.14       0.00         5600.00       12.00       64.00       554.00       298.44       611.90       -253.14       0.00       Cherry Canyon         5606.00       12.00       64.00       557.54       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       525.22       323.37       635.12       -262.75       2.00       Drop to Vertical <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<>										
5100.00       12.00       64.00       5040.99       255.30       523.44       -216.55       0.00         5200.00       12.00       64.00       5138.81       264.41       542.13       -224.28       0.00         5300.00       12.00       64.00       523.62       273.53       560.81       -232.01       0.00         5400.00       12.00       64.00       5334.44       282.64       579.50       -239.74       0.00         5500.00       12.00       64.00       5342.25       291.76       598.19       -247.47       0.00         5573.35       12.00       64.00       5504.00       298.44       611.90       -253.14       0.00         5600.00       12.00       64.00       5530.07       300.87       616.88       -255.20       0.00         5600.00       12.00       64.00       5575.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       575.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5800.00       8.93       64.00       575.48       307.7       635.12       -262.75       2.00       Drop to Vertical										
5200.00       12.00       64.00       5138.81       264.41       542.13       -224.28       0.00         5300.00       12.00       64.00       5236.62       273.53       560.81       -232.01       0.00         5400.00       12.00       64.00       5334.44       282.64       579.50       -239.74       0.00         5500.00       12.00       64.00       5432.25       291.76       598.19       -247.47       0.00         5573.35       12.00       64.00       5504.00       298.44       611.90       -253.14       0.00       Cherry Canyon         5600.00       12.00       64.00       5505.77       300.87       616.88       -255.20       0.00       Drop to Vertical         5700.00       10.93       64.00       5572.68       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       5726.48       317.33       650.62       -269.16       2.00         5800.00       8.93       64.00       5726.48       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       5924.98       327.90       672.30       -278.13       2.00										
5300.00       12.00       64.00       5236.62       273.53       560.81       -232.01       0.00         5400.00       12.00       64.00       5334.44       282.64       579.50       -239.74       0.00         5500.00       12.00       64.00       5432.25       291.76       598.19       -247.47       0.00         5573.35       12.00       64.00       5504.00       298.44       611.90       -253.14       0.00         5600.00       12.00       64.00       5503.07       300.87       616.88       -255.20       0.00         5646.41       12.00       64.00       557.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       562.98       309.77       635.12       -262.75       2.00         5800.00       8.93       64.00       572.648       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       592.52       323.37       66.01       -278.13       2.00         6000.00       4.93       64.00       592.498       327.90       672.30       -278.13       2.00         6100.00       2.93       64.00 </th <th></th>										
5500.00       12.00       64.00       5432.25       291.76       598.19       -247.47       0.00         5573.35       12.00       64.00       5504.00       298.44       611.90       -253.14       0.00       Cherry Canyon         5600.00       12.00       64.00       5530.07       300.87       616.88       -255.20       0.00         5646.41       12.00       64.00       557.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       567.48       309.77       635.12       -262.75       2.00         5800.00       8.93       64.00       5726.48       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       5825.52       323.37       663.01       -274.29       2.00         6000.00       4.93       64.00       5924.98       327.90       672.30       -278.13       2.00         6100.00       2.93       64.00       6024.74       330.90       678.45       -280.68       2.00										
5573.35       12.00       64.00       5504.00       298.44       611.90       -253.14       0.00       Cherry Canyon         5600.00       12.00       64.00       5530.07       300.87       616.88       -255.20       0.00         5646.41       12.00       64.00       5575.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       5627.98       309.77       635.12       -262.75       2.00         5800.00       8.93       64.00       572.64       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       5825.52       323.37       663.01       -274.29       2.00         6000.00       4.93       64.00       5924.98       327.90       672.30       -278.13       2.00         6100.00       2.93       64.00       6024.74       330.90       678.45       -280.68       2.00										
5600.00       12.00       64.00       5530.07       300.87       616.88       -255.20       0.00         5646.41       12.00       64.00       5575.46       305.10       625.55       -258.79       0.00       Drop to Vertical         5700.00       10.93       64.00       5627.98       309.77       635.12       -262.75       2.00         5800.00       8.93       64.00       5726.48       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       5825.52       323.37       663.01       -274.29       2.00         6000.00       4.93       64.00       5824.98       327.90       672.30       -278.13       2.00         6100.00       2.93       64.00       6024.74       330.90       678.45       -280.68       2.00										
5646.4112.0064.005575.46305.10625.55-258.790.00Drop to Vertical5700.0010.9364.005627.98309.77635.12-262.752.005800.008.9364.005726.48317.33650.62-269.162.005900.006.9364.005825.52323.37663.01-274.292.006000.004.9364.005924.98327.90672.30-278.132.006100.002.9364.006024.74330.90678.45-280.682.00										Cherry Canyon
5700.00       10.93       64.00       5627.98       309.77       635.12       -262.75       2.00         5800.00       8.93       64.00       5726.48       317.33       650.62       -269.16       2.00         5900.00       6.93       64.00       5825.52       323.37       663.01       -274.29       2.00         6000.00       4.93       64.00       5924.98       327.90       672.30       -278.13       2.00         6100.00       2.93       64.00       6024.74       330.90       678.45       -280.68       2.00										Drop to Vertical
5800.00         8.93         64.00         5726.48         317.33         650.62         -269.16         2.00           5900.00         6.93         64.00         5825.52         323.37         663.01         -274.29         2.00           6000.00         4.93         64.00         5924.98         327.90         672.30         -278.13         2.00           6100.00         2.93         64.00         6024.74         330.90         678.45         -280.68         2.00										-p
6000.00 4.93 64.00 5924.98 327.90 672.30 -278.13 2.00 6100.00 2.93 64.00 6024.74 330.90 678.45 -280.68 2.00		5800.00	8.93		5726.48	317.33		-269.16	2.00	
6100.00 2.93 64.00 6024.74 330.90 678.45 -280.68 2.00										

douron		Well:	Purrito 18-	19 Fed Com 8	32H				Geodetic System: US State Plane 1983
devon		County:	Lea						Datum: North American Datum 1927
			Permit Plan Permit Plan						Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)
		-							
	MD (ft)	INC (°)	<b>AZI</b> (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
-	6246.41	0.00	64.00	6171.09	332.54	681.82	-282.07	2.00	Hold Vertical
	6300.00	0.00	179.68	6224.67	332.54	681.82	-282.07	0.00	
	6400.00 6500.00	0.00 0.00	179.68 179.68	6324.67 6424.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	6600.00	0.00	179.68	6424.67 6524.67	332.54 332.54	681.82 681.82	-282.07	0.00	
	6700.00	0.00	179.68	6624.67	332.54	681.82	-282.07	0.00	
	6800.00	0.00	179.68	6724.67	332.54	681.82	-282.07	0.00	
	6860.33	0.00	179.68	6785.00	332.54	681.82	-282.07	0.00	Brushy Canyon
	6900.00	0.00	179.68	6824.67	332.54	681.82	-282.07	0.00	
	7000.00	0.00	179.68	6924.67	332.54	681.82	-282.07	0.00	
	7100.00	0.00	179.68	7024.67	332.54	681.82	-282.07	0.00	
	7200.00 7300.00	0.00	179.68 179.68	7124.67	332.54 332.54	681.82	-282.07 -282.07	0.00 0.00	
	7400.00	0.00 0.00	179.68	7224.67 7324.67	332.54 332.54	681.82 681.82	-282.07	0.00	
	7500.00	0.00	179.68	7424.67	332.54	681.82	-282.07	0.00	
	7600.00	0.00	179.68	7524.67	332.54	681.82	-282.07	0.00	
	7700.00	0.00	179.68	7624.67	332.54	681.82	-282.07	0.00	
	7800.00	0.00	179.68	7724.67	332.54	681.82	-282.07	0.00	
	7900.00	0.00	179.68	7824.67	332.54	681.82	-282.07	0.00	
	8000.00	0.00	179.68	7924.67	332.54	681.82	-282.07	0.00	
	8100.00	0.00	179.68	8024.67	332.54	681.82	-282.07	0.00	
	8200.00 8300.00	0.00 0.00	179.68 179.68	8124.67 8224.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	8400.00	0.00	179.68	8324.67	332.54	681.82	-282.07	0.00	
	8500.00	0.00	179.68	8424.67	332.54	681.82	-282.07	0.00	
	8535.33	0.00	179.68	8460.00	332.54	681.82	-282.07	0.00	Bone Spring Lime
	8600.00	0.00	179.68	8524.67	332.54	681.82	-282.07	0.00	
	8700.00	0.00	179.68	8624.67	332.54	681.82	-282.07	0.00	
	8800.00	0.00	179.68	8724.67	332.54	681.82	-282.07	0.00	
	8900.00 9000.00	0.00 0.00	179.68 179.68	8824.67 8924.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	9000.00 9100.00	0.00	179.68	9024.67	332.54 332.54	681.82	-282.07	0.00	
	9200.00	0.00	179.68	9124.67	332.54	681.82	-282.07	0.00	
	9300.00	0.00	179.68	9224.67	332.54	681.82	-282.07	0.00	
	9400.00	0.00	179.68	9324.67	332.54	681.82	-282.07	0.00	
	9500.00	0.00	179.68	9424.67	332.54	681.82	-282.07	0.00	
	9600.00	0.00	179.68	9524.67	332.54	681.82	-282.07	0.00	
	9600.33	0.00	179.68	9525.00	332.54	681.82	-282.07	0.00	1st Bone Spring Sand
	9700.00 9800.00	0.00 0.00	179.68 179.68	9624.67 9724.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	9900.00	0.00	179.68	9824.67	332.54	681.82	-282.07	0.00	
	10000.00	0.00	179.68	9924.67	332.54	681.82	-282.07	0.00	
	10100.00	0.00	179.68	10024.67	332.54	681.82	-282.07	0.00	
	10200.00	0.00	179.68	10124.67	332.54	681.82	-282.07	0.00	
	10234.33	0.00	179.68	10159.00	332.54	681.82	-282.07	0.00	Bone Spring 2nd
	10300.00	0.00	179.68	10224.67	332.54	681.82	-282.07	0.00	
	10400.00	0.00	179.68	10324.67	332.54	681.82	-282.07	0.00	
	10500.00 10600.00	0.00 0.00	179.68 179.68	10424.67 10524.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	10800.00	0.00	179.68	10524.67	332.54 332.54	681.82	-282.07	0.00	
	10725.33	0.00	179.68	10650.00	332.54	681.82	-282.07	0.00	3rd Bone Spring Lime
	10800.00	0.00	179.68	10724.67	332.54	681.82	-282.07	0.00	
	10900.00	0.00	179.68	10824.67	332.54	681.82	-282.07	0.00	
	11000.00	0.00	179.68	10924.67	332.54	681.82	-282.07	0.00	
	11100.00	0.00	179.68	11024.67	332.54	681.82	-282.07	0.00	
	11200.00 11300.00	0.00	179.68	11124.67	332.54	681.82	-282.07	0.00	
	11400.00	0.00 0.00	179.68 179.68	11224.67 11324.67	332.54 332.54	681.82 681.82	-282.07 -282.07	0.00 0.00	
	11400.00	0.00	179.68	11324.67	332.54 332.54	681.82 681.82	-282.07	0.00	Bone Spring 3rd
	11500.00	0.00	179.68	11424.67	332.54	681.82	-282.07	0.00	bone spring sta
	11600.00	0.00	179.68	11524.67	332.54	681.82	-282.07	0.00	
	11607.37	0.00	179.68	11532.04	332.54	681.82	-282.07	0.00	КОР
	11700.00	9.26	179.68	11624.27	325.07	681.86	-274.61	10.00	
	11800.00	19.26	179.68	11721.07	300.47	682.00	-250.06	10.00	
	11900.00	29.26	179.68	11812.12	259.43	682.22	-209.11	10.00	
	11932.50	32.51	179.68	11840.00	242.75	682.32	-192.47	10.00	Wolfcamp / Point of Penetration
	12000.00	39.26	179.68	11894.66	203.20	682.54	-153.01	10.00	
	12100.00 12200.00	49.26 59.26	179.68 179.68	11966.18 12024.51	133.49 52.43	682.93 683.38	-83.46 -2.58	10.00 10.00	
	12200.00	59.26 69.26	179.68	12024.51	-37.54	683.88	-2.58 87.19	10.00	
						- 55.50	22	. 0.00	

devon				19 Fed Com 8	32H				-	US State Plane 1983
0.0 . 011		County:								North American Datum 1927
		Wellbore:	Permit Plan Permit Plan						•	Clarke 1866
		Design:	Permit Plan	#1					Zone:	3001 - NM East (NAD83)
	MD	INC	AZI	TVD	NS	EW	vs	DLS	<b>.</b> .	
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment	
-	12400.00	79.26	179.68	12094.97	-133.67	684.42	183.10	10.00		
	12500.00	89.26	179.68	12104.95	-233.04	684.98	282.25	10.00		
	12507.08	89.97	179.68	12105.00	-240.12	685.01	289.30	10.00	Landing Point	
	12600.00	89.97	179.68	12105.05	-333.04	685.53	382.02	0.00		
	12700.00	89.97	179.68	12105.10	-433.03	686.09	481.79	0.00		
	12800.00	89.97	179.68	12105.15	-533.03	686.65	581.57	0.00		
	12900.00	89.97	179.68	12105.20	-633.03	687.21	681.34	0.00		
	13000.00	89.97	179.68	12105.25	-733.03	687.77	781.12	0.00		
	13100.00 13200.00	89.97 89.97	179.68 179.68	12105.30 12105.35	-833.03 -933.03	688.33 688.89	880.89 980.67	0.00 0.00		
	13200.00	89.97	179.68	12105.40	-1033.03	689.45	1080.44	0.00		
	13400.00	89.97	179.68		-1133.02	690.00	1180.21	0.00		
	13500.00	89.97	179.68	12105.50	-1233.02	690.56	1279.99	0.00		
	13600.00	89.97	179.68	12105.55	-1333.02	691.12	1379.76	0.00		
	13700.00	89.97	179.68	12105.60	-1433.02	691.68	1479.54	0.00		
	13800.00	89.97	179.68	12105.65	-1533.02	692.24	1579.31	0.00		
	13900.00	89.97	179.68	12105.70	-1633.02	692.80	1679.08	0.00		
	14000.00	89.97	179.68	12105.76	-1733.01	693.36	1778.86	0.00		
	14100.00	89.97	179.68	12105.81	-1833.01	693.92	1878.63	0.00		
	14200.00	89.97	179.68	12105.86	-1933.01	694.47	1978.41	0.00		
	14300.00	89.97	179.68	12105.91	-2033.01	695.03	2078.18	0.00		
	14400.00	89.97	179.68	12105.96	-2133.01	695.59	2177.96	0.00		
	14500.00 14600.00	89.97	179.68	12106.01 12106.06	-2233.01 -2333.01	696.15	2277.73	0.00 0.00		
	14600.00	89.97 89.97	179.68 179.68	12106.06	-2333.01	696.71 697.27	2377.50 2477.28	0.00		
	14800.00	89.97	179.68	12106.11	-2533.00	697.83	2577.05	0.00		
	14900.00	89.97	179.68	12106.21	-2633.00	698.39	2676.83	0.00		
	15000.00	89.97	179.68	12106.26	-2733.00	698.94	2776.60	0.00		
	15100.00	89.97	179.68	12106.31	-2833.00	699.50	2876.37	0.00		
	15200.00	89.97	179.68	12106.36	-2933.00	700.06	2976.15	0.00		
	15300.00	89.97	179.68	12106.41	-3032.99	700.62	3075.92	0.00		
	15400.00	89.97	179.68	12106.46	-3132.99	701.18	3175.70	0.00		
	15500.00	89.97	179.68	12106.51	-3232.99	701.74	3275.47	0.00		
	15600.00	89.97	179.68	12106.56	-3332.99	702.30	3375.25	0.00		
	15700.00	89.97	179.68	12106.61	-3432.99	702.86	3475.02	0.00		
	15800.00 15900.00	89.97 89.97	179.68 179.68	12106.67 12106.72	-3532.99 -3632.98	703.41 703.97	3574.79 3674.57	0.00 0.00		
	16000.00	89.97 89.97	179.68	12106.72	-3732.98	703.97 704.53	3774.37	0.00		
	16100.00	89.97	179.68	12106.82	-3832.98	705.09	3874.12	0.00		
	16200.00	89.97	179.68	12106.87	-3932.98	705.65	3973.89	0.00		
	16300.00	89.97	179.68	12106.92	-4032.98	706.21	4073.66	0.00		
	16400.00	89.97	179.68	12106.97	-4132.98	706.77	4173.44	0.00		
	16500.00	89.97	179.68	12107.02	-4232.98	707.33	4273.21	0.00		
	16600.00	89.97	179.68	12107.07		707.88	4372.99	0.00		
	16700.00	89.97	179.68	12107.12	-4432.97	708.44	4472.76	0.00		
	16800.00	89.97	179.68	12107.17		709.00	4572.54	0.00		
	16900.00 17000.00	89.97	179.68	12107.22 12107.27	-4632.97 -4732.97	709.56	4672.31	0.00 0.00		
	17100.00	89.97 89.97	179.68 179.68	12107.27		710.12 710.68	4772.08 4871.86	0.00		
	17200.00	89.97	179.68	12107.32		711.24	4971.63	0.00		
	17300.00	89.97	179.68	12107.42		711.80	5071.41	0.00		
	17400.00	89.97	179.68	12107.47	-5132.96	712.35	5171.18	0.00		
	17500.00	89.97	179.68	12107.53	-5232.96	712.91	5270.95	0.00		
	17600.00	89.97	179.68	12107.58	-5332.96	713.47	5370.73	0.00		
	17700.00	89.97	179.68	12107.63	-5432.96	714.03	5470.50	0.00		
	17800.00	89.97	179.68	12107.68	-5532.95	714.59	5570.28	0.00		
	17900.00	89.97	179.68	12107.73	-5632.95	715.15	5670.05	0.00		
	18000.00	89.97	179.68		-5732.95	715.71	5769.83	0.00		
	18100.00	89.97	179.68	12107.83	-5832.95	716.27	5869.60	0.00		
	18200.00	89.97 89.97	179.68	12107.88	-5932.95	716.82	5969.37 6069.15	0.00		
	18300.00 18400.00	89.97 89.97	179.68 179.68	12107.93 12107.98	-6032.95 -6132.95	717.38 717.94	6069.15 6168.92	0.00 0.00		
	18400.00	89.97 89.97	179.68	12107.98	-6132.95	717.94	6268.70	0.00		
	18600.00	89.97	179.68	12108.03	-6332.94	719.06	6368.47	0.00		
	18700.00	89.97	179.68	12108.13	-6432.94	719.62	6468.24	0.00		
	18800.00	89.97	179.68	12108.18	-6532.94	720.18	6568.02	0.00		
	18900.00	89.97	179.68	12108.23	-6632.94	720.74	6667.79	0.00		
	19000.00	89.97	179.68	12108.28	-6732.94	721.29	6767.57	0.00		
	19100.00	89.97	179.68	12108.33	-6832.93	721.85	6867.34	0.00		
	19200.00	89.97	179.68	12108.39	-6932.93	722.41	6967.12	0.00		

on		County: Wellbore:			332H				Datum: Ellipsoid:	US State Plane 1983 North American Datum 1927 Clarke 1866 3001 - NM East (NAD83)
	MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment	
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	comment	
	19300.00	89.97	179.68	12108.44	-7032.93	722.97	7066.89	0.00		
	19400.00	89.97	179.68	12108.49	-7132.93	723.53	7166.66	0.00		
	19500.00	89.97	179.68	12108.54	-7232.93	724.09	7266.44	0.00		
	19600.00	89.97	179.68	12108.59	-7332.93	724.65	7366.21	0.00		
	19700.00	89.97	179.68	12108.64	-7432.92	725.21	7465.99	0.00		
	19800.00	89.97	179.68	12108.69	-7532.92	725.76	7565.76	0.00		
	19900.00	89.97	179.68	12108.74	-7632.92	726.32	7665.53	0.00		
	20000.00	89.97	179.68	12108.79	-7732.92	726.88	7765.31	0.00		
	20100.00	89.97	179.68	12108.84	-7832.92	727.44	7865.08	0.00		
	20200.00	89.97	179.68	12108.89	-7932.92	728.00	7964.86	0.00		
	20300.00	89.97	179.68	12108.94	-8032.92	728.56	8064.63	0.00		
	20400.00	89.97	179.68	12108.99	-8132.91	729.12	8164.41	0.00		
	20500.00	89.97	179.68	12109.04	-8232.91	729.68	8264.18	0.00		
	20600.00	89.97	179.68	12109.09	-8332.91	730.24	8363.95	0.00		
	20700.00	89.97	179.68	12109.14	-8432.91	730.79	8463.73	0.00		
	20800.00	89.97	179.68	12109.19	-8532.91	731.35	8563.50	0.00		
	20900.00	89.97	179.68	12109.25	-8632.91	731.91	8663.28	0.00		
	21000.00	89.97	179.68	12109.30	-8732.90	732.47	8763.05	0.00		
	21100.00	89.97	179.68	12109.35	-8832.90	733.03	8862.82	0.00		
	21200.00	89.97	179.68	12109.40	-8932.90	733.59	8962.60	0.00		
	21300.00	89.97	179.68	12109.45	-9032.90	734.15	9062.37	0.00		
	21400.00	89.97	179.68	12109.50	-9132.90	734.71	9162.15	0.00		
	21500.00	89.97	179.68	12109.55	-9232.90	735.26	9261.92	0.00		
	21600.00	89.97	179.68	12109.60	-9332.89	735.82	9361.70	0.00		
	21700.00	89.97	179.68	12109.65	-9432.89	736.38	9461.47	0.00		
	21800.00	89.97	179.68	12109.70	-9532.89	736.94	9561.24	0.00		
	21900.00	89.97	179.68	12109.75	-9632.89	737.50	9661.02	0.00		
	22000.00	89.97	179.68	12109.80	-9732.89	738.06	9760.79	0.00		
	22100.00	89.97	179.68	12109.85	-9832.89	738.62	9860.57	0.00		
	22200.00	89.97	179.68	12109.90	-9932.89	739.18	9960.34	0.00		
	22300.00	89.97	179.68	12109.95	-10032.88	739.73	10060.11	0.00		
	22338.55	89.97	179.68	12109.97	-10071.43	739.95	10098.58	0.00	Exit	
	22400.00	89.97	179.68		-10132.88	740.29	10159.89	0.00		
	22418.55	89.97	179.68		-10151.43	740.37	10178.39	0.00	BHL	

.

#### 1. Geologic Formations

TVD of target	12110	Pilot hole depth	N/A
MD at TD:	22419	Deepest expected fresh water	

Basin

	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	830		
Salt	1236		
Base of Salt	3234		
Lamar	4545		
Delaware	4600		
Cherry Canyon	5504		
Brushy Canyon	6785		
Bone Spring Lime	8460		
1st Bone Spring Sand	9525		
Bone Spring 2nd	10159		
3rd Bone Spring Lime	10650		
Bone Spring 3rd	11400		
Wolfcamp	11840		

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

#### 2. Casing Program (Primary Design)

	8	Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
14 3/4	10 3/4	40 1/2	J-55	BTC	0	855	0	855
9 7/8	8 5/8	32	P110	Sprint FJ	0	11400	0	11400
7 7/8	5 1/2	17	P110	BTC	0	22419	0	12110

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

#### 3. Cementing Program (Primary Design)

Casing	# Sks	тос	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	519	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	332	Surf	9	3.27	Lead: Class C Cement + additives
Int I	535	6785	13.2	1.44	Tail: Class H / C + additives
Int 1	432	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	332	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	535	6785	13.2	1.44	Tail: Class H / C + additives
Production	117	9607	9	3.27	Lead: Class H /C + additives
FIOUDCHOIL	1431	11607	13.2	1.44	Tail: Class H / C + additives

Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon 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. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		~	Tested to:								
		5M	Annular		Х	50% of rated working pressure								
Int 1	13-58"			i Ram	Х									
	10 00		^	Ram		- 5M								
			Doubl	le Ram	X	5111								
			Other*											
	13-5/8"	10M	Annular (5M)		Х	100% of rated working pressure								
Production			Blind Ram		Х									
Troduction		10101	Pipe Ram			10M								
											Doubl	le Ram	Х	10101
			Other*											
			Annula	ar (5M)										
			Blind	l Ram										
			Pipe	Ram										
			Doubl	le Ram		]								
			Other*											
N A variance is requested for	the use of a	a diverter on	the surface	casing. See	attached for	schematic.								
Y A variance is requested to r														

#### 4. Pressure Control Equipment (Three String Design)

#### 5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)		
Surface	FW Gel	8.5-9		
Intermediate	DBE / Cut Brine	10-10.5		
Production	OBM	10-10.5		

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

#### 6. Logging and Testing Procedures

Logging,	Coring and Testing
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the
Х	Completion Rpeort and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Addition	al logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
Х	CBL	Production casing
Х	Mud log	Intermediate shoe to TD
	PEX	

#### 7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	6612
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM. N H2S is present

Y H2S plan attached.

#### 8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
  - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).

 $^{3}$  The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.

- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan Other, describe

#### Purrito 18-19 Fed Com 832H

10 3/4	surfa	ace csg in a	14 3/4	inch hole.		Design	Factors			Surface		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.50		j 55	btc	15.98	3.48	0.5	972	7	0.84	6.57	39,366
"B"				btc				0				0
	w/8.4#/g	mud, 30min Sfc Csg Test	t psig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	972				39,366
omparison o		imum Required Cem										
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
14 3/4	0.5563	519	747	541	38	9.00	3710	5M				1.50
urst Frac Gra	dient(s) for Segmen	t(s) A, B = , b All > 0.	.70, OK.									
		·· <b>···</b> ·····										
8 5/8		g inside the	10 3/4	<b>-</b>		Design				Int 1	•	
Segment	#/ft	Grade	440	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00		p 110	vam sprint fj	2.04	0.64	1.08	11,400	1	1.81	1.08	364,800
"B"								0				0
	w/8.4#/g	mud, 30min Sfc Csg Test					Totals:	11,400		_		364,800
				ded to achieve a top of	0	ft from su		972				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
9 7/8	0.1261	867	1856	1456	27	10.50	3941	5M				0.61
O V Tool(s):			6785				sum of sx	<u>Σ CuFt</u>				Σ%exces
by stage % : lass 'C' tail cm		219	15				1567	2864				97
Tail cmt										Prod 1		
5 1/2		g inside the	8 5/8	Counting	Dedu	Design Fa		l a nantha	<b>D</b> @-	a-B	a-C	Malashi
Segment "A"	<b>#/ft</b> 17.00	Grade	p 110	Coupling btc	<b>Body</b> 2.65	Collapse 1.13	Burst 1.61	Length 22,419	<b>B@s</b> 2	а-в 2.70	a-C 1.90	Weight 381,123
"B"	17.00		pilo	DIC	2.05	1.13	1.01	0	2	2.70	1.90	0
ъ "С"								0				0
"D"				0				0				0
U		mud, 30min Sfc Csg Test	2664	0			Totals:	22,419				381.12
	w/8.4#/g	-		ded to achieve a top of	11200	ft from su		22,419				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
0120	0.1733	1548	2443	1945	26	10.50		DOIL				0.91
7 7/8	0.1700	1040	2110	1040	20	10.00				_		0.01
7 7/8 Class 'C' tail cm	nt yld > 1.35											
Class 'C' tail cm #N/A	nt yld > 1.35		E 1/2			Design	Easters			hoors ('		
lass 'C' tail cm #N/A 0		Crada	5 1/2	Coupling		Design				hoose Casi	•	Weight
lass 'C' tail cm #N/A 0 Segment	nt yld > 1.35	Grade	5 1/2	Coupling	#N/A	<u>Design I</u> Collapse	Factors Burst	Length	<c B@s</c 	hoose Casi a-B	ng> a-C	Weight
lass 'C' tail cm #N/A 0 Segment "A"		Grade	5 1/2	0.00	#N/A			0			•	0
lass 'C' tail cm #N/A 0 Segment	#/ft				#N/A		Burst	0 0			•	0 0
lass 'C' tail cm #N/A 0 Segment "A"	#/ft	mud, 30min Sfc Csg Test	: psig:	0.00 0.00		Collapse	Burst Totals:	0 0 0			a-C	0 0 0
lass 'C' tail cm #N/A 0 Segment "A" "B"	#/ft w/8.4#/g	mud, 30min Sfc Csg Test Cmt vol ca	: psig: alc below includes t	0.00 0.00 his csg, TOC intended	#N/A	Collapse ft from su	Burst Totals: Irface or a	0 0 0 #N/A			a-C	0 0 0 overlap.
lass 'C' tail cm #N/A 0 Segment "A" "B" Hole	#/ft w/8.4#/g Annular	mud, 30min Sfc Csg Test Cmt vol ca 1 Stage	: psig: alc below includes 1 Stage	0.00 0.00 his csg, TOC intended Min	#N/A 1 Stage	Collapse ft from su Drilling	Burst Totals: Irface or a Calc	0 0 0 #N/A Req'd			a-C	0 0 0 overlap. Min Dis
ilass 'C' tail cm #N/A 0 Segment "A" "B" Hole Size	#/ft w/8.4#/g	mud, 30min Sfc Csg Test Cmt vol ca 1 Stage Cmt Sx	: psig: alc below includes i 1 Stage CuFt Cmt	0.00 0.00 his csg, TOC intended Min Cu Ft	#N/A 1 Stage % Excess	Collapse ft from su	Burst Totals: Irface or a	0 0 0 #N/A			a-C	0 0 0
lass 'C' tail cm #N/A 0 Segment "A" "B" Hole	#/ft w/8.4#/g Annular	mud, 30min Sfc Csg Test Cmt vol ca 1 Stage	: psig: alc below includes 1 Stage	0.00 0.00 his csg, TOC intended Min Cu Ft 0	#N/A 1 Stage	Collapse ft from su Drilling	Burst Totals: Irface or a Calc	0 0 0 #N/A Req'd			a-C	0 0 0 overlap. Min Dis

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# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

LOCATION: Section 18, T.23 S., R.32 E., NMPM		Devon Energy Production Company LP NMNM18848
	LOCATION:	Section 18, T.23 S., R.32 E., NMPM
COUNTY: Lea County, New Mexico	COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Purrito 18-19 Fed Com 832H
SURFACE HOLE FOOTAGE:	375'/N & 635'/W
<b>BOTTOM HOLE FOOTAGE</b>	20'/S & 1320'/W
ATS/API ID:	ATS-22-2675
APD ID:	10400078641
Sundry ID:	2743204

# COA

H2S	Yes 🔽		
Potash	None 🔽		
Cave/Karst Potential	Low		
Cave/Karst Potential	Critical		
Variance	C None	🖸 Flex Hose	C Other
Wellhead	Conventional and Multibow		
Other	□4 String	Capitan Reef	□ WIPP
		None 🝷	
Other	Pilot Hole	Open Annulus	
	None 🔽		
Cementing	Contingency Squeeze	Echo-Meter	Primary Cement
	None 🚽	Int 1 🗾	Squeeze
	2		None 🚽
Special	□ Water	COM	Unit Unit
Requirements	Disposal/Injection		
Special	Batch Sundry		
Requirements			
Special	Break Testing	□ Offline	□ Casing
Requirements		Cementing	Clearance
Variance			

# A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Sand Dunes, Triste Draw, Wildcat, and Bone Springs** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

# **B.** CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 972 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 14 3/4 inch in diameter.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of <u>8</u> <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 8-5/8 inch intermediate casing is:

# **Option 1 (Single Stage):**

• Cement to surface. If cement does not circulate see B.1.a, c-d above.

# **Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the **Brushy** Canyon at 6785' (867 sxs Class H/C+ additives).
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 700 sxs Class C)

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. <u>Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 8-5/8" casing to surface after the second stage BH to verify TOC.</u>

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

# Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- 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

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

2.

# **Option 1:**

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. Annular which shall be tested to **5000 (5M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **8-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

# **Option 2:**

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **10-3/4** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

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

# **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in 43 CFR part 3170 Subpart 3171
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

# **BOPE Break Testing Variance**

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.

- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at **21**-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

# **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)

## $\boxtimes$ Eddy County

**EMAIL** or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

**BLM\_NM\_CFO\_DrillingNotifications@BLM.GOV** (575) 361-2822

# Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 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 **43** CFR part **3170** Subpart **3172** 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.
- <u>Wait on cement (WOC) for Potash Areas:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. <u>Wait on cement (WOC) for Water Basin:</u> 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.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 Subpart 3172 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR**

# part 3170 Subpart 3172.

## C. DRILLING MUD

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

# D. WASTE MATERIAL AND FLUIDS

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

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

LVO 8/2/2023

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

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	253003
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By		Condition Date
pkautz	None	8/17/2023

CONDITIONS

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Action 253003