Sundry Print Reports

County or Parish/State: LEA /

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

Well Name: FIGHTING OKRA 18-19 Well Location: T26S / R34E / SEC 18 /

FED NENE / 32.0495993 / -103.5046387

Well Number: 18H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM114992 Unit or CA Name: Unit or CA Number:

US Well Number: 3002547575 **Well Status:** Approved Application for **Operator:** DEVON ENERGY

Permit to Drill PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2748871

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 08/31/2023 Time Sundry Submitted: 09:26

Date proposed operation will begin: 08/31/2023

Procedure Description: Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Pool Code change from Wildcat: Lower Wolfcamp Oil to WC-025 G-10 S263418C; LWR WOLFCAMP Dedicated acreage change from 320 acs to 640 acs. TVD/MD change from 13524'/23821' to 13450'/23778' Surface Casing size change from 17.5"/13.375" to 14.75"/10.75". Cement volume changes to accommodate casing change. Please see attached revised C-102 and drilling & directional plans.

NOI Attachments

Procedure Description

8.625_32lb_P110EC_SPRINT_FJ_VST_20230831140032.pdf

10.750_40.50lb_H40_20230831140032.pdf

5.5_17lb_P110RY_DWC_C_20230831140031.pdf

FIGHTING_OKRA_18_19_FEDERAL_18H_C_102_BHL_NOI_20230831092418.pdf

FIGHTING_OKRA_18_19_FED_18H_20230831092415.pdf

FIGHTING_OKRA_18_19_FED_18H_Directional_Plan_08_30_23_20230831092416.pdf

Page 1 of 2

eived by OCD: 9/20/2023 1:52:36 PM Well Name: FIGHTING OKRA 18-19

FED

Well Location: T26S / R34E / SEC 18 /

NENE / 32.0495993 / -103.5046387

County or Parish/State: LEA/ 2 of

Well Number: 18H Type of Well: OIL WELL

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Lease Number: NMNM114992 **Unit or CA Name: Unit or CA Number:**

US Well Number: 3002547575 Well Status: Approved Application for

Permit to Drill

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Specialist Review

Fighting_Okra_18_19_Fed_18H_Sundry_ID_2748871_20230920124352.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: REBECCA DEAL Signed on: AUG 31, 2023 02:00 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (303) 299-1406

Email address: REBECCA.DEAL@DVN.COM

Field

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

Signature: Long Vo

BLM POC Name: LONG VO BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752345972 BLM POC Email Address: LVO@BLM.GOV

Disposition: Approved Disposition Date: 09/20/2023

Page 2 of 2

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

5.	Lease	Serial	No

BORDING OF EAR OF MARKING ENTERVI			
SUNDRY NOTICES AND REPORTS ON V Do not use this form for proposals to drill or to abandoned well. Use Form 3160-3 (APD) for sur	o re-enter an	6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRIPLICATE - Other instructions on page	ge 2	7. If Unit of CA/Agreen	nent, Name and/or No.
1. Type of Well	<u>'</u>	-	
Oil Well Gas Well Other		8. Well Name and No.	
2. Name of Operator		9. API Well No.	
3a. Address 3b. Phone No.	(include area code)	10. Field and Pool or Ex	xploratory Area
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		11. Country or Parish, S	state
12. CHECK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF NOT	TICE, REPORT OR OTHE	ER DATA
TYPE OF SUBMISSION	TYPE OF AC	CTION	
	raulic Fracturing Rec	duction (Start/Resume) lamation	Water Shut-Off Well Integrity
Subsequent Report	_	omplete nporarily Abandon	Other
	_	er Disposal	
completed. Final Abandonment Notices must be filed only after all requirement is ready for final inspection.)	is, including reclamation, have	ve been completed and the	e operator has detennined that the site
4. I hereby certify that the foregoing is true and correct. Name (<i>Printed/Typed</i>)	Title		
Signature	Date		
THE SPACE FOR FED	ERAL OR STATE OF	FICE USE	
Approved by			
	Title	Da	ate
Conditions of approval, if any, are attached. Approval of this notice does not warrar certify that the applicant holds legal or equitable title to those rights in the subject leads to which would entitle the applicant to conduct operations thereon.			
Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for a many false, fictitious or fraudulent statements or representations as to any matter with		llfully to make to any dep	artment or agency of the United States

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Form 3160-5, page 2)

Additional Information

Location of Well

0. SHL: NENE / 400 FNL / 1300 FEL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0495993 / LONG: -103.5046387 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 100 FNL / 2122 FEL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0504233 / LONG: -103.5072924 (TVD: 13187 feet, MD: 13237 feet)

BHL: SWSE / 20 FSL / 2122 FEL / TWSP: 26S / RANGE: 34E / SECTION: 19 / LAT: 32.0217219 / LONG: -103.50726 (TVD: 13524 feet, MD: 23821 feet)



Received by OCD: 9/20/2023 1:52:36 PM

Issued on: 16 Dec. 2020 by Logan Van Gorp

Connection Data Sheet

0.5	W : 1 : (II (C)	14/- II TI.	Out In	All Duist	Common the m
OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00	0.352 in.	P110EC	7.875 in.	VAM® 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	h Yield			
Min. Yield Strength	125	ksi			
Max. Yield Strength	140	ksi			
Min. Ultimate Tensile Strength	135	ksi			

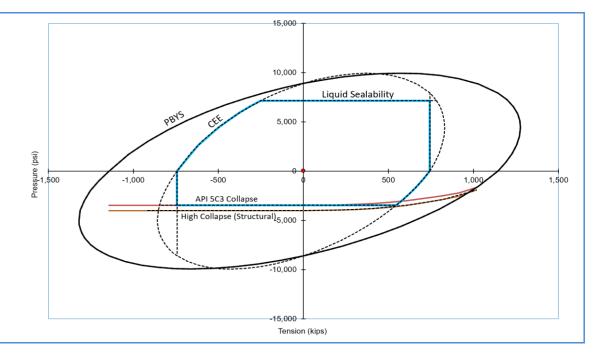
CONNECTION PROP	DEDTIES	
Connection Type	Semi-Premium Into	egral Flush
Connection OD (nom):	8.665	in.
Connection ID (nom):	7.954	in.
Make-Up Loss	2.614	in.
Critical Cross Section	6.038	sqin.
Tension Efficiency	65.0	% of pipe
Compression Efficiency	65.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

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

TORQUE VALUES	5	
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	TBD	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.



canada@vamfieldservice.com
usa@vamfieldservice.com

mexico@vamfieldservice.com

brazil@vamfieldservice.com

Do you need help on this product? - Remember no one knows VAM^{\otimes} like VAM^{\otimes}

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





U. S. Steel Tubular Products 10.750" 40.50lb/ft (0.350" Wall) H40

MECHANICAL PROPERTIES	Pipe	втс	LTC	STC		
Minimum Yield Strength	40,000				psi	
Maximum Yield Strength	80,000				psi	
Minimum Tensile Strength	60,000				psi	
DIMENSIONS	Pipe	втс	LTC	STC		
Outside Diameter	10.750	0.000	0.000	11.750	in.	
Wall Thickness	0.350				in.	
Inside Diameter	10.050			10.050	in.	
Standard Drift	9.894	9.894	9.894	9.894	in.	
Alternate Drift					in.	
Nominal Linear Weight, T&C	40.50				lb/ft	
Plain End Weight	38.91				lb/ft	
PERFORMANCE	Pipe	втс	LTC	STC		
Minimum Collapse Pressure	1,390	1,390	1,390	1,390	psi	
Minimum Internal Yield Pressure	2,280	2,280	2,280	2,280	psi	
Minimum Pipe Body Yield Strength	457				1,000 lbs	
Joint Strength				314	1,000 lbs	
Reference Length				5,164	ft	
MAKE-UP DATA	Pipe	втс	LTC	STC		
Make-Up Loss				3.50	in.	
Minimum Make-Up Torque				2,360	ft-lb	
Maximum Make-Up Torque				3,930	ft-lb	

JNCONTROLL FD

Notes

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

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

Technical Specifications

Connection Type:	Size(O.D.):	Weight (Wall):	Grade:
DWC/C Casing	5-1/2 in	17.00 lb/ft (0.304 in)	P-110RY
standard			

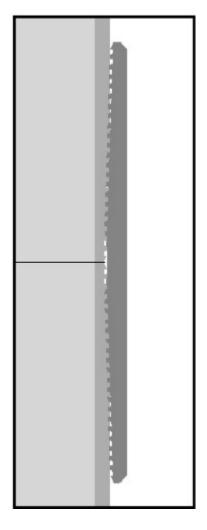
D 440D)4	Material
P-110RY	Grade
110,000	Minimum Yield Strength (psi)
125,000	Minimum Ultimate Strength (psi)
	Pipe Dimensions
5.500	Nominal Pipe Body O.D. (in)
4.892	Nominal Pipe Body I.D.(in)
0.304	Nominal Wall Thickness (in)
17.00	Nominal Weight (lbs/ft)
16.89	Plain End Weight (lbs/ft)
4.962	Nominal Pipe Body Area (sq in)
	(oq)
	Pipe Body Performance Properties
546,000	Minimum Pipe Body Yield Strength (lbs)
7,480	Minimum Collapse Pressure (psi)
10,640	Minimum Internal Yield Pressure (psi)
9,700	Hydrostatic Test Pressure (psi)
0.050	Connection Dimensions
6.050	Connection O.D. (in)
4.892	Connection I.D. (in)
4.767	Connection Drift Diameter (in)
4.13	Make-up Loss (in)
4.962	Critical Area (sq in)
100.0	Joint Efficiency (%)
	Connection Performance Properties
546,000	Joint Strength (lbs)
22,940	Reference String Length (ft) 1.4 Design Factor
568,000	API Joint Strength (lbs)
546,000	Compression Rating (lbs)
7,480	API Collapse Pressure Rating (psi)
10,640	API Internal Pressure Resistance (psi)
91.7	Maximum Uniaxial Bend Rating [degrees/100 ft]
	Appoximated Field End Torque Values
12,000	Minimum Final Torque (ft-lbs)
13,800	Maximum Final Torque (ft-lbs)



VAM-USA 4424 W. Sam Houston Pkwy. Suite 150 Houston, TX 77041

Phone: 713-479-3200 Fax: 713-479-3234

E-mail: VAMUSAsales@vam-usa.com



For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Connection Yield Torque (ft-lbs)

Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

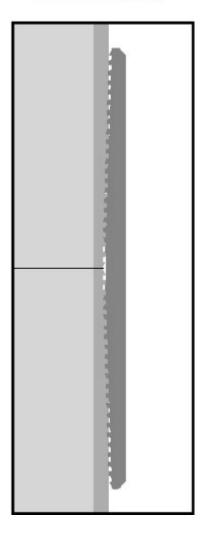
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15,500



DWC Connection Data Notes:

- 1. DWC connections are available with a seal ring (SR) option.
- All standard DWC/C connections are interchangeable for a give pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
- 3. Connection performance properties are based on nominal pipe body and connection dimensions.
- 4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
- 5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
- 6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
- Bending efficiency is equal to the compression efficiency.
- 8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
- 9. Connection yield torque is not to be exceeded.
- 10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
- DWC connections will accommodate API standard drift diameters.



Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

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

▼ AMENDED REPORT

WELL	LOCATION	AND	ACREAGE	DEDICATION	PLAT

	WEEE ECCHITION HIVE	TOTAL PERIOD PROTECTION I BEIL				
API Number	Pool Code	Pool Name				
30-025-47575	98347	WC-025 G-10 S263418C;LWR WOLFCAMP				
Property Code	Prop	erty Name	Well Number			
315691	FIGHTING OKRA	18-19 FEDERAL	18H			
OGRID No.	Opera	ator Name	Elevation			
6137	DEVON ENERGY PROI	DUCTION COMPANY, L.P.	3369.9'			

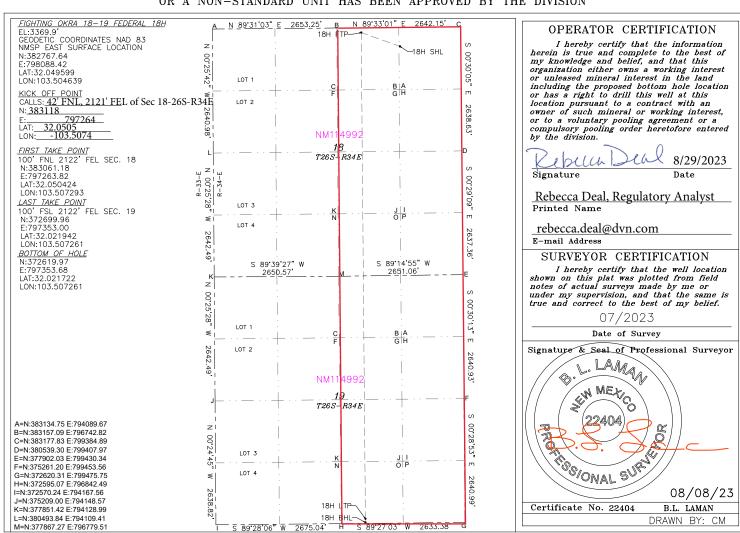
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Α	18	26-S	34-E		400	NORTH	1300	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	26-S	34-E		20	SOUTH	2122	EAST	LEA
Dedicated Acres	s Joint o	r Infill C	onsolidation	Code Or	der No.		•		
640									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



												1 48
Inten	t X	As Dril	lled									
API#		5-47575										
Оре	rator Na	me:				Pro	perty Name:					Well Number
		IERGY F	PRODUC	CTION	1	FIG	HTING O	KRA 18	-19 FE	EDER	AL	18H
COI	MPANY	, LP.										
Kick (Off Point	(KOP)										
UL	Section	Township	Range	Lot	Feet		From N/S	Feet		n E/W	County	EA
Latitu	18 ude	26S	34E		42 Longitu	ıde	FNL	2121	F	EL	NAD L	LA
200.00		0505			20.18.00		-103.507	'4			83	}
First ⁻	Take Poir	nt (FTP)										
UL	Section	Township	Range	Lot	Feet		From N/S	Feet		n E/W	County	
B Latitu	18 ude	26-S	34-E		100 Longitu	ıde	NORTH	2122	EA	ST	LEA NAD	
32.	.0504	24)3.507293				83		
Last T	Γake Poin	t (LTP)										
O UL	Section 19	Township 26-S	Range 34-E	Lot	Feet 100		m N/S Feet		om E/W	Count	:y	
Latitu		20-3	34-L		Longitu		70111 212	<u> </u>	101	NAD		
32.	.0219	42			103	.50	7261			83		
Is this	s well the	defining v	well for th	e Horiz	ontal S _l	pacin	g Unit?	N				
Is this	s well an	infill well?		Υ								
					_							
If infi	ll is ves n	lease nrov	ide ΔPI if	availah	le One	rator	Name and v	vell numl	her for	Definir	ng well fo	r Horizontal
	ng Unit.	.case prov		a v anab	.c, Ope		. Tarric aria v		101	J C111111	-5 *VC11 10	10112011101
API#	;		7									
						1						
Ope	rator Nai	me:				Pro	perty Name:					Well Number
DEVON ENERGY PRODUCTION CO., L.P.				FIGHTING OKRA 18-19 FED					19H			

KZ 06/29/2018

FIGHTING OKRA 18-19 FED 18H

1. Geologic Formations

TVD of target	13450	Pilot hole depth	N/A
MD at TD:	23778	Deepest expected fresh water	

Basin

Dasin	Depth	Water/Mineral	
Fa			II
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	785		
Salt	1060		
Base of Salt	5250		
Delaware	5300		
Cherry Canyon	6353		
Brushy Canyon	7996		
1st Bone Spring Lime	9529		
Bone Spring 1st	10475		
Bone Spring 2nd	11421		
3rd Bone Spring Lime	11487		
Bone Spring 3rd	12100		
Wolfcamp	12560		

^{*}H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

	, , , , , , , , , , , , , , , , , , ,	Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Grade Conn		To (MD)	From (TVD)	To (TVD)
14 3/4	10 3/4	40 1/2	H40	ВТС	0	810	0	810
9 7/8	8 5/8	32	P110	Sprint FJ	0	12860	0	12860
7 7/8	5 1/2	17	P110	DWC / C-IS+	0	23778	0	13450

[•]All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	494	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	440 Surf 9 3.27 465 8860 13.2 1.44		3.27	Lead: Class C Cement + additives	
Int I			13.2	1.44	Tail: Class H / C + additives
Int 1	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	440	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	465	8860	13.2	1.44	Tail: Class H / C + additives
Production	117	10953	9	3.27	Lead: Class H /C + additives
Froduction	1433	12953	13.2	1.44	Tail: Class H / C + additives

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

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		√	Tested to:	
			Anı	Annular		50% of rated working pressure	
Int 1	13-5/8"	5M	Blind	d Ram	X		
IIIL I	13-3/6	JIVI	Pipe	Ram		5M	
			Doub	le Ram	X	3101	
			Other*]	
			Annular (5M)		X	100% of rated working pressure	
Don't sellen	13-5/8"	10M	Blind Ram		X		
Production			Pipe	Ram		10M	
			Doub	le Ram	X	TOM	
			Other*				
			Annul	ar (5M)			
			Blind Ram				
			Pipe Ram			1	
			Double Ram]	
			Other*			1	
N A variance is requested for	the use of a	diverter or	the surface	casing. See	attached for s	schematic.	
Y A variance is requested to 1	A variance is requested to run a 5 M annular on a 10M system						

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, (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						
X	Completion Report 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.						

Additional	logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	7344
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

cheountered	incastred values and formations will be provided to the BEN.
N	H2S is present
Y	H2S plan attached.

FIGHTING OKRA 18-19 FED 18H

8. Other facets of operation

Is this a walking operation? Potentially

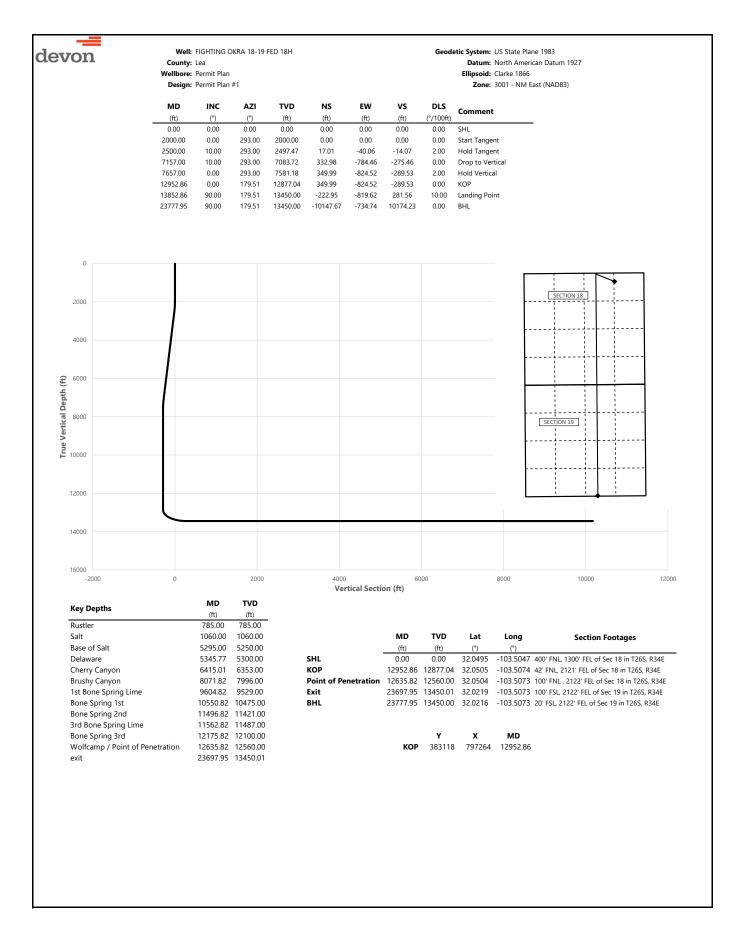
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and 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	1
X	Directional Plan
	Other, describe





County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD TVD vs INC AZI NS EW DLS Comment (°/100ft) (ft) (ft) (°) (°) (ft) (ft) (ft) SHL 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 100.00 0.00 293.00 100.00 0.00 0.00 0.00 0.00 200.00 0.00 293.00 200.00 0.00 0.00 0.00 0.00 300.00 0.00 293.00 300.00 0.00 0.00 0.00 0.00 400.00 0.00 293.00 400.00 0.00 0.00 0.00 0.00 500.00 0.00 293.00 500.00 0.00 0.00 0.00 0.00 600.00 0.00 293.00 600.00 0.00 0.00 0.00 0.00 700.00 0.00 293.00 700.00 0.00 0.00 0.00 0.00 785.00 0.00 293.00 785.00 0.00 0.00 0.00 0.00 Rustler 800.00 0.00 293.00 800.00 0.00 0.00 0.00 0.00 900.00 293.00 900.00 0.00 0.00 0.00 0.00 0.00 1000.00 0.00 293.00 1000.00 0.00 0.00 0.00 0.00 1060.00 0.00 293.00 1060.00 0.00 0.00 0.00 0.00 Salt 1100.00 0.00 293.00 1100.00 0.00 0.00 0.00 1200.00 0.00 293.00 1200.00 0.00 0.00 0.00 0.00 1300.00 0.00 293.00 1300.00 0.00 0.00 0.00 0.00 1400.00 293.00 1400.00 0.00 0.00 0.00 0.00 0.00 1500.00 0.00 293.00 1500.00 0.00 0.00 0.00 0.00 1600.00 0.00 293.00 1600.00 0.00 0.00 0.00 0.00 1700.00 0.00 293.00 1700.00 0.00 0.00 0.00 0.00 1800.00 0.00 293.00 1800.00 0.00 0.00 0.00 0.00 1900.00 0.00 293.00 1900.00 0.00 0.00 0.00 0.00 2000.00 0.00 293 00 2000 00 0.00 0.00 0.00 0.00 Start Tangent 2100.00 2.00 293.00 2099.98 0.68 -1.61 -0.56 2.00 2200.00 4.00 293.00 2199.84 2.73 -6.42 -2.26 2.00 2300.00 6.00 293.00 2299.45 6.13 -14.45 -5.07 2.00 2400.00 8.00 293.00 2398.70 10.89 -25 66 -9.01 2.00 2500.00 10.00 2497.47 17.01 -40.06 -14.07 Hold Tangent 293.00 2.00 2600.00 10.00 293.00 2595.95 23.79 -56.05 -19.68 0.00 2700.00 10.00 293.00 2694.43 30.58 -72.03 -25.29 0.00 2800.00 10.00 293.00 2792.91 37.36 -88.02 -30.91 0.00 2900.00 2891.39 44.15 -104.00 -36.52 0.00 10.00 293.00 3000.00 2989.87 50.93 -119.98 -42.13 10.00 293.00 0.00 3088.35 3100.00 10.00 293.00 57.72 -135.97-47.750.00 3200.00 10.00 293.00 3186.83 64.50 -151.95 -53.36 0.00 3300.00 10.00 293.00 3285.31 71.28 -167.94 -58.97 0.00 3400.00 10.00 293.00 3383.79 78.07 -183.92 -64.58 0.00 3500.00 10.00 293.00 3482.27 84.85 -199.91 -70.20 0.00 3600.00 10.00 293.00 3580.75 91.64 -215.89 -75.81 3700.00 293.00 3679.23 98.42 -231.88 -81.42 0.00 10.00 -247.86 3800.00 10.00 293.00 3777.72 105.21 -87.030.00 3900.00 10.00 293.00 3876.20 111.99 -263.84 -92.65 0.00 4000.00 10.00 293.00 3974.68 118.78 -279.83 -98.26 0.00 4073.16 4100.00 10.00 293.00 125.56 -295.81 -103.87 0.00 4200.00 10.00 293.00 4171.64 132.35 -311.80 -109.490.00 4300.00 10.00 293.00 4270.12 139.13 -327.78 -115.10 0.00 4400.00 10.00 293.00 4368.60 145.92 -343.77 -120.71 0.00 4500.00 293.00 4467.08 -359.75 10.00 152.70 -126.32 0.00 4600.00 10.00 293.00 4565.56 159.49 -375.74 -131.94 0.00 4700.00 10.00 293.00 4664.04 166.27 -391.72 -137.55 0.00 4800.00 10.00 293.00 4762.52 173.06 -407.70 -143.16 0.00 4900.00 10.00 293.00 4861.00 179.84 -423.69 -148.78 0.00 5000.00 10.00 293.00 4959.48 186.63 -439.67 -154.39 0.00 5100.00 10.00 193.41 -455.66 -160.00 0.00 293.00 5057.97 5200.00 200.20 -471.64 10.00 293.00 5156.45 -165.61 0.00 5250.00 5295 00 10.00 293 00 206 64 -486.83 -170 95 0.00 Base of Salt 5300.00 10.00 293.00 5254.93 206.98 -487.63 -171.23 0.00 5345.77 -494.94 10.00 293.00 5300.00 210.09 -173.80 0.00 Delaware 5400.00 10.00 293.00 -503.61 -176.84 0.00 5353.41 213.77 5500.00 10.00 293.00 5451.89 220.55 -519.60 -182.45 0.00 5600.00 227.34 -535.58 -188.07 10.00 293.00 5550.37 0.00 5700.00 10.00 293.00 5648.85 234.12 -551.56 -193.68 0.00 5800.00 240 91 10.00 293 00 5747 33 -567 55 -199 29 0.00 0.00 5900.00 10.00 293.00 5845.81 247.69 -583.53 -204.90 6000.00 -210.52 10.00 293.00 5944.29 254.48 -599.52 0.00 6100.00 6042.77 261.26 10.00 293.00 -615.50 -216.13 0.00 6200.00 10.00 293 00 6141 25 268.05 -631 49 -221 74 0.00 6300.00 10.00 293.00 6239.73 274.83 -647.47 -227.36 0.00 6400.00 10.00 293.00 6338.22 281.62 -663.45 -232.97 0.00 6415.01 10.00 293.00 6353.00 282.64 -665.85 -233.81 Cherry Canyon 0.00



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6500.00	10.00	293.00	6436.70	288.40	-679.44	-238.58	0.00	
6600.00	10.00	293.00	6535.18	295.19	-695.42	-244.19	0.00	
6700.00	10.00	293.00	6633.66	301.97	-711.41	-249.81	0.00	
6800.00	10.00	293.00	6732.14	308.76	-727.39	-255.42	0.00	
6900.00	10.00	293.00	6830.62	315.54	-743.38	-261.03	0.00	
7000.00	10.00	293.00	6929.10	322.33	-759.36	-266.65	0.00	
7100.00	10.00	293.00	7027.58	329.11	-775.35	-272.26	0.00	December Westfool
7157.00 7200.00	10.00 9.14	293.00 293.00	7083.72 7126.12	332.98 335.78	-784.46 -791.04	-275.46 -277.77	0.00 2.00	Drop to Vertical
7300.00	7.14	293.00	7126.12	341.31	-804.07	-277.77	2.00	
7400.00	5.14	293.00	7324.53	345.49	-813.91	-285.81	2.00	
7500.00	3.14	293.00	7424.26	348.31	-820.56	-288.14	2.00	
7600.00	1.14	293.00	7524.18	349.77	-824.00	-289.35	2.00	
7657.00	0.00	293.00	7581.18	349.99	-824.52	-289.53	2.00	Hold Vertical
7700.00	0.00	179.51	7624.18	349.99	-824.52	-289.53	0.00	
7800.00	0.00	179.51	7724.18	349.99	-824.52	-289.53	0.00	
7900.00	0.00	179.51	7824.18	349.99	-824.52	-289.53	0.00	
8000.00	0.00	179.51	7924.18	349.99	-824.52	-289.53	0.00	
8071.82	0.00	179.51	7996.00	349.99	-824.52	-289.53	0.00	Brushy Canyon
8100.00	0.00	179.51	8024.18	349.99	-824.52	-289.53	0.00	
8200.00 8300.00	0.00	179.51 179.51	8124.18 8224.18	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	
8400.00	0.00	179.51	8324.18	349.99	-824.52 -824.52	-289.53 -289.53	0.00	
8500.00	0.00	179.51	8424.18	349.99	-824.52	-289.53	0.00	
8600.00	0.00	179.51	8524.18	349.99	-824.52	-289.53	0.00	
8700.00	0.00	179.51	8624.18	349.99	-824.52	-289.53	0.00	
8800.00	0.00	179.51	8724.18	349.99	-824.52	-289.53	0.00	
8900.00	0.00	179.51	8824.18	349.99	-824.52	-289.53	0.00	
9000.00	0.00	179.51	8924.18	349.99	-824.52	-289.53	0.00	
9100.00	0.00	179.51	9024.18	349.99	-824.52	-289.53	0.00	
9200.00	0.00	179.51	9124.18	349.99	-824.52	-289.53	0.00	
9300.00 9400.00	0.00	179.51 179.51	9224.18 9324.18	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	
9500.00	0.00	179.51	9424.18	349.99	-824.52	-289.53	0.00	
9600.00	0.00	179.51	9524.18	349.99	-824.52	-289.53	0.00	
9604.82	0.00	179.51	9529.00	349.99	-824.52	-289.53	0.00	1st Bone Spring Lime
9700.00	0.00	179.51	9624.18	349.99	-824.52	-289.53	0.00	, 5
9800.00	0.00	179.51	9724.18	349.99	-824.52	-289.53	0.00	
9900.00	0.00	179.51	9824.18	349.99	-824.52	-289.53	0.00	
10000.00	0.00	179.51	9924.18	349.99	-824.52	-289.53	0.00	
10100.00	0.00	179.51	10024.18	349.99	-824.52	-289.53	0.00	
10200.00	0.00	179.51	10124.18	349.99	-824.52	-289.53	0.00	
10300.00 10400.00	0.00	179.51	10224.18	349.99	-824.52	-289.53	0.00	
	0.00	179.51	10324.18	349.99	-824.52	-289.53	0.00	
10500.00 10550.82	0.00	179.51 179.51	10424.18 10475.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	Bone Spring 1st
10600.00	0.00	179.51	10524.18	349.99	-824.52	-289.53	0.00	Some Spring 1st
10700.00	0.00	179.51	10624.18	349.99	-824.52	-289.53	0.00	
10800.00	0.00	179.51	10724.18	349.99	-824.52	-289.53	0.00	
10900.00	0.00	179.51	10824.18	349.99	-824.52	-289.53	0.00	
11000.00	0.00	179.51	10924.18	349.99	-824.52	-289.53	0.00	
11100.00	0.00	179.51	11024.18	349.99	-824.52	-289.53	0.00	
11200.00	0.00	179.51	11124.18	349.99	-824.52	-289.53	0.00	
11300.00	0.00	179.51	11224.18	349.99	-824.52	-289.53	0.00	
11400.00	0.00	179.51	11324.18	349.99	-824.52	-289.53	0.00	Dana Carina 2nd
11496.82	0.00	179.51	11421.00	349.99	-824.52	-289.53	0.00	Bone Spring 2nd
11500.00 11562.82	0.00	179.51 179.51	11424.18 11487.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	3rd Bone Spring Lime
11600.00	0.00	179.51	11524.18	349.99	-824.52	-289.53	0.00	Sid Done Spring Little
11700.00	0.00	179.51	11624.18	349.99	-824.52	-289.53	0.00	
11800.00	0.00	179.51	11724.18	349.99	-824.52	-289.53	0.00	
11900.00	0.00	179.51	11824.18	349.99	-824.52	-289.53	0.00	
12000.00	0.00	179.51	11924.18	349.99	-824.52	-289.53	0.00	
12100.00	0.00	179.51	12024.18	349.99	-824.52	-289.53	0.00	
12175.82	0.00	179.51	12100.00	349.99	-824.52	-289.53	0.00	Bone Spring 3rd
12200.00	0.00	179.51	12124.18	349.99	-824.52	-289.53	0.00	
12300.00	0.00	179.51	12224.18	349.99	-824.52	-289.53	0.00	
12400.00 12500.00	0.00	179.51	12324.18	349.99	-824.52	-289.53	0.00	
	0.00	179.51	12424.18	349.99	-824.52	-289.53	0.00	
12600.00	0.00	179.51	12524.18	349.99	-824.52	-289.53	0.00	



County: Lea Wellbore: Permit Plan

Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866

	Design:	Permit Plan	#1					Zone: 3001 - NM East (NAD83)		
MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment		
12635.82	0.00	179.51	12560.00	349.99	-824.52	-289.53	0.00	Wolfcamp / Point		
12700.00	0.00	179.51	12624.18	349.99	-824.52	-289.53	0.00			
12800.00	0.00	179.51	12724.18	349.99	-824.52	-289.53	0.00			
12900.00	0.00	179.51	12824.18	349.99	-824.52	-289.53	0.00	VOR		
12952.86 13000.00	0.00 4.71	179.51 179.51	12877.04 12924.13	349.99 348.05	-824.52 -824.50	-289.53 -287.60	0.00 10.00	KOP		
13100.00	14.71	179.51	13022.57	331.20	-824.36	-270.80	10.00			
13200.00	24.71	179.51	13116.59	297.51	-824.07	-237.22	10.00			
13300.00	34.71	179.51	13203.33	248.01	-823.65	-187.88	10.00			
13400.00	44.71	179.51	13280.16	184.20	-823.10	-124.27	10.00			
13500.00	54.71	179.51	13344.73	108.01	-822.45	-48.34	10.00			
13600.00	64.71	179.51	13395.10	21.77	-821.71	37.62	10.00			
13700.00 13800.00	74.71 84.71	179.51 179.51	13429.73 13447.56	-71.90 -170.16	-820.91 -820.07	131.00 228.94	10.00 10.00			
13852.86	90.00	179.51	13450.00	-222.95	-819.62	281.56	10.00	Landing Point		
13900.00	90.00	179.51	13450.00	-270.09	-819.22	328.54	0.00			
14000.00	90.00	179.51	13450.00	-370.08	-818.36	428.22	0.00			
14100.00	90.00	179.51	13450.00	-470.08	-817.51	527.89	0.00			
14200.00	90.00	179.51	13450.00	-570.08	-816.65	627.56	0.00			
14300.00	90.00	179.51	13450.00	-670.07	-815.79	727.24	0.00			
14400.00 14500.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-770.07 -870.06	-814.94 -814.08	826.91 926.58	0.00			
14500.00	90.00	179.51	13450.00	-870.06 -970.06	-813.23	1026.26	0.00			
14700.00	90.00	179.51	13450.00	-1070.06	-812.37	1125.93	0.00			
14800.00	90.00	179.51	13450.00	-1170.05	-811.52	1225.60	0.00			
14900.00	90.00	179.51	13450.00	-1270.05	-810.66	1325.28	0.00			
15000.00	90.00	179.51	13450.00		-809.81	1424.95	0.00			
15100.00	90.00	179.51		-1470.04	-808.95	1524.62	0.00			
15200.00 15300.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-1570.04 -1670.03	-808.09 -807.24	1624.30 1723.97	0.00			
15400.00	90.00	179.51	13450.00		-806.38	1823.64	0.00			
15500.00	90.00	179.51	13450.00	-1870.03	-805.53	1923.32	0.00			
15600.00	90.00	179.51	13450.00	-1970.02	-804.67	2022.99	0.00			
15700.00	90.00	179.51	13450.00	-2070.02	-803.82	2122.66	0.00			
15800.00	90.00	179.51		-2170.02	-802.96	2222.34	0.00			
15900.00	90.00	179.51	13450.00	-2270.01	-802.11	2322.01	0.00			
16000.00 16100.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-2370.01 -2470.01	-801.25 -800.40	2421.69 2521.36	0.00			
16200.00	90.00	179.51	13450.00	-2570.00	-799.54	2621.03	0.00			
16300.00	90.00	179.51	13450.00	-2670.00	-798.68	2720.71	0.00			
16400.00	90.00	179.51	13450.00	-2769.99	-797.83	2820.38	0.00			
16500.00	90.00	179.51	13450.00	-2869.99	-796.97	2920.05	0.00			
16600.00	90.00	179.51	13450.00	-2969.99	-796.12	3019.73	0.00			
16700.00	90.00	179.51	13450.00	-3069.98 -3169.98	-795.26	3119.40	0.00			
16800.00 16900.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-3169.98	-794.41 -793.55	3219.07 3318.75	0.00			
17000.00	90.00	179.51	13450.00	-3369.97	-792.70	3418.42	0.00			
17100.00	90.00	179.51	13450.00	-3469.97	-791.84	3518.09	0.00			
17200.00	90.00	179.51	13450.00	-3569.97	-790.99	3617.77	0.00			
17300.00	90.00	179.51	13450.00	-3669.96	-790.13	3717.44	0.00			
17400.00	90.00	179.51	13450.00	-3769.96	-789.27	3817.11	0.00			
17500.00 17600.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-3869.95 -3969.95	-788.42 -787.56	3916.79 4016.46	0.00			
17700.00	90.00	179.51	13450.00	-4069.95	-786.71	4116.13	0.00			
17800.00	90.00	179.51	13450.01	-4169.94	-785.85	4215.81	0.00			
17900.00	90.00	179.51	13450.01	-4269.94	-785.00	4315.48	0.00			
18000.00	90.00	179.51	13450.01	-4369.94	-784.14	4415.15	0.00			
18100.00	90.00	179.51	13450.01	-4469.93	-783.29	4514.83	0.00			
18200.00	90.00	179.51	13450.01	-4569.93	-782.43	4614.50	0.00			
18300.00 18400.00	90.00 90.00	179.51 179.51	13450.01 13450.01	-4669.93 -4769.92	-781.58 -780.72	4714.17 4813.85	0.00			
18500.00	90.00	179.51	13450.01	-4869.92	-779.86	4913.52	0.00			
18600.00	90.00	179.51	13450.01	-4969.91	-779.01	5013.20	0.00			
18700.00	90.00	179.51	13450.01	-5069.91	-778.15	5112.87	0.00			
18800.00	90.00	179.51	13450.01	-5169.91	-777.30	5212.54	0.00			
18900.00	90.00	179.51	13450.01	-5269.90	-776.44	5312.22	0.00			
19000.00 19100.00	90.00 90.00	179.51 179.51	13450.01 13450.01	-5369.90 -5469.90	-775.59 -774.73	5411.89 5511.56	0.00			
19100.00	90.00	179.51	13450.01	-5469.90	-774.73 -773.88	5611.24	0.00			
19300.00	90.00	179.51	13450.01	-5669.89	-773.02	5710.91	0.00			



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

Zone: 3001 - NM East (NAD83)

(f) (r) (r) (h) (h) (h) (h) (r) Comment 1940000 90.00 17951 13450.01 -5769.88 -777.31 5910.58 0.00 1950000 90.00 17951 13450.01 -5969.88 -770.45 6009.93 0.00 19800.00 90.00 17951 13450.01 -5969.88 -770.45 6009.93 0.00 19800.00 90.00 17951 13450.01 -6169.87 -766.74 6209.28 0.00 19900.00 90.00 17951 13450.01 -6269.87 -767.89 6308.95 0.00 20000.00 90.00 17951 13450.01 -6669.86 -766.18 6508.30 0.00 20200.00 90.00 17951 13450.01 -6669.86 -765.42 6007.97 0.00 20200.00 90.00 17951 13450.01 -6769.86 -767.70 606.09 0.00 20200.00 90.00 17951 13450.01	MD	INC	AZI	TVD	NS	EW	vs	DLS	
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U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Number: 18H

Sundry Print Reports

County or Parish/State: LEA /

Well Name: FIGHTING OKRA 18-19 Well Location: T26S / R34E / SEC 18 /

FED NENE / 32.0495993 / -103.5046387

Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM114992 Unit or CA Name: Unit or CA Number:

US Well Number: 3002547575 **Well Status:** Approved Application for **Operator:** DEVON ENERGY

Permit to Drill PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2748871

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 08/31/2023 Time Sundry Submitted: 09:26

Date proposed operation will begin: 08/31/2023

Procedure Description: Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Pool Code change from Wildcat: Lower Wolfcamp Oil to WC-025 G-10 S263418C; LWR WOLFCAMP Dedicated acreage change from 320 acs to 640 acs. TVD/MD change from 13524'/23821' to 13450'/23778' Surface Casing size change from 17.5"/13.375" to 14.75"/10.75". Cement volume changes to accommodate casing change. Please see attached revised C-102 and drilling & directional plans.

NOI Attachments

Procedure Description

8.625_32lb_P110EC_SPRINT_FJ_VST_20230831140032.pdf

10.750_40.50lb_H40_20230831140032.pdf

5.5_17lb_P110RY_DWC_C_20230831140031.pdf

FIGHTING_OKRA_18_19_FEDERAL_18H_C_102_BHL_NOI_20230831092418.pdf

FIGHTING_OKRA_18_19_FED_18H_20230831092415.pdf

FIGHTING_OKRA_18_19_FED_18H_Directional_Plan_08_30_23_20230831092416.pdf

eived by OCD: 9/20/2023 1:52:36 PM Well Name: FIGHTING OKRA 18-19

FED

Well Location: T26S / R34E / SEC 18 / NENE / 32.0495993 / -103.5046387

County or Parish/State: Page 23 of

NM

Well Number: 18H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM114992

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547575

Operator: DEVON ENERGY

Permit to Drill

PRODUCTION COMPANY LP

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

Well Status: Approved Application for

Operator Electronic Signature: REBECCA DEAL Signed on: AUG 31, 2023 02:00 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (303) 299-1406

Email address: REBECCA.DEAL@DVN.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: LONG VO

BLM POC Phone: 5759885402

Disposition:

Signature: Long Vo

BLM POC Title: Petroleum Engineer

BLM POC Email Address: LVO@BLM.GOV

Disposition Date:

Page 2 of 2

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP

LEASE NO.: | NMNM114992

LOCATION: | Section 18, T.26 S., R.34 E., NMPM

COUNTY: Lea County, New Mexico

WELL NAME & NO.: | Fighting Okra 18-19 Fed 18H

SURFACE HOLE FOOTAGE: 400'/N & 1300'/E **BOTTOM HOLE FOOTAGE** 20'/S & 2122'/E

ATS/API ID: 3002547575 APD ID: 10400057811 Sundry ID: 2748871

COA

H2S	Yes		
Potash	None		
Cave/Karst Potential	Low		
Cave/Karst	☐ Critical		
Potential			
Variance	None None	Flex Hose	C Other
Wellhead	Conventional and Multibov	vI 🔻	
Other	□4 String	Capitan Reef	□WIPP
		None	
Other	Pilot Hole	☐ Open Annulus	
	None 🔻		
Cementing	Contingency Squeeze	Echo-Meter	Primary Cement
	Int 1	None	Squeeze
			None 🔻
Special	□ Water	□ СОМ	□ 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 **Wolfcamp** 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 810 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 **8** hours 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:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to the BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

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

- 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 10,000 (10M) psi. Variance is approved to use a 5000 (5M) 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 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 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.

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)

(575) 361-2822

- Eddy County

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

 BLM NM CFO DrillingNotifications@BLM.GOV
- ✓ 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 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **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.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 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 9/20/2023

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR DUBEALL OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

BURI	EAU OF LAND MANAGEMENT	5. Lease Serial No. NMNM114992			
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	6. If Indian, Allottee of			
SUBMIT IN 1	TRIPLICATE - Other instructions on pag	e 2		7. If Unit of CA/Agre	ement, Name and/or No.
1. Type of Well Oil Well Gas W				8. Well Name and No	FIGHTING OKRA 18-19 FED/18H
2. Name of Operator DEVON ENERG	Y PRODUCTION COMPANY LP			9. API Well No. 3002	2547575
	AVE, OKLAHOMA CITY, 3b. Phone No. (405) 235-36			10. Field and Pool or Bobcat Draw/LWR	Exploratory Area
4. Location of Well (Footage, Sec., T.,R SEC 18/T26S/R34E/NMP				11. Country or Parish	, State
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE (OF NOTI	CE, REPORT OR OTI	HER DATA
TYPE OF SUBMISSION			E OF ACT		
Notice of Intent	Acidize Deep Alter Casing Hydr		Prod	uction (Start/Resume)	Water Shut-Off Well Integrity
Subsequent Report	Change Plans Plug	Construction [and Abandon [Temp	mplete oorarily Abandon	Other
Final Abandonment Notice	Convert to Injection Plug peration: Clearly state all pertinent details, i	Back [r Disposal	
is ready for final inspection.) Devon Energy Production Com Pool Code change from Wildca Dedicated acreage change fro TVD/MD change from 13524/2 Surface Casing size change from	3821 to 13450/23778 om 17.5/13.375 to 14.75/10.75. Cement -102 and drilling & directional plans.	owing changes to t 0 S263418C; LWR	he appro	oved APD: AMP	
REBECCA DEAL / Ph: (303) 299-1	, , , , , , , , , , , , , , , , , , , ,	Regulatory Title	Analyst		
Signature		Date		08/31/2	023
	THE SPACE FOR FED	ERAL OR STA	TE OF	ICE USE	
Approved by					
		Title			Date
	ned. Approval of this notice does not warran quitable title to those rights in the subject le duct operations thereon.			,	
	3 U.S.C Section 1212, make it a crime for an ents or representations as to any matter with		and will	fully to make to any do	epartment or agency of the United States

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

(Form 3160-5, page 2)

Additional Information

Location of Well

0. SHL: NENE / 400 FNL / 1300 FEL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0495993 / LONG: -103.5046387 (TVD: 0 feet, MD: 0 feet)

PPP: NWNE / 100 FNL / 2122 FEL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0504233 / LONG: -103.5072924 (TVD: 13187 feet, MD: 13237 feet)

BHL: SWSE / 20 FSL / 2122 FEL / TWSP: 26S / RANGE: 34E / SECTION: 19 / LAT: 32.0217219 / LONG: -103.50726 (TVD: 13524 feet, MD: 23821 feet)



Received by OCD: 9/20/2023 1:52:36 PM

Issued on: 16 Dec. 2020 by Logan Van Gorp



Connection Data Sheet

OD	Weight (lb/ft)	Wall Th.	Grade	Alt. Drift:	Connection
8 5/8 in.	Nominal: 32.00	0.352 in.	P110EC	7.875 in.	VAM® SPRINT-FJ
	Plain End: 31.13				

PIPE PROPERTIES				
Nominal OD	8,625	in.		
Nominal ID	7.921	in.		
	9.149			
Nominal Cross Section Area		sqin.		
Grade Type	•	gh Yield		
Min. Yield Strength	125	ksi		
Max. Yield Strength	140	ksi		
Min. Ultimate Tensile Strength	135	ksi		

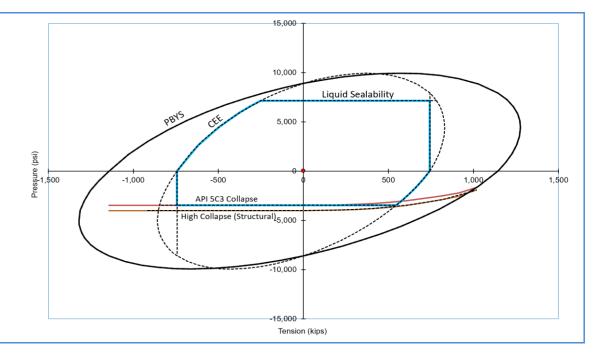
CONNECTION PROPERTIES				
Connection Type	Semi-Premium Int	egral Flush		
Connection OD (nom):	8.665	in.		
Connection ID (nom):	7.954	in.		
Make-Up Loss	2.614	in.		
Critical Cross Section	6.038	sqin.		
Tension Efficiency	65.0	% of pipe		
Compression Efficiency	65.0	% of pipe		
Internal Pressure Efficiency	80.0	% of pipe		
External Pressure Efficiency	100	% of pipe		

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

TORQUE VALUES				
Min. Make-up torque	15,000	ft.lb		
Opt. Make-up torque	16,500	ft.lb		
Max. Make-up torque	18,000	ft.lb		
Max. Torque with Sealability (MTS)	TBD	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.



canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com

brazil@vamfieldservice.com

Do you need help on this product? - Remember no one knows VAM^{\otimes} like VAM^{\otimes}

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



MECHANICAL PROPERTIES

Minimum Yield Strength

Maximum Yield Strength

DIMENSIONS

Outside Diameter

Wall Thickness

Inside Diameter

Minimum Tensile Strength

U. S. Steel Tubular Products 10.750" 40.50lb/ft (0.350" Wall) H40

Pipe

40,000

80,000

60,000

Pipe

10.750

0.350

10.050

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Standard Drift	9.894	9.894	9.894	9.894	in.	
Alternate Drift					in.	
Nominal Linear Weight, T&C	40.50				lb/ft	
Plain End Weight	38.91				lb/ft	
PERFORMANCE	Pipe	втс	LTC	STC		
Minimum Collapse Pressure	1,390	1,390	1,390	1,390	psi	
Minimum Internal Yield Pressure	2,280	2,280	2,280	2,280	psi	
Minimum Pipe Body Yield Strength	457				1,000 lbs	
Joint Strength				314	1,000 lbs	
Reference Length				5,164	ft	
MAKE-UP DATA	Pipe	втс	LTC	STC		
Make-Up Loss				3.50	in.	
Minimum Make-Up Torque				2,360	ft-lb	
Maximum Make-Up Torque				3,930	ft-lb	

втс

BTC

0.000

LTC

LTC

0.000

Notes

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

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

STC

STC

11.750

10.050

psi

psi

psi

in.

in.

in.

Technical Specifications

Connection Type:	Size(O.D.):	Weight (Wall):	Grade:
DWC/C Casing standard	5-1/2 in	17.00 lb/ft (0.304 in)	P-110RY
Mata	ial	_	

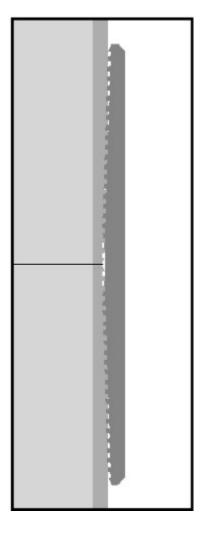
P-110RY 110,000 125,000	Material Grade Minimum Yield Strength (psi) Minimum Ultimate Strength (psi)
5.500 4.892 0.304 17.00 16.89 4.962	Pipe Dimensions Nominal Pipe Body O.D. (in) Nominal Pipe Body I.D.(in) Nominal Wall Thickness (in) Nominal Weight (lbs/ft) Plain End Weight (lbs/ft) Nominal Pipe Body Area (sq in)
546,000 7,480 10,640 9,700	Pipe Body Performance Properties Minimum Pipe Body Yield Strength (lbs) Minimum Collapse Pressure (psi) Minimum Internal Yield Pressure (psi) Hydrostatic Test Pressure (psi)
6.050 4.892 4.767 4.13 4.962 100.0	Connection Dimensions Connection O.D. (in) Connection I.D. (in) Connection Drift Diameter (in) Make-up Loss (in) Critical Area (sq in) Joint Efficiency (%)
546,000 22,940 568,000 546,000 7,480 10,640 91.7	Connection Performance Properties Joint Strength (lbs) Reference String Length (ft) 1.4 Design Factor API Joint Strength (lbs) Compression Rating (lbs) API Collapse Pressure Rating (psi) API Internal Pressure Resistance (psi) Maximum Uniaxial Bend Rating [degrees/100 ft]
12,000	Appoximated Field End Torque Values Minimum Final Torque (ft-lbs)



VAM-USA 4424 W. Sam Houston Pkwy. Suite 150 Houston, TX 77041 Phone: 713-479-3200

E-mail: VAMUSAsales@vam-usa.com

Fax: 713-479-3234



For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Maximum Final Torque (ft-lbs)

Connection Yield Torque (ft-lbs)

Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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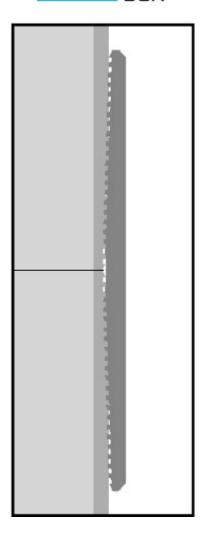
13,800

15,500

VAL.

DWC Connection Data Notes:

- 1. DWC connections are available with a seal ring (SR) option.
- All standard DWC/C connections are interchangeable for a give pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
- 3. Connection performance properties are based on nominal pipe body and connection dimensions.
- DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
- 5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
- 6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
- Bending efficiency is equal to the compression efficiency.
- 8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
- 9. Connection yield torque is not to be exceeded.
- 10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
- DWC connections will accommodate API standard drift diameters.



Connection specifications within the control of VAM-USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

Santa Fe, New Mexico 87505

▼ AMENDED REPORT

DISTRICT IV 1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

	WELL LOCATION AND .	ACREAGE DEDICATION PLAT				
API Number	Pool Code	Pool Name				
30-025-47575	98347	WC-025 G-10 S263418C;LWR WOLFCAMP				
Property Code	Prop	erty Name	Well Number			
315691	FIGHTING OKRA	18-19 FEDERAL	18H			
OGRID No.	Opera	ator Name	Elevation			
6137	DEVON ENERGY PROI	DUCTION COMPANY, L.P.	3369.9'			

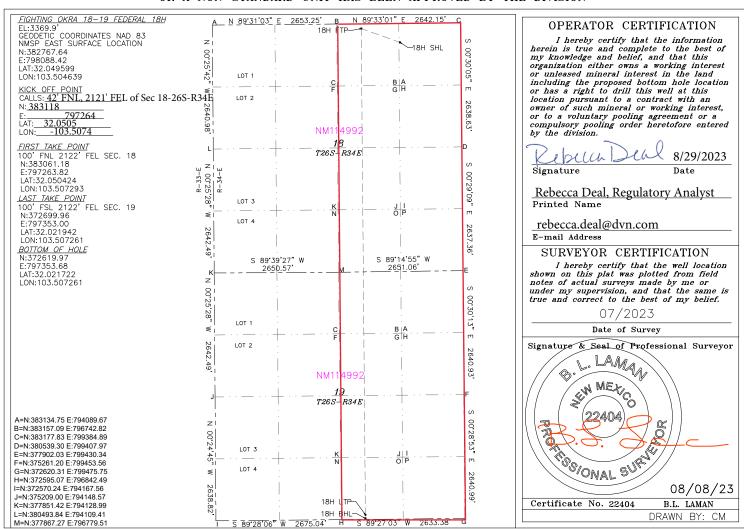
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
А	18	26-S	34-E		400	NORTH	1300	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	19	26-S	34-E		20	SOUTH	2122	EAST	LEA
Dedicated Acre	s Joint o	r Infill Co	nsolidation	Code Or	der No.		•		
640									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Inten	t X	As Dril	led									
API#		5-47575										
Ope	rator Nai	me:				Pro	perty Name:					Well Number
	/ON EN MPANY	IERGY F	RODUC	CTION	1	FIG	SHTING OI	KRA 18-1	9 FE	DER	AL	18H
COI	VIFAINT	, LF.										
Viel (Off Doint	(KOD)										
	Off Point		D	1	F		5 N/C	F4	F		Country	
UL	Section 18	Township 26S	Range 34E	Lot	Feet 42		From N/S FNL	Feet 2121	FE	n E/W EL	County L	EA
Latitu)505			Longitu	ude	-103.507	'4			NAD 83	
First 7	Гake Poir	nt (FTP)										
UL	Section	Township	Range	Lot	Feet		From N/S	Feet		n E/W	County	
B	18 Ide	26-S	34-E		100 Longitu	ıde	NORTH	2122	EA:	ST	LEA NAD	
	0504	24					7293				83	
Last T	ake Poin	t (LTP)										
O O	Section 19	Township 26-S	Range 34-E	Lot	Feet 100		m N/S Feet OUTH 212			Count	У	
Latitu	ıde	I	012		Longitu	ıde		-2 -/ (NAD		
32.	.0219	42			103	.50	7261			83		
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Is this	s well an	infill well?		Υ								
	ll is yes p ng Unit.	lease prov	ide API if	availab	le, Ope	rator	Name and v	vell numbe	r for [Definir	ng well fo	r Horizontal
API#			7									
						_						
Ope	rator Nai	me:				Pro	perty Name:					Well Number
DE'	VON EN	ERGY PRO	DUCTIO	۷ CO.,	L.P.	FIGHTING OKRA 18-19 FED					19H	

KZ 06/29/2018

FIGHTING OKRA 18-19 FED 18H

1. Geologic Formations

TVD of target	13450	Pilot hole depth	N/A
MD at TD:	23778	Deepest expected fresh water	

Basin

Dasin		YYY : 77.51	
	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	785		
Salt	1060		
Base of Salt	5250		
Delaware	5300		
Cherry Canyon	6353		
Brushy Canyon	7996		
1st Bone Spring Lime	9529		
Bone Spring 1st	10475		
Bone Spring 2nd	11421		
3rd Bone Spring Lime	11487		
Bone Spring 3rd	12100		
Wolfcamp	12560		

^{*}H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

	, , , , , , , , , , , , , , , , , , ,	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	H40	ВТС	0	810	0	810
9 7/8	8 5/8	32	P110	Sprint FJ	0	12860	0	12860
7 7/8	5 1/2	17	P110	DWC / C-IS+	0	23778	0	13450

[•]All casing strings will be tested in accordance with 43 CFR 3172. Must have table for contingency casing.

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	494	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	440 5		9	3.27	Lead: Class C Cement + additives
Int 1	465	8860	13.2	1.44	Tail: Class H / C + additives
Int 1	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	440	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	465	8860	13.2	1.44	Tail: Class H / C + additives
Production	117	10953	9	3.27	Lead: Class H /C + additives
Froduction	1433	12953	13.2	1.44	Tail: Class H / C + additives

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

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Ty	ype	√	Tested to:											
			Anı	nular	X	50% of rated working pressure											
Int 1	13-5/8"	5M	Blind	d Ram	X												
IIIL I	13-3/6	JIVI	Pipe	Ram		5M											
			Doub	le Ram	X	3101											
			Other*]											
	13-5/8"	10M	Annular (5M)		X	100% of rated working pressure											
Don't sellen			Blind	d Ram	X												
Production			Pipe Ram			101/											
														Doub	le Ram	X	10M
			Other*														
			Annul	ar (5M)													
			Blind	d Ram													
			Pipe Ram			1											
			Double Ram]											
			Other*			1											
N A variance is requested for	the use of a	diverter or	the surface	casing. See	attached for s	schematic.											
Y A variance is requested to 1	A variance is requested to run a 5 M annular on a 10M system																

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
What will be used to infolittor the loss of gain of fluid:	1 V 1/1 dson/ V isdai Wollitoring

6. Logging and Testing Procedures

Logging, (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									
X	Completion Report 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.									

Additional l	ogs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	7344
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

N	H2S is present
Y	H2S plan attached.

FIGHTING OKRA 18-19 FED 18H

8. Other facets of operation

Is this a walking operation? Potentially

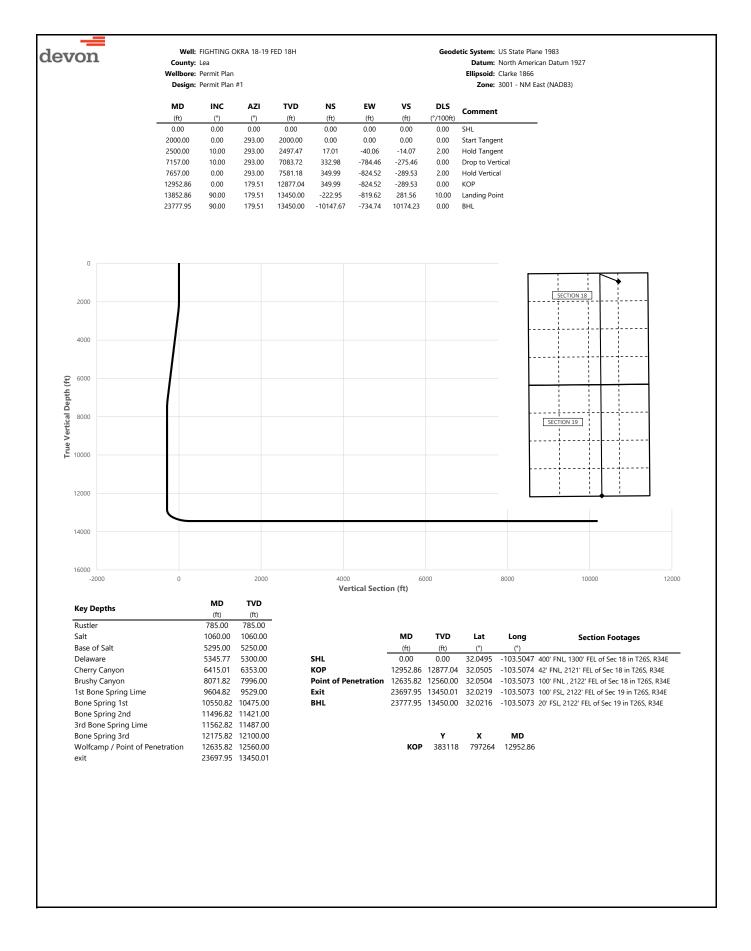
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and 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	1
X	Directional Plan
	Other, describe





County: Lea Wellbore: Permit Plan Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

		Permit Plan						Ellipsoid: Clarke 1866
	Design:	Permit Plan	#1					Zone: 3001 - NM East (NAD83)
MD (ft)	INC	AZI	TVD	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	(°) 0.00	(°) 0.00	(ft) 0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	293.00	100.00	0.00	0.00	0.00	0.00	SHL
200.00	0.00	293.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	293.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	293.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	293.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	293.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	293.00	700.00	0.00	0.00	0.00	0.00	
785.00	0.00	293.00	785.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	293.00	800.00	0.00	0.00	0.00	0.00	Kustiei
900.00	0.00	293.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	293.00	1000.00	0.00	0.00	0.00	0.00	
1060.00	0.00	293.00	1060.00	0.00	0.00	0.00	0.00	Salt
1100.00	0.00	293.00	1100.00	0.00	0.00	0.00	0.00	Sait
1200.00	0.00	293.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	293.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	293.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	293.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	293.00	1600.00 1700.00	0.00	0.00	0.00	0.00	
1700.00	0.00	293.00		0.00	0.00	0.00	0.00	
1800.00	0.00	293.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	293.00	1900.00	0.00	0.00	0.00	0.00	Charle Towns of
2000.00	0.00	293.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	293.00	2099.98	0.68	-1.61	-0.56	2.00	
2200.00	4.00	293.00	2199.84	2.73	-6.42	-2.26	2.00	
2300.00	6.00	293.00	2299.45	6.13	-14.45	-5.07	2.00	
2400.00	8.00	293.00	2398.70	10.89	-25.66	-9.01	2.00	H-H-T
2500.00	10.00	293.00	2497.47	17.01	-40.06	-14.07	2.00	Hold Tangent
2600.00	10.00	293.00	2595.95	23.79	-56.05	-19.68	0.00	
2700.00	10.00	293.00	2694.43	30.58	-72.03	-25.29	0.00	
2800.00	10.00	293.00	2792.91	37.36	-88.02	-30.91	0.00	
2900.00	10.00	293.00	2891.39	44.15	-104.00	-36.52	0.00	
3000.00	10.00	293.00	2989.87	50.93	-119.98	-42.13	0.00	
3100.00	10.00	293.00	3088.35	57.72	-135.97	-47.75	0.00	
3200.00	10.00	293.00	3186.83	64.50	-151.95	-53.36	0.00	
3300.00	10.00	293.00	3285.31	71.28	-167.94	-58.97	0.00	
3400.00	10.00	293.00	3383.79	78.07	-183.92	-64.58	0.00	
3500.00	10.00	293.00	3482.27	84.85	-199.91	-70.20	0.00	
3600.00	10.00	293.00	3580.75	91.64	-215.89	-75.81	0.00	
3700.00	10.00	293.00	3679.23	98.42	-231.88	-81.42	0.00	
3800.00	10.00	293.00	3777.72	105.21	-247.86	-87.03	0.00	
3900.00	10.00	293.00	3876.20	111.99	-263.84	-92.65	0.00	
4000.00	10.00	293.00	3974.68	118.78	-279.83	-98.26 103.07	0.00	
4100.00	10.00	293.00	4073.16	125.56	-295.81	-103.87	0.00	
4200.00	10.00	293.00 293.00	4171.64 4270.12	132.35	-311.80	-109.49	0.00	
4300.00	10.00			139.13	-327.78	-115.10	0.00	
4400.00	10.00	293.00	4368.60	145.92	-343.77	-120.71	0.00	
4500.00	10.00	293.00	4467.08	152.70	-359.75 275.74	-126.32	0.00	
4600.00 4700.00	10.00 10.00	293.00 293.00	4565.56 4664.04	159.49 166.27	-375.74 -391.72	-131.94 -137.55	0.00	
4800.00	10.00	293.00	4762.52	166.27 173.06	-391.72 -407.70	-137.55	0.00	
4900.00	10.00	293.00	4861.00	173.06	-407.70 -423.69	-143.16	0.00	
5000.00	10.00	293.00	4959.48	186.63	-423.69 -439.67	-146.76	0.00	
5100.00	10.00	293.00	5057.97	193.41	-455.66	-154.59	0.00	
5200.00	10.00	293.00	5156.45	200.20	-455.66 -471.64	-165.61	0.00	
5295.00	10.00	293.00	5250.00	206.64	-471.04	-103.01	0.00	Base of Salt
5300.00	10.00	293.00	5254.93	206.98	-487.63	-171.23	0.00	base of Sait
5345.77	10.00	293.00	5300.00	210.98	-494.94	-171.23	0.00	Delaware
5400.00	10.00	293.00	5353.41	213.77	-503.61	-176.84	0.00	Delaware
5500.00	10.00	293.00	5451.89	220.55	-503.61	-182.45	0.00	
5600.00	10.00	293.00	5550.37	227.34	-535.58	-188.07	0.00	
5700.00	10.00	293.00	5648.85	234.12	-535.56 -551.56	-188.07	0.00	
5800.00	10.00	293.00	5747.33	240.91	-551.56	-195.00	0.00	
5900.00	10.00	293.00	5845.81	247.69	-583.53	-199.29	0.00	
6000.00	10.00	293.00	5944.29	254.48	-505.55 -599.52	-204.90	0.00	
6100.00	10.00	293.00	6042.77	261.26	-615.50	-216.13	0.00	
6200.00	10.00	293.00	6141.25	268.05	-631.49	-210.13	0.00	
6300.00	10.00	293.00	6239.73	274.83	-647.47	-227.36	0.00	
6400.00	10.00	293.00	6338.22	281.62	-663.45	-232.97	0.00	
6415.01	10.00	293.00	6353.00	282.64	-665.85	-233.81	0.00	Cherry Canyon
							-	



County: Lea Wellbore: Permit Plan

Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

	Design: Permit Plan #1							Zone: 3001 - NM East (NAD83)			
MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment			
6500.00	10.00	293.00	6436.70	288.40	-679.44	-238.58	0.00				
6600.00	10.00	293.00	6535.18	295.19	-695.42	-244.19	0.00				
6700.00	10.00	293.00	6633.66	301.97	-711.41	-249.81	0.00				
6800.00	10.00	293.00	6732.14	308.76	-727.39	-255.42	0.00				
6900.00	10.00	293.00	6830.62	315.54	-743.38	-261.03	0.00				
7000.00 7100.00	10.00 10.00	293.00 293.00	6929.10 7027.58	322.33 329.11	-759.36 -775.35	-266.65 -272.26	0.00				
7157.00	10.00	293.00	7027.36	332.98	-775.33 -784.46	-272.26	0.00	Drop to Vertical			
7200.00	9.14	293.00	7126.12	335.78	-791.04	-277.77	2.00	brop to vertical			
7300.00	7.14	293.00	7225.10	341.31	-804.07	-282.35	2.00				
7400.00	5.14	293.00	7324.53	345.49	-813.91	-285.81	2.00				
7500.00	3.14	293.00	7424.26	348.31	-820.56	-288.14	2.00				
7600.00	1.14	293.00	7524.18	349.77	-824.00	-289.35	2.00				
7657.00	0.00	293.00	7581.18	349.99	-824.52	-289.53	2.00	Hold Vertical			
7700.00	0.00	179.51	7624.18	349.99	-824.52	-289.53	0.00				
7800.00 7900.00	0.00	179.51 179.51	7724.18 7824.18	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00				
8000.00	0.00	179.51	7924.18	349.99	-824.52 -824.52	-289.53	0.00				
8071.82	0.00	179.51	7996.00	349.99	-824.52	-289.53	0.00	Brushy Canyon			
8100.00	0.00	179.51	8024.18	349.99	-824.52	-289.53	0.00				
8200.00	0.00	179.51	8124.18	349.99	-824.52	-289.53	0.00				
8300.00	0.00	179.51	8224.18	349.99	-824.52	-289.53	0.00				
8400.00	0.00	179.51	8324.18	349.99	-824.52	-289.53	0.00				
8500.00	0.00	179.51	8424.18	349.99	-824.52	-289.53	0.00				
8600.00	0.00	179.51	8524.18	349.99	-824.52	-289.53	0.00				
8700.00 8800.00	0.00	179.51 179.51	8624.18 8724.18	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00				
8900.00	0.00	179.51	8824.18	349.99	-824.52 -824.52	-289.53	0.00				
9000.00	0.00	179.51	8924.18	349.99	-824.52	-289.53	0.00				
9100.00	0.00	179.51	9024.18	349.99	-824.52	-289.53	0.00				
9200.00	0.00	179.51	9124.18	349.99	-824.52	-289.53	0.00				
9300.00	0.00	179.51	9224.18	349.99	-824.52	-289.53	0.00				
9400.00	0.00	179.51	9324.18	349.99	-824.52	-289.53	0.00				
9500.00	0.00	179.51	9424.18	349.99	-824.52	-289.53	0.00				
9600.00 9604.82	0.00	179.51 179.51	9524.18 9529.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	1ct Pana Caring Lima			
9700.00	0.00	179.51	9624.18	349.99	-824.52 -824.52	-289.53	0.00	1st Bone Spring Lime			
9800.00	0.00	179.51	9724.18	349.99	-824.52	-289.53	0.00				
9900.00	0.00	179.51	9824.18	349.99	-824.52	-289.53	0.00				
10000.00	0.00	179.51	9924.18	349.99	-824.52	-289.53	0.00				
10100.00	0.00	179.51	10024.18	349.99	-824.52	-289.53	0.00				
10200.00	0.00	179.51	10124.18	349.99	-824.52	-289.53	0.00				
10300.00	0.00	179.51	10224.18	349.99	-824.52	-289.53	0.00				
10400.00	0.00	179.51	10324.18	349.99	-824.52	-289.53	0.00				
10500.00 10550.82	0.00	179.51 179.51	10424.18 10475.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	Bone Spring 1st			
10600.00	0.00	179.51	10524.18	349.99	-824.52	-289.53	0.00	bone spring 1st			
10700.00	0.00	179.51	10624.18	349.99	-824.52	-289.53	0.00				
10800.00	0.00	179.51	10724.18	349.99	-824.52	-289.53	0.00				
10900.00	0.00	179.51	10824.18	349.99	-824.52	-289.53	0.00				
11000.00	0.00	179.51	10924.18	349.99	-824.52	-289.53	0.00				
11100.00	0.00	179.51	11024.18	349.99	-824.52	-289.53	0.00				
11200.00	0.00	179.51	11124.18	349.99	-824.52	-289.53	0.00				
11300.00	0.00	179.51	11224.18	349.99	-824.52 -824.52	-289.53	0.00				
11400.00 11496.82	0.00	179.51 179.51	11324.18 11421.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	Bone Spring 2nd			
11500.00	0.00	179.51	11424.18	349.99	-824.52 -824.52	-289.53	0.00	Some Spring End			
11562.82	0.00	179.51	11487.00	349.99	-824.52	-289.53	0.00	3rd Bone Spring Lime			
11600.00	0.00	179.51	11524.18	349.99	-824.52	-289.53	0.00	. •			
11700.00	0.00	179.51	11624.18	349.99	-824.52	-289.53	0.00				
11800.00	0.00	179.51	11724.18	349.99	-824.52	-289.53	0.00				
11900.00	0.00	179.51	11824.18	349.99	-824.52	-289.53	0.00				
12000.00	0.00	179.51	11924.18	349.99	-824.52	-289.53	0.00				
12100.00	0.00	179.51	12024.18	349.99	-824.52	-289.53	0.00	Dana Carina 2nd			
12175.82 12200.00	0.00	179.51 179.51	12100.00	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00	Bone Spring 3rd			
12300.00	0.00	179.51	12124.18 12224.18	349.99 349.99	-824.52 -824.52	-289.53 -289.53	0.00				
12400.00	0.00	179.51	12324.18	349.99	-824.52	-289.53	0.00				
12500.00	0.00	179.51	12424.18	349.99	-824.52	-289.53	0.00				
12600.00	0.00	179.51	12524.18	349.99	-824.52	-289.53	0.00				



County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)

	Design: Permit Plan #1						Zone : 3001 - NM East (NAD83)			
MD	INC	AZI	TVD	NS	EW	vs	DLS	C arrier d		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment		
12635.82	0.00	179.51	12560.00	349.99	-824.52	-289.53	0.00	Wolfcamp / Point		
12700.00	0.00	179.51	12624.18	349.99	-824.52	-289.53	0.00			
12800.00	0.00	179.51	12724.18	349.99	-824.52	-289.53	0.00			
12900.00 12952.86	0.00	179.51	12824.18	349.99	-824.52 824.52	-289.53	0.00	KOB		
13000.00	0.00 4.71	179.51 179.51	12877.04 12924.13	349.99 348.05	-824.52 -824.50	-289.53 -287.60	0.00 10.00	KOP		
13100.00	14.71	179.51	13022.57	331.20	-824.36	-270.80	10.00			
13200.00	24.71	179.51	13116.59	297.51	-824.07	-237.22	10.00			
13300.00	34.71	179.51	13203.33	248.01	-823.65	-187.88	10.00			
13400.00	44.71	179.51	13280.16	184.20	-823.10	-124.27	10.00			
13500.00	54.71	179.51	13344.73	108.01	-822.45	-48.34	10.00			
13600.00	64.71	179.51	13395.10	21.77	-821.71	37.62	10.00			
13700.00	74.71	179.51	13429.73	-71.90	-820.91	131.00	10.00			
13800.00 13852.86	84.71 90.00	179.51 179.51	13447.56 13450.00	-170.16 -222.95	-820.07 -819.62	228.94 281.56	10.00 10.00	Landing Point		
13900.00	90.00	179.51	13450.00	-270.09	-819.22	328.54	0.00	Landing Form		
14000.00	90.00	179.51	13450.00	-370.08	-818.36	428.22	0.00			
14100.00	90.00	179.51	13450.00	-470.08	-817.51	527.89	0.00			
14200.00	90.00	179.51	13450.00	-570.08	-816.65	627.56	0.00			
14300.00	90.00	179.51	13450.00	-670.07	-815.79	727.24	0.00			
14400.00	90.00	179.51	13450.00	-770.07	-814.94	826.91	0.00			
14500.00	90.00	179.51	13450.00	-870.06	-814.08	926.58	0.00			
14600.00	90.00	179.51	13450.00	-970.06	-813.23	1026.26	0.00			
14700.00	90.00	179.51	13450.00	-1070.06	-812.37	1125.93	0.00			
14800.00 14900.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-1170.05 -1270.05	-811.52 -810.66	1225.60 1325.28	0.00			
15000.00	90.00	179.51	13450.00		-809.81	1424.95	0.00			
15100.00	90.00	179.51		-1470.04	-808.95	1524.62	0.00			
15200.00	90.00	179.51	13450.00	-1570.04	-808.09	1624.30	0.00			
15300.00	90.00	179.51	13450.00	-1670.03	-807.24	1723.97	0.00			
15400.00	90.00	179.51	13450.00		-806.38	1823.64	0.00			
15500.00	90.00	179.51	13450.00	-1870.03	-805.53	1923.32	0.00			
15600.00	90.00	179.51	13450.00	-1970.02	-804.67	2022.99	0.00			
15700.00 15800.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-2070.02 -2170.02	-803.82 -802.96	2122.66 2222.34	0.00			
15900.00	90.00	179.51	13450.00	-2170.02 -2270.01	-802.96 -802.11	2322.34	0.00			
16000.00	90.00	179.51	13450.00	-2370.01	-801.25	2421.69	0.00			
16100.00	90.00	179.51	13450.00	-2470.01	-800.40	2521.36	0.00			
16200.00	90.00	179.51	13450.00	-2570.00	-799.54	2621.03	0.00			
16300.00	90.00	179.51	13450.00	-2670.00	-798.68	2720.71	0.00			
16400.00	90.00	179.51	13450.00	-2769.99	-797.83	2820.38	0.00			
16500.00	90.00	179.51	13450.00	-2869.99	-796.97	2920.05	0.00			
16600.00	90.00	179.51	13450.00	-2969.99	-796.12	3019.73	0.00			
16700.00 16800.00	90.00 90.00	179.51 179.51	13450.00 13450.00	-3069.98 -3169.98	-795.26 -794.41	3119.40 3219.07	0.00			
16900.00	90.00	179.51	13450.00	-3269.98	-794.41	3318.75	0.00			
17000.00	90.00	179.51	13450.00	-3369.97	-792.70	3418.42	0.00			
17100.00	90.00	179.51	13450.00	-3469.97	-791.84	3518.09	0.00			
17200.00	90.00	179.51	13450.00	-3569.97	-790.99	3617.77	0.00			
17300.00	90.00	179.51	13450.00	-3669.96	-790.13	3717.44	0.00			
17400.00	90.00	179.51	13450.00	-3769.96	-789.27	3817.11	0.00			
17500.00	90.00	179.51	13450.00	-3869.95	-788.42	3916.79	0.00			
17600.00 17700.00	90.00 90.00	179.51 179.51	13450.00 13450.01	-3969.95 -4069.95	-787.56 -786.71	4016.46 4116.13	0.00			
17700.00	90.00	179.51	13450.01	-4069.95 -4169.94	-785.85	4215.81	0.00			
17900.00	90.00	179.51	13450.01	-4269.94	-785.00	4315.48	0.00			
18000.00	90.00	179.51	13450.01	-4369.94	-784.14	4415.15	0.00			
18100.00	90.00	179.51	13450.01	-4469.93	-783.29	4514.83	0.00			
18200.00	90.00	179.51	13450.01	-4569.93	-782.43	4614.50	0.00			
18300.00	90.00	179.51	13450.01	-4669.93	-781.58	4714.17	0.00			
18400.00	90.00	179.51	13450.01	-4769.92	-780.72	4813.85	0.00			
18500.00	90.00	179.51	13450.01	-4869.92	-779.86	4913.52	0.00			
18600.00	90.00	179.51	13450.01	-4969.91	-779.01	5013.20	0.00			
18700.00 18800.00	90.00 90.00	179.51 179.51	13450.01 13450.01	-5069.91 -5169.91	-778.15 -777.30	5112.87 5212.54	0.00			
18900.00	90.00	179.51	13450.01	-5169.91	-777.30 -776.44	5212.54	0.00			
19000.00	90.00	179.51	13450.01	-5369.90	-775.59	5411.89	0.00			
19100.00	90.00	179.51	13450.01	-5469.90	-774.73	5511.56	0.00			
19200.00	90.00	179.51	13450.01	-5569.89	-773.88	5611.24	0.00			
19300.00	90.00	179.51	13450.01	-5669.89	-773.02	5710.91	0.00			



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19400.00	90.00	179.51	13450.01	-5769.88	-772.17	5810.58	0.00	
19500.00	90.00	179.51	13450.01	-5869.88	-771.31	5910.26	0.00	
19600.00	90.00	179.51	13450.01	-5969.88	-770.45	6009.93	0.00	
19700.00	90.00	179.51	13450.01	-6069.87	-769.60	6109.60	0.00	
19800.00	90.00	179.51	13450.01	-6169.87	-768.74	6209.28	0.00	
19900.00	90.00	179.51	13450.01	-6269.87	-767.89	6308.95	0.00	
20000.00	90.00	179.51	13450.01	-6369.86	-767.03	6408.62	0.00	
20100.00	90.00	179.51	13450.01	-6469.86	-766.18	6508.30	0.00	
20200.00	90.00	179.51	13450.01	-6569.86	-765.32	6607.97	0.00	
20300.00	90.00	179.51	13450.01	-6669.85	-764.47	6707.64	0.00	
20400.00	90.00	179.51	13450.01	-6769.85	-763.61	6807.32	0.00	
20500.00	90.00	179.51	13450.01	-6869.84	-762.76	6906.99	0.00	
20600.00	90.00	179.51	13450.01	-6969.84	-761.90	7006.66	0.00	
20700.00	90.00	179.51	13450.01	-7069.84	-761.04	7106.34	0.00	
20800.00	90.00	179.51	13450.01	-7169.83	-760.19	7206.01	0.00	
20900.00	90.00	179.51	13450.01	-7269.83	-759.33	7305.68	0.00	
21000.00	90.00	179.51	13450.01	-7369.83	-758.48	7405.36	0.00	
21100.00	90.00	179.51	13450.01	-7469.82	-757.62	7505.03	0.00	
21200.00	90.00	179.51	13450.01	-7569.82	-756.77	7604.71	0.00	
21300.00	90.00	179.51	13450.01	-7669.82	-755.91	7704.38	0.00	
21400.00	90.00	179.51	13450.01	-7769.81	-755.06	7804.05	0.00	
21500.00	90.00	179.51	13450.01	-7869.81	-754.20	7903.73	0.00	
21600.00	90.00	179.51	13450.01	-7969.80	-753.35	8003.40	0.00	
21700.00	90.00	179.51	13450.01	-8069.80	-752.49	8103.07	0.00	
21800.00	90.00	179.51	13450.01	-8169.80	-751.63	8202.75	0.00	
21900.00	90.00	179.51	13450.01	-8269.79	-750.78	8302.42	0.00	
22000.00	90.00	179.51	13450.01	-8369.79	-749.92	8402.09	0.00	
22100.00	90.00	179.51	13450.01	-8469.79	-749.07	8501.77	0.00	
22200.00	90.00	179.51	13450.01	-8569.78	-748.21	8601.44	0.00	
22300.00	90.00	179.51	13450.01	-8669.78	-747.36	8701.11	0.00	
22400.00	90.00	179.51	13450.01	-8769.78	-746.50	8800.79	0.00	
22500.00	90.00	179.51	13450.01	-8869.77	-745.65	8900.46	0.00	
22600.00	90.00	179.51	13450.01	-8969.77	-744.79	9000.13	0.00	
22700.00	90.00	179.51	13450.01	-9069.76	-743.94	9099.81	0.00	
22800.00	90.00	179.51	13450.01	-9169.76	-743.08	9199.48	0.00	
22900.00	90.00	179.51	13450.01	-9269.76	-742.22	9299.15	0.00	
23000.00	90.00	179.51	13450.01	-9369.75	-741.37	9398.83	0.00	
23100.00	90.00	179.51	13450.01	-9469.75	-740.51	9498.50	0.00	
23200.00	90.00	179.51	13450.01	-9569.75	-739.66	9598.17	0.00	
23300.00	90.00	179.51	13450.01	-9669.74	-738.80	9697.85	0.00	
23400.00	90.00	179.51	13450.01	-9769.74	-737.95	9797.52	0.00	
23500.00	90.00	179.51	13450.01	-9869.73	-737.09	9897.19	0.00	
23600.00	90.00	179.51	13450.01	-9969.73	-736.24	9996.87	0.00	
23697.95	90.00	179.51	13450.01	-10067.67	-735.40	10094.49	0.00	exit
23700.00	90.00	179.51	13450.01	-10069.73	-735.38	10096.54	0.00	
23777.95	90.00	179.51	13450.00	-10147.67	-734.74	10174.23	0.00	BHL

Fighting Okra 18-19 Fed 18H

10 3/4	,			nch hole. <u>Design Factors</u>					Surface			
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.50		h 40	btc	13.93	3.67	0.33	810	6	0.54	6.93	32,805
"B"				btc				0				0
	w/8.4#/g	mud, 30min Sfc Csg Test	psig: 1,243	Tail Cmt	does not	circ to sfc.	Totals:	810				32,80
omparison o	of Proposed to Min	imum Required Ceme	ent Volumes									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
14 3/4	0.5563	494	711	451	58	9.00	4185	5M				2.00
urst Frac Grad	dient(s) for Segment	c(s) A, B = , b All > 0.	70, OK.									
8 5/8	,	g inside the	10 3/4			<u>Design</u>				Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	32.00		p 110	vam sprint fj	1.81	0.57	0.97	12,860	1	1.63	0.96	
"B"								0				0
	w/8.4#/g	mud, 30min Sfc Csg Test	psig: -607				Totals:	12,860				411,52
		The cement v	volume(s) are intend	led to achieve a top of		ft from su	rface or a	810				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cp
9 7/8	0.1261	905	2108	1637	29	10.50	4377	5M				0.61
D V Tool(s):							sum of sx	Σ CuFt				Σ%exce
oy stage % :		40/ALUEI	#VALUE!				905	2108				29
, ,	nt yld > 1.20	#VALUE!	#VALUE!				905	2100				
Class 'H' tail cm		#VALUE!		em!!			905	2100				
Class 'H' tail cm Burst Frac Grad	dient(s) for Segment	(s): A, B, C, D = 0.56, b	o, c, d <0.70 a Proble	em!!				2106				
Class 'H' tail cm Burst Frac Grad Tail cmt 5 1/2	dient(s) for Segment	(s): A, B, C, D = 0.56, b s inside the				Design Fac	ctors_			Prod 1		
Class 'H' tail cm Burst Frac Grad Tail cmt 5 1/2 Segment	casing	(s): A, B, C, D = 0.56, b	o, c, d <0.70 a Proble	Coupling	Joint	Collapse	ctors Burst	Length	B@s	а-В	a-C	_
Tail cmt 5 1/2 Segment "A"	dient(s) for Segment	(s): A, B, C, D = 0.56, b s inside the	o, c, d <0.70 a Proble		Joint 2.39		ctors_	Length 23,778	B@s		a-C 1.71	404,22
Tail cmt 5 1/2 Segment "A" "B"	casing	(s): A, B, C, D = 0.56, b s inside the	o, c, d <0.70 a Proble	Coupling		Collapse	ctors Burst	Length 23,778	_	а-В		0
Jass 'H' tail cm Jurst Frac Grad Tail cmt 5 1/2 Segment "A" "B"	casing	(s): A, B, C, D = 0.56, b s inside the	o, c, d <0.70 a Proble	Coupling dwc/c is+		Collapse	ctors Burst	Length 23,778 0	_	а-В		404,22 0 0
Tail cmt 5 1/2 Segment "A" "B"	casing #/ft 17.00	(s): A, B, C, D = 0.56, b s inside the Grade	85/8 p 110	Coupling		Collapse	ctors Burst 1.45	Length 23,778 0 0	_	а-В		404,22 0 0 0
Jass 'H' tail cm Jurst Frac Grad Tail cmt 5 1/2 Segment "A" "B"	casing #/ft 17.00	(s): A, B, C, D = 0.56, b g inside the Grade	85/8 p 110	Coupling dwc/c is+	2.39	Collapse 1.02	Ctors Burst 1.45 Totals:	Length 23,778 0 0 0 23,778	_	а-В		404,22 0 0 0 404,22
Class 'H' tail cm Burst Frac Grad Tail cmt 5 1/2 Segment "A" "B" "C" "D"	casing #/ft 17.00	(s): A, B, C, D = 0.56, b g inside the Grade	85/8 p 110	Coupling dwc/c is+	2.39	1.02	Ctors Burst 1.45 Totals:	Length 23,778 0 0	_	а-В		404,22 0 0 0 404,22 overlap.
Class 'H' tail cm Burst Frac Grad Tail cmt 5 1/2 Segment "A" "B"	casing #/ft 17.00	(s): A, B, C, D = 0.56, b g inside the Grade	85/8 p 110	Coupling dwc/c is+	2.39	Collapse 1.02	Ctors Burst 1.45 Totals:	Length 23,778 0 0 0 23,778	_	а-В		404,22 0 0 0 404,22 overlap.
Class 'H' tail cm Burst Frac Grad Tail cmt 5 1/2 Segment "A" "B" "C" "D"	casing #/ft 17.00	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v	85/8 p 110 p spsig: 2,959 volume(s) are intended	Coupling dwc/c is+	2.39	1.02	Ctors Burst 1.45 Totals:	Length 23,778 0 0 0 23,778 200	_	а-В		404,22 0 0 0 404,22 overlap. Min Dis
Class 'H' tail cm Burst Frac Grac Tail cmt 5 1/2 Segment "A" "B" "C" "D"	casing #/ft 17.00 w/8.4#/g	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage	8 5/8 p 110 spsig: 2,959 volume(s) are intend	Coupling dwc/c is+ 0 led to achieve a top of	2.39 12660 1 Stage	ft from su Drilling	Ctors Burst 1.45 Totals: rface or a Calc	Length 23,778 0 0 0 23,778 200 Req'd	_	а-В		404,22 0 0 0 404,22
Class 'H' tail cm Burst Frac Grace Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx	8 5/8 p 110 spsig: 2,959 volume(s) are intend 1 Stage CuFt Cmt	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft	2.39 12660 1 Stage % Excess	ft from su Drilling Mud Wt	Ctors Burst 1.45 Totals: rface or a Calc	Length 23,778 0 0 0 23,778 200 Req'd	_	а-В		404,22 0 0 0 404,22 overlap. Min Dis Hole-Cp
Class 'H' tail cm Burst Frac Grace Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx	8 5/8 p 110 spsig: 2,959 volume(s) are intend 1 Stage CuFt Cmt	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft	2.39 12660 1 Stage % Excess	ft from su Drilling Mud Wt	Ctors Burst 1.45 Totals: rface or a Calc	Length 23,778 0 0 0 23,778 200 Req'd	_	а-В		404,22 0 0 404,22 overlap. Min Dis Hole-Cp
Elass 'H' tail cm Burst Frac Grac Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 Elass 'C' tail cm	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 ttyld > 1.35	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550	8 5/8 p 110 spsig: 2,959 volume(s) are intend 1 Stage CuFt Cmt	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927	2.39 12660 1 Stage % Excess 27	ft from su Drilling Mud Wt 10.50	Totals: rface or a Calc MASP	Length 23,778 0 0 0 23,778 200 Req'd	1	а-В	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cp 0.91
Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 #N/A 0 Segment	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx	a, c, d <0.70 a Proble 85/8 p 110 psig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling	2.39 12660 1 Stage % Excess	ft from su Drilling Mud Wt 10.50	Totals: rface or a Calc MASP	Length 23,778 0 0 0 23,778 200 Req'd BOPE	1	a-B 2.43	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cr 0.91
Class 'H' tail cm Burst Frac Grace Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 Class 'C' tail cm #N/A 0 Segment "A"	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 ttyld > 1.35	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550	a, c, d <0.70 a Proble 85/8 p 110 psig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling 0.00	2.39 12660 1 Stage % Excess 27	ft from su Drilling Mud Wt 10.50	Totals: rface or a Calc MASP	Length 23,778 0 0 0 23,778 200 Req'd BOPE	1	a-B 2.43	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cr 0.91
Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 #N/A 0 Segment	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 it yld > 1.35	g inside the Grade mud, 30min Sfc Csg Test The cement of 1 Stage Cmt Sx 1550 Grade	85/8 p 110 s psig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling	2.39 12660 1 Stage % Excess 27	ft from su Drilling Mud Wt 10.50	Totals: Totals: rface or a Calc MASP	Length 23,778 0 0 0 23,778 200 Req'd BOPE Length 0	1	a-B 2.43	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cr 0.91 Weight
Class 'H' tail cm Burst Frac Grace Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 Class 'C' tail cm #N/A 0 Segment "A"	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 it yld > 1.35	g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550 Grade mud, 30min Sfc Csg Test	85/8 p 110 spsig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446 5 1/2	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00	2.39 12660 1 Stage % Excess 27 #N/A	ft from su Drilling Mud Wt 10.50	Totals: rface or a Calc MASP Factors Burst Totals:	Length 23,778 0 0 0 23,778 200 Req'd BOPE Length 0 0	1	a-B 2.43	1.71	404,22 0 0 404,22 overlap. Min Dis Hole-Cp 0.91 Weight 0 0
Burst Frac Grac Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size \$ize 7/8 Class 'C' tail cm #N/A 0 Segment "A" "B"	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 styld > 1.35 #/ft	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550 Grade mud, 30min Sfc Csg Test Cmt vol ca	p 110 s psig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446 5 1/2	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00 nis csg, TOC intended	2.39 12660 1 Stage % Excess 27 #N/A	ft from su Drilling Mud Wt 10.50 Design Collapse	Totals: rface or a Calc MASP Factors Burst Totals:	Length 23,778 0 0 0 23,778 200 Req'd BOPE	1	a-B 2.43	1.71	404,22 0 0 404,22 overlap. Min Di Hole-Cp 0.91 Weigl 0 0 overlap.
Class 'H' tail cm Burst Frac Grace Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 7 7/8 Class 'C' tail cm #N/A 0 Segment "A" "B" Hole	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 styld > 1.35 #/ft w/8.4#/g Annular	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550 Grade mud, 30min Sfc Csg Test Cmt vol ca	s. p. sig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446 5 1/2 s. psig: alc below includes the stage of	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00 his csg, TOC intended Min	2.39 12660 1 Stage % Excess 27 #N/A #N/A	ft from su Drilling Mud Wt 10.50 Design Collapse ft from su Drilling	Totals: rface or a Calc MASP Totals: rface or a Calc MASP	Length 23,778 0 0 0 23,778 200 Req'd BOPE	1	a-B 2.43	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cp 0.91 Weigh 0 0 overlap. Min Dis
Burst Frac Grac Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size \$ize 7/8 Class 'C' tail cm #N/A 0 Segment "A" "B"	casing #/ft 17.00 w/8.4#/g Annular Volume 0.1733 styld > 1.35 #/ft	(s): A, B, C, D = 0.56, b g inside the Grade mud, 30min Sfc Csg Test The cement v 1 Stage Cmt Sx 1550 Grade mud, 30min Sfc Csg Test Cmt vol ca	p 110 s psig: 2,959 volume(s) are intend 1 Stage CuFt Cmt 2446 5 1/2	Coupling dwc/c is+ 0 led to achieve a top of Min Cu Ft 1927 Coupling 0.00 0.00 nis csg, TOC intended	2.39 12660 1 Stage % Excess 27 #N/A	ft from su Drilling Mud Wt 10.50 Design Collapse	Totals: rface or a Calc MASP Factors Burst Totals:	Length 23,778 0 0 0 23,778 200 Req'd BOPE	1	a-B 2.43	1.71	404,22 0 0 0 404,22 overlap. Min Dis Hole-Cp 0.91 Weight 0 0

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

CONDITIONS

Action 267489

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	267489
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	10/26/2023