

Well Name: FIGHTING OKRA 18-19 FED	Well Location: T26S / R34E / SEC 18 / NENW / 32.0500635 / -103.5124687	County or Parish/State: LEA / NM
Well Number: 17H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM114992	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547574	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2777485

Type of Submission: Notice of Intent	Type of Action: APD Change
Date Sundry Submitted: 02/29/2024	Time Sundry Submitted: 03:43
Date proposed operation will begin: 02/29/2024	

Procedure Description: Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Offline cement variance request. Please see attached revised drilling & directional plans, and supporting documentation.

NOI Attachments

Procedure Description

- FIGHTING_OKRA_18_19_FED_17H_Slim_Hole_Rev1_20240314112628.pdf
- 5.5_20__VAEP_P110_VAroughneck_SC__6.051_OD__20240229154125.pdf
- Offline_Cementing__Variance_Request_20240229154122.pdf
- 9.625_40lb_J_55_20240229154122.pdf
- FIGHTING_OKRA_18_19_FED_17H_Directional_Plan_08_30_23_20240229154123.pdf
- 7_625_29_7_BMP_P110HC_CDS_FXL__slim_hole_alternate_for_timing__20240229154122.pdf

Received by OCD: 3/26/2024 8:23:02 AM

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Well Name: FIGHTING OKRA 18-19 FED	Well Location: T26S / R34E / SEC 18 / NENW / 32.0500635 / -103.5124687	County or Parish/State: LEA / NM
Well Number: 17H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM114992	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547574	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Specialist Review

Fighting_Okra_18_19_Fed_17H_Sundry_ID_2777485_20240325141638.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: MAR 14, 2024 11:26 AM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITYState: 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 Title: Petroleum Engineer

BLM POC Phone: 5759885402

BLM POC Email Address: LVO@BLM.GOV

Disposition: Approved

Disposition Date: 03/25/2024

Signature: Long Vo

Form 3160-5 (June 2019)	UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT	FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2021
SUNDRY NOTICES AND REPORTS ON WELLS <i>Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.</i>		5. Lease Serial No. NMNM114992
		6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2		7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. FIGHTING OKRA 18-19 FED/17H
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP		9. API Well No. 3002547574
3a. Address 333 WEST SHERIDAN AVE, OKLAHOMA CITY,	3b. Phone No. (include area code) (405) 235-3611	10. Field and Pool or Exploratory Area WC-025 G-10 S263418C/LWR WOLFCAMP
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 18/T26S/R34E/NMP		11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA				
TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD:
Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Offline cement variance request.
Please see attached revised drilling & directional plans, and supporting documentation.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) REBECCA DEAL / Ph: (303) 299-1406	Title Regulatory Analyst
Signature (Electronic Submission)	Date 03/14/2024

THE SPACE FOR FEDERAL OR STATE OFFICE USE		
Approved by LONG VO / Ph: (575) 988-5402 / Approved	Title Petroleum Engineer	Date 03/25/2024
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office CARLSBAD	

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.

(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

Additional Information

Location of Well

0. SHL: NENW / 230 FNL / 1570 FWL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0500635 / LONG: -103.5124687 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 351 FWL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0504 / LONG: -103.5164 (TVD: 12560 feet, MD: 12665 feet)

BHL: SESE / 20 FSL / 351 FWL / TWSP: 26S / RANGE: 34E / SECTION: 19 / LAT: 32.0216 / LONG: -103.5165 (TVD: 13450 feet, MD: 23805 feet)

CONFIDENTIAL

FIGHTING OKRA 18-19 FED 17H

1. Geologic Formations

TVD of target	13450	Pilot hole depth	N/A
MD at TD:	23806	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
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.

FIGHTING OKRA 18-19 FED 17H

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	9 5/8	40	J-55	BTC	0	810	0	810
8 3/4	7 5/8	29.70	P-110HSCY	MOFXL	0	12860	0	12860
6 3/4	5 1/2	20	P-110	VARN & Sprint SF	0	23806	0	13450

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

Variance Approval -

- o 5-1/2" Production Casing will include Sprint SF connection from base of curve to 500ft inside 7 5/8" casing shoe
- o All other 5-1/2" Production Casing will run VARN (6.05") or equivalent

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	431	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	348	Surf	9	3.27	Lead: Class C Cement + additives
	370	8860	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	452	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	348	Surf	9	3.27	Lead: Class C Cement + additives
	370	8860	13.2	1.44	Tail: Class H / C + additives
Production	62	10982	9	3.27	Lead: Class H /C + additives
	691	12982	13.2	1.44	Tail: Class H / C + additives

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

FIGHTING OKRA 18-19 FED 17H

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram			
			Double Ram		X	
			Other*			
Production	13-5/8"	10M	Annular (5M)		X	100% of rated working pressure
			Blind Ram		X	10M
			Pipe Ram			
			Double Ram		X	
			Other*			
			Annular (5M)			
			Blind Ram			
			Pipe Ram			
			Double Ram			
			Other*			
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
Y	A variance is requested to run a 5 M annular on a 10M system					

FIGHTING OKRA 18-19 FED 17H

5. Mud Program (Three String Design)

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

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

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

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted 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	Specify 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.

Hydrogen 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	H ₂ S is present
Y	H ₂ S plan attached.

FIGHTING OKRA 18-19 FED 17H

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. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
 Other, describe

TECHNICAL DATA SHEET

Released to Imaging: 6/15/2024 12:39:45 PM

Connection: **VAroughneck SC (OD=6.051in)**

Grade: **VA-EP-P110**

Size: **5 1/2 in X 20.00 lb/ft**

Drift: **standard**

Bevel: **standard**

Material:

	US Customary	Metric
Yield Strength Min.	125,000 psi	862 Mpa
Yield Strength Max.	140,000 psi	965 Mpa
Tensile Strength Min.	125,000 psi	862 Mpa

Pipe:

	US Customary	Metric		US Customary	Metric
Nominal OD:	5.500 in	139.70 mm	Wall Thickness:	0.361 in	9.17 mm
Nominal ID:	4.778 in	121.36 mm	Standard Drift:	4.653 in	118.19 mm
Nominal Weight:	20.00 lb/ft	30.07 kg/m	Pipe Body Yield Strength:	729 klb	3,240 kN
Pipe Cross Section:	5.828 in²	3,759.99 mm²			

Connection:

	US Customary	Metric	
OD:	6.051 in	153.70 mm	Threads per inch: 5 Threads
ID:	4.764 in	121.00 mm	
Length:	8.976 in	228.00 mm	

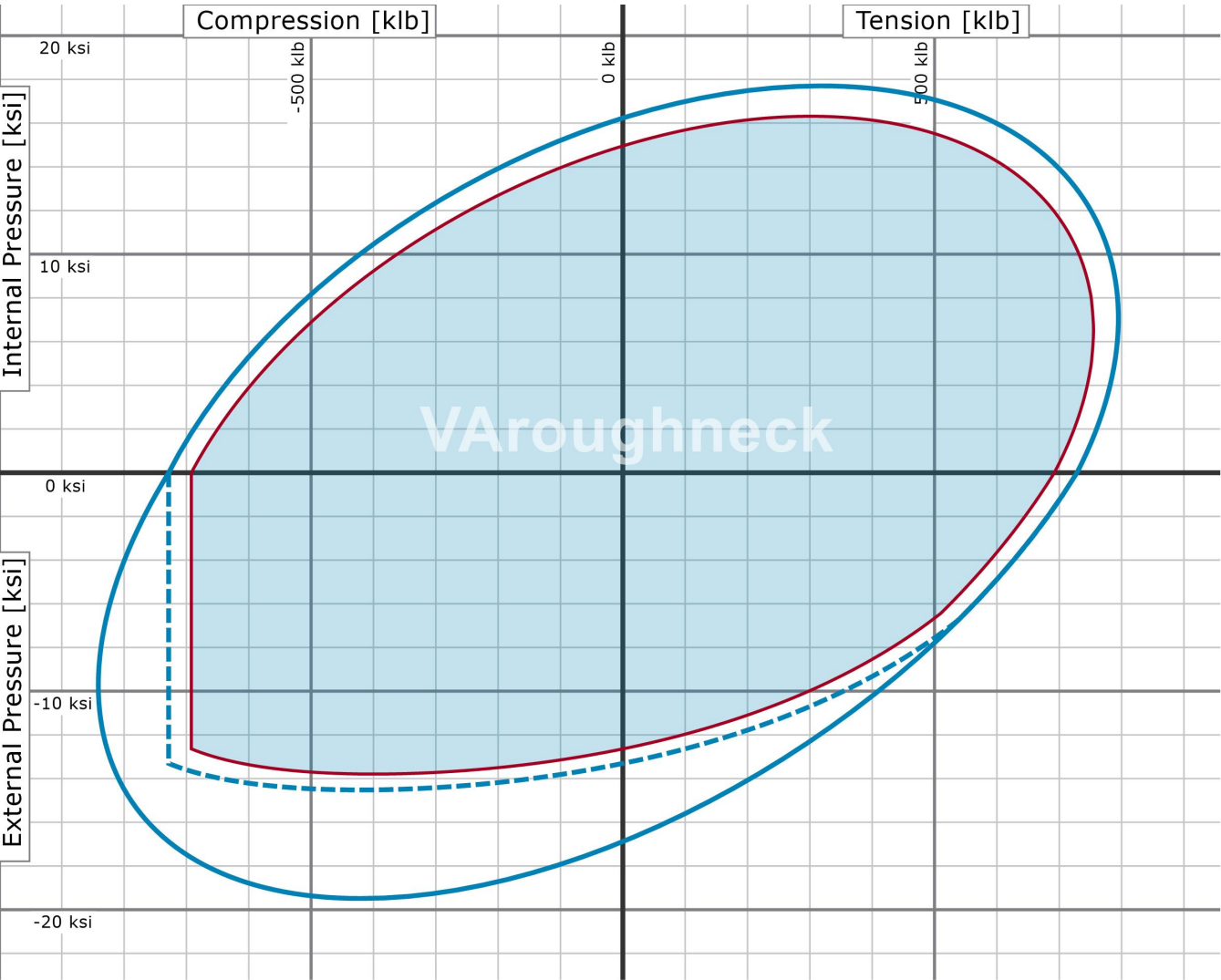
Connection Performance (Uniaxial Load):

	US Customary	Metric		US Customary	Metric
Joint Strength:	729 klb	3,240 kN	Tension Efficiency:	> 100.0 %	
Collapse Resistance:.	13,300 psi	91.70 Mpa	Displacement:	1.240 gal/ft	15.40 l/m
Internal Yield Pressure:	14,360 psi	99.00 Mpa	Production:	0.932 gal/ft	11.57 l/m
Load on Coupling Face:	411 klb	1,830 kN			

Field Make Up (Friction Factor = 1.0):

	US Customary	Metric		US Customary	Metric
Minimum Torque:	15,820 ft.lb	21,450 Nm	Make-Up Loss:	4.370 in	111.00 mm
Optimum Torque:	17,580 ft.lb	23,835 Nm	Yield Torque:	22,000 ft.lb	29,800 Nm
Maximum Torque:	19,340 ft.lb	26,220 Nm			
Min. Torque on Shoulder:	%				

LOAD ENVELOPE



Recommended Field of Application

- Pipe Body Envelope
- - - Pipe Body Collapse

Efficiency (% Pipe Body)
under Uniaxial Loads

Tension:	100.0 %
Compression:	100.0 %
Internal Pressure:	100.0 %
External Pressure:	100.0 %

Sealability Rating (% Efficiency)
under Combined Loads

Tension:	100.0 %
Compression:	100.0 %
Internal Pressure:	100.0 %
External Pressure:	100.0 %

Test Conditions

Test Medium:	Fluid
Von Mises Envelope:	95.0 %
Bending:	20.00 °/100ft

The graph is calculated under consideration of the requirements of EN ISO 13679 and API 5C3. The combined loads are calculated without the consideration of wall thickness tolerances and differ from the values in the data sheet, which are calculated with tolerances determined by API. Any printout is NOT SUBJECT TO REGULAR REVISION. The generated performance envelope shall solely be used as a tool to facilitate the comparison of performance properties under combined loads, of different grades, sizes and connections of voestalpine Tubulars products. Field-specific safety/design factors as well as other loads are not considered. Thus the results shall by no means be used to replace the own string design engineering or to justify any warranty/guaranty cases.

Offline Cementing

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.

 U. S. Steel Tubular Products
9.625" 40.00lbs/ft (0.395" Wall) J55

1/24/2019 2:45:24 PM

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi

DIMENSIONS	Pipe	BTC	LTC	STC	
Outside Diameter	9.625	10.625	10.625	10.625	in.
Wall Thickness	0.395	--	--	--	in.
Inside Diameter	8.835	8.835	8.835	8.835	in.
Standard Drift	8.679	8.679	8.679	8.679	in.
Alternate Drift	8.750	8.750	8.750	8.750	in.
Nominal Linear Weight, T&C	40.00	--	--	--	lbs/ft
Plain End Weight	38.97	--	--	--	lbs/ft

PERFORMANCE	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	2,570	2,570	2,570	2,570	psi
Minimum Internal Yield Pressure	3,950	3,950	3,950	3,950	psi
Minimum Pipe Body Yield Strength	630	--	--	--	1,000 lbs
Joint Strength	--	714	520	452	1,000 lbs
Reference Length	--	11,898	8,665	7,529	ft

MAKE-UP DATA	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	4.75	3.38	in.
Minimum Make-Up Torque	--	--	3,900	3,390	ft-lbs
Maximum Make-Up Torque	--	--	6,500	5,650	ft-lbs

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.

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Spring, Texas 77380

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www.usstubular.com

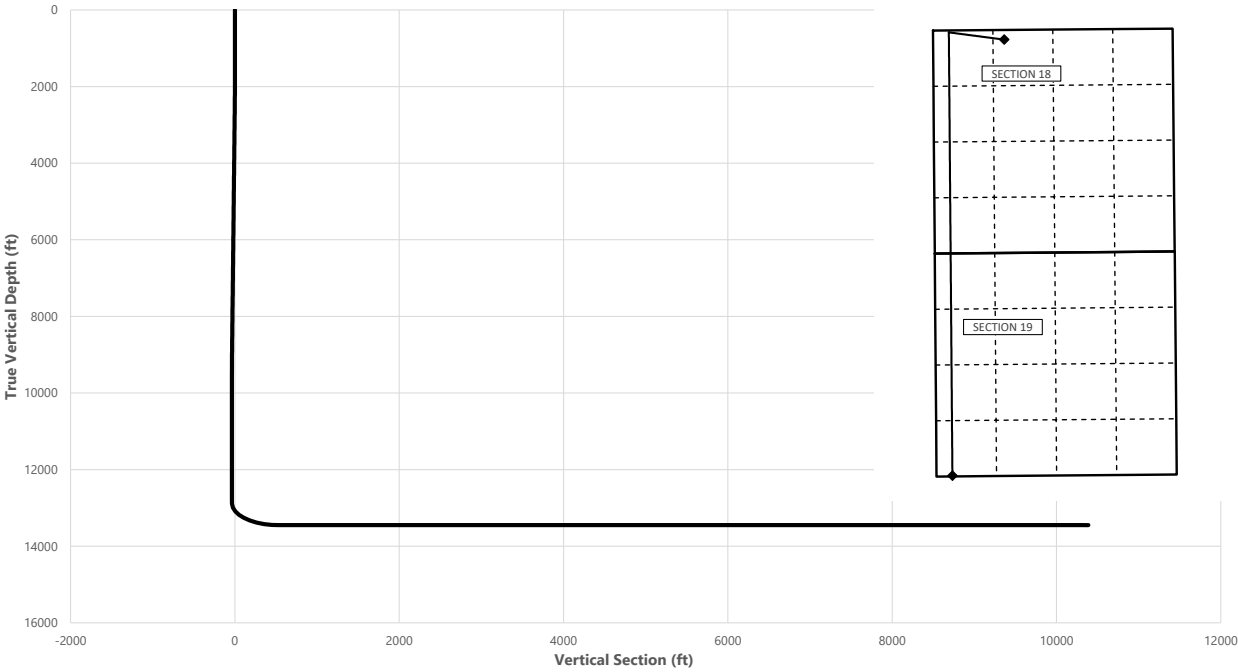
FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	278.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	278.00	2497.47	6.06	-43.10	-1.28	2.00	Hold Tangent
9103.39	10.00	278.00	9000.53	165.64	-1178.61	-34.95	0.00	Drop to Vertical
9603.39	0.00	278.00	9498.00	171.70	-1221.70	-36.23	2.00	Hold Vertical
12982.43	0.00	179.57	12877.04	171.70	-1221.70	-36.23	0.00	KOP
13882.43	90.00	179.57	13450.00	-401.24	-1217.40	532.76	10.00	Landing Point
23805.94	90.00	179.57	13450.00	-10324.47	-1142.93	10387.54	0.00	BHL



Key Depths	MD	TVD
	(ft)	(ft)
Rustler	785.00	785.00
Salt	1060.00	1060.00
Base of Salt	5295.00	5250.00
Delaware	5345.77	5300.00
Cherry Canyon	6415.01	6353.00
Brushy Canyon	8083.36	7996.00
1st Bone Spring Lime	9634.39	9529.00
Bone Spring 1st	10580.39	10475.00
Bone Spring 2nd	11526.39	11421.00
3rd Bone Spring Lime	11592.39	11487.00
Bone Spring 3rd	12205.39	12100.00
Wolfcamp / Point of Penetration	12665.39	12560.00
exit	23725.94	13450.01

SHL
KOP
Point of Penetration
Exit
BHL

MD	TVD	Lat	Long	Section Footages
(ft)	(ft)	(°)	(°)	
0.00	0.00	32.0500	-103.5126	230' FNL, 1570' FWL of Sec 18 in T26S, R34E
12982.43	12877.04	32.0505	-103.5165	47' FNL, 350' FWL of Sec 18 in T26S, R34E
12665.39	12560.00	32.0504	-103.5164	100' FNL, 351' FWL of Sec 18 in T26S, R34E
23725.94	13450.01	32.0219	-103.5164	100' FSL, 351' FWL of Sec 19 in T26S, R34E
23805.94	13450.00	32.0216	-103.5165	20' FSL, 351' FWL of Sec 19 in T26S, R34E

	Y	X	MD
KOP	383090	794440	12982.43

FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
 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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	278.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	278.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	278.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	278.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	278.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	278.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	278.00	700.00	0.00	0.00	0.00	0.00	
785.00	0.00	278.00	785.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	278.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	278.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	278.00	1000.00	0.00	0.00	0.00	0.00	
1060.00	0.00	278.00	1060.00	0.00	0.00	0.00	0.00	Salt
1100.00	0.00	278.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	278.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	278.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	278.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	278.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	278.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	278.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	278.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	278.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	278.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	278.00	2099.98	0.24	-1.73	-0.05	2.00	
2200.00	4.00	278.00	2199.84	0.97	-6.91	-0.20	2.00	
2300.00	6.00	278.00	2299.45	2.18	-15.54	-0.46	2.00	
2400.00	8.00	278.00	2398.70	3.88	-27.61	-0.82	2.00	
2500.00	10.00	278.00	2497.47	6.06	-43.10	-1.28	2.00	Hold Tangent
2600.00	10.00	278.00	2595.95	8.47	-60.29	-1.79	0.00	
2700.00	10.00	278.00	2694.43	10.89	-77.49	-2.30	0.00	
2800.00	10.00	278.00	2792.91	13.31	-94.69	-2.81	0.00	
2900.00	10.00	278.00	2891.39	15.72	-111.88	-3.32	0.00	
3000.00	10.00	278.00	2989.87	18.14	-129.08	-3.83	0.00	
3100.00	10.00	278.00	3088.35	20.56	-146.27	-4.34	0.00	
3200.00	10.00	278.00	3186.83	22.97	-163.47	-4.85	0.00	
3300.00	10.00	278.00	3285.31	25.39	-180.67	-5.36	0.00	
3400.00	10.00	278.00	3383.79	27.81	-197.86	-5.87	0.00	
3500.00	10.00	278.00	3482.27	30.22	-215.06	-6.38	0.00	
3600.00	10.00	278.00	3580.75	32.64	-232.25	-6.89	0.00	
3700.00	10.00	278.00	3679.23	35.06	-249.45	-7.40	0.00	
3800.00	10.00	278.00	3777.72	37.47	-266.64	-7.91	0.00	
3900.00	10.00	278.00	3876.20	39.89	-283.84	-8.42	0.00	
4000.00	10.00	278.00	3974.68	42.31	-301.04	-8.93	0.00	
4100.00	10.00	278.00	4073.16	44.72	-318.23	-9.44	0.00	
4200.00	10.00	278.00	4171.64	47.14	-335.43	-9.95	0.00	
4300.00	10.00	278.00	4270.12	49.56	-352.62	-10.46	0.00	
4400.00	10.00	278.00	4368.60	51.97	-369.82	-10.97	0.00	
4500.00	10.00	278.00	4467.08	54.39	-387.02	-11.48	0.00	
4600.00	10.00	278.00	4565.56	56.81	-404.21	-11.99	0.00	
4700.00	10.00	278.00	4664.04	59.22	-421.41	-12.50	0.00	
4800.00	10.00	278.00	4762.52	61.64	-438.60	-13.01	0.00	
4900.00	10.00	278.00	4861.00	64.06	-455.80	-13.52	0.00	
5000.00	10.00	278.00	4959.48	66.47	-472.99	-14.03	0.00	
5100.00	10.00	278.00	5057.97	68.89	-490.19	-14.54	0.00	
5200.00	10.00	278.00	5156.45	71.31	-507.39	-15.05	0.00	
5295.00	10.00	278.00	5250.00	73.60	-523.72	-15.53	0.00	Base of Salt
5300.00	10.00	278.00	5254.93	73.72	-524.58	-15.56	0.00	
5345.77	10.00	278.00	5300.00	74.83	-532.45	-15.79	0.00	Delaware
5400.00	10.00	278.00	5353.41	76.14	-541.78	-16.07	0.00	
5500.00	10.00	278.00	5451.89	78.56	-558.97	-16.58	0.00	
5600.00	10.00	278.00	5550.37	80.97	-576.17	-17.09	0.00	
5700.00	10.00	278.00	5648.85	83.39	-593.37	-17.60	0.00	
5800.00	10.00	278.00	5747.33	85.81	-610.56	-18.11	0.00	
5900.00	10.00	278.00	5845.81	88.22	-627.76	-18.62	0.00	
6000.00	10.00	278.00	5944.29	90.64	-644.95	-19.13	0.00	
6100.00	10.00	278.00	6042.77	93.06	-662.15	-19.63	0.00	
6200.00	10.00	278.00	6141.25	95.47	-679.34	-20.14	0.00	
6300.00	10.00	278.00	6239.73	97.89	-696.54	-20.65	0.00	
6400.00	10.00	278.00	6338.22	100.31	-713.74	-21.16	0.00	
6415.01	10.00	278.00	6353.00	100.67	-716.32	-21.24	0.00	Cherry Canyon

FIGHTING OKRA 18-19 FED 17H



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 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	278.00	6436.70	102.72	-730.93	-21.67	0.00	
6600.00	10.00	278.00	6535.18	105.14	-748.13	-22.18	0.00	
6700.00	10.00	278.00	6633.66	107.56	-765.32	-22.69	0.00	
6800.00	10.00	278.00	6732.14	109.97	-782.52	-23.20	0.00	
6900.00	10.00	278.00	6830.62	112.39	-799.72	-23.71	0.00	
7000.00	10.00	278.00	6929.10	114.81	-816.91	-24.22	0.00	
7100.00	10.00	278.00	7027.58	117.22	-834.11	-24.73	0.00	
7200.00	10.00	278.00	7126.06	119.64	-851.30	-25.24	0.00	
7300.00	10.00	278.00	7224.54	122.06	-868.50	-25.75	0.00	
7400.00	10.00	278.00	7323.02	124.47	-885.69	-26.26	0.00	
7500.00	10.00	278.00	7421.50	126.89	-902.89	-26.77	0.00	
7600.00	10.00	278.00	7519.99	129.31	-920.09	-27.28	0.00	
7700.00	10.00	278.00	7618.47	131.72	-937.28	-27.79	0.00	
7800.00	10.00	278.00	7716.95	134.14	-954.48	-28.30	0.00	
7900.00	10.00	278.00	7815.43	136.56	-971.67	-28.81	0.00	
8000.00	10.00	278.00	7913.91	138.97	-988.87	-29.32	0.00	
8083.36	10.00	278.00	7996.00	140.99	-1003.20	-29.75	0.00	Brushy Canyon
8100.00	10.00	278.00	8012.39	141.39	-1006.06	-29.83	0.00	
8200.00	10.00	278.00	8110.87	143.81	-1023.26	-30.34	0.00	
8300.00	10.00	278.00	8209.35	146.22	-1040.46	-30.85	0.00	
8400.00	10.00	278.00	8307.83	148.64	-1057.65	-31.36	0.00	
8500.00	10.00	278.00	8406.31	151.06	-1074.85	-31.87	0.00	
8600.00	10.00	278.00	8504.79	153.47	-1092.04	-32.38	0.00	
8700.00	10.00	278.00	8603.27	155.89	-1109.24	-32.89	0.00	
8800.00	10.00	278.00	8701.75	158.31	-1126.44	-33.40	0.00	
8900.00	10.00	278.00	8800.24	160.72	-1143.63	-33.91	0.00	
9000.00	10.00	278.00	8898.72	163.14	-1160.83	-34.42	0.00	
9100.00	10.00	278.00	8997.20	165.56	-1178.02	-34.93	0.00	
9103.39	10.00	278.00	9000.53	165.64	-1178.61	-34.95	0.00	Drop to Vertical
9200.00	8.07	278.00	9095.94	167.75	-1193.63	-35.40	2.00	
9300.00	6.07	278.00	9195.18	169.47	-1205.81	-35.76	2.00	
9400.00	4.07	278.00	9294.78	170.69	-1214.56	-36.02	2.00	
9500.00	2.07	278.00	9394.63	171.44	-1219.86	-36.18	2.00	
9600.00	0.07	278.00	9494.61	171.70	-1221.70	-36.23	2.00	
9603.39	0.00	278.00	9498.00	171.70	-1221.70	-36.23	2.00	Hold Vertical
9634.39	0.00	179.57	9529.00	171.70	-1221.70	-36.23	0.00	1st Bone Spring Lime
9700.00	0.00	179.57	9594.61	171.70	-1221.70	-36.23	0.00	
9800.00	0.00	179.57	9694.61	171.70	-1221.70	-36.23	0.00	
9900.00	0.00	179.57	9794.61	171.70	-1221.70	-36.23	0.00	
10000.00	0.00	179.57	9894.61	171.70	-1221.70	-36.23	0.00	
10100.00	0.00	179.57	9994.61	171.70	-1221.70	-36.23	0.00	
10200.00	0.00	179.57	10094.61	171.70	-1221.70	-36.23	0.00	
10300.00	0.00	179.57	10194.61	171.70	-1221.70	-36.23	0.00	
10400.00	0.00	179.57	10294.61	171.70	-1221.70	-36.23	0.00	
10500.00	0.00	179.57	10394.61	171.70	-1221.70	-36.23	0.00	
10580.39	0.00	179.57	10475.00	171.70	-1221.70	-36.23	0.00	Bone Spring 1st
10600.00	0.00	179.57	10494.61	171.70	-1221.70	-36.23	0.00	
10700.00	0.00	179.57	10594.61	171.70	-1221.70	-36.23	0.00	
10800.00	0.00	179.57	10694.61	171.70	-1221.70	-36.23	0.00	
10900.00	0.00	179.57	10794.61	171.70	-1221.70	-36.23	0.00	
11000.00	0.00	179.57	10894.61	171.70	-1221.70	-36.23	0.00	
11100.00	0.00	179.57	10994.61	171.70	-1221.70	-36.23	0.00	
11200.00	0.00	179.57	11094.61	171.70	-1221.70	-36.23	0.00	
11300.00	0.00	179.57	11194.61	171.70	-1221.70	-36.23	0.00	
11400.00	0.00	179.57	11294.61	171.70	-1221.70	-36.23	0.00	
11500.00	0.00	179.57	11394.61	171.70	-1221.70	-36.23	0.00	
11526.39	0.00	179.57	11421.00	171.70	-1221.70	-36.23	0.00	Bone Spring 2nd
11592.39	0.00	179.57	11487.00	171.70	-1221.70	-36.23	0.00	3rd Bone Spring Lime
11600.00	0.00	179.57	11494.61	171.70	-1221.70	-36.23	0.00	
11700.00	0.00	179.57	11594.61	171.70	-1221.70	-36.23	0.00	
11800.00	0.00	179.57	11694.61	171.70	-1221.70	-36.23	0.00	
11900.00	0.00	179.57	11794.61	171.70	-1221.70	-36.23	0.00	
12000.00	0.00	179.57	11894.61	171.70	-1221.70	-36.23	0.00	
12100.00	0.00	179.57	11994.61	171.70	-1221.70	-36.23	0.00	
12200.00	0.00	179.57	12094.61	171.70	-1221.70	-36.23	0.00	
12205.39	0.00	179.57	12100.00	171.70	-1221.70	-36.23	0.00	Bone Spring 3rd
12300.00	0.00	179.57	12194.61	171.70	-1221.70	-36.23	0.00	
12400.00	0.00	179.57	12294.61	171.70	-1221.70	-36.23	0.00	
12500.00	0.00	179.57	12394.61	171.70	-1221.70	-36.23	0.00	
12600.00	0.00	179.57	12494.61	171.70	-1221.70	-36.23	0.00	

FIGHTING OKRA 18-19 FED 17H



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MD (ft)	INC (")	AZI (")	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12665.39	0.00	179.57	12560.00	171.70	-1221.70	-36.23	0.00	Wolfcamp / Point
12700.00	0.00	179.57	12594.61	171.70	-1221.70	-36.23	0.00	
12800.00	0.00	179.57	12694.61	171.70	-1221.70	-36.23	0.00	
12900.00	0.00	179.57	12794.61	171.70	-1221.70	-36.23	0.00	
12982.43	0.00	179.57	12877.04	171.70	-1221.70	-36.23	0.00	KOP
13000.00	1.76	179.57	12894.61	171.43	-1221.70	-35.97	10.00	
13100.00	11.76	179.57	12993.79	159.68	-1221.61	-24.30	10.00	
13200.00	21.76	179.57	13089.42	130.89	-1221.40	4.30	10.00	
13300.00	31.76	179.57	13178.60	85.92	-1221.06	48.95	10.00	
13400.00	41.76	179.57	13258.62	26.16	-1220.61	108.30	10.00	
13500.00	51.76	179.57	13327.04	-46.59	-1220.07	180.55	10.00	
13600.00	61.76	179.57	13381.79	-130.12	-1219.44	263.50	10.00	
13700.00	71.76	179.57	13421.20	-221.88	-1218.75	354.63	10.00	Landing Point
13800.00	81.76	179.57	13444.08	-319.10	-1218.02	451.18	10.00	
13882.43	90.00	179.57	13450.00	-401.24	-1217.40	532.76	10.00	
13900.00	90.00	179.57	13450.00	-418.81	-1217.27	550.20	0.00	
14000.00	90.00	179.57	13450.00	-518.81	-1216.52	649.51	0.00	
14100.00	90.00	179.57	13450.00	-618.80	-1215.77	748.82	0.00	
14200.00	90.00	179.57	13450.00	-718.80	-1215.02	848.13	0.00	
14300.00	90.00	179.57	13450.00	-818.80	-1214.27	947.43	0.00	
14400.00	90.00	179.57	13450.00	-918.80	-1213.52	1046.74	0.00	
14500.00	90.00	179.57	13450.00	-1018.79	-1212.77	1146.05	0.00	
14600.00	90.00	179.57	13450.00	-1118.79	-1212.02	1245.36	0.00	
14700.00	90.00	179.57	13450.00	-1218.79	-1211.27	1344.66	0.00	
14800.00	90.00	179.57	13450.00	-1318.79	-1210.52	1443.97	0.00	
14900.00	90.00	179.57	13450.00	-1418.78	-1209.77	1543.28	0.00	
15000.00	90.00	179.57	13450.00	-1518.78	-1209.01	1642.59	0.00	
15100.00	90.00	179.57	13450.00	-1618.78	-1208.26	1741.89	0.00	
15200.00	90.00	179.57	13450.00	-1718.77	-1207.51	1841.20	0.00	
15300.00	90.00	179.57	13450.00	-1818.77	-1206.76	1940.51	0.00	
15400.00	90.00	179.57	13450.00	-1918.77	-1206.01	2039.82	0.00	
15500.00	90.00	179.57	13450.00	-2018.77	-1205.26	2139.12	0.00	
15600.00	90.00	179.57	13450.00	-2118.76	-1204.51	2238.43	0.00	
15700.00	90.00	179.57	13450.00	-2218.76	-1203.76	2337.74	0.00	
15800.00	90.00	179.57	13450.00	-2318.76	-1203.01	2437.05	0.00	
15900.00	90.00	179.57	13450.00	-2418.75	-1202.26	2536.35	0.00	
16000.00	90.00	179.57	13450.00	-2518.75	-1201.51	2635.66	0.00	
16100.00	90.00	179.57	13450.00	-2618.75	-1200.76	2734.97	0.00	
16200.00	90.00	179.57	13450.00	-2718.75	-1200.01	2834.27	0.00	
16300.00	90.00	179.57	13450.00	-2818.74	-1199.25	2933.58	0.00	
16400.00	90.00	179.57	13450.00	-2918.74	-1198.50	3032.89	0.00	
16500.00	90.00	179.57	13450.00	-3018.74	-1197.75	3132.20	0.00	
16600.00	90.00	179.57	13450.00	-3118.73	-1197.00	3231.50	0.00	
16700.00	90.00	179.57	13450.00	-3218.73	-1196.25	3330.81	0.00	
16800.00	90.00	179.57	13450.00	-3318.73	-1195.50	3430.12	0.00	
16900.00	90.00	179.57	13450.00	-3418.73	-1194.75	3529.43	0.00	
17000.00	90.00	179.57	13450.00	-3518.72	-1194.00	3628.73	0.00	
17100.00	90.00	179.57	13450.00	-3618.72	-1193.25	3728.04	0.00	
17200.00	90.00	179.57	13450.00	-3718.72	-1192.50	3827.35	0.00	
17300.00	90.00	179.57	13450.00	-3818.71	-1191.75	3926.66	0.00	
17400.00	90.00	179.57	13450.00	-3918.71	-1191.00	4025.96	0.00	
17500.00	90.00	179.57	13450.00	-4018.71	-1190.25	4125.27	0.00	
17600.00	90.00	179.57	13450.00	-4118.71	-1189.50	4224.58	0.00	
17700.00	90.00	179.57	13450.01	-4218.70	-1188.74	4323.89	0.00	
17800.00	90.00	179.57	13450.01	-4318.70	-1187.99	4423.19	0.00	
17900.00	90.00	179.57	13450.01	-4418.70	-1187.24	4522.50	0.00	
18000.00	90.00	179.57	13450.01	-4518.69	-1186.49	4621.81	0.00	
18100.00	90.00	179.57	13450.01	-4618.69	-1185.74	4721.12	0.00	
18200.00	90.00	179.57	13450.01	-4718.69	-1184.99	4820.42	0.00	
18300.00	90.00	179.57	13450.01	-4818.69	-1184.24	4919.73	0.00	
18400.00	90.00	179.57	13450.01	-4918.68	-1183.49	5019.04	0.00	
18500.00	90.00	179.57	13450.01	-5018.68	-1182.74	5118.35	0.00	
18600.00	90.00	179.57	13450.01	-5118.68	-1181.99	5217.65	0.00	
18700.00	90.00	179.57	13450.01	-5218.68	-1181.24	5316.96	0.00	
18800.00	90.00	179.57	13450.01	-5318.67	-1180.49	5416.27	0.00	
18900.00	90.00	179.57	13450.01	-5418.67	-1179.74	5515.58	0.00	
19000.00	90.00	179.57	13450.01	-5518.67	-1178.98	5614.88	0.00	
19100.00	90.00	179.57	13450.01	-5618.66	-1178.23	5714.19	0.00	
19200.00	90.00	179.57	13450.01	-5718.66	-1177.48	5813.50	0.00	
19300.00	90.00	179.57	13450.01	-5818.66	-1176.73	5912.80	0.00	

FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H

County: Lea

Wellbore: Permit Plan

Design: Permit Plan #1

Geodetic System: US State Plane 1983

Datum: North American Datum 1927

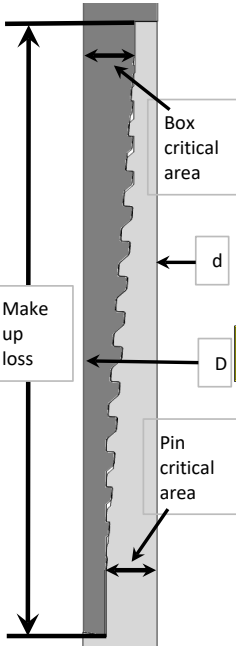
Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
19400.00	90.00	179.57	13450.01	-5918.66	-1175.98	6012.11	0.00	
19500.00	90.00	179.57	13450.01	-6018.65	-1175.23	6111.42	0.00	
19600.00	90.00	179.57	13450.01	-6118.65	-1174.48	6210.73	0.00	
19700.00	90.00	179.57	13450.01	-6218.65	-1173.73	6310.03	0.00	
19800.00	90.00	179.57	13450.01	-6318.64	-1172.98	6409.34	0.00	
19900.00	90.00	179.57	13450.01	-6418.64	-1172.23	6508.65	0.00	
20000.00	90.00	179.57	13450.01	-6518.64	-1171.48	6607.96	0.00	
20100.00	90.00	179.57	13450.01	-6618.64	-1170.73	6707.26	0.00	
20200.00	90.00	179.57	13450.01	-6718.63	-1169.98	6806.57	0.00	
20300.00	90.00	179.57	13450.01	-6818.63	-1169.22	6905.88	0.00	
20400.00	90.00	179.57	13450.01	-6918.63	-1168.47	7005.19	0.00	
20500.00	90.00	179.57	13450.01	-7018.62	-1167.72	7104.49	0.00	
20600.00	90.00	179.57	13450.01	-7118.62	-1166.97	7203.80	0.00	
20700.00	90.00	179.57	13450.01	-7218.62	-1166.22	7303.11	0.00	
20800.00	90.00	179.57	13450.01	-7318.62	-1165.47	7402.42	0.00	
20900.00	90.00	179.57	13450.01	-7418.61	-1164.72	7501.72	0.00	
21000.00	90.00	179.57	13450.01	-7518.61	-1163.97	7601.03	0.00	
21100.00	90.00	179.57	13450.01	-7618.61	-1163.22	7700.34	0.00	
21200.00	90.00	179.57	13450.01	-7718.60	-1162.47	7799.65	0.00	
21300.00	90.00	179.57	13450.01	-7818.60	-1161.72	7898.95	0.00	
21400.00	90.00	179.57	13450.01	-7918.60	-1160.97	7998.26	0.00	
21500.00	90.00	179.57	13450.01	-8018.60	-1160.22	8097.57	0.00	
21600.00	90.00	179.57	13450.01	-8118.59	-1159.47	8196.88	0.00	
21700.00	90.00	179.57	13450.01	-8218.59	-1158.71	8296.18	0.00	
21800.00	90.00	179.57	13450.01	-8318.59	-1157.96	8395.49	0.00	
21900.00	90.00	179.57	13450.01	-8418.59	-1157.21	8494.80	0.00	
22000.00	90.00	179.57	13450.01	-8518.58	-1156.46	8594.11	0.00	
22100.00	90.00	179.57	13450.01	-8618.58	-1155.71	8693.41	0.00	
22200.00	90.00	179.57	13450.01	-8718.58	-1154.96	8792.72	0.00	
22300.00	90.00	179.57	13450.01	-8818.57	-1154.21	8892.03	0.00	
22400.00	90.00	179.57	13450.01	-8918.57	-1153.46	8991.33	0.00	
22500.00	90.00	179.57	13450.01	-9018.57	-1152.71	9090.64	0.00	
22600.00	90.00	179.57	13450.01	-9118.57	-1151.96	9189.95	0.00	
22700.00	90.00	179.57	13450.01	-9218.56	-1151.21	9289.26	0.00	
22800.00	90.00	179.57	13450.01	-9318.56	-1150.46	9388.56	0.00	
22900.00	90.00	179.57	13450.01	-9418.56	-1149.71	9487.87	0.00	
23000.00	90.00	179.57	13450.01	-9518.55	-1148.95	9587.18	0.00	
23100.00	90.00	179.57	13450.01	-9618.55	-1148.20	9686.49	0.00	
23200.00	90.00	179.57	13450.01	-9718.55	-1147.45	9785.79	0.00	
23300.00	90.00	179.57	13450.01	-9818.55	-1146.70	9885.10	0.00	
23400.00	90.00	179.57	13450.01	-9918.54	-1145.95	9984.41	0.00	
23500.00	90.00	179.57	13450.01	-10018.54	-1145.20	10083.72	0.00	
23600.00	90.00	179.57	13450.01	-10118.54	-1144.45	10183.02	0.00	
23700.00	90.00	179.57	13450.01	-10218.53	-1143.70	10282.33	0.00	
23725.94	90.00	179.57	13450.01	-10244.47	-1143.50	10308.09	0.00	exit
23800.00	90.00	179.57	13450.01	-10318.53	-1142.95	10381.64	0.00	
23805.94	90.00	179.57	13450.00	-10324.47	-1142.93	10387.54	0.00	BHL

Metal One Corp. 	MO-FXL Pipe Body: BMP P110HC MinYS110ksi Connection Data Sheet	CDS# Date	MO-FXL 7-5/8 29.7 P110HC MinYS110ksi 10-Mar-21
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MO-FXL



Geometry	Imperial		S.I.	
Pipe Body				
Grade *	P110HC		P110HC	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in ²	5,508	mm ²
Drift Dia.	6.750	in	171.45	mm

Connection				
Box OD (W)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make up Loss	4.219	in	107.16	mm
Box Critical Area	5.714	in ²	3686	mm ²
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			

Performance				
Performance Properties for Pipe Body				
S.M.Y.S. *	939	kips	4,177	kN
M.I.Y.P. *	9,470	psi	65.31	MPa
Collapse Strength *	7,050	psi	48.62	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

* BMP P110HC: MinYS110ksi, Collapse 7,050psi
Performance Data Sheet: SOP-12-F05 Rev.1, dated 9/6/2018

Performance Properties for Connection	
Tensile Yield load	657 kips (70% of S.M.Y.S.)
Min. Compression Yield	657 kips (70% of S.M.Y.S.)
Internal Pressure	7,580 psi (80% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	27

Recommended Torque				
Min.	15,500	ft-lb	21,000	N-m
Opti.	17,200	ft-lb	23,300	N-m
Max.	18,900	ft-lb	25,600	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application

Legal Notice

The use of this information is at the reader/user's risk and no warranty is implied or expressed by Metal One Corporation or its parents, subsidiaries or affiliates (herein collectively referred to as "Metal One") with respect to the use of information contained herein. The information provided on this Connection Data Sheet is for informational purposes only, and was prepared by reference to engineering information that is specific to the subject products, without regard to safety-related factors, all of which are the sole responsibility of the operators and users of the subject connectors. Metal One assumes no responsibility for any errors with respect to this information.

Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to http://www.mtlo.co.jp/mo-con/images/top/WebsiteTerms_Active_20333287_1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.

Well Name: FIGHTING OKRA 18-19 FED	Well Location: T26S / R34E / SEC 18 / NENW / 32.0500635 / -103.5124687	County or Parish/State: LEA / NM
Well Number: 17H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM114992	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547574	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

LONG VO

Digitally signed by
LONG VO
Date: 2024.03.25
15:14:25 -05'00'

Sundry ID: 2777485

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 02/29/2024

Time Sundry Submitted: 03:43

Date proposed operation will begin: 02/29/2024

Procedure Description: Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Offline cement variance request. Please see attached revised drilling & directional plans, and supporting documentation.

NOI Attachments

Procedure Description

FIGHTING_OKRA_18_19_FED_17H_Slim_Hole_Rev1_20240314112628.pdf

5.5_20__VAEP_P110_VAroughneck_SC__6.051_OD__20240229154125.pdf

Offline_Cementing__Variance_Request_20240229154122.pdf

9.625_40lb_J_55_20240229154122.pdf

FIGHTING_OKRA_18_19_FED_17H_Directional_Plan_08_30_23_20240229154123.pdf

7_625_29_7_BMP_P110HC_CDS_FXL__slim_hole_alternate_for_timing__20240229154122.pdf

Well Name: FISHING HOLE RA 18-19 FED	Well Location: T26S / R34E / SEC 18 / NENW / 32.0500635 / -103.5124687	County or Parish/State: LEA / NM
Well Number: 17H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM114992	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002547574	Well Status: Approved Application for Permit to Drill	Operator: DEVON ENERGY 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

Operator Electronic Signature: REBECCA DEAL

Signed on: MAR 14, 2024 11:26 AM

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:

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: LEASE NO.: LOCATION: COUNTY:	Devon Energy Production Company LP NMNM114992 Section 18, T.26 S., R.34 E., NMPM Lea County, New Mexico ▼
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WELL NAME & NO.: SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE: ATS/API ID: APD ID: Sundry ID:	Fighting Okra 18-19 Fed 17H 230'/N & 1570'/W 20'/S & 351'/W 300254754 10400057829 2777485
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COA

H2S	Yes ▼		
Potash	None ▼		
Cave/Karst Potential	Low ▼		
Cave/Karst Potential	☐ Critical		
Variance	☒ None	☒ Flex Hose	☒ Other
Wellhead	Conventional and Multibowl ▼		
Other	☐ 4 String	Capitan Reef None ▼	☐ WIPP
Other	Pilot Hole None ▼	☐ Open Annulus	
Cementing	Contingency Squeeze Int 1 ▼	Echo-Meter None ▼	Primary Cement Squeeze None ▼
Special Requirements	☐ Water Disposal/Injection	☐ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☒ Offline Cementing	☒ Casing Clearance

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 **9-5/8** inch surface casing shall be set at approximately **810 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **13 1/2** 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 **7-5/8** inch intermediate casing shall be set at approximately **12560 feet** is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 7-5/8" 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.

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

C. PRESSURE CONTROL

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

2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M) psi**.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7-5/8** 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 **9-5/8** 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 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Intermediate(s) interval**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Lea County: 575-689-5981**.

Casing Clearance

Operator casing variance is approved for the utilization of 5-1/2 inch Sprint SF **from** base of curve and a minimum of 500 feet or the minimum tie-back requirement above, whichever is greater into the previous casing shoe. **All** other 5-1/2 inch casing will run Varn.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are less than 0.5 micron before cementing.

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)

☒ Lea County

Call 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 when present.

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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-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 43 CFR 3172.6(b)(9) 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.

Long Vo (LVO) 3/25/2024

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

5. Lease Serial No. NMNM114992

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP

3a. Address 333 WEST SHERIDAN AVE, OKLAHOMA CITY, 3b. Phone No. (include area code) (405) 235-3611

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description) SEC 18/T26S/R34E/NMP

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No. FIGHTING OKRA 18-19 FED/17H

9. API Well No. 3002547574

10. Field and Pool or Exploratory Area WC-025 G-10 S263418C/LWR WOLFCAMP

11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION				
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off	
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity	
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other	
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon		
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal		

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD:

Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Offline cement variance request.

Please see attached revised drilling & directional plans, and supporting documentation.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) REBECCA DEAL / Ph: (303) 299-1406

Title Regulatory Analyst

Signature (Electronic Submission)

Date 03/14/2024

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

(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

Additional Information

Location of Well

0. SHL: NENW / 230 FNL / 1570 FWL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0500635 / LONG: -103.5124687 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 100 FNL / 351 FWL / TWSP: 26S / RANGE: 34E / SECTION: 18 / LAT: 32.0504 / LONG: -103.5164 (TVD: 12560 feet, MD: 12665 feet)

BHL: SESE / 20 FSL / 351 FWL / TWSP: 26S / RANGE: 34E / SECTION: 19 / LAT: 32.0216 / LONG: -103.5165 (TVD: 13450 feet, MD: 23805 feet)

CONFIDENTIAL

FIGHTING OKRA 18-19 FED 17H

1. Geologic Formations

TVD of target	13450	Pilot hole depth	N/A
MD at TD:	23806	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
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.

FIGHTING OKRA 18-19 FED 17H

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	9 5/8	40	J-55	BTC	0	810	0	810
8 3/4	7 5/8	29.70	P-110HSCY	MOFXL	0	12560 12860	0	12560 12860
6 3/4	5 1/2	20	P-110	VARN & Sprint SF	0	23806	0	13450

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

Variance Approval -

- o 5-1/2" Production Casing will include Sprint SF connection from base of curve to 500ft inside 7 5/8" casing shoe
- o All other 5-1/2" Production Casing will run VARN (6.05") or equivalent

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	431	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	348	Surf	9	3.27	Lead: Class C Cement + additives
	370	8860	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	452	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	348	Surf	9	3.27	Lead: Class C Cement + additives
	370	8860	13.2	1.44	Tail: Class H / C + additives
Production	62	10982	9	3.27	Lead: Class H / C + additives
	691	12982	13.2	1.44	Tail: Class H / C + additives

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

FIGHTING OKRA 18-19 FED 17H

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?		Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram			
			Double Ram		X	
			Other*			
Production	13-5/8"	10M	Annular (5M)		X	100% of rated working pressure
			Blind Ram		X	10M
			Pipe Ram			
			Double Ram		X	
			Other*			
			Annular (5M)			
			Blind Ram			
			Pipe Ram			
			Double Ram			
			Other*			
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.					
Y	A variance is requested to run a 5 M annular on a 10M system					

FIGHTING OKRA 18-19 FED 17H

5. Mud Program (Three String Design)

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

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

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

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted 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	Specify 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.

Hydrogen 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	H ₂ S is present
Y	H ₂ S plan attached.

FIGHTING OKRA 18-19 FED 17H

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 nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
 Other, describe

TECHNICAL DATA SHEET

Connection: **VARoughneck SC (OD=6.051in)**

Size: 5 1/2 in X 20.00 lb/ft

Drift: standard

Bevel: standard

Grade: **VA-EP-P110**

Material:

Yield Strength Min.

Yield Strength Max.

Tensile Strength Min.

US Customary

125,000 psi

140,000 psi

125,000 psi

Metric

862 Mpa

965 Mpa

862 Mpa

Pipe:

US Customary	Metric	US Customary	Metric
Nominal OD:	5.500 in	139.70 mm	9.17 mm
Nominal ID:	4.778 in	121.36 mm	118.19 mm
Nominal Weight:	20.00 lb/ft	30.07 kg/m	3,240 kN
Pipe Cross Section:	5.828 in ²	3,759.99 mm ²	

Connection:

US Customary	Metric	US Customary	Metric
OD:	6.051 in	153.70 mm	5 Threads
ID:	4.764 in	121.00 mm	
Length:	8.976 in	228.00 mm	

Connection Performance (Uniaxial Load):

US Customary	Metric	US Customary	Metric
Joint Strength:	729 klb	3,240 kN	
Collapse Resistance:	13,300 psi	91.70 Mpa	15.40 l/m
Internal Yield Pressure:	14,360 psi	99.00 Mpa	11.57 l/m
Load on Coupling Face:	411 klb	1,830 kN	
Tension Efficiency:	> 100.0 %		
Displacement:	1.240 gal/ft		
Production:	0.932 gal/ft		

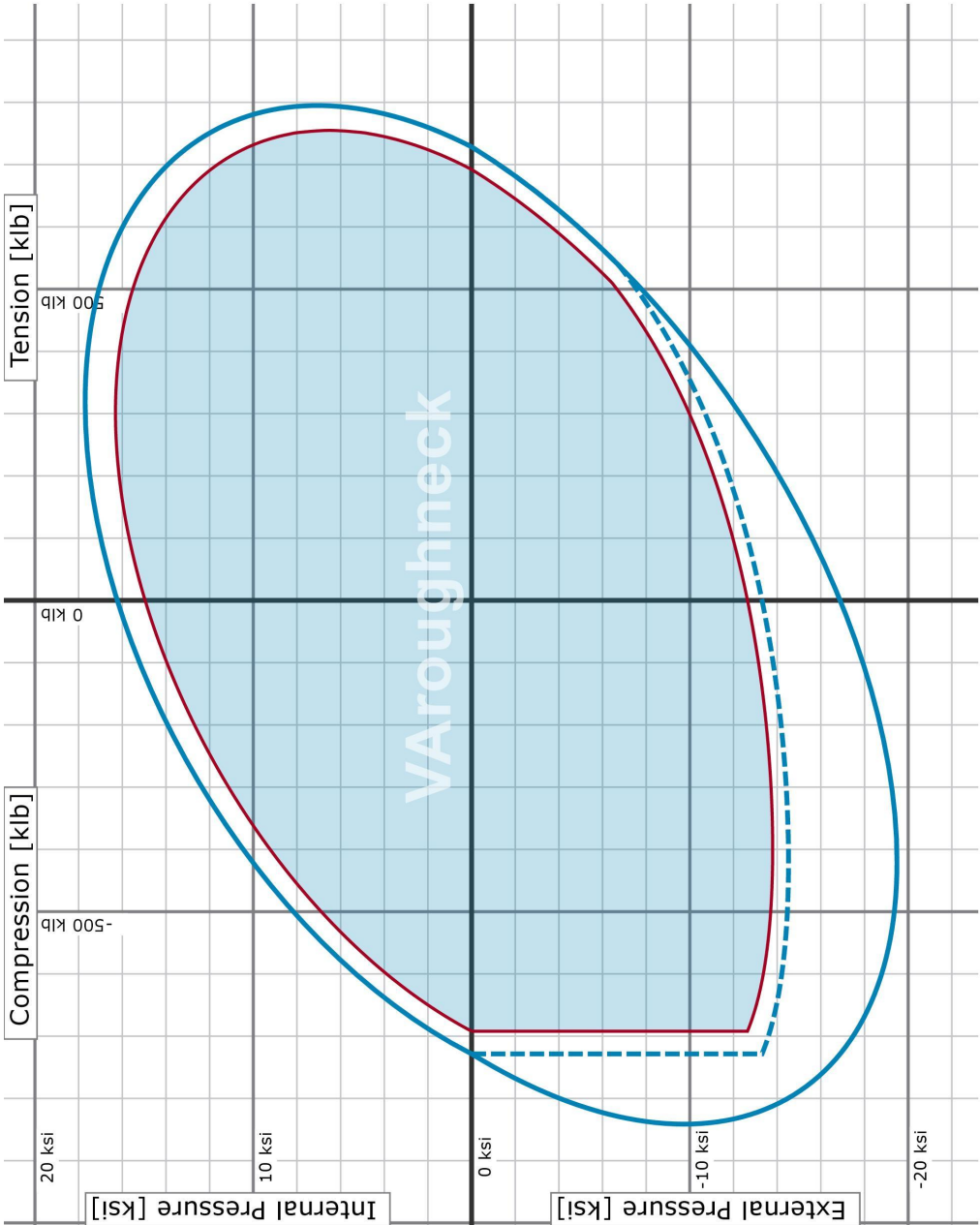
Field Make Up (Friction Factor = 1.0):

US Customary	Metric	US Customary	Metric
Minimum Torque:	15,820 ft.lb	21,450 Nm	111.00 mm
Optimum Torque:	17,580 ft.lb	23,835 Nm	29,800 Nm
Maximum Torque:	19,340 ft.lb	26,220 Nm	
Min. Torque on Shoulder:	%		
Make-Up Loss:	4.370 in		
Yield Torque:	22,000 ft.lb		

Created on 15.02.2024

voestalpine Tubulars GmbH & Co KG

LOAD ENVELOPE



Recommended Field of Application

- Pipe Body Envelope
- - - Pipe Body Collapse

Efficiency (% Pipe Body) under Uniaxial Loads	
Tension:	100.0 %
Compression:	100.0 %
Internal Pressure:	100.0 %
External Pressure:	100.0 %

Sealability Rating (% Efficiency) under Combined Loads	
Tension:	100.0 %
Compression:	100.0 %
Internal Pressure:	100.0 %
External Pressure:	100.0 %

Test Conditions	
Test Medium:	Fluid
Von Mises Envelope:	95.0 %
Bending:	20.00 °/100ft

The graph is calculated under consideration of the requirements of EN ISO 13679 and API 5C3. The combined loads are calculated without the consideration of wall thickness tolerances and differ from the values in the data sheet, which are calculated with tolerances determined by API. Any printout is NOT SUBJECT TO REGULAR REVISION. The generated performance envelope shall solely be used as a tool to facilitate the comparison of performance properties under combined loads, of different grades, sizes and connections of voestalpine Tubulars products. Field-specific safety/design factors as well as other loads are not considered. Thus the results shall by no means be used to replace the own string design engineering or to justify any warranty/guaranty cases.

Offline Cementing

Variance Request

Devon Energy requests to offline cement on intermediate strings that are set in formations shallower than the Wolfcamp. Prior to commencing offline cementing operations, the well will be monitored for any abnormal pressures and confirmed to be static. A dual manifold system (equipped with chokes) for the returns will also be utilized as a redundancy. All equipment used for offline cementing will have a minimum 5M rating to match intermediate sections' 5M BOPE requirements.



U. S. Steel Tubular Products
9.625" 40.00lbs/ft (0.395" Wall) J55

1/24/2019 2:45:24 PM

MECHANICAL PROPERTIES	Pipe	BTC	LTC	STC	
Minimum Yield Strength	55,000	--	--	--	psi
Maximum Yield Strength	80,000	--	--	--	psi
Minimum Tensile Strength	75,000	--	--	--	psi
DIMENSIONS	Pipe	BTC	LTC	STC	
Outside Diameter	9.625	10.625	10.625	10.625	in.
Wall Thickness	0.395	--	--	--	in.
Inside Diameter	8.835	8.835	8.835	8.835	in.
Standard Drift	8.679	8.679	8.679	8.679	in.
Alternate Drift	8.750	8.750	8.750	8.750	in.
Nominal Linear Weight, T&C	40.00	--	--	--	lbs/ft
Plain End Weight	38.97	--	--	--	lbs/ft
PERFORMANCE	Pipe	BTC	LTC	STC	
Minimum Collapse Pressure	2,570	2,570	2,570	2,570	psi
Minimum Internal Yield Pressure	3,950	3,950	3,950	3,950	psi
Minimum Pipe Body Yield Strength	630	--	--	--	1,000 lbs
Joint Strength	--	714	520	452	1,000 lbs
Reference Length	--	11,898	8,665	7,529	ft
MAKE-UP DATA	Pipe	BTC	LTC	STC	
Make-Up Loss	--	4.81	4.75	3.38	in.
Minimum Make-Up Torque	--	--	3,900	3,390	ft-lbs
Maximum Make-Up Torque	--	--	6,500	5,650	ft-lbs

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.

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Spring, Texas 77380

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

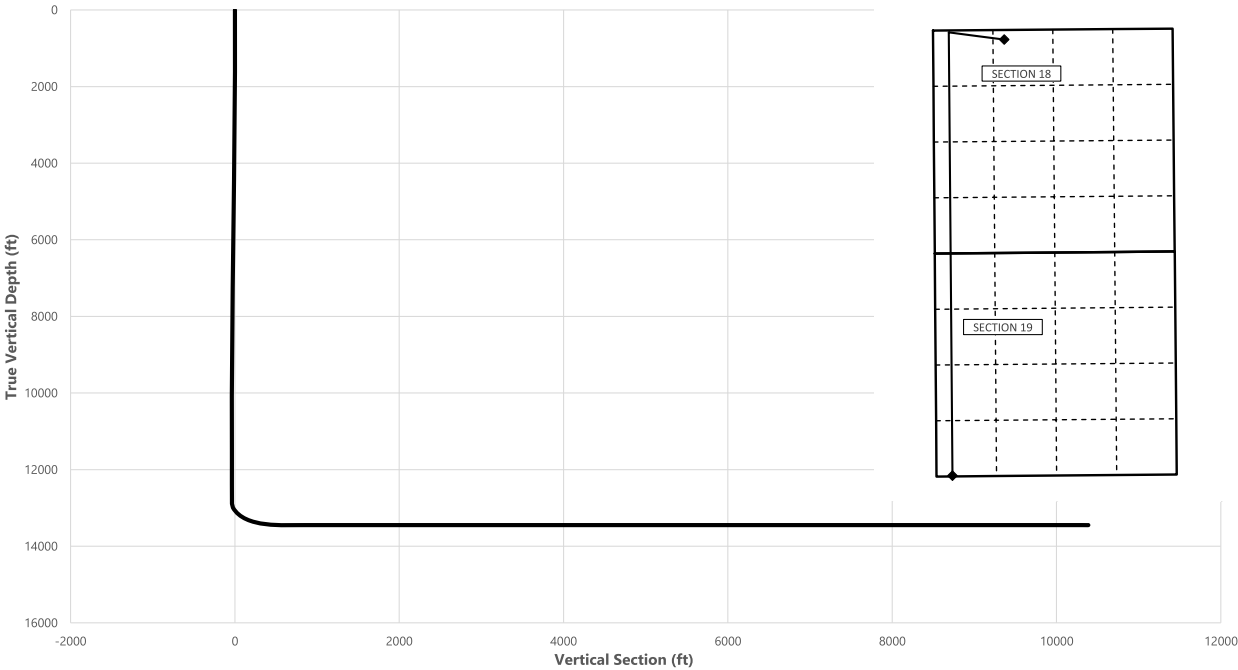
FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	278.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	278.00	2497.47	6.06	-43.10	-1.28	2.00	Hold Tangent
9103.39	10.00	278.00	9000.53	165.64	-1178.61	-34.95	0.00	Drop to Vertical
9603.39	0.00	278.00	9498.00	171.70	-1221.70	-36.23	2.00	Hold Vertical
12982.43	0.00	179.57	12877.04	171.70	-1221.70	-36.23	0.00	KOP
13882.43	90.00	179.57	13450.00	-401.24	-1217.40	532.76	10.00	Landing Point
23805.94	90.00	179.57	13450.00	-10324.47	-1142.93	10387.54	0.00	BHL



Key Depths	MD	TVD
	(ft)	(ft)
Rustler	785.00	785.00
Salt	1060.00	1060.00
Base of Salt	5295.00	5250.00
Delaware	5345.77	5300.00
Cherry Canyon	6415.01	6353.00
Brushy Canyon	8083.36	7996.00
1st Bone Spring Lime	9634.39	9529.00
Bone Spring 1st	10580.39	10475.00
Bone Spring 2nd	11526.39	11421.00
3rd Bone Spring Lime	11592.39	11487.00
Bone Spring 3rd	12205.39	12100.00
Wolfcamp / Point of Penetration	12665.39	12560.00
exit	23725.94	13450.01

SHL
KOP
Point of Penetration
Exit
BHL

MD	TVD	Lat	Long	Section Footages
(ft)	(ft)	(°)	(°)	
0.00	0.00	32.0500	-103.5126	230' FNL, 1570' FWL of Sec 18 in T26S, R34E
12982.43	12877.04	32.0505	-103.5165	47' FNL, 350' FWL of Sec 18 in T26S, R34E
12665.39	12560.00	32.0504	-103.5164	100' FNL, 351' FWL of Sec 18 in T26S, R34E
23725.94	13450.01	32.0219	-103.5164	100' FSL, 351' FWL of Sec 19 in T26S, R34E
23805.94	13450.00	32.0216	-103.5165	20' FSL, 351' FWL of Sec 19 in T26S, R34E

	Y	X	MD
KOP	383090	794440	12982.43

FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	278.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	278.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	278.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	278.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	278.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	278.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	278.00	700.00	0.00	0.00	0.00	0.00	
785.00	0.00	278.00	785.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	278.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	278.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	278.00	1000.00	0.00	0.00	0.00	0.00	
1060.00	0.00	278.00	1060.00	0.00	0.00	0.00	0.00	Salt
1100.00	0.00	278.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	278.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	278.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	278.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	278.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	278.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	278.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	278.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	278.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	278.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	278.00	2099.98	0.24	-1.73	-0.05	2.00	
2200.00	4.00	278.00	2199.84	0.97	-6.91	-0.20	2.00	
2300.00	6.00	278.00	2299.45	2.18	-15.54	-0.46	2.00	
2400.00	8.00	278.00	2398.70	3.88	-27.61	-0.82	2.00	
2500.00	10.00	278.00	2497.47	6.06	-43.10	-1.28	2.00	Hold Tangent
2600.00	10.00	278.00	2595.95	8.47	-60.29	-1.79	0.00	
2700.00	10.00	278.00	2694.43	10.89	-77.49	-2.30	0.00	
2800.00	10.00	278.00	2792.91	13.31	-94.69	-2.81	0.00	
2900.00	10.00	278.00	2891.39	15.72	-111.88	-3.32	0.00	
3000.00	10.00	278.00	2989.87	18.14	-129.08	-3.83	0.00	
3100.00	10.00	278.00	3088.35	20.56	-146.27	-4.34	0.00	
3200.00	10.00	278.00	3186.83	22.97	-163.47	-4.85	0.00	
3300.00	10.00	278.00	3285.31	25.39	-180.67	-5.36	0.00	
3400.00	10.00	278.00	3383.79	27.81	-197.86	-5.87	0.00	
3500.00	10.00	278.00	3482.27	30.22	-215.06	-6.38	0.00	
3600.00	10.00	278.00	3580.75	32.64	-232.25	-6.89	0.00	
3700.00	10.00	278.00	3679.23	35.06	-249.45	-7.40	0.00	
3800.00	10.00	278.00	3777.72	37.47	-266.64	-7.91	0.00	
3900.00	10.00	278.00	3876.20	39.89	-283.84	-8.42	0.00	
4000.00	10.00	278.00	3974.68	42.31	-301.04	-8.93	0.00	
4100.00	10.00	278.00	4073.16	44.72	-318.23	-9.44	0.00	
4200.00	10.00	278.00	4171.64	47.14	-335.43	-9.95	0.00	
4300.00	10.00	278.00	4270.12	49.56	-352.62	-10.46	0.00	
4400.00	10.00	278.00	4368.60	51.97	-369.82	-10.97	0.00	
4500.00	10.00	278.00	4467.08	54.39	-387.02	-11.48	0.00	
4600.00	10.00	278.00	4565.56	56.81	-404.21	-11.99	0.00	
4700.00	10.00	278.00	4664.04	59.22	-421.41	-12.50	0.00	
4800.00	10.00	278.00	4762.52	61.64	-438.60	-13.01	0.00	
4900.00	10.00	278.00	4861.00	64.06	-455.80	-13.52	0.00	
5000.00	10.00	278.00	4959.48	66.47	-472.99	-14.03	0.00	
5100.00	10.00	278.00	5057.97	68.89	-490.19	-14.54	0.00	
5200.00	10.00	278.00	5156.45	71.31	-507.39	-15.05	0.00	
5295.00	10.00	278.00	5250.00	73.60	-523.72	-15.53	0.00	Base of Salt
5300.00	10.00	278.00	5254.93	73.72	-524.58	-15.56	0.00	
5345.77	10.00	278.00	5300.00	74.83	-532.45	-15.79	0.00	Delaware
5400.00	10.00	278.00	5353.41	76.14	-541.78	-16.07	0.00	
5500.00	10.00	278.00	5451.89	78.56	-558.97	-16.58	0.00	
5600.00	10.00	278.00	5550.37	80.97	-576.17	-17.09	0.00	
5700.00	10.00	278.00	5648.85	83.39	-593.37	-17.60	0.00	
5800.00	10.00	278.00	5747.33	85.81	-610.56	-18.11	0.00	
5900.00	10.00	278.00	5845.81	88.22	-627.76	-18.62	0.00	
6000.00	10.00	278.00	5944.29	90.64	-644.95	-19.13	0.00	
6100.00	10.00	278.00	6042.77	93.06	-662.15	-19.63	0.00	
6200.00	10.00	278.00	6141.25	95.47	-679.34	-20.14	0.00	
6300.00	10.00	278.00	6239.73	97.89	-696.54	-20.65	0.00	
6400.00	10.00	278.00	6338.22	100.31	-713.74	-21.16	0.00	
6415.01	10.00	278.00	6353.00	100.67	-716.32	-21.24	0.00	Cherry Canyon

FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
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	278.00	6436.70	102.72	-730.93	-21.67	0.00	
6600.00	10.00	278.00	6535.18	105.14	-748.13	-22.18	0.00	
6700.00	10.00	278.00	6633.66	107.56	-765.32	-22.69	0.00	
6800.00	10.00	278.00	6732.14	109.97	-782.52	-23.20	0.00	
6900.00	10.00	278.00	6830.62	112.39	-799.72	-23.71	0.00	
7000.00	10.00	278.00	6929.10	114.81	-816.91	-24.22	0.00	
7100.00	10.00	278.00	7027.58	117.22	-834.11	-24.73	0.00	
7200.00	10.00	278.00	7126.06	119.64	-851.30	-25.24	0.00	
7300.00	10.00	278.00	7224.54	122.06	-868.50	-25.75	0.00	
7400.00	10.00	278.00	7323.02	124.47	-885.69	-26.26	0.00	
7500.00	10.00	278.00	7421.50	126.89	-902.89	-26.77	0.00	
7600.00	10.00	278.00	7519.99	129.31	-920.09	-27.28	0.00	
7700.00	10.00	278.00	7618.47	131.72	-937.28	-27.79	0.00	
7800.00	10.00	278.00	7716.95	134.14	-954.48	-28.30	0.00	
7900.00	10.00	278.00	7815.43	136.56	-971.67	-28.81	0.00	
8000.00	10.00	278.00	7913.91	138.97	-988.87	-29.32	0.00	
8083.36	10.00	278.00	7996.00	140.99	-1003.20	-29.75	0.00	Brushy Canyon
8100.00	10.00	278.00	8012.39	141.39	-1006.06	-29.83	0.00	
8200.00	10.00	278.00	8110.87	143.81	-1023.26	-30.34	0.00	
8300.00	10.00	278.00	8209.35	146.22	-1040.46	-30.85	0.00	
8400.00	10.00	278.00	8307.83	148.64	-1057.65	-31.36	0.00	
8500.00	10.00	278.00	8406.31	151.06	-1074.85	-31.87	0.00	
8600.00	10.00	278.00	8504.79	153.47	-1092.04	-32.38	0.00	
8700.00	10.00	278.00	8603.27	155.89	-1109.24	-32.89	0.00	
8800.00	10.00	278.00	8701.75	158.31	-1126.44	-33.40	0.00	
8900.00	10.00	278.00	8800.24	160.72	-1143.63	-33.91	0.00	
9000.00	10.00	278.00	8898.72	163.14	-1160.83	-34.42	0.00	
9100.00	10.00	278.00	8997.20	165.56	-1178.02	-34.93	0.00	
9103.39	10.00	278.00	9000.53	165.64	-1178.61	-34.95	0.00	Drop to Vertical
9200.00	8.07	278.00	9095.94	167.75	-1193.63	-35.40	2.00	
9300.00	6.07	278.00	9195.18	169.47	-1205.81	-35.76	2.00	
9400.00	4.07	278.00	9294.78	170.69	-1214.56	-36.02	2.00	
9500.00	2.07	278.00	9394.63	171.44	-1219.86	-36.18	2.00	
9600.00	0.07	278.00	9494.61	171.70	-1221.70	-36.23	2.00	
9603.39	0.00	278.00	9498.00	171.70	-1221.70	-36.23	2.00	Hold Vertical
9634.39	0.00	179.57	9529.00	171.70	-1221.70	-36.23	0.00	1st Bone Spring Lime
9700.00	0.00	179.57	9594.61	171.70	-1221.70	-36.23	0.00	
9800.00	0.00	179.57	9694.61	171.70	-1221.70	-36.23	0.00	
9900.00	0.00	179.57	9794.61	171.70	-1221.70	-36.23	0.00	
10000.00	0.00	179.57	9894.61	171.70	-1221.70	-36.23	0.00	
10100.00	0.00	179.57	9994.61	171.70	-1221.70	-36.23	0.00	
10200.00	0.00	179.57	10094.61	171.70	-1221.70	-36.23	0.00	
10300.00	0.00	179.57	10194.61	171.70	-1221.70	-36.23	0.00	
10400.00	0.00	179.57	10294.61	171.70	-1221.70	-36.23	0.00	
10500.00	0.00	179.57	10394.61	171.70	-1221.70	-36.23	0.00	
10580.39	0.00	179.57	10475.00	171.70	-1221.70	-36.23	0.00	Bone Spring 1st
10600.00	0.00	179.57	10494.61	171.70	-1221.70	-36.23	0.00	
10700.00	0.00	179.57	10594.61	171.70	-1221.70	-36.23	0.00	
10800.00	0.00	179.57	10694.61	171.70	-1221.70	-36.23	0.00	
10900.00	0.00	179.57	10794.61	171.70	-1221.70	-36.23	0.00	
11000.00	0.00	179.57	10894.61	171.70	-1221.70	-36.23	0.00	
11100.00	0.00	179.57	10994.61	171.70	-1221.70	-36.23	0.00	
11200.00	0.00	179.57	11094.61	171.70	-1221.70	-36.23	0.00	
11300.00	0.00	179.57	11194.61	171.70	-1221.70	-36.23	0.00	
11400.00	0.00	179.57	11294.61	171.70	-1221.70	-36.23	0.00	
11500.00	0.00	179.57	11394.61	171.70	-1221.70	-36.23	0.00	
11526.39	0.00	179.57	11421.00	171.70	-1221.70	-36.23	0.00	Bone Spring 2nd
11592.39	0.00	179.57	11487.00	171.70	-1221.70	-36.23	0.00	3rd Bone Spring Lime
11600.00	0.00	179.57	11494.61	171.70	-1221.70	-36.23	0.00	
11700.00	0.00	179.57	11594.61	171.70	-1221.70	-36.23	0.00	
11800.00	0.00	179.57	11694.61	171.70	-1221.70	-36.23	0.00	
11900.00	0.00	179.57	11794.61	171.70	-1221.70	-36.23	0.00	
12000.00	0.00	179.57	11894.61	171.70	-1221.70	-36.23	0.00	
12100.00	0.00	179.57	11994.61	171.70	-1221.70	-36.23	0.00	
12200.00	0.00	179.57	12094.61	171.70	-1221.70	-36.23	0.00	
12205.39	0.00	179.57	12100.00	171.70	-1221.70	-36.23	0.00	Bone Spring 3rd
12300.00	0.00	179.57	12194.61	171.70	-1221.70	-36.23	0.00	
12400.00	0.00	179.57	12294.61	171.70	-1221.70	-36.23	0.00	
12500.00	0.00	179.57	12394.61	171.70	-1221.70	-36.23	0.00	
12600.00	0.00	179.57	12494.61	171.70	-1221.70	-36.23	0.00	

FIGHTING OKRA 18-19 FED 17H



Well: FIGHTING OKRA 18-19 FED 17H
County: Lea
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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
12665.39	0.00	179.57	12560.00	171.70	-1221.70	-36.23	0.00	Wolfcamp / Point
12700.00	0.00	179.57	12594.61	171.70	-1221.70	-36.23	0.00	
12800.00	0.00	179.57	12694.61	171.70	-1221.70	-36.23	0.00	
12900.00	0.00	179.57	12794.61	171.70	-1221.70	-36.23	0.00	
12982.43	0.00	179.57	12877.04	171.70	-1221.70	-36.23	0.00	KOP
13000.00	1.76	179.57	12894.61	171.43	-1221.70	-35.97	10.00	
13100.00	11.76	179.57	12993.79	159.68	-1221.61	-24.30	10.00	
13200.00	21.76	179.57	13089.42	130.89	-1221.40	4.30	10.00	
13300.00	31.76	179.57	13178.60	85.92	-1221.06	48.95	10.00	Landing Point
13400.00	41.76	179.57	13258.62	26.16	-1220.61	108.30	10.00	
13500.00	51.76	179.57	13327.04	-46.59	-1220.07	180.55	10.00	
13600.00	61.76	179.57	13381.79	-130.12	-1219.44	263.50	10.00	
13700.00	71.76	179.57	13421.20	-221.88	-1218.75	354.63	10.00	
13800.00	81.76	179.57	13444.08	-319.10	-1218.02	451.18	10.00	
13882.43	90.00	179.57	13450.00	-401.24	-1217.40	532.76	10.00	
13900.00	90.00	179.57	13450.00	-418.81	-1217.27	550.20	0.00	
14000.00	90.00	179.57	13450.00	-518.81	-1216.52	649.51	0.00	
14100.00	90.00	179.57	13450.00	-618.80	-1215.77	748.82	0.00	
14200.00	90.00	179.57	13450.00	-718.80	-1215.02	848.13	0.00	
14300.00	90.00	179.57	13450.00	-818.80	-1214.27	947.43	0.00	
14400.00	90.00	179.57	13450.00	-918.80	-1213.52	1046.74	0.00	
14500.00	90.00	179.57	13450.00	-1018.79	-1212.77	1146.05	0.00	
14600.00	90.00	179.57	13450.00	-1118.79	-1212.02	1245.36	0.00	
14700.00	90.00	179.57	13450.00	-1218.79	-1211.27	1344.66	0.00	
14800.00	90.00	179.57	13450.00	-1318.79	-1210.52	1443.97	0.00	
14900.00	90.00	179.57	13450.00	-1418.78	-1209.77	1543.28	0.00	
15000.00	90.00	179.57	13450.00	-1518.78	-1209.01	1642.59	0.00	
15100.00	90.00	179.57	13450.00	-1618.78	-1208.26	1741.89	0.00	
15200.00	90.00	179.57	13450.00	-1718.77	-1207.51	1841.20	0.00	
15300.00	90.00	179.57	13450.00	-1818.77	-1206.76	1940.51	0.00	
15400.00	90.00	179.57	13450.00	-1918.77	-1206.01	2039.82	0.00	
15500.00	90.00	179.57	13450.00	-2018.77	-1205.26	2139.12	0.00	
15600.00	90.00	179.57	13450.00	-2118.76	-1204.51	2238.43	0.00	
15700.00	90.00	179.57	13450.00	-2218.76	-1203.76	2337.74	0.00	
15800.00	90.00	179.57	13450.00	-2318.76	-1203.01	2437.05	0.00	
15900.00	90.00	179.57	13450.00	-2418.75	-1202.26	2536.35	0.00	
16000.00	90.00	179.57	13450.00	-2518.75	-1201.51	2635.66	0.00	
16100.00	90.00	179.57	13450.00	-2618.75	-1200.76	2734.97	0.00	
16200.00	90.00	179.57	13450.00	-2718.75	-1200.01	2834.27	0.00	
16300.00	90.00	179.57	13450.00	-2818.74	-1199.25	2933.58	0.00	
16400.00	90.00	179.57	13450.00	-2918.74	-1198.50	3032.89	0.00	
16500.00	90.00	179.57	13450.00	-3018.74	-1197.75	3132.20	0.00	
16600.00	90.00	179.57	13450.00	-3118.73	-1197.00	3231.50	0.00	
16700.00	90.00	179.57	13450.00	-3218.73	-1196.25	3330.81	0.00	
16800.00	90.00	179.57	13450.00	-3318.73	-1195.50	3430.12	0.00	
16900.00	90.00	179.57	13450.00	-3418.73	-1194.75	3529.43	0.00	
17000.00	90.00	179.57	13450.00	-3518.72	-1194.00	3628.73	0.00	
17100.00	90.00	179.57	13450.00	-3618.72	-1193.25	3728.04	0.00	
17200.00	90.00	179.57	13450.00	-3718.72	-1192.50	3827.35	0.00	
17300.00	90.00	179.57	13450.00	-3818.71	-1191.75	3926.66	0.00	
17400.00	90.00	179.57	13450.00	-3918.71	-1191.00	4025.96	0.00	
17500.00	90.00	179.57	13450.00	-4018.71	-1190.25	4125.27	0.00	
17600.00	90.00	179.57	13450.00	-4118.71	-1189.50	4224.58	0.00	
17700.00	90.00	179.57	13450.01	-4218.70	-1188.74	4323.89	0.00	
17800.00	90.00	179.57	13450.01	-4318.70	-1187.99	4423.19	0.00	
17900.00	90.00	179.57	13450.01	-4418.70	-1187.24	4522.50	0.00	
18000.00	90.00	179.57	13450.01	-4518.69	-1186.49	4621.81	0.00	
18100.00	90.00	179.57	13450.01	-4618.69	-1185.74	4721.12	0.00	
18200.00	90.00	179.57	13450.01	-4718.69	-1184.99	4820.42	0.00	
18300.00	90.00	179.57	13450.01	-4818.69	-1184.24	4919.73	0.00	
18400.00	90.00	179.57	13450.01	-4918.68	-1183.49	5019.04	0.00	
18500.00	90.00	179.57	13450.01	-5018.68	-1182.74	5118.35	0.00	
18600.00	90.00	179.57	13450.01	-5118.68	-1181.99	5217.65	0.00	
18700.00	90.00	179.57	13450.01	-5218.68	-1181.24	5316.96	0.00	
18800.00	90.00	179.57	13450.01	-5318.67	-1180.49	5416.27	0.00	
18900.00	90.00	179.57	13450.01	-5418.67	-1179.74	5515.58	0.00	
19000.00	90.00	179.57	13450.01	-5518.67	-1178.98	5614.88	0.00	
19100.00	90.00	179.57	13450.01	-5618.66	-1178.23	5714.19	0.00	
19200.00	90.00	179.57	13450.01	-5718.66	-1177.48	5813.50	0.00	
19300.00	90.00	179.57	13450.01	-5818.66	-1176.73	5912.80	0.00	

FIGHTING OKRA 18-19 FED 17H



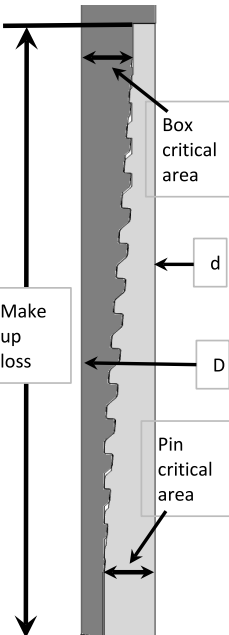
Well: FIGHTING OKRA 18-19 FED 17H
County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

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
19400.00	90.00	179.57	13450.01	-5918.66	-1175.98	6012.11	0.00	
19500.00	90.00	179.57	13450.01	-6018.65	-1175.23	6111.42	0.00	
19600.00	90.00	179.57	13450.01	-6118.65	-1174.48	6210.73	0.00	
19700.00	90.00	179.57	13450.01	-6218.65	-1173.73	6310.03	0.00	
19800.00	90.00	179.57	13450.01	-6318.64	-1172.98	6409.34	0.00	
19900.00	90.00	179.57	13450.01	-6418.64	-1172.23	6508.65	0.00	
20000.00	90.00	179.57	13450.01	-6518.64	-1171.48	6607.96	0.00	
20100.00	90.00	179.57	13450.01	-6618.64	-1170.73	6707.26	0.00	
20200.00	90.00	179.57	13450.01	-6718.63	-1169.98	6806.57	0.00	
20300.00	90.00	179.57	13450.01	-6818.63	-1169.22	6905.88	0.00	
20400.00	90.00	179.57	13450.01	-6918.63	-1168.47	7005.19	0.00	
20500.00	90.00	179.57	13450.01	-7018.62	-1167.72	7104.49	0.00	
20600.00	90.00	179.57	13450.01	-7118.62	-1166.97	7203.80	0.00	
20700.00	90.00	179.57	13450.01	-7218.62	-1166.22	7303.11	0.00	
20800.00	90.00	179.57	13450.01	-7318.62	-1165.47	7402.42	0.00	
20900.00	90.00	179.57	13450.01	-7418.61	-1164.72	7501.72	0.00	
21000.00	90.00	179.57	13450.01	-7518.61	-1163.97	7601.03	0.00	
21100.00	90.00	179.57	13450.01	-7618.61	-1163.22	7700.34	0.00	
21200.00	90.00	179.57	13450.01	-7718.60	-1162.47	7799.65	0.00	
21300.00	90.00	179.57	13450.01	-7818.60	-1161.72	7898.95	0.00	
21400.00	90.00	179.57	13450.01	-7918.60	-1160.97	7998.26	0.00	
21500.00	90.00	179.57	13450.01	-8018.60	-1160.22	8097.57	0.00	
21600.00	90.00	179.57	13450.01	-8118.59	-1159.47	8196.88	0.00	
21700.00	90.00	179.57	13450.01	-8218.59	-1158.71	8296.18	0.00	
21800.00	90.00	179.57	13450.01	-8318.59	-1157.96	8395.49	0.00	
21900.00	90.00	179.57	13450.01	-8418.59	-1157.21	8494.80	0.00	
22000.00	90.00	179.57	13450.01	-8518.58	-1156.46	8594.11	0.00	
22100.00	90.00	179.57	13450.01	-8618.58	-1155.71	8693.41	0.00	
22200.00	90.00	179.57	13450.01	-8718.58	-1154.96	8792.72	0.00	
22300.00	90.00	179.57	13450.01	-8818.57	-1154.21	8892.03	0.00	
22400.00	90.00	179.57	13450.01	-8918.57	-1153.46	8991.33	0.00	
22500.00	90.00	179.57	13450.01	-9018.57	-1152.71	9090.64	0.00	
22600.00	90.00	179.57	13450.01	-9118.57	-1151.96	9189.95	0.00	
22700.00	90.00	179.57	13450.01	-9218.56	-1151.21	9289.26	0.00	
22800.00	90.00	179.57	13450.01	-9318.56	-1150.46	9388.56	0.00	
22900.00	90.00	179.57	13450.01	-9418.56	-1149.71	9487.87	0.00	
23000.00	90.00	179.57	13450.01	-9518.55	-1148.95	9587.18	0.00	
23100.00	90.00	179.57	13450.01	-9618.55	-1148.20	9686.49	0.00	
23200.00	90.00	179.57	13450.01	-9718.55	-1147.45	9785.79	0.00	
23300.00	90.00	179.57	13450.01	-9818.55	-1146.70	9885.10	0.00	
23400.00	90.00	179.57	13450.01	-9918.54	-1145.95	9984.41	0.00	
23500.00	90.00	179.57	13450.01	-10018.54	-1145.20	10083.72	0.00	
23600.00	90.00	179.57	13450.01	-10118.54	-1144.45	10183.02	0.00	
23700.00	90.00	179.57	13450.01	-10218.53	-1143.70	10282.33	0.00	
23725.94	90.00	179.57	13450.01	-10244.47	-1143.50	10308.09	0.00	exit
23800.00	90.00	179.57	13450.01	-10318.53	-1142.95	10381.64	0.00	
23805.94	90.00	179.57	13450.00	-10324.47	-1142.93	10387.54	0.00	BHL

Metal One Corp. 	MO-FXL Pipe Body: BMP P110HC MinYS110ksi Connection Data Sheet		CDS#	MO-FXL 7-5/8 29.7	
				P110HC	
			Date	10-Mar-21	

MO-FXL



Geometry	Imperial		S.I.	
Pipe Body				
Grade *	P110HC		P110HC	
Pipe OD (D)	7 5/8	in	193.68	mm
Weight	29.70	lb/ft	44.25	kg/m
Actual weight	29.04		43.26	kg/m
Wall Thickness (t)	0.375	in	9.53	mm
Pipe ID (d)	6.875	in	174.63	mm
Pipe body cross section	8.537	in ²	5,508	mm ²
Drift Dia.	6.750	in	171.45	mm

Connection				
Box OD (W)	7.625	in	193.68	mm
PIN ID	6.875	in	174.63	mm
Make up Loss	4.219	in	107.16	mm
Box Critical Area	5.714	in ²	3686	mm ²
Joint load efficiency	70	%	70	%
Thread Taper	1 / 10 (1.2" per ft)			
Number of Threads	5 TPI			

Performance				
Performance Properties for Pipe Body				
S.M.Y.S. *	939	kips	4,177	kN
M.I.Y.P. *	9,470	psi	65.31	MPa
Collapse Strength *	7,050	psi	48.62	MPa

Note S.M.Y.S.= Specified Minimum YIELD Strength of Pipe body
M.I.Y.P. = Minimum Internal Yield Pressure of Pipe body

* BMP P110HC: MinYS110ksi, Collapse 7,050psi

Performance Data Sheet: SOP-12-F05 Rev.1, dated 9/6/2018

Performance Properties for Connection	
Tensile Yield load	657 kips (70% of S.M.Y.S.)
Min. Compression Yield	657 kips (70% of S.M.Y.S.)
Internal Pressure	7,580 psi (80% of M.I.Y.P.)
External Pressure	100% of Collapse Strength
Max. DLS (deg. /100ft)	27

Recommended Torque				
Min.	15,500	ft-lb	21,000	N-m
Opti.	17,200	ft-lb	23,300	N-m
Max.	18,900	ft-lb	25,600	N-m
Operational Max.	23,600	ft-lb	32,000	N-m

Note : Operational Max. torque can be applied for high torque application

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Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to http://www.mtlco.co.jp/mo-con/images/top/WebsiteTerms_Active_20333287_1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.

18-26-34-C Sundry ID 2777485 Fighting Okra 18-19 Fed 17H

Fighting Okra 18-19 Fed 17H

9 5/8		surface csg in a		13 1/2		inch hole.		Design Factors				Surface		
Segment	#/ft	Grade		Coupling		Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	40.00			j 55	btc	19.44	6.79	0.58	810	11	0.97	12.82	32,400	
"B"					btc				0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500							Tail Cmt	does not	circ to sfc.	Totals:	810		32,400	
Comparison of Proposed to Minimum Required Cement Volumes														
Hole	Annular	1 Stage		1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist	
Size	Volume	Cmt Sx		CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg	
13 1/2	0.4887	431		621	396	57	9.00	4088	5M				1.44	
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.														
Site plot (pipe racks 3 or 4) as per O.D. 1.31/D-3.1, not found														

7 5/8		casing inside the		9 5/8		A Buoyant		Design Factors				Int 1	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	29.70		p 110	mo-fxl	2.07	1.03	1.03	12,560	1	1.73	1.72	373,032	
"B"								0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: -175								Totals:	12,560			373,032	
The cement volume(s) are intended to achieve a top of								0	ft from surface or a		810	overlap.	
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist	
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg	
8 3/4	0.1005	718	1671	1269	32	10.50	4377	5M				0.56	
r D V Tool(s):								sum of sx	Σ CuFt			Σ%excess	
t by stage % :								#VALUE!	#VALUE!				
Class 'H' tail cmt yld > 1.20													

5 1/2	casing inside the	7 5/8		Design Factors					Prod 1		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	VA-EP-P 110	varn	2.71	2.02	1.96	12,060	2	3.28	3.39	241,200
"B"	20.00	p 110	varn sprint sf	23.06	1.68	1.96	1,090	2	3.28	2.82	21,800
"C"	20.00	VA-EP-P 110	varn	121.33	1.81	1.96	10,356	2	3.28	3.04	207,120
"D"							0				0
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,653											
				Totals:				23,506			470,120
				The cement volume(s) are intended to achieve a top of				12360	ft from surface or a		200
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
6 3/4	0.0835	753	1198	933	28	10.50					0.35
Class 'C' tail cmt yld > 1.35											

#N/A	0	5 1/2		Design Factors					<Choose Casing>		
Segment	#/ft	Grade	Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"			0.00				0				0
"B"			0.00				0				0
w/8.4#/g mud, 30min Sfc Csg Test psig:											
				Totals:				0			0
				Cmt vol calc below includes this csg, TOC intended				#N/A	ft from surface or a		#N/A
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd			Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE			Hole-Cplg
0		#N/A	#N/A	0	#N/A						
#N/A Capitan Reef est top XXXX.											

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 326690

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 326690
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA'S APPLY.	6/15/2024