Form 3160-5 (June 2015)

UNITED STATES EMNRD-OCD ARTESA DEPARTMENT OF THE INTERIOR REC'D: 7/06/2020 BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB NO. 1004-0137 Expires: January 31, 2018

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. 5. Lease Serial No. NMNM77046 6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2					7. If Unit or CA/Agree	ement, Name and/or No.	
1. Type of Well ☑ Oil Well ☐ Gas Well ☐ Oth	ner				8. Well Name and No. ALEUTIAN 10-3 F		
Name of Operator DEVON ENERGY PRODUCT	Contact: JE↑ TON COM-Mail: jennifer.harms	NNIFER HARMS @dvn.com			9. API Well No. 30-015-46964-00-X1		
3a. Address 333 WEST SHERIDAN AVEN OKLAHOMA CITY, OK 7310	IUE P	b. Phone No. (include h: 405-552-6560	area code)		10. Field and Pool or I WOLFCAMP	Exploratory Area	
4. Location of Well (Footage, Sec., 7	., R., M., or Survey Description)				11. County or Parish,	State	
Sec 10 T23S R31E SWSW 52 32.313183 N Lat, 103.771095					EDDY COUNTY	/, NM	
12. CHECK THE A	PPROPRIATE BOX(ES) TO) INDICATE NA	ΓURE OF	F NOTICE,	REPORT, OR OTH	HER DATA	
TYPE OF SUBMISSION			TYPE OF	ACTION			
Notice of Intent ■ Notice of Intent Notice of Inten	☐ Acidize	□ Deepen		☐ Producti	on (Start/Resume)	☐ Water Shut-Off	
_	☐ Alter Casing	☐ Hydraulic Fi	acturing	□ Reclama	ntion	■ Well Integrity	
☐ Subsequent Report	☐ Casing Repair	■ New Constru	iction	□ Recomp	lete	☑ Other Change to Original A	
☐ Final Abandonment Notice	☐ Change Plans	☐ Plug and Ab	andon	☐ Tempora	arily Abandon	PD	
	☐ Convert to Injection	☐ Plug Back		☐ Water D	isposal		
If the proposal is to deepen directionally or recomplete 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 performed 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 determined that the site is ready for final inspection. Devon Energy Production Co., L.P. (Devon) respectfully requests to change the subject well into a potential 4-string design if losses are encountered. In the event we would set a shallow salt string and set a deeper second intermediate string if we severe losses occur. If losses are not encountered, we will not set the second intermediate, and we will drill ahead. Both options are located within the drilling plan attached along with the spec sheet for 10-3/4" casing and wellhead diagram.							
14. I hereby certify that the foregoing is	Electronic Submission #519: For DEVON ENERGY P nmitted to AFMSS for processi	RODUCTION COM	LP, sent t	to the Carlsk	oad		
Name(Printed/Typed) JENNIFE	<u>.</u>	Title			MPLIANCE ANALY	ST	
Signature (Electronic	Submission)	Date	06/17/20)20			
THIS SPACE FOR FEDERAL OR STATE OFFICE USE							
Approved By LONG VO	TitleP	ETROLEL	JM ENGINE	ER	Date 06/22/2020		
Conditions of approval, if any, are attache vertify that the applicant holds legal or eq which would entitle the applicant to cond	uitable title to those rights in the sub	bject lease	Office Carlsbad				
Fitle 18 U.S.C. Section 1001 and Title 43 States any false, fictitious or fraudulent				willfully to ma	ke to any department or	agency of the United	
Instructions on page 2)		·					

ons on page 2)
** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Revisions to Operator-Submitted EC Data for Sundry Notice #519257

Operator Submitted BLM Revised (AFMSS)

Sundry Type: APDCH **APDCH** NOI NOI

Lease: NMNM077046 NMNM77046

Agreement:

Operator: **DEVON ENERGY PRODUCTION COMPAN** DEVON ENERGY PRODUCTION COM LP

333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102-5015 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102

Ph: 405-552-6560 Ph: 405 552 6571

JENNIFER HARMS REGULATORY COMPLIANCE ANALYST Admin Contact:

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JENNIFER HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dvn.com

Ph: 405-552-6560 Ph: 405-552-6560

Location:

State: County: NM EDDY NM EDDY

Field/Pool: **BONESPRING WOLFCAMP**

ALEUTIAN 10-3 FED COM 211H Sec 10 T23S R31E SWSW 525FSL 970FWL Well/Facility:

ALEUTIAN 10-3 FED COM 211H Sec 10 T23S R31E SWSW 525FSL 970FWL

32.313183 N Lat, 103.771095 W Lon



API 5CT 10.750" 45.50lb/ft HCL80 Casing Performance Data Sheet

Manufactured to specifications of API 5CT 9th edition and bears the API monogram.

Grade	HCL80
	Pipe Body Mechanical Properties
Minimum Yield Strength	80,000 psi
Maximum Yield Strength	95,000 psi
Minimum Tensile Strength	95,000 psi
Maximum Hardness	23.0 HRC
	Sizes
OD	10 3/4
Nominal Wall Thickness	.400 in
Nominal Weight, T&C	45.50 lb/ft
Nominal Weight, PE	44.26 lb/ft
Nominal ID	9.950 in
Standard Drift	9.794 in
Alternate Drift	9.875 in
Coupling Special Clearance	<u>Size</u>
OD	11.25 in
Min. Length	10.625 in
Diameter of Counter Bore	10.890 in
Width of bearing face	.375 in
	Minimum Performance
Collapse Pressure	2,940 psi
Internal Pressure Yield	5,210 psi
Pipe body Tension Yield	1,040,000 lbs
Joint Strength STC	692,000 lbs
Joint Strength LTC	N/A
Joint Strength BTC	1,063,000 lbs
	·
	Inspection and Testing
Visual	OD Longitidunal and independent 3rd party SEA
	Independent 3rd party full body EMI and End Area Inspection after hydrotest
NDT	Calibration notch sensitivity: 10% of specified wall thickness
	Cambration noter sensitivity. 10% of specified wall trickness
	Color code
Pipe ends	One red. one brown and one blue band
·	Red with one brown band
Couplings	Red with one brown band

Aleutian 10-3 Fed Com 211H

1. Geologic Formations

TVD of target	10243	Pilot hole depth	N/A
MD at TD:	20524	Deepest expected fresh water	

Basin

Basin			
	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
RUSTLER	625		
SALADO	1015		
BASE OF SALT	4200		
DELAWARE	4375		
BONE SPRING	8255		
BONE SPRING 1ST	9290		
BONE SPRING 2ND	9715		

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

2. Casing Program

2. Casing I	8							
Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	48.0	H40	BTC	0	650 MD	0	650 TVD
12 1/4	10 3/4	45.5	HCL80	BTC SCC	0	4350 MD	0	4350 TVD
9 7/8	8 5/8	32.0	P110	TLW	0	8300 MD	0	8300 TVD
7 7/8	5 1/2	17.0	P110	BTC	0	20524 MD	0	10243 TVD

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

Casing Program (Alternate Design)

		Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	BTC	0	650	0	650
12 1/4	10 3/4	45 1/2	HCL80	BTC SCC	0	4350	0	4350
9 7/8	5 1/2	17	P110	BTC	0	9600	0	9600
8 3/4	5 1/2	17	P110	BTC	9600	20524	9600	10243

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

^{*}Note the alternate design does not include a second intermediate string of casing. Instead, the hole size is reduced to 8.75". This provides optionality contingent upon losses experienced in the area.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
T. HI I' D. H. D I GODIO	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program (4-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	509	Surf	13.2	1.4	Lead: Class C Cement + additives
T.,4	289	Surf	9.0	3.3	Lead: Class C Cement + additives
Int	101	500' above	13.2	1.4	Tail: Class H / C + additives
T., 4.1	331	Surf	9.0	3.3	Lead: Class C Cement + additives
Int 1	67	500' above	13.2	1.4	Tail: Class H / C + additives
Int 1	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
Intermediate	289	Surf	9.0	3.3	Lead: Class C Cement + additives
Squeeze	101	500' above	13.2	1.4	Tail: Class H / C + additives
Draduation	112	500' tieback	9.0	3.3	Lead: Class H/C+ additives
Production	1430	KOP	13.2	1.4	Tail: Class H / C + additives

Cementing Program (3-String Alternate Design)

Casing	# Sks	тос	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	509	Surf	13.2	1.4	Lead: Class C Cement + additives
Int 1	289	Surf	9.0	3.3	Lead: Class C Cement + additives
Int 1	101	500' above	13.2	1.4	Tail: Class H / C + additives
Int 1	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
Intermediate	289	Surf	9.0	3.3	Lead: Class C Cement + additives
Squeeze	101	500' above	13.2	1.4	Tail: Class H / C + additives
Production	721	500' tieback	9.0	3.3	Lead: Class H/C+ additives
	2086	KOP	13.2	1.4	Tail: Class H / C + additives

4. Pressure Control Equipment (Four String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:	
			Annular		X	50% of rated working pressure	
Int	13-5/8"	5M	Bline	l Ram	X		
IIIt	13-3/6	JIVI	Pipe	Ram		514	
			Doub	le Ram	X	5M	
			Other*				
			Annular		X	50% of rated working pressure	
I 1	12.5/00	514	Blind Ram		X	5M	
Int 1	13-5/8"	5M	Pipe Ram				
			Double Ram		X		
			Other*				
Production		5M	Annular (5M)		X	50% of rated working pressure	
	13-5/8"		Blind Ram		X		
	13-5/8"		Pipe Ram			514	
			Doub	le Ram	X	5M	
			Other*				

Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:	
			Anı	Annular		50% of rated working pressure	
Int 1	13-58"	5M	Blind	l Ram	X		
IIIt I	13-36	3101	Pipe	Ram		5M	
			Doub	le Ram	X	31V1	
			Other*				
	12.5/01	5M	Annular		X	50% of rated working pressure	
Production			Blind Ram		X	5M	
Production	13-5/8"		Pipe Ram				
			Double Ram		X		
			Other*				
			Annular (5M)				
			Blind Ram Pipe Ram Double Ram				
			Other*				

5. Mud Program (Four String Design)

Section	Туре	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	WBM	8.5-9

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

Mud Program (Three String Design)

Section	Туре	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

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
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6. Logging and Testing Procedures

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

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

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4794
Abnormal temperature	No

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

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

N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

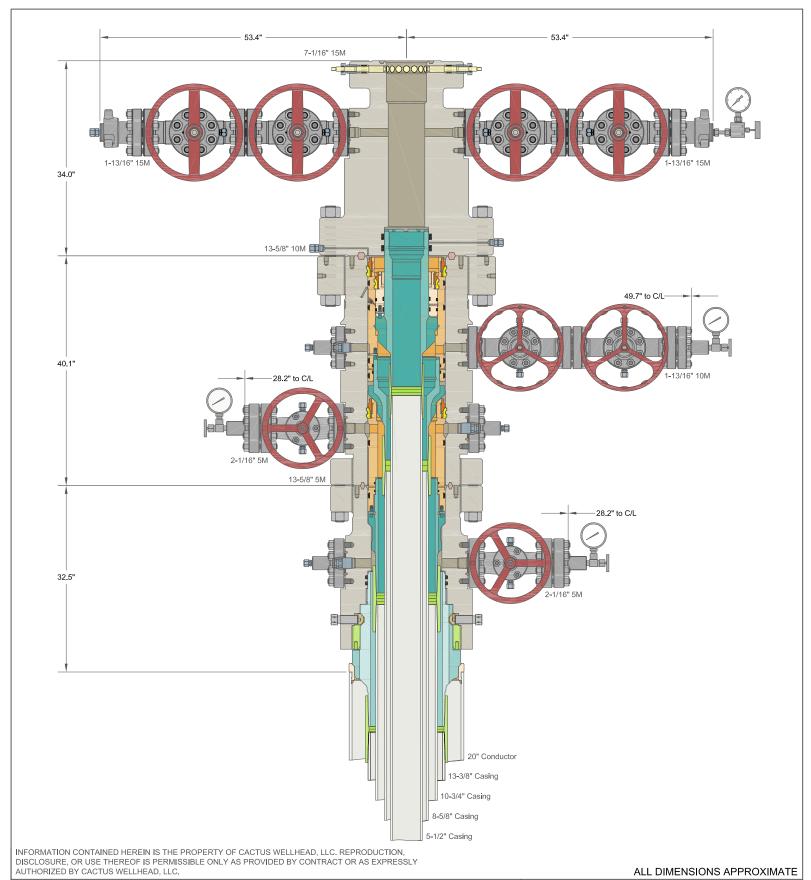
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and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

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

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.,
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pa.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. A that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments		
X	Directional Plan	
	Other, describe	



CACTUS WELLHEAD LLC

DEVON ENERGY PROD CO LP WOLFCAMP

20" x 13-3/8" x 10-3/4" x 8-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO System With 13-5/8" 10M x 7-1/16" 15M CTH-HPS Tubing Head And 10-3/4" & 8-5/8" & 5-1/2" Pin Down Mandrel Casing Hangers

DRAWN DLE 06FEB20
APPRV

DRAWING NO. HBE0000248