Form 3160-5 (June 2015)	UNITED STATE DEPARTMENT OF THE I BUREAU OF LAND MANA	INTERIOR		-20	OMB N	APPROVED O. 1004-0137 nuary 31, 2018
SUNDF		ORTS ON W	ELLS <mark>OCD</mark> -	HOBRZ	5. Lease Serial No. NMNM107395	
Do not use abandoned	this form for proposals to well. Use form 3160-3 (AF	o drill or to re PD) for such [	e-enter an 4/0 proposals. REC	EIVED	6. If Indian, Allottee o	r Tribe Name
SUBMIT	7. If Unit or CA/Agree	ement, Name and/or No.				
1. Type of Well	8. Well Name and No. DANGER NOOD	-E 29-20 FED COM 6H				
Oil Well Gas Well     2. Name of Operator     DEVON ENERGY PRODU	9. API Well No.					
3a. Address 333 WEST SHERIDAN AV OKLAHOMA CITY, OK 73		3b. Phone No Ph: 405-22	o. (include area cod 28-8429	e)	10. Field and Pool or I JABALINA	Exploratory Area
4. Location of Well (Footage, See	c., T., R., M., or Survey Description	n)			11. County or Parish,	State
Sec 29 T23S R33E SESW 32.269272 N Lat, 103.5957			LEA COUNTY,	NM		
12. CHECK THE	APPROPRIATE BOX(ES)	) TO INDICA	TE NATURE	OF NOTICE	REPORT, OR OTH	IER DATA
TYPE OF SUBMISSION			TYPE (	OF ACTION		
☑ Notice of Intent	□ Acidize	Dee	epen	Product	tion (Start/Resume)	UWater Shut-Off
-	□ Alter Casing	🗖 Нус	Iraulic Fracturing	g 🔲 Reclam	ation	Well Integrity
Subsequent Report	Casing Repair	🗖 Nev	w Construction	Recomplete	plete	Other
Final Abandonment Notice	Change Plans	🗖 Plu	g and Abandon	Tempor	rarily Abandon	Change to Original A PD
	Convert to Injection	🗖 Plu	g Back	□ Water I	Disposal	
<ol> <li>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 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.</li> <li>Devon Energy Production Co., L.P. respectfully requests a change to production casing from the permitted 5-1/2? 17 ppf P110RY production casing to 6? 24.5 ppf P110EC production casing.</li> <li>Please see attached revised drilling plan and spec sheet.</li> </ol>						
14. I hereby certify that the foregoin	g is true and correct.					
, , , , , , , , , , , , , , , , , , ,	Electronic Submission # For DEVON ENER Committed to AFMSS for p	GY PRODUCT	ON COMPAN, s	ent to the Hol	obs	
Name(Printed/Typed) REBEC	CCA DEAL	locessing by (		-	MPLIANCE PROFE	SSI
			I			

Signature	(Electronic Submission)	Date	04/07/2020	
	THIS SPACE FOR FEDERA	L OR	STATE OFFICE USE	
certify that the applie	VG_VO		ETROLEUM ENGINEER Hobbs	Date 04/07/2020
Title 18 U.S.C. Secti States any false, fie	ion 1001 and Title 43 U.S.C. Section 1212, make it a crime for any pe ctitious or fraudulent statements or representations as to any matter with	rson kno thin its j	wingly and willfully to make to any department or agency arisdiction.	y of the United

(Instructions on page 2) \*\* BLM REVISED \*\*

KZ

# Revisions to Operator-Submitted EC Data for Sundry Notice #509887

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM107395	NMNM107395
Agreement:		
Operator:	DEVON ENERGY PRODUCTION COMPAN 333 WEST SHERIDAN AVE OKLAHOMA CITY, OK 73102 Ph: 405-228-8429	DEVON ENERGY PRODUCTION COMPAN 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102 Ph: 4055526571
Admin Contact:	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com
	Ph: 405-228-8429	Ph: 405-228-8429
Tech Contact:	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com	REBECCA DEAL REGULATORY COMPLIANCE PROFESSI E-Mail: Rebecca.Deal@dvn.com
	Ph: 405-228-8429	Ph: 405-228-8429
Location: State: County:	NM LEA	NM LEA
Field/Pool:	JABALINA; WOLFCAMP, SW	JABALINA
Well/Facility:	DANGER NOODLE 29-20 FED COM 6H Sec 29 T23S R33E Mer NMP SESW 298FSL 2385FWL	DANGER NOODLE 29-20 FED COM 6H Sec 29 T23S R33E SESW 298FSL 2385FWL 32.269272 N Lat, 103.595169 W Lon

## 1. Geologic Formations

TVD of target	12550	Pilot hole depth	N/A
MD at TD:	22830	Deepest expected fresh water	

Basin

Dasin			
	Depth	Water/Mineral	
Formation	(TVD)	<b>Bearing/Target</b>	Hazards*
	from KB	Zone?	
Rustler	1117		
Salt	1367		
Base of Salt	4543		
Delaware	4862		
Bone Spring 1st	8933		
Bone Spring 2nd	10355		
Bone Spring 3rd	11250		
Wolfcamp	12240		

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

Hole Size	Casing	, Interval	Csg. Size	Wt	Grade	Conn	Min SF	Min SF	Min SF
Hole Size	From	То	Csg. Size	(PPF)	Graue	Collin	Collapse	Burst	Tension
17 1/2	0	1142 TVD	13 3/8	48.0	H40	STC	1.125	1.25	1.6
9 7/8	0	11250 TVD	7 5/8	29.7	P110	Flushmax III	1.125	1.25	1.6
6 3/4	0	TD	5 1/2	20.0	P110	Vam SG	1.125	1.25	1.6
				BLM Minimum Safety		fety Factor	1.125	1	1.6 Dry 1.8 Wet

### 2. Casing Program (Primary Design)

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

• Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.

• A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.

• Int casing shoe will be selected based on drilling data/gamma, setting depth with be revised accordingly if needed.

• A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

• A variance is requested to set intermediate casing in the curve if hole conditions dictate that a higher shoe strength is required.

Hole Size	Casing	Interval	Csg. Size	Wt	Grade	Conn	Min SF	Min SF	Min SF
Hole Size	From	То	Csg. Size	(PPF)	Graue	Com	Collapse	Burst	Tension
17 1/2	0	1142 TVD	13 3/8	48.0	H40	STC	1.125	1.25	1.6
9 7/8	0	11250 TVD	8 5/8	32.0	P110	TLW	1.125	1.25	1.6
7 7/8	0	TD	6	24.5	P110	DWC	1.125	1.25	1.6
				BLM N	/inimum Saf	fety Factor	1.125	1	1.6 Dry 1 8 Wet

#### **Casing Program (Alternative Design)**

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

• Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.

• A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.

• Int casing shoe will be selected based on drilling data/gamma, setting depth with be revised accordingly if needed.

• A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

•Variance requested to drill 10.625" hole instead of 9.875" for intermediate 1, the 8.625" connection will change from TLW to BTC.

• A variance is requested to set intermediate casing in the curve if hole conditions dictate that a higher shoe strength is required.

	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 specificition sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Ν
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading	Y
assumptions, casing design criteria).	-
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating	Y
of the casing?	1
Is well located within Capitan Reef?	Ν
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?	Ν
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous	
casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Ν
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?	Ν
If yes, are there three strings cemented to surface?	

Casing	# Sks	тос	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	865	Surf	13.2	1.44	Lead: Class C Cement + additives
	719	Surf	9	3.27	Lead: Class C Cement + additives
Int 1	783	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
	883	Surf	9	3.27	1st stage Lead: Class C Cement + additives
Int 1 Two Stage	93	500' above shoe	13.2	1.44	1st stage Tail: Class H / C + additives
w/ DV @ TVD of Delaware	462	Surf	9	3.27	2nd stage Lead: Class C Cement + additives
	93	500' above DV	13.2	1.44	2nd stage Tail: Class H / C + additives
Int 1	As Needed	Surf	9	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	719	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	783	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Production	60	10013	9.0	3.3	Lead: Class H /C + additives
Production	690	12013	13.2	1.4	Tail: Class H / C + additives

## 3. Cementing Program (Primary Design)

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

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

3. Cementing Program ( Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	865	Surf	13.2	1.44	Lead: Class C Cement + additives
	472	Surf	9	3.27	Lead: Class C Cement + additives
Int 1	465	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
	518	Surf	9	3.27	1st stage Lead: Class C Cement + additives
Int 1 Two Stage	55	500' above shoe	13.2	1.44	1st stage Tail: Class H / C + additives
w DV @ ~4500	321	Surf	9	3.27	2nd stage Lead: Class C Cement + additives
	55	500' above DV	13.2	1.44	2nd stage Tail: Class H / C + additives
Int 1	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	472	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	465	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1 (10 625" Hole Size)	676	Surf	9	3.27	Lead: Class C Cement + additives
Int 1 (10.625" Hole Size)	768	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Droduction	95	10013	9.0	3.3	Lead: Class H /C + additives
Production	1173	12013	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

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

BOP installed and tested before drilling which hole?	Size?	Min. Require d WP	T	уре	~	Tested to:
Int 1	13-58"	5M	Annular		Х	50% of rated working pressure
			Blind Ram		Х	5M
Int 1			Pipe Ram			
			Double Ram		X	
			Other*			
	13-5/8"		Annul	ar (5M)	Х	100% of rated working pressure
Production		10M	Blind Ram		Х	10M
		10101	Pipe Ram			
			Doub	le Ram	Х	10141
			Other*			
			Annul	ar (5M)		
			Blind	d Ram		
			Pipe	e Ram		]
			Doub	le Ram		]
			Other*			
N A variance is requested for	the use of a	diverter or	the surface	casing. See	attached for s	chematic.
Y A variance is requested to r	A variance is requested to run a 5 M annular on a 10M system					

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

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

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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### 6. Logging and Testing Procedures

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

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

# 7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	6852
Abnormal temperature	No

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

Hydrogren S	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.	
Ν	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).

<sup>3</sup> 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