

Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 1220 S. St. Francis Dr., Santa Fe, NM
 87505

State of New Mexico
 Energy, Minerals and Natural Resources

Form C-103
 Revised July 18, 2013

OIL CONSERVATION DIVISION
 1220 South St. Francis Dr.
 Santa Fe, NM 87505

WELL API NO.	30-025-48096
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Thistle Unit	
8. Well Number 181H	
9. OGRID Number 6137	
10. Pool name or Wildcat WC-025 G-09 S243310P; UWC (98135)	

SUNDRY NOTICES AND REPORTS ON WELLS
 (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

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

2. Name of Operator
Devon Energy Production Co. LP

3. Address of Operator
333 W. Sheridan Ave OKC, OK 73102

4. Well Location
 Unit Letter C : 160 feet from the North line and 1770 feet from the West line
 Section 22 Township 23S Range 33E NMPM Lea County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3710.5'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
DOWNHOLE COMMINGLE <input type="checkbox"/>	P AND A <input type="checkbox"/>
CLOSED-LOOP SYSTEM <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>
OTHER: <input type="checkbox"/>	OTHER: <input type="checkbox"/>

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy Production Co., LP respectfully requests to utilize a pilot hole for logging and evaluation of the formations, according to the following procedures:

- Drill pilot hole vertically to an approximate depth of 13,801' TVD
- Run open hole evaluation operations – logs, whole core, & rotary side wall cores
- P&A Pilot Hole Portion of Wellbore Per BLM Onshore Order #2 and NMOCD Requirements
- Balanced cement plug set as follows:
- The BASE of plug 50' below the 8-5/8" Intermediate Casing Shoe
- The TOP of the plug 50' above the Wolfcamp TOP Marker
- Wireline set CIBP at ~12,000' TVD inside of 8-5/8" Casing
- Run cased hole whipstock on top of CIBP
- Normal curve/lateral operations will resume after kicking off of whipstock

Please see attached revised Drilling Plan

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Rebecca Deal TITLE Regulatory Analyst DATE 12/28/2020

Type or print name Rebecca Deal E-mail address: rebecca.deal@dvn.com PHONE: 405-228-8429

For State Use Only

APPROVED BY: [Signature] TITLE _____ DATE 01/04/2020

Conditions of Approval (if any): _____

Thistle Unit 181H**1. Geologic Formations**

TVD of target	12480	Pilot hole depth	13,801'
MD at TD:	27970	Deepest expected fresh water:	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Rustler	1476		
Salado	1900		
Delaware	5236		
Cherry Canyon	6126		
Brushy Canyon	7501		
1st BSPG Lime	9076		
Leonard A	9331		
Leonard B	9671		
Leonard B Base	9756		
Leonard C	10106		
2nd BSPG Lime	10486		
2nd BSPG Sand	10866		
3rd BSPG Lime	11406		
3rd BSPG Sand	11991		
Wolfcamp	12306		
LP @ 0' VS	12481		
PILOT HOLE TOPS:			
WFMP 200	12916		
WFMP 300	13166		
WFMP 400	13391		
Upper Penn Sands	13601		
TD	13801		

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

Thistle Unit 181H**2. Casing Program**

Hole Size	Casing Interval		Csg. Size	Weight (PPF)	Grade	Conn.
	From	To				
17.5"	0	1390	13.375"	48	H-40	STC
9.875"	0	12650	8.625"	32	P-110	BTC
7.875"	0	TD	5.5"	17	P-110	BTC
BLM Minimum Safety Factor				Collapse: 1.125	Burst: 1.00	Tension: 1.6 Dry 1.8 Wet

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	H ₂ O (gal/sk)	Yld (ft ³ /sack)	Slurry Description
Surface	1044	Surf	13.2	6.33	1.44	Lead: Class A/C Cement + additives
Int 1	533	Surf	9	20.6	3.27	Lead: Class A/C Cement + additives
	465	4000' above shoe	13.2	6.42	1.44	Tail: Class A/H/C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	14.8	4.67	1.33	Squeeze: Class A/H/C + additives
Production	117	500' tieback	9	20.6	3.27	Lead: Class A/H/C + additives
	2118	KOP	13.2	5.31	1.44	Tail: Class A/H/C + additives

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

Thistle Unit 181H

4. Pressure Control Equipment

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"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	10M
			Pipe Ram		
			Double Ram	X	
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

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5. Mud Program

6. Depth		Type	Weight (ppg)	Vis	Water Loss
From	To				
0	1390	FW	8.5 – 9.0	28-34	N/C
1390	12650	Brine	10 – 10.5	28-34	N/C
12650	13801	WBM	13 - 14	50-70	15
12005	TD	OBM	10-10.5	28-34	N/C

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, 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
X	Coring? If yes, explain Rotary Side Wall Cores will be taken in the intermediate. Whole Core will be taken in the Pilot Hole.

Additional logs planned		Interval
X	Resistivity	Intermediate & Pilot Hole
X	Density	Intermediate & Pilot Hole
X	CBL	Production casing
X	Mud log	Intermediate Shoe to TD

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	6879 psi
Abnormal Temperature	No

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

Hydrogen Sulfide (H ₂ S) monitors will be installed prior to drilling out the surface shoe. If H ₂ S 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

Thistle Unit 181H**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 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 pad.
6. The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7. Drilling operations will be performed with the 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

☒ Directional Plan

☐ Other, describe

Thistle Unit 181H

9. Pilot Hole

Hole Size 7 7/8"	
From	To
12,650 (Pilot Begin)	13,801 (Pilot end)

- Pilot hole will be plugged back per NMOCD P&A requirements with a **cement plug**.
- Plug depths will be verified and tagged on the plug back.
- Devon will contact the NMOCD and give notice before performing any of the aforementioned procedures including the tagging of the cement plug.

PILOT HOLE ABDMNT:	
Slurry Top:	12,250
Slurry Base:	12,700
Slurry Weight:	15.6
Cement Plug Height:	450'
BP Set Depth	12,000
WHIP WINDOW	11,990-12,000

	TOC	Wt. (lb/gal)	H ₂ O (gal/sk)	Yld (ft ³ /sack)	Slurry Description
Abandonment Plug	12,250	15.6	5.24	1.18	<ul style="list-style-type: none"> • Lead: Class H Cement + Retarder – HR-601 – 0.1% BWOC • Suspension Agent – SA-1015 – 0.05% BWOC • Fluid Loss Additive – Halad-322 – 0.5% BWOC

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CONDITIONS

Action 13186

CONDITIONS OF APPROVAL

Operator:	DEVON ENERGY PRODUCTION COMPAN	333 West Sheridan Ave.	Oklahoma City, OK73102	OGRID:	6137	Action Number:	13186	Action Type:	C-103A
OCD Reviewer	Condition								
pkautz	None								