

Well Name: TODD 36-25 STATE FED COM	Well Location: T23S / R31E / SEC 36 / SWSE / 32.254163 / -103.729371	County or Parish/State: EDDY / NM
Well Number: 627H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM0544986	Unit or CA Name:	Unit or CA Number:
US Well Number: 3001548064	Well Status: Drilling Well	Operator: DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2647978

Type of Submission: Notice of Intent

Type of Action: Other

Date Sundry Submitted: 12/09/2021

Time Sundry Submitted: 06:59

Date proposed operation will begin: 12/09/2021

Procedure Description: Devon Energy Production Company, L.P. respectfully requests approval for optional surface casing/drilling plan of 10-3/4" surface casing inside of 12-1/4" surface hole at previously permitted set depths. Devon Energy Production Company, L.P. will circulate class C cement to surface behind the 10-3/4" casing. Please see attachments.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Pipe_Body_and_API_Connections_Performance_Data_10.7500_40.5000_0.3500__H40_20211209065925.pdf

Todd_36_25_State_Fed_Com_627H_Permit_Plan_1_20211209065925.pdf

Well Name: TODD 36-25 STATE FED COM

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Well Status: Drilling Well

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Additional Reviews

36_23_31_O_ATS_20_2730_Todd_36_25_State_Fed_Com_627H_Eddy_NM0544986_Devon_Energy_Production_Co_mpany_LP_13_22b_8_28_2020_LV_20211214074035.pdf

Operator Certification

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 submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: JENNY HARMS

Signed on: DEC 09, 2021 06:59 AM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Compliance Professional

Street Address: 333 West Sheridan Avenue

City: Oklahoma City **State:** OK

Phone: (405) 552-6560

Email address: jennifer.harms@dvn.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

BLM Point of Contact

BLM POC Name: Cody Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Phone: 5752345959

BLM POC Email Address: clayton@blm.gov

Disposition: Approved

Disposition Date: 12/20/2021

Signature: Cody R. Layton

36-23-31-O ATS-20-2730 Todd 36-25 State Fed Com 627H Eddy NM0544986 Devon Energy Production Company LP
13-22b 8-28-2020 LV

Todd 36-25 State Fed Com 627H

10 3/4	surface csg in a		12 1/4	inch hole.		Design Factors				Surface		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	40.50	h 40	btc	13.31	3.51	0.37	848	6	0.62	6.62	34,344	
"B"			btc				0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,226							Tail Cmt	does not	circ to sfc.	Totals:	848	34,344
Comparison of Proposed to Minimum Required Cement Volumes												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
12 1/4	0.1882	652	939	160	488	9.00	3676	5M			0.75	
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK. Site plot (pipe racks 5 or 6) as per O.D. 1311.D-4.1 not found.												

8 5/8	casing inside the		10 3/4			Design Factors				Int 1		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	32.00	p 110	tlw	2.98	0.69	1.38	11,294	1	2.31	1.15	361,408	
"B"							0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	11,294			361,408	
The cement volume(s) are intended to achieve a top of							0	ft from surface or a	848		overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
9 7/8	0.1261	912	2131	1441	48	10.50	3863	5M			0.44	
Class 'H' tail cmt yld > 1.20												

5 1/2	casing inside the		8 5/8			Design Factors				Prod 1		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	17.00	p 110	btc	2.71	1.16	1.64	22,112	2	2.75	1.94	375,904	
"B"							0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,611							Totals:	22,112			375,904	
The cement volume(s) are intended to achieve a top of							10794	ft from surface or a	500		overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
7 7/8	0.1733	1548	2390	1963	22	10.50					0.91	
Class 'C' tail cmt yld > 1.35												

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	#/N/A			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		overlap.	
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
0		#/N/A	#/N/A	0	#/N/A							
#/N/A Capitan Reef est top XXXX.												



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

11/4/2021 10:14:32 AM

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

UNCONTROLLED

Notes

Legal Notice

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

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Todd 36-25 State Fed Com 627H

1. Geologic Formations

TVD of target	11870	Pilot hole depth	N/A
MD at TD:	22112	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	823		
Top of Salt	1165		
Base of Salt	4217		
Delaware	4483		
1BSSS	9399		
Bone Spring 2nd	9997		
Bone Spring 3rd	11294		
Wolfcamp	11759		

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

Todd 36-25 State Fed Com 627H

2. Casing Program (Primary Design)

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
12 1/4	0	848 TVD	10 3/4	40.5	H40	BTC	1.125	1.25	1.6
9 7/8	0	11294 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 Factor							1.125	1	1.6 Dry 1.8 Wet

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

Casing Program (Alternative Design)

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
12 1/4	0	848 TVD	10 3/4	40.5	H40	BTC	1.125	1.25	1.6
9 7/8	0	11294 TVD	8 5/8	32.0	P110	TLW	1.125	1.25	1.6
7 7/8	0	TD	5 1/2	17.0	P110	BTC	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

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

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	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?	
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	
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?	
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	
If yes, are there three strings cemented to surface?	N

Todd 36-25 State Fed Com 627H

3. Cementing Program (Primary Design)

Casing	# Skis	TOC	Wt. (lb/gal)	Yld (ft ³ /sack)	Slurry Description
Surface	190	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	611	Surf	9	3.27	Lead: Class C Cement + additives
	783	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1 Two Stage w/ DV @ TVD of Delaware	886	Surf	9	3.27	1st stage Lead: Class C Cement + additives
	93	500' above shoe	13.2	1.44	1st stage Tail: Class H / C + additives
	318	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 Intermediate Squeeze	As Needed	Surf	9	1.44	Squeeze Lead: Class C Cement + additives
	611	Surf	9	3.27	Lead: Class C Cement + additives
	783	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Production	62	9298	9.0	3.3	Lead: Class H / C + additives
	690	11298	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%

Todd 36-25 State Fed Com 627H

3. Cementing Program (Alternative Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft ³ /sack)	Slurry Description
Surface	190	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	361	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1 Two Stage w DV @ ~4500	520	Surf	9	3.27	1st stage Lead: Class C Cement + additives
	55	500' above shoe	13.2	1.44	1st stage Tail: Class H / C + additives
	189	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 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	361	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1 (10.625" Hole Size)	576	Surf	9	3.27	Lead: Class C Cement + additives
	768	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Production	117	9298	9.0	3.3	Lead: Class H / C + additives
	1431	11298	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%

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"	5M	Annular (5M)	X	50% of rated working pressure
			Blind Ram	X	5M
			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				

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
	Density
X	CBL
X	Mud log
	PEX

7. Drilling Conditions

Condition	Specify what type and where?
BH pressure at deepest TVD	6481
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	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 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

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 1625 N. French Dr., Hobbs, NM 88240
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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

COMMENTS

Action 70184

COMMENTS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 70184
	Action Type: [C-103] NOI Change of Plans (C-103A)

COMMENTS

Created By	Comment	Comment Date
jagarcia	Approved, John Garcia, Petroleum Engineer	2/9/2022

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

CONDITIONS
 Action 70184

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 70184
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
jagarcia	Adhere to previous COAs	2/9/2022