

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

Form C-101
Revised July 18, 2013
Permit 171665

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address DEVON ENERGY PRODUCTION COMPANY, LP 333 W. Sheridan Avenue Oklahoma City, OK 73102		2. OGRID Number 6137 3. API Number 30-025-41341
4. Property Code 30884	5. Property Name THISTLE UNIT	6. Well No. 057H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	22	23S	33E	O	150	S	2150	E	LEA

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
O	27	22S	33E	O	330	S	1980	E	Lea

9. Pool Information

TRIPLE X:BONE SPRING	59900
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3689
16. Multiple N	17. Proposed Depth 16120	18. Formation 2nd Bone Spring Sand	19. Contractor	20. Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Type	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1350	1230	0
Int1	12.25	9.625	40	5150	1530	0
Prod	8.75	5.5	17	16120	1420	4650
Prod	8.75	5.5	17	10550	820	0

Casing/Cement Program: Additional Comments

13 3/8" Surface: Lead w/680 sx Cl C Cmt + 2% bwoc CaCl2 + 0.125 #/sx Poly-E-Flake + 4% bwoc Bent + 70.1% FW, 13.5 ppg, Yld 1.75 cf/sx; Tail w/550 sx Cl C Cmt + 1% bwoc CaCl2 + 0.125 #/sx Poly-E-Flake + 63.1% FW, 14.8 ppg, Yld 1.34 cf/sx. TOC @ surface. 9-5/8" Intermediate: Lead w/1100 sx(65:35) Cl C Cmt:Poz(Fly Ash): 6% BWOC Bent + 5% BWOW CaCL + 0.125 #/sx Poly-E-Flake + 70.9% FW, 12.9 ppg, Yld 1.85 cf/sx. Tail w/430 sx Cl C Cmt + 0.125 #/sx Poly-E-Flake + 63.9% FW, 14.8 ppg, 1.33 cf/sx. TOC @ surface. 5 1/2" Production: Lead #1 w/490 sx(50:50) Cl H Cmt:Poz(Fly Ash) + 10% BWOC Bent + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 #/sx D-Air 5000 + 80.01% FW, 11.5 ppg, Yld 2.57 cf/sx; Lead #2 w/330 sx(65:35) Cl H Cmt:Poz(Fly Ash) + 6% BWOC Bent + 0.25% BWOC HR-601 + 0.125 #/sx Poly-E-Flake + 74.1% FW, 12.5 ppg, Yld 1.96 cf/sk. Tail w/1420 sx (50:50) Cl H Cmt:Poz(Fly Ash) + 1 #/sx CaCL + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bent + 58.8% FW, 14.5 ppg, Yld 1.21

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	2000	2000	
DoubleRam	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> , if applicable. Signature:	OIL CONSERVATION DIVISION Approved By: Paul Kautz
Printed Name: Electronically filed by Randy Bolles	Title: Geologist
Title: Manager, Regulatory Affairs	Approved Date: 8/15/2013 Expiration Date: 8/15/2015
Email Address: randy.bolles@dmn.com	
Date: 8/14/2013 Phone: 405-228-8588	Conditions of Approval Attached

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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

Form C-102
August 1, 2011
Permit 171665

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-025-41341	2. Pool Code 59900	3. Pool Name TRIPLE X,BONE SPRING
4. Property Code 30884	5. Property Name THISTLE UNIT	6. Well No. 057H
7. OGRID No. 6137	8. Operator Name DEVON ENERGY PRODUCTION COMPANY, LP	9. Elevation 3689

10. Surface Location

UL - Lot O	Section 22	Township 23S	Range 33E	Lot Idn O	Feet From 150	N/S Line S	Feet From 2150	E/W Line E	County LEA
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11. Bottom Hole Location If Different From Surface

UL - Lot O	Section 27	Township 23S	Range 33E	Lot Idn O	Feet From 330	N/S Line S	Feet From 1980	E/W Line E	County LEA
12. Dedicated Acres 160.00		13. Joint or Infill		14. Consolidation Code			15. Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p style="text-align: center;">OPERATOR CERTIFICATION</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location(s) or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i></p> <p>E-Signed By: Randy Bolles Title: Manager, Regulatory Affairs Date: 8/14/2013</p>	<p style="text-align: center;">SURVEYOR CERTIFICATION</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i></p> <p>Surveyed By: Filimon Jaramillo Date of Survey: 7/31/2013 Certificate Number: PLS 12797</p>
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Permit Comments

Operator: DEVON ENERGY PRODUCTION COMPANY, LP , 6137

Well: THISTLE UNIT #057H

API: 30-025-41341

Created By	Comment	Comment Date
dcook	Contingency Plan For loss of Circulation - Production 1st STAGE: Lead w/580 sx(50:50) CI H Cmt:Poz (Fly Ash) + 10% BWOC Bent + 0.15% SA-1015 + 0.1% BWOC HR-601 + 0.25 #/sx D-Air 5000 + 80.01% FW, 11.5 ppg, Yld 2.57 cf/sk. Tail w/1420 sx(50:50) CI H Cmt:Poz (Fly Ash) + 1 #/sx CaCL + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bent + 58.8% FW, 14.5 ppg, Yld 1.21 cf/sk. TOC @ surface.	8/14/2013
dcook	2nd STAGE (DV tool @ 6000 ft) Lead w/130 sx(65:35) CI H Cmt:Poz (Fly Ash) + 6% BWOC Bent + 0.25% BWOC HR-601 + 0.125 #/sx Poly-E-Flake + 74.1% FW, 12.5 ppg, Yld 1.96 cf/sk; Tail w/120 sx CI C Cmt + 63.9% FW, 14.8 ppg, Yld 1.33 cf/sk. TOC @ 4650'	8/14/2013
dcook	The above cement volumes based on at least Surface 100% excess, Intermediate 75% excess and Production is 25% excess. Actual cement volumes to be adjusted based on fluid caliper and/or caliper log data.	8/14/2013
dcook	If lost circulation is encountered while drilling the production wellbore, a DV tool and ECP will be installed a minimum of 50' below the previous casing shoe and a maximum of 200' above the current shoe. If the DV tool has to be moved, the cement volumes will be adjusted proportionately.	8/14/2013
dcook	The BOP system used to drill the 17-1/2" hole will consist of a 20" 2M Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 2M system prior to drilling out the casing shoe. The BOP system used to drill the 12-1/4" and 8-3/4" holes will consist of a 13-5/8" 3M Double Ram and Annular preventer. The BOP system will be tested as per BLM Onshore Oil and Gas Order No. 2 as a 3M system prior to drilling out the casing shoe. The pipe rams will be operated and checked as per Onshore Order No 2. A 2" kill line and 3" choke line will be incorporated in	8/14/2013
dcook	to the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.	8/14/2013
dcook	Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); if an H&P rig drills this well. Otherwise no flex line is needed. The line will be kept as straight as possible with minimal turns.	8/14/2013
dcook	A Closed Loop system will be utilized. See attached plan.	8/14/2013
DMULL	S/s checked by DM	8/15/2013

Permit Conditions of Approval

Operator: DEVON ENERGY PRODUCTION COMPANY, LP , 6137

Well: THISTLE UNIT #057H

API: 30-025-41341

OCD Reviewer	Condition
DMULL	Pit construction and closure must satisfy all requirements of your approved plan, O.C.D. Rule 19.15.2.50, and the Pit and Below-Grade Tank Guidelines
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	In order to seal off protectable water, surface casing must be set 25' below top of Rustler Anhydrite