

District I
1625 N. Hobbs Blvd, Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87401
District IV
1220 S. St. Francis Dr, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
May 27, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Devon Energy Production Company, LP 20 North Broadway, Oklahoma City, Oklahoma 73102-8260		² OGRID Number 6137
		³ API Number 30 - 25-34767
⁴ Property Code 30884	⁵ Property Name Thistle Unit	⁶ Well No 6
⁹ Proposed Pool 1 Johnson Ranch Wolfcamp		¹⁰ Proposed Pool 2 Wolfcamp

⁷ Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	34	23S	33E		660	South	1560	East	Lea

⁸ Proposed Bottom Hole Location If Different From Surface

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	23S	33E		660	North	2300	East	Lea

Additional Well Information

¹¹ Work Type Code P	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3648' GL
¹⁶ Multiple	¹⁷ Proposed Depth 17167' MD 13500' TVD	¹⁸ Formation Wolfcamp	¹⁹ Contractor	²⁰ Spud Date
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
²¹ Proposed Casing and Cement Program				

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	61#	585'	600	Surface
12 1/4"	9 5/8"	40#	5053'	1300	Surface
8 3/4"	7"	26#	12629'	1300	7050'
6 1/8"	4 1/2"	13 5#	13773'	175	12401'
6 1/8"	4 1/2"	13#	13500 TVD/17167	Peak system	

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Devon Energy Production Company, L.P. requests approval to Plugback and sidetrack the Wolfcamp as follows:

RIH and set CIBP at ~ 12,210'. Run and set whipstock at ~12,200'. Cut a 6 1/8" window in the 7" casing. Drill to 13,500' and drill lateral to TD. Run 4 1/2", 13#, P110, BT&C with Peak Completion System. Peak packers and ports will be used rather than cementing the 4 1/2" casing. Evaluate well for stimulation.

Permit Expires 2 Years From Approval
Date Unless Drilling Underway

OIL CONSERVATION DIVISION

Approved by

Title

PETROLEUM ENGINEER

Approval Date

NOV 17 2008

Expiration Date

Conditions of Approval Attached ☐

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD approved plan ☐.

Printed name: Norvella Adams

Title: Sr Staff Eng Tech

E-mail Address: norvella.adams@devon.com

Date: October 22, 2008

Phone: 405-552-8198

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: THISTLE UNIT 6		Field: JOHNSON RANCH	
Location: 660' FSL & 1560' FEL; SEC 34-T23S-R33E		County: LEA	State: NM
Elevation. 3666' KB; 3648' GL		Spud Date: 2/21/00	Compl Date: 5/6/00
API# 30-025-34767	Prepared by: Ronnie Slack	Date: 7/23/08	Rev:

17-1/2" Hole
13-3/8", 61#, J55, STC, @ 585'
 Cemented w/600 Sx

12-1/4" Hole
9-5/8", 40#, S95 & J55, @ 5053'
 Cemented w/1300 Sx

TOC @ 7,050' (temp survey)

4-1/2" Liner Top @ 12,401'

8-3/4" Hole
7", 26#, P110, LTC, @ 12,629'
 Cemented w/1300 Sx

2-3/8" Production Tubing

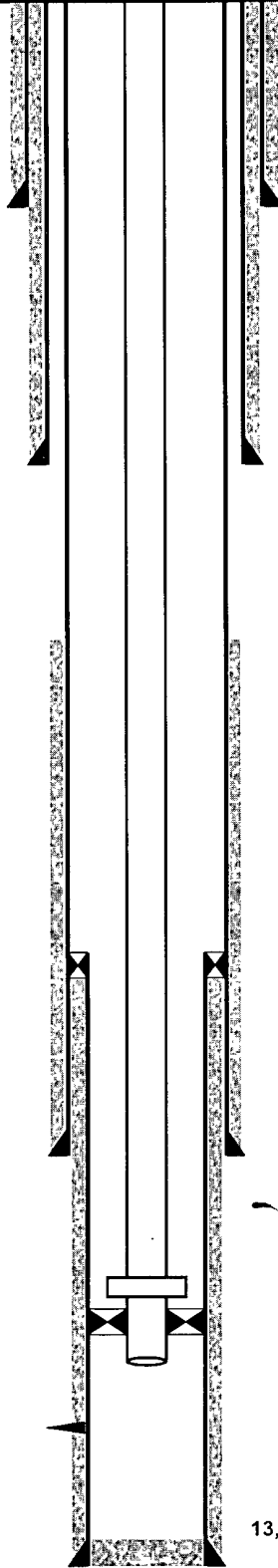
Packer @ 12,999'

WOLFCAMP
 13,445' - 13,583'

6-1/8" Hole
4-1/2", 13.5#, P110, @ 13,773'
 Cemented w/175 Sx CI H

13,723' PBTD

13,775' TD



Devon Energy

Location: Lea County, NM
Field: (Thistle) Johnson Ranch
Facility: Thistle Unit 6 No. 1H

Slot: No. 1H
Well: No. 1H
Wellbore: No. 1H ST01 PWB

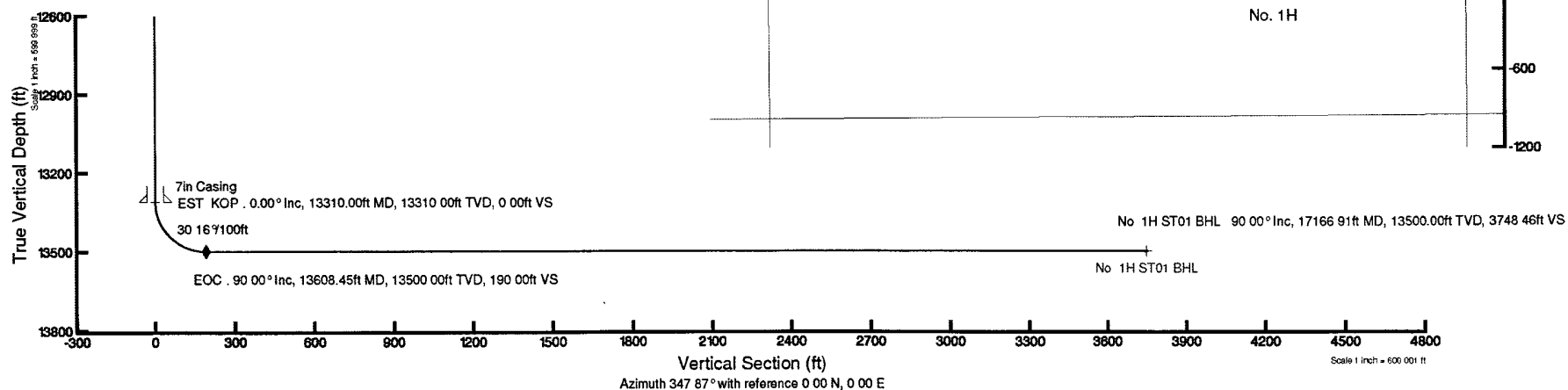


Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0 00	0 000	347.872	0 00	0 00	0 00	0 00	0 00
EST KOP	13310 00	0 000	347.872	13310.00	0 00	0 00	0 00	0 00
EOC	13608.45	90 000	347.872	13500.00	185 76	-39.92	-30 16	190 00
No. 1H ST01 BHI	17166.91	90 000	347.872	13500.00	3664.79	-787.55	0 00	3748.46



BGGM (1945.0 to 2009.0) Dip: 60.29° Field: 48929 nT
 Magnetic North is 95 degrees East of True North (at 9/18/2008)
 Grid North is 0.41 degrees East of True North
 To correct azimuth from True to Grid subtract 0.41 degrees
 To correct azimuth from Magnetic to Grid add 7.54 degrees
 For example, if the Magnetic North Azimuth = 90 degrees, then the Grid North Azimuth = $90 + 7.54 = 97.54$

Plot reference filepath is Plan #1	
True vertical depths are referenced to Rig on No. 1H (RT)	Grid System: NAD27 / TM New Mexico State Plane, Eastern Zone (5001), US feet
Measured depths are referenced to Rig on No. 1H (RT)	North Reference: Grid north
Rig on No. 1H (RT) to Mean Sea Level: 3698 feet	Scale: True distance
Mean Sea Level to Mud line (Facility Thistle Unit 6 No. 1H): -3648 feet	Depths are in feet
Coordinates are in feet, referenced to Star	Created by: Victor Hernandez on 9/18/2008





Planned Wellpath Report

Plan #1
Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No. 1H
Area	Lea County, NM	Well	No. 1H
Field	(Thistle) Johnson Ranch	Wellbore	No. 1H ST01 PWB
Facility	Thistle Unit 6 No. 1H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999975	Report Generated	9/18/2008 at 11:51:28 AM
Convergence at slot	0.41° East	Database/Source file	WA_Midland/No. 1H_ST01_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	740265.13	457862.11	32°15'23.000"N	103°33'22.000"W
Facility Reference Pt			740265.13	457862.11	32°15'23.000"N	103°33'22.000"W
Field Reference Pt			740265.13	457862.11	32°15'23.000"N	103°33'22.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 1H (RT) to Facility Vertical Datum	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 1H (RT) to Mean Sea Level	3666.00ft
Vertical Reference Pt	Rig on No. 1H (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 1H (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	347.87°



Planned Wellpath Report

Plan #1
Page 2 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	Devon Energy	Slot	No. 1H
Area	Lea County, NM	Well	No. 1H
Field	(Thistle) Johnson Ranch	Wellbore	No. 1H ST01 PWB
Facility	Thistle Unit 6 No. 1H		

WELLPATH DATA (42 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	DLS [°/100ft]	Comments
0.00	0.000	347.872	0.00	0.00	0.00	0.00	740265.12	457862.11	0.00	Tie On
13310.00	0.000	347.872	13310.00	0.00	0.00	0.00	740265.12	457862.11	0.00	EST. KOP
13410.00†	30.156	347.872	13405.45	25.71	25.14	-5.40	740259.72	457887.25	30.16	
13510.00†	60.311	347.872	13475.06	95.90	93.76	-20.15	740244.98	457955.86	30.16	
13608.45†	90.000	347.872	13500.00	190.00	185.76	-39.92	740225.21	458047.86	30.16	EOC
13610.00†	90.000	347.872	13500.00	191.55	187.27	-40.24	740224.88	458049.38	0.00	
13710.00†	90.000	347.872	13500.00	291.55	285.04	-61.25	740203.87	458147.14	0.00	
13810.00†	90.000	347.872	13500.00	391.55	382.81	-82.26	740182.86	458244.91	0.00	
13910.00†	90.000	347.872	13500.00	491.55	480.58	-103.27	740161.85	458342.67	0.00	
14010.00†	90.000	347.872	13500.00	591.55	578.35	-124.28	740140.84	458440.44	0.00	
14110.00†	90.000	347.872	13500.00	691.55	676.11	-145.29	740119.84	458538.20	0.00	
14210.00†	90.000	347.872	13500.00	791.55	773.88	-166.30	740098.83	458635.97	0.00	
14310.00†	90.000	347.872	13500.00	891.55	871.65	-187.31	740077.82	458733.73	0.00	
14410.00†	90.000	347.872	13500.00	991.55	969.42	-208.32	740056.81	458831.50	0.00	
14510.00†	90.000	347.872	13500.00	1091.55	1067.19	-229.33	740035.80	458929.26	0.00	
14610.00†	90.000	347.872	13500.00	1191.55	1164.95	-250.34	740014.79	459027.03	0.00	
14710.00†	90.000	347.872	13500.00	1291.55	1262.72	-271.35	739993.78	459124.80	0.00	
14810.00†	90.000	347.872	13500.00	1391.55	1360.49	-292.36	739972.77	459222.56	0.00	
14910.00†	90.000	347.872	13500.00	1491.55	1458.26	-313.37	739951.76	459320.33	0.00	
15010.00†	90.000	347.872	13500.00	1591.55	1556.03	-334.38	739930.75	459418.09	0.00	
15110.00†	90.000	347.872	13500.00	1691.55	1653.79	-355.39	739909.74	459515.86	0.00	
15210.00†	90.000	347.872	13500.00	1791.55	1751.56	-376.40	739888.73	459613.62	0.00	
15310.00†	90.000	347.872	13500.00	1891.55	1849.33	-397.41	739867.72	459711.39	0.00	
15410.00†	90.000	347.872	13500.00	1991.55	1947.10	-418.42	739846.71	459809.15	0.00	
15510.00†	90.000	347.872	13500.00	2091.55	2044.87	-439.43	739825.70	459906.92	0.00	
15610.00†	90.000	347.872	13500.00	2191.55	2142.63	-460.44	739804.70	460004.68	0.00	
15710.00†	90.000	347.872	13500.00	2291.55	2240.40	-481.45	739783.69	460102.45	0.00	
15810.00†	90.000	347.872	13500.00	2391.55	2338.17	-502.46	739762.68	460200.21	0.00	
15910.00†	90.000	347.872	13500.00	2491.55	2435.94	-523.47	739741.67	460297.98	0.00	
16010.00†	90.000	347.872	13500.00	2591.55	2533.71	-544.48	739720.66	460395.75	0.00	



Planned Wellpath Report

Plan #1
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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No. 1H
Area	Lea County, NM	Well	No. 1H
Field	(Thistle) Johnson Ranch	Wellbore	No. 1H ST01 PWB
Facility	Thistle Unit 6 No. 1H		

WELLPATH DATA (42 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	DLS [°/100ft]	Comments
16110.00†	90.000	347.872	13500.00	2691.55	2631.47	-565.49	739699.65	460493.51	0.00	
16210.00†	90.000	347.872	13500.00	2791.55	2729.24	-586.50	739678.64	460591.28	0.00	
16310.00†	90.000	347.872	13500.00	2891.55	2827.01	-607.51	739657.63	460689.04	0.00	
16410.00†	90.000	347.872	13500.00	2991.55	2924.78	-628.52	739636.62	460786.81	0.00	
16510.00†	90.000	347.872	13500.00	3091.55	3022.55	-649.53	739615.61	460884.57	0.00	
16610.00†	90.000	347.872	13500.00	3191.55	3120.31	-670.54	739594.60	460982.34	0.00	
16710.00†	90.000	347.872	13500.00	3291.55	3218.08	-691.55	739573.59	461080.10	0.00	
16810.00†	90.000	347.872	13500.00	3391.55	3315.85	-712.56	739552.58	461177.87	0.00	
16910.00†	90.000	347.872	13500.00	3491.55	3413.62	-733.57	739531.57	461275.63	0.00	
17010.00†	90.000	347.872	13500.00	3591.55	3511.39	-754.58	739510.56	461373.40	0.00	
17110.00†	90.000	347.872	13500.00	3691.55	3609.15	-775.59	739489.56	461471.17	0.00	
17166.91	90.000	347.872								



Planned Wellpath Report

Plan #1
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REFERENCE WELLPATH IDENTIFICATION			
Operator	Devon Energy	Slot	No. 1H
Area	Lea County, NM	Well	No. 1H
Field	(Thistle) Johnson Ranch	Wellbore	No. 1H ST01 PWB
Facility	Thistle Unit 6 No. 1H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H ST01 BHL	17166.91	13500.00	3664.79	787.55	739477.60	461526.80	32°15'59.320"N	103°33'30.862"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H ST01 PWB Ref Wellpath: Plan #1				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	17166.91	NaviTrak (Standard)		No. 1H ST01 PWB

• **District I**
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-10
Revised October 12, 200
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-34767	² Pool Code 79335	³ Pool Name Johnson Ranch, (Wolfcamp)
⁴ Property Code 16629	⁵ Property Name Thistle Unit	⁶ Well Number 6
⁷ OGRID No. 6137	⁸ Operator Name Devon Energy Production Company, LP	⁹ Elevation 3648'

¹⁰ Surface Location

UL or lot no. O	Section 34	Township 23S	Range 33E	Lot Idn.	Feet from the 660	North/South line South	Feet from the 1580	East/West line East	County Lea
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. B	Section 34	Township 23S	Range 33E	Lot Id	Feet from the 660	North/South line North	Feet from the 2300	East/West line East	County Lea
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¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

¹⁶ 660' ↓ 2300' → 660' ↑ 1580' →	¹⁷ OPERATOR CERTIFICATION 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 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. 10/22/08 Signature _____ Date Norvella Adams// Printed Name ¹⁸ SURVEYOR CERTIFICATION 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 October 25, 1999 Date of Survey _____ Signature and Seal of Professional Surveyor _____ See original Certificate Number _____
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