

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) 748-8720

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) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☒ AMENDED REPORT
AS-DRILLED

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-45940	Pool Code 98236	Pool Name WC-015 G-08 S233135D; WOLFCAMP
Property Code 3522	Property Name TODD 36 STATE	Well Number 715H
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	Elevation 3517.1'

Surface Location

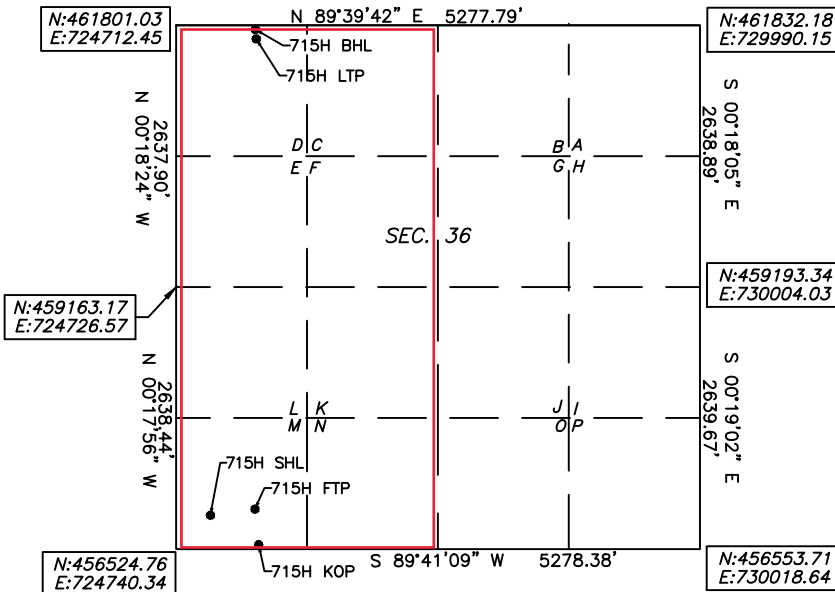
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	36	23-S	31-E		180	SOUTH	425	WEST	EDDY

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
D	36	23-S	31-E		11	NORTH	800	WEST	EDDY
Dedicated Acres 320	Joint or Infill	Consolidation Code	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

<u>TODD 36 STATE 715H</u> ELEV: 3517.1' LAT: 32.254164 LONG: 103.738679 N: 456707.09 E: 725164.40	<u>KICK OFF POINT</u> 12' FSL 800' FWL LAT: 32.253701 LON: 103.737465 N: 456540.82 E: 725540.54	<u>FIRST TAKE POINT</u> 395' FSL 770' FWL LAT: 32.254754 LON: 103.737563 N: 456923.76 E: 725508.30	<u>LAST TAKE POINT</u> 143' FNL 808' FWL LAT: 32.267780 LON: 103.737437 N: 461662.59 E: 725520.82	<u>BOTTOM OF HOLE</u> LAT: 32.268144 LON: 103.737461 N: 461795.15 E: 725512.59
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Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jenny Harms 5-6-2020
Signature Date
JENNY HARMS
Printed Name
JENNY.HARMS@DVN.COM
E-mail Address

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.

3/2019

Date of Survey

Signature & Seal of Professional Surveyor



Certificate No. 22404 B.L. LAMAN
DRAWN BY: CMAAS 04/14/2020

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number



Final MWD Survey Certification

Lea County, New Mexico

Client: Devon Energy

Well Name: Todd 36 State 715H

Total Job No: 2019-612-126

API No: 30-015-45940

Start Date: 08/26/2019

End Date: 10/14/2019

Measured Start Depth: 0 feet

Measured End Depth: 17,063 feet

Vertical Section from well center at TD: 5,051.45 feet (5,099.87 @ PTB)

I, Robert Brewer, certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 14/Oct/2019

Signed: 



Devon Energy

Eddy County, NM (NAD83)

Todd 36 State

Todd 36 State 715H

OH

Design: OH

Standard Survey Report

21 October, 2019



Company:	Devon Energy	Local Co-ordinate Reference:	Well Todd 36 State 715H
Project:	Eddy County, NM (NAD83)	TVD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Site:	Todd 36 State	MD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Project	Eddy County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Todd 36 State			
Site Position:		Northing:	456,707.26 usft	Latitude:	32.254164
From:	Map	Easting:	725,194.39 usft	Longitude:	-103.738582
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.32 °

Well		Todd 36 State 715H				
Well Position	+N/-S	0.00 usft	Northing:	456,707.09 usft	Latitude:	32.254164
	+E/-W	0.00 usft	Easting:	725,164.40 usft	Longitude:	-103.738679
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,517.10 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/24/2019	6.81	60.04	47,721.76244859

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	3.91	

Survey Program	Date	10/21/2019			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
117.00	17,014.00	Survey #1 (OH)	OWSG (Rev2) MWD	OWSG MWD - Standard	
17,063.00	17,063.00	Survey #2 (OH)	BLIND	OWSG BLIND	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
SHL (Todd 36 State 715H)										
117.00	0.60	95.00	117.00	-0.05	0.61	-0.01	0.51	0.51	0.00	
178.00	0.80	97.10	177.99	-0.13	1.35	-0.04	0.33	0.33	3.44	
269.00	0.80	99.20	268.98	-0.31	2.61	-0.14	0.03	0.00	2.31	
359.00	0.80	103.30	358.98	-0.56	3.84	-0.30	0.06	0.00	4.56	
451.00	0.80	103.90	450.97	-0.86	5.09	-0.51	0.01	0.00	0.65	
542.00	0.70	107.30	541.96	-1.18	6.24	-0.75	0.12	-0.11	3.74	
634.00	0.80	119.10	633.95	-1.66	7.33	-1.15	0.20	0.11	12.83	
724.00	0.70	119.60	723.94	-2.24	8.36	-1.66	0.11	-0.11	0.56	



Total Directional Services

Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Todd 36 State 715H
Project:	Eddy County, NM (NAD83)	TVD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Site:	Todd 36 State	MD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
783.00	0.70	125.80	782.94	-2.62	8.97	-2.01	0.13	0.00	10.51
865.00	0.70	139.70	864.93	-3.30	9.70	-2.63	0.21	0.00	16.95
956.00	0.50	135.00	955.93	-4.00	10.34	-3.29	0.23	-0.22	-5.16
1,047.00	0.40	128.10	1,046.93	-4.48	10.87	-3.73	0.12	-0.11	-7.58
1,139.00	0.40	118.60	1,138.92	-4.83	11.40	-4.04	0.07	0.00	-10.33
1,231.00	0.40	110.70	1,230.92	-5.10	11.98	-4.27	0.06	0.00	-8.59
1,321.00	0.40	115.60	1,320.92	-5.35	12.56	-4.48	0.04	0.00	5.44
1,414.00	0.60	124.20	1,413.91	-5.76	13.26	-4.84	0.23	0.22	9.25
1,506.00	0.80	117.00	1,505.91	-6.32	14.23	-5.34	0.24	0.22	-7.83
1,598.00	0.90	113.00	1,597.90	-6.90	15.47	-5.82	0.13	0.11	-4.35
1,689.00	0.90	103.10	1,688.89	-7.34	16.82	-6.17	0.17	0.00	-10.88
1,783.00	0.80	86.00	1,782.88	-7.46	18.19	-6.20	0.29	-0.11	-18.19
1,877.00	0.80	78.00	1,876.87	-7.28	19.49	-5.93	0.12	0.00	-8.51
1,971.00	0.80	67.80	1,970.86	-6.89	20.74	-5.46	0.15	0.00	-10.85
2,065.00	0.80	62.10	2,064.85	-6.34	21.93	-4.83	0.08	0.00	-6.06
2,159.00	0.80	50.60	2,158.84	-5.61	23.01	-4.03	0.17	0.00	-12.23
2,253.00	0.80	50.80	2,252.83	-4.78	24.03	-3.13	0.00	0.00	0.21
2,347.00	0.80	40.40	2,346.82	-3.87	24.96	-2.16	0.15	0.00	-11.06
2,441.00	0.80	41.50	2,440.81	-2.88	25.82	-1.11	0.02	0.00	1.17
2,535.00	1.80	69.80	2,534.79	-1.88	27.64	0.02	1.23	1.06	30.11
2,629.00	3.80	82.10	2,628.67	-0.94	32.11	1.26	2.21	2.13	13.09
2,723.00	5.90	85.80	2,722.33	-0.16	40.02	2.58	2.26	2.23	3.94
2,817.00	7.20	93.70	2,815.72	-0.18	50.72	3.28	1.68	1.38	8.40
2,911.00	7.40	95.50	2,908.95	-1.14	62.62	3.14	0.32	0.21	1.91
3,005.00	7.60	99.20	3,002.15	-2.72	74.78	2.40	0.56	0.21	3.94
3,099.00	8.00	112.70	3,095.29	-6.24	86.95	-0.28	1.99	0.43	14.36
3,193.00	7.60	118.90	3,188.42	-11.76	98.43	-5.02	0.99	-0.43	6.60
3,286.00	7.00	119.00	3,280.67	-17.48	108.77	-10.02	0.65	-0.65	0.11
3,381.00	6.10	119.10	3,375.05	-22.74	118.24	-14.62	0.95	-0.95	0.11
3,475.00	6.00	108.30	3,468.52	-26.72	127.27	-17.96	1.21	-0.11	-11.49
3,569.00	6.30	105.10	3,561.98	-29.60	136.92	-20.19	0.48	0.32	-3.40
3,663.00	6.70	112.10	3,655.38	-33.01	146.98	-22.90	0.94	0.43	7.45
3,758.00	6.60	116.70	3,749.74	-37.55	156.99	-26.74	0.57	-0.11	4.84
3,852.00	6.80	122.80	3,843.10	-42.99	166.49	-31.52	0.79	0.21	6.49
3,946.00	6.70	124.40	3,936.45	-49.10	175.70	-36.99	0.23	-0.11	1.70
4,040.00	5.90	129.30	4,029.88	-55.26	183.96	-42.57	1.02	-0.85	5.21
4,134.00	6.30	125.90	4,123.35	-61.34	191.88	-48.10	0.57	0.43	-3.62
4,228.00	7.00	115.10	4,216.72	-66.80	201.24	-52.90	1.52	0.74	-11.49
4,322.00	7.60	111.30	4,309.96	-71.49	212.22	-56.83	0.82	0.64	-4.04
4,415.00	6.60	112.80	4,402.25	-75.79	222.88	-60.40	1.09	-1.08	1.61
4,510.00	5.80	105.10	4,496.69	-79.16	232.54	-63.10	1.21	-0.84	-8.11
4,604.00	5.60	100.20	4,590.23	-81.21	241.64	-64.52	0.56	-0.21	-5.21
4,698.00	5.90	104.20	4,683.75	-83.20	250.84	-65.88	0.53	0.32	4.26

Company:	Devon Energy	Local Co-ordinate Reference:	Well Todd 36 State 715H
Project:	Eddy County, NM (NAD83)	TVD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Site:	Todd 36 State	MD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,792.00	5.90	108.40	4,777.26	-85.91	260.11	-67.96	0.46	0.00	4.47	
4,886.00	5.40	109.60	4,870.80	-88.92	268.86	-70.36	0.55	-0.53	1.28	
4,980.00	5.10	111.30	4,964.40	-91.92	276.92	-72.80	0.36	-0.32	1.81	
5,074.00	4.70	112.10	5,058.06	-94.89	284.38	-75.25	0.43	-0.43	0.85	
5,168.00	5.10	103.80	5,151.72	-97.34	292.01	-77.17	0.86	0.43	-8.83	
5,262.00	6.80	102.60	5,245.21	-99.55	301.50	-78.73	1.81	1.81	-1.28	
5,356.00	7.20	106.30	5,338.51	-102.42	312.58	-80.84	0.64	0.43	3.94	
5,451.00	6.30	107.70	5,432.85	-105.67	323.26	-83.35	0.96	-0.95	1.47	
5,545.00	5.70	107.20	5,526.33	-108.62	332.63	-85.66	0.64	-0.64	-0.53	
5,639.00	5.00	107.80	5,619.92	-111.25	340.99	-87.71	0.75	-0.74	0.64	
5,733.00	4.70	108.40	5,713.59	-113.72	348.55	-89.66	0.32	-0.32	0.64	
5,827.00	4.20	110.20	5,807.30	-116.12	355.43	-91.59	0.55	-0.53	1.91	
5,921.00	3.90	111.90	5,901.07	-118.50	361.63	-93.54	0.34	-0.32	1.81	
6,015.00	3.70	114.20	5,994.86	-120.94	367.36	-95.58	0.27	-0.21	2.45	
6,109.00	3.30	117.60	6,088.69	-123.44	372.53	-97.72	0.48	-0.43	3.62	
6,204.00	2.80	119.00	6,183.55	-125.83	376.98	-99.80	0.53	-0.53	1.47	
6,298.00	2.60	121.60	6,277.45	-128.06	380.80	-101.76	0.25	-0.21	2.77	
6,392.00	2.50	124.70	6,371.35	-130.34	384.30	-103.80	0.18	-0.11	3.30	
6,485.00	2.50	125.00	6,464.27	-132.66	387.63	-105.89	0.01	0.00	0.32	
6,580.00	2.10	126.70	6,559.19	-134.89	390.73	-107.90	0.43	-0.42	1.79	
6,674.00	1.00	124.60	6,653.15	-136.39	392.78	-109.25	1.17	-1.17	-2.23	
6,768.00	0.50	140.70	6,747.14	-137.17	393.72	-109.97	0.57	-0.53	17.13	
6,862.00	0.80	165.00	6,841.14	-138.12	394.15	-110.89	0.43	0.32	25.85	
6,957.00	1.50	184.60	6,936.12	-140.00	394.22	-112.76	0.83	0.74	20.63	
7,051.00	1.40	183.80	7,030.09	-142.37	394.04	-115.14	0.11	-0.11	-0.85	
7,145.00	0.40	163.80	7,124.08	-143.83	394.06	-116.59	1.10	-1.06	-21.28	
7,239.00	0.30	134.30	7,218.07	-144.32	394.33	-117.06	0.22	-0.11	-31.38	
7,333.00	0.30	142.30	7,312.07	-144.69	394.65	-117.40	0.04	0.00	8.51	
7,428.00	0.50	133.10	7,407.07	-145.17	395.11	-117.85	0.22	0.21	-9.68	
7,523.00	0.50	122.90	7,502.07	-145.67	395.76	-118.32	0.09	0.00	-10.74	
7,617.00	0.50	121.40	7,596.06	-146.11	396.45	-118.70	0.01	0.00	-1.60	
7,711.00	0.40	115.60	7,690.06	-146.47	397.10	-119.01	0.12	-0.11	-6.17	
7,805.00	0.40	137.10	7,784.06	-146.85	397.62	-119.36	0.16	0.00	22.87	
7,899.00	0.40	107.10	7,878.06	-147.19	398.15	-119.66	0.22	0.00	-31.91	
7,993.00	0.30	103.00	7,972.06	-147.34	398.71	-119.77	0.11	-0.11	-4.36	
8,087.00	0.10	123.90	8,066.05	-147.44	399.02	-119.85	0.22	-0.21	22.23	
8,181.00	0.30	198.90	8,160.05	-147.72	399.00	-120.13	0.31	0.21	79.79	
8,275.00	0.40	268.90	8,254.05	-147.96	398.60	-120.40	0.44	0.11	74.47	
8,369.00	0.50	326.60	8,348.05	-147.62	398.04	-120.10	0.47	0.11	61.38	
8,463.00	0.80	322.20	8,442.04	-146.76	397.41	-119.28	0.32	0.32	-4.68	
8,557.00	0.60	317.60	8,536.04	-145.88	396.68	-118.45	0.22	-0.21	-4.89	
8,651.00	0.60	280.20	8,630.03	-145.43	395.86	-118.06	0.41	0.00	-39.79	
8,745.00	0.90	253.40	8,724.02	-145.55	394.67	-118.27	0.48	0.32	-28.51	

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Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,839.00	1.00	252.70	8,818.01	-146.01	393.18	-118.82	0.11	0.11	-0.74	
8,934.00	1.00	253.70	8,913.00	-146.48	391.59	-119.41	0.02	0.00	1.05	
9,028.00	1.00	249.90	9,006.98	-147.00	390.04	-120.02	0.07	0.00	-4.04	
9,122.00	1.10	232.50	9,100.97	-147.83	388.55	-120.96	0.35	0.11	-18.51	
9,217.00	1.20	220.70	9,195.95	-149.14	387.18	-122.36	0.27	0.11	-12.42	
9,310.00	1.30	210.60	9,288.93	-150.78	386.01	-124.08	0.26	0.11	-10.86	
9,404.00	1.80	198.20	9,382.89	-153.10	385.00	-126.46	0.64	0.53	-13.19	
9,498.00	1.20	207.00	9,476.86	-155.38	384.10	-128.80	0.68	-0.64	9.36	
9,592.00	0.70	218.80	9,570.85	-156.71	383.29	-130.17	0.57	-0.53	12.55	
9,686.00	0.80	224.60	9,664.84	-157.62	382.47	-131.14	0.13	0.11	6.17	
9,780.00	1.00	209.60	9,758.83	-158.80	381.60	-132.38	0.33	0.21	-15.96	
9,875.00	1.40	223.70	9,853.81	-160.36	380.39	-134.02	0.52	0.42	14.84	
9,969.00	1.10	247.20	9,947.78	-161.54	378.77	-135.31	0.63	-0.32	25.00	
10,063.00	1.30	239.10	10,041.76	-162.44	377.02	-136.32	0.28	0.21	-8.62	
10,157.00	0.80	234.70	10,135.75	-163.37	375.57	-137.34	0.54	-0.53	-4.68	
10,251.00	0.60	230.70	10,229.74	-164.06	374.65	-138.10	0.22	-0.21	-4.26	
10,345.00	0.40	165.10	10,323.74	-164.69	374.36	-138.74	0.60	-0.21	-69.79	
10,438.00	0.60	144.80	10,416.73	-165.40	374.72	-139.43	0.28	0.22	-21.83	
10,532.00	0.90	150.40	10,510.73	-166.44	375.37	-140.43	0.33	0.32	5.96	
10,626.00	1.00	141.70	10,604.71	-167.73	376.24	-141.65	0.19	0.11	-9.26	
10,721.00	1.10	141.40	10,699.70	-169.09	377.32	-142.94	0.11	0.11	-0.32	
10,815.00	1.00	150.40	10,793.68	-170.51	378.29	-144.28	0.20	-0.11	9.57	
10,909.00	0.80	136.10	10,887.67	-171.70	379.15	-145.41	0.32	-0.21	-15.21	
11,017.00	0.20	322.50	10,995.67	-172.09	379.56	-145.77	0.93	-0.56	-160.74	
11,111.00	1.30	326.50	11,089.66	-171.07	378.87	-144.80	1.17	1.17	4.26	
11,205.00	1.60	328.90	11,183.63	-169.06	377.61	-142.88	0.33	0.32	2.55	
11,300.00	1.20	333.70	11,278.60	-167.03	376.48	-140.94	0.44	-0.42	5.05	
11,379.00	1.20	337.80	11,357.58	-165.52	375.80	-139.48	0.11	0.00	5.19	
11,472.00	1.40	313.10	11,450.56	-163.84	374.60	-137.89	0.63	0.22	-26.56	
KOP										
11,567.00	5.60	326.90	11,545.36	-159.17	371.22	-133.45	4.48	4.42	14.53	
11,570.29	5.93	328.39	11,548.63	-158.89	371.05	-133.18	11.01	10.03	45.32	
KOP (Todd 36 State 715H)										
11,661.00	15.60	343.40	11,637.66	-143.17	365.09	-117.91	11.01	10.66	16.55	
11,755.00	28.10	348.20	11,724.74	-109.25	356.92	-84.63	13.42	13.30	5.11	
11,799.64	33.37	351.99	11,763.10	-86.78	353.05	-62.47	12.57	11.81	8.48	
FTP (Todd 36 State 715H)										
11,815.23	35.24	353.07	11,775.97	-78.07	351.91	-53.86	12.57	11.95	6.93	
100' FSL Crossing										
11,849.00	39.30	355.10	11,802.84	-57.74	349.82	-33.72	12.57	12.04	6.02	
11,943.00	50.00	356.70	11,869.62	8.06	345.20	31.61	11.44	11.38	1.70	
12,037.00	57.60	358.40	11,925.10	83.79	342.01	106.94	8.22	8.09	1.81	
12,131.00	66.40	2.40	11,969.20	166.68	342.71	189.69	10.08	9.36	4.26	
12,226.00	75.00	0.40	12,000.57	256.22	344.85	279.17	9.27	9.05	-2.11	



Total Directional Services

Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Well Todd 36 State 715H
Project:	Eddy County, NM (NAD83)	TVD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Site:	Todd 36 State	MD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,320.00	80.00	359.40	12,020.91	347.96	344.69	370.69	5.42	5.32	-1.06
12,414.00	90.80	2.90	12,028.44	441.49	346.59	464.12	12.07	11.49	3.72
12,508.00	91.00	1.40	12,026.97	535.41	350.11	558.06	1.61	0.21	-1.60
12,602.00	90.80	1.50	12,025.49	629.37	352.49	651.96	0.24	-0.21	0.11
12,696.00	89.90	0.60	12,024.92	723.35	354.21	745.84	1.35	-0.96	-0.96
12,790.00	90.00	0.20	12,025.00	817.34	354.87	839.67	0.44	0.11	-0.43
12,885.00	90.30	0.10	12,024.75	912.34	355.12	934.46	0.33	0.32	-0.11
12,979.00	90.90	358.80	12,023.76	1,006.33	354.22	1,028.17	1.52	0.64	-1.38
13,073.00	90.70	0.10	12,022.45	1,100.32	353.31	1,121.87	1.40	-0.21	1.38
13,167.00	90.20	358.40	12,021.71	1,194.30	352.08	1,215.55	1.89	-0.53	-1.81
13,261.00	90.90	359.90	12,020.81	1,288.28	350.69	1,309.22	1.76	0.74	1.60
13,355.00	91.10	1.70	12,019.17	1,382.26	352.00	1,403.06	1.93	0.21	1.91
13,449.00	91.50	1.10	12,017.04	1,476.20	354.30	1,496.95	0.77	0.43	-0.64
13,543.00	90.60	359.00	12,015.32	1,570.18	354.38	1,590.71	2.43	-0.96	-2.23
13,638.00	92.00	1.10	12,013.16	1,665.15	354.46	1,685.46	2.66	1.47	2.21
13,732.00	92.20	1.30	12,009.72	1,759.07	356.43	1,779.30	0.30	0.21	0.21
13,826.00	90.80	2.00	12,007.26	1,852.99	359.13	1,873.19	1.67	-1.49	0.74
13,921.00	87.70	3.00	12,008.50	1,947.88	363.28	1,968.14	3.43	-3.26	1.05
14,015.00	87.70	1.00	12,012.27	2,041.74	366.55	2,062.00	2.13	0.00	-2.13
14,109.00	87.10	0.30	12,016.54	2,135.64	367.62	2,155.75	0.98	-0.64	-0.74
14,203.00	88.50	359.20	12,020.14	2,229.56	367.21	2,249.43	1.89	1.49	-1.17
14,297.00	92.40	0.90	12,019.41	2,323.54	367.29	2,343.19	4.53	4.15	1.81
14,392.00	92.80	0.90	12,015.10	2,418.43	368.78	2,437.97	0.42	0.42	0.00
14,486.00	90.20	2.20	12,012.64	2,512.35	371.32	2,531.84	3.09	-2.77	1.38
14,580.00	90.30	1.80	12,012.23	2,606.30	374.60	2,625.79	0.44	0.11	-0.43
14,674.00	90.00	1.60	12,011.98	2,700.25	377.39	2,719.72	0.38	-0.32	-0.21
14,768.00	89.40	358.80	12,012.47	2,794.24	377.72	2,813.51	3.05	-0.64	-2.98
14,862.00	89.70	359.70	12,013.21	2,888.23	376.49	2,907.20	1.01	0.32	0.96
14,956.00	90.00	0.20	12,013.46	2,982.23	376.41	3,000.97	0.62	0.32	0.53
15,050.00	89.90	359.90	12,013.54	3,076.23	376.49	3,094.76	0.34	-0.11	-0.32
15,144.00	90.60	358.80	12,013.13	3,170.22	375.42	3,188.45	1.39	0.74	-1.17
15,237.00	90.10	359.70	12,012.56	3,263.21	374.21	3,281.14	1.11	-0.54	0.97
15,332.00	90.80	1.30	12,011.81	3,358.20	375.04	3,375.97	1.84	0.74	1.68
15,425.00	90.40	0.40	12,010.84	3,451.18	376.42	3,468.83	1.06	-0.43	-0.97
15,520.00	89.70	0.20	12,010.76	3,546.18	376.91	3,563.64	0.77	-0.74	-0.21
15,614.00	89.10	0.30	12,011.74	3,640.17	377.32	3,657.44	0.65	-0.64	0.11
15,708.00	89.90	0.30	12,012.56	3,734.17	377.81	3,751.25	0.85	0.85	0.00
15,802.00	90.30	0.00	12,012.40	3,828.17	378.06	3,845.05	0.53	0.43	-0.32
15,896.00	90.40	1.50	12,011.82	3,922.16	379.29	3,938.90	1.60	0.11	1.60
15,990.00	89.00	359.70	12,012.32	4,016.14	380.28	4,032.73	2.43	-1.49	-1.91
16,084.00	88.50	358.80	12,014.37	4,110.11	379.05	4,126.40	1.10	-0.53	-0.96
16,178.00	90.70	358.20	12,015.02	4,204.07	376.59	4,219.97	2.43	2.34	-0.64
16,272.00	89.80	358.30	12,014.61	4,298.02	373.71	4,313.51	0.96	-0.96	0.11
16,366.00	90.20	0.30	12,014.61	4,392.01	372.57	4,407.20	2.17	0.43	2.13

Company:	Devon Energy	Local Co-ordinate Reference:	Well Todd 36 State 715H
Project:	Eddy County, NM (NAD83)	TVD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Site:	Todd 36 State	MD Reference:	3517.1' GE + 25' KB @ 3542.10usft
Well:	Todd 36 State 715H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,460.00	89.40	359.80	12,014.94	4,486.01	372.65	4,500.99	1.00	-0.85	-0.53
16,554.00	88.80	358.80	12,016.42	4,579.99	371.50	4,594.67	1.24	-0.64	-1.06
16,648.00	88.70	358.60	12,018.47	4,673.94	369.37	4,688.26	0.24	-0.11	-0.21
16,742.00	88.20	357.40	12,021.01	4,767.85	366.09	4,781.72	1.38	-0.53	-1.28
16,836.00	88.00	356.80	12,024.13	4,861.68	361.34	4,875.00	0.67	-0.21	-0.64
16,930.00	88.20	357.20	12,027.24	4,955.50	356.42	4,968.27	0.48	0.21	0.43
16,971.90	87.40	356.65	12,028.85	4,997.30	354.17	5,009.82	2.31	-1.91	-1.31
LTP (Todd 36 State 715H)									
16,973.29	87.38	356.63	12,028.91	4,998.69	354.09	5,011.20	2.31	-1.90	-1.31
100' FNL Crossing									
17,014.00	86.60	356.10	12,031.05	5,039.26	351.52	5,051.50	2.31	-1.90	-1.31
17,051.13	86.60	356.10	12,033.26	5,076.24	349.00	5,088.22	0.00	0.00	0.00
PBHL (Todd 36 State 715H)									
17,063.00	86.60	356.10	12,033.96	5,088.06	348.19	5,099.96	0.00	0.00	0.00
BHL									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
11,472.00	11,450.56	-163.84	374.60	KOP
11,815.23	11,775.97	-78.07	351.91	100' FSL Crossing
16,973.29	12,028.91	4,998.69	354.09	100' FNL Crossing
17,063.00	12,033.96	5,088.06	348.19	BHL

Checked By: _____ Approved By: _____ Date: _____