



A Schlumberger Company



Devon Energy, Inc.

Eddy County (NAD83)
Bellatrix "28" Federal Com
#3H
OH

Design: OH

Pathfinder X&Y Report

31 May, 2013



15 40333



A Schlumberger Company

Pathfinder

Pathfinder X&Y Report



Company: Devon Energy, Inc.
Project: Eddy County (NAD83)
Site: Bellatrix "28" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: KB = 26 @ 3508.3usft (H&P 300)
MD Reference: KB = 26 @ 3508.3usft (H&P 300)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Project: Eddy County (NAD83)

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

Site: Bellatrix "28" Federal Com

Site Position:	From: Map	Northing:	595,443.610 usft	Latitude:	32.636124
		Easting:	679,232.620 usft	Longitude:	-103.885375
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.24 °

Well: #3H

Well Position	+N/-S	0.0 usft	Northing:	592,647.160 usft	Latitude:	32.628431
	+E/-W	0.0 usft	Easting:	679,842.640 usft	Longitude:	-103.883432
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,482.3 usft	

Wellbore: OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/18/2013	7.52	60.49	48,676

Design: OH

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	81.68



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Survey Program: Date 5/31/2013

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	8,500.0	Gyro #1 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
8,500.0	14,244.0	MWD #2 (OH)	MWD	MWD - Standard

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V-Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,508.3	0.0	0.0	0.0	0.00	592,647.16	679,842.64
100.0	0.76	300.91	100.0	-3,408.3	0.3	-0.6	-0.5	0.76	592,647.50	679,842.07
200.0	0.99	305.79	200.0	-3,308.3	1.2	-1.8	-1.6	0.24	592,648.35	679,840.80
300.0	1.86	307.29	300.0	-3,208.3	2.7	-3.8	-3.4	0.87	592,649.84	679,838.81
400.0	2.59	299.00	399.9	-3,108.4	4.8	-7.1	-6.3	0.80	592,651.91	679,835.54
500.0	3.49	292.09	499.7	-3,008.6	7.0	-11.9	-10.8	0.97	592,654.15	679,830.75
600.0	4.35	293.16	599.5	-2,908.8	9.6	-18.2	-16.6	0.86	592,656.79	679,824.44
612.0	4.25	293.38	611.5	-2,896.8	10.0	-19.0	-17.4	0.84	592,657.15	679,823.61
26"										
700.0	3.52	295.34	699.3	-2,809.0	12.4	-24.5	-22.4	0.84	592,659.60	679,818.18
800.0	3.25	303.11	799.1	-2,709.2	15.3	-29.6	-27.1	0.53	592,662.46	679,813.03
900.0	2.36	304.88	899.0	-2,609.3	18.0	-33.7	-30.7	0.89	592,665.18	679,808.96
1,000.0	2.44	306.64	998.9	-2,509.4	20.5	-37.1	-33.7	0.11	592,667.63	679,805.57
1,100.0	1.86	307.72	1,098.8	-2,409.5	22.7	-40.1	-36.4	0.58	592,669.89	679,802.58
1,200.0	1.87	308.60	1,198.8	-2,309.5	24.7	-42.6	-38.6	0.03	592,671.91	679,800.02
1,300.0	1.53	312.42	1,298.7	-2,209.6	26.7	-44.9	-40.6	0.36	592,673.82	679,797.76
1,400.0	1.02	328.39	1,398.7	-2,109.6	28.3	-46.3	-41.7	0.62	592,675.48	679,796.30
1,500.0	0.80	338.12	1,498.7	-2,009.6	29.7	-47.1	-42.3	0.27	592,676.89	679,795.58
1,600.0	0.81	343.89	1,598.7	-1,909.6	31.1	-47.5	-42.5	0.08	592,678.22	679,795.12
1,700.0	0.89	30.89	1,698.7	-1,809.6	32.4	-47.3	-42.1	0.68	592,679.56	679,795.32
1,800.0	1.21	33.25	1,798.6	-1,709.7	34.0	-46.3	-40.9	0.32	592,681.11	679,796.30



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Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V:Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)
1,900.0	1.58	41.72	1,898.6	-1,609.7	35.9	-44.8	-39.2	0.42	592,683.02	679,797.80
2,000.0	1.13	46.85	1,998.6	-1,509.7	37.6	-43.2	-37.3	0.47	592,684.73	679,799.43
2,100.0	0.64	55.93	2,098.6	-1,409.7	38.6	-42.0	-36.0	0.51	592,685.71	679,800.62
2,200.0	0.65	60.34	2,198.6	-1,309.7	39.1	-41.1	-35.0	0.05	592,686.31	679,801.57
2,300.0	0.27	77.16	2,298.6	-1,209.7	39.5	-40.3	-34.2	0.40	592,686.64	679,802.29
2,400.0	0.38	92.87	2,398.6	-1,109.7	39.5	-39.8	-33.6	0.14	592,686.68	679,802.86
2,408.0	0.37	94.53	2,406.6	-1,101.7	39.5	-39.7	-33.6	0.21	592,686.67	679,802.91
17 1/2"										
2,500.0	0.26	123.76	2,498.6	-1,009.7	39.4	-39.3	-33.2	0.21	592,686.53	679,803.38
2,600.0	0.33	120.85	2,598.6	-909.7	39.1	-38.8	-32.8	0.07	592,686.26	679,803.81
2,700.0	0.51	169.32	2,698.6	-809.7	38.5	-38.5	-32.5	0.38	592,685.67	679,804.14
2,800.0	0.75	197.13	2,798.5	-709.8	37.5	-38.6	-32.8	0.38	592,684.61	679,804.03
2,900.0	0.62	204.38	2,898.5	-609.8	36.3	-39.0	-33.4	0.16	592,683.49	679,803.61
3,000.0	1.34	198.47	2,998.5	-509.8	34.7	-39.6	-34.2	0.73	592,681.89	679,803.02
3,100.0	1.24	189.04	3,098.5	-409.8	32.6	-40.2	-35.0	0.23	592,679.71	679,802.48
3,200.0	0.80	185.50	3,198.5	-309.8	30.8	-40.4	-35.5	0.44	592,677.95	679,802.24
3,300.0	0.58	215.00	3,298.5	-209.8	29.7	-40.8	-36.0	0.41	592,676.84	679,801.89
3,400.0	0.16	269.42	3,398.5	-109.8	29.3	-41.2	-36.5	0.50	592,676.42	679,801.46
3,500.0	0.17	270.35	3,498.5	-9.8	29.3	-41.5	-36.8	0.01	592,676.42	679,801.17
3,600.0	0.62	300.13	3,598.5	90.2	29.5	-42.1	-37.4	0.48	592,676.70	679,800.55
3,700.0	0.75	303.37	3,698.5	190.2	30.2	-43.1	-38.3	0.14	592,677.33	679,799.54
3,800.0	0.75	306.08	3,798.5	290.2	30.9	-44.2	-39.2	0.04	592,678.07	679,798.46
3,900.0	0.64	326.63	3,898.4	390.1	31.8	-45.0	-39.9	0.27	592,678.93	679,797.63
4,000.0	0.31	319.88	3,998.4	490.1	32.4	-45.5	-40.3	0.33	592,679.60	679,797.14
4,100.0	0.49	310.32	4,098.4	590.1	32.9	-46.0	-40.7	0.19	592,680.08	679,796.64
4,200.0	0.62	313.38	4,198.4	690.1	33.6	-46.7	-41.4	0.13	592,680.73	679,795.92



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Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,263.0	0.44	314.59	4,261.4	753.1	34.0	-47.1	-41.7	0.28	592,681.14	679,795.50	
12 1/4"											
4,300.0	0.34	315.89	4,298.4	790.1	34.2	-47.3	-41.9	0.28	592,681.31	679,795.33	
4,400.0	0.57	305.98	4,398.4	890.1	34.7	-47.9	-42.4	0.24	592,681.82	679,794.72	
4,500.0	0.85	300.32	4,498.4	990.1	35.3	-49.0	-43.3	0.29	592,682.49	679,793.67	
4,600.0	0.84	296.61	4,598.4	1,090.1	36.0	-50.3	-44.5	0.06	592,683.19	679,792.38	
4,700.0	0.94	296.44	4,698.4	1,190.1	36.7	-51.7	-45.8	0.10	592,683.88	679,790.99	
4,800.0	0.95	294.02	4,798.4	1,290.1	37.4	-53.1	-47.2	0.04	592,684.59	679,789.50	
4,900.0	0.76	286.43	4,898.4	1,390.1	38.0	-54.5	-48.5	0.22	592,685.11	679,788.10	
5,000.0	0.82	301.69	4,998.4	1,490.1	38.5	-55.8	-49.6	0.22	592,685.67	679,786.86	
5,100.0	0.54	301.05	5,098.4	1,590.1	39.1	-56.8	-50.5	0.28	592,686.29	679,785.85	
5,200.0	0.45	281.62	5,198.4	1,690.1	39.5	-57.6	-51.3	0.19	592,686.62	679,785.06	
5,300.0	0.57	287.56	5,298.4	1,790.1	39.7	-58.4	-52.1	0.13	592,686.84	679,784.20	
5,400.0	0.41	289.13	5,398.3	1,890.0	40.0	-59.3	-52.8	0.16	592,687.11	679,783.39	
5,500.0	0.43	291.08	5,498.3	1,990.0	40.2	-59.9	-53.5	0.02	592,687.36	679,782.70	
5,600.0	0.69	293.40	5,598.3	2,090.0	40.6	-60.8	-54.3	0.26	592,687.74	679,781.79	
5,700.0	0.58	286.43	5,698.3	2,190.0	41.0	-61.9	-55.3	0.13	592,688.12	679,780.76	
5,800.0	0.53	288.03	5,798.3	2,290.0	41.2	-62.8	-56.2	0.05	592,688.41	679,779.83	
5,900.0	0.56	292.50	5,898.3	2,390.0	41.6	-63.7	-57.0	0.05	592,688.74	679,778.94	
6,000.0	0.39	303.58	5,998.3	2,490.0	42.0	-64.4	-57.7	0.19	592,689.11	679,778.21	
6,100.0	0.41	320.88	6,098.3	2,590.0	42.4	-64.9	-58.1	0.12	592,689.58	679,777.70	
6,200.0	0.54	319.66	6,198.3	2,690.0	43.1	-65.5	-58.6	0.13	592,690.21	679,777.16	
6,300.0	0.78	321.74	6,298.3	2,790.0	43.9	-66.2	-59.1	0.24	592,691.11	679,776.44	
6,400.0	0.81	320.38	6,398.3	2,890.0	45.0	-67.1	-59.9	0.04	592,692.19	679,775.57	
6,500.0	0.47	335.94	6,498.3	2,990.0	45.9	-67.7	-60.3	0.38	592,693.11	679,774.95	
6,600.0	0.66	334.92	6,598.3	3,090.0	46.8	-68.1	-60.6	0.19	592,694.00	679,774.54	
6,700.0	0.67	335.38	6,698.3	3,190.0	47.9	-68.6	-60.9	0.01	592,695.06	679,774.05	



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Survey

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6,800.0	0.80	333.26	6,798.3	3,290.0	49.1	-69.1	-61.3	0.13	592,696.21	679,773.49
6,900.0	0.92	345.34	6,898.3	3,390.0	50.5	-69.7	-61.6	0.22	592,697.61	679,772.97
7,000.0	0.78	353.26	6,998.3	3,490.0	51.9	-69.9	-61.7	0.18	592,699.06	679,772.69
7,100.0	0.88	10.04	7,098.2	3,589.9	53.3	-69.9	-61.4	0.26	592,700.50	679,772.75
7,200.0	0.78	3.41	7,198.2	3,689.9	54.8	-69.7	-61.1	0.14	592,701.93	679,772.92
7,300.0	0.79	350.92	7,298.2	3,789.9	56.1	-69.8	-60.9	0.17	592,703.29	679,772.85
7,400.0	0.72	342.51	7,398.2	3,889.9	57.4	-70.1	-61.0	0.13	592,704.57	679,772.55
7,500.0	0.28	310.78	7,498.2	3,989.9	58.2	-70.5	-61.3	0.50	592,705.33	679,772.18
7,600.0	0.21	292.10	7,598.2	4,089.9	58.4	-70.8	-61.6	0.11	592,705.56	679,771.82
7,700.0	0.31	262.57	7,698.2	4,189.9	58.4	-71.3	-62.0	0.16	592,705.59	679,771.39
7,800.0	0.22	214.69	7,798.2	4,289.9	58.2	-71.6	-62.4	0.23	592,705.40	679,771.01
7,900.0	0.34	132.72	7,898.2	4,389.9	57.9	-71.5	-62.4	0.38	592,705.04	679,771.12
8,000.0	0.92	105.09	7,998.2	4,489.9	57.5	-70.5	-61.5	0.64	592,704.63	679,772.11
8,100.0	0.73	106.36	8,098.2	4,589.9	57.1	-69.1	-60.2	0.19	592,704.24	679,773.50
8,200.0	0.55	118.85	8,198.2	4,689.9	56.7	-68.1	-59.2	0.23	592,703.83	679,774.53
8,300.0	0.46	128.45	8,298.2	4,789.9	56.2	-67.4	-58.5	0.12	592,703.35	679,775.26
8,400.0	0.40	125.43	8,398.2	4,889.9	55.7	-66.8	-58.0	0.06	592,702.90	679,775.86
8,500.0	0.46	108.45	8,498.2	4,989.9	55.4	-66.1	-57.4	0.14	592,702.57	679,776.53
8,578.0	6.04	44.79	8,576.0	5,067.7	58.2	-62.9	-53.8	7.50	592,705.38	679,779.72
8,609.0	7.12	46.61	8,606.8	5,098.5	60.7	-60.4	-51.0	3.55	592,707.86	679,782.26
8,641.0	7.56	33.56	8,638.6	5,130.3	63.8	-57.8	-47.9	5.38	592,710.98	679,784.87
8,672.0	9.41	44.94	8,669.2	5,160.9	67.3	-54.9	-44.5	8.03	592,714.47	679,787.79
8,703.0	11.87	50.65	8,699.7	5,191.4	71.1	-50.6	-39.8	8.62	592,718.29	679,792.04
8,735.0	14.68	52.47	8,730.8	5,222.5	75.7	-44.8	-33.4	8.88	592,722.85	679,797.80
8,766.0	17.76	50.15	8,760.6	5,252.3	81.1	-38.1	-26.0	10.15	592,728.27	679,804.55
8,798.0	20.66	50.06	8,790.8	5,282.5	87.9	-30.0	-17.0	9.06	592,735.02	679,812.63
8,829.0	23.65	50.38	8,819.5	5,311.2	95.3	-21.0	-7.0	9.65	592,742.50	679,821.61



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8,861.0	26.91	50.66	8,848.4	5,340.1	104.0	-10.5	4.7	10.19	592,751.19	679,832.16	
8,892.0	29.81	50.60	8,875.7	5,367.4	113.4	0.9	17.3	9.36	592,760.53	679,843.54	
8,924.0	33.68	50.58	8,902.9	5,394.6	124.1	13.9	31.7	12.09	592,771.21	679,856.55	
8,950.0	37.07	50.63	8,924.1	5,415.8	133.6	25.5	44.6	13.03	592,780.76	679,868.18	
8 3/4"											
8,955.0	37.72	50.64	8,928.1	5,419.8	135.5	27.9	47.2	13.03	592,782.69	679,870.53	
8,987.0	41.86	50.13	8,952.7	5,444.4	148.6	43.7	64.7	12.98	592,795.75	679,886.30	
9,018.0	45.29	51.03	8,975.1	5,466.8	162.2	60.2	83.0	11.24	592,809.31	679,902.80	
9,050.0	48.54	52.76	8,997.0	5,488.7	176.6	78.6	103.3	10.90	592,823.72	679,921.20	
9,081.0	52.32	52.60	9,016.7	5,508.4	191.0	97.6	124.2	12.20	592,838.21	679,940.20	
9,112.0	56.72	52.94	9,034.7	5,526.4	206.3	117.7	146.3	14.22	592,853.48	679,960.29	
9,144.0	60.59	51.97	9,051.4	5,543.1	223.0	139.3	170.1	12.37	592,870.13	679,981.95	
9,175.0	65.16	51.90	9,065.5	5,557.2	240.0	161.0	194.1	14.74	592,887.14	680,003.67	
9,207.0	69.64	52.50	9,077.8	5,569.5	258.1	184.4	219.8	14.11	592,905.24	680,027.01	
9,238.0	74.22	52.79	9,087.4	5,579.1	276.0	207.8	245.5	14.80	592,923.11	680,050.43	
9,270.0	79.67	52.76	9,094.6	5,586.3	294.8	232.6	272.8	17.03	592,941.96	680,075.24	
9,321.0	86.61	52.61	9,100.7	5,592.4	325.5	272.8	317.1	13.61	592,972.64	680,115.49	
9,415.0	89.43	55.39	9,104.0	5,595.7	380.7	348.8	400.2	4.21	593,027.85	680,191.48	
9,475.4	88.86	57.07	9,104.9	5,596.6	414.3	399.1	454.8	2.94	593,061.44	680,241.72	
EOC (Bellatrix #3H)											
9,509.0	88.54	58.01	9,105.6	5,597.3	432.3	427.4	485.4	2.94	593,079.44	680,270.02	
9,603.0	88.55	60.37	9,108.0	5,599.7	480.4	508.1	572.3	2.51	593,127.57	680,350.72	
9,698.0	89.34	64.23	9,109.8	5,601.5	524.6	592.2	661.8	4.15	593,171.71	680,434.80	
9,793.0	90.13	66.75	9,110.2	5,601.9	564.0	678.6	753.1	2.78	593,211.12	680,521.24	
9,887.0	91.28	70.12	9,109.1	5,600.8	598.5	766.0	844.5	3.79	593,245.66	680,608.64	
9,981.0	91.36	73.02	9,106.9	5,598.6	628.2	855.1	937.0	3.09	593,275.37	680,697.78	
10,076.0	90.75	75.61	9,105.1	5,596.8	653.9	946.6	1,031.2	2.80	593,301.04	680,789.22	



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Pathfinder Pathfinder X&Y Report



Company: Devon Energy, Inc.
Project: Eddy County (NAD83)
Site: Bellatrix "28" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference:
TVD Reference: KB = 26 @ 3508.3usft (H&P 300)
MD Reference: KB = 26 @ 3508.3usft (H&P 300)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)	
10,171.0	90.31	79.63	9,104.3	5,596.0	674.2	1,039.3	1,126.0	4.26	593,321.41	680,881.99	
10,265.0	90.13	82.49	9,103.9	5,595.6	688.9	1,132.2	1,220.0	3.05	593,336.01	680,974.83	
10,360.0	89.96	84.08	9,103.8	5,595.5	700.0	1,226.5	1,314.9	1.68	593,347.12	681,069.18	
10,454.0	89.43	85.94	9,104.3	5,596.0	708.1	1,320.2	1,408.8	2.06	593,355.30	681,162.82	
10,549.0	88.46	85.59	9,106.1	5,597.8	715.2	1,414.9	1,503.5	1.09	593,362.31	681,257.54	
10,644.0	89.43	88.31	9,107.8	5,599.5	720.2	1,509.7	1,598.1	3.04	593,367.36	681,352.38	
10,739.0	89.25	88.44	9,108.9	5,600.6	722.9	1,604.7	1,692.4	0.23	593,370.06	681,447.34	
10,833.0	89.08	88.36	9,110.3	5,602.0	725.5	1,698.6	1,785.8	0.20	593,372.68	681,541.29	
10,928.0	88.99	87.78	9,111.9	5,603.6	728.7	1,793.6	1,880.2	0.62	593,375.88	681,636.22	
11,022.0	89.43	89.21	9,113.2	5,604.9	731.2	1,887.5	1,973.5	1.59	593,378.35	681,730.18	
11,117.0	89.52	90.04	9,114.1	5,605.8	731.8	1,982.5	2,067.6	0.88	593,378.97	681,825.17	
11,211.0	90.57	89.92	9,114.0	5,605.7	731.8	2,076.5	2,160.6	1.12	593,379.00	681,919.17	
11,305.0	91.19	90.07	9,112.5	5,604.2	731.9	2,170.5	2,253.6	0.68	593,379.01	682,013.16	
11,400.0	91.28	89.55	9,110.5	5,602.2	732.2	2,265.5	2,347.6	0.56	593,379.33	682,108.13	
11,494.0	91.36	89.08	9,108.3	5,600.0	733.3	2,359.5	2,440.7	0.51	593,380.45	682,202.10	
11,589.0	90.48	90.21	9,106.8	5,598.5	733.9	2,454.4	2,534.8	1.51	593,381.04	682,297.09	
11,683.0	91.10	90.42	9,105.5	5,597.2	733.4	2,548.4	2,627.7	0.70	593,380.52	682,391.08	
11,778.0	91.28	90.71	9,103.5	5,595.2	732.4	2,643.4	2,721.6	0.36	593,379.59	682,486.05	
11,873.0	89.34	89.84	9,103.0	5,594.7	732.0	2,738.4	2,815.5	2.24	593,379.13	682,581.04	
11,967.0	89.78	89.66	9,103.7	5,595.4	732.4	2,832.4	2,908.6	0.51	593,379.54	682,675.04	
12,062.0	90.31	89.88	9,103.7	5,595.4	732.8	2,927.4	3,002.6	0.60	593,379.92	682,770.04	
12,156.0	90.84	89.88	9,102.7	5,594.4	733.0	3,021.4	3,095.7	0.56	593,380.12	682,864.03	
12,251.0	89.52	89.59	9,102.4	5,594.1	733.4	3,116.4	3,189.7	1.42	593,380.56	682,959.03	
12,345.0	89.78	89.03	9,103.0	5,594.7	734.5	3,210.4	3,282.9	0.66	593,381.69	683,053.02	
12,440.0	90.31	88.57	9,102.9	5,594.6	736.5	3,305.4	3,377.1	0.74	593,383.68	683,148.00	
12,535.0	89.16	88.67	9,103.4	5,595.1	738.8	3,400.3	3,471.4	1.22	593,385.97	683,242.97	



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Pathfinder

Pathfinder X&Y Report



Company: Devon Energy, Inc.
Project: Eddy County (NAD83)
Site: Bellatrix "28" Federal Com
Well: #3H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #3H
TVD Reference: KB = 26 @ 3508.3usft (H&P 300)
MD Reference: KB = 26 @ 3508.3usft (H&P 300)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (%)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	D Leg (%/100usft)	Northing (usft)	Easting (usft)	
12,557.9	89.12	88.77	9,103.7	5,595.4	739.3	3,423.3	3,494.2	0.46	593,386.48	683,265.89	
Mid-PT (Bellatrix #3H)											
12,629.0	88.99	89.07	9,104.9	5,596.6	740.7	3,494.3	3,564.7	0.46	593,387.82	683,336.94	
12,724.0	90.04	88.95	9,105.7	5,597.4	742.3	3,589.3	3,658.9	1.11	593,389.46	683,431.92	
12,819.0	90.92	88.60	9,104.9	5,596.6	744.3	3,684.3	3,753.2	1.00	593,391.49	683,526.89	
12,904.0	90.92	89.29	9,103.5	5,595.2	745.9	3,769.2	3,837.5	0.81	593,393.06	683,611.87	
12,998.0	91.10	90.62	9,101.9	5,593.6	746.0	3,863.2	3,930.5	1.43	593,393.13	683,705.85	
13,093.0	91.36	90.39	9,099.8	5,591.5	745.1	3,958.2	4,024.3	0.37	593,392.29	683,800.82	
13,187.0	91.45	89.72	9,097.5	5,589.2	745.0	4,052.2	4,117.3	0.72	593,392.20	683,894.79	
13,281.0	92.33	91.03	9,094.4	5,586.1	744.4	4,146.1	4,210.2	1.68	593,391.59	683,988.74	
13,375.0	93.03	90.91	9,090.0	5,581.7	742.8	4,240.0	4,302.8	0.76	593,390.00	684,082.62	
13,470.0	92.42	90.97	9,085.5	5,577.2	741.3	4,334.9	4,396.5	0.65	593,388.44	684,177.50	
13,564.0	92.86	90.24	9,081.2	5,572.9	740.3	4,428.8	4,489.3	0.91	593,387.45	684,271.40	
13,658.0	93.12	90.46	9,076.3	5,568.0	739.7	4,522.6	4,582.1	0.36	593,386.88	684,365.27	
13,752.0	93.39	89.12	9,070.9	5,562.6	740.1	4,616.5	4,675.0	1.45	593,387.22	684,459.11	
13,847.0	92.42	89.66	9,066.1	5,557.8	741.1	4,711.3	4,769.0	1.17	593,388.23	684,553.98	
13,941.0	91.28	89.82	9,063.1	5,554.8	741.5	4,805.3	4,862.0	1.22	593,388.66	684,647.93	
14,036.0	91.54	89.28	9,060.7	5,552.4	742.2	4,900.3	4,956.1	0.63	593,389.40	684,742.90	
14,130.0	92.42	88.81	9,057.5	5,549.2	743.8	4,994.2	5,049.3	1.06	593,390.97	684,836.83	
14,165.0	92.86	88.47	9,055.9	5,547.6	744.6	5,029.1	5,084.0	1.59	593,391.80	684,871.78	
Final Survey											
14,244.0	92.86	88.47	9,051.9	5,543.6	746.7	5,108.0	5,162.3	0.00	593,393.91	684,950.65	
Projection To Bit - PBHL (Bellatrix #3H)											



A Schlumberger Company

Pathfinder
Pathfinder X&Y Report



Company:	Devon Energy, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County (NAD83)	TVD Reference:	KB = 26 @ 3508.3usft (H&P 300)
Site:	Bellatrix "28" Federal Com	MD Reference:	KB = 26 @ 3508.3usft (H&P 300)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
612.0	611.5	26"	26	26
2,408.0	2,406.6	17 1/2"	17-1/2	17-1/2
4,263.0	4,261.4	12 1/4"	12-1/4	12-1/4
8,950.0	8,924.1	8 3/4"	8-3/4	8-3/4

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		N/S (usft)	E/W (usft)	
14,165.0	9,055.9	744.6	5,029.1	Final Survey
14,244.0	9,051.9	746.7	5,108.0	Projection To Bit

Checked By: _____ Approved By: _____ Date: _____



BELLATRIX 28 FED COM 3H

WEST UNRESTRICTED

Perforation Summary

District		County		Field Name		Project Group		State/Province							
PERMIAN BASIN		EDDY		HACKBERRY		DELAWARE BASIN		NM							
Surface Legal Location		API/UWI		Latitude (°)		Longitude (°)		Ground Elev MSL (ft)		KB - Ground Level (ft)		Orig KB Elevation (ft)		Tubing Head Elevation (ft)	
SEC29 T19S R31E		3001540333		32° 37' 42.351" N		103° 53' 0.354" W		3,482.30		26.20		3,508.50			
Date	Zone	Top (ftKB)	Top (TVD) (ftKB)	Btm (ftKB)	Btm (TVD) (ftKB)	Current Status	Carrier Des	Gun Size (in)	Charge Type	Chg Sz (g)	Shot Dens (shots/ft)	Phasing (°)	Conveyance Method		
8/2/2013	BONE SPRING 2ND, ST01	9,630.0	9,108.6	9,632.0	9,108.7			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	9,723.0	9,110.0	9,725.0	9,110.0			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	9,815.0	9,110.1	9,817.0	9,110.1			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	9,908.0	9,108.6	9,910.0	9,108.5			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,001.0	9,106.4	10,003.0	9,106.4			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,093.0	9,104.9	10,095.0	9,104.9			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,186.0	9,104.2	10,188.0	9,104.2			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,278.0	9,103.9	10,280.0	9,103.9			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,371.0	9,103.8	10,373.0	9,103.8			3 3/8	TITAN		4.0	120	WIRELINE		
8/2/2013	BONE SPRING 2ND, ST01	10,464.0	9,104.4	10,466.0	9,104.5			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	10,556.0	9,106.3	10,558.0	9,106.3			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	10,646.0	9,107.8	10,648.0	9,107.9			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	10,748.0	9,109.0	10,750.0	9,109.1			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	10,838.0	9,110.4	10,840.0	9,110.4			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	10,927.0	9,111.9	10,929.0	9,111.9			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,019.0	9,113.1	11,021.0	9,113.2			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,112.0	9,114.0	11,114.0	9,114.0			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,205.0	9,114.0	11,207.0	9,114.0			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,292.0	9,112.8	11,294.0	9,112.8			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,393.0	9,110.6	11,395.0	9,110.6			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,484.0	9,108.6	11,486.0	9,108.5			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,575.0	9,106.9	11,577.0	9,106.9			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,668.0	9,105.8	11,670.0	9,105.7			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,761.0	9,103.9	11,763.0	9,103.9			3 3/8	TITAN		4.0	120	WIRELINE		
7/31/2013	BONE SPRING 2ND, ST01	11,853.0	9,102.9	11,855.0	9,102.9			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	11,946.0	9,103.6	11,948.0	9,103.6			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	12,038.0	9,103.8	12,040.0	9,103.8			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	12,131.0	9,103.1	12,133.0	9,103.0			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	12,224.0	9,102.3	12,226.0	9,102.3			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	12,311.0	9,102.8	12,313.0	9,102.8			3 3/8	TITAN		4.0	120	WIRELINE		
7/30/2013	BONE SPRING 2ND, ST01	12,414.0	9,103.0	12,416.0	9,103.0	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,502.0	9,103.0	12,504.0	9,103.0	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,594.0	9,104.3	12,596.0	9,104.3	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,687.0	9,105.6	12,689.0	9,105.6	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,780.0	9,105.4	12,782.0	9,105.4	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,872.0	9,104.0	12,874.0	9,104.0	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	12,965.0	9,102.5	12,967.0	9,102.4	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	13,057.0	9,100.6	13,059.0	9,100.6	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	13,155.0	9,098.3	13,157.0	9,098.3	3 3/8	TITAN	4.0	120	WIRELINE					
7/30/2013	BONE SPRING 2ND, ST01	13,245.0	9,095.8	13,247.0	9,095.7	3 3/8	TITAN	4.0	120	WIRELINE					

Report Printed: 10/22/2013



Perforation Summary

District PERMIAN BASIN			County EDDY			Field Name HACKBERRY			Project Group DELAWARE BASIN			State/Province NM				
Surface Legal Location SEC29 T19S R31E			API/UWI 3001540333		Latitude (°) 32° 37' 42.351" N		Longitude (°) 103° 53' 0.354" W		Ground Elev MSL (ft) 3,482.30		KB - Ground Level (ft) 26.20		Orig KB Elevation (ft) 3,508.50		Tubing Head Elevation (ft)	
Date	Zone	Top (ftKB)	Top (TVD) (ftKB)	Btm (ftKB)	Btm (TVD) (ftKB)	Current Status	Carrier Des	Gun Size (in)	Charge Type	Chg Sz (g)	Shot Dens (shots/ft)	Phasing (°)	Conveyance Method			
7/30/2013	BONE SPRING 2ND, ST01	13,335.0	9,092.0	13,337.0	9,091.9			3 3/8	TITAN		4.0	120	WIRELINE			
7/30/2013	BONE SPRING 2ND, ST01	13,428.0	9,087.4	13,430.0	9,087.3			3 3/8	TITAN		4.0	120	WIRELINE			
7/30/2013	BONE SPRING 2ND, ST01	13,521.0	9,083.2	13,523.0	9,083.2			3 3/8	TITAN		4.0	120	WIRELINE			
7/30/2013	BONE SPRING 2ND, ST01	13,613.0	9,078.7	13,615.0	9,078.6			3 3/8	TITAN		4.0	120	WIRELINE			
7/30/2013	BONE SPRING 2ND, ST01	13,706.0	9,073.6	13,708.0	9,073.5			3 3/8	TITAN		4.0	120	WIRELINE			
7/29/2013	BONE SPRING 2ND, ST01	13,798.0	9,068.4	13,800.0	9,068.3			3 3/8	TITAN		4.0	120	WIRELINE			
7/29/2013	BONE SPRING 2ND, ST01	13,891.0	9,064.5	13,893.0	9,064.4			3 3/8	TITAN		4.0	120	WIRELINE			
7/29/2013	BONE SPRING 2ND, ST01	13,984.0	9,062.1	13,986.0	9,062.0			3 3/8	TITAN		4.0	120	WIRELINE			
7/29/2013	BONE SPRING 2ND, ST01	14,076.0	9,059.5	14,078.0	9,059.5			3 3/8	TITAN		4.0	120	WIRELINE			
7/29/2013	BONE SPRING 2ND, ST01	14,169.0	9,055.7	14,171.0	9,055.6			3 3/8	TITAN		4.0	120	WIRELINE			

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