

Devon Energy

Lea County, NM (NAD83 NME)

Flagler 8 Federal

8H

OH

Survey: SDI Survey #1

HOBBS OCD
MAY 16 2019
RECEIVED

Regulatory Report (Grid North)

26 April, 2019

This survey is correct to the best of my knowledge and is supported by actual field data.

Housleyon Sanghott

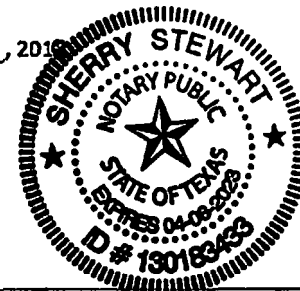
Notarized this date 30th of April, 2019

Sherry Stewart

Notary Signature

County of Midland

State of Texas



Scientific Drilling, Intl
Regulatory Report (Grid North)

Company: Devon Energy
Project: Lea County, NM (NAD83 NME)
Site: Flagler 8 Federal
Well: 8H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 8H
TVD Reference: KB = 33' @ 3471.00usft (Nabors X15)
MD Reference: KB = 33' @ 3471.00usft (Nabors X15)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Project	Lea County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site	Flagler 8 Federal		
Site Position:		Northing:	414,857.70 usft
From:	Map	Easting:	770,963.69 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 8' 18.055 N
		Longitude:	103° 35' 29.285 W
		Grid Convergence:	0.39 °

Well	8H		
Well Position	+N-S	0.00 usft	Northing: 414,857.70 usft
	+E-W	0.00 usft	Easting: 770,963.69 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 8' 18.055 N
		Longitude:	103° 35' 29.285 W
		Ground Level:	3,438.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	10/10/2018	6.72
			Dip Angle (°) 59.78
			Field Strength (nT) 47,879

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction (bearing) 359.29

Survey Program	Date	12/26/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
211.00	17,490.00	SDI Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

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MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
211.00	0.84	121.70	210.99	-0.83	-0.81	1.32	0.40	121.70	1.55	
272.00	0.47	145.75	271.99	-1.28	-1.25	1.84	0.74	124.33	2.22	
365.00	0.52	97.26	364.99	-1.65	-1.62	2.47	0.44	123.31	2.96	
457.00	0.85	127.25	456.98	-2.13	-2.09	3.43	0.52	121.36	4.01	
551.00	0.66	158.16	550.97	-3.07	-3.01	4.18	0.47	125.76	5.16	
644.00	0.79	136.80	643.96	-4.04	-3.98	4.82	0.32	129.52	6.25	
735.00	0.40	180.45	734.96	-4.82	-4.75	5.25	0.63	132.16	7.08	
826.00	0.28	197.24	825.96	-5.35	-5.28	5.18	0.17	135.56	7.40	
919.00	0.41	216.45	918.96	-5.83	-5.77	4.92	0.19	139.56	7.58	
1,010.00	0.43	175.39	1,009.95	-6.43	-6.37	4.75	0.32	143.29	7.95	
1,103.00	0.35	175.66	1,102.95	-7.06	-7.00	4.80	0.09	145.57	8.49	
1,245.00	0.50	266.99	1,244.95	-7.52	-7.47	4.21	0.43	150.56	8.57	
1,337.00	0.34	209.51	1,336.95	-7.77	-7.72	3.68	0.46	154.54	8.56	
1,430.00	0.48	227.38	1,429.94	-8.27	-8.23	3.26	0.20	158.41	8.85	
1,523.00	0.57	298.20	1,522.94	-8.30	-8.27	2.56	0.66	162.80	8.66	
1,618.00	0.87	257.57	1,617.93	-8.22	-8.21	1.44	0.60	170.04	8.33	
1,712.00	1.01	255.75	1,711.92	-8.56	-8.56	-0.06	0.15	180.40	8.56	
1,805.00	0.40	272.26	1,804.91	-8.74	-8.75	-1.18	0.68	187.67	8.83	
1,898.00	0.36	275.10	1,897.91	-8.69	-8.71	-1.79	0.05	191.63	8.90	
1,992.00	0.94	285.94	1,991.91	-8.44	-8.48	-2.83	0.63	198.46	8.94	
2,087.00	1.01	298.88	2,086.89	-7.80	-7.86	-4.31	0.24	208.76	8.96	
2,180.00	0.90	316.99	2,179.88	-6.86	-6.93	-5.53	0.34	218.59	8.86	
2,274.00	0.77	310.05	2,273.87	-5.90	-5.98	-6.51	0.17	227.45	8.84	
2,367.00	1.20	302.64	2,366.86	-4.96	-5.05	-7.81	0.48	237.10	9.30	
2,461.00	0.84	302.99	2,460.84	-4.03	-4.15	-9.22	0.38	245.78	10.11	
2,556.00	1.35	316.19	2,555.82	-2.83	-2.96	-10.58	0.60	254.36	10.99	

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Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)
2,650.00	1.19	296.48	2,649.80	-1.57	-1.73	-12.22	0.49	261.96	12.34
2,744.00	1.52	312.64	2,743.77	-0.27	-0.45	-14.01	0.53	268.17	14.02
2,837.00	1.36	317.81	2,836.74	1.40	1.21	-15.66	0.22	274.41	15.70
2,932.00	1.52	324.36	2,931.71	3.28	3.07	-17.15	0.24	280.14	17.42
3,025.00	1.86	303.63	3,024.68	5.14	4.90	-19.12	0.75	284.38	19.74
3,119.00	3.00	284.51	3,118.59	6.65	6.37	-22.78	1.47	285.61	23.65
3,213.00	4.85	282.68	3,212.37	8.21	7.85	-29.04	1.97	285.14	30.08
3,306.00	5.92	272.69	3,304.96	9.41	8.94	-37.66	1.53	283.36	38.71
3,400.00	6.34	270.57	3,398.42	9.81	9.22	-47.69	0.51	280.94	48.58
3,493.00	6.04	273.46	3,490.88	10.28	9.57	-57.71	0.47	279.41	58.50
3,587.00	7.98	261.17	3,584.17	9.72	8.86	-69.10	2.60	277.31	69.66
3,682.00	8.75	251.84	3,678.17	6.62	5.60	-82.48	1.64	273.88	82.67
3,776.00	8.23	250.01	3,771.14	2.26	1.07	-95.60	0.62	270.64	95.60
3,870.00	6.32	248.26	3,864.38	-1.82	-3.15	-106.73	2.05	268.31	106.77
3,964.00	6.23	249.23	3,957.81	-5.43	-6.87	-116.30	0.15	266.62	116.50
4,058.00	5.79	249.72	4,051.30	-8.77	-10.32	-125.52	0.47	265.30	125.94
4,152.00	7.17	249.16	4,144.69	-12.37	-14.05	-135.45	1.47	264.08	136.18
4,245.00	8.08	243.07	4,236.87	-17.26	-19.08	-146.70	1.31	262.59	147.94
4,338.00	7.96	239.33	4,328.96	-23.36	-25.32	-158.07	0.58	260.90	160.08
4,433.00	7.00	234.99	4,423.15	-29.91	-32.00	-168.47	1.17	259.24	171.48
4,526.00	7.10	238.35	4,515.45	-36.06	-38.27	-178.00	0.46	257.87	182.07
4,621.00	8.02	239.95	4,609.62	-42.32	-44.67	-188.73	0.99	256.69	193.95
4,713.00	7.25	230.05	4,700.81	-49.14	-51.61	-198.74	1.65	255.44	205.33
4,808.00	6.42	223.42	4,795.14	-56.75	-59.32	-206.99	1.20	254.01	215.32
4,902.00	5.99	228.25	4,888.59	-63.74	-66.40	-214.26	0.72	252.78	224.31
4,997.00	6.50	241.96	4,983.03	-69.46	-72.23	-222.70	1.65	252.03	234.12
5,091.00	6.49	245.10	5,076.43	-74.08	-76.96	-232.22	0.38	251.66	244.64

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Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)
5,184.00	7.29	251.80	5,168.75	-78.01	-81.02	-242.59	1.22	251.53	255.76
5,278.00	8.82	255.62	5,261.83	-81.50	-84.67	-255.24	1.72	251.65	268.92
5,373.00	8.43	253.44	5,355.75	-85.13	-88.47	-268.97	0.54	251.79	283.14
5,467.00	8.11	253.10	5,448.77	-88.86	-92.36	-281.92	0.34	251.86	296.66
5,561.00	7.33	250.79	5,541.92	-92.61	-96.26	-293.92	0.89	251.87	309.28
5,654.00	7.71	254.67	5,634.12	-96.07	-99.86	-305.54	0.68	251.90	321.45
5,749.00	8.30	254.26	5,728.20	-99.45	-103.41	-318.29	0.62	252.00	334.66
5,843.00	8.10	255.39	5,821.23	-102.80	-106.92	-331.23	0.27	252.11	348.05
5,937.00	7.56	254.05	5,914.36	-106.02	-110.29	-343.58	0.61	252.20	360.85
6,030.00	7.39	254.58	6,006.57	-109.15	-113.56	-355.23	0.20	252.27	372.94
6,124.00	6.98	255.69	6,099.83	-112.02	-116.58	-366.59	0.46	252.36	384.68
6,219.00	6.63	253.62	6,194.16	-114.86	-119.55	-377.45	0.45	252.43	395.93
6,313.00	6.63	255.43	6,287.53	-117.63	-122.45	-387.90	0.22	252.48	406.77
6,407.00	6.52	254.27	6,380.91	-120.31	-125.26	-398.29	0.18	252.54	417.52
6,499.00	6.10	251.25	6,472.36	-123.18	-128.24	-407.95	0.58	252.55	427.63
6,594.00	6.18	249.70	6,566.81	-126.46	-131.64	-417.52	0.19	252.50	437.79
6,687.00	6.24	250.69	6,659.27	-129.75	-135.05	-426.99	0.13	252.45	447.84
6,781.00	5.62	251.53	6,752.76	-132.78	-138.20	-436.18	0.67	252.42	457.55
6,876.00	5.30	248.14	6,847.33	-135.78	-141.30	-444.66	0.48	252.37	466.57
6,970.00	5.36	248.62	6,940.92	-138.90	-144.52	-452.78	0.08	252.30	475.28
7,064.00	5.11	247.84	7,034.53	-141.98	-147.70	-460.74	0.28	252.23	483.84
7,158.00	4.78	246.92	7,128.18	-145.00	-150.81	-468.22	0.36	252.15	491.91
7,252.00	4.70	246.33	7,221.86	-147.99	-153.90	-475.35	0.10	252.06	499.64
7,345.00	4.27	245.65	7,314.58	-150.87	-156.85	-482.00	0.47	251.97	506.88
7,438.00	3.43	245.14	7,407.37	-153.40	-159.45	-487.68	0.90	251.89	513.08
7,533.00	3.26	245.28	7,502.20	-155.66	-161.77	-492.71	0.18	251.82	518.59
7,628.00	2.99	242.97	7,597.06	-157.85	-164.03	-497.37	0.31	251.75	523.72

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7,722.00	2.32	248.80	7,690.96	-159.61	-165.83	-501.33	0.77	251.70	528.04	
7,816.00	1.80	266.97	7,784.90	-160.33	-166.60	-504.57	0.88	251.73	531.37	
7,909.00	1.17	297.03	7,877.87	-159.95	-166.24	-506.88	1.06	251.84	533.44	
8,003.00	1.10	308.40	7,971.85	-158.93	-165.25	-508.44	0.25	252.00	534.62	
8,096.00	1.05	290.93	8,064.84	-158.06	-164.39	-509.94	0.36	252.13	535.78	
8,190.00	0.78	293.96	8,158.82	-157.47	-163.82	-511.33	0.29	252.24	536.93	
8,284.00	0.64	280.30	8,252.82	-157.11	-163.47	-512.43	0.23	252.31	537.87	
8,377.00	0.51	289.50	8,345.81	-156.86	-163.24	-513.33	0.17	252.36	538.66	
8,470.00	0.51	263.41	8,438.81	-156.76	-163.15	-514.13	0.25	252.39	539.39	
8,563.00	0.46	268.77	8,531.81	-156.81	-163.20	-514.91	0.07	252.41	540.16	
8,658.00	0.46	269.99	8,626.80	-156.81	-163.21	-515.68	0.01	252.44	540.89	
8,752.00	0.67	278.48	8,720.80	-156.71	-163.13	-516.60	0.24	252.48	541.74	
8,845.00	0.49	276.87	8,813.79	-156.58	-163.00	-517.53	0.19	252.52	542.59	
8,939.00	0.44	265.53	8,907.79	-156.55	-162.98	-518.29	0.11	252.54	543.31	
9,033.00	0.48	238.86	9,001.79	-156.77	-163.21	-518.99	0.23	252.54	544.04	
9,128.00	0.74	239.14	9,096.78	-157.28	-163.73	-519.85	0.27	252.52	545.03	
9,222.00	0.59	250.39	9,190.77	-157.74	-164.21	-520.83	0.21	252.50	546.10	
9,315.00	0.81	254.08	9,283.77	-158.07	-164.55	-521.91	0.24	252.50	547.24	
9,409.00	1.20	241.72	9,377.75	-158.70	-165.20	-523.42	0.47	252.48	548.87	
9,504.00	1.19	239.48	9,472.73	-159.65	-166.17	-525.14	0.05	252.44	550.81	
9,597.00	0.93	228.30	9,565.72	-160.62	-167.16	-526.54	0.36	252.39	552.44	
9,691.00	1.37	227.99	9,659.70	-161.87	-168.42	-527.94	0.47	252.31	554.16	
9,784.00	1.56	258.35	9,752.67	-162.84	-169.42	-530.01	0.85	252.27	556.43	
9,878.00	2.05	285.49	9,846.62	-162.61	-169.23	-532.88	1.03	252.38	559.11	
9,973.00	1.95	270.90	9,941.57	-162.09	-168.75	-536.14	0.54	252.53	562.07	
10,067.00	1.72	250.02	10,035.52	-162.52	-169.21	-539.06	0.75	252.57	565.00	
10,160.00	1.40	248.60	10,128.48	-163.38	-170.10	-541.43	0.35	252.56	567.52	

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10,254.00	1.31	237.42	10,222.46	-164.35	-171.10	-543.41	0.30	252.52	569.71
10,348.00	1.00	246.63	10,316.44	-165.23	-172.00	-545.06	0.38	252.49	571.56
10,442.00	0.97	258.49	10,410.43	-165.70	-172.49	-546.60	0.22	252.49	573.17
10,536.00	0.94	249.65	10,504.41	-166.11	-172.91	-548.10	0.16	252.49	574.73
10,630.00	0.37	51.51	10,598.41	-166.18	-172.99	-548.59	1.38	252.50	575.21
10,724.00	0.78	43.10	10,692.40	-165.53	-172.34	-547.91	0.44	252.54	574.37
10,818.00	0.87	33.53	10,786.39	-164.48	-171.27	-547.08	0.17	252.62	573.26
10,912.00	0.59	34.98	10,880.39	-163.50	-170.28	-546.41	0.30	252.69	572.33
11,006.00	0.46	46.53	10,974.38	-162.85	-169.63	-545.86	0.18	252.74	571.60
11,100.00	0.05	51.41	11,068.38	-162.57	-169.34	-545.55	0.44	252.76	571.23
11,194.00	0.32	283.28	11,162.38	-162.48	-169.25	-545.77	0.38	252.77	571.42
11,289.00	0.72	279.98	11,257.38	-162.30	-169.09	-546.62	0.42	252.81	572.18
11,383.00	1.27	278.12	11,351.36	-162.03	-168.84	-548.23	0.59	252.88	573.64
11,477.00	1.81	277.25	11,445.33	-161.67	-168.51	-550.74	0.57	252.99	575.94
11,571.00	2.19	286.87	11,539.27	-160.92	-167.80	-553.93	0.54	253.15	578.79
11,665.00	2.39	284.74	11,633.20	-159.86	-166.78	-557.54	0.23	253.35	581.95
11,760.00	2.11	285.03	11,728.12	-158.85	-165.82	-561.15	0.29	253.54	585.13
11,834.00	2.11	287.39	11,802.07	-158.06	-165.06	-563.76	0.12	253.68	587.43
11,903.00	1.65	290.29	11,871.03	-157.31	-164.34	-565.91	0.68	253.81	589.28
11,986.00	3.67	340.44	11,953.95	-154.37	-161.42	-567.92	3.50	254.13	590.41
12,081.00	15.71	10.49	12,047.46	-138.81	-145.84	-566.59	13.33	255.57	585.06
12,175.00	28.75	13.04	12,134.29	-104.22	-111.15	-559.14	13.91	258.76	570.08
12,270.00	40.98	11.40	12,212.09	-51.37	-58.16	-547.78	12.91	263.94	550.86
12,363.00	52.96	6.68	12,275.45	15.52	8.86	-537.40	13.40	270.94	537.47
12,458.00	57.11	5.11	12,329.89	92.84	86.29	-529.43	4.57	279.26	536.41
12,553.00	58.86	4.87	12,380.25	172.99	166.53	-522.42	1.85	287.68	548.32
12,647.00	69.99	4.79	12,420.76	257.25	250.89	-515.30	11.84	295.96	573.13

Scientific Drilling, Intl
Regulatory Report (Grid North)

Company: Devon Energy
Project: Lea County, NM (NAD83 NME)
Site: Flagler 8 Federal
Well: 8H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 8H
TVD Reference: KB = 33' @ 3471.00usft (Nabors X15)
MD Reference: KB = 33' @ 3471.00usft (Nabors X15)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey

MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)
12,742.00	75.22	2.59	12,449.16	347.60	341.32	-509.49	5.93	303.82	613.25
12,836.00	81.00	1.04	12,468.52	439.46	433.21	-506.59	6.36	310.54	666.57
12,843.90	81.34	1.00	12,469.73	447.26	441.01	-506.45	4.33	311.05	671.56
LP[F8H8H]									
12,931.00	85.09	0.61	12,480.02	533.70	527.48	-505.24	4.33	316.23	730.41
13,025.00	90.30	3.70	12,483.80	627.47	621.30	-501.70	6.44	321.08	798.57
13,120.00	90.47	3.70	12,483.16	722.18	716.10	-495.57	0.18	325.31	870.85
13,213.00	91.68	359.43	12,481.41	815.07	809.02	-493.03	4.77	328.64	947.42
13,307.00	92.51	358.91	12,477.98	909.01	902.95	-494.39	1.04	331.30	1,029.44
13,402.00	90.34	356.78	12,475.62	1,003.93	997.84	-497.97	3.20	333.48	1,115.19
13,497.00	90.34	356.34	12,475.05	1,098.82	1,092.67	-503.67	0.46	335.25	1,203.16
13,591.00	90.84	355.54	12,474.08	1,192.66	1,186.43	-510.32	1.00	336.73	1,291.52
13,686.00	91.57	358.47	12,472.09	1,287.55	1,281.26	-515.28	3.18	338.09	1,381.00
13,780.00	93.35	359.45	12,468.05	1,381.46	1,375.16	-516.99	2.16	339.40	1,469.13
13,874.00	87.62	359.34	12,467.26	1,475.41	1,469.11	-517.98	6.10	340.58	1,557.75
13,969.00	88.19	359.82	12,470.73	1,570.35	1,564.04	-518.68	0.78	341.65	1,647.80
14,063.00	90.44	359.78	12,471.85	1,664.33	1,658.03	-519.00	2.39	342.62	1,737.36
14,157.00	89.63	357.09	12,471.79	1,758.31	1,751.98	-521.57	2.99	343.42	1,827.97
14,252.00	92.15	356.84	12,470.32	1,853.22	1,846.83	-526.60	2.67	344.09	1,920.44
14,346.00	92.82	356.73	12,466.24	1,947.04	1,940.60	-531.87	0.72	344.67	2,012.16
14,441.00	92.18	355.09	12,462.10	2,041.78	2,035.26	-538.64	1.85	345.18	2,105.33
14,535.00	91.38	357.71	12,459.18	2,135.60	2,129.02	-544.53	2.91	345.65	2,197.55
14,629.00	91.01	359.64	12,457.22	2,229.57	2,222.97	-546.71	2.09	346.18	2,289.21
14,723.00	91.07	358.22	12,455.51	2,323.55	2,316.94	-548.46	1.51	346.68	2,380.97
14,818.00	90.44	0.22	12,454.26	2,418.54	2,411.91	-549.75	2.21	347.16	2,473.77
14,913.00	89.09	358.91	12,454.65	2,513.53	2,506.91	-550.48	1.98	347.62	2,566.63
15,007.00	89.40	359.60	12,455.89	2,607.53	2,600.89	-551.70	0.80	348.02	2,658.76

Scientific Drilling, Intl
Regulatory Report (Grid North)

Company: Devon Energy
Project: Lea County, NM (NAD83 NME)
Site: Flagler 8 Federal
Well: 8H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 8H
TVD Reference: KB = 33' @ 3471.00usft (Nabors X15)
MD Reference: KB = 33' @ 3471.00usft (Nabors X15)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland District

Survey									
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)
15,101.00	88.52	359.40	12,457.60	2,701.51	2,694.87	-552.52	0.96	348.41	2,750.93
15,196.00	91.24	0.00	12,457.79	2,796.50	2,789.86	-553.02	2.93	348.79	2,844.14
15,291.00	92.39	358.92	12,454.79	2,891.44	2,884.80	-553.91	1.66	349.13	2,937.50
15,386.00	89.70	357.02	12,453.05	2,986.39	2,979.71	-557.27	3.47	349.41	3,031.38
15,481.00	90.67	356.36	12,452.75	3,081.29	3,074.55	-562.76	1.23	349.63	3,125.63
15,576.00	90.20	356.19	12,452.02	3,176.16	3,169.35	-568.93	0.53	349.82	3,220.01
15,669.00	89.63	0.19	12,452.16	3,269.12	3,262.28	-571.87	4.34	350.06	3,312.03
15,764.00	89.16	358.42	12,453.17	3,364.11	3,357.27	-573.02	1.93	350.31	3,405.82
15,859.00	88.16	0.91	12,455.39	3,459.07	3,452.23	-573.58	2.82	350.57	3,499.56
15,953.00	92.15	1.26	12,455.13	3,553.01	3,546.20	-571.80	4.26	350.84	3,592.00
16,047.00	89.60	0.61	12,453.70	3,646.95	3,640.16	-570.26	2.80	351.10	3,684.56
16,141.00	92.02	1.68	12,452.37	3,740.88	3,734.13	-568.39	2.81	351.35	3,777.14
16,235.00	90.70	0.51	12,450.14	3,834.81	3,828.08	-566.59	1.88	351.58	3,869.78
16,329.00	90.60	0.60	12,449.07	3,928.78	3,922.07	-565.68	0.14	351.79	3,962.65
16,424.00	91.74	0.48	12,447.13	4,023.73	4,017.04	-564.78	1.21	352.00	4,056.55
16,518.00	89.43	0.05	12,446.17	4,117.71	4,111.03	-564.35	2.50	352.18	4,149.59
16,612.00	88.39	358.25	12,447.96	4,211.69	4,205.00	-565.74	2.21	352.34	4,242.89
16,706.00	88.82	358.43	12,450.25	4,305.64	4,298.93	-568.47	0.50	352.47	4,336.35
16,801.00	89.83	358.24	12,451.37	4,400.62	4,393.88	-571.23	1.08	352.59	4,430.86
16,895.00	90.44	357.24	12,451.15	4,494.59	4,487.81	-574.93	1.25	352.70	4,524.49
16,989.00	91.41	357.04	12,449.63	4,588.51	4,581.68	-579.62	1.05	352.79	4,618.20
17,084.00	89.33	354.68	12,449.02	4,683.32	4,676.42	-586.48	3.31	352.85	4,713.05
17,170.89	91.10	355.46	12,448.69	4,769.97	4,762.98	-593.95	2.22	352.89	4,799.87
BHL PLAT(F818H)									
17,178.00	91.24	355.52	12,448.55	4,777.07	4,770.07	-594.51	2.22	352.80	4,806.97
17,273.00	90.94	355.29	12,446.74	4,871.83	4,864.74	-602.12	0.40	352.94	4,901.86
17,368.00	90.44	354.79	12,445.60	4,966.56	4,959.38	-610.33	0.74	352.98	4,996.79

Scientific Drilling, Intl
Regulatory Report (Grid North)

Company:	Devon Energy	Local Co-ordinate Reference:	Well 8H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB = 33' @ 3471.00usft (Nabors X15)
Site:	Flagler 8 Federal	MD Reference:	KB = 33' @ 3471.00usft (Nabors X15)
Well:	8H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey										
MD (usft)	Inc (°)	Azi (grid_north_azim)	TVD (usft)	V. Sec (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	Closure Azimuth (bearing)	Closure Distance (usft)	
17,428.00	89.80	354.06	12,445.47	5,026.34	5,019.10	-616.16	1.62	353.00	5,056.77	
FINAL MWD Survey (17428.00' MD)										
17,479.03	89.80	354.06	12,445.65	5,077.16	5,069.85	-621.44	0.00	353.01	5,107.80	
BHL.FINAL[F818H]										
17,490.00	89.80	354.06	12,445.69	5,088.09	5,080.76	-622.58	0.00	353.01	5,118.76	
FINAL Proj. to Bit (17490.00' MD)										

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
17,428.00	12,445.47	5,019.10	-616.16	FINAL MWD Survey (17428.00' MD)	
17,490.00	12,445.69	5,080.76	-622.58	FINAL Proj. to Bit (17490.00' MD)	

Checked By: _____	Approved By: _____	Date: _____
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