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APR 26 2019

DISTRICT II-ARTESIA O.C.D.

Devon Energy

Lea County, NM (NAD83 NME)
Big Cat 16-9 State Fed Com
217H

HOBBS OCD

APR
MAY 30 2019

OH

RECEIVED

Survey: SDI Survey #1

Standard Survey Report

19 October, 2018

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

Notarized this date 25th of March, 2019.

Sherry Stewart

Notary Signature

County of Midland

State of Texas



SHERRY STEWART
Notary Public, State of Texas
My Commission Expires
April 08, 2019



Scientific Drilling

www.scientificdrilling.com

Scientific Drilling, Intl **Survey Report**

Company:	Devon Energy	Local Co-ordinate Reference:	Well 217H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Site:	Big Cat 16-9 State Fed Com	MD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Well:	217H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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	Big Cat 16-9 State Fed Com				
Site Position:		Northing:	474,852.81 usft	Latitude:	32° 18' 13.417 N
From:	Map	Easting:	744,740.62 usft	Longitude:	103° 40' 29.985 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.35 °

Well	217H					
Well Position	+N/-S	0.00 usft	Northing:	474,852.81 usft	Latitude:	32° 18' 13.417 N
	+E/-W	0.00 usft	Easting:	744,740.62 usft	Longitude:	103° 40' 29.985 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,695.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/22/2018	6.83	60.05	48,057

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 (bearing)	
	0.00	0.00	0.00	359.80	

Survey Program	Date 10/19/2018			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
168.00	19,570.00	SDI Survey #1 (OH)	MWD+HDGM	OWSG MWD + HDGM

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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
168.00	0.35	177.92	168.00	-0.51	0.02	-0.51	0.21	0.21	0.00
271.00	1.03	170.29	270.99	-1.74	0.19	-1.74	0.66	0.66	-7.41
364.00	0.87	197.61	363.98	-3.24	0.11	-3.24	0.51	-0.17	29.38
456.00	0.86	192.29	455.97	-4.58	-0.24	-4.58	0.09	-0.01	-5.78
549.00	0.86	190.98	548.96	-5.94	-0.53	-5.94	0.02	0.00	-1.41
640.00	0.76	210.12	639.95	-7.14	-0.96	-7.13	0.32	-0.11	21.03
733.00	0.81	219.52	732.94	-8.18	-1.69	-8.17	0.15	0.05	10.11
824.00	0.91	207.79	823.93	-9.31	-2.43	-9.30	0.22	0.11	-12.89
917.00	0.95	221.35	916.92	-10.54	-3.29	-10.53	0.24	0.04	14.58

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,010.00	1.08	241.98	1,009.90	-11.54	-4.57	-11.52	0.41	0.14	22.18
1,103.00	1.07	269.87	1,102.89	-11.95	-6.21	-11.93	0.56	-0.01	29.99
1,194.00	1.14	270.67	1,193.87	-11.94	-7.97	-11.91	0.08	0.08	0.88
1,343.00	0.36	275.37	1,342.86	-11.88	-9.91	-11.84	0.52	-0.52	3.15
1,434.00	0.07	12.17	1,433.86	-11.80	-10.19	-11.76	0.41	-0.32	106.37
1,526.00	0.30	90.20	1,525.86	-11.74	-9.94	-11.71	0.32	0.25	84.82
1,618.00	0.51	82.54	1,617.85	-11.69	-9.29	-11.66	0.24	0.23	-8.33
1,711.00	0.54	25.79	1,710.85	-11.24	-8.69	-11.21	0.54	0.03	-61.02
1,805.00	0.69	46.50	1,804.84	-10.45	-8.08	-10.43	0.28	0.16	22.03
1,900.00	0.58	27.34	1,899.84	-9.63	-7.45	-9.61	0.25	-0.12	-20.17
1,994.00	0.49	35.37	1,993.83	-8.88	-7.00	-8.86	0.12	-0.10	8.54
2,089.00	0.55	60.18	2,088.83	-8.33	-6.37	-8.30	0.24	0.06	26.12
2,183.00	0.68	106.93	2,182.83	-8.26	-5.44	-8.24	0.53	0.14	49.73
2,277.00	0.86	92.83	2,276.82	-8.46	-4.20	-8.45	0.28	0.19	-15.00
2,372.00	0.24	88.60	2,371.81	-8.49	-3.29	-8.48	0.65	-0.65	-4.45
2,465.00	0.64	113.38	2,464.81	-8.69	-2.62	-8.68	0.47	0.43	26.65
2,560.00	0.78	90.39	2,559.80	-8.91	-1.49	-8.90	0.33	0.15	-24.20
2,653.00	0.99	74.58	2,652.79	-8.70	-0.08	-8.70	0.34	0.23	-17.00
2,748.00	0.72	73.34	2,747.78	-8.31	1.28	-8.31	0.28	-0.28	-1.31
2,842.00	0.89	46.62	2,841.77	-7.64	2.38	-7.65	0.43	0.18	-28.43
2,936.00	1.04	85.70	2,935.76	-7.07	3.76	-7.09	0.70	0.16	41.57
3,029.00	2.12	108.03	3,028.72	-7.54	6.24	-7.56	1.32	1.16	24.01
3,122.00	2.83	115.96	3,121.64	-9.08	9.94	-9.11	0.85	0.76	8.53
3,216.00	4.02	122.18	3,215.47	-11.85	14.81	-11.90	1.32	1.27	6.62
3,310.00	4.94	124.64	3,309.18	-15.91	20.93	-15.98	1.00	0.98	2.62
3,405.00	6.19	129.72	3,403.73	-21.50	28.24	-21.60	1.41	1.32	5.35
3,498.00	7.81	135.71	3,496.04	-29.23	36.51	-29.36	1.91	1.74	6.44
3,592.00	8.54	130.58	3,589.08	-38.34	46.27	-38.50	1.10	0.78	-5.46
3,685.00	10.41	125.87	3,680.81	-47.76	58.32	-47.96	2.18	2.01	-5.06
3,780.00	11.23	129.97	3,774.12	-58.73	72.37	-58.98	1.18	0.86	4.32
3,874.00	11.04	129.22	3,866.35	-70.30	86.36	-70.60	0.25	-0.20	-0.80
3,967.00	11.08	131.71	3,957.62	-81.88	99.92	-82.23	0.52	0.04	2.68
4,061.00	11.09	133.19	4,049.87	-94.08	113.26	-94.47	0.30	0.01	1.57
4,154.00	10.33	131.47	4,141.25	-105.72	126.03	-106.16	0.89	-0.82	-1.85
4,247.00	10.98	137.04	4,232.65	-117.72	138.31	-118.21	1.31	0.70	5.99
4,342.00	11.56	137.29	4,325.82	-131.34	150.93	-131.86	0.61	0.61	0.26
4,435.00	11.39	137.58	4,416.96	-144.97	163.45	-145.53	0.19	-0.18	0.31
4,529.00	11.44	137.95	4,509.10	-158.74	175.95	-159.35	0.09	0.05	0.39
4,623.00	11.35	137.52	4,601.25	-172.48	188.44	-173.14	0.13	-0.10	-0.46
4,717.00	10.46	137.17	4,693.55	-185.56	200.49	-186.26	0.95	-0.95	-0.37
4,812.00	9.29	137.64	4,787.14	-197.55	211.52	-198.29	1.23	-1.23	0.49
4,906.00	8.34	134.53	4,880.03	-207.94	221.49	-208.71	1.13	-1.01	-3.31
4,999.00	8.27	136.63	4,972.05	-217.53	230.90	-218.34	0.33	-0.08	2.26
5,093.00	8.66	137.77	5,065.03	-227.69	240.29	-228.53	0.45	0.41	1.21

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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,187.00	8.09	137.65	5,158.03	-237.82	249.51	-238.69	0.61	-0.61	-0.13
5,281.00	8.30	138.28	5,251.07	-247.77	258.48	-248.67	0.24	0.22	0.67
5,375.00	8.40	135.33	5,344.07	-257.72	267.82	-258.65	0.47	0.11	-3.14
5,469.00	9.00	133.54	5,436.99	-267.66	277.98	-268.63	0.70	0.64	-1.90
5,564.00	8.98	135.19	5,530.82	-278.04	288.59	-279.05	0.27	-0.02	1.74
5,657.00	8.07	133.89	5,622.79	-287.72	298.41	-288.76	1.00	-0.98	-1.40
5,750.00	7.69	133.25	5,714.91	-296.51	307.64	-297.58	0.42	-0.41	-0.69
5,845.00	7.35	135.62	5,809.10	-305.20	316.52	-306.31	0.48	-0.36	2.49
5,939.00	6.89	135.83	5,902.37	-313.55	324.66	-314.68	0.49	-0.49	0.22
6,035.00	6.66	135.43	5,997.70	-321.64	332.58	-322.80	0.24	-0.24	-0.42
6,129.00	7.49	136.21	6,090.99	-329.95	340.64	-331.14	0.89	0.88	0.83
6,223.00	8.32	137.84	6,184.09	-339.41	349.45	-340.63	0.91	0.88	1.73
6,317.00	9.15	133.81	6,277.00	-349.63	359.41	-350.88	1.10	0.88	-4.29
6,410.00	9.77	131.08	6,368.74	-359.93	370.69	-361.22	0.82	0.67	-2.94
6,504.00	9.79	130.22	6,461.37	-370.33	382.80	-371.67	0.16	0.02	-0.91
6,598.00	9.49	130.38	6,554.04	-380.51	394.81	-381.89	0.32	-0.32	0.17
6,692.00	9.45	129.72	6,646.76	-390.47	406.65	-391.88	0.12	-0.04	-0.70
6,786.00	9.55	129.14	6,739.47	-400.32	418.63	-401.78	0.15	0.11	-0.62
6,880.00	9.45	129.78	6,832.18	-410.18	430.61	-411.68	0.15	-0.11	0.68
6,974.00	9.14	129.81	6,924.95	-419.90	442.28	-421.44	0.33	-0.33	0.03
7,068.00	8.85	128.46	7,017.79	-429.17	453.67	-430.75	0.38	-0.31	-1.44
7,161.00	8.23	133.95	7,109.76	-438.24	464.07	-439.86	1.10	-0.67	5.90
7,256.00	7.57	136.86	7,203.86	-447.53	473.24	-449.18	0.81	-0.69	3.06
7,350.00	7.65	137.03	7,297.03	-456.62	481.74	-458.30	0.09	0.09	0.18
7,445.00	6.76	138.71	7,391.28	-465.45	489.74	-467.16	0.96	-0.94	1.77
7,540.00	5.89	138.00	7,485.70	-473.28	496.69	-475.01	0.92	-0.92	-0.75
7,635.00	5.30	139.32	7,580.25	-480.23	502.81	-481.98	0.64	-0.62	1.39
7,729.00	3.89	137.82	7,673.95	-485.88	507.78	-487.65	1.51	-1.50	-1.60
7,823.00	2.60	124.79	7,767.79	-489.46	511.68	-491.24	1.57	-1.37	-13.86
7,917.00	0.86	109.33	7,861.75	-490.91	514.09	-492.70	1.90	-1.85	-16.45
8,011.00	0.63	296.56	7,955.75	-490.91	514.30	-492.71	1.58	-0.24	-183.80
8,105.00	1.31	298.46	8,049.73	-490.17	512.89	-491.96	0.72	0.72	2.02
8,200.00	1.19	301.40	8,144.71	-489.14	511.09	-490.92	0.14	-0.13	3.09
8,294.00	1.01	292.27	8,238.69	-488.32	509.49	-490.09	0.27	-0.19	-9.71
8,388.00	0.88	285.55	8,332.68	-487.81	508.03	-489.58	0.18	-0.14	-7.15
8,482.00	1.22	277.75	8,426.66	-487.48	506.34	-489.25	0.39	0.36	-8.30
8,577.00	1.79	276.80	8,521.63	-487.17	503.87	-488.92	0.60	0.60	-1.00
8,671.00	1.77	270.07	8,615.58	-486.99	500.96	-488.74	0.22	-0.02	-7.16
8,765.00	1.65	261.20	8,709.54	-487.20	498.17	-488.93	0.31	-0.13	-9.44
8,860.00	1.45	245.69	8,804.51	-487.90	495.72	-489.63	0.49	-0.21	-16.33
8,955.00	1.73	230.46	8,899.47	-489.31	493.52	-491.03	0.53	0.29	-16.03
9,049.00	2.22	202.31	8,993.42	-491.90	491.74	-493.61	1.14	0.52	-29.95
9,143.00	2.91	179.96	9,087.33	-495.97	491.05	-497.68	1.28	0.73	-23.78

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9,237.00	1.65	172.83	9,181.25	-499.70	491.22	-501.41	1.37	-1.34	-7.59
9,332.00	1.65	178.26	9,276.21	-502.42	491.43	-504.13	0.16	0.00	5.72
9,426.00	1.66	194.68	9,370.17	-505.09	491.13	-506.80	0.50	0.01	17.47
9,520.00	1.32	193.10	9,464.14	-507.46	490.53	-509.17	0.36	-0.36	-1.68
9,616.00	2.02	199.02	9,560.10	-510.14	489.73	-511.85	0.75	0.73	6.17
9,710.00	2.08	214.32	9,654.04	-513.11	488.23	-514.82	0.58	0.06	16.28
9,804.00	2.80	226.47	9,747.95	-516.10	485.60	-517.80	0.94	0.77	12.93
9,899.00	2.89	223.92	9,842.84	-519.43	482.26	-521.11	0.16	0.09	-2.68
9,993.00	2.90	226.68	9,936.72	-522.77	478.89	-524.43	0.15	0.01	2.94
10,087.00	3.43	229.92	10,030.57	-526.21	475.01	-527.86	0.59	0.56	3.45
10,182.00	3.65	222.86	10,125.39	-530.25	470.77	-531.89	0.51	0.23	-7.43
10,275.00	2.97	218.81	10,218.24	-534.30	467.25	-535.93	0.77	-0.73	-4.35
10,369.00	2.83	213.79	10,312.12	-538.13	464.43	-539.75	0.31	-0.15	-5.34
10,464.00	1.91	297.38	10,407.06	-539.35	461.72	-540.96	3.40	-0.97	87.99
10,558.00	9.44	353.72	10,500.57	-530.95	459.48	-532.55	9.07	8.01	59.94
10,652.00	17.49	2.98	10,591.92	-509.14	459.38	-510.74	8.84	8.56	9.85
10,699.00	21.79	2.73	10,636.17	-493.37	460.16	-494.97	9.15	9.15	-0.53
10,745.00	24.44	4.65	10,678.48	-475.35	461.34	-476.96	5.99	5.76	4.17
10,792.00	29.19	4.85	10,720.41	-454.23	463.10	-455.84	10.11	10.11	0.43
10,838.00	33.46	6.95	10,759.70	-430.45	465.58	-432.08	9.58	9.28	4.57
10,932.00	41.70	8.09	10,834.13	-373.68	473.13	-375.33	8.80	8.77	1.21
11,026.00	51.65	2.82	10,898.57	-305.71	479.36	-307.38	11.34	10.59	-5.61
11,056.00	56.75	0.32	10,916.11	-281.40	480.01	-283.07	18.29	17.00	-8.33
11,087.00	61.08	358.90	10,932.12	-254.86	479.82	-256.53	14.51	13.97	-4.58
11,118.00	64.61	357.34	10,946.26	-227.30	478.91	-228.97	12.24	11.39	-5.03
11,149.00	69.44	355.54	10,958.36	-198.82	477.13	-200.49	16.47	15.58	-5.81
11,180.00	74.17	354.43	10,968.04	-169.49	474.55	-171.15	15.63	15.26	-3.58
11,212.00	79.36	353.12	10,975.36	-138.54	471.17	-140.18	16.70	16.22	-4.09
11,237.00	83.37	352.56	10,979.12	-114.02	468.09	-115.65	16.19	16.04	-2.24
11,330.00	87.95	351.51	10,986.15	-22.21	455.24	-23.80	5.05	4.92	-1.13
11,423.00	91.04	353.32	10,986.97	69.96	442.97	68.41	3.85	3.32	1.95
11,517.00	91.48	352.89	10,984.90	163.26	431.69	161.75	0.65	0.47	-0.46
11,578.56	92.58	352.33	10,982.72	224.27	423.77	222.79	2.01	1.79	-0.91
LP[BC217H]									
11,611.00	93.16	352.03	10,981.10	256.36	419.36	254.90	2.01	1.79	-0.92
11,705.00	91.61	355.12	10,977.19	349.68	408.86	348.25	3.67	-1.65	3.29
11,799.00	90.44	356.07	10,975.51	443.38	401.64	441.98	1.60	-1.24	1.01
11,893.00	90.00	357.45	10,975.14	537.23	396.33	535.84	1.54	-0.47	1.47
11,987.00	91.48	357.67	10,973.93	631.13	392.33	629.76	1.59	1.57	0.23
12,081.00	87.72	357.20	10,974.59	725.02	388.12	723.66	4.03	-4.00	-0.50
12,175.00	89.09	356.33	10,977.20	818.83	382.82	817.49	1.73	1.46	-0.93
12,269.00	88.99	356.07	10,978.78	912.61	376.59	911.29	0.30	-0.11	-0.28
12,363.00	86.78	356.14	10,982.25	1,006.32	370.21	1,005.03	2.35	-2.35	0.07
12,457.00	87.25	356.28	10,987.14	1,099.99	364.00	1,098.71	0.52	0.50	0.15

Scientific Drilling, Intl Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 217H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Site:	Big Cat 16-9 State Fed Com	MD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Well:	217H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,550.00	91.01	355.49	10,988.55	1,192.72	357.33	1,191.47	4.13	4.04	-0.85
12,644.00	93.42	354.72	10,984.92	1,286.30	349.32	1,285.08	2.69	2.56	-0.82
12,738.00	92.65	355.12	10,979.94	1,379.80	341.01	1,378.60	0.92	-0.82	0.43
12,831.00	91.41	355.97	10,976.65	1,472.46	333.79	1,471.29	1.62	-1.33	0.91
12,925.00	93.23	355.57	10,972.84	1,566.12	326.86	1,564.97	1.98	1.94	-0.43
13,018.00	91.68	356.85	10,968.86	1,658.83	320.72	1,657.70	2.16	-1.67	1.38
13,112.00	91.54	357.78	10,966.22	1,752.69	316.32	1,751.57	1.00	-0.15	0.99
13,206.00	92.69	358.81	10,962.75	1,846.58	313.52	1,845.47	1.64	1.22	1.10
13,300.00	91.11	358.41	10,959.63	1,940.50	311.24	1,939.40	1.73	-1.68	-0.43
13,394.00	88.83	358.92	10,959.68	2,034.46	309.05	2,033.37	2.49	-2.43	0.54
13,487.00	89.90	358.33	10,960.71	2,127.43	306.82	2,126.35	1.31	1.15	-0.63
13,580.00	88.49	356.88	10,962.02	2,220.34	302.94	2,219.26	2.17	-1.52	-1.56
13,675.00	87.31	355.46	10,965.50	2,315.06	296.60	2,314.01	1.94	-1.24	-1.49
13,769.00	89.16	355.63	10,968.40	2,408.72	289.30	2,407.70	1.98	1.97	0.18
13,863.00	90.57	356.98	10,968.62	2,502.52	283.24	2,501.52	2.08	1.50	1.44
13,957.00	90.50	358.64	10,967.74	2,596.45	279.65	2,595.45	1.77	-0.07	1.77
14,051.00	90.00	358.47	10,967.33	2,690.42	277.28	2,689.43	0.56	-0.53	-0.18
14,146.00	88.62	358.21	10,968.47	2,785.37	274.53	2,784.39	1.48	-1.45	-0.27
14,241.00	89.26	357.46	10,970.23	2,880.28	270.94	2,879.32	1.04	0.67	-0.79
14,336.00	90.60	356.75	10,970.35	2,975.16	266.14	2,974.21	1.60	1.41	-0.75
14,430.00	90.00	356.77	10,969.86	3,069.01	260.83	3,068.08	0.64	-0.64	0.02
14,525.00	88.76	358.18	10,970.88	3,163.90	256.64	3,162.99	1.98	-1.31	1.48
14,620.00	90.77	357.78	10,971.27	3,258.84	253.29	3,257.93	2.16	2.12	-0.42
14,714.00	90.97	358.83	10,969.85	3,352.78	250.51	3,351.89	1.14	0.21	1.12
14,808.00	92.99	358.91	10,966.60	3,446.71	248.66	3,445.82	2.15	2.15	0.09
14,902.00	92.25	357.87	10,962.30	3,540.57	246.02	3,539.69	1.36	-0.79	-1.11
14,997.00	91.88	359.86	10,958.88	3,635.48	244.14	3,634.61	2.13	-0.39	2.09
15,091.00	92.01	0.96	10,955.69	3,729.43	244.82	3,728.55	1.18	0.14	1.17
15,185.00	89.06	2.26	10,954.81	3,823.37	247.46	3,822.48	3.43	-3.14	1.38
15,279.00	88.19	1.86	10,957.07	3,917.28	250.83	3,916.38	1.02	-0.93	-0.43
15,373.00	91.71	1.97	10,957.15	4,011.22	253.97	4,010.30	3.75	3.74	0.12
15,467.00	89.70	0.09	10,955.99	4,105.18	255.66	4,104.27	2.93	-2.14	-2.00
15,561.00	91.41	359.48	10,955.08	4,199.17	255.31	4,198.26	1.93	1.82	-0.65
15,656.00	90.44	0.26	10,953.55	4,294.16	255.10	4,293.24	1.31	-1.02	0.82
15,751.00	87.75	2.55	10,955.05	4,389.10	257.42	4,388.18	3.72	-2.83	2.41
15,846.00	87.35	2.31	10,959.11	4,483.93	261.45	4,482.99	0.49	-0.42	-0.25
15,940.00	86.44	2.37	10,964.20	4,577.72	265.28	4,576.76	0.97	-0.97	0.06
16,035.00	88.46	2.03	10,968.43	4,672.55	268.92	4,671.58	2.16	2.13	-0.36
16,130.00	90.30	1.22	10,969.45	4,767.50	271.62	4,766.52	2.12	1.94	-0.85
16,224.00	89.30	1.20	10,969.78	4,861.47	273.60	4,860.49	1.06	-1.06	-0.02
16,318.00	89.70	0.89	10,970.60	4,955.46	275.32	4,954.46	0.54	0.43	-0.33
16,411.00	92.05	0.15	10,969.18	5,048.43	276.16	5,047.44	2.65	2.53	-0.80
16,506.00	91.04	359.66	10,966.62	5,143.40	276.00	5,142.40	1.18	-1.06	-0.52

Scientific Drilling, Intl **Survey Report**

Company:	Devon Energy	Local Co-ordinate Reference:	Well 217H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Site:	Big Cat 16-9 State Fed Com	MD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Well:	217H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,600.00	88.62	359.83	10,966.90	5,237.39	275.58	5,236.40	2.58	-2.57	0.18
16,694.00	89.73	359.09	10,968.25	5,331.37	274.70	5,330.38	1.42	1.18	-0.79
16,787.00	91.04	358.95	10,967.63	5,424.36	273.11	5,423.37	1.42	1.41	-0.15
16,880.00	88.36	358.66	10,968.12	5,517.33	271.17	5,516.34	2.90	-2.88	-0.31
16,975.00	89.33	359.22	10,970.03	5,612.29	269.41	5,611.31	1.18	1.02	0.59
17,068.00	90.91	358.70	10,969.84	5,705.27	267.72	5,704.30	1.79	1.70	-0.56
17,161.00	93.22	358.25	10,966.48	5,798.17	265.25	5,797.21	2.53	2.48	-0.48
17,255.00	92.12	359.44	10,962.11	5,892.05	263.36	5,891.09	1.72	-1.17	1.27
17,348.00	91.31	359.27	10,959.32	5,985.00	262.31	5,984.04	0.89	-0.87	-0.18
17,441.00	91.84	359.91	10,956.77	6,077.96	261.65	6,077.01	0.89	0.57	0.69
17,535.00	91.61	0.02	10,953.94	6,171.92	261.59	6,170.97	0.27	-0.24	0.12
17,629.00	91.61	358.65	10,951.30	6,265.87	260.50	6,264.92	1.46	0.00	-1.46
17,722.00	89.97	359.35	10,950.01	6,358.84	258.88	6,357.90	1.92	-1.76	0.75
17,816.00	91.38	359.26	10,948.91	6,452.83	257.74	6,451.89	1.50	1.50	-0.10
17,910.00	90.91	359.78	10,947.03	6,546.80	256.95	6,545.87	0.75	-0.50	0.55
18,005.00	90.34	0.53	10,945.99	6,641.80	257.21	6,640.86	0.99	-0.60	0.79
18,099.00	92.38	0.74	10,943.76	6,735.76	258.25	6,734.82	2.18	2.17	0.22
18,193.00	89.56	1.23	10,942.17	6,829.72	259.86	6,828.77	3.04	-3.00	0.52
18,287.00	90.81	1.12	10,941.87	6,923.70	261.79	6,922.75	1.33	1.33	-0.12
18,380.00	90.70	1.63	10,940.64	7,016.67	264.02	7,015.70	0.56	-0.12	0.55
18,475.00	88.29	1.57	10,941.48	7,111.62	266.67	7,110.64	2.54	-2.54	-0.06
18,569.00	89.13	1.51	10,943.59	7,205.56	269.20	7,204.58	0.90	0.89	-0.06
18,663.00	88.83	1.38	10,945.27	7,299.51	271.57	7,298.52	0.35	-0.32	-0.14
18,757.00	88.12	0.29	10,947.77	7,393.47	272.94	7,392.47	1.38	-0.76	-1.16
18,852.00	88.49	359.98	10,950.58	7,488.43	273.16	7,487.43	0.51	0.39	-0.33
18,946.00	91.31	359.33	10,950.74	7,582.42	272.60	7,581.42	3.08	3.00	-0.69
19,040.00	92.08	359.39	10,947.96	7,676.37	271.55	7,675.37	0.82	0.82	0.06
19,133.00	91.38	358.79	10,945.15	7,769.31	270.07	7,768.32	0.99	-0.75	-0.65
19,227.00	91.61	358.12	10,942.70	7,863.25	267.54	7,862.26	0.75	0.24	-0.71
19,287.68	90.70	358.17	10,941.48	7,923.88	265.57	7,922.90	1.50	-1.50	0.07
BHL Plat[BC1217H]									
19,321.00	90.20	358.19	10,941.22	7,957.18	264.51	7,956.21	1.50	-1.50	0.07
19,414.00	90.37	357.84	10,940.76	8,050.13	261.29	8,049.16	0.42	0.18	-0.38
19,508.00	91.71	358.57	10,939.05	8,144.06	258.35	8,143.11	1.62	1.43	0.78
FINAL MWD Survey (19508.00' MD)									
19,570.00	91.71	358.57	10,937.20	8,206.01	256.80	8,205.07	0.00	0.00	0.00
FINAL Proj. to Bit (19570.00' MD) - BHL.FINAL[BC1217H]									

Scientific Drilling, Intl
Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 217H
Project:	Lea County, NM (NAD83 NME)	TVD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Site:	Big Cat 16-9 State Fed Com	MD Reference:	KB = 32' @ 3727.00usft (Nabors X15)
Well:	217H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Midland District

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
19,508.00	10,939.05	8,144.06	258.35	FINAL MWD Survey (19508.00' MD)
19,570.00	10,937.20	8,206.01	256.80	FINAL Proj. to Bit (19570.00' MD)

Checked By: _____	Approved By: _____	Date: _____
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