



Devon Energy

Lea Co., NM (Nad83 - East Zone)

Bell Lake 18-19 State Com

#7H

OH

Design: OH

Standard Survey Report

10 September, 2019



Wellbenders Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well #7H
Project:	Lea Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Site:	Bell Lake 18-19 State Com	MD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Well:	#7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Project	Lea Co., NM (Nad83 - East Zone)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Bell Lake 18-19 State Com				
Site Position:		Northing:	436,249.73 usft	Latitude:	32.197239
From:	Map	Easting:	766,169.93 usft	Longitude:	-103.606488
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.387 °

Well	#7H					
Well Position	+N/-S	0.00 usft	Northing:	436,249.73 usft	Latitude:	32.197239
	+E/-W	0.00 usft	Easting:	766,169.93 usft	Longitude:	-103.606488
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,540.20 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/12/2019	6.780	60.010	47,739.42933731

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	359.56	

Survey Program	Date 9/10/2019				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
169.00	19,545.00	Survey #1 (OH)	MWD+IGRF	OWSG MWD + IGRF or WMM	

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
169.00	0.26	188.50	169.00	-0.38	-0.06	-0.38	0.15	0.15	0.00
271.00	0.44	141.13	271.00	-0.91	0.15	-0.91	0.32	0.18	-46.44
364.00	0.26	202.21	364.00	-1.39	0.30	-1.39	0.42	-0.19	65.68
456.00	0.00	320.95	456.00	-1.58	0.22	-1.58	0.28	-0.28	0.00
548.00	0.13	61.59	548.00	-1.53	0.31	-1.53	0.14	0.14	0.00
640.00	0.22	290.63	640.00	-1.42	0.24	-1.42	0.35	0.10	-142.35
732.00	0.53	358.04	731.99	-0.93	0.06	-0.93	0.53	0.34	73.27
824.00	0.66	1.21	823.99	0.02	0.06	0.02	0.15	0.14	3.45
917.00	0.92	355.32	916.98	1.30	0.01	1.30	0.29	0.28	-6.33



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Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,009.00	0.92	335.45	1,008.97	2.71	-0.36	2.71	0.35	0.00	-21.60
1,102.00	1.05	332.82	1,101.95	4.15	-1.06	4.16	0.15	0.14	-2.83
1,151.00	0.88	330.88	1,150.95	4.88	-1.45	4.89	0.35	-0.35	-3.96
1,340.00	0.97	290.63	1,339.92	6.71	-3.65	6.74	0.34	0.05	-21.30
1,433.00	0.79	308.30	1,432.91	7.38	-4.89	7.42	0.35	-0.19	19.00
1,618.00	0.70	273.49	1,617.90	8.24	-7.02	8.30	0.25	-0.05	-18.82
1,711.00	1.01	281.31	1,710.89	8.44	-8.39	8.50	0.36	0.33	8.41
1,806.00	0.44	280.61	1,805.88	8.67	-9.57	8.74	0.60	-0.60	-0.74
1,901.00	0.44	193.95	1,900.88	8.38	-10.02	8.46	0.64	0.00	-91.22
1,995.00	0.13	243.35	1,994.88	7.98	-10.20	8.06	0.39	-0.33	52.55
2,090.00	0.57	233.34	2,089.88	7.65	-10.68	7.74	0.47	0.46	-10.54
2,185.00	0.48	222.52	2,184.87	7.08	-11.32	7.17	0.14	-0.09	-11.39
2,280.00	0.44	267.16	2,279.87	6.77	-11.96	6.86	0.37	-0.04	46.99
2,375.00	0.40	263.21	2,374.87	6.71	-12.65	6.81	0.05	-0.04	-4.16
2,469.00	0.09	317.96	2,468.87	6.73	-13.03	6.83	0.38	-0.33	58.24
2,564.00	0.04	209.16	2,563.87	6.75	-13.09	6.85	0.12	-0.05	-114.53
2,659.00	0.48	238.60	2,658.86	6.52	-13.45	6.62	0.47	0.46	30.99
2,754.00	0.75	259.25	2,753.86	6.19	-14.40	6.30	0.36	0.28	21.74
2,848.00	0.62	239.83	2,847.85	5.82	-15.44	5.94	0.28	-0.14	-20.66
2,943.00	0.79	268.13	2,942.85	5.54	-16.54	5.67	0.40	0.18	29.79
3,037.00	1.36	250.64	3,036.83	5.15	-18.24	5.29	0.69	0.61	-18.61
3,132.00	2.55	227.96	3,131.77	3.36	-20.87	3.52	1.47	1.25	-23.87
3,226.00	3.60	217.77	3,225.64	-0.37	-24.24	-0.18	1.26	1.12	-10.84
3,320.00	4.00	199.93	3,319.43	-5.79	-27.16	-5.58	1.32	0.43	-18.98
3,415.00	3.65	201.95	3,414.22	-11.71	-29.42	-11.48	0.39	-0.37	2.13
3,510.00	3.43	202.48	3,509.04	-17.14	-31.64	-16.89	0.23	-0.23	0.56
3,605.00	4.04	201.25	3,603.84	-22.88	-33.94	-22.62	0.65	0.64	-1.29
3,699.00	5.23	210.21	3,697.53	-29.67	-37.29	-29.38	1.48	1.27	9.53
3,793.00	3.52	200.37	3,791.25	-36.08	-40.45	-35.77	1.98	-1.82	-10.47
3,888.00	3.43	201.86	3,886.08	-41.45	-42.53	-41.12	0.13	-0.09	1.57
3,982.00	2.99	200.10	3,979.93	-46.36	-44.42	-46.02	0.48	-0.47	-1.87
4,077.00	2.55	197.29	4,074.82	-50.71	-45.90	-50.35	0.48	-0.46	-2.96
4,172.00	2.33	195.09	4,169.73	-54.59	-47.03	-54.23	0.25	-0.23	-2.32
4,266.00	2.02	188.68	4,263.67	-58.07	-47.77	-57.70	0.42	-0.33	-6.82
4,360.00	1.89	170.66	4,357.61	-61.24	-47.77	-60.87	0.67	-0.14	-19.17
4,455.00	3.25	175.41	4,452.52	-65.47	-47.30	-65.10	1.45	1.43	5.00
4,550.00	3.56	175.85	4,547.35	-71.09	-46.87	-70.73	0.33	0.33	0.46
4,645.00	3.69	167.14	4,642.16	-77.02	-45.98	-76.66	0.59	0.14	-9.17
4,739.00	4.04	164.95	4,735.94	-83.16	-44.45	-82.82	0.40	0.37	-2.33
4,834.00	3.87	164.16	4,830.72	-89.48	-42.70	-89.15	0.19	-0.18	-0.83
4,929.00	3.25	166.09	4,925.53	-95.18	-41.18	-94.86	0.66	-0.65	2.03
4,998.00	3.03	166.09	4,994.43	-98.85	-40.27	-98.53	0.32	-0.32	0.00
5,115.00	2.37	161.69	5,111.30	-104.14	-38.77	-103.84	0.59	-0.56	-3.76
5,210.00	2.73	178.39	5,206.21	-108.27	-38.09	-107.98	0.86	0.38	17.58



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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,305.00	3.25	185.60	5,301.08	-113.21	-38.29	-112.92	0.67	0.55	7.59
5,399.00	3.96	189.47	5,394.89	-119.07	-39.08	-118.76	0.80	0.76	4.12
5,493.00	4.13	188.50	5,488.66	-125.62	-40.12	-125.30	0.19	0.18	-1.03
5,589.00	3.96	191.40	5,584.42	-132.28	-41.28	-131.96	0.28	-0.18	3.02
5,684.00	3.96	189.64	5,679.19	-138.73	-42.48	-138.40	0.13	0.00	-1.85
5,778.00	4.00	191.31	5,772.96	-145.15	-43.67	-144.81	0.13	0.04	1.78
5,873.00	3.82	190.17	5,867.74	-151.51	-44.87	-151.16	0.21	-0.19	-1.20
5,967.00	4.22	194.39	5,961.51	-157.94	-46.29	-157.58	0.53	0.43	4.49
6,062.00	4.53	206.52	6,056.24	-164.69	-48.83	-164.31	1.02	0.33	12.77
6,157.00	4.57	221.28	6,150.94	-170.89	-53.00	-170.48	1.23	0.04	15.54
6,251.00	4.44	226.12	6,244.65	-176.22	-58.10	-175.77	0.43	-0.14	5.15
6,346.00	4.40	225.77	6,339.37	-181.32	-63.36	-180.82	0.05	-0.04	-0.37
6,440.00	4.40	225.24	6,433.09	-186.37	-68.50	-185.84	0.04	0.00	-0.56
6,535.00	4.35	226.38	6,527.81	-191.42	-73.70	-190.85	0.11	-0.05	1.20
6,629.00	4.40	224.80	6,621.54	-196.44	-78.82	-195.83	0.14	0.05	-1.68
6,724.00	4.44	222.69	6,716.26	-201.73	-83.88	-201.08	0.18	0.04	-2.22
6,819.00	4.13	222.78	6,810.99	-206.94	-88.70	-206.25	0.33	-0.33	0.09
6,913.00	4.09	221.37	6,904.75	-211.94	-93.21	-211.22	0.12	-0.04	-1.50
7,007.00	4.09	220.85	6,998.51	-216.99	-97.62	-216.24	0.04	0.00	-0.55
7,102.00	3.96	220.93	7,093.28	-222.03	-101.98	-221.24	0.14	-0.14	0.08
7,197.00	4.04	219.18	7,188.05	-227.11	-106.25	-226.28	0.15	0.08	-1.84
7,291.00	4.04	217.33	7,281.81	-232.31	-110.35	-231.45	0.14	0.00	-1.97
7,385.00	4.09	217.24	7,375.58	-237.61	-114.38	-236.72	0.05	0.05	-0.10
7,479.00	3.65	217.68	7,469.36	-242.64	-118.24	-241.73	0.47	-0.47	0.47
7,574.00	3.52	215.40	7,564.18	-247.42	-121.78	-246.47	0.20	-0.14	-2.40
7,669.00	3.08	215.31	7,659.02	-251.87	-124.94	-250.91	0.46	-0.46	-0.09
7,763.00	2.46	209.24	7,752.91	-255.70	-127.39	-254.71	0.73	-0.66	-6.46
7,858.00	2.15	204.06	7,847.83	-259.10	-129.11	-258.10	0.39	-0.33	-5.45
7,953.00	1.85	192.90	7,942.77	-262.22	-130.18	-261.22	0.52	-0.32	-11.75
8,047.00	2.02	210.91	8,036.72	-265.12	-131.37	-264.11	0.67	0.18	19.16
8,142.00	2.24	222.34	8,131.66	-267.93	-133.48	-266.90	0.50	0.23	12.03
8,236.00	2.11	223.13	8,225.59	-270.55	-135.90	-269.50	0.14	-0.14	0.84
8,331.00	2.15	226.03	8,320.52	-273.07	-138.38	-272.00	0.12	0.04	3.05
8,426.00	2.24	227.17	8,415.45	-275.57	-141.02	-274.48	0.11	0.09	1.20
8,520.00	2.51	230.07	8,509.37	-278.14	-143.95	-277.02	0.31	0.29	3.09
8,615.00	2.46	232.01	8,604.28	-280.73	-147.15	-279.59	0.10	-0.05	2.04
8,709.00	1.32	260.04	8,698.23	-282.16	-149.81	-281.00	1.53	-1.21	29.82
8,804.00	1.19	277.89	8,793.21	-282.21	-151.86	-281.04	0.43	-0.14	18.79
8,898.00	1.49	273.76	8,887.18	-282.00	-154.05	-280.80	0.34	0.32	-4.39
8,966.00	2.69	320.09	8,955.14	-280.71	-155.96	-279.51	2.91	1.77	68.13
KOP @ 8966.00' MD									
8,993.00	3.38	327.37	8,982.10	-279.56	-156.79	-278.34	2.91	2.55	26.96
9,088.00	16.57	1.56	9,075.51	-263.58	-157.94	-262.36	14.63	13.88	35.99



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9,183.00	24.66	355.58	9,164.36	-230.22	-159.10	-228.99	8.79	8.52	-6.29
9,277.00	33.32	354.35	9,246.50	-184.89	-163.16	-183.63	9.23	9.21	-1.31
9,371.00	43.96	357.69	9,319.83	-126.42	-167.03	-125.13	11.53	11.32	3.55
9,466.00	51.74	1.03	9,383.54	-56.07	-167.69	-54.78	8.59	8.19	3.52
9,560.00	57.23	3.76	9,438.13	20.34	-164.43	21.60	6.30	5.84	2.90
9,655.00	62.29	1.73	9,485.97	102.28	-160.54	103.51	5.64	5.33	-2.14
9,750.00	72.75	0.33	9,522.24	189.93	-159.00	191.14	11.09	11.01	-1.47
9,804.00	79.09	359.61	9,535.37	242.28	-159.03	243.49	11.80	11.73	-1.33
1st Take Point @ 9804.00' MD									
9,844.00	83.78	359.10	9,541.33	281.82	-159.48	283.03	11.80	11.74	-1.28
9,904.00	91.65	359.18	9,543.72	341.72	-160.38	342.94	13.12	13.12	0.13
9,999.00	90.95	359.45	9,541.57	436.68	-161.51	437.91	0.79	-0.74	0.28
10,094.00	88.48	359.01	9,542.04	531.67	-162.79	532.90	2.64	-2.60	-0.46
10,189.00	88.75	359.18	9,544.33	626.63	-164.29	627.87	0.34	0.28	0.18
10,283.00	89.49	359.27	9,545.78	720.61	-165.56	721.86	0.79	0.79	0.10
10,378.00	90.20	359.54	9,546.03	815.60	-166.55	816.85	0.80	0.75	0.28
10,473.00	90.99	359.89	9,545.05	910.59	-167.02	911.85	0.91	0.83	0.37
10,566.00	89.05	359.62	9,545.02	1,003.59	-167.42	1,004.84	2.11	-2.09	-0.29
10,658.00	88.79	359.27	9,546.75	1,095.57	-168.31	1,096.83	0.47	-0.28	-0.38
10,750.00	88.44	358.48	9,548.97	1,187.52	-170.12	1,188.79	0.94	-0.38	-0.86
10,843.00	90.24	358.48	9,550.04	1,280.48	-172.58	1,281.77	1.94	1.94	0.00
10,935.00	91.82	358.83	9,548.39	1,372.44	-174.74	1,373.74	1.76	1.72	0.38
11,027.00	93.05	358.75	9,544.48	1,464.33	-176.68	1,465.64	1.34	1.34	-0.09
11,120.00	92.88	359.27	9,539.67	1,557.19	-178.29	1,558.51	0.59	-0.18	0.56
11,212.00	91.87	359.71	9,535.86	1,649.11	-179.11	1,650.43	1.20	-1.10	0.48
11,305.00	91.16	0.06	9,533.40	1,742.07	-179.29	1,743.40	0.85	-0.76	0.38
11,397.00	91.56	0.24	9,531.22	1,834.05	-179.05	1,835.37	0.48	0.43	0.20
11,490.00	90.42	0.24	9,529.61	1,927.03	-178.66	1,928.35	1.23	-1.23	0.00
11,582.00	89.27	0.42	9,529.86	2,019.03	-178.13	2,020.34	1.27	-1.25	0.20
11,675.00	87.08	0.59	9,532.82	2,111.97	-177.31	2,113.27	2.36	-2.35	0.18
11,767.00	88.00	0.85	9,536.77	2,203.88	-176.16	2,205.17	1.04	1.00	0.28
11,861.00	88.13	0.59	9,539.94	2,297.82	-174.98	2,299.09	0.31	0.14	-0.28
11,955.00	90.59	359.18	9,540.99	2,391.80	-175.17	2,393.08	3.02	2.62	-1.50
12,050.00	91.82	358.22	9,539.00	2,486.75	-177.32	2,488.04	1.64	1.29	-1.01
12,145.00	94.11	358.66	9,534.08	2,581.58	-179.90	2,582.89	2.45	2.41	0.46
12,239.00	92.09	358.57	9,529.00	2,675.41	-182.17	2,676.73	2.15	-2.15	-0.10
12,334.00	91.82	358.48	9,525.76	2,770.33	-184.62	2,771.66	0.30	-0.28	-0.09
12,428.00	91.82	358.22	9,522.77	2,864.24	-187.32	2,865.59	0.28	0.00	-0.28
12,523.00	92.31	357.69	9,519.35	2,959.12	-190.71	2,960.50	0.76	0.52	-0.56
12,617.00	91.30	358.75	9,516.39	3,053.02	-193.63	3,054.42	1.56	-1.07	1.13
12,712.00	92.79	359.27	9,513.00	3,147.95	-195.27	3,149.35	1.66	1.57	0.55
12,806.00	90.59	359.01	9,510.23	3,241.89	-196.68	3,243.30	2.36	-2.34	-0.28
12,901.00	89.41	358.39	9,510.23	3,336.86	-198.83	3,338.29	1.40	-1.24	-0.65
12,995.00	90.24	358.04	9,510.51	3,430.81	-201.76	3,432.26	0.96	0.88	-0.37



Wellbenders Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well #7H
Project:	Lea Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Site:	Bell Lake 18-19 State Com	MD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Well:	#7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
13,090.00	90.95	357.69	9,509.53	3,525.74	-205.30	3,527.22	0.83	0.75	-0.37
13,184.00	90.29	357.52	9,508.51	3,619.65	-209.23	3,621.15	0.73	-0.70	-0.18
13,279.00	88.53	359.27	9,509.49	3,714.60	-211.89	3,716.12	2.61	-1.85	1.84
13,374.00	89.41	1.03	9,511.20	3,809.58	-211.64	3,811.10	2.07	0.93	1.85
13,468.00	90.29	1.65	9,511.44	3,903.56	-209.44	3,905.05	1.15	0.94	0.66
13,562.00	91.16	1.12	9,510.25	3,997.52	-207.17	3,998.99	1.08	0.93	-0.56
13,657.00	91.12	1.47	9,508.36	4,092.48	-205.02	4,093.93	0.37	-0.04	0.37
13,752.00	91.96	1.12	9,505.81	4,187.42	-202.88	4,188.85	0.96	0.88	-0.37
13,846.00	91.52	0.59	9,502.96	4,281.36	-201.48	4,282.78	0.73	-0.47	-0.56
13,941.00	92.79	0.68	9,499.38	4,376.29	-200.42	4,377.70	1.34	1.34	0.09
14,035.00	92.13	1.82	9,495.35	4,470.18	-198.37	4,471.57	1.40	-0.70	1.21
14,130.00	89.98	0.50	9,493.60	4,565.13	-196.45	4,566.51	2.66	-2.26	-1.39
14,225.00	87.82	359.01	9,495.42	4,660.11	-196.86	4,661.48	2.76	-2.27	-1.57
14,319.00	88.88	359.54	9,498.13	4,754.06	-198.05	4,755.44	1.26	1.13	0.56
14,414.00	89.85	0.06	9,499.18	4,849.05	-198.38	4,850.43	1.16	1.02	0.55
14,508.00	89.67	0.06	9,499.58	4,943.05	-198.28	4,944.43	0.19	-0.19	0.00
14,603.00	89.89	0.24	9,499.94	5,038.05	-198.03	5,039.42	0.30	0.23	0.19
14,698.00	90.59	359.98	9,499.54	5,133.05	-197.85	5,134.42	0.79	0.74	-0.27
14,792.00	89.58	359.80	9,499.40	5,227.05	-198.03	5,228.41	1.09	-1.07	-0.19
14,887.00	87.38	358.48	9,501.92	5,321.99	-199.45	5,323.37	2.70	-2.32	-1.39
14,981.00	87.25	358.13	9,506.33	5,415.85	-202.23	5,417.24	0.40	-0.14	-0.37
15,076.00	88.62	358.48	9,509.75	5,510.74	-205.04	5,512.16	1.49	1.44	0.37
15,171.00	90.42	359.62	9,510.55	5,605.72	-206.61	5,607.14	2.24	1.89	1.20
15,265.00	90.64	359.80	9,509.68	5,699.72	-207.09	5,701.14	0.30	0.23	0.19
15,360.00	91.08	359.89	9,508.25	5,794.71	-207.35	5,796.13	0.47	0.46	0.09
15,454.00	92.09	0.42	9,505.65	5,888.67	-207.09	5,890.08	1.21	1.07	0.56
15,549.00	91.65	0.50	9,502.55	5,983.61	-206.33	5,985.02	0.47	-0.46	0.08
15,644.00	92.22	0.59	9,499.34	6,078.56	-205.43	6,079.95	0.61	0.60	0.09
15,739.00	92.48	0.06	9,495.45	6,173.47	-204.89	6,174.86	0.62	0.27	-0.56
15,834.00	91.12	359.54	9,492.46	6,268.42	-205.22	6,269.81	1.53	-1.43	-0.55
15,928.00	90.20	358.92	9,491.38	6,362.41	-206.48	6,363.81	1.18	-0.98	-0.66
16,023.00	88.84	358.22	9,492.18	6,457.37	-208.85	6,458.79	1.61	-1.43	-0.74
16,117.00	89.27	357.87	9,493.73	6,551.30	-212.06	6,552.74	0.59	0.46	-0.37
16,212.00	89.19	357.08	9,495.00	6,646.20	-216.24	6,647.67	0.84	-0.08	-0.83
16,307.00	89.36	358.83	9,496.21	6,741.13	-219.63	6,742.62	1.85	0.18	1.84
16,401.00	89.63	359.80	9,497.03	6,835.12	-220.76	6,836.61	1.07	0.29	1.03
16,495.00	90.55	359.98	9,496.89	6,929.12	-220.94	6,930.61	1.00	0.98	0.19
16,590.00	90.86	359.89	9,495.72	7,024.11	-221.05	7,025.60	0.34	0.33	-0.09
16,684.00	90.81	359.62	9,494.35	7,118.10	-221.45	7,119.59	0.29	-0.05	-0.29
16,779.00	91.16	359.27	9,492.71	7,213.08	-222.37	7,214.58	0.52	0.37	-0.37
16,873.00	91.82	359.54	9,490.27	7,307.04	-223.34	7,308.54	0.76	0.70	0.29
16,968.00	89.49	359.54	9,489.18	7,402.03	-224.11	7,403.53	2.45	-2.45	0.00
17,062.00	90.37	359.27	9,489.30	7,496.02	-225.08	7,497.53	0.98	0.94	-0.29



Wellbenders

Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well #7H
Project:	Lea Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Site:	Bell Lake 18-19 State Com	MD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Well:	#7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,157.00	88.31	0.33	9,490.39	7,591.01	-225.41	7,592.51	2.44	-2.17	1.12
17,251.00	88.13	0.24	9,493.31	7,684.96	-224.95	7,686.46	0.21	-0.19	-0.10
17,345.00	88.13	359.98	9,496.38	7,778.91	-224.77	7,780.41	0.28	0.00	-0.28
17,439.00	88.09	359.71	9,499.48	7,872.86	-225.02	7,874.35	0.29	-0.04	-0.29
17,534.00	88.48	359.71	9,502.32	7,967.82	-225.50	7,969.31	0.41	0.41	0.00
17,629.00	89.32	0.42	9,504.15	8,062.80	-225.39	8,064.29	1.16	0.88	0.75
17,724.00	91.47	1.21	9,503.49	8,157.78	-224.04	8,159.26	2.41	2.26	0.83
17,818.00	91.47	0.59	9,501.08	8,251.73	-222.57	8,253.20	0.66	0.00	-0.66
17,913.00	92.48	359.01	9,497.81	8,346.67	-222.90	8,348.14	1.97	1.06	-1.66
18,007.00	90.86	358.75	9,495.07	8,440.61	-224.73	8,442.09	1.75	-1.72	-0.28
18,101.00	90.99	358.31	9,493.55	8,534.57	-227.15	8,536.06	0.49	0.14	-0.47
18,196.00	91.87	358.13	9,491.18	8,629.49	-230.10	8,631.01	0.95	0.93	-0.19
18,290.00	92.26	357.87	9,487.79	8,723.37	-233.37	8,724.91	0.50	0.41	-0.28
18,385.00	89.41	357.60	9,486.41	8,818.28	-237.13	8,819.84	3.01	-3.00	-0.28
18,479.00	88.00	356.55	9,488.53	8,912.13	-241.92	8,913.73	1.87	-1.50	-1.12
18,574.00	87.96	357.87	9,491.88	9,006.96	-246.54	9,008.58	1.39	-0.04	1.39
18,668.00	88.26	357.78	9,494.98	9,100.84	-250.11	9,102.49	0.33	0.32	-0.10
18,763.00	87.96	357.34	9,498.11	9,195.70	-254.15	9,197.38	0.56	-0.32	-0.46
18,857.00	87.08	358.57	9,502.18	9,289.55	-257.50	9,291.25	1.61	-0.94	1.31
18,952.00	88.57	359.18	9,505.79	9,384.46	-259.37	9,386.17	1.69	1.57	0.64
19,046.00	89.49	0.06	9,507.38	9,478.44	-259.99	9,480.16	1.35	0.98	0.94
19,141.00	89.14	0.15	9,508.51	9,573.43	-259.82	9,575.15	0.38	-0.37	0.09
19,235.00	89.41	0.68	9,509.70	9,667.42	-259.13	9,669.13	0.63	0.29	0.56
19,329.00	90.68	0.42	9,509.63	9,761.42	-258.23	9,763.11	1.38	1.35	-0.28
19,424.00	90.24	0.15	9,508.87	9,856.41	-257.76	9,858.10	0.54	-0.46	-0.28
19,477.00	90.07	0.06	9,508.72	9,909.41	-257.66	9,911.10	0.36	-0.32	-0.17
19,535.00	90.07	0.06	9,508.65	9,967.41	-257.60	9,969.10	0.00	0.00	0.00
Last Take Point @ 19535.00' MD									
19,545.00	90.07	0.06	9,508.64	9,977.41	-257.59	9,979.10	0.00	0.00	0.00

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Section Line Xing @ 14.1	0.00	0.00	9,498.80	4,796.52	-198.30	441,046.25	765,971.63	32.210427	-103.607024
- hit/miss target									
- Shape									
- actual wellpath hits target center									
- Point									
100' N Line Xing @ 19.5	0.00	0.00	9,508.64	9,976.51	-257.59	446,226.24	765,912.33	32.224666	-103.607103
- hit/miss target									
- Shape									
- actual wellpath hits target center									
- Point									
Bell Lake 18-19 #7H Fin.	0.00	0.00	9,508.64	9,977.41	-257.59	446,227.14	765,912.34	32.224669	-103.607103
- hit/miss target									
- Shape									
- actual wellpath hits target center									
- Point									



Wellbenders
Survey Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well #7H
Project:	Lea Co., NM (Nad83 - East Zone)	TVD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Site:	Bell Lake 18-19 State Com	MD Reference:	RKB=30' @ 3570.20usft (Cactus 108)
Well:	#7H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	WBDS_SQL_2

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
8,966.00	8,955.14	-280.71	-155.96	KOP @ 8966.00' MD
9,804.00	9,535.37	242.28	-159.03	1st Take Point @ 9804.00' MD
19,535.00	9,508.65	9,967.41	-257.60	Last Take Point @ 19535.00' MD

Checked By: _____	Approved By: _____	Date: _____
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I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **03/12/19** thru **03/27/19** conduct or supervise the taking of a **MWD Survey** from a depth of **169'** to a depth of **19545'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **Devon Energy** for the **Bell Lake 18-19 State Com #7H** API No. **30-025-45421** in **Lea County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright

*1125 Beach Airport Rd, Conroe, Texas
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PH 936-756-3225 FAX 936-756-3248*