

AUG 17 2018

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WELLBENDERS
DIRECTIONAL SERVICES



Survey Report

Service Company: Wellbenders Directional Services,
LLC

Location: Eddy County

Well: South Boyd 19-H

Rig: Silver Oak #1

API or UWI: 30-015-44686

Job Number: NMDG 2018-1101

State: New Mexico

Operating Company: Percussion Petroleum

County: Eddy

Magnetic Declination: 7.37

Country: USA

Proposed Azimuth: 359.23

Comment

North Reference: GRID

Latitude: 32.623058

Longitude: -104.468398

Tie-In Data

MD	Inclination	Azimuth	TVD	NS	EW
0.00	0.00	0.00	0.00	0.00	0.00

Survey Data

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
163.00	0.84	322.99	162.99	0.95	-0.72	322.99	1.19	0.96	0.52
223.00	0.62	335.47	222.99	1.60	-1.12	325.05	1.95	1.62	0.45
315.00	0.75	1.31	314.98	2.66	-1.31	333.71	2.96	2.67	0.36
406.00	0.92	74.96	405.98	3.44	-0.59	350.23	3.49	3.45	1.11
499.00	2.59	71.88	498.93	4.29	2.13	26.37	4.79	4.26	1.80
591.00	3.74	75.05	590.79	5.71	7.00	50.81	9.03	5.61	1.26
682.00	6.24	81.99	681.44	7.16	14.77	64.12	16.41	6.96	2.82
774.00	8.75	94.03	772.65	7.37	26.70	74.57	27.70	7.01	3.20
865.00	11.78	91.75	862.18	6.60	42.89	81.26	43.40	6.02	3.36
956.00	12.79	92.01	951.10	5.96	62.25	84.53	62.53	5.12	1.11
1049.00	12.35	87.09	1041.87	6.10	82.47	85.77	82.69	5.00	1.24
1141.00	12.53	87.79	1131.71	6.99	102.26	86.09	102.50	5.61	0.26
1205.00	12.57	86.74	1194.18	7.65	116.16	86.23	116.41	6.09	0.36
1357.00	12.75	89.11	1342.49	8.85	149.44	86.61	149.70	6.85	0.36
1452.00	9.10	88.41	1435.75	9.23	167.44	86.85	167.69	6.97	3.84
1545.00	8.62	86.21	1527.64	9.89	181.74	86.89	182.01	7.45	0.63
1640.00	11.60	85.15	1621.15	11.17	198.37	86.78	198.68	8.50	3.14

1734.00	12.22	87.17	1713.13	12.46	217.72	86.72	218.08	9.53	0.79
1828.00	10.68	85.94	1805.26	13.57	236.35	86.71	236.74	10.39	1.66
1921.00	10.33	83.31	1896.70	15.15	253.22	86.58	253.68	11.74	0.64
2015.00	10.59	84.54	1989.14	16.95	270.19	86.41	270.72	13.32	0.36
2110.00	10.68	85.77	2082.50	18.43	287.66	86.33	288.25	14.56	0.26
2203.00	10.77	84.89	2173.88	19.84	304.91	86.28	305.56	15.74	0.20
2297.00	10.81	85.07	2266.22	21.38	322.44	86.21	323.15	17.05	0.06
2391.00	10.64	81.64	2358.58	23.40	339.81	86.06	340.61	18.83	0.70
2439.00	11.82	60.46	2405.68	26.47	348.47	85.66	349.48	21.78	8.88
2486.00	14.77	43.58	2451.43	33.19	356.80	84.69	358.34	28.39	10.31
2533.00	18.90	32.42	2496.42	43.96	365.01	83.13	367.65	39.05	11.12
2580.00	23.03	23.98	2540.31	58.80	372.84	81.04	377.44	53.78	10.87
2627.00	28.88	19.32	2582.55	77.93	380.34	78.42	388.24	72.81	13.17
2674.00	34.02	18.27	2622.63	101.14	388.22	75.40	401.18	95.91	11.00
2721.00	37.98	16.95	2660.65	127.47	396.56	72.18	416.54	122.13	8.59
2768.00	42.15	15.46	2696.61	156.51	404.98	68.87	434.17	151.06	9.10
2814.00	44.92	12.20	2729.96	187.27	412.53	65.58	453.05	181.71	7.75
2861.00	47.91	9.04	2762.37	220.73	418.78	62.21	473.39	215.08	8.01
2909.00	52.04	6.23	2793.23	257.15	423.64	58.74	495.57	251.43	9.70
2956.00	55.82	4.73	2820.90	294.96	427.25	55.38	519.17	289.19	8.45
3002.00	59.91	5.08	2845.36	333.76	430.58	52.22	544.79	327.94	8.91
3049.00	64.44	5.00	2867.30	375.15	434.23	49.17	573.84	369.28	9.64
3096.00	69.14	3.50	2885.82	418.22	437.42	46.29	605.18	412.30	10.42
3143.00	74.20	3.06	2900.59	462.74	439.97	43.56	638.52	456.79	10.80
3190.00	78.73	2.71	2911.59	508.37	442.27	41.02	673.83	502.38	9.67
3237.00	82.95	1.66	2919.07	554.72	444.04	38.68	710.55	548.71	9.25
3332.00	90.68	1.31	2924.34	649.47	446.49	34.51	788.14	643.41	8.15
3425.00	90.29	358.93	2923.56	742.46	446.69	31.03	866.48	736.39	2.59
3518.00	88.04	356.82	2924.91	835.38	443.24	27.95	945.68	829.35	3.32
3611.00	88.75	356.91	2927.52	928.20	438.16	25.27	1026.42	922.23	0.77
3705.00	90.07	357.61	2928.48	1022.09	433.66	22.99	1110.28	1016.17	1.59
3800.00	88.92	357.61	2929.32	1117.00	429.70	21.04	1196.80	1111.12	1.21
3895.00	89.76	357.70	2930.42	1211.91	425.81	19.36	1284.54	1206.08	0.89
4015.00	90.46	358.41	2930.19	1331.84	421.74	17.57	1397.02	1326.05	0.83
4109.00	89.63	357.97	2930.11	1425.79	418.77	16.37	1486.02	1420.04	1.00
4201.00	90.73	357.88	2929.82	1517.73	415.44	15.31	1573.56	1512.01	1.20
4292.00	86.55	358.14	2931.98	1608.63	412.28	14.38	1660.62	1602.94	4.60
4384.00	86.24	358.32	2937.77	1700.40	409.45	13.54	1749.01	1694.75	0.39

4475.00	88.04	358.84	2942.31	1791.26	407.20	12.81	1836.96	1785.62	2.06
4568.00	90.02	359.64	2943.88	1884.23	405.96	12.16	1927.47	1878.61	2.30
4660.00	90.86	359.99	2943.17	1976.23	405.67	11.60	2017.43	1970.60	0.99
4751.00	91.08	0.51	2941.63	2067.21	406.06	11.11	2106.72	2061.57	0.62
4843.00	88.88	358.84	2941.67	2159.20	405.54	10.64	2196.96	2153.56	3.00
4934.00	89.41	358.67	2943.02	2250.17	403.56	10.17	2286.07	2244.54	0.61
5025.00	90.37	359.28	2943.20	2341.15	401.94	9.74	2375.41	2335.54	1.25
5118.00	91.12	359.64	2941.99	2434.14	401.06	9.36	2466.96	2428.53	0.89
5210.00	90.46	359.28	2940.72	2526.13	400.19	9.00	2557.63	2520.52	0.82
5304.00	90.95	358.76	2939.56	2620.11	398.58	8.65	2650.25	2614.51	0.76
5398.00	88.31	358.14	2940.17	2714.06	396.04	8.30	2742.81	2708.49	2.88
5492.00	88.70	358.23	2942.62	2807.98	393.07	7.97	2835.36	2802.45	0.43
5587.00	90.07	358.93	2943.64	2902.95	390.71	7.67	2929.12	2897.43	1.62
5683.00	90.81	359.02	2942.91	2998.93	388.99	7.39	3024.05	2993.43	0.78
5777.00	91.74	359.46	2940.81	3092.89	387.75	7.15	3117.10	3087.40	1.09
5871.00	89.93	0.60	2939.45	3186.88	387.80	6.94	3210.39	3181.38	2.28
5965.00	90.33	1.39	2939.23	3280.86	389.43	6.77	3303.89	3275.33	0.94
6058.00	91.25	1.92	2937.95	3373.81	392.12	6.63	3396.52	3368.24	1.14
6169.00	90.59	359.02	2936.17	3484.78	393.03	6.43	3506.88	3479.19	2.68
6262.00	91.87	359.81	2934.17	3577.75	392.08	6.25	3599.17	3572.16	1.62
6354.00	90.37	359.72	2932.37	3669.73	391.70	6.09	3690.58	3664.14	1.63
6445.00	90.73	359.64	2931.50	3760.73	391.19	5.94	3781.02	3755.13	0.41
6537.00	89.27	0.25	2931.50	3852.72	391.10	5.80	3872.52	3847.12	1.72
6628.00	90.29	0.60	2931.85	3943.72	391.78	5.67	3963.13	3938.10	1.19
6720.00	91.43	1.39	2930.47	4035.69	393.37	5.57	4054.82	4030.04	1.51
6812.00	89.27	359.72	2929.91	4127.68	394.27	5.46	4146.47	4122.01	2.97
6904.00	89.98	359.72	2930.51	4219.68	393.82	5.33	4238.01	4214.00	0.77
6999.00	91.38	359.99	2929.38	4314.67	393.58	5.21	4332.58	4308.99	1.50
7094.00	90.20	358.23	2928.07	4409.64	392.10	5.08	4427.04	4403.97	2.23
7187.00	90.99	358.05	2927.10	4502.59	389.08	4.94	4519.36	4496.95	0.87
7280.00	92.31	358.32	2924.43	4595.50	386.14	4.80	4611.69	4589.89	1.45
7374.00	90.07	358.23	2922.47	4689.43	383.31	4.67	4705.07	4683.85	2.38
7468.00	89.67	358.84	2922.69	4783.40	380.91	4.55	4798.54	4777.85	0.78
7562.00	90.33	359.02	2922.69	4877.38	379.15	4.45	4892.09	4871.84	0.73
7657.00	88.62	358.84	2923.56	4972.36	377.38	4.34	4986.66	4966.84	1.81
7751.00	88.66	359.28	2925.79	5066.32	375.83	4.24	5080.24	5060.81	0.47
7845.00	89.01	359.64	2927.70	5160.29	374.95	4.16	5173.90	5154.79	0.53
7938.00	89.19	0.43	2929.16	5253.28	375.01	4.08	5266.65	5247.77	0.87

8032.00	89.80	358.67	2929.99	5347.27	374.27	4.00	5360.35	5341.76	1.98
8127.00	90.29	359.02	2929.92	5442.25	372.35	3.91	5454.97	5436.75	0.63
8222.00	90.42	359.55	2929.33	5537.24	371.17	3.83	5549.67	5531.75	0.57
8312.00	90.81	359.72	2928.36	5627.23	370.59	3.77	5639.42	5621.74	0.47

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8370.00	90.81	359.72	2927.54	5685.23	370.31	3.73	5697.27	5679.74	0.00

DigiDrill DataLogger

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