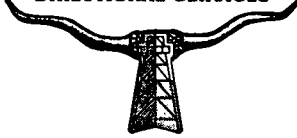


WELLBENDERS
DIRECTIONAL SERVICES

Survey Report

30-015-45122

Service Company: Wellbenders Directional Services

Location: Eddy County, New Mexico

Well: Mayaro 22 State #5

Rig: Silver Oak #1

API or UWI: 30-015-45122

Job Number: NMDG2018-1167

State: New Mexico

Operating Company: Percussion Petroleum

County: Eddy

Magnetic Declination: 7.06

Country: United States

Proposed Azimuth: 296.46

Comment

North Reference: GRID

Latitude: 32.814968

Longitude: -104.161609

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 05 2018

RECEIVED

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
132.00	0.88	11.19	131.99	0.99	0.20	11.19	1.01	0.27	0.67
224.00	0.88	14.27	223.98	2.37	0.51	12.09	2.43	0.60	0.05
315.00	1.41	347.02	314.97	4.14	0.43	5.91	4.16	1.46	0.82
394.00	1.85	346.05	393.93	6.33	-0.10	359.12	6.33	2.91	0.56
497.00	1.76	344.21	496.88	9.46	-0.93	354.40	9.51	5.05	0.10
589.00	4.13	315.20	588.76	13.17	-3.65	344.52	13.67	9.13	2.96
680.00	8.22	303.95	679.21	19.13	-11.36	329.31	22.25	18.69	4.67
773.00	9.19	294.64	771.15	25.94	-23.62	317.68	35.09	32.71	1.84
865.00	9.14	293.67	861.97	31.94	-36.99	310.81	48.87	47.35	0.18
956.00	8.70	292.79	951.87	37.51	-49.96	306.90	62.47	61.44	0.51
1048.00	8.35	291.39	1042.86	42.64	-62.59	304.26	75.73	75.03	0.44
1139.00	8.04	289.72	1132.93	47.19	-74.73	302.27	88.39	87.93	0.43
1233.00	7.74	288.66	1226.04	51.44	-86.92	300.62	101.00	100.73	0.35
1326.00	7.60	288.31	1318.20	55.37	-98.69	299.30	113.17	113.03	0.16
1419.00	7.08	287.26	1410.44	59.01	-110.00	298.21	124.83	124.77	0.58
1514.00	7.56	295.34	1504.67	63.42	-121.24	297.61	136.83	136.80	1.19

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1608.00	7.52	297.10	1597.86	68.87	-132.31	297.50	149.16	149.13	0.25
1703.00	8.79	296.92	1691.89	74.99	-144.31	297.46	162.63	162.61	1.34
1798.00	9.45	297.54	1785.69	81.88	-157.70	297.44	177.69	177.66	0.70
1890.00	9.36	297.63	1876.46	88.84	-171.03	297.45	192.72	192.70	0.10
1985.00	9.45	297.10	1970.18	95.97	-184.81	297.44	208.25	208.22	0.13
2079.00	9.71	296.66	2062.87	103.05	-198.77	297.40	223.89	223.86	0.29
2173.00	8.70	291.83	2155.66	109.25	-212.45	297.21	238.90	238.87	1.35
2266.00	8.66	291.91	2247.59	114.48	-225.48	296.92	252.87	252.86	0.04
2361.00	8.57	292.18	2341.52	119.82	-238.67	296.66	267.05	267.05	0.10
2454.00	8.48	293.14	2433.49	125.13	-251.39	296.46	280.81	280.81	0.18
2549.00	8.44	293.58	2527.46	130.67	-264.22	296.31	294.76	294.76	0.08
2643.00	8.26	294.55	2620.46	136.23	-276.68	296.21	308.41	308.40	0.24
2737.00	8.22	296.66	2713.49	142.05	-288.83	296.19	321.87	321.87	0.32
2832.00	8.09	297.54	2807.53	148.19	-300.83	296.23	335.35	335.35	0.19
2926.00	7.82	297.71	2900.63	154.22	-312.35	296.28	348.35	348.35	0.29
3019.00	7.69	298.94	2992.78	160.18	-323.40	296.35	360.89	360.89	0.23
3112.00	5.67	288.75	3085.14	164.67	-333.20	296.30	371.67	371.66	2.51
3205.00	3.25	274.07	3177.86	166.33	-340.18	296.06	378.66	378.66	2.86
3299.00	1.45	237.33	3271.78	165.88	-343.84	295.75	381.76	381.73	2.41
3394.00	1.45	229.60	3366.75	164.45	-345.77	295.44	382.88	382.82	0.21
3489.00	0.26	332.87	3461.74	163.86	-346.78	295.29	383.54	383.46	1.61
3584.00	0.62	22.00	3556.74	164.53	-346.68	295.39	383.75	383.68	0.52
3678.00	0.62	39.84	3650.73	165.39	-346.17	295.54	383.65	383.60	0.20
3772.00	0.53	50.65	3744.73	166.06	-345.51	295.67	383.34	383.30	0.15
3866.00	0.48	40.19	3838.72	166.63	-344.92	295.79	383.06	383.03	0.11
3960.00	0.53	36.24	3932.72	167.29	-344.40	295.91	382.88	382.87	0.06
4054.00	0.48	54.96	4026.72	167.86	-343.83	296.02	382.61	382.60	0.18
4149.00	0.62	40.11	4121.71	168.48	-343.17	296.15	382.30	382.29	0.21
4243.00	0.48	41.43	4215.71	169.17	-342.58	296.28	382.07	382.07	0.15
4336.00	0.53	53.11	4308.70	169.72	-341.98	296.39	381.78	381.78	0.12
4430.00	0.79	48.54	4402.70	170.41	-341.15	296.54	381.34	381.34	0.28
4524.00	0.70	33.87	4496.69	171.31	-340.34	296.72	381.02	381.02	0.22
4618.00	0.53	32.20	4590.68	172.16	-339.79	296.87	380.91	380.90	0.18
4712.00	0.62	27.27	4684.68	172.98	-339.32	297.01	380.87	380.85	0.11
4805.00	0.57	20.86	4777.67	173.86	-338.93	297.16	380.92	380.89	0.09
4866.00	0.79	27.63	4838.67	174.52	-338.62	297.26	380.95	380.91	0.38

Projected Survey

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
4921.00	0.79	27.63	4893.67	175.19	-338.27	297.38	380.95	380.90	0.00