

Vertical Section calculated on an Azimuth of: 288.7184  
Survey Calculation Method: Minimum Curvature  
FileName: F:\WELL REPORTS\HRM Resources LLC\State 44-16\State #44-16, Directional Survey, 3° B.G., 05-31-11.sr5

[illegible]

Company: HRM Resources, LLC  
WellName: State #44-16  
Location: Sec. 16, T6N-R90W

Vertical Section calculated on an Azimuth of: 288.7184

Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\State 44-16\State #44-16, Directional Survey, 3° B.G., 05-31-11.sr5

#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
44	4400.00	0.00	288.72	4400.00	2284.00	0.00	0.00	0.00	0.00	0.00	0.00	
45	4500.00	0.00	288.72	4500.00	2184.00	0.00	0.00	0.00	0.00	0.00	0.00	
46	4600.00	0.00	288.72	4600.00	2084.00	0.00	0.00	0.00	0.00	0.00	0.00	
47	4700.00	0.00	288.72	4700.00	1984.00	0.00	0.00	0.00	0.00	0.00	0.00	
48	4800.00	0.00	288.72	4800.00	1884.00	0.00	0.00	0.00	0.00	0.00	0.00	
49	4900.00	0.00	288.72	4900.00	1784.00	0.00	0.00	0.00	0.00	0.00	0.00	
50	5000.00	0.00	288.72	5000.00	1684.00	0.00	0.00	0.00	0.00	0.00	0.00	
51	5100.00	0.00	288.72	5100.00	1584.00	0.00	0.00	0.00	0.00	0.00	0.00	
52	5191.00	0.00	288.72	5191.00	1493.00	0.00	0.00	0.00	0.00	0.00	0.00	
53	5200.00	0.27	288.72	5200.00	1484.00	0.01	-0.02	0.02	3.00	3.00	0.00	
54	5300.00	3.27	288.72	5299.94	1384.06	1.00	-2.95	3.11	3.00	3.00	0.00	
55	5400.00	6.27	288.72	5399.58	1284.42	3.67	-10.82	11.42	3.00	3.00	0.00	
56	5500.00	9.27	288.72	5498.65	1185.35	8.00	-23.62	24.94	3.00	3.00	0.00	
57	5600.00	12.27	288.72	5596.88	1087.12	14.00	-41.32	43.63	3.00	3.00	0.00	
58	5700.00	15.27	288.72	5694.00	990.00	21.64	-63.86	67.43	3.00	3.00	0.00	
59	5800.00	18.27	288.72	5789.73	894.27	30.90	-91.18	96.28	3.00	3.00	0.00	
60	5900.00	21.27	288.72	5883.83	800.17	41.75	-123.22	130.10	3.00	3.00	0.00	
61	6000.00	24.27	288.72	5976.02	707.98	54.17	-159.87	168.80	3.00	3.00	0.00	
62	6100.00	27.27	288.72	6066.07	617.93	68.12	-201.04	212.27	3.00	3.00	0.00	
63	6200.00	30.27	288.72	6153.71	530.29	83.56	-246.62	260.39	3.00	3.00	0.00	
64	6300.00	33.27	288.72	6238.72	445.28	100.46	-296.48	313.04	3.00	3.00	0.00	
65	6400.00	36.27	288.72	6320.86	363.14	118.76	-350.48	370.06	3.00	3.00	0.00	
66	6500.00	39.27	288.72	6399.90	284.10	138.41	-408.49	431.30	3.00	3.00	0.00	
67	6600.00	42.27	288.72	6475.62	208.38	159.37	-470.33	496.60	3.00	3.00	0.00	
68	6700.00	45.27	288.72	6547.82	136.18	181.56	-535.84	565.76	3.00	3.00	0.00	
69	6800.00	48.27	288.72	6616.31	67.69	204.94	-604.84	638.62	3.00	3.00	0.00	
70	6900.00	51.27	288.72	6680.89	3.11	229.44	-677.14	714.95	3.00	3.00	0.00	
71	7000.00	54.27	288.72	6741.38	-57.38	254.99	-752.54	794.57	3.00	3.00	0.00	
72	7100.00	57.27	288.72	6797.63	-113.63	281.52	-830.84	877.23	3.00	3.00	0.00	
73	7200.00	60.27	288.72	6849.47	-165.47	308.96	-911.81	962.73	3.00	3.00	0.00	
74	7300.00	63.27	288.72	6896.77	-212.77	337.23	-995.25	1050.83	3.00	3.00	0.00	
75	7400.00	66.27	288.72	6939.39	-255.39	366.26	-1080.91	1141.28	3.00	3.00	0.00	
76	7500.00	69.27	288.72	6977.21	-293.21	395.96	-1168.58	1233.84	3.00	3.00	0.00	
77	7520.00	69.87	288.72	6984.20	-300.20	401.97	-1186.33	1252.58	3.00	3.00	0.00	
78	7600.00	69.87	288.72	7011.73	-327.73	426.08	-1257.47	1327.69	0.00	0.00	0.00	
79	7700.00	69.87	288.72	7046.14	-362.14	456.21	-1346.39	1421.58	0.00	0.00	0.00	
80	7800.00	69.87	288.72	7080.56	-396.56	486.34	-1435.32	1515.47	0.00	0.00	0.00	
81	7900.00	69.87	288.72	7114.97	-430.97	516.47	-1524.24	1609.37	0.00	0.00	0.00	
82	8000.00	69.87	288.72	7149.39	-465.39	546.60	-1613.17	1703.26	0.00	0.00	0.00	
83	8100.00	69.87	288.72	7183.80	-499.80	576.74	-1702.09	1797.15	0.00	0.00	0.00	
84	8200.00	69.87	288.72	7218.22	-534.22	606.87	-1791.02	1891.04	0.00	0.00	0.00	
85	8300.00	69.87	288.72	7252.63	-568.63	637.00	-1879.94	1984.93	0.00	0.00	0.00	
86	8400.00	69.87	288.72	7287.05	-603.05	667.13	-1968.87	2078.82	0.00	0.00	0.00	

Company: HRM Resources, LLC  
WellName: State #44-16  
Location: Sec. 16, T6N-R90W

Vertical Section calculated on an Azimuth of: 288.7184

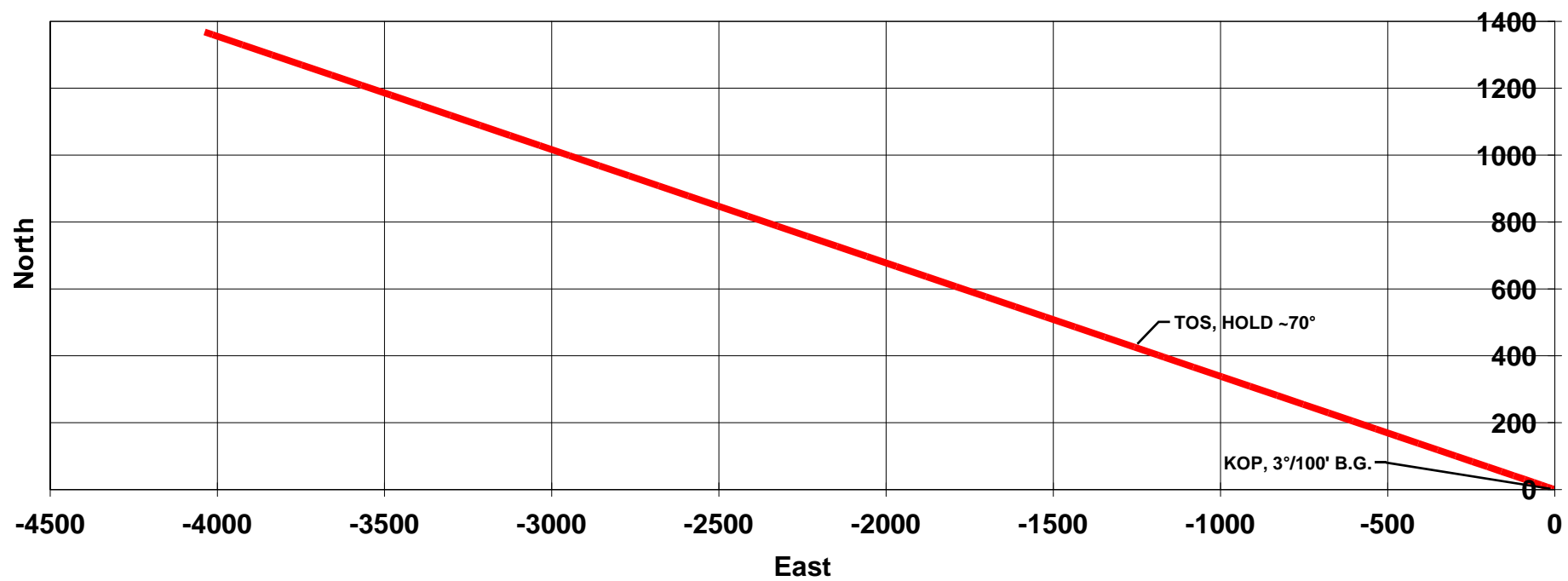
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#	Depth Feet	Inc Degrees	Azimuth Degrees	TVD Feet	SubSea Feet	North Feet	East Feet	Section Feet	Dogleg /100 ft	BldRate /100 ft	Trnrate /100 ft	Comment
87	8500.00	69.87	288.72	7321.46	-637.46	697.26	-2057.79	2172.72	0.00	0.00	0.00	
88	8600.00	69.87	288.72	7355.88	-671.88	727.39	-2146.72	2266.61	0.00	0.00	0.00	
89	8700.00	69.87	288.72	7390.29	-706.29	757.52	-2235.65	2360.50	0.00	0.00	0.00	
90	8800.00	69.87	288.72	7424.71	-740.71	787.65	-2324.57	2454.39	0.00	0.00	0.00	
91	8900.00	69.87	288.72	7459.12	-775.12	817.79	-2413.50	2548.28	0.00	0.00	0.00	
92	9000.00	69.87	288.72	7493.54	-809.54	847.92	-2502.42	2642.17	0.00	0.00	0.00	
93	9100.00	69.87	288.72	7527.95	-843.95	878.05	-2591.35	2736.06	0.00	0.00	0.00	
94	9200.00	69.87	288.72	7562.37	-878.37	908.18	-2680.27	2829.96	0.00	0.00	0.00	
95	9300.00	69.87	288.72	7596.78	-912.78	938.31	-2769.20	2923.85	0.00	0.00	0.00	
96	9400.00	69.87	288.72	7631.20	-947.20	968.44	-2858.12	3017.74	0.00	0.00	0.00	
97	9500.00	69.87	288.72	7665.61	-981.61	998.57	-2947.05	3111.63	0.00	0.00	0.00	
98	9600.00	69.87	288.72	7700.03	-1016.03	1028.71	-3035.97	3205.52	0.00	0.00	0.00	
99	9700.00	69.87	288.72	7734.44	-1050.44	1058.84	-3124.90	3299.41	0.00	0.00	0.00	
100	9800.00	69.87	288.72	7768.86	-1084.86	1088.97	-3213.82	3393.30	0.00	0.00	0.00	
101	9900.00	69.87	288.72	7803.27	-1119.27	1119.10	-3302.75	3487.20	0.00	0.00	0.00	
102	10000.00	69.87	288.72	7837.69	-1153.69	1149.23	-3391.67	3581.09	0.00	0.00	0.00	
103	10100.00	69.87	288.72	7872.10	-1188.10	1179.36	-3480.60	3674.98	0.00	0.00	0.00	
104	10200.00	69.87	288.72	7906.52	-1222.52	1209.49	-3569.52	3768.87	0.00	0.00	0.00	
105	10300.00	69.87	288.72	7940.93	-1256.93	1239.63	-3658.45	3862.76	0.00	0.00	0.00	
106	10400.00	69.87	288.72	7975.35	-1291.35	1269.76	-3747.38	3956.65	0.00	0.00	0.00	
107	10500.00	69.87	288.72	8009.76	-1325.76	1299.89	-3836.30	4050.54	0.00	0.00	0.00	
108	10600.00	69.87	288.72	8044.18	-1360.18	1330.02	-3925.23	4144.44	0.00	0.00	0.00	
109	10700.00	69.87	288.72	8078.59	-1394.59	1360.15	-4014.15	4238.33	0.00	0.00	0.00	
110	10716.27	69.87	288.72	8084.19	-1400.19	1365.05	-4028.62	4253.60	0.00	0.00	0.00	

Closure is 4253.6028 feet on an Azimuth of 288.7184

Plan View  
State #44-16



Section View  
State #44-16

