

Company: HRM Resources, LLC
WellName: Dutton #0-2-22
Location: NWNW, Sec. 22 T4N R67W

Vertical Section calculated on an Azimuth of: 262.0693

Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\Dutton 0-2-22\Wellbore Planning\Dutton 0-2-22 WB Surveys.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
0	0.00	0.00	262.07	0.00	4871.00	0.00	0.00	0.00	0.00	0.00	0.00	
1	100.00	0.00	262.07	100.00	4771.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	262.07	200.00	4671.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	300.00	0.00	262.07	300.00	4571.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	400.00	0.00	262.07	400.00	4471.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	500.00	0.00	262.07	500.00	4371.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	600.00	0.00	262.07	600.00	4271.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	700.00	0.00	262.07	700.00	4171.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	800.00	0.00	262.07	800.00	4071.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	900.00	0.00	262.07	900.00	3971.00	0.00	0.00	0.00	0.00	0.00	0.00	
KOP, B.G.=2°/100ft												
10	1000.00	0.00	262.07	1000.00	3871.00	0.00	0.00	0.00	0.00	0.00	0.00	
11	1100.00	2.00	262.07	1099.98	3771.02	-0.24	-1.73	1.75	2.00	2.00	0.00	
12	1200.00	4.00	262.07	1199.84	3671.16	-0.96	-6.91	6.98	2.00	2.00	0.00	
13	1300.00	6.00	262.07	1299.45	3571.55	-2.17	-15.54	15.69	2.00	2.00	0.00	
14	1400.00	8.00	262.07	1398.70	3472.30	-3.85	-27.61	27.88	2.00	2.00	0.00	
15	1500.00	10.00	262.07	1497.47	3373.53	-6.01	-43.11	43.52	2.00	2.00	0.00	
16	1600.00	12.00	262.07	1595.62	3275.38	-8.64	-62.00	62.60	2.00	2.00	0.00	
TOS, TAN=12.55°												
17	1627.50	12.55	262.07	1622.49	3248.51	-9.44	-67.79	68.45	2.00	2.00	0.00	
18	1700.00	12.55	262.07	1693.26	3177.74	-11.62	-83.40	84.20	0.00	0.00	0.00	
19	1800.00	12.55	262.07	1790.87	3080.13	-14.62	-104.92	105.93	0.00	0.00	0.00	
20	1900.00	12.55	262.07	1888.48	2982.52	-17.61	-126.44	127.66	0.00	0.00	0.00	
21	2000.00	12.55	262.07	1986.09	2884.91	-20.61	-147.96	149.39	0.00	0.00	0.00	
22	2100.00	12.55	262.07	2083.70	2787.30	-23.61	-169.48	171.12	0.00	0.00	0.00	
23	2200.00	12.55	262.07	2181.32	2689.68	-26.61	-191.00	192.85	0.00	0.00	0.00	
24	2300.00	12.55	262.07	2278.93	2592.07	-29.61	-212.53	214.58	0.00	0.00	0.00	
25	2400.00	12.55	262.07	2376.54	2494.46	-32.60	-234.05	236.31	0.00	0.00	0.00	
26	2500.00	12.55	262.07	2474.15	2396.85	-35.60	-255.57	258.04	0.00	0.00	0.00	
27	2600.00	12.55	262.07	2571.76	2299.24	-38.60	-277.09	279.77	0.00	0.00	0.00	
28	2700.00	12.55	262.07	2669.37	2201.63	-41.60	-298.61	301.49	0.00	0.00	0.00	
29	2800.00	12.55	262.07	2766.98	2104.02	-44.60	-320.13	323.22	0.00	0.00	0.00	
30	2900.00	12.55	262.07	2864.59	2006.41	-47.60	-341.65	344.95	0.00	0.00	0.00	
31	3000.00	12.55	262.07	2962.20	1908.80	-50.59	-363.17	366.68	0.00	0.00	0.00	
32	3100.00	12.55	262.07	3059.81	1811.19	-53.59	-384.70	388.41	0.00	0.00	0.00	
33	3200.00	12.55	262.07	3157.42	1713.58	-56.59	-406.22	410.14	0.00	0.00	0.00	
34	3300.00	12.55	262.07	3255.03	1615.97	-59.59	-427.74	431.87	0.00	0.00	0.00	
35	3400.00	12.55	262.07	3352.64	1518.36	-62.59	-449.26	453.60	0.00	0.00	0.00	
36	3500.00	12.55	262.07	3450.25	1420.75	-65.58	-470.78	475.33	0.00	0.00	0.00	
37	3600.00	12.55	262.07	3547.86	1323.14	-68.58	-492.30	497.06	0.00	0.00	0.00	
38	3700.00	12.55	262.07	3645.47	1225.53	-71.58	-513.82	518.79	0.00	0.00	0.00	
39	3800.00	12.55	262.07	3743.08	1127.92	-74.58	-535.35	540.51	0.00	0.00	0.00	
40	3900.00	12.55	262.07	3840.70	1030.30	-77.58	-556.87	562.24	0.00	0.00	0.00	

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Location: NWNW, Sec. 22 T4N R67W

Vertical Section calculated on an Azimuth of: 262.0693

Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\Dutton 0-2-22\Wellbore Planning\Dutton 0-2-22 WB Surveys.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
41	4000.00	12.55	262.07	3938.31	932.69	-80.57	-578.39	583.97	0.00	0.00	0.00	
42	4100.00	12.55	262.07	4035.92	835.08	-83.57	-599.91	605.70	0.00	0.00	0.00	
43	4200.00	12.55	262.07	4133.53	737.47	-86.57	-621.43	627.43	0.00	0.00	0.00	
44	4300.00	12.55	262.07	4231.14	639.86	-89.57	-642.95	649.16	0.00	0.00	0.00	
45	4400.00	12.55	262.07	4328.75	542.25	-92.57	-664.47	670.89	0.00	0.00	0.00	
46	4500.00	12.55	262.07	4426.36	444.64	-95.56	-685.99	692.62	0.00	0.00	0.00	
47	4600.00	12.55	262.07	4523.97	347.03	-98.56	-707.52	714.35	0.00	0.00	0.00	
48	4700.00	12.55	262.07	4621.58	249.42	-101.56	-729.04	736.08	0.00	0.00	0.00	
49	4800.00	12.55	262.07	4719.19	151.81	-104.56	-750.56	757.81	0.00	0.00	0.00	
50	4900.00	12.55	262.07	4816.80	54.20	-107.56	-772.08	779.54	0.00	0.00	0.00	
51	5000.00	12.55	262.07	4914.41	-43.41	-110.56	-793.60	801.26	0.00	0.00	0.00	
52	5100.00	12.55	262.07	5012.02	-141.02	-113.55	-815.12	822.99	0.00	0.00	0.00	
53	5200.00	12.55	262.07	5109.64	-238.64	-116.55	-836.64	844.72	0.00	0.00	0.00	
54	5300.00	12.55	262.07	5207.25	-336.25	-119.55	-858.16	866.45	0.00	0.00	0.00	
55	5400.00	12.55	262.07	5304.86	-433.86	-122.55	-879.69	888.18	0.00	0.00	0.00	
56	5500.00	12.55	262.07	5402.47	-531.47	-125.55	-901.21	909.91	0.00	0.00	0.00	
57	5600.00	12.55	262.07	5500.08	-629.08	-128.54	-922.73	931.64	0.00	0.00	0.00	
58	5700.00	12.55	262.07	5597.69	-726.69	-131.54	-944.25	953.37	0.00	0.00	0.00	
59	5800.00	12.55	262.07	5695.30	-824.30	-134.54	-965.77	975.10	0.00	0.00	0.00	
60	5900.00	12.55	262.07	5792.91	-921.91	-137.54	-987.29	996.83	0.00	0.00	0.00	
61	6000.00	12.55	262.07	5890.52	-1019.52	-140.54	-1008.81	1018.56	0.00	0.00	0.00	
62	6100.00	12.55	262.07	5988.13	-1117.13	-143.53	-1030.34	1040.28	0.00	0.00	0.00	
63	6200.00	12.55	262.07	6085.74	-1214.74	-146.53	-1051.86	1062.01	0.00	0.00	0.00	
TOD, D.G. =2°/100ft												
64	6242.00	12.55	262.07	6126.74	-1255.74	-147.79	-1060.90	1071.14	0.00	0.00	0.00	
65	6300.00	11.39	262.07	6183.48	-1312.48	-149.45	-1072.81	1083.17	2.00	2.00	0.00	
66	6400.00	9.39	262.07	6281.83	-1410.83	-151.94	-1090.67	1101.20	2.00	2.00	0.00	
67	6500.00	7.39	262.07	6380.76	-1509.76	-153.95	-1105.12	1115.79	2.00	2.00	0.00	
68	6600.00	5.39	262.07	6480.13	-1609.13	-155.49	-1116.14	1126.92	2.00	2.00	0.00	
69	6700.00	3.39	262.07	6579.83	-1708.83	-156.54	-1123.73	1134.58	2.00	2.00	0.00	
70	6800.00	1.39	262.07	6679.74	-1808.74	-157.12	-1127.86	1138.75	2.00	2.00	0.00	
EOD, Start Vertical Section												
71	6869.50	0.00	262.07	6749.23	-1878.23	-157.24	-1128.69	1139.59	2.00	2.00	0.00	
72	6900.00	0.00	262.07	6779.73	-1908.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
73	7000.00	0.00	262.07	6879.73	-2008.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
Niobrara Top												
Int	7021.27	0.00	262.07	6901.00	-2030.00	-157.24	-1128.69	1139.59	---	---	---	
75	7100.00	0.00	262.07	6979.73	-2108.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
76	7200.00	0.00	262.07	7079.73	-2208.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
77	7300.00	0.00	262.07	7179.73	-2308.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
Codell Top												
Int	7331.27	0.00	262.07	7211.00	-2340.00	-157.24	-1128.69	1139.59	---	---	---	
79	7400.00	0.00	262.07	7279.73	-2408.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
80	7500.00	0.00	262.07	7379.73	-2508.73	-157.24	-1128.69	1139.59	0.00	0.00	0.00	
81	7511.27	0.00	262.07	7391.00	-2520.00	-157.24	-1128.69	1139.59	0.00	0.00	0.00	

August 12,2010
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PathTracker Survey 5.0.361
Survey Calculation Program

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Company: HRM Resources, LLC
WellName: Dutton #0-2-22
Location: NWNW, Sec. 22 T4N R67W

Vertical Section calculated on an Azimuth of: 262.0693

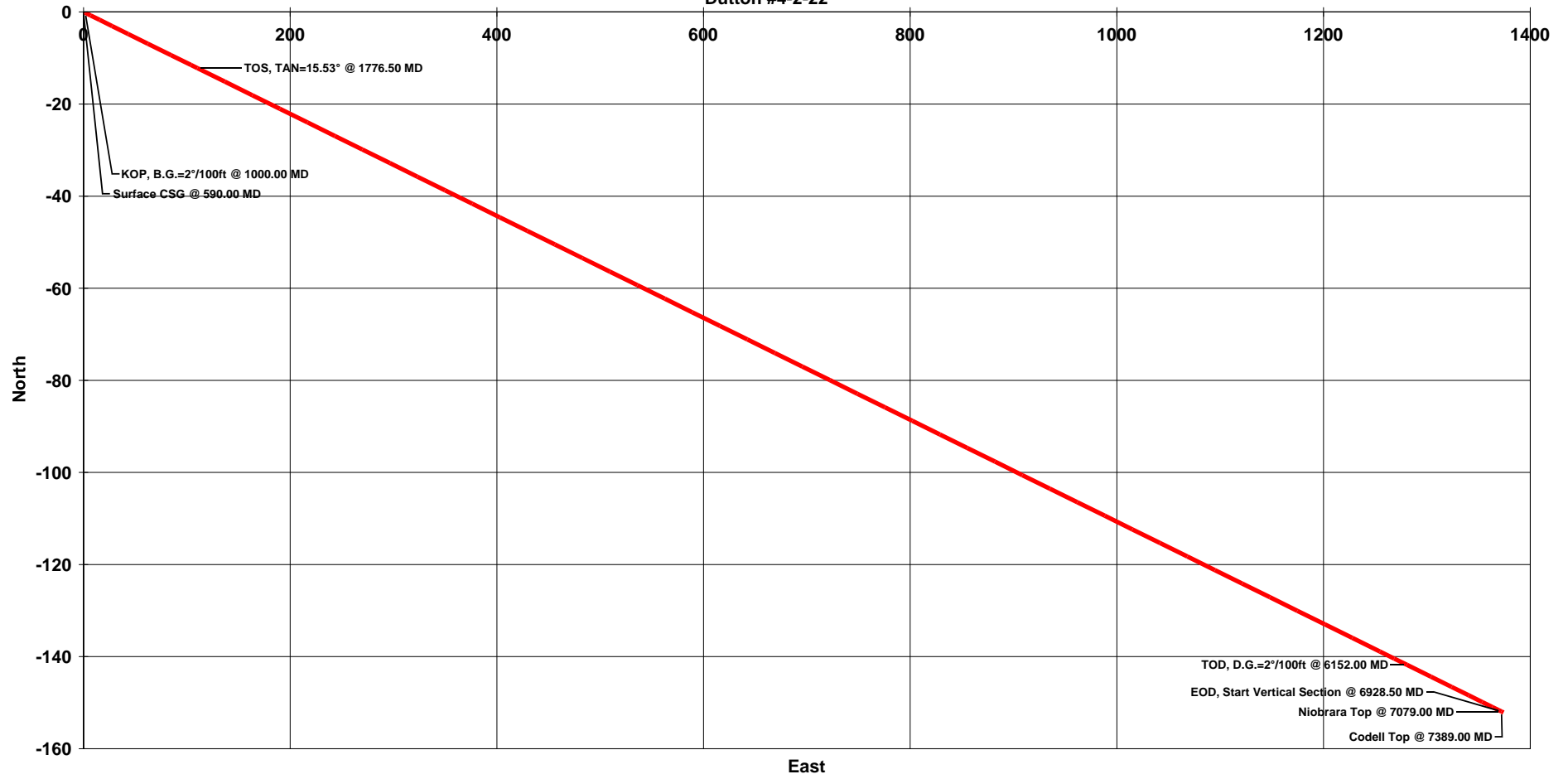
Survey Calculation Method: Minimum Curvature

FileName: F:\WELL REPORTS\HRM Resources LLC\Dutton 0-2-22\Wellbore Planning\Dutton 0-2-22 WB Surveys.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
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Closure is 1139.5895 feet on an Azimuth of 262.0693

Plan View
Dutton #4-2-22



Section View
Dutton #4-2-22

