



Digital Drilling Data
Systems, LLC

Survey Report

Company: Drillright Technology Inc.

Location: Sec. 01, T20S R25W

Well: Kerr 1H-2

Rig: Precision 209

API or UWI: 1513525449000

Job Number: DR1209137

State: KS

Operator: Encana Oil & Gas

County: Ness

Magnetic Declination: 0.00

Comment

Proposed Azimuth: 356.53

North Reference: GRID

Tiein Survey Data:

MD	Inclination	Azimuth	TVD	NS	EW
1578.00	0.95	101.42	1577.52	6.45	34.20

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
1622.00	0.90	148.80	1621.52	6.08	34.74	80.07	35.27	3.97	1.69
1712.00	1.00	142.90	1711.50	4.85	35.58	82.24	35.91	2.69	0.16
1802.00	1.00	160.70	1801.49	3.48	36.31	84.52	36.48	1.28	0.34
1893.00	0.80	246.50	1892.48	2.48	35.99	86.06	36.08	0.30	1.36
1983.00	0.80	236.70	1982.47	1.89	34.89	86.91	34.94	-0.23	0.15
2073.00	0.80	242.40	2072.46	1.25	33.81	87.88	33.83	-0.80	0.09
2164.00	0.80	236.20	2163.46	0.60	32.72	88.95	32.72	-1.38	0.10
2255.00	0.90	240.60	2254.45	-0.10	31.56	90.19	31.57	-2.01	0.13
2345.00	1.20	295.00	2344.43	-0.05	30.09	90.10	30.10	-1.87	1.11
2435.00	1.20	302.90	2434.41	0.86	28.45	88.27	28.46	-0.86	0.18
2525.00	1.30	297.20	2524.39	1.84	26.75	86.07	26.81	0.21	0.18
2615.00	1.20	300.30	2614.37	2.78	25.03	83.66	25.18	1.26	0.13
2706.00	1.10	295.60	2705.35	3.64	23.42	81.17	23.70	2.21	0.15
2796.00	1.10	300.40	2795.33	4.45	21.89	78.52	22.34	3.11	0.10
2887.00	1.10	298.00	2886.32	5.30	20.37	75.41	21.05	4.06	0.05
2977.00	1.10	291.30	2976.30	6.02	18.80	72.25	19.74	4.87	0.14
3068.00	1.00	287.00	3067.29	6.57	17.23	69.13	18.44	5.51	0.14
3158.00	0.90	286.80	3157.27	7.00	15.80	66.10	17.28	6.03	0.11
3248.00	0.90	282.40	3247.26	7.36	14.43	62.99	16.20	6.47	0.08

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
3339.00	0.90	281.60	3338.25	7.66	13.04	59.57	15.12	6.85	0.01
3429.00	0.80	278.70	3428.24	7.89	11.72	56.05	14.13	7.17	0.12
3519.00	1.20	277.50	3518.23	8.11	10.17	51.42	13.01	7.48	0.45
3565.00	1.30	279.10	3564.22	8.26	9.17	48.01	12.34	7.69	0.23
3610.00	1.20	332.00	3609.21	8.75	8.45	43.98	12.17	8.23	2.48
3655.00	3.00	359.70	3654.18	10.35	8.22	38.47	13.22	9.83	4.48
3701.00	5.90	358.90	3700.03	13.92	8.17	30.42	16.14	13.40	6.31
3746.00	9.40	352.20	3744.63	19.87	7.63	21.00	21.28	19.37	8.01
3791.00	12.50	351.50	3788.80	28.33	6.41	12.74	29.05	27.89	6.90
3836.00	15.90	353.20	3832.42	39.27	4.96	7.19	39.58	38.90	7.61
3882.00	19.20	356.70	3876.27	53.08	3.78	4.07	53.22	52.76	7.53
3927.00	23.20	358.50	3918.22	69.34	3.12	2.57	69.41	69.02	9.00
3972.00	27.20	358.20	3958.93	88.49	2.56	1.66	88.52	88.17	8.89
4017.00	30.70	358.30	3998.30	110.25	1.90	0.99	110.27	109.94	7.78
4062.00	33.70	357.10	4036.37	134.21	0.93	0.40	134.21	133.91	6.82
4107.00	36.60	355.90	4073.17	160.06	-0.67	359.76	160.06	159.81	6.62
4153.00	39.40	355.90	4109.41	188.31	-2.69	359.18	188.33	188.13	6.09
4198.00	42.30	355.10	4143.45	217.65	-5.01	358.68	217.71	217.55	6.55
4243.00	45.80	355.30	4175.78	248.82	-7.62	358.25	248.94	248.83	7.78
4288.00	48.80	355.50	4206.30	281.78	-10.27	357.91	281.97	281.89	6.67
4334.00	51.00	356.30	4235.93	316.88	-12.78	357.69	317.14	317.07	4.96
4379.00	54.30	356.70	4263.22	352.58	-14.96	357.57	352.90	352.84	7.37
4424.00	58.50	357.20	4288.12	390.00	-16.95	357.51	390.37	390.31	9.38
4469.00	60.80	357.60	4310.86	428.79	-18.71	357.50	429.20	429.13	5.17
4514.00	60.70	357.30	4332.84	468.01	-20.46	357.50	468.46	468.39	0.62
4560.00	61.00	357.00	4355.25	508.14	-22.46	357.47	508.63	508.56	0.87
4605.00	60.60	356.80	4377.20	547.36	-24.58	357.43	547.91	547.85	0.97
4650.00	60.60	356.70	4399.29	586.50	-26.81	357.38	587.11	587.05	0.19
4695.00	64.40	356.80	4420.07	626.35	-29.07	357.34	627.02	626.95	8.45
4740.00	69.10	355.60	4437.83	667.59	-31.81	357.27	668.34	668.29	10.73
4786.00	73.30	354.90	4452.65	710.97	-35.42	357.15	711.85	711.81	9.24
4829.00	77.30	354.80	4463.56	752.39	-39.16	357.02	753.40	753.38	9.31
4884.00	80.50	355.20	4474.15	806.15	-43.86	356.89	807.34	807.33	5.86
4916.00	84.80	355.80	4478.24	837.78	-46.35	356.83	839.06	839.05	13.57
4947.00	88.90	356.10	4479.94	868.65	-48.53	356.80	870.01	870.00	13.26

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
4979.00	89.70	356.50	4480.33	900.58	-50.60	356.78	902.00	901.99	2.80
5010.00	90.20	356.60	4480.36	931.52	-52.46	356.78	933.00	932.99	1.64
5042.00	91.00	356.30	4480.03	963.46	-54.44	356.77	964.99	964.99	2.67
5074.00	89.90	355.80	4479.77	995.38	-56.65	356.74	997.00	996.99	3.78
5105.00	88.50	355.10	4480.21	1026.28	-59.11	356.70	1027.98	1027.98	5.05
5137.00	88.50	355.20	4481.04	1058.16	-61.81	356.66	1059.96	1059.96	0.31
5169.00	89.10	355.20	4481.71	1090.04	-64.49	356.61	1091.95	1091.94	1.87
5200.00	90.90	355.60	4481.71	1120.93	-66.97	356.58	1122.93	1122.93	5.95
5232.00	91.00	356.00	4481.18	1152.84	-69.32	356.56	1154.92	1154.92	1.29
5263.00	91.40	356.20	4480.53	1183.77	-71.43	356.55	1185.92	1185.92	1.44
5294.00	92.80	356.30	4479.40	1214.68	-73.45	356.54	1216.89	1216.89	4.53
5324.00	91.80	356.00	4478.19	1244.59	-75.46	356.53	1246.87	1246.87	3.48
5355.00	90.70	356.10	4477.52	1275.50	-77.60	356.52	1277.86	1277.86	3.56
5386.00	87.80	355.90	4477.92	1306.42	-79.76	356.51	1308.86	1308.86	9.38
5417.00	87.90	356.30	4479.09	1337.33	-81.87	356.50	1339.83	1339.83	1.33
5447.00	89.40	356.10	4479.79	1367.25	-83.86	356.49	1369.82	1369.82	5.04
5477.00	89.90	355.60	4479.98	1397.17	-86.03	356.48	1399.82	1399.82	2.36
5508.00	90.30	356.10	4479.92	1428.09	-88.27	356.46	1430.82	1430.82	2.07
5539.00	91.60	356.40	4479.41	1459.02	-90.30	356.46	1461.82	1461.82	4.30
5569.00	91.40	356.50	4478.62	1488.95	-92.15	356.46	1491.80	1491.80	0.75
5600.00	90.80	355.80	4478.03	1519.88	-94.24	356.45	1522.80	1522.80	2.97
5630.00	90.80	355.20	4477.61	1549.78	-96.59	356.43	1552.78	1552.78	2.00
5661.00	90.70	355.80	4477.20	1580.68	-99.02	356.42	1583.79	1583.78	1.96
5691.00	91.30	355.80	4476.68	1610.60	-101.22	356.40	1613.78	1613.77	2.00
5722.00	91.20	356.20	4476.00	1641.52	-103.38	356.40	1644.76	1644.76	1.33
5752.00	90.90	355.50	4475.45	1671.43	-105.55	356.39	1674.76	1674.75	2.54
5783.00	89.70	354.40	4475.29	1702.31	-108.28	356.36	1705.75	1705.75	5.25
5814.00	88.40	354.00	4475.81	1733.15	-111.41	356.32	1736.73	1736.71	4.39
5844.00	88.80	355.50	4476.54	1763.01	-114.16	356.30	1766.70	1766.68	5.17
5875.00	90.00	356.50	4476.86	1793.93	-116.32	356.29	1797.70	1797.68	5.04
5906.00	90.90	357.60	4476.62	1824.89	-117.91	356.30	1828.69	1828.68	4.58
5936.00	90.30	357.30	4476.31	1854.86	-119.25	356.32	1858.69	1858.68	2.24
5967.00	90.20	357.30	4476.17	1885.82	-120.71	356.34	1889.68	1889.67	0.32
5997.00	92.00	357.50	4475.60	1915.79	-122.07	356.35	1919.67	1919.66	6.04
6028.00	91.90	357.30	4474.54	1946.74	-123.47	356.37	1950.65	1950.64	0.72

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
6059.00	91.60	357.20	4473.59	1977.69	-124.96	356.38	1981.63	1981.62	1.02
6089.00	92.00	357.00	4472.65	2007.63	-126.48	356.40	2011.61	2011.60	1.49
6120.00	93.00	357.50	4471.30	2038.57	-127.96	356.41	2042.58	2042.58	3.61
6150.00	93.00	357.20	4469.73	2068.49	-129.35	356.42	2072.53	2072.53	1.00
6181.00	91.80	356.70	4468.43	2099.42	-131.00	356.43	2103.51	2103.51	4.19
6212.00	89.70	356.40	4468.02	2130.36	-132.86	356.43	2134.51	2134.50	6.84
6243.00	89.60	356.60	4468.21	2161.30	-134.75	356.43	2165.51	2165.50	0.72
6273.00	90.00	357.00	4468.32	2191.26	-136.43	356.44	2195.49	2195.49	1.89
6295.00	90.00	357.70	4468.32	2213.23	-137.45	356.45	2217.50	2217.49	3.18
6325.00	90.00	357.40	4468.32	2243.20	-138.73	356.46	2247.49	2247.49	1.00
6356.00	90.20	357.60	4468.26	2274.18	-140.08	356.48	2278.48	2278.48	0.91
6388.00	90.70	357.30	4468.01	2306.14	-141.50	356.49	2310.49	2310.49	1.82
6419.00	91.50	357.40	4467.42	2337.10	-142.94	356.50	2341.47	2341.47	2.60
6451.00	92.20	357.40	4466.38	2369.05	-144.39	356.51	2373.46	2373.46	2.19
6483.00	92.80	357.50	4464.99	2400.99	-145.81	356.52	2405.42	2405.42	1.90
6514.00	92.90	357.70	4463.45	2431.93	-147.11	356.54	2436.37	2436.37	0.72
6546.00	91.90	357.30	4462.11	2463.87	-148.50	356.55	2468.34	2468.34	3.37
6577.00	91.40	357.10	4461.21	2494.82	-150.02	356.56	2499.32	2499.32	1.74
6609.00	90.40	357.00	4460.71	2526.77	-151.66	356.57	2531.33	2531.33	3.14
6641.00	90.70	357.20	4460.41	2558.73	-153.28	356.57	2563.32	2563.32	1.13
6672.00	90.80	357.20	4460.00	2589.69	-154.80	356.58	2594.32	2594.32	0.32
6704.00	90.00	356.30	4459.78	2621.64	-156.61	356.58	2626.31	2626.31	3.76
6735.00	89.10	356.20	4460.02	2652.57	-158.64	356.58	2657.30	2657.30	2.92
6767.00	89.10	356.30	4460.52	2684.49	-160.73	356.57	2689.31	2689.31	0.31
6799.00	90.80	356.90	4460.55	2716.44	-162.63	356.57	2721.30	2721.30	5.63
6830.00	91.70	357.40	4459.87	2747.39	-164.17	356.58	2752.30	2752.30	3.32
6862.00	91.50	357.20	4458.98	2779.34	-165.68	356.59	2784.27	2784.27	0.88
6894.00	91.70	357.20	4458.09	2811.29	-167.24	356.60	2816.26	2816.25	0.62
6925.00	90.20	356.60	4457.57	2842.24	-168.91	356.60	2847.27	2847.27	5.21
6957.00	89.80	356.50	4457.57	2874.18	-170.84	356.60	2879.27	2879.26	1.29
6989.00	90.60	356.00	4457.46	2906.11	-172.93	356.59	2911.24	2911.24	2.95
7020.00	90.00	355.10	4457.30	2937.02	-175.34	356.58	2942.26	2942.26	3.49
7052.00	89.50	354.30	4457.44	2968.88	-178.29	356.56	2974.23	2974.23	2.95
7084.00	89.90	354.50	4457.61	3000.73	-181.42	356.54	3006.20	3006.20	1.40
7115.00	90.20	354.50	4457.58	3031.59	-184.39	356.52	3037.18	3037.18	0.97

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
7147.00	90.30	354.50	4457.44	3063.44	-187.45	356.50	3069.17	3069.17	0.31
7178.00	90.70	354.60	4457.17	3094.30	-190.40	356.48	3100.15	3100.15	1.33
7210.00	90.90	355.10	4456.72	3126.17	-193.27	356.46	3132.14	3132.13	1.68
7242.00	89.30	355.20	4456.67	3158.05	-195.98	356.45	3164.12	3164.12	5.01
7273.00	89.70	355.10	4456.94	3188.94	-198.60	356.44	3195.12	3195.11	1.33
7305.00	89.80	355.00	4457.08	3220.82	-201.36	356.42	3227.11	3227.11	0.44
7336.00	89.90	354.80	4457.16	3251.69	-204.11	356.41	3258.11	3258.10	0.72
7368.00	90.00	354.30	4457.19	3283.55	-207.15	356.39	3290.07	3290.06	1.59
7399.00	90.50	354.20	4457.05	3314.39	-210.26	356.37	3321.05	3321.04	1.64
7431.00	90.90	354.10	4456.66	3346.22	-213.52	356.35	3353.03	3353.02	1.29
7463.00	90.70	354.30	4456.21	3378.06	-216.75	356.33	3385.01	3384.99	0.88
7494.00	90.20	355.10	4455.97	3408.92	-219.62	356.31	3416.00	3415.97	3.04
7526.00	89.60	356.10	4456.02	3440.83	-222.07	356.31	3447.98	3447.96	3.64
7558.00	89.50	356.50	4456.28	3472.76	-224.14	356.31	3479.99	3479.97	1.29
7589.00	89.50	356.40	4456.55	3503.70	-226.06	356.31	3510.99	3510.96	0.32
7621.00	90.10	356.50	4456.66	3535.64	-228.04	356.31	3542.99	3542.97	1.90
7652.00	90.20	356.30	4456.58	3566.58	-229.98	356.31	3573.97	3573.95	0.72
7684.00	90.00	355.80	4456.52	3598.50	-232.19	356.31	3605.99	3605.96	1.68
7715.00	90.40	355.70	4456.41	3629.42	-234.49	356.30	3636.99	3636.96	1.33
7747.00	90.50	355.40	4456.16	3661.32	-236.97	356.30	3668.97	3668.94	0.99
7778.00	90.20	354.80	4455.97	3692.20	-239.62	356.29	3699.97	3699.93	2.16
7810.00	90.60	354.40	4455.75	3724.06	-242.63	356.27	3731.96	3731.92	1.77
7842.00	90.70	354.50	4455.39	3755.91	-245.72	356.26	3763.94	3763.90	0.44
7873.00	90.80	354.20	4454.98	3786.76	-248.77	356.24	3794.92	3794.87	1.02
7904.00	89.60	354.20	4454.87	3817.60	-251.91	356.22	3825.91	3825.85	3.87
7936.00	89.30	354.90	4455.18	3849.45	-254.95	356.21	3857.88	3857.82	2.38
7968.00	89.70	355.00	4455.46	3881.32	-257.76	356.20	3889.88	3889.82	1.29
7999.00	89.80	354.80	4455.59	3912.20	-260.52	356.19	3920.86	3920.79	0.72
8031.00	89.30	356.50	4455.84	3944.11	-262.95	356.19	3952.86	3952.78	5.54
8062.00	89.00	356.60	4456.30	3975.05	-264.81	356.19	3983.86	3983.79	1.02
8094.00	89.60	356.30	4456.70	4006.98	-266.79	356.19	4015.85	4015.78	2.10
8126.00	89.70	355.90	4456.89	4038.91	-268.97	356.19	4047.86	4047.79	1.29
8157.00	88.50	357.50	4457.38	4069.85	-270.75	356.19	4078.86	4078.79	6.45
8189.00	88.10	357.60	4458.33	4101.81	-272.12	356.20	4110.83	4110.76	1.29
8221.00	89.00	357.50	4459.14	4133.77	-273.49	356.21	4142.80	4142.74	2.83

MD	Inclination	Azimuth	TVD	NS	EW	CA	CD	VS	DLS
8252.00	89.30	356.90	4459.60	4164.73	-275.00	356.22	4173.80	4173.74	2.16
8284.00	89.30	356.50	4459.99	4196.67	-276.84	356.23	4205.80	4205.74	1.25
8315.00	89.40	356.60	4460.34	4227.61	-278.71	356.23	4236.80	4236.74	0.46
8347.00	89.70	357.20	4460.59	4259.57	-280.44	356.23	4268.78	4268.73	2.10
8379.00	89.50	357.00	4460.81	4291.52	-282.06	356.24	4300.78	4300.72	0.88
8410.00	89.30	356.90	4461.14	4322.48	-283.71	356.24	4331.77	4331.72	0.72
8442.00	90.00	358.20	4461.33	4354.45	-285.08	356.25	4363.79	4363.73	4.61
8474.00	89.70	358.40	4461.42	4386.43	-286.03	356.27	4395.73	4395.69	1.13
8505.00	90.10	358.30	4461.47	4417.42	-286.92	356.28	4426.74	4426.70	1.33
8537.00	91.60	358.90	4461.00	4449.41	-287.70	356.30	4458.70	4458.67	5.05
8568.00	92.10	358.30	4460.00	4480.38	-288.46	356.32	4489.67	4489.64	2.52
8600.00	92.00	357.50	4458.85	4512.34	-289.63	356.33	4521.64	4521.61	2.52
8632.00	92.30	358.60	4457.65	4544.30	-290.72	356.34	4553.58	4553.55	3.56
8663.00	92.70	358.80	4456.30	4575.26	-291.42	356.36	4584.54	4584.52	1.44
8695.00	92.20	358.80	4454.93	4607.22	-292.09	356.37	4616.47	4616.45	1.56
8726.00	91.80	357.30	4453.85	4638.19	-293.14	356.38	4647.43	4647.41	5.00
8758.00	91.20	358.50	4453.01	4670.15	-294.31	356.39	4679.42	4679.41	4.19
8805.00	91.20	358.50	4452.03	4717.13	-295.55	356.41	4726.38	4726.37	0.00



Survey Calculation Program

Encana Oil & Gas

Precision 209

Kerr 1H-2

M.W.D. OPERATOR: Kenney H. / Shawn F..

DIRECTIONAL DRILLERS: Richard Snider / Billy Spurgeon

Magnetic Declination: 6.79

Job #: DR1209137

Vertical Section Azimuth 356.53

Minimum Curvature Calculation

No.	Survey	Depth	INC	AZM	TVD	N-S	E-W	Vertical		DLS/
								Section	100	
Tie	1578	0.95	101.42	1577.52	6.45	34.20	6.45	0.96		
1	1622	0.9	148.8	1621.51	6.08	34.74	3.97	1.69		
2	1712	1.0	142.9	1711.50	4.85	35.58	2.69	0.16		
3	1802	1.0	160.7	1801.49	3.48	36.31	1.28	0.34		
4	1893	0.8	246.5	1892.48	2.48	35.99	0.30	1.36		
5	1983	0.8	236.7	1982.47	1.89	34.89	-0.23	0.15		
6	2073	0.8	242.4	2072.46	1.25	33.81	-0.80	0.09		
7	2164	0.8	236.2	2163.45	0.60	32.72	-1.38	0.10		
8	2254	0.9	240.6	2253.44	-0.09	31.58	-2.01	0.13		
9	2345	1.2	295.0	2344.43	-0.04	30.09	-1.86	1.09		
10	2435	1.2	302.9	2434.41	0.87	28.45	-0.86	0.18		
11	2525	1.3	297.2	2524.39	1.85	26.75	0.22	0.18		
12	2615	1.2	300.3	2614.37	2.79	25.02	1.27	0.13		
13	2706	1.1	295.6	2705.35	3.65	23.41	2.22	0.15		
14	2796	1.1	300.4	2795.33	4.46	21.89	3.12	0.10		
15	2887	1.1	298.0	2886.32	5.31	20.37	4.07	0.05		
16	2977	1.1	291.3	2976.30	6.03	18.80	4.88	0.14		
17	3068	1.0	287.0	3067.29	6.58	17.22	5.52	0.14		
18	3158	0.9	286.8	3157.27	7.01	15.80	6.04	0.11		
19	3248	0.9	282.4	3247.26	7.37	14.43	6.48	0.08		
20	3339	0.9	281.6	3338.25	7.66	13.03	6.86	0.01		
21	3429	0.8	278.7	3428.24	7.90	11.72	7.18	0.12		
22	3519	1.2	277.5	3518.23	8.12	10.16	7.49	0.45		
23	3565	1.3	279.1	3564.22	8.27	9.17	7.69	0.23		



Survey Calculation Program

M.W.D. OPERATOR: Kenney H. / Shawn F..

DIRECTIONAL DRILLERS: Richard Snider / Billy Spurgeon

Encana Oil & Gas

Precision 209

Kerr 1H-2

Magnetic Declination: 6.79

Job #: DR1209137

Vertical Section Azimuth 356.53

Minimum Curvature Calculation

No.	Survey Depth	INC	AZM	TVD	Vertical Section		Vertical Section	DLS/ 100
					N-S	E-W		
24	3610	1.2	332.0	3609.21	8.76	8.45	8.23	2.48
25	3655	3.0	359.7	3654.18	10.36	8.22	9.84	4.48
26	3701	5.9	358.9	3700.03	13.92	8.17	13.40	6.31
27	3746	9.4	352.2	3744.63	19.88	7.62	19.38	8.01
28	3791	12.5	351.5	3788.80	28.34	6.40	27.90	6.90
29	3836	15.9	353.2	3832.42	39.28	4.95	38.91	7.61
30	3882	19.2	356.7	3876.27	53.09	3.77	52.77	7.53
31	3927	23.2	358.5	3918.22	69.35	3.11	69.03	9.00
32	3972	27.2	358.2	3958.93	88.49	2.56	88.18	8.89
33	4017	30.7	358.3	3998.30	110.26	1.89	109.95	7.78
34	4062	33.7	357.1	4036.37	134.22	0.92	133.92	6.82
35	4107	36.6	355.9	4073.17	160.07	-0.67	159.82	6.62
36	4153	39.4	355.9	4109.41	188.32	-2.69	188.14	6.09
37	4198	42.3	355.1	4143.45	217.66	-5.01	217.56	6.55
38	4243	45.8	355.3	4175.78	248.83	-7.63	248.84	7.78
39	4288	48.8	355.5	4206.30	281.79	-10.28	281.90	6.67
40	4334	51.0	356.3	4235.93	316.89	-12.79	317.08	4.96
41	4379	54.3	356.7	4263.22	352.59	-14.97	352.85	7.37
42	4424	58.5	357.2	4288.12	390.01	-16.96	390.32	9.38
43	4469	60.8	357.9	4310.86	428.80	-18.62	429.14	5.28
44	4514	60.7	357.3	4332.84	468.03	-20.26	468.40	1.18
45	4560	61.0	357.0	4355.25	508.15	-22.26	508.57	0.87
46	4605	60.6	356.8	4377.20	547.38	-24.38	547.85	0.97
47	4650	60.6	356.7	4399.30	586.52	-26.60	587.05	0.19



DrillRight
TECHNOLOGY, INC.

Survey Calculation Program

M.W.D. OPERATOR: Kenney H. / Shawn F. .

DIRECTIONAL DRILLERS: Richard Snider / Billy Spurgeon

Encana Oil & Gas

Precision 209

Kerr 1H-2

Magnetic Declination: 6.79

Job #: DR1209137

Vertical Section Azimuth 356.53

Minimum Curvature Calculation

No.	Survey Depth	INC	AZM	TVD	N-S	E-W	Vertical Section	DLS/ 100
48	4695	64.4	356.8	4420.07	626.36	-28.87	626.96	8.45
49	4740	69.1	355.6	4437.83	667.60	-31.61	668.29	10.73
50	4786	73.3	354.9	4452.65	710.99	-35.22	711.82	9.24
51	4829	77.3	354.8	4463.56	752.41	-38.95	753.38	9.31
52	4884	80.5	355.2	4474.15	806.16	-43.66	807.33	5.86
53	4916	84.8	355.8	4478.24	837.80	-46.14	839.05	13.57