



Company: NOBLE
Lease/Well: UNI UPRR C/# 25-3
Location:
Rig Name: PRODUCTION
State/County: COLORADO/WELD COUNTY
Latitude: 40.28
GRID North is 0.65 Degrees East of True North
VS-Azi: 0.00 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : GL

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: run1-01_ed.ut
Minimum Curvature Method
Report Date/Time: 4/12/2011 / 22:27

Vaughn Energy Services
Rifle, Colorado
970-456-2071
Garry Fowler
UNI UPRR C 25-3/05-123-14783

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N-S FT	+E-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.12	210.58	100.00	-0.09	-0.05	-0.09	0.10	210.58	0.12
200.00	0.11	266.08	200.00	-0.19	-0.20	-0.19	0.27	226.92	0.11
300.00	0.05	306.97	300.00	-0.17	-0.33	-0.17	0.37	243.25	0.08
400.00	0.40	114.75	400.00	-0.28	-0.05	-0.28	0.29	189.32	0.45
500.00	0.43	121.18	500.00	-0.62	0.59	-0.62	0.86	136.57	0.05
600.00	0.32	112.05	599.99	-0.92	1.17	-0.92	1.49	128.24	0.12
700.00	0.35	101.32	699.99	-1.09	1.73	-1.09	2.05	122.14	0.07
800.00	0.50	115.67	799.99	-1.34	2.43	-1.34	2.78	118.86	0.19
900.00	0.46	147.57	899.99	-1.87	3.05	-1.87	3.58	121.58	0.27
1000.00	0.30	127.27	999.98	-2.37	3.47	-2.37	4.20	124.35	0.21
1100.00	0.28	92.06	1099.98	-2.54	3.93	-2.54	4.68	122.89	0.18
1200.00	0.30	127.38	1199.98	-2.71	4.38	-2.71	5.15	121.70	0.18
1300.00	0.48	99.81	1299.98	-2.93	5.00	-2.93	5.79	120.42	0.25
1400.00	0.57	147.72	1399.98	-3.43	5.67	-3.43	6.63	121.14	0.43
1500.00	0.51	154.16	1499.97	-4.25	6.13	-4.25	7.46	124.74	0.08
1600.00	0.58	159.33	1599.97	-5.13	6.51	-5.13	8.29	128.25	0.08
1700.00	0.67	134.50	1699.96	-6.02	7.11	-6.02	9.31	130.25	0.28
1800.00	1.23	180.94	1799.95	-7.50	7.51	-7.50	10.61	134.97	0.91
1900.00	1.12	208.81	1899.93	-9.43	7.02	-9.43	11.75	143.35	0.58
2000.00	1.52	238.09	1999.90	-10.99	5.42	-10.99	12.25	153.75	0.77
2100.00	2.01	262.83	2099.86	-11.91	2.56	-11.91	12.18	167.87	0.89
2200.00	2.44	282.05	2199.78	-11.68	-1.27	-11.68	11.75	186.18	0.86
2300.00	2.66	286.74	2299.68	-10.57	-5.57	-10.57	11.95	207.79	0.30
2400.00	3.02	298.30	2399.56	-8.65	-10.11	-8.65	13.31	229.45	0.68
2500.00	3.28	309.31	2499.41	-5.59	-14.64	-5.59	15.67	249.11	0.66
2600.00	3.47	316.36	2599.24	-1.59	-18.95	-1.59	19.01	265.21	0.45
2700.00	3.30	322.18	2699.06	2.87	-22.79	2.87	22.98	277.18	0.38
2800.00	3.05	330.52	2798.91	7.46	-25.87	7.46	26.92	286.08	0.52
2900.00	2.76	313.29	2898.78	11.42	-28.93	11.42	31.10	291.55	0.92
3000.00	2.06	311.83	2998.70	14.27	-32.02	14.27	35.05	294.02	0.70
3100.00	1.81	292.68	3098.64	16.08	-34.81	16.08	38.34	294.79	0.69

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
3200.00	1.83	297.72	3198.59	17.43	-37.68	17.43	41.52	294.82	0.16
3300.00	1.73	303.55	3298.54	19.01	-40.36	19.01	44.61	295.22	0.21
3400.00	2.31	316.69	3398.48	21.31	-43.00	21.31	47.99	296.36	0.73
3500.00	2.42	311.78	3498.39	24.18	-45.95	24.18	51.92	297.75	0.23
3600.00	2.48	307.64	3598.30	26.90	-49.23	26.90	56.10	298.65	0.19
3700.00	2.49	308.41	3698.21	29.57	-52.65	29.57	60.39	299.32	0.04
3800.00	2.81	311.87	3798.10	32.56	-56.18	32.56	64.94	300.10	0.36
3900.00	2.63	308.61	3897.99	35.63	-59.80	35.63	69.61	300.79	0.24
4000.00	2.13	316.55	3997.90	38.40	-62.86	38.40	73.67	301.42	0.60
4100.00	2.18	321.74	4097.83	41.25	-65.32	41.25	77.25	302.27	0.20
4200.00	2.04	333.58	4197.76	44.34	-67.29	44.34	80.58	303.38	0.46
4300.00	1.76	320.99	4297.71	47.13	-69.05	47.13	83.60	304.31	0.50
4400.00	1.59	323.96	4397.67	49.44	-70.83	49.44	86.38	304.91	0.20
4500.00	1.67	331.83	4497.63	51.85	-72.34	51.85	89.00	305.63	0.24
4600.00	1.20	323.63	4597.59	53.98	-73.65	53.98	91.31	306.24	0.52
4700.00	0.72	309.97	4697.58	55.22	-74.75	55.22	92.94	306.46	0.53
4800.00	0.71	282.73	4797.57	55.77	-75.84	55.77	94.13	306.33	0.34
4900.00	0.95	257.20	4897.56	55.72	-77.26	55.72	95.25	305.80	0.43
5000.00	1.23	252.42	4997.54	55.21	-79.09	55.21	96.45	304.92	0.29
5100.00	1.58	290.61	5097.52	55.37	-81.41	55.37	98.45	304.22	0.98
5200.00	1.59	310.19	5197.48	56.75	-83.76	56.75	101.17	304.12	0.54
5300.00	2.17	295.88	5297.43	58.47	-86.52	58.47	104.42	304.05	0.75
5400.00	2.11	292.14	5397.36	59.99	-89.93	59.99	108.10	303.71	0.15
5500.00	2.02	299.90	5497.29	61.56	-93.16	61.56	111.66	303.46	0.29
5600.00	1.83	295.24	5597.23	63.12	-96.13	63.12	115.00	303.29	0.24
5700.00	1.85	290.43	5697.18	64.37	-99.09	64.37	118.16	303.01	0.16
5800.00	2.06	295.09	5797.12	65.69	-102.23	65.69	121.52	302.72	0.27
5900.00	2.23	291.73	5897.05	67.18	-105.66	67.18	125.21	302.45	0.21
6000.00	2.23	288.58	5996.98	68.52	-109.32	68.52	129.01	302.08	0.12
6100.00	1.48	273.30	6096.93	69.21	-112.45	69.21	132.04	301.61	0.90
6200.00	1.34	243.29	6196.90	68.76	-114.78	68.76	133.80	300.92	0.74
6300.00	1.55	213.99	6296.87	67.12	-116.57	67.12	134.51	299.93	0.76
6400.00	2.01	203.85	6396.82	64.40	-118.04	64.40	134.46	298.62	0.55
6500.00	2.20	192.73	6496.75	60.93	-119.17	60.93	133.84	297.08	0.45
6600.00	2.22	188.73	6596.68	57.14	-119.88	57.14	132.81	295.49	0.15
6700.00	1.79	200.40	6696.62	53.77	-120.72	53.77	132.15	294.01	0.59
6800.00	1.82	173.73	6796.57	50.73	-121.09	50.73	131.29	292.73	0.83
6900.00	1.39	161.44	6896.53	48.01	-120.53	48.01	129.74	291.72	0.55

<div> HORIZONTAL DISPLACEMENT IS 129.74 FEET AT 291.72 DEGREES </div>
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