



**Company:** Noble Energy

**Rig:** Production/Coretech

**API #** 05-123-26709

**Date:** 3/20/2014

**Surveyor:** Randy Holcomb

**VS:** 0.000

**Lat :** 40.443

**Long:** -104.504

**Well:** Scholfield A 36-20

**Location:** Weld County, Colorado

**North Reference:** GRID

**Convergence:** Grid north is 0.64 East of True North

**Declination:** 8.36

**Depth Reference:** Ground Level

**Elevation:** 4624 Feet

**Total Depth as Drilled:** 6937 Feet

**Lat & Long obtained by handheld GPS at wellhead**

**MS Gyro Survey Calculations**

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD	Cbrg
0.000	0.000	0.000	0.000	0.000	0.000	****	0.000	0.000	0.000
100.000	0.392	170.585	-0.337	0.056	99.999	0.392	-0.337	0.342	170.585
200.000	0.402	179.975	-1.025	0.112	199.997	0.066	-1.025	1.031	173.764
300.000	0.499	205.711	-1.767	-0.077	299.994	0.222	-1.767	1.769	182.486
400.000	0.381	176.840	-2.492	-0.247	399.991	0.247	-2.492	2.504	185.668
500.000	0.439	195.824	-3.192	-0.333	499.988	0.147	-3.192	3.209	185.962
600.000	0.539	163.505	-4.011	-0.304	599.985	0.289	-4.011	4.023	184.336
700.000	0.560	198.241	-4.926	-0.323	699.981	0.329	-4.926	4.937	183.757
800.000	0.471	201.825	-5.771	-0.629	799.977	0.094	-5.771	5.805	186.221
900.000	0.687	204.061	-6.700	-1.026	899.971	0.218	-6.700	6.778	188.709
1000.000	0.353	174.519	-7.555	-1.241	999.967	0.418	-7.555	7.656	189.332
1100.000	0.608	173.419	-8.389	-1.151	1099.964	0.255	-8.389	8.467	187.814
1200.000	0.492	169.877	-9.338	-1.015	1199.959	0.121	-9.338	9.393	186.204
1300.000	0.580	190.571	-10.258	-1.032	1299.955	0.211	-10.258	10.310	185.747
1400.000	0.226	226.776	-10.891	-1.269	1399.952	0.420	-10.891	10.965	186.646
1500.000	0.131	210.565	-11.125	-1.471	1499.952	0.106	-11.125	11.221	187.532
1600.000	0.455	168.274	-11.612	-1.448	1599.950	0.369	-11.612	11.702	187.110
1700.000	0.460	196.437	-12.386	-1.481	1699.947	0.223	-12.386	12.474	186.821
1800.000	0.760	243.297	-13.069	-2.188	1799.942	0.558	-13.069	13.251	189.503
1900.000	1.417	270.908	-13.348	-4.017	1899.924	0.823	-13.348	13.939	196.750
2000.000	1.881	272.719	-13.250	-6.893	1999.883	0.467	-13.250	14.936	207.485
2100.000	1.871	282.488	-12.819	-10.127	2099.829	0.320	-12.819	16.337	218.308
2200.000	1.418	275.378	-12.350	-12.953	2199.788	0.496	-12.350	17.897	226.365
2300.000	0.950	263.494	-12.328	-15.009	2299.766	0.526	-12.328	19.423	230.602
2400.000	0.797	251.638	-12.641	-16.493	2399.755	0.236	-12.641	20.780	232.532
2500.000	0.605	256.876	-12.980	-17.668	2499.747	0.202	-12.980	21.923	233.696
2600.000	0.407	333.518	-12.782	-18.340	2599.744	0.647	-12.782	22.355	235.127
2700.000	0.491	333.897	-12.079	-18.687	2699.741	0.083	-12.079	22.251	237.122
2800.000	0.632	341.614	-11.171	-19.049	2799.736	0.160	-11.171	22.083	239.611
2900.000	0.455	307.981	-10.403	-19.537	2899.732	0.357	-10.403	22.134	241.964
3000.000	0.665	329.422	-9.659	-20.145	2999.727	0.293	-9.659	22.341	244.382
3100.000	0.876	45.014	-8.620	-19.899	3099.720	0.959	-8.620	21.686	246.579
3200.000	0.660	90.530	-8.085	-18.783	3199.712	0.626	-8.085	20.449	246.711
3300.000	0.718	182.002	-8.717	-18.228	3299.708	0.988	-8.717	20.205	244.443
3400.000	0.923	217.628	-9.981	-18.742	3399.698	0.539	-9.981	21.235	241.962
3500.000	0.991	177.082	-11.483	-19.190	3499.685	0.666	-11.483	22.364	239.105
3600.000	1.048	171.722	-13.251	-19.015	3599.669	0.111	-13.251	23.177	235.127
3700.000	1.041	167.200	-15.043	-18.682	3699.653	0.083	-15.043	23.985	231.159

3800.000	1.080	162.536	-16.828	-18.198	3799.635	0.094	-16.828	24.786	227.240
3900.000	0.849	149.846	-18.367	-17.543	3899.621	0.313	-18.367	25.399	223.685
4000.000	1.264	112.747	-19.434	-16.153	3999.605	0.779	-19.434	25.271	219.732
4100.000	0.846	64.464	-19.543	-14.469	4099.590	0.944	-19.543	24.316	216.516
4200.000	1.413	20.560	-18.070	-13.370	4199.572	0.995	-18.070	22.478	216.498
4300.000	1.272	1.685	-15.806	-12.904	4299.545	0.462	-15.806	20.404	219.230
4400.000	0.895	20.072	-13.962	-12.604	4399.527	0.509	-13.962	18.810	222.072
4500.000	0.920	84.284	-13.149	-11.537	4499.517	0.964	-13.149	17.493	221.264
4600.000	1.027	128.942	-13.632	-10.042	4599.504	0.746	-13.632	16.932	216.377
4700.000	0.939	151.580	-14.916	-8.955	4699.489	0.395	-14.916	17.398	210.980
4800.000	1.288	154.287	-16.649	-8.078	4799.470	0.353	-16.649	18.505	205.882
4900.000	1.416	165.722	-18.859	-7.286	4899.443	0.298	-18.859	20.217	201.123
5000.000	1.417	176.320	-21.290	-6.901	4999.412	0.262	-21.290	22.381	197.961
5100.000	1.427	181.695	-23.768	-6.859	5099.382	0.134	-23.768	24.738	196.097
5200.000	2.354	182.464	-27.065	-6.984	5199.326	0.928	-27.065	27.951	194.469
5300.000	1.941	189.961	-30.785	-7.365	5299.256	0.498	-30.785	31.654	193.455
5400.000	1.040	204.422	-33.280	-8.034	5399.221	0.970	-33.280	34.236	193.571
5500.000	0.787	216.068	-34.661	-8.813	5499.209	0.313	-34.661	35.764	194.266
5600.000	0.969	245.577	-35.566	-9.988	5599.197	0.481	-35.566	36.942	195.686
5700.000	0.942	255.211	-36.126	-11.552	5699.183	0.163	-36.126	37.928	197.733
5800.000	1.042	281.614	-36.152	-13.237	5799.169	0.464	-36.152	38.499	200.111
5900.000	1.372	302.198	-35.331	-15.141	5899.147	0.540	-35.331	38.439	203.198
6000.000	1.528	314.575	-33.758	-17.104	5999.115	0.349	-33.758	37.843	206.870
6100.000	1.481	339.493	-31.611	-18.506	6099.082	0.651	-31.611	36.630	210.346
6200.000	1.254	14.146	-29.340	-18.692	6199.055	0.843	-29.340	34.788	212.501
6300.000	1.013	24.813	-27.476	-18.053	6299.035	0.319	-27.476	32.876	213.307
6400.000	0.873	58.386	-26.274	-17.034	6399.023	0.561	-26.274	31.313	212.956
6500.000	0.949	74.522	-25.654	-15.587	6499.010	0.267	-25.654	30.018	211.282
6600.000	0.625	100.134	-25.529	-14.252	6599.001	0.471	-25.529	29.238	209.173
6650.000	0.639	115.387	-25.696	-13.732	6648.998	0.337	-25.696	29.135	208.119