



Company: Noble Energy
 Rig: Production / VES
 API # 05-123-15150
 Date: 1/11/2014
 Surveyor: Dustin Skoruppa
 VS: 0.000
 Lat : 40.176
 Long: -104.637

Well: Cannon H35-13
 Location: Weld County, Colorado
 North Reference: GRID
 Convergence: Grid north is 0.68 East of True N
 Declination: 8.43
 Depth Reference: Ground Level
 Elevation: 4836
 Total Depth as Drilled: 7520

**Lat & Long obtained by handheld GPS at wellhead
 Gyro Survey Calculations**

Depth	Inc	AZI	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	0.428	289.679	0.126	-0.352	99.999	0.428	0.126	0.374	289.679
200.000	0.536	291.450	0.423	-1.140	199.996	0.109	0.423	1.216	290.361
300.000	0.659	238.555	0.294	-2.066	299.991	0.543	0.294	2.087	278.109
400.000	0.322	189.720	-0.283	-2.603	399.987	0.508	-0.283	2.619	263.801
500.000	0.071	187.287	-0.621	-2.659	499.987	0.252	-0.621	2.730	256.849
600.000	0.404	190.115	-1.030	-2.729	599.986	0.334	-1.030	2.916	249.326
700.000	0.482	206.038	-1.755	-2.975	699.983	0.145	-1.755	3.454	239.464
800.000	0.400	179.938	-2.482	-3.160	799.980	0.215	-2.482	4.018	231.843
900.000	0.435	167.907	-3.203	-3.080	899.977	0.094	-3.203	4.443	223.878
1000.000	0.478	183.377	-3.990	-3.025	999.974	0.130	-3.990	5.007	217.165
1100.000	1.072	196.011	-5.306	-3.307	1099.965	0.615	-5.306	6.252	211.938
1200.000	0.188	202.696	-6.356	-3.629	1199.957	0.886	-6.356	7.319	209.722
1300.000	0.726	222.449	-6.975	-4.120	1299.954	0.553	-6.975	8.100	210.568
1400.000	0.939	215.064	-8.113	-5.018	1399.943	0.238	-8.113	9.539	211.737
1500.000	0.763	277.273	-8.699	-6.149	1499.934	0.892	-8.699	10.653	215.256
1600.000	1.031	256.830	-8.820	-7.686	1599.922	0.413	-8.820	11.699	221.070
1700.000	1.224	249.584	-9.397	-9.563	1699.903	0.239	-9.397	13.408	225.500
1800.000	0.993	259.974	-9.921	-11.417	1799.884	0.305	-9.921	15.125	229.010
1900.000	1.129	266.377	-10.134	-13.253	1899.867	0.180	-10.134	16.684	232.597
2000.000	1.025	267.412	-10.237	-15.130	1999.849	0.106	-10.237	18.267	235.918
2100.000	1.349	258.360	-10.515	-17.176	2099.828	0.374	-10.515	20.139	238.527
2200.000	1.148	220.373	-11.515	-18.979	2199.806	0.835	-11.515	22.199	238.753
2300.000	0.744	213.152	-12.822	-19.982	2299.792	0.420	-12.822	23.742	237.313
2400.000	0.780	206.952	-13.973	-20.646	2399.783	0.090	-13.973	24.930	235.911
2500.000	0.428	227.022	-14.834	-21.228	2499.777	0.406	-14.834	25.897	235.054
2600.000	0.782	206.569	-15.699	-21.806	2599.772	0.409	-15.699	26.870	234.249
2700.000	0.306	224.581	-16.499	-22.299	2699.767	0.500	-16.499	27.740	233.502
2800.000	0.613	219.774	-17.101	-22.829	2799.764	0.309	-17.101	28.524	233.164
2900.000	0.526	229.008	-17.813	-23.517	2899.759	0.126	-17.813	29.502	232.858
3000.000	0.619	263.832	-18.172	-24.401	2999.754	0.354	-18.172	30.424	233.324
3100.000	0.583	269.438	-18.235	-25.447	3099.749	0.069	-18.235	31.306	234.375
3200.000	1.129	255.457	-18.487	-26.909	3199.737	0.581	-18.487	32.648	235.510
3300.000	0.873	300.284	-18.351	-28.520	3299.723	0.799	-18.351	33.914	237.242
3400.000	1.258	337.273	-16.954	-29.602	3399.707	0.768	-16.954	34.113	240.199
3500.000	1.020	354.595	-15.054	-30.110	3499.687	0.416	-15.054	33.664	243.436

3600.000	1.235	322.515	-13.313	-30.850	3599.669	0.656	-13.313	33.600	246.658
3700.000	2.117	324.331	-10.957	-32.583	3699.625	0.884	-10.957	34.376	251.413
3800.000	2.183	338.023	-7.690	-34.373	3799.555	0.517	-7.690	35.222	257.389
3900.000	2.269	347.056	-3.995	-35.529	3899.480	0.361	-3.995	35.753	263.585
4000.000	2.255	354.938	-0.106	-36.146	3999.403	0.311	-0.106	36.146	269.832
4100.000	2.070	343.147	3.583	-36.843	4099.332	0.481	3.583	37.017	275.554
4200.000	1.863	335.087	6.785	-38.051	4199.273	0.345	6.785	38.652	280.111
4300.000	1.752	324.207	9.499	-39.630	4299.224	0.360	9.499	40.752	283.479
4400.000	1.259	316.428	11.535	-41.281	4399.189	0.532	11.535	42.862	285.612
4500.000	1.763	329.263	13.653	-42.825	4499.154	0.604	13.653	44.949	287.683
4600.000	1.282	323.033	15.869	-44.284	4599.119	0.508	15.869	47.041	289.715
4700.000	2.033	327.420	18.258	-45.912	4699.076	0.762	18.258	49.409	291.686
4800.000	1.824	341.738	21.264	-47.366	4799.020	0.524	21.264	51.920	294.177
4900.000	2.148	335.841	24.485	-48.631	4898.960	0.383	24.485	54.448	296.725
5000.000	1.700	325.278	27.415	-50.243	4998.903	0.570	27.415	57.236	298.619
5100.000	1.952	326.840	30.059	-52.020	5098.853	0.257	30.059	60.080	300.021
5200.000	1.603	327.248	32.661	-53.708	5198.804	0.350	32.661	62.859	301.305
5300.000	1.774	321.851	35.055	-55.421	5298.761	0.233	35.055	65.577	302.314
5400.000	1.492	335.954	37.461	-56.907	5398.721	0.489	37.461	68.131	303.356
5500.000	1.210	350.425	39.692	-57.614	5498.693	0.441	39.692	69.963	304.564
5600.000	1.288	3.832	41.854	-57.714	5598.669	0.302	41.854	71.293	305.950
5700.000	1.455	33.379	44.036	-56.940	5698.642	0.718	44.036	71.982	307.717
5800.000	2.016	56.857	46.058	-54.769	5798.597	0.894	46.058	71.561	310.062
5900.000	2.539	52.863	48.356	-51.531	5898.518	0.546	48.356	70.667	313.179
6000.000	3.015	68.939	50.638	-47.312	5998.402	0.908	50.638	69.301	316.945
6100.000	2.709	72.916	52.278	-42.598	6098.277	0.364	52.278	67.436	320.825
6200.000	2.249	77.491	53.397	-38.424	6198.183	0.500	53.397	65.785	324.262
6300.000	1.707	85.516	53.938	-35.023	6298.123	0.607	53.938	64.311	327.004
6400.000	1.397	86.209	54.136	-32.321	6398.086	0.311	54.136	63.050	329.161
6500.000	1.120	93.323	54.159	-30.130	6498.062	0.318	54.159	61.976	330.912
6600.000	1.302	90.215	54.099	-28.018	6598.040	0.194	54.099	60.924	332.620
6700.000	1.155	84.340	54.194	-25.879	6698.017	0.193	54.194	60.056	334.474
6800.000	0.776	94.524	54.240	-24.201	6798.003	0.415	54.240	59.394	335.955
6900.000	1.242	12.211	55.245	-23.296	6897.991	1.373	55.245	59.956	337.135
7000.000	1.579	18.256	57.613	-22.636	6997.961	0.368	57.613	61.900	338.550
7050.000	1.461	23.153	58.853	-22.169	7047.943	0.350	58.853	62.890	339.359

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