



Company: Noble Energy
Rig: Production / VES
API # 05-123-17700
Date: 1/23/2014
Surveyor: CJ Hines
VS: 0.000
Lat : 40.18002
Long: -104.661

Well: UPRC #33-9J
Location: Weld County, Colorado
North Reference: GRID
Convergence: Grid north is 0.54 East of True No
Declination: 8.43
Depth Reference: Ground Level
Elevation: 4836
Total Depth as Drilled: 7419

Lat & Long obtained by handheld GPS at wellhead

Gyro Survey Calculations

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD	Cbrg
100.000	0.686	222.929	-0.439	-0.408	99.998	0.686	-0.439	0.599	222.929
200.000	0.278	165.555	-1.112	-0.755	199.994	0.585	-1.112	1.345	214.182
300.000	0.332	173.528	-1.635	-0.662	299.993	0.068	-1.635	1.764	202.045
400.000	0.360	140.023	-2.164	-0.428	399.991	0.201	-2.164	2.205	191.188
500.000	0.337	207.078	-2.666	-0.360	499.990	0.385	-2.666	2.690	187.697
600.000	0.393	215.603	-3.207	-0.694	599.988	0.078	-3.207	3.281	192.210
700.000	0.331	223.601	-3.695	-1.092	699.986	0.080	-3.695	3.853	196.473
800.000	0.294	212.998	-4.119	-1.431	799.984	0.068	-4.119	4.360	199.161
900.000	0.406	217.529	-4.615	-1.787	899.982	0.115	-4.615	4.948	201.165
1000.000	0.296	256.934	-4.954	-2.254	999.981	0.258	-4.954	5.443	204.464
1100.000	0.274	235.063	-5.149	-2.701	1099.979	0.110	-5.149	5.814	207.680
1200.000	0.491	241.895	-5.488	-3.275	1199.977	0.222	-5.488	6.390	210.826
1300.000	1.129	240.849	-6.169	-4.513	1299.967	0.638	-6.169	7.644	216.186
1400.000	0.526	245.234	-6.841	-5.790	1399.956	0.605	-6.841	8.962	220.241
1500.000	0.284	227.208	-7.202	-6.389	1499.953	0.270	-7.202	9.627	221.574
1600.000	0.384	307.347	-7.167	-6.837	1599.952	0.437	-7.167	9.905	223.648
1700.000	0.429	307.398	-6.737	-7.401	1699.949	0.045	-6.737	10.008	227.690
1800.000	0.462	291.347	-6.362	-8.074	1799.946	0.129	-6.362	10.279	231.762
1900.000	1.351	260.923	-6.401	-9.614	1899.933	0.981	-6.401	11.550	236.342
2000.000	0.748	234.870	-6.963	-11.312	1999.917	0.755	-6.963	13.283	238.386
2100.000	0.670	281.016	-7.227	-12.419	2099.910	0.560	-7.227	14.369	239.805
2200.000	0.534	268.823	-7.125	-13.459	2199.904	0.186	-7.125	15.228	242.104
2300.000	0.404	266.666	-7.155	-14.277	2299.901	0.130	-7.155	15.969	243.382
2400.000	0.479	285.360	-7.065	-15.032	2399.898	0.161	-7.065	16.609	244.827
2500.000	0.720	319.991	-6.473	-15.839	2499.893	0.425	-6.473	17.110	247.773
2600.000	0.678	306.779	-5.637	-16.717	2599.885	0.166	-5.637	17.642	251.367
2700.000	0.970	328.729	-4.559	-17.630	2699.875	0.425	-4.559	18.210	255.502
2800.000	0.669	310.131	-3.459	-18.516	2799.865	0.398	-3.459	18.837	259.418
2900.000	0.646	300.513	-2.796	-19.449	2899.858	0.113	-2.796	19.649	261.818
3000.000	0.848	297.560	-2.168	-20.590	2999.850	0.205	-2.168	20.704	263.989
3100.000	0.445	288.983	-1.699	-21.613	3099.843	0.413	-1.699	21.680	265.504
3200.000	0.684	265.508	-1.620	-22.575	3199.838	0.328	-1.620	22.633	265.896
3300.000	0.343	286.180	-1.583	-23.458	3299.834	0.383	-1.583	23.512	266.139
3400.000	0.351	259.549	-1.555	-24.047	3399.833	0.160	-1.555	24.098	266.299
3500.000	0.651	245.999	-1.842	-24.868	3499.829	0.320	-1.842	24.936	265.764
3600.000	0.444	198.707	-2.440	-25.511	3599.825	0.478	-2.440	25.627	264.536

3700.000	0.820	209.663	-3.429	-25.989	3699.818	0.393	-3.429	26.214	262.484
3800.000	0.872	232.729	-4.511	-26.949	3799.808	0.342	-4.511	27.324	260.496
3900.000	1.050	219.789	-5.676	-28.140	3899.794	0.279	-5.676	28.707	258.596
4000.000	1.466	231.150	-7.182	-29.723	3999.770	0.483	-7.182	30.579	256.415
4100.000	1.411	253.874	-8.327	-31.902	4099.739	0.569	-8.327	32.971	255.371
4200.000	1.873	276.812	-8.475	-34.708	4199.699	0.794	-8.475	35.728	256.278
4300.000	2.081	293.743	-7.551	-37.992	4299.640	0.617	-7.551	38.735	258.760
4400.000	2.165	291.761	-6.119	-41.408	4399.571	0.112	-6.119	41.858	261.594
4500.000	2.219	296.562	-4.553	-44.895	4499.498	0.191	-4.553	45.125	264.209
4600.000	2.331	310.869	-2.357	-48.164	4599.420	0.577	-2.357	48.222	267.198
4700.000	2.010	290.450	-0.414	-51.345	4699.350	0.832	-0.414	51.346	269.538
4800.000	1.210	291.928	0.593	-53.967	4799.309	0.800	0.593	53.970	270.630
4900.000	0.559	259.226	0.896	-55.426	4899.298	0.799	0.896	55.433	270.926
5000.000	0.313	221.919	0.602	-56.088	4999.295	0.364	0.602	56.091	270.615
5100.000	0.450	277.237	0.448	-56.660	5099.293	0.374	0.448	56.662	270.453
5200.000	0.767	294.249	0.772	-57.659	5199.287	0.361	0.772	57.664	270.767
5300.000	1.044	285.648	1.292	-59.146	5299.275	0.308	1.292	59.160	271.252
5400.000	1.171	301.162	2.067	-60.897	5399.256	0.324	2.067	60.932	271.944
5500.000	1.056	280.699	2.766	-62.677	5499.238	0.411	2.766	62.738	272.527
5600.000	1.055	296.251	3.345	-64.408	5599.221	0.286	3.345	64.495	272.973
5700.000	1.436	309.602	4.550	-66.199	5699.197	0.476	4.550	66.355	273.932
5800.000	0.675	290.084	5.551	-67.717	5799.180	0.831	5.551	67.945	274.687
5900.000	0.843	320.795	6.324	-68.736	5899.171	0.433	6.324	69.026	275.257
6000.000	0.417	35.140	7.192	-68.991	5999.166	0.834	7.192	69.365	275.951
6100.000	0.671	71.488	7.675	-68.227	6099.162	0.416	7.675	68.657	276.419
6200.000	0.931	86.848	7.906	-66.860	6199.152	0.336	7.906	67.326	276.744
6300.000	1.119	35.263	8.748	-65.485	6299.138	0.908	8.748	66.067	277.609
6400.000	1.225	47.344	10.269	-64.136	6399.118	0.268	10.269	64.952	279.097
6500.000	1.105	60.053	11.474	-62.514	6499.097	0.284	11.474	63.558	280.401
6600.000	1.023	61.244	12.385	-60.896	6599.080	0.084	12.385	62.143	281.496
6700.000	1.092	55.427	13.356	-59.329	6699.063	0.127	13.356	60.813	282.687
6800.000	1.114	68.152	14.258	-57.642	6799.044	0.245	14.258	59.379	283.894
6900.000	0.946	82.701	14.725	-55.920	6899.028	0.309	14.725	57.826	284.752
7000.000	1.253	62.475	15.335	-54.132	6999.010	0.490	15.335	56.262	285.817
7050.000	1.367	70.310	15.788	-53.085	7048.997	0.424	15.788	55.384	286.563

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