



Company: Noble Energy
Rig: Production/ VES
API # 05-123-25220
Date: 5/28/2013
Surveyor: Sean Bratt
VS: 0.000
Lat : 40.48301
Long: -104.38841

Well: Wells Ranch USX AA 13-25
Location: Weld County, Colorado
North Reference: GRID
Convergence: Grid north is -0.72 of True North
Declination: 8.41 Degrees
Depth Reference: Ground Level
Elevation: 4773 Feet
Total Depth as Drilled: 6896 Feet

Lat & Long obtained by handheld GPS at wellhead
HA 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	0.423	226.436	-0.254	-0.267	99.999	0.423	-0.254	0.369	226.436
200.000	0.323	216.806	-0.734	-0.703	199.997	0.118	-0.734	1.017	223.780
300.000	0.142	214.113	-1.062	-0.942	299.996	0.181	-1.062	1.419	221.559
400.000	0.362	199.514	-1.462	-1.117	399.995	0.227	-1.462	1.840	217.364
500.000	0.890	202.696	-2.477	-1.522	499.989	0.529	-2.477	2.907	211.569
600.000	1.515	222.208	-4.172	-2.709	599.967	0.738	-4.172	4.975	212.999
700.000	1.717	219.146	-6.313	-4.543	699.927	0.220	-6.313	7.778	215.740
800.000	1.892	228.927	-8.559	-6.733	799.877	0.353	-8.559	10.890	218.190
900.000	2.102	222.131	-11.004	-9.208	899.817	0.317	-11.004	14.348	219.922
1000.000	2.145	221.717	-13.761	-11.683	999.748	0.045	-13.761	18.052	220.332
1100.000	2.024	224.295	-16.421	-14.162	1099.682	0.153	-16.421	21.684	220.774
1200.000	2.172	225.178	-19.021	-16.739	1199.615	0.151	-19.021	25.337	221.348
1300.000	2.209	229.355	-21.611	-19.545	1299.542	0.164	-21.611	29.138	222.125
1400.000	2.051	217.726	-24.282	-22.102	1399.473	0.459	-24.282	32.834	222.309
1500.000	2.134	228.254	-26.936	-24.585	1499.407	0.393	-26.936	36.469	222.387
1600.000	1.995	229.836	-29.298	-27.304	1599.342	0.150	-29.298	40.049	222.982
1700.000	1.993	226.742	-31.613	-29.900	1699.282	0.108	-31.613	43.513	223.406
1800.000	1.464	252.923	-33.179	-32.388	1799.237	0.937	-33.179	46.367	224.309
1900.000	1.295	247.136	-33.994	-34.651	1899.208	0.219	-33.994	48.541	225.548
2000.000	0.896	273.779	-34.381	-36.472	1999.190	0.637	-34.381	50.123	226.690
2100.000	0.457	260.686	-34.394	-37.646	2099.183	0.462	-34.394	50.992	227.584
2200.000	0.343	263.002	-34.495	-38.336	2199.181	0.116	-34.495	51.571	228.019
2300.000	0.800	264.612	-34.597	-39.328	2299.176	0.457	-34.597	52.380	228.661
2400.000	0.951	283.897	-34.464	-40.828	2399.164	0.329	-34.464	53.429	229.832
2500.000	0.919	275.411	-34.189	-42.432	2499.151	0.142	-34.189	54.491	231.140
2600.000	1.182	289.819	-33.763	-44.200	2599.134	0.371	-33.763	55.621	232.625
2700.000	0.917	296.776	-33.053	-45.885	2699.117	0.293	-33.053	56.551	234.233
2800.000	1.080	297.402	-32.259	-47.437	2799.102	0.163	-32.259	57.366	235.783
2900.000	1.062	310.807	-31.219	-48.975	2899.085	0.251	-31.219	58.079	237.484
3000.000	1.245	306.512	-29.967	-50.550	2999.064	0.203	-29.967	58.765	239.340
3100.000	1.392	306.942	-28.591	-52.394	3099.038	0.146	-28.591	59.687	241.379
3200.000	1.392	324.099	-26.877	-54.076	3199.009	0.415	-26.877	60.387	243.572
3300.000	1.633	333.449	-24.618	-55.426	3298.974	0.344	-24.618	60.647	246.051
3400.000	1.443	311.511	-22.509	-57.006	3398.939	0.614	-22.509	61.289	248.453
3500.000	1.632	309.592	-20.767	-59.046	3498.903	0.196	-20.767	62.591	250.623

3600.000	1.904	293.389	-19.200	-61.668	3598.856	0.566	-19.200	64.588	252.707
3700.000	2.124	295.729	-17.736	-64.863	3698.794	0.235	-17.736	67.244	254.707
3800.000	2.240	298.075	-16.012	-68.256	3798.721	0.146	-16.012	70.109	256.798
3900.000	2.125	296.630	-14.261	-71.637	3898.649	0.127	-14.261	73.043	258.741
4000.000	2.157	315.654	-12.084	-74.610	3998.580	0.708	-12.084	75.582	260.800
4100.000	1.915	303.442	-9.818	-77.319	4098.518	0.496	-9.818	77.940	262.763
4200.000	1.588	314.119	-7.933	-79.708	4198.471	0.460	-7.933	80.102	264.316
4300.000	1.553	290.993	-6.483	-81.967	4298.435	0.630	-6.483	82.223	265.478
4400.000	1.480	298.087	-5.389	-84.372	4398.400	0.201	-5.389	84.544	266.345
4500.000	1.853	280.079	-4.498	-87.104	4498.358	0.639	-4.498	87.220	267.044
4600.000	2.078	291.604	-3.548	-90.381	4598.299	0.453	-3.548	90.451	267.752
4700.000	2.590	284.965	-2.297	-94.249	4698.216	0.578	-2.297	94.277	268.604
4800.000	2.799	284.566	-1.099	-98.796	4798.106	0.210	-1.099	98.802	269.362
4900.000	2.879	290.454	0.392	-103.512	4897.983	0.302	0.392	103.513	270.217
5000.000	2.340	300.709	2.312	-107.620	4997.880	0.711	2.312	107.645	271.231
5100.000	1.559	301.052	4.057	-110.542	5097.821	0.781	4.057	110.616	272.102
5200.000	1.505	291.967	5.250	-112.925	5197.785	0.249	5.250	113.047	272.662
5300.000	1.452	275.862	5.871	-115.403	5297.752	0.418	5.871	115.553	272.912
5400.000	0.988	286.326	6.242	-117.491	5397.730	0.513	6.242	117.656	273.041
5500.000	0.878	282.326	6.648	-119.066	5497.716	0.128	6.648	119.251	273.196
5600.000	0.532	304.307	7.073	-120.197	5597.709	0.433	7.073	120.405	273.368
5700.000	0.566	337.385	7.791	-120.771	5697.704	0.314	7.791	121.022	273.691
5800.000	0.695	323.204	8.732	-121.324	5797.698	0.202	8.732	121.638	274.117
5900.000	0.700	323.128	9.706	-122.054	5897.691	0.005	9.706	122.439	274.547
6000.000	0.695	350.052	10.793	-122.525	5997.684	0.325	10.793	122.999	275.034
6100.000	0.759	320.291	11.900	-123.053	6097.676	0.378	11.900	123.627	275.524
6200.000	0.587	346.620	12.908	-123.594	6197.669	0.349	12.908	124.267	275.962
6300.000	0.683	334.211	13.943	-123.973	6297.663	0.167	13.943	124.754	276.417
6400.000	0.596	331.977	14.940	-124.476	6397.657	0.091	14.940	125.370	276.844
6500.000	0.691	35.741	15.888	-124.369	6497.652	0.685	15.888	125.379	277.280
6600.000	0.376	356.174	16.705	-124.038	6597.648	0.467	16.705	125.158	277.670
6700.000	0.473	8.309	17.441	-124.000	6697.645	0.132	17.441	125.221	278.007
6750.000	0.545	35.695	17.839	-123.832	6747.643	0.502	17.839	125.110	278.197

