



Company: Noble Energy

Rig: Production / Coretech

API # 05-123-23561

Date: 3/29/2014

Surveyor: Norman Cowan

VS: 0.000

Lat : 40.458

Long: -104.519

Well: Sidwell A 26-3

Location: Weld County, Colorado

North Reference: GRID

Convergence: Grid north is 0.63 Deg East of Tru

Declination: 8.37 Degrees

Depth Reference: Ground Level

Elevation: 4630 Feet

Total Depth as Drilled: 7250 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	0.055	340.902	0.045	-0.016	100.000	0.055	0.045	0.048	340.902
200.000	0.213	28.270	0.255	0.057	200.000	0.181	0.255	0.261	12.543
300.000	0.203	16.225	0.589	0.194	299.999	0.045	0.589	0.620	18.267
400.000	0.208	18.987	0.930	0.303	399.998	0.011	0.930	0.979	18.032
500.000	0.186	15.540	1.259	0.405	499.998	0.026	1.259	1.322	17.858
600.000	0.097	325.033	1.484	0.400	599.998	0.145	1.484	1.537	15.104
700.000	0.263	22.531	1.765	0.440	699.997	0.226	1.765	1.819	14.000
800.000	0.114	11.912	2.075	0.549	799.996	0.153	2.075	2.146	14.813
900.000	0.158	332.423	2.295	0.505	899.996	0.101	2.295	2.350	12.420
1000.000	0.199	6.290	2.589	0.460	999.996	0.111	2.589	2.630	10.083
1100.000	0.308	9.975	3.027	0.526	1099.995	0.110	3.027	3.072	9.860
1200.000	1.537	348.117	4.604	0.297	1199.980	1.256	4.604	4.613	3.685
1300.000	3.252	348.963	8.700	-0.523	1299.889	1.715	8.700	8.716	356.563
1400.000	5.106	349.243	15.856	-1.896	1399.619	1.854	15.856	15.968	353.181
1500.000	6.760	347.914	25.983	-3.959	1499.080	1.660	25.983	26.283	351.336
1600.000	8.628	349.574	39.116	-6.549	1598.175	1.881	39.116	39.661	350.495
1700.000	10.898	352.443	55.866	-9.150	1696.721	2.321	55.866	56.611	350.698
1800.000	13.594	358.848	76.992	-10.630	1794.441	3.015	76.992	77.722	352.139
1900.000	15.482	357.337	102.076	-11.486	1891.235	1.925	102.076	102.720	353.580
2000.000	17.737	355.835	130.604	-13.213	1987.057	2.296	130.604	131.271	354.223
2100.000	19.898	358.335	162.811	-14.814	2081.708	2.305	162.811	163.483	354.801
2200.000	21.013	359.940	197.751	-15.327	2175.402	1.248	197.751	198.344	355.568
2300.000	22.237	356.960	234.577	-16.349	2268.365	1.644	234.577	235.146	356.013
2400.000	24.351	1.797	274.086	-16.707	2360.217	2.849	274.086	274.595	356.512
2500.000	24.875	2.989	315.696	-14.964	2451.132	0.722	315.696	316.050	357.286
2600.000	25.122	2.057	357.912	-13.105	2541.764	0.465	357.912	358.152	357.903
2700.000	25.007	2.986	400.234	-11.242	2632.348	0.410	400.234	400.392	358.391
2800.000	25.949	3.531	443.180	-8.793	2722.622	0.970	443.180	443.267	358.863
2900.000	26.261	3.106	487.108	-6.247	2812.421	0.364	487.108	487.148	359.265
3000.000	25.499	0.524	530.725	-4.851	2902.394	1.360	530.725	530.747	359.476
3100.000	25.320	1.292	573.627	-4.172	2992.721	0.375	573.627	573.642	359.583
3200.000	24.431	2.811	615.661	-2.676	3083.443	1.095	615.661	615.667	359.751
3300.000	23.255	2.299	656.042	-0.870	3174.908	1.194	656.042	656.043	359.924
3400.000	23.266	2.117	695.504	0.652	3266.780	0.073	695.504	695.504	0.054
3500.000	23.136	2.985	734.860	2.404	3358.693	0.365	734.860	734.863	0.187

3600.000	23.280	0.940	774.238	3.751	3450.602	0.818	774.238	774.247	0.278
3700.000	25.400	1.457	815.442	4.621	3541.708	2.131	815.442	815.455	0.325
3800.000	26.363	0.845	859.083	5.494	3631.677	0.999	859.083	859.101	0.366
3900.000	26.925	0.805	903.923	6.139	3721.058	0.563	903.923	903.944	0.389
4000.000	27.017	358.897	949.271	6.020	3810.183	0.870	949.271	949.291	0.363
4100.000	24.953	359.453	993.078	5.381	3900.069	2.078	993.078	993.092	0.310
4200.000	24.639	359.997	1035.016	5.178	3990.850	0.388	1035.016	1035.029	0.287
4300.000	25.222	2.019	1077.155	5.928	4081.533	1.032	1077.155	1077.171	0.315
4400.000	24.162	3.018	1118.887	7.757	4172.389	1.139	1118.887	1118.914	0.397
4500.000	23.894	2.786	1159.553	9.819	4263.724	0.285	1159.553	1159.594	0.485
4600.000	23.969	3.466	1200.056	12.031	4355.127	0.286	1200.056	1200.116	0.574
4700.000	22.841	2.904	1239.716	14.242	4446.898	1.149	1239.716	1239.798	0.658
4800.000	19.768	2.163	1276.008	15.864	4540.053	3.085	1276.008	1276.106	0.712
4900.000	17.933	359.046	1308.303	16.246	4634.688	2.092	1308.303	1308.404	0.711
5000.000	17.118	2.984	1338.395	16.756	4730.048	1.439	1338.395	1338.500	0.717
5100.000	14.977	2.693	1366.003	18.129	4826.146	2.143	1366.003	1366.123	0.760
5200.000	14.784	1.543	1391.665	19.080	4922.793	0.353	1391.665	1391.795	0.785
5300.000	12.675	2.975	1415.378	19.993	5019.930	2.136	1415.378	1415.519	0.809
5400.000	9.535	2.050	1434.616	20.859	5118.045	3.145	1434.616	1434.768	0.833
5500.000	6.884	1.550	1448.887	21.318	5217.012	2.652	1448.887	1449.044	0.843
5600.000	4.695	1.233	1458.971	21.568	5316.496	2.189	1458.971	1459.130	0.847
5700.000	3.265	4.801	1465.900	21.894	5416.252	1.451	1465.900	1466.064	0.856
5800.000	2.219	38.341	1470.256	23.334	5516.142	1.872	1470.256	1470.441	0.909
5900.000	1.783	47.446	1472.827	25.680	5616.081	0.538	1472.827	1473.051	0.999
6000.000	1.470	76.737	1474.173	28.075	5716.043	0.876	1474.173	1474.440	1.091
6100.000	0.964	90.416	1474.461	30.165	5816.020	0.580	1474.461	1474.770	1.172
6200.000	0.858	99.823	1474.327	31.744	5916.007	0.183	1474.327	1474.669	1.233
6300.000	0.358	92.714	1474.185	32.794	6016.001	0.505	1474.185	1474.549	1.274
6400.000	0.274	82.071	1474.203	33.342	6116.000	0.102	1474.203	1474.580	1.296
6500.000	0.348	72.490	1474.327	33.869	6215.998	0.091	1474.327	1474.716	1.316
6600.000	0.138	74.736	1474.451	34.275	6315.997	0.210	1474.451	1474.849	1.332
6700.000	0.067	62.318	1474.510	34.444	6415.997	0.074	1474.510	1474.912	1.338
6800.000	0.195	85.403	1474.550	34.665	6515.997	0.136	1474.550	1474.958	1.347
6900.000	0.204	106.701	1474.513	35.006	6615.996	0.074	1474.513	1474.928	1.360
7000.000	0.316	69.419	1474.559	35.435	6715.995	0.197	1474.559	1474.984	1.377

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