



Company: Noble Energy
Rig: Production/Coretech
API # 05-123-31901
Date: 4/17/14
Surveyor: Levi Sheldon
VS: 0.000
Lat : 40.435
Long: -104.505

Well: Lucci B 01-99 HZ
Location: Weld County, Colorado
North Reference: GRID
Convergence: GRID North is 0.640 Degrees East
Declination: 8.35
Depth Reference: Ground Level
Elevation: 4,612 Feet
Total Depth as Drilled: 11,600 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	0.734	75.106	0.165	0.619	99.997	0.734	0.165	0.640	75.106
200.000	0.737	82.490	0.413	1.875	199.989	0.095	0.413	1.920	77.573
300.000	0.370	73.867	0.587	2.823	299.984	0.375	0.587	2.883	78.254
400.000	0.261	70.562	0.753	3.348	399.983	0.111	0.753	3.432	77.332
500.000	0.346	65.930	0.952	3.839	499.981	0.088	0.952	3.955	76.077
600.000	0.561	103.106	0.964	4.592	599.978	0.354	0.964	4.692	78.145
700.000	0.606	121.013	0.580	5.522	699.973	0.187	0.580	5.553	84.002
800.000	0.828	134.564	-0.200	6.491	799.965	0.278	-0.200	6.494	91.762
900.000	0.731	119.215	-1.018	7.562	899.956	0.230	-1.018	7.631	97.668
1000.000	0.706	141.103	-1.809	8.506	999.949	0.274	-1.809	8.696	102.007
1100.000	0.733	130.424	-2.703	9.380	1099.941	0.137	-2.703	9.762	106.078
1200.000	0.760	122.691	-3.477	10.425	1199.932	0.104	-3.477	10.990	108.443
1300.000	0.807	133.823	-4.323	11.492	1299.923	0.159	-4.323	12.278	110.614
1400.000	0.760	129.933	-5.236	12.508	1399.914	0.071	-5.236	13.560	112.714
1500.000	0.769	137.835	-6.159	13.467	1499.905	0.106	-6.159	14.809	114.575
1600.000	0.665	145.140	-7.132	14.249	1599.897	0.138	-7.132	15.934	116.589
1700.000	0.937	154.608	-8.346	14.931	1699.887	0.302	-8.346	17.105	119.205
1800.000	1.103	176.190	-10.045	15.345	1799.872	0.415	-10.045	18.341	123.208
1900.000	1.005	162.960	-11.843	15.666	1899.855	0.261	-11.843	19.639	127.088
2000.000	1.069	165.227	-13.584	16.161	1999.838	0.076	-13.584	21.112	130.048
2100.000	0.161	113.460	-14.542	16.528	2099.832	0.978	-14.542	22.014	131.343
2200.000	0.435	40.652	-14.310	16.904	2199.831	0.417	-14.310	22.147	130.250
2300.000	0.543	73.304	-13.886	17.604	2299.827	0.294	-13.886	22.422	128.265
2400.000	0.597	65.775	-13.536	18.534	2399.822	0.093	-13.536	22.950	126.142
2500.000	0.449	69.119	-13.182	19.375	2499.818	0.151	-13.182	23.434	124.230
2600.000	0.473	75.207	-12.937	20.140	2599.815	0.054	-12.937	23.937	122.715
2700.000	0.408	103.122	-12.913	20.886	2699.812	0.222	-12.913	24.555	121.726
2800.000	0.356	116.806	-13.134	21.510	2799.810	0.105	-13.134	25.203	121.407
2900.000	0.352	171.709	-13.578	21.831	2899.808	0.326	-13.578	25.709	121.879
3000.000	0.109	182.657	-13.977	21.871	2999.807	0.246	-13.977	25.956	122.581
3100.000	0.144	219.386	-14.170	21.787	3099.807	0.087	-14.170	25.989	123.039
3200.000	0.409	218.922	-14.545	21.483	3199.806	0.265	-14.545	25.943	124.100
3300.000	1.214	219.280	-15.643	20.588	3299.795	0.805	-15.643	25.856	127.227
3400.000	0.963	249.189	-16.761	19.131	3399.778	0.612	-16.761	25.435	131.222

3500.000	0.700	262.919	-17.135	17.739	3499.767	0.329	-17.135	24.664	134.007
3600.000	0.745	263.699	-17.282	16.487	3599.759	0.046	-17.282	23.885	136.347
3700.000	0.703	266.848	-17.387	15.229	3699.751	0.057	-17.387	23.113	138.785
3800.000	0.745	269.317	-17.428	13.966	3799.743	0.052	-17.428	22.334	141.293
3900.000	0.834	288.223	-17.208	12.626	3899.734	0.274	-17.208	21.343	143.733
4000.000	1.248	271.890	-16.945	10.846	3999.717	0.506	-16.945	20.119	147.378
4100.000	1.501	280.181	-16.678	8.469	4099.689	0.321	-16.678	18.705	153.079
4200.000	1.473	282.371	-16.171	5.924	4199.655	0.063	-16.171	17.222	159.879
4300.000	1.654	279.384	-15.660	3.245	4299.618	0.198	-15.660	15.993	168.292
4400.000	1.641	287.441	-14.996	0.455	4399.577	0.232	-14.996	15.003	178.261
4500.000	1.868	293.405	-13.919	-2.406	4499.530	0.291	-13.919	14.126	189.809
4600.000	1.938	276.794	-13.072	-5.581	4599.475	0.554	-13.072	14.213	203.119
4700.000	2.095	294.864	-12.103	-8.918	4699.414	0.652	-12.103	15.034	216.384
4800.000	1.971	287.796	-10.809	-12.214	4799.352	0.279	-10.809	16.310	228.494
4900.000	1.756	277.613	-10.080	-15.371	4899.299	0.394	-10.080	18.382	236.744
5000.000	1.487	290.812	-9.416	-18.103	4999.259	0.459	-9.416	20.405	242.519
5100.000	0.806	315.393	-8.454	-19.810	5099.239	0.825	-8.454	21.538	246.888
5200.000	0.469	36.344	-7.624	-20.061	5199.234	0.866	-7.624	21.461	249.190
5300.000	0.875	41.011	-6.719	-19.318	5299.227	0.409	-6.719	20.453	250.822
5400.000	0.340	49.339	-5.950	-18.592	5399.221	0.541	-5.950	19.521	252.255
5500.000	0.567	83.731	-5.702	-17.875	5499.218	0.345	-5.702	18.762	252.306
5600.000	0.830	106.796	-5.858	-16.689	5599.211	0.380	-5.858	17.687	250.659
5700.000	1.181	76.718	-5.830	-14.992	5699.196	0.622	-5.830	16.086	248.749
5800.000	1.374	101.534	-5.833	-12.815	5799.172	0.580	-5.833	14.080	245.525
5900.000	5.373	106.793	-7.426	-7.156	5898.978	4.007	-7.426	10.313	223.937
6000.000	12.485	109.780	-12.444	7.517	5997.704	7.125	-12.444	14.538	148.864
6100.000	18.759	116.419	-23.267	32.115	6093.969	6.513	-23.267	39.658	125.923
6200.000	24.165	115.689	-39.306	64.985	6187.001	5.413	-39.306	75.947	121.168

of True North