



Company/Rig: Noble Energy/CoreTech  
 WELL: Moser H 26-24  
 DECLINATION: 8.33  
 TD AS DRILLED: 7325'  
 COUNTY/STATE: Weld/Colorado  
 Latitude: 40.193, Longitude: -104.631  
 GRID North is 0.560 Degrees East of True North  
 VS-Azi: 0.000 Degrees



DEPTH REFERENCE : RKB=Surface Elevation= 4852'

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro\_run01-01-de\_01.ut

Minimum Curvature Method

Report Date/Time: 11/3/2014 / 14:20

Lat & Long Obtained By Handheld GPS At Wellhead

North Reference: Grid

Henderson, Co.

303-853-4976

Surveyor: Mark Simmons

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
100.000	0.279	184.723	100.000	-0.242	-0.020	-0.242	0.243	184.723	0.279
200.000	0.414	184.806	199.998	-0.845	-0.070	-0.845	0.848	184.759	0.135
300.000	0.278	208.724	299.996	-1.418	-0.217	-1.418	1.435	188.714	0.196
400.000	0.236	292.356	399.995	-1.553	-0.524	-1.553	1.639	198.663	0.344
500.000	0.486	298.986	499.993	-1.269	-1.086	-1.269	1.670	220.559	0.253
600.000	0.710	321.827	599.988	-0.576	-1.840	-0.576	1.928	252.619	0.323
700.000	0.919	349.158	699.978	0.699	-2.374	0.699	2.475	286.406	0.435
800.000	1.050	16.994	799.964	2.363	-2.257	2.363	3.268	316.315	0.490
900.000	0.978	8.411	899.948	4.084	-1.865	4.084	4.489	335.460	0.168
1000.000	1.048	9.949	999.933	5.829	-1.582	5.829	6.040	344.819	0.076
1100.000	1.095	9.940	1099.915	7.671	-1.259	7.671	7.774	350.682	0.046
1200.000	0.977	6.707	1199.899	9.459	-0.994	9.459	9.511	354.000	0.131
1300.000	1.028	0.348	1299.883	11.203	-0.889	11.203	11.238	355.462	0.122
1400.000	0.996	0.059	1399.868	12.968	-0.883	12.968	12.998	356.106	0.032
1500.000	1.048	342.958	1499.852	14.712	-1.150	14.712	14.757	355.530	0.308
1600.000	1.079	350.717	1599.835	16.516	-1.570	16.516	16.591	354.570	0.147
1700.000	1.089	344.159	1699.817	18.360	-1.981	18.360	18.466	353.841	0.124
1800.000	1.193	345.391	1799.797	20.281	-2.503	20.281	20.435	352.964	0.107
1900.000	1.105	351.466	1899.777	22.242	-2.909	22.242	22.431	352.549	0.150

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
2000.000	0.965	352.817	1999.761	24.032	-3.157	24.032	24.238	352.515	0.142
2100.000	0.354	18.152	2099.754	25.161	-3.167	25.161	25.360	352.827	0.663
2200.000	0.413	130.628	2199.753	25.220	-2.796	25.220	25.374	353.673	0.639
2300.000	0.884	179.971	2299.747	24.214	-2.522	24.214	24.345	354.053	0.690
2400.000	0.981	185.294	2399.733	22.590	-2.601	22.590	22.739	353.432	0.130
2500.000	1.110	190.416	2499.717	20.784	-2.855	20.784	20.979	352.179	0.159
2600.000	1.304	186.359	2599.695	18.700	-3.156	18.700	18.965	350.420	0.212
2700.000	0.937	205.518	2699.676	16.831	-3.634	16.831	17.219	347.815	0.520
2800.000	0.501	197.896	2799.667	15.677	-4.121	15.677	16.210	345.271	0.445
2900.000	0.139	221.292	2899.666	15.170	-4.335	15.170	15.777	344.050	0.378
3000.000	0.152	297.340	2999.666	15.140	-4.533	15.140	15.804	343.331	0.179
3100.000	0.398	335.951	3099.664	15.518	-4.793	15.518	16.242	342.837	0.295
3200.000	0.434	337.120	3199.662	16.184	-5.082	16.184	16.963	342.569	0.036
3300.000	0.269	42.982	3299.660	16.705	-5.069	16.705	17.457	343.121	0.406
3400.000	0.369	99.534	3399.659	16.823	-4.591	16.823	17.438	344.735	0.315
3500.000	0.316	74.762	3499.657	16.842	-4.008	16.842	17.313	346.615	0.156
3600.000	1.244	50.465	3599.647	17.606	-2.905	17.606	17.844	350.631	0.965
3700.000	2.505	50.565	3699.591	19.685	-0.380	19.685	19.688	358.895	1.261
3800.000	1.932	65.931	3799.517	21.761	2.848	21.761	21.946	7.455	0.821
3900.000	1.735	59.638	3899.466	23.213	5.693	23.213	23.901	13.780	0.281
4000.000	1.817	58.010	3999.418	24.819	8.344	24.819	26.184	18.583	0.096
4100.000	1.796	59.603	4099.368	26.452	11.041	26.452	28.664	22.656	0.054
4200.000	1.890	85.051	4199.318	27.387	14.037	27.387	30.775	27.136	0.817
4300.000	1.799	74.362	4299.266	27.953	17.191	27.953	32.816	31.592	0.355
4400.000	1.463	50.735	4399.227	29.184	19.692	29.184	35.206	34.009	0.744
4500.000	1.406	38.220	4499.196	30.956	21.439	30.956	37.655	34.705	0.318
4600.000	1.149	356.229	4599.173	32.919	22.132	32.919	39.667	33.913	0.946
4700.000	1.742	327.557	4699.142	35.202	21.250	35.202	41.119	31.118	0.918
4800.000	2.330	317.681	4799.079	37.988	19.066	37.988	42.505	26.652	0.683
4900.000	2.964	308.773	4898.972	41.111	15.681	41.111	44.000	20.879	0.754
5000.000	3.100	314.678	4998.832	44.632	11.743	44.632	46.151	14.741	0.341
5100.000	2.944	317.898	5098.693	48.439	8.098	48.439	49.111	9.491	0.231
5200.000	2.888	312.616	5198.564	52.050	4.522	52.050	52.246	4.965	0.275
5300.000	3.043	308.857	5298.430	55.421	0.602	55.421	55.424	0.622	0.249
5400.000	2.463	322.222	5398.315	58.784	-2.782	58.784	58.850	357.291	0.862
5500.000	2.098	329.088	5498.236	62.053	-5.038	62.053	62.257	355.358	0.455
5600.000	2.187	333.203	5598.166	65.326	-6.839	65.326	65.683	354.024	0.178
5700.000	2.329	347.965	5698.089	69.016	-8.123	69.016	69.493	353.288	0.597
5800.000	2.163	358.379	5798.013	72.890	-8.600	72.890	73.396	353.271	0.439
5900.000	1.955	6.875	5897.948	76.470	-8.449	76.470	76.936	353.695	0.369

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6000.000	2.190	345.873	5997.884	80.017	-8.711	80.017	80.489	353.787	0.790
6100.000	2.791	335.874	6097.790	84.091	-10.172	84.091	84.704	353.103	0.739
6200.000	3.718	334.406	6197.627	89.237	-12.568	89.237	90.118	351.983	0.931
6300.000	2.072	333.825	6297.496	93.784	-14.766	93.784	94.939	351.052	1.646
6400.000	1.266	314.632	6397.454	96.182	-16.349	96.182	97.562	350.353	0.970
6500.000	0.429	246.341	6497.444	96.808	-17.478	96.808	98.373	349.766	1.177
6600.000	1.094	195.034	6597.435	95.735	-18.069	95.735	97.425	349.312	0.892
6700.000	1.194	152.552	6697.417	93.888	-17.837	93.888	95.568	349.243	0.834
6800.000	1.174	150.884	6797.396	92.069	-16.858	92.069	93.600	349.624	0.040
6900.000	1.240	142.250	6897.374	90.318	-15.697	90.318	91.672	350.141	0.193
7000.000	1.283	128.461	6997.350	88.766	-14.158	88.766	89.888	350.938	0.306