



Company/Rig: Production/ Coretech
Well/API#: KY Blue D 30-32 / 05-123-34348
Declination: 8.3
TD As Drilled: 7697 Feet
County/State: Weld / Colorado
Latitude: 40.196, Longitude: -104.604
GRID North is 0.580 Degrees East of True North
VS-Azi: 0.000 Degrees



Depth Reference : RKB = GL Elevation = 4794 Feet

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyro_run01-01-de_01.ut

Minimum Curvature Method

Report Date/Time: 12/15/2014 / 14:12

Lat & Long Verified by Handheld GPS At Wellhead

North Reference : Grid

Henderson, CO

303-853-4976

Surveyor: Jordan Rolando

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	0.152	351.030	100.000	0.131	-0.021	0.131	0.133	351.030	0.152
200.000	0.280	53.812	199.999	0.407	0.156	0.407	0.436	20.940	0.250
300.000	0.243	67.035	299.998	0.634	0.548	0.634	0.838	40.836	0.071
400.000	0.303	71.991	399.997	0.799	0.995	0.799	1.276	51.245	0.065
500.000	0.165	34.467	499.996	0.999	1.328	0.999	1.662	53.044	0.200
600.000	0.090	64.540	599.996	1.152	1.481	1.152	1.876	52.120	0.098
700.000	0.253	65.237	699.996	1.279	1.753	1.279	2.170	53.893	0.163
800.000	0.163	34.703	799.995	1.488	2.035	1.488	2.521	53.820	0.140
900.000	0.081	30.878	899.995	1.666	2.152	1.666	2.721	52.257	0.082
1000.000	0.315	174.266	999.994	1.453	2.216	1.453	2.650	56.749	0.384
1100.000	0.212	179.440	1099.993	0.994	2.245	0.994	2.456	66.111	0.106
1200.000	0.111	122.358	1199.993	0.758	2.329	0.758	2.449	71.966	0.178
1300.000	0.122	139.492	1299.993	0.625	2.480	0.625	2.557	75.848	0.037
1400.000	0.151	141.939	1399.992	0.440	2.630	0.440	2.667	80.492	0.029
1500.000	0.117	256.822	1499.992	0.314	2.611	0.314	2.630	83.152	0.227
1600.000	0.330	254.601	1599.991	0.214	2.234	0.214	2.244	84.534	0.213
1700.000	0.427	265.748	1699.989	0.110	1.584	0.110	1.588	86.042	0.122
1800.000	0.635	253.487	1799.985	-0.076	0.681	-0.076	0.685	96.345	0.236
1900.000	0.711	246.339	1899.978	-0.482	-0.419	-0.482	0.639	221.005	0.113

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	0.898	220.983	1999.968	-1.323	-1.501	-1.323	2.001	228.619	0.397
2100.000	0.957	217.291	2099.955	-2.579	-2.522	-2.579	3.607	224.354	0.084
2200.000	0.894	212.267	2199.942	-3.903	-3.444	-3.903	5.205	221.425	0.103
2300.000	0.622	224.464	2299.933	-4.950	-4.241	-4.950	6.518	220.587	0.314
2400.000	0.260	345.780	2399.932	-5.117	-4.677	-5.117	6.932	222.423	0.789
2500.000	0.608	49.222	2499.929	-4.551	-4.331	-4.551	6.282	223.579	0.544
2600.000	1.212	93.579	2599.917	-4.270	-2.874	-4.270	5.147	213.938	0.886
2700.000	1.445	89.116	2699.890	-4.317	-0.558	-4.317	4.353	187.366	0.255
2800.000	1.532	97.839	2799.856	-4.480	2.026	-4.480	4.917	155.664	0.242
2900.000	1.315	95.737	2899.826	-4.777	4.492	-4.777	6.557	136.760	0.222
3000.000	1.331	93.590	2999.799	-4.964	6.793	-4.964	8.414	126.157	0.052
3100.000	1.128	100.772	3099.776	-5.221	8.920	-5.221	10.335	120.341	0.255
3200.000	1.196	102.171	3199.755	-5.625	10.907	-5.625	12.272	117.281	0.074
3300.000	0.919	98.415	3299.738	-5.962	12.721	-5.962	14.049	115.113	0.286
3400.000	0.906	73.823	3399.726	-5.860	14.274	-5.860	15.430	112.318	0.389
3500.000	1.047	35.512	3499.712	-4.896	15.565	-4.896	16.316	107.460	0.654
3600.000	1.262	26.527	3599.692	-3.167	16.587	-3.167	16.887	100.810	0.280
3700.000	1.573	36.824	3699.662	-1.083	17.901	-1.083	17.934	93.463	0.401
3800.000	1.439	19.878	3799.627	1.197	19.151	1.197	19.188	86.425	0.463
3900.000	1.360	14.921	3899.598	3.525	19.884	3.525	20.194	79.948	0.145
4000.000	1.374	24.542	3999.569	5.762	20.687	5.762	21.475	74.436	0.230
4100.000	1.309	32.958	4099.542	7.811	21.807	7.811	23.164	70.292	0.207
4200.000	1.324	39.463	4199.516	9.662	23.163	9.662	25.097	67.358	0.150
4300.000	1.615	54.525	4299.483	11.371	25.044	11.371	27.505	65.580	0.481
4400.000	2.163	59.670	4399.428	13.142	27.820	13.142	30.768	64.715	0.573
4500.000	2.152	65.487	4499.358	14.873	31.157	14.873	34.525	64.481	0.219
4600.000	2.306	64.352	4599.282	16.523	34.678	16.523	38.414	64.524	0.161
4700.000	2.197	70.098	4699.205	18.047	38.295	18.047	42.334	64.768	0.250
4800.000	2.101	67.781	4799.135	19.392	41.794	19.392	46.074	65.109	0.130
4900.000	1.858	77.780	4899.075	20.429	45.076	20.429	49.489	65.620	0.422
5000.000	1.654	63.481	4999.029	21.417	47.952	21.417	52.517	65.933	0.482
5100.000	1.503	68.024	5098.991	22.552	50.460	22.552	55.270	65.919	0.196
5200.000	1.239	67.376	5198.962	23.459	52.675	23.459	57.662	65.994	0.264
5300.000	1.064	46.863	5298.942	24.509	54.350	24.509	59.621	65.727	0.445
5400.000	1.320	24.151	5398.921	26.195	55.499	26.195	61.370	64.733	0.533
5500.000	1.888	10.387	5498.882	28.867	56.267	28.867	63.240	62.841	0.683
5600.000	2.412	3.600	5598.811	32.587	56.696	32.587	65.394	60.111	0.581
5700.000	2.504	344.141	5698.721	36.789	56.231	36.789	67.197	56.806	0.836
5800.000	2.322	351.501	5798.632	40.894	55.335	40.894	68.806	53.535	0.359
5900.000	2.284	347.731	5898.552	44.844	54.612	44.844	70.665	50.609	0.156

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6000.000	2.098	352.498	5998.479	48.606	53.950	48.606	72.616	47.983	0.260
6100.000	2.043	355.046	6098.413	52.197	53.557	52.197	74.785	45.737	0.107
6200.000	1.795	351.811	6198.357	55.522	53.180	55.522	76.882	43.766	0.271
6300.000	1.375	23.515	6298.321	58.172	53.436	58.172	78.990	42.570	0.955
6400.000	1.047	12.380	6398.298	60.165	54.110	60.165	80.918	41.967	0.403
6500.000	0.903	21.619	6498.284	61.790	54.597	61.790	82.455	41.463	0.213
6600.000	0.708	23.794	6598.274	63.088	55.136	63.088	83.786	41.152	0.197
6700.000	0.564	23.694	6698.268	64.104	55.583	64.104	84.846	40.928	0.144
6800.000	0.470	56.957	6798.264	64.778	56.125	64.778	85.710	40.906	0.309
6900.000	0.327	42.110	6898.261	65.214	56.660	65.214	86.390	40.985	0.175
7000.000	0.475	44.499	6998.259	65.721	57.142	65.721	87.089	41.006	0.149
7100.000	0.737	48.263	7098.253	66.445	57.912	66.445	88.140	41.075	0.265
7200.000	0.736	51.160	7198.245	67.275	58.892	67.275	89.411	41.199	0.037
7300.000	0.472	46.786	7298.239	67.960	59.692	67.960	90.453	41.294	0.268
7400.000	0.547	70.715	7398.235	68.400	60.443	68.400	91.279	41.466	0.224