



Company: Encana Oil & Gas

Rig: Production/Core-Tech

Latitude: 40.11545

Longitude: -104.96758

API # 05-123-21591

Date: 10/16/14

Well: Grant Broters 31-26

Location: Weld County, CO

North Reference: True North

Depth Reference: RKB = Gorund Level

Surveyor: Nick Kula

VS: 0.000

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	0.000
100.000	0.801	155.766	-0.637	0.287	99.997	0.801	-0.637	0.699	155.766
200.000	0.809	165.413	-1.958	0.751	199.987	0.136	-1.958	2.097	159.002
300.000	0.634	149.239	-3.117	1.212	299.979	0.267	-3.117	3.344	158.745
400.000	0.834	152.211	-4.236	1.835	399.971	0.203	-4.236	4.616	156.583
500.000	1.224	135.319	-5.639	2.925	499.955	0.491	-5.639	6.353	152.584
600.000	2.125	133.167	-7.667	5.029	599.911	0.902	-7.667	9.169	146.741
700.000	2.816	141.353	-10.854	7.915	699.818	0.774	-10.854	13.434	143.900
800.000	2.948	136.842	-14.649	11.208	799.691	0.262	-14.649	18.444	142.580
900.000	3.272	137.208	-18.619	14.906	899.544	0.325	-18.619	23.850	141.320
1000.000	2.943	141.287	-22.716	18.450	999.397	0.396	-22.716	29.265	140.916
1100.000	2.933	148.772	-26.907	21.382	1099.266	0.384	-26.907	34.368	141.527
1200.000	2.658	151.162	-31.126	23.827	1199.147	0.299	-31.126	39.199	142.566
1300.000	2.499	152.801	-35.097	25.942	1299.045	0.175	-35.097	43.644	143.530
1400.000	2.103	164.097	-38.801	27.441	1398.965	0.600	-38.801	47.524	144.731
1500.000	1.738	170.453	-42.061	28.196	1498.909	0.423	-42.061	50.637	146.164
1600.000	1.414	170.568	-44.773	28.649	1598.871	0.324	-44.773	53.155	147.386
1700.000	1.154	182.464	-46.997	28.808	1698.846	0.370	-46.997	55.123	148.492
1800.000	0.652	215.493	-48.466	28.435	1798.834	0.704	-48.466	56.192	149.600
1900.000	0.570	235.678	-49.210	27.694	1898.828	0.229	-49.210	56.467	150.631
2000.000	0.798	285.263	-49.307	26.610	1998.822	0.610	-49.307	56.030	151.645
2100.000	0.938	280.051	-48.981	25.133	2098.810	0.160	-48.981	55.053	152.837
2200.000	0.845	249.274	-49.099	23.638	2198.799	0.481	-49.099	54.493	154.292
2300.000	0.760	245.858	-49.631	22.344	2298.789	0.097	-49.631	54.429	155.763
2400.000	0.641	260.853	-49.991	21.187	2398.782	0.217	-49.991	54.295	157.032
2500.000	0.682	294.510	-49.833	20.093	2498.775	0.385	-49.833	53.732	158.040
2600.000	0.882	319.924	-48.997	19.057	2598.766	0.396	-48.997	52.573	158.747
2700.000	0.864	313.573	-47.889	18.015	2698.755	0.098	-47.889	51.165	159.385
2800.000	0.727	321.165	-46.875	17.071	2798.745	0.173	-46.875	49.887	159.989
2900.000	0.759	302.783	-46.023	16.117	2898.737	0.239	-46.023	48.763	160.700
3000.000	0.964	287.092	-45.417	14.756	2998.726	0.311	-45.417	47.754	162.001
3100.000	1.167	273.895	-45.101	12.936	3098.708	0.317	-45.101	46.919	163.995
3200.000	1.251	282.807	-44.789	10.856	3198.686	0.206	-44.789	46.086	166.375
3300.000	1.311	285.546	-44.241	8.690	3298.661	0.086	-44.241	45.086	168.888
3400.000	1.528	267.225	-43.999	6.255	3398.631	0.500	-43.999	44.441	171.909
3500.000	1.484	281.483	-43.805	3.654	3498.597	0.376	-43.805	43.958	175.232
3600.000	1.730	261.599	-43.768	0.892	3598.558	0.605	-43.768	43.777	178.833
3700.000	1.882	284.846	-43.568	-2.189	3698.510	0.743	-43.568	43.623	182.876
3800.000	1.942	270.694	-43.126	-5.470	3798.455	0.475	-43.126	43.472	187.229

3900.000	2.092	263.752	-43.305	-8.978	3898.393	0.286	-43.305	44.225	191.713
4000.000	1.950	282.357	-43.139	-12.455	3998.332	0.668	-43.139	44.901	196.104
4100.000	2.085	264.766	-42.941	-15.929	4098.271	0.631	-42.941	45.800	200.352
4200.000	2.320	282.514	-42.668	-19.716	4198.198	0.718	-42.668	47.003	204.801
4300.000	2.131	303.560	-41.202	-23.241	4298.124	0.833	-41.202	47.305	209.426
4400.000	1.961	311.850	-39.033	-26.065	4398.060	0.341	-39.033	46.935	213.734
4500.000	2.069	283.649	-37.465	-29.093	4498.001	0.987	-37.465	47.435	217.831
4600.000	2.107	304.163	-36.007	-32.368	4597.936	0.744	-36.007	48.417	221.954
4700.000	1.942	276.489	-34.784	-35.573	4697.876	0.981	-34.784	49.753	225.643
4800.000	1.784	281.720	-34.276	-38.781	4797.823	0.232	-34.276	51.757	228.529
4900.000	1.865	271.065	-33.929	-41.932	4897.773	0.348	-33.929	53.940	231.022
5000.000	1.751	277.154	-33.709	-45.075	4997.723	0.223	-33.709	56.286	233.210
5100.000	1.520	290.529	-33.053	-47.833	5097.683	0.445	-33.053	58.143	235.355
5200.000	1.449	284.357	-32.275	-50.301	5197.649	0.175	-32.275	59.765	237.314
5300.000	1.312	301.360	-31.365	-52.504	5297.620	0.430	-31.365	61.159	239.146
5400.000	1.158	295.278	-30.338	-54.395	5397.597	0.202	-30.338	62.283	240.850
5500.000	1.145	296.776	-29.456	-56.201	5497.577	0.033	-29.456	63.452	242.340
5600.000	1.094	303.803	-28.475	-57.886	5597.558	0.147	-28.475	64.511	243.807
5700.000	1.175	312.269	-27.255	-59.438	5697.538	0.186	-27.255	65.389	245.367
5800.000	1.080	326.602	-25.778	-60.715	5797.519	0.297	-25.778	65.961	246.995
5900.000	0.604	306.246	-24.680	-61.659	5897.508	0.555	-24.680	66.415	248.186
6000.000	0.493	264.175	-24.412	-62.513	5997.504	0.407	-24.412	67.110	248.669
6100.000	0.320	247.312	-24.563	-63.199	6097.502	0.209	-24.563	67.805	248.761
6200.000	0.343	226.461	-24.877	-63.674	6197.500	0.122	-24.877	68.361	248.660
6300.000	0.359	255.118	-25.164	-64.194	6297.498	0.174	-25.164	68.950	248.595
6400.000	0.613	166.808	-25.765	-64.375	6397.496	0.701	-25.765	69.340	248.187
6500.000	0.622	188.295	-26.823	-64.331	6497.490	0.230	-26.823	69.699	247.366
6600.000	0.322	148.078	-27.598	-64.261	6597.487	0.429	-27.598	69.936	246.758
6700.000	0.422	169.719	-28.200	-64.046	6697.485	0.171	-28.200	69.980	246.236
6800.000	0.293	190.143	-28.814	-64.025	6797.483	0.180	-28.814	70.210	245.770
6900.000	0.314	212.559	-29.297	-64.218	6897.481	0.120	-29.297	70.585	245.477
7000.000	0.548	206.347	-29.957	-64.578	6997.478	0.238	-29.957	71.188	245.114
7100.000	0.538	201.827	-30.822	-64.965	7097.474	0.044	-30.822	71.906	244.618
7200.000	0.200	278.930	-31.231	-65.312	7197.472	0.531	-31.231	72.395	244.444
7300.000	0.239	310.756	-31.068	-65.642	7297.471	0.126	-31.068	72.623	244.672
7400.000	0.450	54.065	-30.702	-65.482	7397.470	0.555	-30.702	72.323	244.880
7500.000	0.900	41.446	-29.883	-64.645	7497.463	0.471	-29.883	71.218	245.191
7600.000	1.186	49.929	-28.628	-63.333	7597.447	0.324	-28.628	69.503	245.676
7700.000	1.048	27.989	-27.155	-62.112	7697.428	0.446	-27.155	67.789	246.386
7800.000	0.471	42.262	-26.043	-61.406	7797.419	0.603	-26.043	66.701	247.018
7900.000	0.231	103.334	-25.785	-60.934	7897.417	0.412	-25.785	66.165	247.064

