

Company: Anadarko Petroleum Corp.  
 Well/API: Robert E Baldwin Unit 1/05-123-07806  
 Tool Type: North Seeking Rate Gyro  
 Rig Name: Production/CoreTech  
 County/State: Weld/Colorado  
 VS-Azi: 0.000 Degrees  
 Latitude: 40.17035, Longitude: -104.89190  
 All Azimuths referenced to True North  
 No Grid Convergence Applied



Depth Reference : RKB = GL Elevation = 4892

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: msgyrosurvey-de\_01.ut

Minimum Curvature Method

Report Date/Time: 12/27/2016 / 15:01

Lat/Long Obtained By Handheld GPS At Wellhead  
 Handheld GPS Reference: NAD83/Device Error: ±9 Feet  
 VES Survey International - Henderson CO  
 Surveyor: Justin Williams  
 303-853-4976

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	0.145	224.496	100.000	-0.090	-0.088	-0.090	0.126	224.496	0.145
200.000	0.290	202.792	199.999	-0.413	-0.275	-0.413	0.496	213.636	0.164
300.000	0.206	209.621	299.998	-0.803	-0.462	-0.803	0.926	209.911	0.088
400.000	0.281	243.841	399.997	-1.067	-0.771	-1.067	1.316	215.839	0.160
500.000	0.435	257.153	499.995	-1.260	-1.361	-1.260	1.855	227.217	0.174
600.000	1.064	275.011	599.986	-1.263	-2.657	-1.263	2.942	244.571	0.663
700.000	1.270	267.092	699.966	-1.238	-4.688	-1.238	4.849	255.206	0.261
800.000	1.969	271.829	799.925	-1.240	-7.512	-1.240	7.614	260.630	0.711
900.000	4.795	294.908	899.745	0.576	-13.021	0.576	13.034	272.532	3.081
1000.000	4.291	345.602	999.468	5.962	-17.744	5.962	18.719	288.573	3.913
1100.000	4.584	4.804	1099.174	13.568	-18.340	13.568	22.813	306.496	1.507
1200.000	4.745	2.647	1198.843	21.682	-17.814	21.682	28.061	320.593	0.238
1300.000	4.348	351.379	1298.530	29.562	-18.191	29.562	34.710	328.393	0.975
1400.000	3.276	345.850	1398.308	36.080	-19.458	36.080	40.993	331.662	1.133
1500.000	1.899	293.496	1498.216	39.512	-21.676	39.512	45.067	331.251	2.595
1600.000	2.850	287.223	1598.129	40.909	-25.570	40.909	48.243	327.992	0.984

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
1700.000	1.074	283.551	1698.066	41.864	-28.856	41.864	50.846	325.422	1.779
1800.000	2.507	289.345	1798.015	42.809	-31.831	42.809	53.346	323.366	1.443
1900.000	1.120	223.921	1897.971	42.829	-34.573	42.829	55.042	321.088	2.281
2000.000	2.674	241.357	1997.913	41.007	-37.299	41.007	55.433	317.711	1.641
2100.000	0.829	236.349	2097.862	39.488	-39.949	39.488	56.171	314.667	1.849
2200.000	2.030	259.659	2197.830	38.769	-42.294	38.769	57.374	312.510	1.310
2300.000	0.757	261.321	2297.798	38.351	-44.689	38.351	58.889	310.635	1.273
2400.000	1.010	278.082	2397.787	38.375	-46.214	38.375	60.070	309.705	0.359
2500.000	0.991	278.196	2497.771	38.622	-47.942	38.622	61.564	308.855	0.019
2600.000	1.568	259.597	2597.746	38.498	-50.144	38.498	63.218	307.515	0.704
2700.000	3.294	231.795	2697.656	36.474	-53.748	36.474	64.956	304.161	2.042
2800.000	4.835	261.064	2797.411	34.042	-60.171	34.042	69.133	299.500	2.537
2900.000	4.393	301.465	2897.113	35.387	-67.603	35.387	76.305	297.630	3.211
3000.000	2.000	322.435	2996.953	38.770	-71.934	38.770	81.717	298.323	2.625
3100.000	1.836	320.360	3096.897	41.387	-74.020	41.387	84.805	299.211	0.178
3200.000	1.859	339.036	3196.846	44.135	-75.623	44.135	87.560	300.269	0.600
3300.000	3.542	337.689	3296.731	48.508	-77.376	48.508	91.324	302.084	1.685
3400.000	3.537	340.763	3396.540	54.279	-79.565	54.279	96.316	304.301	0.190
3500.000	3.269	3.431	3496.368	60.037	-80.411	60.037	100.351	306.746	1.362
3600.000	2.144	29.956	3596.259	64.505	-79.306	64.505	102.226	309.124	1.655
3700.000	1.352	25.854	3696.212	67.187	-77.857	67.187	102.839	310.793	0.802
3800.000	0.719	9.841	3796.195	68.868	-77.235	68.868	103.480	311.722	0.690
3900.000	0.495	341.089	3896.190	69.895	-77.268	69.895	104.190	312.132	0.372
4000.000	0.716	323.451	3996.184	70.805	-77.780	70.805	105.181	312.312	0.287
4100.000	0.725	316.165	4096.176	71.764	-78.591	71.764	106.426	312.400	0.092
4200.000	0.818	317.062	4196.167	72.743	-79.515	72.743	107.769	312.453	0.093
4300.000	0.894	303.843	4296.156	73.700	-80.649	73.700	109.252	312.422	0.211
4400.000	0.776	282.567	4396.146	74.282	-81.958	74.282	110.612	312.187	0.329
4500.000	0.894	265.955	4496.135	74.374	-83.398	74.374	111.744	311.727	0.268
4600.000	0.938	265.506	4596.122	74.255	-84.992	74.255	112.860	311.143	0.044
4700.000	1.097	261.465	4696.107	74.049	-86.754	74.049	114.059	310.482	0.175
4800.000	1.497	263.727	4796.081	73.764	-88.999	73.764	115.594	309.652	0.404
4900.000	1.677	267.979	4896.042	73.569	-91.760	73.569	117.611	308.721	0.215