



Company: Anadarko Petroleum
 Well: Badding Red V V 15-3
 API: 05-123-17214
 Rig Name: Production/ VES
 State/County: Colorado/Weld
 Latitude: 40.057, Longitude: -104.879
 Directions are relative to True North
 VS-Azi: 0.000 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB= Ground Level

DRILLOG GYRO SURVEY CALCULATIONS

Filename: survey.ut
 Minimum Curvature Method
 Report Date/Time: 11/16/2013 / 15:18

Vaughn Energy Services
 Henderson, CO 80640
 303-853-4976
 Sean Bratt

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	0.879	137.760	99.996	-0.568	0.515	-0.568	0.767	137.760	0.879
200.000	0.684	106.677	199.987	-1.307	1.603	-1.307	2.068	129.188	0.459
300.000	0.279	118.415	299.983	-1.594	2.389	-1.594	2.871	123.711	0.415
400.000	0.191	111.119	399.983	-1.770	2.759	-1.770	3.278	122.681	0.092
500.000	0.351	283.571	499.982	-1.758	2.617	-1.758	3.153	123.894	0.541
600.000	0.355	285.205	599.980	-1.605	2.020	-1.605	2.580	128.466	0.011
700.000	0.313	262.001	699.979	-1.562	1.451	-1.562	2.131	137.111	0.141
800.000	0.618	296.699	799.975	-1.357	0.699	-1.357	1.527	152.768	0.402
900.000	0.651	283.469	899.969	-0.983	-0.335	-0.983	1.038	198.840	0.150
1000.000	0.658	273.400	999.963	-0.817	-1.461	-0.817	1.673	240.794	0.115
1100.000	0.742	254.650	1099.955	-0.954	-2.658	-0.954	2.824	250.259	0.242
1200.000	1.037	273.548	1199.943	-1.069	-4.185	-1.069	4.319	255.669	0.412
1300.000	0.775	255.734	1299.931	-1.180	-5.743	-1.180	5.863	258.392	0.381
1400.000	0.916	304.894	1399.921	-0.889	-7.054	-0.889	7.110	262.814	0.715
1500.000	0.890	244.942	1499.911	-0.761	-8.413	-0.761	8.448	264.829	0.903
1600.000	1.163	278.664	1599.896	-0.938	-10.121	-0.938	10.164	264.707	0.650
1700.000	0.959	300.680	1699.879	-0.358	-11.844	-0.358	11.849	268.271	0.452
1800.000	1.016	291.997	1799.864	0.402	-13.386	0.402	13.392	271.719	0.160
1900.000	0.810	296.970	1899.851	1.054	-14.838	1.054	14.876	274.065	0.221
2000.000	0.597	258.289	1999.844	1.269	-15.978	1.269	16.029	274.542	0.508
2100.000	0.974	286.270	2099.835	1.402	-17.304	1.402	17.361	274.631	0.527
2200.000	1.019	276.036	2199.820	1.733	-19.004	1.733	19.083	275.211	0.183
2300.000	0.971	305.908	2299.806	2.324	-20.575	2.324	20.706	276.444	0.515
2400.000	1.180	288.903	2399.788	3.155	-22.236	3.155	22.458	278.074	0.379
2500.000	1.266	288.562	2499.766	3.840	-24.257	3.840	24.560	278.995	0.086
2600.000	1.040	279.656	2599.745	4.344	-26.199	4.344	26.557	279.414	0.288
2700.000	1.062	251.720	2699.729	4.205	-27.975	4.205	28.289	278.549	0.508
2800.000	0.910	264.579	2799.714	3.839	-29.645	3.839	29.893	277.379	0.268
2900.000	0.949	211.736	2899.703	3.060	-30.871	3.060	31.022	275.661	0.828
3000.000	0.815	247.228	2999.692	2.081	-31.962	2.081	32.030	273.725	0.552
3100.000	1.300	243.573	3099.675	1.301	-33.633	1.301	33.659	272.215	0.490
3200.000	1.356	236.928	3199.648	0.150	-35.641	0.150	35.641	270.242	0.164
3300.000	1.137	235.572	3299.624	-1.056	-37.450	-1.056	37.465	268.385	0.221
3400.000	1.181	239.617	3399.604	-2.138	-39.158	-2.138	39.216	266.874	0.093
3500.000	1.414	238.316	3499.578	-3.307	-41.097	-3.307	41.229	265.399	0.234

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
3600.000	1.091	249.230	3599.554	-4.293	-43.037	-4.293	43.250	264.303	0.399
3700.000	1.090	215.193	3699.537	-5.408	-44.475	-5.408	44.803	263.067	0.638
3800.000	1.454	206.558	3799.512	-7.320	-45.591	-7.320	46.174	260.879	0.411
3900.000	1.971	226.386	3899.468	-9.641	-47.403	-9.641	48.374	258.503	0.779
4000.000	1.787	224.402	3999.414	-11.942	-49.739	-11.942	51.153	256.500	0.196
4100.000	1.515	216.185	4099.373	-14.122	-51.611	-14.122	53.508	254.697	0.360
4200.000	1.700	248.409	4199.335	-15.735	-53.771	-15.735	56.026	253.688	0.910
4300.000	1.712	253.390	4299.291	-16.708	-56.582	-16.708	58.997	253.548	0.149
4400.000	1.534	251.752	4399.251	-17.555	-59.285	-17.555	61.829	253.506	0.184
4500.000	1.850	264.187	4499.208	-18.137	-62.162	-18.137	64.754	253.734	0.483
4600.000	1.641	259.508	4599.161	-18.562	-65.176	-18.562	67.767	254.103	0.253
4700.000	1.963	235.155	4699.113	-19.801	-67.990	-19.801	70.815	253.763	0.823
4800.000	1.897	250.623	4799.057	-21.329	-70.957	-21.329	74.093	253.270	0.524
4900.000	1.780	246.546	4899.005	-22.496	-73.943	-22.496	77.289	253.078	0.176
5000.000	1.477	230.041	4998.966	-23.942	-76.355	-23.942	80.021	252.591	0.555
5100.000	1.630	210.378	5098.929	-25.997	-78.063	-25.997	82.278	251.581	0.551
5200.000	1.609	212.997	5198.890	-28.401	-79.546	-28.401	84.465	250.351	0.077
5300.000	1.719	228.352	5298.848	-30.575	-81.432	-30.575	86.983	249.420	0.458
5400.000	1.684	216.289	5398.804	-32.757	-83.423	-32.757	89.623	248.562	0.359
5500.000	1.521	200.614	5498.765	-35.183	-84.759	-35.183	91.772	247.457	0.466
5600.000	1.668	212.654	5598.727	-37.651	-86.012	-37.651	93.892	246.359	0.365
5700.000	1.279	222.223	5698.694	-39.702	-87.547	-39.702	96.129	245.606	0.459
5800.000	1.508	224.432	5798.664	-41.468	-89.218	-41.468	98.385	245.071	0.235
5900.000	1.031	233.365	5898.639	-42.945	-90.861	-42.945	100.499	244.703	0.515

HORIZONTAL DISPLACEMENT IS
100.499 FEET AT 244.703 DEGREES