

**Vaughn Energy Services
Rifle, Colorado
817-741-3610**

**MS Gyro Survey Calculations
Surveyor: Robert Davis
Patriot B16-24**

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD
0	0	0	0	0	0	0	0	0
100	0.18	23.08	0.15	0.06	100	0.18	0.15	0.16
200	0.15	333.52	0.41	0.07	200	0.14	0.41	0.42
300	0.27	304.13	0.66	-0.18	300	0.16	0.66	0.69
400	0.32	240.03	0.65	-0.62	400	0.32	0.65	0.9
500	0.26	279.98	0.55	-1.09	500	0.21	0.55	1.22
600	0.42	72.31	0.71	-0.96	600	0.67	0.71	1.19
700	0.16	323.54	0.93	-0.69	699.99	0.5	0.93	1.16
800	0.37	66.28	1.17	-0.48	799.99	0.43	1.17	1.27
900	0.23	166.4	1.11	-0.14	899.99	0.47	1.11	1.12
1000	0.18	29.12	1.05	-0.01	999.99	0.38	1.05	1.05
1100	0.29	326.24	1.4	-0.08	1099.99	0.26	1.4	1.41
1200	0.42	326.29	1.92	-0.42	1199.99	0.13	1.92	1.97
1300	0.21	320.38	2.36	-0.74	1299.99	0.21	2.36	2.48
1400	0.39	352.04	2.84	-0.9	1399.99	0.24	2.84	2.98
1500	0.34	322.5	3.42	-1.13	1499.99	0.19	3.42	3.6
1600	0.11	330.88	3.75	-1.36	1599.98	0.23	3.75	3.99
1700	0.27	209.21	3.63	-1.53	1699.98	0.35	3.63	3.94
1800	0.15	326.88	3.53	-1.72	1799.98	0.37	3.53	3.93
1900	0.55	239.94	3.41	-2.2	1899.98	0.56	3.41	4.06
2000	0.78	250.68	2.94	-3.26	1999.98	0.27	2.94	4.39
2100	1.08	246.12	2.33	-4.77	2099.96	0.31	2.33	5.31
2200	1.33	234.58	1.28	-6.58	2199.94	0.35	1.28	6.71
2300	1.45	262.54	0.44	-8.78	2299.91	0.68	0.44	8.79
2400	1.46	242.91	-0.31	-11.17	2399.88	0.5	-0.31	11.18
2500	1.05	223.84	-1.54	-12.94	2499.86	0.58	-1.54	13.03
2600	1.3	243.7	-2.71	-14.59	2599.84	0.48	-2.71	14.84
2700	1.24	243.79	-3.68	-16.57	2699.81	0.06	-3.68	16.98
2800	1.36	230.3	-4.92	-18.46	2799.79	0.33	-4.92	19.1
2900	1.13	227.5	-6.34	-20.1	2899.76	0.24	-6.34	21.07
3000	0.9	195.79	-7.76	-21.03	2999.75	0.6	-7.76	22.42
3100	0.61	175.94	-9.04	-21.21	3099.74	0.38	-9.04	23.06
3200	0.69	166.17	-10.15	-21.03	3199.73	0.13	-10.15	23.35
3300	1.67	161.58	-12.12	-20.42	3299.71	0.99	-12.12	23.75
3400	2.35	144.87	-15.18	-18.78	3399.65	0.89	-15.18	24.15
3500	2.89	143.9	-18.89	-16.12	3499.54	0.54	-18.89	24.83
3600	3.12	138.18	-22.96	-12.82	3599.41	0.38	-22.96	26.29
3700	3.27	130	-26.83	-8.81	3699.25	0.48	-26.83	28.24

3800	3.11	136.2	-30.62	-4.75	3799.1	0.38	-30.62	30.98
3900	2.96	134.39	-34.38	-1.02	3898.96	0.18	-34.38	34.4
4000	2.34	131.61	-37.54	2.35	3998.85	0.63	-37.54	37.62
4100	2.27	133.3	-40.26	5.31	4098.77	0.1	-40.26	40.61
4200	2.3	145.61	-43.27	7.88	4198.69	0.49	-43.27	43.98
4300	2.26	155.41	-46.72	9.84	4298.61	0.39	-46.72	47.74
4400	2.15	162.68	-50.3	11.22	4398.54	0.3	-50.3	51.54
4500	2.15	162.39	-53.89	12.35	4498.47	0.01	-53.89	55.29
4600	1.87	166.92	-57.28	13.29	4598.4	0.32	-57.28	58.8
4700	1.95	173.42	-60.56	13.85	4698.35	0.23	-60.56	62.13
4800	2.88	178.92	-64.77	14.09	4798.26	0.96	-64.77	66.29
4900	3.38	176.63	-70.23	14.32	4898.11	0.51	-70.23	71.67
5000	3.36	165.89	-76.01	15.2	4997.94	0.63	-76.01	77.51
5100	3.28	165.13	-81.61	16.65	5097.77	0.09	-81.61	83.29
5200	2.9	156.06	-86.68	18.41	5197.62	0.62	-86.68	88.62
5300	2.68	168.92	-91.29	19.88	5297.51	0.66	-91.29	93.43
5400	2.09	157.56	-95.26	21.03	5397.42	0.75	-95.26	97.55
5500	1.92	175.66	-98.61	21.85	5497.36	0.65	-98.61	101
5600	1.49	183.34	-101.57	21.9	5597.32	0.48	-101.57	103.91
5700	1.29	176.73	-104	21.89	5697.29	0.25	-104	106.28
5800	1.31	193.18	-106.24	21.69	5797.26	0.37	-106.24	108.44
5900	0.9	191.5	-108.13	21.27	5897.24	0.42	-108.13	110.2
6000	0.66	231.06	-109.25	20.67	5997.23	0.57	-109.25	111.19
6100	0.72	240.39	-109.93	19.67	6097.23	0.12	-109.93	111.67
6200	0.8	270.27	-110.23	18.43	6197.22	0.4	-110.23	111.76
6300	0.87	265.03	-110.29	16.98	6297.21	0.11	-110.29	111.59
6400	1.18	274.22	-110.28	15.19	6397.19	0.35	-110.28	111.33
6500	2.09	262.82	-110.44	12.35	6497.15	0.96	-110.44	111.12
6600	1.92	245.4	-111.36	9.01	6597.09	0.63	-111.36	111.73
6700	2.15	235.14	-113.13	5.95	6697.03	0.43	-113.13	113.29

Cbrg

0
23.08
9.33
344.41
316.48
296.98
306.3
323.36
337.74
352.91
359.28
356.9
347.66
342.64
342.39
341.68
340
337.16
334.09
327.09
312.03
296.05
280.97
272.86
268.43
263.19
259.49
257.47
255.07
252.48
249.75
246.91
244.23
239.32
231.05
220.46
209.17
198.18

188.81
181.71
176.42
172.48
169.67
168.11
167.43
167.09
166.94
167.12
167.72
168.48
168.69
168.47
168.01
167.71
167.55
167.51
167.83
168.12
168.46
168.87
169.29
169.85
170.51
171.25
172.16
173.62
175.37
176.99