

**Vaughn Energy Services
Denver, CO
720-215-1841**

**MS Gyro Survey Calculations
Surveyor: Robert Davis
Puritan 33-34**

Depth	Inc	AzG	N/-S	E/-W	TVD	DL	VS	CD
0.00	0.00	0.00	0.00	0.00	0.00	****	0.00	0.00
100.00	0.92	279.48	0.13	-0.79	100.00	0.92	0.13	0.81
200.00	0.52	316.85	0.59	-1.90	199.99	0.60	0.59	1.99
300.00	0.51	295.49	1.11	-2.61	299.98	0.19	1.11	2.83
400.00	0.34	236.58	1.14	-3.25	399.98	0.44	1.14	3.45
500.00	0.42	256.44	0.90	-3.85	499.98	0.15	0.90	3.96
600.00	0.46	353.59	1.21	-4.25	599.98	0.66	1.21	4.42
700.00	0.52	34.36	1.99	-4.04	699.97	0.35	1.99	4.51
800.00	0.23	132.61	2.23	-3.64	799.97	0.60	2.23	4.27
900.00	0.32	277.00	2.13	-3.77	899.97	0.52	2.13	4.33
1000.00	0.35	330.48	2.43	-4.20	999.97	0.30	2.43	4.85
1100.00	0.43	294.16	2.85	-4.69	1099.97	0.26	2.85	5.49
1200.00	0.40	236.59	2.81	-5.33	1199.97	0.40	2.81	6.03
1300.00	0.40	249.86	2.50	-5.95	1299.96	0.09	2.50	6.45
1400.00	0.47	249.86	2.24	-6.66	1399.96	0.07	2.24	7.02
1500.00	0.44	253.16	1.99	-7.41	1499.96	0.04	1.99	7.67
1600.00	0.58	264.10	1.82	-8.29	1599.95	0.17	1.82	8.48
1700.00	0.68	260.76	1.68	-9.37	1699.95	0.10	1.68	9.52
1800.00	0.52	256.32	1.47	-10.40	1799.94	0.16	1.47	10.50
1900.00	0.51	260.50	1.29	-11.28	1899.94	0.04	1.29	11.36
2000.00	0.35	257.08	1.15	-12.02	1999.94	0.17	1.15	12.07
2100.00	0.39	210.46	0.79	-12.49	2099.93	0.29	0.79	12.51
2200.00	0.51	160.06	0.08	-12.51	2199.93	0.40	0.08	12.51
2300.00	0.62	134.86	-0.72	-11.97	2299.93	0.27	-0.72	11.99
2400.00	0.45	111.98	-1.25	-11.23	2399.92	0.27	-1.25	11.29
2500.00	0.44	98.40	-1.45	-10.48	2499.92	0.11	-1.45	10.58
2600.00	0.27	350.14	-1.28	-10.13	2599.92	0.59	-1.28	10.21
2700.00	0.57	287.47	-0.89	-10.65	2699.92	0.51	-0.89	10.69
2800.00	0.76	316.19	-0.27	-11.58	2799.91	0.37	-0.27	11.59
2900.00	0.58	266.31	0.18	-12.55	2899.90	0.59	0.18	12.55
3000.00	0.74	228.18	-0.29	-13.54	2999.90	0.46	-0.29	13.54
3100.00	0.59	235.02	-1.01	-14.44	3099.89	0.17	-1.01	14.48
3200.00	0.71	249.64	-1.52	-15.45	3199.88	0.21	-1.52	15.52
3300.00	0.88	281.81	-1.58	-16.78	3299.87	0.47	-1.58	16.86
3400.00	1.07	284.93	-1.18	-18.44	3399.86	0.20	-1.18	18.48
3500.00	1.06	278.08	-0.81	-20.27	3499.84	0.13	-0.81	20.28
3600.00	1.24	281.75	-0.46	-22.25	3599.82	0.20	-0.46	22.25
3700.00	1.36	279.82	-0.04	-24.48	3699.80	0.12	-0.04	24.48

3800.00	1.36	285.05	0.48	-26.80	3799.77	0.12	0.48	26.80
3900.00	1.41	278.07	0.96	-29.17	3899.74	0.18	0.96	29.18
4000.00	1.48	286.30	1.49	-31.62	3999.71	0.22	1.49	31.66
4100.00	1.58	294.10	2.42	-34.12	4099.67	0.23	2.42	34.20
4200.00	1.65	300.23	3.70	-36.62	4199.63	0.19	3.70	36.81
4300.00	2.21	316.85	5.84	-39.19	4299.58	0.79	5.84	39.62
4400.00	2.10	315.25	8.54	-41.79	4399.50	0.13	8.54	42.66
4500.00	1.79	293.64	10.47	-44.51	4499.45	0.79	10.47	45.72
4600.00	1.67	297.30	11.76	-47.23	4599.40	0.17	11.76	48.68
4700.00	1.52	301.79	13.12	-49.65	4699.36	0.19	13.12	51.36
4800.00	1.42	313.42	14.68	-51.68	4799.33	0.31	14.68	53.72
4900.00	0.99	288.38	15.80	-53.40	4899.31	0.67	15.80	55.69
5000.00	0.97	290.99	16.38	-55.01	4999.30	0.05	16.38	57.40
5100.00	0.90	294.76	17.01	-56.52	5099.28	0.09	17.01	59.02
5200.00	1.10	309.60	17.95	-57.97	5199.27	0.33	17.95	60.68
5300.00	0.93	316.87	19.16	-59.26	5299.25	0.21	19.16	62.28
5400.00	1.09	308.94	20.35	-60.56	5399.24	0.21	20.35	63.89
5500.00	1.14	306.36	21.54	-62.11	5499.22	0.07	21.54	65.74
5600.00	0.83	315.27	22.65	-63.42	5599.20	0.35	22.65	67.34
5700.00	0.95	298.51	23.56	-64.66	5699.19	0.29	23.56	68.82
5800.00	0.88	293.52	24.26	-66.09	5799.18	0.11	24.26	70.40
5900.00	0.82	289.91	24.81	-67.47	5899.17	0.07	24.81	71.88
6000.00	0.60	305.84	25.36	-68.57	5999.16	0.29	25.36	73.11
6100.00	0.69	258.95	25.55	-69.59	6099.15	0.52	25.55	74.13
6200.00	0.69	290.33	25.65	-70.75	6199.15	0.37	25.65	75.25
6300.00	0.38	273.05	25.87	-71.64	6299.14	0.35	25.87	76.17
6400.00	0.75	311.45	26.32	-72.46	6399.14	0.51	26.32	77.09
6500.00	0.72	289.82	26.97	-73.54	6499.13	0.28	26.97	78.33
6600.00	0.56	294.78	27.38	-74.58	6599.12	0.18	27.38	79.44
6700.00	0.66	338.95	28.13	-75.22	6699.12	0.47	28.13	80.31
6800.00	0.82	330.95	29.30	-75.78	6799.11	0.19	29.30	81.25
6900.00	0.90	324.77	30.56	-76.58	6899.10	0.12	30.56	82.45
7000.00	0.85	343.88	31.91	-77.23	6999.09	0.29	31.91	83.57
7100.00	0.47	323.63	32.95	-77.68	7099.08	0.44	32.95	84.38
7200.00	0.79	316.34	33.78	-78.40	7199.07	0.33	33.78	85.37
7300.00	0.78	334.55	34.89	-79.17	7299.06	0.25	34.89	86.52
7400.00	0.74	355.84	36.15	-79.51	7399.06	0.28	36.15	87.34
7500.00	0.89	335.58	37.49	-79.88	7499.05	0.32	37.49	88.24
7600.00	0.55	15.35	38.66	-80.07	7599.04	0.58	38.66	88.92
7700.00	1.05	21.71	39.98	-79.60	7699.03	0.50	39.98	89.08
7800.00	0.82	348.54	41.53	-79.41	7799.02	0.58	41.53	89.61
7900.00	0.56	10.75	42.71	-79.46	7899.01	0.37	42.71	90.21
8000.00	0.17	16.41	43.34	-79.32	7999.01	0.39	43.34	90.39
8090.00	0.23	2.18	43.64	-79.28	8089.01	0.08	43.64	90.50

Cbrg

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