

Company: Extraction Oil & Gas
 Well/API: Thronson MC 2-6/05-013-06418
 Tool Type: North Seeking Rate Gyro
 Rig Name: Production/CoreTech
 County/State: Boulder/Colorado
 VS-Azi: 0.000 Degrees
 Latitude: 40.08245, Longitude: -105.08572
 All Azimuths referenced to True North
 No Grid Correction Applied



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB = GL Elevation = 5067
 Error Model: VESSI_GYROFLEX_SLICKLINE.IPM
 Filename: msgyrosurvey.ut
 Handheld GPS Reference: NAD83/Device Error: ± 9 Feet
 VES Survey International - Henderson CO
 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	1.058	271.447	99.994	0.023	-0.923	0.023	0.923	271.447	1.058
200.000	1.143	257.159	199.976	-0.175	-2.819	-0.175	2.824	266.447	0.286
300.000	1.145	254.694	299.956	-0.660	-4.755	-0.660	4.800	262.092	0.049
400.000	1.000	263.570	399.939	-1.022	-6.585	-1.022	6.664	261.179	0.220
500.000	0.741	283.884	499.927	-0.965	-8.080	-0.965	8.137	263.192	0.399
600.000	0.765	264.192	599.919	-0.877	-9.371	-0.877	9.412	264.653	0.258
700.000	0.823	270.934	699.909	-0.933	-10.752	-0.933	10.793	265.042	0.110
800.000	0.827	258.398	799.899	-1.066	-12.177	-1.066	12.224	264.996	0.180
900.000	0.914	267.314	899.887	-1.249	-13.681	-1.249	13.738	264.784	0.161
1000.000	0.945	270.524	999.874	-1.279	-15.302	-1.279	15.355	265.223	0.060
1100.000	0.876	277.393	1099.862	-1.173	-16.884	-1.173	16.925	266.027	0.129
1200.000	0.932	286.328	1199.849	-0.846	-18.423	-0.846	18.442	267.371	0.151
1300.000	0.956	271.910	1299.836	-0.589	-20.037	-0.589	20.045	268.315	0.238
1400.000	0.938	271.110	1399.822	-0.546	-21.689	-0.546	21.696	268.559	0.022
1500.000	0.915	275.190	1499.809	-0.458	-23.303	-0.458	23.307	268.875	0.070
1600.000	0.995	278.345	1599.795	-0.259	-24.958	-0.259	24.959	269.405	0.096
1700.000	1.142	277.282	1699.778	-0.007	-26.806	-0.007	26.806	269.985	0.148
1800.000	1.235	276.101	1799.756	0.234	-28.866	0.234	28.867	270.464	0.096
1900.000	1.305	279.469	1899.732	0.536	-31.060	0.536	31.065	270.988	0.102

2000.000	1.374	283.244	1999.704	0.998	-33.350	0.998	33.365	271.714	0.112
2100.000	1.443	294.857	2099.674	1.802	-35.659	1.802	35.705	272.892	0.293
2200.000	1.194	285.201	2199.648	2.604	-37.808	2.604	37.897	273.940	0.333
2300.000	1.229	294.333	2299.626	3.319	-39.790	3.319	39.929	274.769	0.196
2400.000	1.135	287.131	2399.604	4.053	-41.714	4.053	41.911	275.550	0.175
2500.000	1.109	278.094	2499.585	4.481	-43.619	4.481	43.849	275.866	0.179
2600.000	1.129	275.212	2599.566	4.707	-45.559	4.707	45.801	275.899	0.060
2700.000	1.140	272.541	2699.547	4.841	-47.534	4.841	47.780	275.815	0.054
2800.000	1.065	263.735	2799.528	4.783	-49.451	4.783	49.682	275.525	0.185
2900.000	1.158	265.867	2899.509	4.609	-51.383	4.609	51.590	275.126	0.102
3000.000	0.913	269.569	2999.493	4.530	-53.188	4.530	53.381	274.868	0.254
3100.000	0.873	260.416	3099.481	4.397	-54.736	4.397	54.912	274.593	0.148
3200.000	0.998	308.299	3199.469	4.811	-56.170	4.811	56.376	274.895	0.768
3300.000	0.905	308.616	3299.455	5.843	-57.471	5.843	57.767	275.805	0.094
3400.000	1.299	285.434	3399.437	6.637	-59.180	6.637	59.551	276.399	0.587
3500.000	1.828	271.074	3499.400	6.969	-61.867	6.969	62.258	276.427	0.654
3600.000	2.200	283.719	3599.338	7.454	-65.326	7.454	65.750	276.509	0.577
3700.000	2.239	265.879	3699.265	7.769	-69.138	7.769	69.573	276.411	0.689
3800.000	2.222	267.486	3799.189	7.543	-73.023	7.543	73.411	275.898	0.065
3900.000	1.903	270.634	3899.124	7.476	-76.619	7.476	76.983	275.573	0.339
4000.000	1.595	287.259	3999.078	7.908	-79.608	7.908	80.000	275.673	0.590
4100.000	1.582	312.176	4099.041	9.248	-81.960	9.248	82.480	276.437	0.685
4200.000	0.940	298.951	4199.016	10.572	-83.701	10.572	84.366	277.199	0.701
4300.000	0.987	311.323	4299.002	11.538	-85.066	11.538	85.845	277.724	0.213
4400.000	1.123	318.536	4398.985	12.841	-86.362	12.841	87.312	278.457	0.190
4500.000	0.814	333.863	4498.971	14.213	-87.324	14.213	88.473	279.245	0.401
4600.000	0.871	2.053	4598.961	15.611	-87.610	15.611	88.990	280.103	0.414
4700.000	0.631	337.469	4698.952	16.879	-87.794	16.879	89.402	280.883	0.397
4800.000	0.546	316.146	4798.947	17.731	-88.334	17.731	90.096	281.350	0.233
4900.000	0.458	344.054	4898.943	18.459	-88.774	18.459	90.673	281.746	0.257
5000.000	0.307	0.158	4998.941	19.110	-88.883	19.110	90.914	282.134	0.184
5100.000	0.339	17.370	5098.940	19.660	-88.794	19.660	90.944	282.485	0.102
5200.000	0.306	48.624	5198.938	20.119	-88.505	20.119	90.763	282.807	0.177
5300.000	0.222	46.659	5298.937	20.429	-88.163	20.429	90.499	283.046	0.085
5400.000	0.218	12.359	5398.936	20.748	-87.981	20.748	90.395	283.269	0.130
5500.000	0.181	304.448	5498.936	21.023	-88.071	21.023	90.545	283.426	0.225
5600.000	0.422	284.816	5598.934	21.206	-88.557	21.206	91.061	283.467	0.258
5700.000	0.405	313.129	5698.932	21.542	-89.171	21.542	91.736	283.581	0.203
5800.000	0.348	289.104	5798.930	21.883	-89.715	21.883	92.346	283.708	0.166

5900.000	0.301	293.853	5898.928	22.089	-90.243	22.089	92.906	283.754	0.054
6000.000	0.225	265.249	5998.927	22.179	-90.679	22.179	93.352	283.744	0.149
6100.000	0.189	347.070	6098.927	22.323	-90.912	22.323	93.612	283.796	0.273
6200.000	0.446	54.533	6198.925	22.710	-90.631	22.710	93.433	284.067	0.413
6300.000	0.591	57.218	6298.921	23.215	-89.881	23.215	92.830	284.482	0.146
6400.000	0.251	128.919	6398.919	23.356	-89.276	23.356	92.281	284.661	0.565
6500.000	0.402	175.345	6498.917	22.869	-89.077	22.869	91.966	284.399	0.292
6600.000	0.470	108.545	6598.915	22.390	-88.660	22.390	91.443	284.173	0.483
6700.000	0.268	216.048	6698.914	22.070	-88.409	22.070	91.122	284.017	0.607
6800.000	0.478	323.023	6798.912	22.215	-88.797	22.215	91.534	284.045	0.613
6900.000	0.517	289.860	6898.909	22.701	-89.472	22.701	92.307	284.237	0.286
7000.000	0.999	281.662	6998.900	23.030	-90.750	23.030	93.626	284.240	0.493
7100.000	0.969	291.105	7098.885	23.511	-92.392	23.511	95.336	284.277	0.165
7200.000	1.718	281.600	7198.857	24.117	-94.649	24.117	97.673	284.295	0.779
7300.000	0.540	255.976	7298.836	24.304	-96.574	24.304	99.586	284.126	1.253
7400.000	0.657	155.715	7398.833	23.667	-96.796	23.667	99.647	283.739	0.922
7500.000	1.532	96.672	7498.816	22.988	-95.232	22.988	97.968	283.571	1.320
7600.000	1.349	63.806	7598.786	23.352	-92.848	23.352	95.740	284.118	0.834

HORIZONTAL DISPLACEMENT IS
95.740 FEET AT 284.118 DEGREES

