



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : GROUND LEVEL

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: hsr gibler143a-01.ut

Minimum Curvature Method

Report Date/Time: 12/16/2013 / 13:20

Vaughn Energy Services

Corpus Christi, Texas

361-767-0602

Sal Visoso

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	0.510	225.627	99.999	-0.311	-0.318	-0.311	0.445	225.627	0.510
200.000	0.359	203.967	199.996	-0.909	-0.763	-0.909	1.187	220.030	0.220
300.000	0.338	178.063	299.994	-1.490	-0.881	-1.490	1.730	210.590	0.158
400.000	0.264	123.097	399.993	-1.910	-0.678	-1.910	2.027	199.537	0.285
500.000	0.443	113.576	499.991	-2.191	-0.130	-2.191	2.194	183.398	0.188
600.000	0.144	116.086	599.989	-2.401	0.338	-2.401	2.424	171.992	0.299
700.000	0.319	160.792	699.989	-2.719	0.542	-2.719	2.772	168.719	0.239
800.000	0.508	205.121	799.986	-3.383	0.445	-3.383	3.412	172.499	0.358
900.000	0.451	201.483	899.983	-4.150	0.113	-4.150	4.152	178.440	0.065
1000.000	0.648	212.744	999.978	-4.992	-0.337	-4.992	5.003	183.859	0.224
1100.000	0.790	223.444	1099.970	-5.968	-1.117	-5.968	6.072	190.599	0.195
1200.000	0.611	247.026	1199.963	-6.677	-2.082	-6.677	6.994	197.319	0.336
1300.000	0.902	220.640	1299.954	-7.482	-3.086	-7.482	8.094	202.412	0.446
1400.000	0.819	237.521	1399.943	-8.464	-4.202	-8.464	9.449	206.401	0.265
1500.000	0.869	247.867	1499.933	-9.133	-5.507	-9.133	10.665	211.089	0.160
1600.000	0.715	248.871	1599.923	-9.644	-6.791	-9.644	11.795	215.153	0.155
1700.000	0.674	258.121	1699.916	-9.989	-7.948	-9.989	12.766	218.508	0.119
1800.000	0.611	259.363	1799.909	-10.209	-9.048	-10.209	13.641	221.549	0.065
1900.000	0.523	272.239	1899.905	-10.289	-10.028	-10.289	14.368	224.262	0.154
2000.000	0.519	309.261	1999.901	-9.985	-10.834	-9.985	14.734	227.337	0.331
2100.000	0.460	28.087	2099.898	-9.344	-10.996	-9.344	14.430	229.644	0.624
2200.000	0.891	46.214	2199.891	-8.451	-10.245	-8.451	13.281	230.482	0.476
2300.000	0.809	30.837	2299.880	-7.307	-9.322	-7.307	11.845	231.910	0.242
2400.000	0.727	50.285	2399.871	-6.296	-8.472	-6.296	10.555	233.385	0.272
2500.000	0.785	49.979	2499.862	-5.450	-7.460	-5.450	9.239	233.850	0.058
2600.000	0.859	43.658	2599.852	-4.467	-6.418	-4.467	7.820	235.160	0.117
2700.000	0.402	48.966	2699.846	-3.695	-5.636	-3.695	6.739	236.753	0.460
2800.000	0.218	337.548	2799.845	-3.288	-5.444	-3.288	6.360	238.870	0.392
2900.000	0.504	281.574	2899.843	-3.023	-5.947	-3.023	6.672	243.053	0.422
3000.000	0.637	254.426	2999.838	-3.084	-6.913	-3.084	7.570	245.957	0.297
3100.000	0.732	252.372	3099.831	-3.427	-8.058	-3.427	8.756	246.959	0.099

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
3200.000	0.839	271.219	3199.822	-3.605	-9.399	-3.605	10.067	249.015	0.278
3300.000	0.870	269.812	3299.811	-3.592	-10.890	-3.592	11.467	251.745	0.037
3400.000	0.690	255.719	3399.801	-3.743	-12.233	-3.743	12.793	252.987	0.262
3500.000	0.716	267.349	3499.794	-3.921	-13.441	-3.921	14.001	253.739	0.145
3600.000	0.658	254.093	3599.787	-4.107	-14.618	-4.107	15.183	254.307	0.169
3700.000	1.030	276.007	3699.776	-4.170	-16.063	-4.170	16.595	255.447	0.486
3800.000	0.724	336.274	3799.766	-3.497	-17.211	-3.497	17.563	258.514	0.919
3900.000	0.726	329.897	3899.758	-2.371	-17.783	-2.371	17.940	262.407	0.081
4000.000	0.876	315.139	3999.748	-1.281	-18.640	-1.281	18.684	266.069	0.254
4100.000	0.961	300.396	4099.736	-0.315	-19.902	-0.315	19.905	269.093	0.250
4200.000	0.946	308.079	4199.722	0.618	-21.275	0.618	21.284	271.665	0.129
4300.000	1.152	333.830	4299.706	2.029	-22.368	2.029	22.459	275.183	0.509
4400.000	1.619	351.460	4399.676	4.328	-23.021	4.328	23.424	280.647	0.627
4500.000	1.632	349.558	4499.636	7.125	-23.488	7.125	24.545	286.874	0.056
4600.000	1.474	323.728	4599.601	9.562	-24.507	9.562	26.307	291.314	0.711
4700.000	1.350	306.278	4699.571	11.296	-26.218	11.296	28.547	293.308	0.446
4800.000	2.062	293.521	4799.526	12.711	-28.817	12.711	31.496	293.801	0.803
4900.000	1.913	276.444	4899.467	13.616	-32.125	13.616	34.892	292.969	0.608
5000.000	1.704	276.997	4999.417	13.984	-35.259	13.984	37.931	291.634	0.210
5100.000	1.291	270.288	5099.383	14.171	-37.862	14.171	40.427	290.520	0.447
5200.000	0.978	277.488	5199.363	14.288	-39.835	14.288	42.320	289.732	0.343
5300.000	0.725	288.283	5299.352	14.598	-41.282	14.598	43.787	289.474	0.299
5400.000	0.616	302.496	5399.345	15.085	-42.335	15.085	44.943	289.612	0.198
5500.000	0.403	310.942	5499.341	15.604	-43.054	15.604	45.795	289.922	0.226
5600.000	0.308	306.677	5599.339	15.995	-43.536	15.995	46.381	290.173	0.098
5700.000	0.381	318.839	5699.337	16.406	-43.970	16.406	46.931	290.461	0.103
5800.000	0.241	52.915	5799.336	16.783	-44.021	16.783	47.112	290.869	0.465
5900.000	0.687	123.503	5899.333	16.579	-43.353	16.579	46.415	290.928	0.648
6000.000	0.787	143.137	5999.325	15.699	-42.441	15.699	45.251	290.299	0.270
6100.000	0.710	126.079	6099.317	14.784	-41.529	14.784	44.082	289.596	0.235
6200.000	0.725	131.634	6199.309	14.000	-40.555	14.000	42.904	289.044	0.071
6300.000	0.277	124.489	6299.305	13.443	-39.883	13.443	42.088	288.626	0.451
6400.000	0.254	119.694	6399.304	13.196	-39.491	13.196	41.638	288.477	0.032
6500.000	0.275	78.324	6499.303	13.134	-39.063	13.134	41.212	288.584	0.188
6600.000	0.482	11.262	6599.301	13.595	-38.746	13.595	41.062	289.335	0.453
6700.000	0.215	4.274	6699.299	14.195	-38.650	14.195	41.174	290.167	0.270
6800.000	0.233	14.931	6799.298	14.579	-38.584	14.579	41.246	290.699	0.046
6900.000	0.285	316.839	6899.298	14.957	-38.701	14.957	41.491	291.130	0.256
7000.000	0.475	321.617	6999.295	15.463	-39.129	15.463	42.073	291.563	0.192
7100.000	0.474	301.767	7099.292	16.005	-39.738	16.005	42.840	291.939	0.164
7200.000	0.174	283.712	7199.290	16.259	-40.237	16.259	43.398	292.003	0.313
7300.000	0.225	1.840	7299.290	16.492	-40.379	16.492	43.617	292.217	0.255
7400.000	0.380	60.128	7399.289	16.854	-40.085	16.854	43.484	292.804	0.324
7500.000	0.887	73.297	7499.282	17.241	-39.056	17.241	42.692	293.819	0.524
7600.000	0.894	89.578	7599.270	17.469	-37.534	17.469	41.401	294.958	0.252
7700.000	0.554	71.291	7699.262	17.630	-36.297	17.630	40.352	295.907	0.407
7800.000	0.185	31.689	7799.260	17.923	-35.754	17.923	39.995	296.623	0.428
HORIZONTAL DISPLACEMENT IS 39.995 FEET AT 296.623 DEGREES									