

GyroTracer Directional:

Date: 10/22/2018
 Operator : Adrian Bruner
 API: 05-123-16464
 Well Name: **Knaub 5-12**
 Field : Noble Energy Inc
 Tool Type And Number: 1719
 Bottom Depth : 6900.00
 Total Well Depth: 7175.00
 Latitude : 40.347053 N
 Longitude : 104.684416 W
 Grid Offset : 0.53

**Starting Point Coordinates (in local grid):**

Northing: 0.00 Easting: 0.00 Altitude: 4673.00

Description:

Azimuth measured in degrees and referenced to local grid

Inclination measured from Vertical

Length measured in US survey feet

Start Time: 10/22/2018 14:45

End Time: 10/22/2018 15:49

Depth	Inclination	Azimuth	Closure Direction	True Depth	Coordinates		Dogleg Severity	Closure Distance
					+N/-S	+E/-W		
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100.000	0.380	319.768	327.265	100.000	0.560	-0.360	0.380	0.666
200.000	0.855	306.775	323.511	199.995	1.229	-0.909	0.521	1.529
300.000	0.217	296.479	316.149	299.991	1.624	-1.560	0.369	2.252
400.000	0.473	283.724	311.831	399.988	2.007	-2.242	0.465	3.009
500.000	0.529	311.178	309.503	499.984	2.400	-2.911	0.285	3.773
600.000	0.617	273.490	307.008	599.979	2.790	-3.701	0.403	4.635
700.000	0.397	311.246	305.823	699.975	3.139	-4.348	0.386	5.363
800.000	0.408	317.465	303.561	799.971	3.378	-5.092	0.185	6.110
900.000	0.242	285.648	302.300	899.968	3.641	-5.760	0.312	6.814
1000.000	0.590	292.042	301.467	999.965	3.893	-6.361	0.184	7.458
1100.000	0.287	324.011	299.441	1099.962	3.964	-7.023	0.378	8.065
1200.000	0.466	300.779	297.996	1199.958	4.143	-7.794	0.318	8.827
1300.000	0.267	297.615	296.266	1299.954	4.241	-8.594	0.327	9.583
1400.000	0.599	247.639	294.344	1399.949	4.276	-9.452	0.409	10.374
1500.000	0.560	255.652	292.634	1499.944	4.315	-10.348	0.127	11.212
1600.000	0.662	293.816	291.604	1599.940	4.432	-11.192	0.401	12.037
1700.000	0.617	254.999	290.964	1699.935	4.631	-12.086	0.422	12.943
1800.000	0.428	294.382	291.220	1799.931	4.927	-12.689	0.401	13.612
1900.000	0.430	5.543	291.419	1899.929	5.138	-13.098	0.688	14.070
2000.000	0.386	1.516	292.745	1999.927	5.556	-13.252	0.044	14.370
2100.000	0.164	66.169	293.955	2099.926	5.919	-13.323	0.200	14.579
2200.000	0.489	349.549	296.074	2199.923	6.392	-13.062	0.498	14.542
2300.000	0.448	43.972	297.951	2299.921	6.766	-12.752	0.374	14.435

2400.000	0.185	62.203	299.305	2399.919	7.026	-12.517	0.438	14.354
2500.000	1.007	7.468	301.281	2499.916	7.501	-12.347	0.913	14.447
2600.000	0.245	24.196	302.827	2599.914	7.957	-12.334	0.387	14.678
2700.000	0.285	24.945	304.857	2699.911	8.510	-12.219	0.150	14.891
2800.000	0.343	39.984	306.377	2799.910	8.969	-12.176	0.250	15.122
2900.000	0.200	287.332	307.532	2899.908	9.360	-12.184	0.612	15.365
3000.000	0.162	271.223	308.509	2999.906	9.639	-12.114	0.038	15.481
3100.000	0.326	138.655	309.314	3099.905	9.793	-11.959	0.548	15.458
3200.000	0.507	139.818	309.635	3199.902	9.555	-11.536	0.139	14.979
3300.000	0.195	157.852	309.839	3299.899	9.119	-10.930	0.363	14.234
3400.000	0.279	119.908	309.415	3399.894	8.498	-10.341	0.196	13.385
3500.000	0.822	151.095	308.357	3499.888	7.736	-9.775	0.580	12.466
3600.000	0.640	104.553	309.296	3599.877	7.010	-8.566	0.604	11.069
3700.000	0.618	99.748	311.927	3699.864	6.420	-7.149	0.088	9.608
3800.000	1.033	123.003	314.539	3799.851	5.709	-5.801	0.429	8.139
3900.000	1.162	117.945	320.546	3899.836	5.127	-4.219	0.171	6.640
4000.000	0.803	131.068	330.183	3999.821	4.631	-2.654	0.550	5.338
4100.000	0.873	147.905	339.127	4099.808	3.705	-1.413	0.216	3.965
4200.000	0.983	115.927	351.960	4199.795	2.611	-0.369	0.550	2.637
4300.000	1.004	152.937	28.799	4299.781	1.569	0.863	0.683	1.791
4400.000	1.191	128.683	71.448	4399.768	0.735	2.189	0.647	2.309
4500.000	1.211	120.032	91.079	4499.744	-0.078	4.128	0.134	4.129
4600.000	1.442	130.298	97.906	4599.714	-0.885	6.374	0.364	6.435
4700.000	1.644	104.424	102.329	4699.674	-1.946	8.903	0.866	9.113
4800.000	1.915	118.463	105.773	4799.627	-3.284	11.625	0.573	12.080
4900.000	1.703	112.341	107.409	4899.574	-4.569	14.571	0.246	15.271
5000.000	1.530	119.258	107.662	4999.528	-5.527	17.358	0.132	18.217
5100.000	0.991	84.836	106.827	5099.502	-5.900	19.509	0.838	20.382
5200.000	0.514	76.004	106.233	5199.489	-6.120	21.020	0.360	21.893
5300.000	0.466	205.890	105.537	5299.480	-6.155	22.139	0.856	22.979
5400.000	0.433	47.241	105.877	5399.477	-6.269	22.040	1.105	22.915
5500.000	0.788	347.796	104.559	5499.474	-5.759	22.174	0.649	22.910
5600.000	0.371	357.735	103.937	5599.470	-5.391	21.722	0.453	22.381
5700.000	0.460	33.560	103.570	5699.464	-5.078	21.036	0.430	21.640
5800.000	0.721	9.983	103.789	5799.459	-5.154	21.003	0.337	21.626
5900.000	0.747	74.977	104.570	5899.453	-5.343	20.555	0.803	21.238
6000.000	0.863	153.005	105.627	5999.447	-5.644	20.179	1.019	20.953
6100.000	0.791	164.194	106.625	6099.441	-6.018	20.156	0.211	21.035
6200.000	0.118	140.792	107.146	6199.437	-6.277	20.344	0.628	21.290
6300.000	0.450	215.040	107.427	6299.436	-6.418	20.444	0.435	21.428
6400.000	0.453	235.172	108.019	6399.433	-6.648	20.437	0.080	21.491
6500.000	0.354	122.523	108.758	6499.430	-7.003	20.620	0.792	21.777
6600.000	0.319	112.798	109.135	6599.429	-7.167	20.655	0.082	21.863
6700.000	0.207	63.055	109.820	6699.427	-7.430	20.615	0.183	21.913
6800.000	0.372	147.915	110.213	6799.424	-7.580	20.587	0.354	21.938
6900.000	0.577	114.432	110.436	6899.422	-7.708	20.687	0.244	22.076