

**GyroTracer Directional:**

Date: 9/18/2018  
 Operator : Adrian Bruner  
 API: 05-123-27322  
 Well Name: **Magnuson USX AB 19-23**  
 Field : Noble Energy Inc  
 Tool Type And Number: 1717  
 Bottom Depth : 7000.00  
 Total Well Depth: 7372.00  
 Latitude : 40.55478 N  
 Longitude : 104.58763 W  
 Grid Offset : 0.57

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

Northing: 0.00      Easting: 0.00      Altitude: 4862.00

**Description:**

*Azimuth measured in degrees and referenced to local grid*

*Inclination measured from Vertical*

*Length measured in US survey feet*

Start Time: 9/18/2018 11:44

End Time: 9/18/2018 13:14

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	0.460	286.833	293.671	100.030	0.320	-0.730	0.460	0.797
200.000	0.710	268.988	282.860	199.984	0.406	-1.780	0.316	1.825
300.000	0.766	277.703	281.238	299.979	0.537	-2.701	0.121	2.754
400.000	0.524	243.534	276.337	399.974	0.406	-3.658	0.407	3.681
500.000	0.704	185.417	263.270	499.968	-0.479	-4.061	0.614	4.089
600.000	1.263	200.633	243.690	599.950	-2.275	-4.601	0.616	5.133
700.000	2.467	230.793	234.533	699.905	-4.555	-6.393	1.516	7.850
800.000	2.637	230.658	232.593	799.807	-7.440	-9.729	0.163	12.247
900.000	2.445	226.632	232.129	899.703	-10.304	-13.250	0.271	16.786
1000.000	2.565	226.164	231.281	999.609	-13.204	-16.470	0.135	21.109
1100.000	2.380	227.106	230.288	1099.519	-16.183	-19.484	0.179	25.329
1200.000	2.295	225.422	230.050	1199.435	-18.880	-22.541	0.118	29.403
1300.000	2.013	227.573	229.962	1299.369	-21.244	-25.284	0.299	33.024
1400.000	2.039	241.402	230.003	1399.308	-23.476	-27.981	0.471	36.525
1500.000	1.812	231.506	230.141	1499.258	-25.422	-30.449	0.391	39.666
1600.000	1.725	225.409	230.004	1599.214	-27.376	-32.630	0.266	42.593
1700.000	1.301	225.148	229.709	1699.179	-29.247	-34.498	0.295	45.227
1800.000	1.180	222.908	229.382	1799.153	-30.888	-36.014	0.210	47.445
1900.000	0.956	219.586	229.100	1899.134	-32.343	-37.337	0.220	49.398
2000.000	0.972	209.789	228.721	1999.120	-33.640	-38.319	0.217	50.990
2100.000	0.833	209.030	228.136	2099.111	-34.857	-38.898	0.092	52.230
2200.000	0.820	228.254	227.742	2199.103	-35.920	-39.534	0.280	53.415
2300.000	0.763	213.646	227.470	2299.096	-36.884	-40.209	0.226	54.564

2400.000	0.714	213.510	227.149	2399.088	-37.894	-40.849	0.107	55.719
2500.000	0.742	214.907	226.815	2499.079	-39.004	-41.557	0.062	56.993
2600.000	0.696	196.014	226.260	2599.071	-40.165	-41.972	0.331	58.093
2700.000	0.656	197.592	225.648	2699.064	-41.293	-42.237	0.056	59.068
2800.000	0.500	202.892	225.191	2799.058	-42.291	-42.574	0.165	60.009
2900.000	0.369	211.308	224.941	2899.054	-43.042	-42.953	0.396	60.808
3000.000	0.289	244.514	224.899	2999.052	-43.542	-43.388	0.319	61.469
3100.000	0.301	282.178	225.100	3099.050	-43.706	-43.859	0.291	61.918
3200.000	0.345	324.908	225.529	3199.049	-43.441	-44.250	0.228	62.009
3300.000	0.409	319.232	226.089	3299.046	-43.064	-44.733	0.066	62.092
3400.000	0.330	304.254	226.651	3399.044	-42.750	-45.288	0.149	62.278
3500.000	0.688	299.098	227.401	3499.039	-42.374	-46.082	0.199	62.603
3600.000	0.822	292.431	228.420	3599.031	-41.906	-47.232	0.123	63.143
3700.000	1.137	283.389	229.554	3699.020	-41.434	-48.606	0.315	63.869
3800.000	1.014	281.717	230.618	3799.007	-41.196	-50.185	0.223	64.928
3900.000	0.718	284.138	231.673	3898.994	-40.901	-51.738	0.211	65.952
4000.000	1.122	280.391	232.633	3998.985	-40.520	-53.060	0.453	66.762
4100.000	0.876	276.953	233.447	4098.975	-40.327	-54.393	0.279	67.711
4200.000	0.796	264.178	234.158	4198.963	-40.376	-55.896	0.185	68.953
4300.000	0.855	236.848	234.709	4298.952	-40.517	-57.242	0.410	70.131
4400.000	0.564	237.651	234.858	4398.948	-40.878	-58.074	0.182	71.018
4500.000	0.156	236.344	234.751	4498.944	-41.422	-58.613	0.293	71.773
4600.000	0.376	234.085	234.671	4598.943	-41.793	-58.964	0.114	72.273
4700.000	0.336	212.907	234.487	4698.940	-42.226	-59.171	0.122	72.693
4800.000	0.943	110.983	234.099	4798.936	-42.713	-59.003	1.165	72.841
4900.000	0.545	115.005	233.263	4898.928	-43.187	-57.861	0.213	72.201
5000.000	0.619	105.110	232.445	4998.920	-43.573	-56.673	0.399	71.487
5100.000	0.403	115.174	231.693	5098.913	-43.903	-55.577	0.163	70.825
5200.000	0.609	123.514	231.006	5198.908	-44.329	-54.754	0.178	70.448
5300.000	0.489	161.606	230.136	5298.900	-45.031	-53.924	0.423	70.254
5400.000	0.664	191.287	229.630	5398.896	-45.886	-53.973	0.357	70.842
5500.000	0.655	212.591	229.108	5498.890	-46.937	-54.201	0.243	71.699
5600.000	1.152	213.039	228.832	5598.877	-48.153	-55.067	0.496	73.151
5700.000	1.346	235.399	228.903	5698.863	-49.101	-56.292	0.555	74.698
5800.000	1.353	304.973	230.370	5798.839	-48.166	-58.161	1.329	75.516
5900.000	1.794	335.383	232.305	5898.804	-46.303	-59.919	1.004	75.725
6000.000	2.530	344.646	234.933	5998.735	-42.904	-61.120	0.794	74.676
6100.000	2.557	332.317	238.428	6098.627	-38.594	-62.803	0.570	73.713
6200.000	1.510	311.542	241.098	6198.566	-35.675	-64.619	1.235	73.813
6300.000	0.692	335.128	242.651	6298.543	-33.978	-65.693	0.946	73.960
6400.000	0.378	83.385	243.211	6398.537	-33.245	-65.846	0.951	73.762
6500.000	1.110	109.868	242.625	6498.529	-33.514	-64.723	0.733	72.885
6600.000	1.208	113.378	241.563	6598.513	-34.179	-63.115	0.306	71.776
6700.000	1.208	108.702	240.274	6698.492	-34.996	-61.291	0.144	70.578
6800.000	1.285	103.492	238.886	6798.468	-35.792	-59.301	0.096	69.265
6900.000	1.375	92.943	237.580	6898.441	-36.249	-57.075	0.250	67.613
7000.000	0.917	91.486	236.591	6998.419	-36.309	-55.046	0.446	65.942

