

GyroTracer Directional:

Date: 5/8/2018
 Operator : Brandon McKnight
 API: 05-123-23990
 Well Name: **Rural 31-15**
 Field : Noble Energy Inc
 Tool Type And Number: 1609
 Bottom Depth : 7200.00
 Total Well Depth: 7450.00
 Latitude : 40.27256 N
 Longitude : 104.70068 W
 Grid Offset : 0.52

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

Northing: 0.00 Easting: 0.00 Altitude: 4874.00

Description:

Azimuth measured in degrees and referenced to local grid

Inclination measured from Vertical

Length measured in US survey feet

Start Time: 5/8/2018 15:41

End Time: 5/8/2018 16:57

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
100.270	0.320	33.816	75.719	100.270	0.140	0.550	0.319	0.568
200.000	0.164	55.999	61.866	199.998	0.479	0.897	0.211	1.017
300.000	0.321	130.562	70.090	299.998	0.446	1.231	0.343	1.310
400.000	0.331	109.820	85.847	399.996	0.111	1.525	0.172	1.529
500.000	0.401	125.134	96.447	499.994	-0.231	2.041	0.168	2.054
600.000	0.515	117.036	104.679	599.990	-0.743	2.838	0.218	2.934
700.000	0.575	139.243	111.012	699.984	-1.408	3.665	0.155	3.926
800.000	0.595	147.089	115.946	799.977	-2.172	4.464	0.088	4.965
900.000	0.684	146.581	120.069	899.970	-3.043	5.256	0.102	6.073
1000.000	0.847	138.048	123.542	999.963	-3.989	6.016	0.048	7.218
1100.000	0.815	149.310	126.324	1099.955	-4.991	6.789	0.173	8.427
1200.000	0.811	142.791	128.326	1199.946	-6.008	7.600	0.139	9.688
1300.000	0.760	138.111	129.961	1299.937	-7.061	8.427	0.089	10.994
1400.000	0.974	151.348	131.654	1399.927	-8.195	9.213	0.295	12.330
1500.000	0.910	146.767	132.897	1499.917	-9.322	10.033	0.135	13.695
1600.000	0.806	134.404	133.780	1599.908	-10.393	10.845	0.273	15.021
1700.000	0.639	143.894	134.430	1699.900	-11.370	11.599	0.170	16.242
1800.000	0.176	226.847	135.438	1799.896	-12.099	11.915	0.507	16.981
1900.000	0.850	270.402	137.812	1899.891	-12.249	11.102	0.884	16.531
2000.000	1.373	277.660	142.853	1999.867	-11.850	8.977	0.533	14.866
2100.000	1.547	273.138	150.698	2099.833	-11.408	6.403	0.308	13.082
2200.000	1.550	282.459	161.238	2199.797	-11.003	3.738	0.252	11.621
2300.000	1.141	262.371	173.592	2299.765	-10.968	1.232	0.525	11.037

2400.000	0.989	258.032	183.839	2399.744	-11.156	-0.749	0.283	11.181
2500.000	0.789	249.939	191.412	2499.731	-11.482	-2.318	0.225	11.714
2600.000	1.203	220.591	196.469	2599.716	-12.503	-3.696	0.634	13.038
2700.000	0.926	216.629	199.828	2699.694	-14.054	-5.067	0.260	14.939
2800.000	1.213	223.213	202.693	2799.672	-15.572	-6.512	0.080	16.879
2900.000	1.290	226.556	205.069	2899.650	-17.062	-7.981	0.098	18.837
3000.000	1.341	224.346	207.177	2999.630	-18.391	-9.442	0.047	20.673
3100.000	1.175	227.617	208.630	3099.612	-19.746	-10.780	0.153	22.497
3200.000	1.013	222.012	209.714	3199.596	-21.027	-12.001	0.066	24.211
3300.000	0.841	222.807	210.887	3299.582	-22.111	-13.226	0.101	25.765
3400.000	1.002	223.063	211.446	3399.569	-23.353	-14.281	0.034	27.373
3500.000	1.118	230.832	212.203	3499.552	-24.640	-15.518	0.202	29.119
3600.000	1.160	212.485	212.878	3599.533	-26.055	-16.842	0.378	31.024
3700.000	1.297	210.014	212.708	3699.509	-27.932	-17.937	0.050	33.195
3800.000	1.177	203.234	211.994	3799.488	-29.879	-18.666	0.170	35.230
3900.000	1.138	198.133	211.372	3899.467	-31.760	-19.365	0.109	37.198
4000.000	1.165	203.236	210.980	3999.446	-33.621	-20.185	0.110	39.215
4100.000	1.100	210.464	210.740	4099.425	-35.459	-21.087	0.088	41.256
4200.000	0.938	232.880	211.115	4199.409	-36.784	-22.203	0.414	42.965
4300.000	0.617	266.461	212.019	4299.402	-37.253	-23.295	0.437	43.937
4400.000	0.626	290.127	213.175	4399.396	-37.248	-24.351	0.280	44.502
4500.000	0.634	287.424	214.413	4499.390	-37.030	-25.368	0.064	44.886
4600.000	0.831	293.167	215.689	4599.384	-36.693	-26.356	0.328	45.177
4700.000	0.531	296.228	217.009	4699.378	-36.215	-27.300	0.010	45.352
4800.000	0.605	303.909	218.358	4799.372	-35.733	-28.279	0.164	45.569
4900.000	0.267	267.377	219.450	4899.367	-35.475	-29.192	0.509	45.942
5000.000	0.725	232.456	220.118	4999.362	-35.702	-30.083	0.507	46.687
5100.000	0.902	229.243	220.232	5099.351	-36.751	-31.092	0.312	48.138
5200.000	0.546	229.685	220.226	5199.340	-37.824	-31.994	0.131	49.541
5300.000	0.440	245.779	220.365	5299.335	-38.472	-32.702	0.141	50.493
5400.000	0.403	233.631	220.577	5399.334	-38.678	-33.124	0.122	50.923
5500.000	0.073	199.383	220.614	5499.333	-38.915	-33.371	0.176	51.264
5600.000	0.311	211.994	220.482	5599.331	-39.076	-33.354	0.144	51.375
5700.000	0.142	333.601	220.408	5699.330	-39.140	-33.320	0.172	51.401
5800.000	0.398	175.182	220.022	5799.328	-39.565	-33.225	0.633	51.665
5900.000	1.005	206.512	219.434	5899.324	-40.455	-33.270	0.531	52.378
6000.000	0.666	203.038	218.697	5999.315	-41.738	-33.435	0.031	53.479
6100.000	1.340	181.622	217.617	6099.299	-43.466	-33.493	0.620	54.873
6200.000	1.652	179.576	215.779	6199.260	-46.213	-33.304	0.202	56.964
6300.000	1.948	185.024	213.977	6299.213	-49.242	-33.185	0.448	59.380
6400.000	1.817	187.400	212.620	6399.160	-52.446	-33.566	0.329	62.268
6500.000	1.612	183.437	211.357	6499.098	-55.869	-34.044	0.346	65.424
6600.000	2.030	197.729	210.562	6599.032	-59.324	-35.031	0.556	68.895
6700.000	2.369	206.537	210.312	6698.961	-62.696	-36.654	0.496	72.624
6800.000	2.237	188.001	210.361	6798.885	-65.966	-38.641	0.769	76.450
6900.000	2.173	211.035	210.458	6898.811	-69.153	-40.665	0.862	80.223
7000.000	2.662	226.811	210.772	6998.727	-72.376	-43.096	0.833	84.235
7100.000	2.013	217.313	211.205	7098.634	-75.633	-45.814	0.748	88.427
7200.000	1.668	177.707	211.360	7198.582	-78.133	-47.617	1.274	91.500