

**GyroTracer Directional:**

Date: 1/4/2019  
 Operator : Adrian Bruner  
 API : 05-123-16343  
 Well Name : **UPRC 27-15F**  
 Field : Noble Energy Inc  
 Tool Number: 1719  
 Bottom Depth : 7100.00  
 Total Well Depth: 7337.00  
 Latitude : 40.27784 N  
 Longitude : 104.7616 W  
 Grid Offset : 0.48  
 Datum: NAD 83

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

Northing: 0.00      Easting: 0.00      GLE: 4735.00

**Description:**

*Azimuth measured in degrees and referenced to local grid*

*Inclination measured from Vertical*

*Length measured in US survey feet*

*Lat/Long/Elevation obtained by handheld GPS at wellhead. Device error  $\pm 9$*

**RKB = Ground Level Elevation**

Start Time: 12/26/2018 13:27

End Time: 12/26/2018 14:06

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	0.740	142.249	142.249	99.997	-0.511	0.395	0.222	0.646
200.000	0.482	169.487	148.842	199.992	-1.435	0.867	0.114	1.677
300.000	0.090	174.844	153.721	299.990	-1.927	0.951	0.118	2.149
400.000	0.443	210.798	161.976	399.989	-2.337	0.760	0.112	2.457
500.000	0.267	267.730	172.983	499.987	-2.678	0.330	0.112	2.698
600.000	0.339	59.855	172.092	599.987	-2.539	0.353	0.177	2.563
700.000	0.450	48.246	157.050	699.984	-2.129	0.901	0.041	2.312
800.000	0.760	0.427	135.112	799.979	-1.204	1.199	0.170	1.699
900.000	0.407	5.661	98.598	899.974	-0.187	1.239	0.053	1.253
1000.000	0.660	1.764	60.141	999.970	0.742	1.292	0.077	1.490
1100.000	0.408	347.237	36.485	1099.965	1.665	1.231	0.085	2.070
1200.000	0.155	285.000	26.528	1199.964	2.047	1.022	0.109	2.288
1300.000	0.350	228.595	19.401	1299.963	1.880	0.662	0.088	1.993
1400.000	0.420	279.131	2.345	1399.961	1.736	0.071	0.100	1.738
1500.000	0.634	278.871	335.985	1499.957	1.880	-0.837	0.064	2.058
1600.000	0.726	265.633	313.556	1599.950	1.917	-2.016	0.054	2.782
1700.000	0.977	272.404	298.553	1699.939	1.904	-3.499	0.040	3.984
1800.000	0.870	297.758	294.542	1799.926	2.294	-5.023	0.126	5.522
1900.000	0.586	314.033	296.348	1899.918	3.003	-6.062	0.105	6.765
2000.000	0.563	324.831	299.251	1999.913	3.760	-6.713	0.033	7.694
2100.000	0.410	38.365	303.253	2099.910	4.442	-6.774	0.179	8.100

2200.000	0.481	29.307	308.721	2199.907	5.088	-6.346	0.030	8.134
2300.000	0.691	125.393	312.103	2299.904	5.105	-5.649	0.132	7.614
2400.000	0.769	129.549	313.009	2399.896	4.329	-4.640	0.028	6.346
2500.000	0.992	130.832	313.883	2499.884	3.335	-3.468	0.067	4.812
2600.000	1.482	125.285	319.009	2599.860	2.022	-1.757	0.151	2.679
2700.000	1.641	121.317	44.476	2699.823	0.531	0.521	0.058	0.744
2800.000	1.520	112.651	103.705	2799.785	-0.724	2.969	0.080	3.056
2900.000	1.449	118.629	109.142	2899.752	-1.841	5.302	0.026	5.613
3000.000	1.572	146.791	116.643	2999.718	-3.594	7.164	0.223	8.015
3100.000	1.252	153.835	124.274	3099.688	-5.722	8.397	0.109	10.161
3200.000	0.970	146.956	128.436	3199.669	-7.412	9.340	0.093	11.924
3300.000	1.392	139.391	130.492	3299.648	-9.044	10.592	0.067	13.928
3400.000	1.197	170.621	133.587	3399.623	-10.997	11.553	0.217	15.950
3500.000	0.992	158.912	136.843	3499.605	-12.835	12.034	0.091	17.594
3600.000	0.970	148.992	138.343	3599.591	-14.368	12.782	0.051	19.231
3700.000	1.379	149.848	139.412	3699.569	-16.134	13.822	0.061	21.245
3800.000	1.539	150.346	140.553	3799.537	-18.341	15.091	0.048	23.752
3900.000	1.655	151.028	141.614	3899.498	-20.772	16.455	0.035	26.500
4000.000	2.136	162.745	143.368	3999.443	-23.815	17.707	0.185	29.677
4100.000	2.584	181.173	146.814	4099.360	-27.848	18.214	0.131	33.276
4200.000	2.616	181.367	150.780	4199.257	-32.383	18.113	0.005	37.105
4300.000	2.178	185.313	153.933	4299.169	-36.557	17.883	0.140	40.697
4400.000	1.706	187.245	156.308	4399.111	-39.926	17.519	0.143	43.600
4500.000	1.688	184.961	158.134	4499.068	-42.870	17.204	0.010	46.193
4600.000	0.929	157.570	158.912	4599.042	-45.086	17.386	0.144	48.323
4700.000	1.034	134.201	158.458	4699.027	-46.465	18.342	0.062	49.954
4800.000	0.955	146.301	157.851	4799.012	-47.787	19.452	0.034	51.594
4900.000	0.452	154.607	157.646	4899.005	-48.837	20.083	0.077	52.805
5000.000	0.949	143.922	157.415	4998.997	-49.862	20.740	0.077	54.004
5100.000	0.601	123.616	156.913	5098.988	-50.822	21.664	0.066	55.247
5200.000	0.643	134.632	156.402	5198.982	-51.507	22.500	0.019	56.207
5300.000	0.928	193.879	156.686	5298.974	-52.687	22.705	0.122	57.371
5400.000	0.890	188.901	157.569	5398.961	-54.241	22.391	0.013	58.680
5500.000	0.707	182.987	158.208	5498.952	-55.624	22.239	0.030	59.905
5600.000	0.677	160.797	158.476	5598.944	-56.798	22.401	0.040	61.056
5700.000	1.284	145.246	158.264	5698.929	-58.276	23.234	0.099	62.737
5800.000	2.273	111.704	156.777	5798.883	-59.930	25.715	0.209	65.214
5900.000	0.675	118.304	155.265	5898.846	-60.943	28.076	0.241	67.100
6000.000	0.217	131.124	154.899	5998.843	-61.347	28.738	0.070	67.744
6100.000	1.030	154.122	154.826	6098.836	-62.280	29.273	0.125	68.817
6200.000	0.950	172.133	155.017	6198.822	-63.910	29.778	0.048	70.507
6300.000	0.871	212.802	155.726	6298.810	-65.370	29.480	0.096	71.710
6400.000	0.910	185.839	156.541	6398.798	-66.799	28.988	0.063	72.817
6500.000	0.901	174.659	157.030	6498.786	-68.372	28.980	0.026	74.260
6600.000	1.155	202.401	157.753	6598.770	-70.086	28.669	0.083	75.723
6700.000	1.370	210.530	158.985	6698.746	-72.048	27.678	0.042	77.181
6800.000	1.581	217.371	160.523	6798.713	-74.174	26.233	0.041	78.676
6900.000	1.852	227.002	162.409	6898.668	-76.372	24.214	0.059	80.119
7000.000	0.519	219.530	163.709	6998.645	-77.824	22.744	0.201	81.079
7100.000	0.735	172.240	164.038	7098.639	-78.809	22.542	0.081	81.969