

**GyroTracer Directional:**

Date: 9/5/2018  
 Operator : Adrian Bruner  
 API: 05-123-25887  
 Well Name: **Front Range D 16-29**  
 Field : Noble Energy Inc  
 Tool Type And Number: 1717  
 Bottom Depth : 6800.00  
 Total Well Depth: 7132.00  
 Latitude : 40.233242 N  
 Longitude : 104.560893 W  
 Grid Offset : 0.61

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

Northing: 0.00      Easting: 0.00      Altitude: 4736.00

**Description:**

*Azimuth measured in degrees and referenced to local grid*

*Inclination measured from Vertical*

*Length measured in US survey feet*

Start Time: 9/5/2018 8:59

End Time: 9/5/2018 10:10

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
100.030	0.630	170.765	154.604	100.030	-0.990	0.470	0.630	1.096
200.000	0.554	189.964	162.201	199.998	-1.600	0.514	0.211	1.681
300.000	0.220	282.294	168.852	299.997	-1.892	0.373	0.589	1.928
400.000	0.107	242.070	180.191	399.995	-2.010	-0.007	0.166	2.010
500.000	0.174	225.250	190.716	499.994	-1.972	-0.373	0.080	2.007
600.000	1.252	304.102	219.121	599.987	-1.612	-1.311	1.177	2.078
700.000	1.243	296.745	251.872	699.968	-1.019	-3.113	0.132	3.275
800.000	1.219	283.509	266.310	799.941	-0.343	-5.319	0.304	5.330
900.000	1.359	277.907	272.456	899.911	0.328	-7.652	0.150	7.659
1000.000	1.692	278.612	274.901	999.878	0.870	-10.143	0.235	10.180
1100.000	1.766	274.472	275.370	1099.843	1.201	-12.773	0.178	12.829
1200.000	1.759	281.572	275.889	1199.806	1.592	-15.435	0.161	15.517
1300.000	1.535	278.775	276.340	1299.768	2.015	-18.136	0.219	18.247
1400.000	1.580	271.767	276.365	1399.728	2.335	-20.931	0.140	21.060
1500.000	1.461	269.408	276.020	1499.689	2.499	-23.694	0.158	23.825
1600.000	1.603	273.453	276.064	1599.656	2.789	-26.254	0.098	26.401
1700.000	1.153	285.739	276.465	1699.626	3.244	-28.625	0.604	28.809
1800.000	1.468	278.550	277.038	1799.596	3.827	-30.993	0.296	31.228
1900.000	1.430	261.911	277.544	1899.566	4.416	-33.345	0.444	33.636
2000.000	1.640	293.841	278.119	1999.536	5.085	-35.645	0.857	36.006
2100.000	1.268	300.054	279.068	2099.510	6.017	-37.701	0.363	38.178
2200.000	0.750	297.863	279.692	2199.493	6.722	-39.361	0.548	39.931
2300.000	0.325	287.324	279.839	2299.487	7.000	-40.361	0.448	40.964

2400.000	0.094	224.641	279.897	2399.485	7.129	-40.856	0.291	41.473
2500.000	0.166	205.788	279.806	2499.485	7.072	-40.913	0.077	41.520
2600.000	0.148	286.484	279.470	2599.484	6.799	-40.760	0.167	41.323
2700.000	0.296	143.869	278.794	2699.481	6.265	-40.494	0.395	40.976
2800.000	0.566	136.970	277.900	2799.478	5.570	-40.139	0.264	40.524
2900.000	0.731	151.432	276.880	2899.474	4.789	-39.691	0.234	39.979
3000.000	0.970	170.522	275.247	2999.465	3.599	-39.185	0.314	39.350
3100.000	0.887	171.553	272.990	3099.451	2.024	-38.752	0.136	38.805
3200.000	0.747	181.139	270.533	3199.437	0.359	-38.550	0.235	38.552
3300.000	0.316	188.399	268.547	3299.427	-0.981	-38.680	0.505	38.693
3400.000	0.581	190.930	267.140	3399.422	-1.951	-39.052	0.109	39.100
3500.000	0.601	208.114	265.808	3499.416	-2.895	-39.493	0.195	39.599
3600.000	1.073	223.658	264.406	3599.408	-3.925	-40.077	0.642	40.268
3700.000	1.196	224.356	262.624	3699.394	-5.312	-41.039	0.271	41.382
3800.000	1.286	226.792	260.712	3799.371	-6.935	-42.404	0.067	42.968
3900.000	1.497	220.260	258.467	3899.337	-8.973	-43.974	0.258	44.880
4000.000	1.923	206.500	255.953	3999.293	-11.420	-45.646	0.535	47.053
4100.000	2.240	204.765	253.059	4099.230	-14.444	-47.420	0.361	49.571
4200.000	3.610	210.337	249.190	4199.084	-19.048	-50.117	1.392	53.615
4300.000	3.443	213.049	245.720	4298.893	-24.154	-53.546	0.286	58.742
4400.000	2.678	218.219	243.248	4398.734	-28.650	-56.837	0.813	63.649
4500.000	2.265	211.889	241.466	4498.627	-32.383	-59.558	0.581	67.792
4600.000	2.498	212.597	239.870	4598.542	-35.841	-61.754	0.212	71.401
4700.000	1.887	223.985	238.677	4698.467	-38.956	-64.013	0.789	74.935
4800.000	1.603	236.377	238.432	4798.411	-40.949	-66.645	0.713	78.220
4900.000	1.850	245.529	238.692	4898.362	-42.252	-69.469	0.328	81.309
5000.000	1.821	251.291	238.984	4998.314	-43.473	-72.304	0.224	84.367
5100.000	1.436	251.192	239.413	5098.272	-44.355	-75.040	0.402	87.169
5200.000	0.977	292.744	239.831	5198.247	-44.854	-77.164	1.065	89.254
5300.000	0.977	273.538	240.561	5298.231	-44.525	-78.893	0.346	90.590
5400.000	0.980	336.576	241.304	5398.220	-43.845	-80.097	1.102	91.312
5500.000	0.917	351.758	242.493	5498.202	-42.129	-80.905	0.263	91.217
5600.000	0.507	341.596	243.421	5598.189	-40.646	-81.244	0.449	90.845
5700.000	0.551	345.149	244.136	5698.182	-39.500	-81.476	0.027	90.547
5800.000	0.642	8.276	244.674	5798.178	-38.604	-81.570	0.264	90.244
5900.000	0.572	3.350	245.134	5898.174	-37.808	-81.577	0.053	89.912
6000.000	0.507	11.157	245.539	5998.172	-37.129	-81.618	0.093	89.667
6100.000	0.321	336.590	245.912	6098.169	-36.523	-81.693	0.287	89.486
6200.000	0.356	2.473	246.267	6198.167	-35.946	-81.760	0.166	89.313
6300.000	0.098	326.330	246.633	6298.165	-35.412	-81.962	0.341	89.285
6400.000	0.316	324.862	246.905	6398.164	-34.993	-82.059	0.178	89.209
6500.000	0.153	354.492	247.037	6498.163	-34.725	-81.952	0.271	89.006
6600.000	0.207	131.273	246.946	6598.161	-34.731	-81.608	0.283	88.691
6700.000	0.120	31.367	246.880	6698.160	-34.702	-81.282	0.329	88.380
6800.000	0.238	51.650	246.831	6798.159	-34.618	-80.892	0.120	87.988

