

**GyroTracer Directional:**

Date: 2/6/2019  
 Operator : Adrian Bruner  
 API: 05-123-23267  
 Well Name : **Dr Joe CC 6-16**  
 Field : Noble Energy Inc  
 Tool Type And Number: 1717  
 Bottom Depth : 7000.00  
 Total Well Depth: 7248.00  
 Latitude : 40.33541 N  
 Longitude : 104.47359 W  
 Grid Offset : 0.66

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

Northing: 0.00      Easting: 0.00      Altitude: 4620.00

**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 Feet*

*RKB = Ground Level Elevation*

Start Time: 2/6/2019 13:27

End Time: 2/6/2019 14:55

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	0.390	143.821	148.173	100.000	-0.580	0.360	0.390	0.683
200.000	0.160	210.259	155.342	199.999	-0.967	0.444	0.352	1.064
300.000	0.350	219.875	162.995	299.998	-1.303	0.398	0.143	1.362
400.000	0.230	193.956	171.843	399.996	-1.766	0.253	0.177	1.784
500.000	0.300	242.716	182.664	499.995	-2.136	-0.099	0.225	2.139
600.000	0.350	240.275	192.385	599.993	-2.390	-0.525	0.046	2.447
700.000	0.170	280.954	204.137	699.991	-2.499	-1.120	0.248	2.738
800.000	0.430	270.540	213.833	799.988	-2.585	-1.733	0.257	3.112
900.000	0.480	264.771	220.068	899.986	-2.749	-2.312	0.061	3.592
1000.000	0.580	273.771	226.925	999.983	-2.840	-3.038	0.130	4.159
1100.000	0.480	262.942	233.616	1099.980	-2.772	-3.762	0.136	4.673
1200.000	0.330	243.268	238.615	1199.977	-2.737	-4.486	0.211	5.255
1300.000	0.440	285.415	241.238	1299.974	-2.863	-5.215	0.297	5.949
1400.000	0.300	256.598	241.835	1399.971	-3.119	-5.826	0.164	6.609
1500.000	0.450	289.534	243.226	1499.968	-3.301	-6.543	0.283	7.329
1600.000	0.550	301.286	248.087	1599.965	-2.897	-7.202	0.141	7.763
1700.000	0.570	319.482	255.265	1699.957	-2.122	-8.069	0.193	8.344
1800.000	0.760	325.138	263.196	1799.947	-1.080	-9.049	0.149	9.113
1900.000	0.810	328.237	270.031	1899.938	0.005	-9.805	0.146	9.805
2000.000	0.710	332.813	275.573	1999.930	1.023	-10.480	0.048	10.530
2100.000	0.390	352.936	280.892	2099.924	2.063	-10.718	0.384	10.915

2200.000	0.640	343.513	285.958	2199.918	3.091	-10.808	0.332	11.242
2300.000	1.470	344.596	291.247	2299.910	4.278	-11.004	0.874	11.806
2400.000	0.450	2.375	296.048	2399.904	5.384	-11.015	0.498	12.260
2500.000	0.500	341.007	299.858	2499.899	6.375	-11.106	0.181	12.805
2600.000	0.530	14.328	302.890	2599.894	7.307	-11.299	0.330	13.455
2700.000	0.390	98.876	305.879	2699.890	7.763	-10.733	0.773	13.247
2800.000	0.500	63.334	308.677	2799.887	7.995	-9.988	0.288	12.794
2900.000	0.410	74.907	311.497	2899.884	8.213	-9.284	0.175	12.395
3000.000	0.500	106.279	314.464	2999.880	8.295	-8.452	0.253	11.842
3100.000	0.310	151.356	315.715	3099.878	8.242	-8.039	0.330	11.514
3200.000	0.480	168.191	314.101	3199.875	7.547	-7.788	0.276	10.845
3300.000	0.650	196.619	310.589	3299.871	6.713	-7.835	0.334	10.318
3400.000	0.560	199.932	305.671	3399.866	5.730	-7.983	0.088	9.827
3500.000	0.960	196.041	298.859	3499.857	4.473	-8.117	0.391	9.268
3600.000	1.930	210.062	282.415	3599.819	2.059	-9.354	1.130	9.578
3700.000	2.210	220.049	267.622	3699.763	-0.476	-11.454	0.587	11.464
3800.000	1.400	214.440	257.394	3799.715	-2.962	-13.246	0.750	13.573
3900.000	1.300	189.863	250.175	3899.691	-5.027	-13.945	0.499	14.823
4000.000	0.800	150.093	243.594	3999.675	-6.760	-13.615	0.711	15.201
4100.000	1.260	126.892	236.231	4099.653	-8.102	-12.117	0.533	14.576
4200.000	0.720	55.053	233.877	4199.641	-7.870	-10.783	1.215	13.350
4300.000	0.800	70.152	232.897	4299.631	-7.203	-9.523	0.211	11.940
4400.000	1.770	111.516	225.280	4399.602	-7.150	-7.221	1.140	10.162
4500.000	1.900	129.929	208.279	4499.555	-9.073	-4.881	0.461	10.303
4600.000	1.660	205.999	202.356	4599.509	-11.944	-4.912	2.018	12.915
4700.000	1.610	253.325	208.752	4699.465	-13.484	-7.398	1.146	15.380
4800.000	1.550	301.541	216.572	4799.420	-13.749	-10.201	1.253	17.120
4900.000	1.600	336.742	225.646	4899.381	-11.858	-12.128	0.922	16.961
5000.000	1.460	16.409	233.722	4999.341	-9.099	-12.396	1.047	15.377
5100.000	1.480	73.891	235.908	5099.304	-7.206	-10.647	1.417	12.856
5200.000	1.360	125.095	227.730	5199.270	-7.379	-8.118	1.236	10.971
5300.000	1.440	147.742	213.083	5299.228	-9.353	-6.093	0.565	11.163
5400.000	1.490	150.123	202.616	5399.196	-11.495	-4.789	0.087	12.453
5500.000	1.300	146.980	194.506	5499.166	-13.573	-3.512	0.199	14.020
5600.000	1.090	148.334	188.358	5599.144	-15.230	-2.237	0.212	15.393
5700.000	1.220	132.842	182.589	5699.119	-16.878	-0.763	0.325	16.895
5800.000	1.060	105.637	177.369	5799.101	-17.840	0.820	0.563	17.859
5900.000	0.930	92.506	172.368	5899.087	-18.219	2.441	0.266	18.382
6000.000	0.900	96.011	168.013	5999.076	-18.474	3.922	0.060	18.886
6100.000	0.870	86.281	163.755	6099.065	-18.515	5.395	0.154	19.285
6200.000	1.000	64.715	158.884	6199.051	-17.973	6.941	0.368	19.266
6300.000	0.970	66.050	154.005	6299.037	-17.247	8.410	0.036	19.188
6400.000	0.680	45.774	149.554	6399.026	-16.477	9.685	0.407	19.113
6500.000	1.170	125.497	146.265	6499.013	-16.556	11.056	1.250	19.909
6600.000	1.310	121.404	143.331	6598.985	-17.644	13.136	0.154	21.997
6700.000	1.400	117.772	141.179	6698.956	-18.892	15.201	0.122	24.248
6800.000	1.310	112.901	138.654	6798.928	-19.757	17.385	0.146	26.317
6900.000	1.320	112.490	136.983	6898.897	-20.964	19.561	0.017	28.673
7000.000	1.200	90.640	134.248	6998.870	-21.266	21.832	0.487	30.478