

GyroTracer Directional:

Date: 2/28/2019
 Operator : Adrian Bruner
 API : 05-123-31129
 Well Name : **Sater CC 18-24**
 Field : Noble Energy Inc
 Tool Number: 1717
 Bottom Depth : 6650.00
 Total Well Depth: 6905.00
 Latitude : 40.30824 N
 Longitude : 104.48003 W
 Grid Offset : 0.66
 Datum: NAD 83

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

Northing: 0.00 Easting: 0.00 GLE: 4648.00

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 ± 9 Feet

RKB = Ground Level Elevation

Start Time: 2/21/2019 11:50

End Time: 2/21/2019 12:34

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
100.760	0.860	137.089	137.089	100.756	-0.554	0.515	0.256	0.756
200.000	1.159	146.207	140.741	199.981	-1.933	1.580	0.102	2.497
300.000	0.977	139.067	141.680	299.963	-3.418	2.701	0.068	4.357
400.000	0.901	159.955	143.678	399.950	-4.801	3.529	0.105	5.958
500.000	1.152	152.429	146.451	499.934	-6.430	4.264	0.085	7.716
600.000	1.130	148.524	147.280	599.914	-8.162	5.244	0.024	9.702
700.000	1.500	135.974	146.154	699.888	-9.944	6.669	0.140	11.973
800.000	1.708	129.973	143.634	799.849	-11.843	8.720	0.080	14.707
900.000	1.558	134.236	141.756	899.808	-13.749	10.836	0.029	17.506
1000.000	1.586	130.345	140.475	999.771	-15.593	12.865	0.033	20.215
1100.000	1.699	127.650	139.051	1099.730	-17.394	15.094	0.041	23.030
1200.000	1.566	116.702	137.243	1199.689	-18.914	17.488	0.102	25.760
1300.000	1.497	124.794	135.704	1299.654	-20.273	19.782	0.068	28.325
1400.000	1.325	119.397	134.637	1399.623	-21.586	21.862	0.065	30.723
1500.000	1.135	116.712	133.573	1499.600	-22.599	23.754	0.060	32.786
1600.000	1.083	129.572	132.990	1599.582	-23.646	25.367	0.076	34.679
1700.000	0.978	116.596	132.522	1699.566	-24.630	26.858	0.038	36.442
1800.000	1.207	103.724	131.410	1799.547	-25.262	28.645	0.100	38.193
1900.000	1.185	105.465	130.063	1899.526	-25.788	30.664	0.013	40.066
2000.000	1.009	87.539	128.653	1999.508	-26.026	32.541	0.115	41.668
2100.000	1.129	109.595	127.460	2099.491	-26.318	34.348	0.128	43.272

2200.000	0.904	103.532	126.667	2199.475	-26.833	36.043	0.075	44.935
2300.000	0.660	105.972	126.030	2299.465	-27.176	37.364	0.037	46.202
2400.000	0.500	98.155	125.542	2399.460	-27.397	38.350	0.053	47.131
2500.000	0.559	107.073	125.118	2499.456	-27.602	39.248	0.030	47.982
2600.000	0.307	113.315	124.875	2599.453	-27.851	39.960	0.077	48.708
2700.000	0.186	20.198	124.629	2699.453	-27.805	40.262	0.110	48.930
2800.000	0.122	33.307	124.320	2799.452	-27.564	40.377	0.022	48.888
2900.000	0.105	289.420	124.222	2899.452	-27.444	40.349	0.027	48.798
3000.000	0.340	240.144	124.565	2999.451	-27.561	40.005	0.085	48.580
3100.000	0.370	353.705	124.592	3099.450	-27.388	39.712	0.178	48.241
3200.000	0.570	12.972	123.746	3199.447	-26.582	39.789	0.076	47.852
3300.000	0.635	20.655	122.536	3299.441	-25.579	40.096	0.016	47.560
3400.000	0.048	148.354	121.904	3399.439	-25.096	40.313	0.200	47.487
3500.000	0.358	212.387	122.303	3499.439	-25.396	40.168	0.102	47.523
3600.000	0.187	152.324	122.776	3599.438	-25.804	40.076	0.093	47.665
3700.000	0.252	110.552	122.817	3699.437	-26.026	40.358	0.025	48.022
3800.000	0.410	118.107	122.727	3799.435	-26.272	40.880	0.049	48.594
3900.000	0.641	105.060	122.497	3899.431	-26.586	41.735	0.078	49.484
4000.000	0.900	137.935	122.544	3999.422	-27.314	42.802	0.151	50.774
4100.000	1.118	134.680	122.995	4099.407	-28.583	44.022	0.034	52.487
4200.000	1.063	135.784	123.420	4199.389	-29.934	45.362	0.009	54.348
4300.000	0.990	144.339	123.938	4299.373	-31.300	46.513	0.051	56.064
4400.000	1.420	205.294	125.471	4399.354	-33.123	46.487	0.383	57.080
4500.000	1.460	191.463	127.831	4499.323	-35.492	45.704	0.052	57.866
4600.000	1.477	173.202	129.818	4599.291	-38.020	45.604	0.070	59.373
4700.000	1.195	180.424	131.407	4699.263	-40.342	45.748	0.049	60.995
4800.000	1.308	158.551	132.602	4799.240	-42.447	46.158	0.073	62.708
4900.000	1.384	151.306	133.385	4899.212	-44.569	47.155	0.028	64.885
5000.000	1.609	119.349	133.411	4999.180	-46.316	48.959	0.128	67.396
5100.000	1.820	106.408	132.544	5099.136	-47.453	51.706	0.066	70.181
5200.000	1.810	99.223	131.313	5199.086	-48.155	54.788	0.034	72.943
5300.000	2.050	95.486	129.887	5299.029	-48.579	58.127	0.041	75.754
5400.000	1.785	101.402	128.609	5398.973	-49.058	61.435	0.050	78.618
5500.000	1.635	115.384	127.878	5498.929	-49.977	64.250	0.066	81.399
5600.000	1.493	104.695	127.317	5598.892	-50.919	66.799	0.049	83.993
5700.000	1.548	106.000	126.660	5698.856	-51.622	69.358	0.010	86.460
5800.000	1.326	119.342	126.258	5798.825	-52.561	71.665	0.060	88.874
5900.000	1.415	120.118	126.087	5898.797	-53.748	73.741	0.014	91.250
6000.000	1.533	133.330	126.112	5998.764	-55.285	75.782	0.054	93.805
6100.000	1.831	139.240	126.426	6098.721	-57.413	77.798	0.052	96.690
6200.000	2.155	135.367	126.796	6198.660	-59.961	80.162	0.053	100.107
6300.000	2.202	129.733	127.005	6298.588	-62.527	82.961	0.033	103.885
6400.000	2.504	100.446	126.535	6398.507	-64.151	86.586	0.184	107.762
6500.000	2.166	107.436	125.723	6498.424	-65.114	90.538	0.066	111.521
6600.000	1.915	112.007	125.230	6598.361	-66.306	93.890	0.045	114.943
6650.000	1.910	94.620	124.928	6648.333	-66.686	95.495	0.173	116.475