

GyroTracer Directional:

Date: 2/4/2019
 Operator : Adrian Bruner
 API: 05-123-33459
 Well Name : **Vega USX A3-5**
 Field : Noble Energy Inc
 Tool Type And Number: 1820
 Bottom Depth : 6900.00
 Total Well Depth: 7253.00
 Latitude : 40.52938 N
 Longitude : 104.54276 W
 Grid Offset : 0.62

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

Northing: 0.00 Easting: 0.00 Altitude: 4866.00

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: 1/28/2019 8:55

End Time: 1/28/2019 10:05

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
100.010	2.410	209.086	307.552	99.920	2.560	-3.330	2.410	4.200
200.000	0.118	306.695	306.368	199.909	2.640	-3.585	0.021	4.453
300.000	0.053	52.647	305.028	299.909	2.675	-3.816	0.136	4.660
400.000	0.524	60.869	307.873	399.908	2.848	-3.662	0.527	4.639
500.000	1.545	40.768	328.686	499.892	4.226	-2.571	1.025	4.946
600.000	1.992	43.871	353.900	599.843	6.721	-0.718	0.504	6.759
700.000	1.966	37.637	8.887	699.781	9.462	1.480	0.171	9.577
800.000	2.037	39.207	16.912	799.715	12.292	3.738	0.071	12.848
900.000	2.247	35.694	21.939	899.645	15.169	6.110	0.161	16.354
1000.000	2.272	30.094	23.709	999.568	18.504	8.126	0.192	20.210
1100.000	2.379	34.853	24.708	1099.487	21.983	10.115	0.207	24.199
1200.000	2.531	30.516	25.680	1199.396	25.619	12.319	0.270	28.427
1300.000	2.638	35.468	26.508	1299.298	29.378	14.653	0.279	32.830
1400.000	2.701	38.426	28.133	1399.189	32.954	17.620	0.213	37.369
1500.000	2.993	35.118	28.996	1499.058	37.125	20.575	0.314	42.445
1600.000	3.080	23.292	28.893	1598.922	41.709	23.017	0.643	47.638
1700.000	2.431	20.630	28.364	1698.798	46.257	24.974	0.612	52.568
1800.000	1.891	19.299	27.735	1798.713	50.112	26.348	0.552	56.617
1900.000	1.268	20.967	27.314	1898.680	52.522	27.125	0.642	59.113
2000.000	0.877	12.019	26.903	1998.668	54.016	27.407	0.376	60.571

2100.000	0.685	339.500	26.401	2098.660	55.220	27.413	0.464	61.650
2200.000	0.544	317.339	25.647	2198.654	56.247	27.006	0.265	62.394
2300.000	0.672	356.316	25.054	2298.647	57.399	26.832	0.294	63.361
2400.000	0.586	322.903	24.425	2398.640	58.563	26.596	0.416	64.319
2500.000	0.865	255.761	23.335	2498.631	58.769	25.352	0.831	64.004
2600.000	1.483	207.449	22.655	2598.601	57.001	23.791	1.107	61.766
2700.000	1.005	209.984	22.434	2698.571	54.912	22.671	0.371	59.408
2800.000	0.639	224.265	22.226	2798.559	53.571	21.890	0.429	57.871
2900.000	0.684	241.321	21.774	2898.554	52.884	21.124	0.223	56.947
3000.000	0.707	238.744	21.173	2998.548	52.276	20.248	0.056	56.060
3100.000	0.438	220.878	20.828	3098.544	51.684	19.662	0.277	55.298
3200.000	0.291	194.738	20.791	3198.542	51.178	19.432	0.218	54.743
3300.000	0.436	79.942	21.068	3298.541	50.847	19.588	0.634	54.490
3400.000	1.099	63.732	22.060	3398.532	51.325	20.799	0.703	55.379
3500.000	2.098	66.454	24.329	3498.478	52.565	23.766	1.087	57.688
3600.000	1.534	58.995	26.373	3598.430	53.682	26.617	0.595	59.918
3700.000	1.077	357.941	26.607	3698.411	55.181	27.641	1.357	61.716
3800.000	1.303	344.971	25.333	3798.388	57.255	27.104	0.319	63.347
3900.000	1.544	343.514	23.647	3898.353	59.671	26.128	0.103	65.141
4000.000	1.540	344.850	22.233	3998.318	62.214	25.430	0.077	67.211
4100.000	1.244	337.870	20.937	4098.287	64.625	24.726	0.442	69.194
4200.000	1.198	340.614	19.880	4198.264	66.631	24.094	0.082	70.853
4300.000	1.293	323.879	18.628	4298.244	68.298	23.022	0.436	72.074
4400.000	2.131	303.486	16.490	4398.200	70.028	20.730	1.075	73.032
4500.000	2.761	295.960	13.376	4498.116	71.773	17.067	0.735	73.774
4600.000	2.696	289.660	9.793	4598.003	73.687	12.719	0.309	74.777
4700.000	2.785	287.698	6.202	4697.886	75.261	8.179	0.112	75.704
4800.000	2.910	288.441	2.613	4797.765	76.808	3.505	0.184	76.888
4900.000	2.355	294.649	359.382	4897.656	78.423	-0.846	0.662	78.428
5000.000	2.505	302.463	356.675	4997.568	80.125	-4.655	0.350	80.260
5100.000	2.202	299.148	354.257	5097.481	82.177	-8.264	0.431	82.592
5200.000	1.003	305.435	352.749	5197.439	83.744	-10.655	1.229	84.419
5300.000	0.261	59.270	352.498	5297.432	84.520	-11.130	1.382	85.250
5400.000	1.068	117.350	353.077	5397.426	84.308	-10.236	0.952	84.927
5500.000	1.178	113.500	354.194	5497.408	83.537	-8.494	0.157	83.968
5600.000	1.320	133.976	355.481	5597.381	82.460	-6.518	0.452	82.717
5700.000	1.179	142.796	356.384	5697.360	80.925	-5.114	0.289	81.087
5800.000	1.091	138.303	357.264	5797.338	79.361	-3.792	0.093	79.451
5900.000	1.413	135.695	358.128	5897.316	77.676	-2.539	0.266	77.717
6000.000	1.252	147.618	359.153	5997.292	76.025	-1.124	0.279	76.033
6100.000	1.276	133.623	0.241	6097.269	74.439	0.313	0.305	74.440
6200.000	1.121	132.463	1.416	6197.248	73.019	1.805	0.071	73.042
6300.000	1.060	116.978	2.704	6297.228	71.891	3.395	0.310	71.971
6400.000	1.184	115.315	4.104	6397.210	70.980	5.092	0.178	71.162
6500.000	1.189	101.131	5.778	6497.187	70.412	7.124	0.270	70.771
6600.000	1.592	100.725	7.754	6597.157	69.977	9.528	0.397	70.623
6700.000	1.526	109.785	9.847	6697.123	69.478	12.060	0.281	70.517
6800.000	1.547	99.683	11.963	6797.089	68.745	14.566	0.290	70.271

6900.000	1.820	107.910	14.318	6897.046	68.176	17.401	0.377	70.362
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