



Company: Noble Energy

Well #: Dinner E 23-7

County: Weld

State: Colorado

Date: 12/29/2010

Job Type: Gyro Survey

	<u>Depth</u>	<u>Inc</u>	<u>AzG</u>	<u>N/-S</u>	<u>E/-W</u>	<u>TVD</u>	<u>DL</u>	<u>VS</u>	<u>CD</u>	<u>Cbrg</u>
<u>Tie-In</u>	0	0	0	0	0	0 ****		0	0	0
	100	0.32	127.18	-0.17	0.22	100	0.32	-0.17	0.28	127.18
	200	0.39	113.7	-0.47	0.76	200	0.11	-0.47	0.89	122.05
	300	0.37	104.16	-0.69	1.38	300	0.07	-0.69	1.54	116.53
	400	0.36	326.69	-0.51	1.52	399.99	0.68	-0.51	1.6	108.46
	500	0.26	281.05	-0.2	1.13	499.99	0.26	-0.2	1.15	100.26
	600	0.25	313.78	-0.01	0.76	599.99	0.14	-0.01	0.76	90.99
	700	0.23	247.62	0.06	0.41	699.99	0.26	0.06	0.42	81.97
	800	0.25	282.41	0.03	0.02	799.99	0.14	0.03	0.03	31.55
	900	0.03	92.91	0.07	-0.17	899.99	0.27	0.07	0.18	293.31
	1000	0.25	245.83	-0.02	-0.34	999.99	0.28	-0.02	0.34	266.83
	1100	0.3	164.7	-0.36	-0.47	1099.99	0.36	-0.36	0.59	232.47
	1200	0.28	281.83	-0.57	-0.64	1199.99	0.49	-0.57	0.85	228.45
	1300	0.19	263.41	-0.54	-1.04	1299.99	0.11	-0.54	1.17	242.82
	1400	0.09	280.16	-0.54	-1.29	1399.99	0.11	-0.54	1.4	247.28
	1500	0.21	227.47	-0.65	-1.51	1499.99	0.17	-0.65	1.64	246.63
	1600	0.07	258.17	-0.79	-1.71	1599.99	0.16	-0.79	1.88	245.15
	1700	0.23	192.74	-0.99	-1.81	1699.99	0.21	-0.99	2.06	241.22
	1800	0.14	279.62	-1.17	-1.97	1799.99	0.26	-1.17	2.29	239.4
	1900	0.39	237.27	-1.33	-2.38	1899.99	0.31	-1.33	2.72	240.77
	2000	0.42	319.62	-1.24	-2.91	1999.98	0.54	-1.24	3.16	246.97
	2100	0.84	297.02	-0.62	-3.79	2099.98	0.47	-0.62	3.84	260.68
	2200	0.5	311.61	0	-4.77	2199.97	0.37	0	4.77	269.98
	2300	0.83	332.26	0.93	-5.43	2299.96	0.4	0.93	5.51	279.69
	2400	0.87	343.05	2.29	-5.99	2399.95	0.17	2.29	6.41	290.95
	2500	1.29	311.62	3.77	-7.06	2499.94	0.71	3.77	8	298.12
	2600	0.43	340.49	4.87	-8.02	2599.92	0.94	4.87	9.39	301.26
	2700	0.4	18.38	5.55	-8.04	2699.92	0.27	5.55	9.77	304.63
	2800	0.75	337.17	6.49	-8.18	2799.92	0.52	6.49	10.44	308.4
	2900	0.83	26.83	7.74	-8.11	2899.91	0.67	7.74	11.21	313.64
	3000	0.47	348.47	8.79	-7.87	2999.9	0.54	8.79	11.8	318.15
	3100	0.29	321.44	9.39	-8.11	3099.9	0.25	9.39	12.41	319.18
	3200	0.82	3.63	10.31	-8.22	3199.89	0.64	10.31	13.19	321.41
	3300	0.08	100.19	11.01	-8.11	3299.89	0.84	11.01	13.67	323.64
	3400	0.1	76.77	11.02	-7.95	3399.89	0.04	11.02	13.59	324.18
	3500	0.06	158.74	10.99	-7.85	3499.89	0.11	10.99	13.5	324.47
	3600	0.06	160.86	10.88	-7.81	3599.89	0	10.88	13.39	324.34
	3700	0.37	102.86	10.76	-7.47	3699.89	0.34	10.76	13.1	325.21

3800	0.75	82.1	10.77	-6.52	3799.89	0.42	10.77	12.59	328.84
3900	0.73	123.09	10.52	-5.33	3899.88	0.52	10.52	11.79	333.1
4000	0.9	130.11	9.66	-4.2	3999.87	0.19	9.66	10.53	336.51
4100	1.06	128.11	8.58	-2.87	4099.85	0.17	8.58	9.05	341.51
4200	1.08	128.17	7.43	-1.4	4199.84	0.02	7.43	7.56	349.32
4300	1.08	123.34	6.33	0.13	4299.82	0.09	6.33	6.33	1.16
4400	1.01	131.1	5.23	1.58	4399.8	0.16	5.23	5.47	16.78
4500	0.97	129.04	4.12	2.9	4499.79	0.05	4.12	5.04	35.14
4600	1.06	142.08	2.86	4.13	4599.77	0.24	2.86	5.02	55.3
4700	1.03	165.58	1.26	4.92	4699.75	0.43	1.26	5.08	75.6
4800	0.89	169.06	-0.37	5.29	4799.74	0.15	-0.37	5.3	93.95
4900	0.86	197.21	-1.84	5.21	4899.73	0.43	-1.84	5.53	109.48
5000	0.73	212.74	-3.1	4.64	4999.72	0.25	-3.1	5.58	123.71
5100	0.11	311.96	-3.57	4.22	5099.72	0.76	-3.57	5.53	130.2
5200	0.14	305.02	-3.43	4.05	5199.72	0.03	-3.43	5.31	130.29
5300	0.17	308.97	-3.27	3.83	5299.72	0.03	-3.27	5.04	130.46
5400	0.14	334.59	-3.06	3.66	5399.72	0.07	-3.06	4.78	129.89
5500	0.31	78.23	-2.89	3.87	5499.72	0.37	-2.89	4.84	126.76
5600	0.26	76.27	-2.79	4.36	5599.71	0.05	-2.79	5.18	122.55
5700	0.42	340.92	-2.38	4.47	5699.71	0.52	-2.38	5.06	118.06
5800	0.56	27.1	-1.6	4.57	5799.71	0.4	-1.6	4.84	109.29
5900	0.43	346.57	-0.8	4.7	5899.71	0.36	-0.8	4.77	99.66
6000	0.66	12	0.13	4.74	5999.7	0.33	0.13	4.74	88.41
6100	0.53	38.39	1.06	5.15	6099.7	0.3	1.06	5.26	78.32
6200	0.77	15.01	2.08	5.61	6199.69	0.35	2.08	5.98	69.67
6300	0.64	36.32	3.18	6.11	6299.68	0.29	3.18	6.89	62.54
6400	0.91	29.94	4.32	6.84	6399.67	0.29	4.32	8.09	57.75
6500	0.99	42.49	5.64	7.82	6499.66	0.22	5.64	9.64	54.19
6600	1.19	58.18	6.83	9.29	6599.64	0.36	6.83	11.53	53.68
6700	0.6	27.34	7.84	10.41	6699.63	0.75	7.84	13.03	53.03
6800	1.01	46.51	8.91	11.29	6799.62	0.49	8.91	14.38	51.73
6900	1.1	54.15	10.08	12.71	6899.6	0.17	10.08	16.23	51.59
7000	1.73	60.91	11.38	14.82	6999.57	0.65	11.38	18.68	52.47

**Thank You,
Ray Seago
Vaughn Energy Services**