



Company: Noble Energy  
Lease/Well: Trinity/USX AA 7-7  
API: 05-123-26026  
Rig Name: Production/Lightning Wireline  
State/County: Colorado/Weld  
Latitude: 40.50, Longitude: -104.48  
GRID North is 0.66 Degrees East of True North  
VS-Azi: 0.00 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : Ground Level

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: trinityusxaa7-02\_ed.ut  
Minimum Curvature Method  
Report Date/Time: 8/17/2011 / 10:53

Vaughn Energy Services  
Fort Worth, TX  
817-741-3610  
James Proulx

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.88	84.72	100.00	0.07	0.76	0.07	0.77	84.72	0.88
200.00	0.87	79.75	199.98	0.28	2.27	0.28	2.29	83.07	0.08
300.00	1.09	84.38	299.97	0.51	3.97	0.51	4.00	82.75	0.23
400.00	0.77	95.55	399.96	0.53	5.58	0.53	5.61	84.54	0.37
500.00	1.03	105.31	499.94	0.23	7.12	0.23	7.13	88.15	0.31
600.00	0.99	90.69	599.93	-0.02	8.86	-0.02	8.86	90.12	0.26
700.00	0.91	111.04	699.92	-0.31	10.47	-0.31	10.47	91.72	0.35
800.00	0.91	85.87	799.90	-0.54	12.00	-0.54	12.01	92.59	0.40
900.00	0.90	83.87	899.89	-0.40	13.58	-0.40	13.58	91.69	0.03
1000.00	0.79	107.01	999.88	-0.52	15.02	-0.52	15.03	91.97	0.36
1100.00	1.01	92.58	1099.87	-0.76	16.55	-0.76	16.57	92.62	0.31
1200.00	0.70	76.05	1199.86	-0.65	18.03	-0.65	18.04	92.07	0.39
1300.00	0.89	79.56	1299.85	-0.36	19.38	-0.36	19.39	91.07	0.19
1400.00	0.82	76.44	1399.84	-0.05	20.84	-0.05	20.84	90.15	0.08
1500.00	0.72	44.58	1499.83	0.56	21.98	0.56	21.99	88.53	0.43
1600.00	0.66	23.44	1599.82	1.54	22.65	1.54	22.70	86.12	0.26
1700.00	0.69	17.35	1699.81	2.64	23.06	2.64	23.21	83.48	0.08
1800.00	0.32	320.19	1799.81	3.42	23.06	3.42	23.31	81.56	0.58
1900.00	0.26	215.30	1899.81	3.45	22.75	3.45	23.01	81.37	0.46
2000.00	0.51	221.66	1999.81	2.94	22.33	2.94	22.52	82.50	0.26
2100.00	0.81	192.46	2099.80	1.92	21.88	1.92	21.96	84.99	0.44
2200.00	0.95	211.50	2199.79	0.53	21.29	0.53	21.30	88.59	0.32
2300.00	1.62	204.77	2299.76	-1.47	20.27	-1.47	20.32	94.14	0.69
2400.00	1.75	225.83	2399.72	-3.81	18.58	-3.81	18.97	101.60	0.63
2500.00	1.57	226.66	2499.68	-5.82	16.49	-5.82	17.49	109.42	0.18
2600.00	1.70	227.90	2599.64	-7.75	14.40	-7.75	16.35	118.29	0.14
2700.00	1.42	231.65	2699.60	-9.51	12.32	-9.51	15.57	127.67	0.30
2800.00	1.65	233.93	2799.56	-11.13	10.19	-11.13	15.09	137.54	0.23
2900.00	1.41	220.32	2899.53	-12.92	8.23	-12.92	15.31	147.51	0.43
3000.00	1.40	214.12	2999.50	-14.87	6.75	-14.87	16.32	155.59	0.15
3100.00	1.40	216.35	3099.47	-16.86	5.33	-16.86	17.69	162.44	0.05
3200.00	1.07	229.19	3199.45	-18.46	3.90	-18.46	18.87	168.06	0.43
3300.00	0.42	203.17	3299.44	-19.41	3.05	-19.41	19.65	171.06	0.71
3400.00	0.03	119.34	3399.44	-19.76	2.93	-19.76	19.98	171.57	0.42

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
3500.00	0.23	120.00	3499.44	-19.88	3.13	-19.88	20.12	171.05	0.20
3600.00	0.18	348.51	3599.44	-19.82	3.27	-19.82	20.09	170.63	0.38
3700.00	0.29	326.14	3699.44	-19.45	3.10	-19.45	19.70	170.95	0.14
3800.00	0.28	341.05	3799.43	-19.02	2.88	-19.02	19.23	171.38	0.07
3900.00	0.25	298.88	3899.43	-18.68	2.61	-18.68	18.87	172.04	0.19
4000.00	0.12	316.70	3999.43	-18.50	2.35	-18.50	18.65	172.77	0.14
4100.00	0.44	256.23	4099.43	-18.51	1.90	-18.51	18.61	174.13	0.39
4200.00	0.69	225.31	4199.43	-19.03	1.11	-19.03	19.06	176.68	0.39
4300.00	0.86	192.51	4299.42	-20.18	0.52	-20.18	20.18	178.53	0.46
4400.00	0.74	206.84	4399.41	-21.48	0.06	-21.48	21.48	179.83	0.23
4500.00	1.02	190.83	4499.40	-22.94	-0.40	-22.94	22.94	180.99	0.37
4600.00	1.22	209.95	4599.38	-24.73	-1.10	-24.73	24.76	182.54	0.42
4700.00	1.93	195.33	4699.34	-27.28	-2.07	-27.28	27.36	184.34	0.81
4800.00	1.82	204.48	4799.29	-30.35	-3.18	-30.35	30.52	185.98	0.32
4900.00	1.70	225.36	4899.24	-32.85	-4.89	-32.85	33.21	188.47	0.65
5000.00	1.76	222.51	4999.19	-35.02	-6.99	-35.02	35.71	191.28	0.11
5100.00	1.38	243.25	5099.16	-36.70	-9.10	-36.70	37.81	193.93	0.68
5200.00	0.82	246.93	5199.14	-37.52	-10.83	-37.52	39.05	196.11	0.57
5300.00	0.65	246.14	5299.13	-38.03	-12.01	-38.03	39.88	197.52	0.17
5400.00	0.24	253.83	5399.13	-38.31	-12.73	-38.31	40.37	198.38	0.41
5500.00	0.28	259.31	5499.13	-38.42	-13.17	-38.42	40.61	198.92	0.05
5600.00	0.32	300.83	5599.12	-38.32	-13.65	-38.32	40.68	199.60	0.22
5700.00	0.46	303.96	5699.12	-37.95	-14.22	-37.95	40.53	200.53	0.14
5800.00	0.58	347.70	5799.12	-37.24	-14.65	-37.24	40.02	201.48	0.40
5900.00	0.58	335.54	5899.11	-36.28	-14.97	-36.28	39.25	202.42	0.12
6000.00	0.38	2.04	5999.11	-35.49	-15.17	-35.49	38.60	203.15	0.30
6100.00	0.21	334.61	6099.11	-34.99	-15.24	-34.99	38.17	203.53	0.21
6200.00	0.46	64.95	6199.11	-34.66	-14.96	-34.66	37.75	203.34	0.50
6300.00	0.54	94.18	6299.10	-34.52	-14.13	-34.52	37.30	202.26	0.26
6400.00	0.55	63.55	6399.10	-34.34	-13.23	-34.34	36.80	201.07	0.29
6500.00	0.70	89.62	6499.09	-34.13	-12.19	-34.13	36.24	199.66	0.32
6600.00	0.61	77.17	6599.09	-34.01	-11.07	-34.01	35.76	198.03	0.17
6700.00	0.60	67.46	6699.08	-33.69	-10.07	-33.69	35.16	196.64	0.10
6800.00	0.37	97.32	6799.08	-33.53	-9.27	-33.53	34.79	195.45	0.33
HORIZONTAL DISPLACEMENT IS 34.79 FEET AT 195.45 DEGREES									