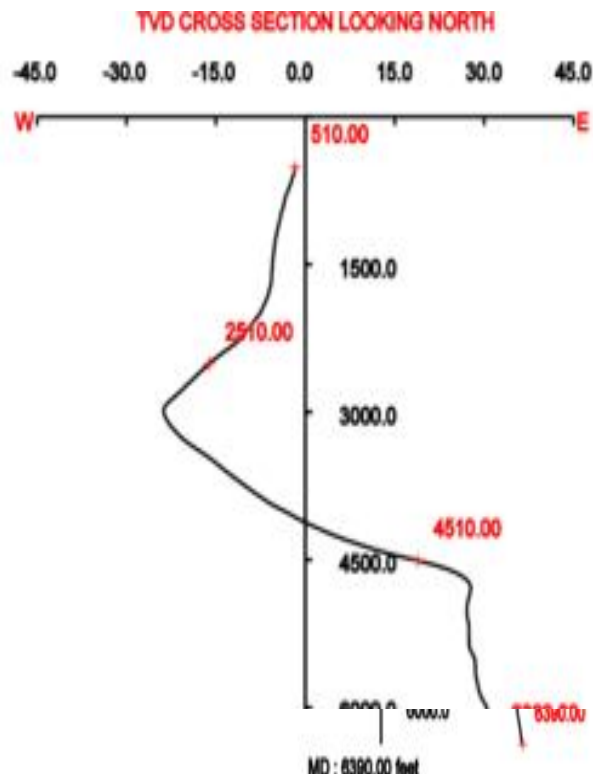


DIRECTIONAL

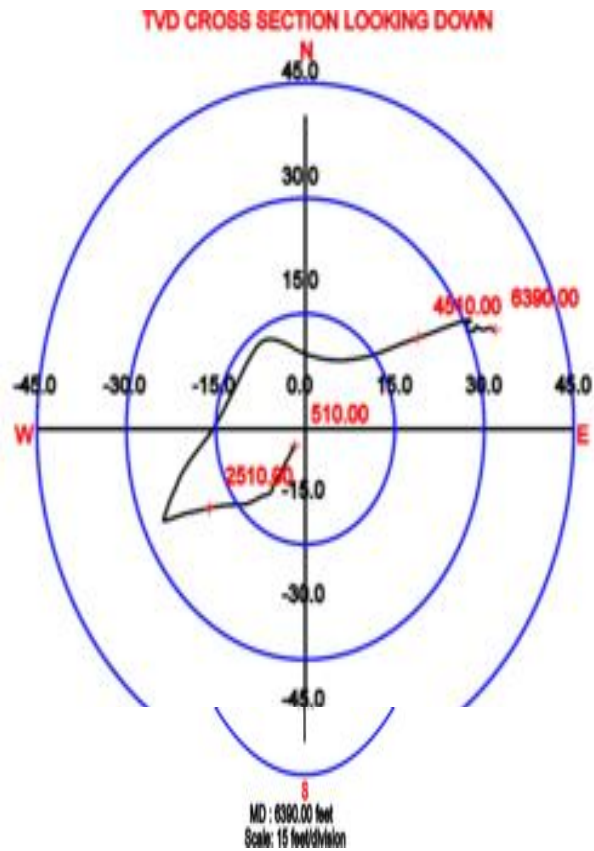
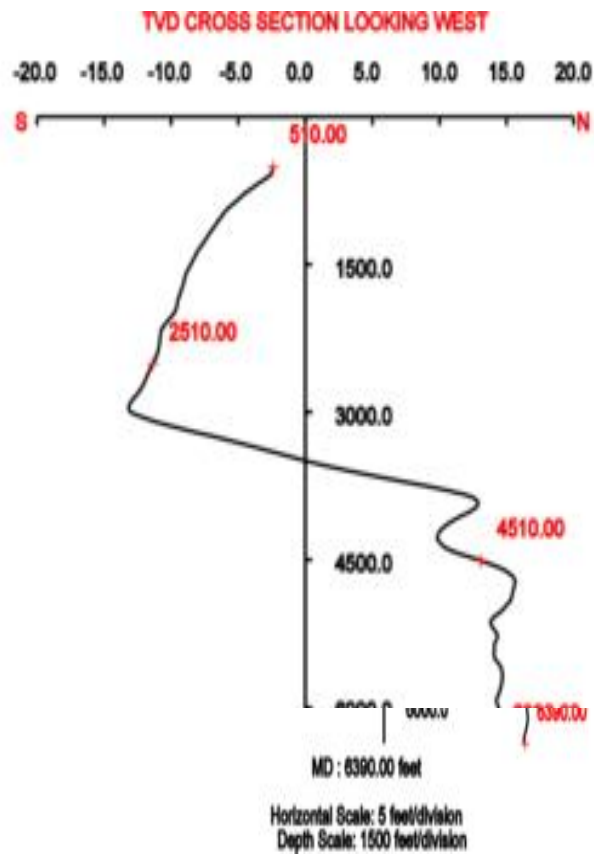
Fold here

LOGGING DATA

GENERAL	GAMMA	ACOUSTIC	REACTIVITY	NEUTRON
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Horizontal Scale: 15 feet/division
Depth Scale: 1500 feet/division



Measured
Depth
(ft)

Inclination
(deg)

True
Vertical
Depth
(ft)

Azimuth
(deg)

N/S
Departure
(ft)

E/W
Departure
(ft)

510.00

0.7

509.99

215.70

-2.41

-1.73

540.00	0.4	539.99	48.73	-2.48	-1.75
570.00	0.6	569.99	252.98	-2.45	-1.82
600.00	0.7	599.99	207.57	-2.67	-2.06
630.00	0.6	629.98	204.26	-2.97	-2.21
660.00	0.7	659.98	198.89	-3.29	-2.33
690.00	0.8	689.98	217.63	-3.63	-2.52
720.00	0.5	719.98	214.48	-3.91	-2.72
750.00	0.7	749.98	206.48	-4.20	-2.89
780.00	0.7	779.97	219.63	-4.53	-3.10
810.00	0.5	809.97	224.26	-4.77	-3.31
840.00	0.5	839.97	199.53	-4.99	-3.45
870.00	0.5	869.97	197.65	-5.25	-3.54
900.00	0.6	899.97	203.60	-5.50	-3.63
930.00	0.6	929.97	213.09	-5.76	-3.77
960.00	0.5	959.96	229.53	-5.97	-3.95
990.00	0.3	989.96	210.20	-6.11	-4.08
1020.00	0.5	1019.96	205.04	-6.29	-4.17
1050.00	0.4	1049.96	233.00	-6.47	-4.31
1080.00	0.2	1079.96	202.50	-6.59	-4.42
1110.00	0.5	1109.96	215.07	-6.75	-4.52
1140.00	0.3	1139.96	230.38	-6.91	-4.66
1170.00	0.4	1169.96	190.31	-7.05	-4.74
1200.00	0.5	1199.96	227.58	-7.23	-4.85
1230.00	0.2	1229.96	219.38	-7.35	-4.97
1260.00	0.4	1259.96	199.61	-7.49	-5.04
1290.00	0.3	1289.96	229.38	-7.65	-5.14
1320.00	0.3	1319.96	176.75	-7.79	-5.19
1350.00	0.4	1349.96	197.98	-7.96	-5.22
1380.00	0.3	1379.96	233.75	-8.10	-5.31
1410.00	0.1	1409.96	184.04	-8.18	-5.37
1440.00	0.4	1439.96	200.52	-8.31	-5.41
1470.00	0.2	1469.96	233.60	-8.43	-5.49
1500.00	0.2	1499.96	159.58	-8.52	-5.52
1530.00	0.4	1529.96	206.49	-8.66	-5.54
1560.00	0.1	1559.95	230.73	-8.77	-5.61
1590.00	0.3	1589.95	168.96	-8.87	-5.62
1620.00	0.2	1619.95	235.38	-8.97	-5.65
1650.00	0.0	1649.95	84.11	-9.00	-5.69
1680.00	0.3	1679.95	212.31	-9.06	-5.71
1710.00	0.2	1709.95	288.88	-9.11	-5.80
1740.00	0.4	1739.95	223.50	-9.18	-5.92
1770.00	0.3	1769.95	263.37	-9.27	-6.07
1800.00	0.2	1799.95	220.23	-9.33	-6.19
1830.00	0.5	1829.95	247.04	-9.42	-6.35
1860.00	0.3	1859.95	254.37	-9.50	-6.54
1890.00	0.6	1889.95	262.35	-9.54	-6.76
1920.00	0.3	1919.95	272.54	-9.55	-7.00
1950.00	0.5	1949.95	238.29	-9.62	-7.20
1980.00	0.5	1979.95	261.75	-9.72	-7.45
2010.00	0.8	2009.95	231.59	-9.86	-7.73
2040.00	0.8	2039.94	254.34	-10.04	-8.10
2070.00	0.9	2069.94	233.79	-10.23	-8.49
2100.00	0.9	2099.94	257.54	-10.42	-8.90
2130.00	0.8	2129.93	240.71	-10.56	-9.30
2160.00	0.9	2159.93	251.74	-10.73	-9.69
2190.00	0.6	2189.93	283.32	-10.77	-10.06
2220.00	0.8	2219.93	256.19	-10.79	-10.41
2250.00	0.9	2249.92	273.23	-10.83	-10.85
2280.00	0.8	2279.92	260.87	-10.85	-11.29
2310.00	1.4	2309.91	270.01	-10.88	-11.85
2340.00	1.3	2339.91	262.08	-10.92	-12.54
2370.00	1.4	2369.90	271.82	-10.96	-13.23
2400.00	1.1	2399.89	259.30	-11.00	-13.88
2430.00	1.4	2429.88	261.80	-11.11	-14.52

2460.00	1.1	2459.88	265.19	-11.18	-15.15
2490.00	1.2	2489.87	253.62	-11.29	-15.73
2520.00	1.2	2519.86	265.24	-11.41	-16.34
2550.00	0.9	2549.86	251.65	-11.51	-16.87
2580.00	1.1	2579.86	262.37	-11.62	-17.39
2610.00	0.9	2609.85	256.48	-11.72	-17.90
2640.00	1.1	2639.85	261.36	-11.81	-18.41
2670.00	0.9	2669.84	259.21	-11.90	-18.92
2700.00	1.1	2699.84	256.02	-12.01	-19.41
2730.00	1.0	2729.83	265.73	-12.10	-19.96
2760.00	0.9	2759.83	242.44	-12.23	-20.44
2790.00	1.2	2789.82	258.09	-12.39	-20.94
2820.00	1.0	2819.82	251.87	-12.53	-21.47
2850.00	1.2	2849.81	248.39	-12.73	-22.01
2880.00	1.0	2879.81	258.19	-12.91	-22.58
2910.00	1.0	2909.80	248.60	-13.06	-23.09
2940.00	0.7	2939.80	269.10	-13.16	-23.53
2970.00	0.1	2969.80	249.76	-13.18	-23.76
3000.00	0.5	2999.80	2.59	-13.05	-23.78
3030.00	1.4	3029.79	22.80	-12.58	-23.64
3060.00	1.1	3059.79	20.38	-11.98	-23.40
3090.00	1.4	3089.78	23.40	-11.37	-23.15
3120.00	1.7	3119.77	21.63	-10.63	-22.85
3150.00	1.9	3149.75	25.68	-9.77	-22.47
3180.00	1.8	3179.74	30.32	-8.93	-22.02
3210.00	2.0	3209.72	25.60	-8.05	-21.56
3240.00	2.1	3239.70	23.81	-7.08	-21.11
3270.00	1.9	3269.68	38.60	-6.19	-20.58
3300.00	2.0	3299.67	32.87	-5.36	-19.98
3330.00	2.2	3329.65	40.35	-4.48	-19.32
3360.00	2.0	3359.63	40.66	-3.64	-18.61
3390.00	2.2	3389.61	43.74	-2.83	-17.87
3420.00	2.0	3419.59	39.03	-2.01	-17.14
3450.00	2.2	3449.57	42.45	-1.19	-16.43
3480.00	1.8	3479.55	40.14	-0.40	-15.74
3510.00	2.0	3509.53	31.33	0.41	-15.16
3540.00	2.2	3539.51	34.11	1.35	-14.56
3570.00	2.1	3569.49	31.93	2.31	-13.93
3600.00	2.4	3599.47	29.06	3.34	-13.33
3630.00	2.3	3629.44	32.30	4.42	-12.69
3660.00	2.6	3659.41	27.42	5.53	-12.05
3690.00	2.5	3689.38	34.13	6.66	-11.38
3720.00	2.5	3719.35	24.27	7.79	-10.75
3750.00	2.6	3749.32	32.74	8.98	-10.11
3780.00	2.2	3779.30	36.02	10.01	-9.40
3810.00	2.4	3809.27	30.71	11.00	-8.75
3840.00	2.1	3839.25	44.90	11.92	-8.05
3870.00	1.6	3869.24	59.70	12.52	-7.30
3900.00	1.3	3899.23	78.28	12.80	-6.60
3930.00	1.6	3929.22	88.50	12.88	-5.86
3960.00	1.8	3959.21	102.76	12.79	-4.99
3990.00	2.0	3989.19	109.04	12.52	-4.04
4020.00	2.0	4019.17	110.46	12.16	-3.05
4050.00	1.7	4049.15	125.23	11.72	-2.19
4080.00	1.8	4079.14	110.24	11.29	-1.37
4110.00	2.1	4109.12	112.76	10.91	-0.41
4140.00	2.0	4139.10	103.80	10.57	0.61
4170.00	2.3	4169.08	101.96	10.32	1.71
4200.00	2.0	4199.06	103.24	10.08	2.80
4230.00	2.2	4229.04	92.07	9.94	3.88
4260.00	2.5	4259.02	95.19	9.86	5.10
4290.00	2.4	4288.99	87.23	9.83	6.38
4320.00	3.0	4318.96	80.92	9.98	7.78
4350.00	2.7	4348.92	84.00	10.18	9.26
4380.00	3.1	4378.88	75.86	10.45	10.75

4380.00	3.1	4378.38	75.80	10.45	10.75
4410.00	3.3	4408.83	73.41	10.89	12.35
4440.00	3.5	4438.78	69.06	11.47	14.03
4470.00	4.5	4468.71	70.95	12.18	16.01
4500.00	4.1	4498.62	73.88	12.87	18.16
4530.00	3.9	4528.55	72.63	13.47	20.16
4560.00	3.5	4558.49	70.29	14.07	21.97
4590.00	2.8	4588.44	72.19	14.60	23.52
4620.00	2.2	4618.41	73.19	14.99	24.77
4650.00	1.8	4648.40	73.07	15.30	25.77
4680.00	1.3	4678.38	76.33	15.52	26.56
4710.00	0.9	4708.38	82.82	15.63	27.13
4740.00	0.6	4738.38	98.75	15.63	27.51
4770.00	0.3	4768.38	131.77	15.57	27.71
4800.00	0.1	4798.38	237.64	15.50	27.73
4830.00	0.2	4828.38	257.35	15.47	27.65
4860.00	0.3	4858.38	235.16	15.41	27.53
4890.00	0.2	4888.38	272.02	15.36	27.40
4920.00	0.4	4918.37	216.90	15.27	27.28
4950.00	0.5	4948.37	205.18	15.06	27.15
4980.00	0.2	4978.37	162.43	14.89	27.12
5010.00	0.5	5008.37	194.89	14.72	27.10
5040.00	0.5	5038.37	174.45	14.46	27.08
5070.00	0.6	5068.37	171.78	14.17	27.12
5100.00	0.4	5098.37	145.34	13.93	27.20
5130.00	0.3	5128.37	121.90	13.81	27.31
5160.00	0.2	5158.37	23.58	13.83	27.40
5190.00	0.3	5188.37	2.02	13.96	27.42
5220.00	0.3	5218.37	353.52	14.11	27.42
5250.00	0.3	5248.37	7.29	14.28	27.42
5280.00	0.1	5278.37	195.39	14.33	27.42
5310.00	0.2	5308.37	147.09	14.25	27.45
5340.00	0.2	5338.37	193.82	14.14	27.47
5370.00	0.1	5368.37	253.76	14.08	27.44
5400.00	0.5	5398.37	86.44	14.09	27.55
5430.00	0.4	5428.37	99.26	14.08	27.80
5460.00	0.4	5458.36	88.40	14.06	28.02
5490.00	0.7	5488.36	83.54	14.08	28.29
5520.00	0.3	5518.36	358.22	14.19	28.46
5550.00	0.4	5548.36	7.43	14.37	28.47
5580.00	0.2	5578.36	14.84	14.53	28.50
5610.00	0.1	5608.36	8.77	14.62	28.52
5640.00	0.1	5638.36	34.33	14.67	28.54
5670.00	0.1	5668.36	70.21	14.69	28.57
5700.00	0.2	5698.36	91.35	14.70	28.65
5730.00	0.3	5728.36	115.54	14.67	28.77
5760.00	0.2	5758.36	110.32	14.62	28.87
5790.00	0.2	5788.36	125.49	14.57	28.96
5820.00	0.2	5818.36	109.39	14.52	29.05
5850.00	0.4	5848.36	116.68	14.46	29.19
5880.00	0.4	5878.36	118.73	14.36	29.38
5910.00	0.5	5908.36	110.59	14.26	29.60
5940.00	0.6	5938.36	81.37	14.23	29.90
5970.00	0.5	5968.35	67.68	14.31	30.18
6000.00	0.3	5998.35	71.03	14.38	30.37
6030.00	0.3	6028.35	76.52	14.43	30.52
6060.00	0.2	6058.35	80.56	14.45	30.65
6090.00	0.1	6088.35	53.94	14.48	30.72
6120.00	0.3	6118.35	77.85	14.52	30.83
6150.00	0.2	6148.35	109.61	14.51	30.96
6180.00	0.2	6178.35	116.71	14.47	31.06
6210.00	0.2	6208.35	116.54	14.42	31.15
6240.00	0.2	6238.35	124.43	14.36	31.26
6270.00	0.2	6268.35	130.24	14.29	31.35
6300.00	0.2	6298.35	152.87	14.21	31.42

6330.00	0.2	6328.35	143.74	14.13	31.47
6360.00	0.5	6358.35	70.33	14.13	31.62
6390.00	0.4	6388.35	48.81	14.25	31.83
Horizontal displacement is relative to the well head. Horizontal displacement (closure) at 6,390.00 ft is 34.87 ft along 65.88 deg (True).					
Data: MCCL_PC_LG04_15				Date: 04-Jun-11 12:41:09	

COMPANY	NOBLE ENERGY INC.		
WELL	MCCLELLAN PC LG04-15		
FIELD	WATTENBERG		
COUNTY	WELD	STATE	CO
HALLIBURTON		DIRECTIONAL	