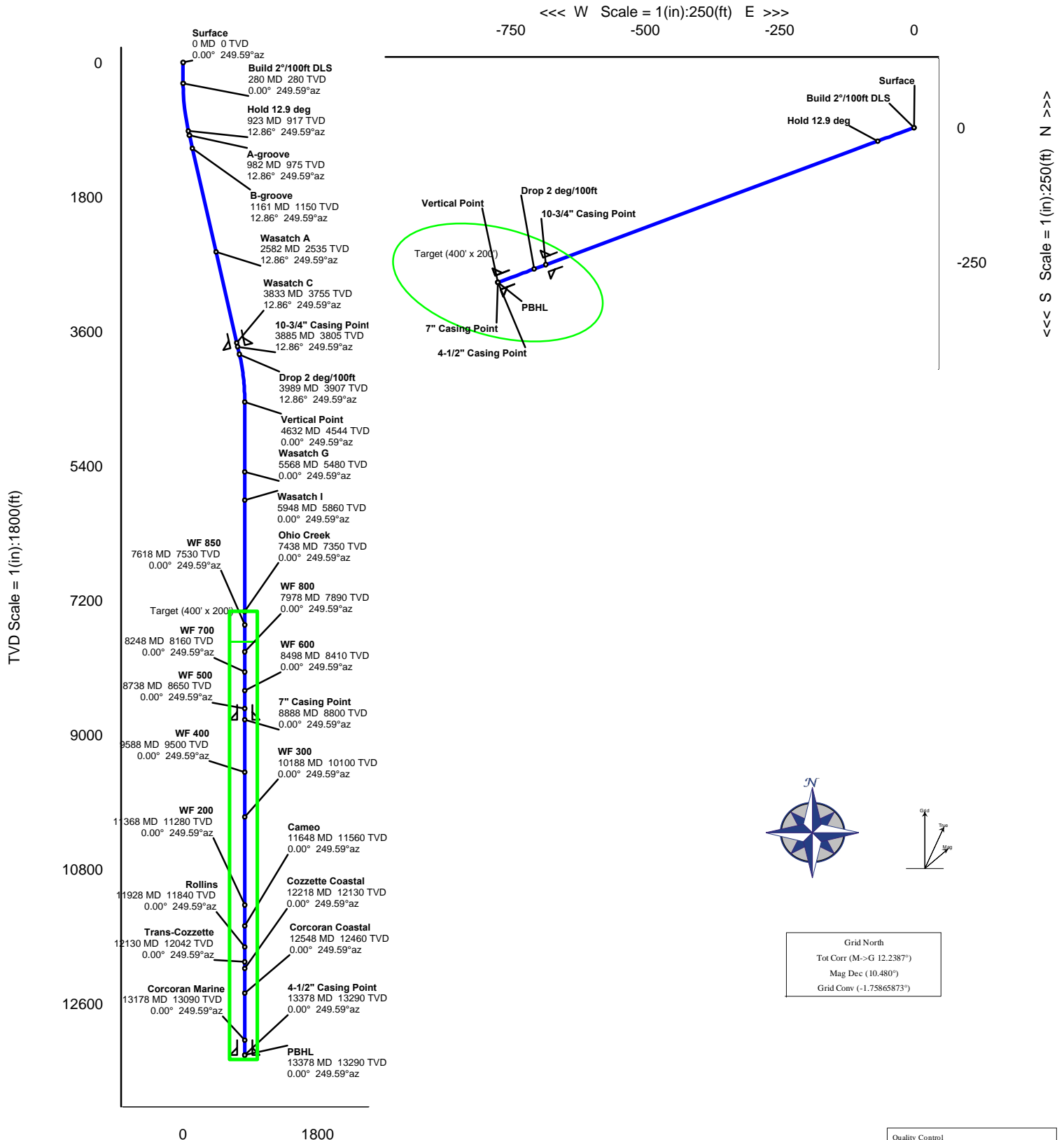


WELL	PCU T78X-12G14	FIELD	CO, Rio Blanco County	STRUCTURE	H&P 215
Magnetic Parameters Model: BGGM 2010 Dip: 66.031° Mag Dec: 10.480°		Date: September 08, 2011 FS: 52375.3nT		Surface Location Lat: N 39 53 6.142 Lon: W 108 13 18.551 NAD27 Colorado State Plane, Northern Zone, US Feet 212668.00 NUS Grid Conv: -1.75865873° Easting: 1236287.00 RUS Scale Fact: 0.99997710	
				Miscellaneous Slot: PCU 297-12B10 Plan: PCU 297-12B10 R8 TVD Ref: RKB(7289.4ft above MSL) Srvy Date: September 08, 2011	



# PCU T78X-12G14 R8 ivs 12-Sept-11 Proposal Report (Def Plan)

**Report Date:** September 13, 2011 - 09:47 AM  
**Client:** ExxonMobil  
**Field:** CO, Rio Blanco County (NAD 27 NZ) ExxonMobil 2005  
**Structure / Slot:** ExxonMobil 12-2S-97W PCU T78X-12G  
**Well:** PCU T78X-12G14 (PCU 297-12B10)  
**Borehole:** Original Hole  
**UWI / API#:** Borehole-11821051 / Unknown  
**Survey Name:** PCU 297-12B10 R8 ivs 12-Sept-11  
**Survey Date:** September 08, 2011  
**Tort / AHD / DDI / ERD Ratio:** 25.714 ° / 825.866 ft / 4.330 / 0.062  
**Coordinate Reference System:** NAD27 Colorado State Plane, Northern Zone, US Feet  
**Location Lat / Long:** N 39° 53' 6.14236", W 108° 13' 18.55065"  
**Location Grid N/E Y/X:** N 212688.000 ftUS, E 1236287.000 ftUS  
**CRS Grid Convergence Angle:** -1.75865873 °  
**Grid Scale Factor:** 0.9999771

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 249.590 ° (Grid North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** RKB  
**TVD Reference Elevation:** 7289.400 ft above MSL  
**Seabed / Ground Elevation:** 7262.400 ft above MSL  
**Magnetic Declination:** 10.480 °  
**Total Field Strength:** 52375.296 nT  
**Magnetic Dip Angle:** 66.031 °  
**Declination Date:** September 08, 2011  
**Magnetic Declination Model:** BGM 2010  
**North Reference:** Grid North  
**Grid Convergence Used:** -1.759 °  
**Total Corr Mag North->Grid North:** 12.239 °  
**Local Coord Referenced To:** Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	249.59	0.00	-7289.40	0.00	0.00	0.00	N/A	212688.00	1236287.00	N 39 53 6.14	W 108 13 18.55
	100.00	0.00	249.59	100.00	-7189.40	0.00	0.00	0.00	0.00	212688.00	1236287.00	N 39 53 6.14	W 108 13 18.55
	200.00	0.00	249.59	200.00	-7089.40	0.00	0.00	0.00	0.00	212688.00	1236287.00	N 39 53 6.14	W 108 13 18.55
	280.00	0.00	249.59	280.00	-7009.40	0.00	0.00	0.00	0.00	212688.00	1236287.00	N 39 53 6.14	W 108 13 18.55
	300.00	0.40	249.59	300.00	-6989.40	0.07	-0.02	-0.07	2.00	212687.98	1236286.93	N 39 53 6.14	W 108 13 18.55
Build 2"/100ft DLS	400.00	2.40	249.59	399.96	-6889.44	2.51	-0.88	-2.36	2.00	212687.12	1236284.64	N 39 53 6.13	W 108 13 18.58
	500.00	4.40	249.59	499.78	-6789.62	8.44	-2.94	-7.91	2.00	212685.06	1236279.09	N 39 53 6.11	W 108 13 18.65
	600.00	6.40	249.59	599.33	-6690.07	17.85	-6.23	-16.73	2.00	212681.77	1236270.27	N 39 53 6.08	W 108 13 18.76
	700.00	8.40	249.59	698.50	-6590.80	30.73	-10.72	-28.80	2.00	212677.28	1236258.20	N 39 53 6.03	W 108 13 18.92
	800.00	10.40	249.59	797.15	-6492.25	47.06	-16.41	-44.11	2.00	212671.59	1236242.89	N 39 53 5.97	W 108 13 19.11
Hold 12.9 deg A-groove	900.00	12.40	249.59	895.17	-6394.23	66.83	-23.31	-62.63	2.00	212664.70	1236224.37	N 39 53 5.89	W 108 13 19.34
	922.84	12.86	249.59	917.46	-6371.94	71.82	-25.05	-67.31	2.00	212662.95	1236219.69	N 39 53 5.87	W 108 13 19.40
	981.86	12.86	249.59	975.00	-6314.40	84.96	-29.63	-79.62	0.00	212658.37	1236207.38	N 39 53 5.83	W 108 13 19.56
	1000.00	12.86	249.59	992.68	-6296.72	88.99	-31.03	-83.40	0.00	212656.97	1236203.60	N 39 53 5.81	W 108 13 19.61
	1100.00	12.86	249.59	1090.18	-6199.22	111.24	-38.79	-104.26	0.00	212649.21	1236182.74	N 39 53 5.73	W 108 13 19.87
B-groove	1161.36	12.86	249.59	1150.00	-6139.40	124.90	-43.56	-117.06	0.00	212644.45	1236169.95	N 39 53 5.68	W 108 13 20.03
	1200.00	12.86	249.59	1187.67	-6101.73	133.49	-46.55	-125.11	0.00	212641.45	1236161.89	N 39 53 5.64	W 108 13 20.14
	1300.00	12.86	249.59	1285.16	-6004.24	155.75	-54.31	-145.97	0.00	212633.69	1236141.03	N 39 53 5.56	W 108 13 20.40
	1400.00	12.86	249.59	1382.66	-5906.74	178.00	-62.07	-166.82	0.00	212625.93	1236120.18	N 39 53 5.48	W 108 13 20.67
	1500.00	12.86	249.59	1480.15	-5809.25	200.25	-69.83	-187.68	0.00	212618.17	1236099.33	N 39 53 5.40	W 108 13 20.93
	1600.00	12.86	249.59	1577.64	-5711.76	222.50	-77.59	-208.53	0.00	212610.41	1236078.47	N 39 53 5.31	W 108 13 21.19
	1700.00	12.86	249.59	1675.13	-5614.27	244.75	-85.35	-229.39	0.00	212602.65	1236057.62	N 39 53 5.23	W 108 13 21.46
	1800.00	12.86	249.59	1772.63	-5516.77	267.00	-93.11	-250.24	0.00	212594.89	1236036.76	N 39 53 5.15	W 108 13 21.72
	1900.00	12.86	249.59	1870.12	-5419.28	289.26	-100.87	-271.10	0.00	212587.13	1236015.91	N 39 53 5.06	W 108 13 21.99
	2000.00	12.86	249.59	1967.61	-5321.79	311.51	-108.63	-291.95	0.00	212579.37	1235995.06	N 39 53 4.98	W 108 13 22.25
	2100.00	12.86	249.59	2065.11	-5224.29	333.76	-116.39	-312.81	0.00	212571.61	1235974.20	N 39 53 4.90	W 108 13 22.52
	2200.00	12.86	249.59	2162.60	-5126.80	356.01	-124.15	-333.66	0.00	212563.85	1235953.35	N 39 53 4.81	W 108 13 22.78
	2300.00	12.86	249.59	2260.09	-5029.31	378.26	-131.91	-354.52	0.00	212556.09	1235932.49	N 39 53 4.73	W 108 13 23.04
	2400.00	12.86	249.59	2357.59	-4931.81	400.51	-139.67	-375.37	0.00	212548.33	1235911.64	N 39 53 4.65	W 108 13 23.31
	2500.00	12.86	249.59	2455.08	-4834.32	422.76	-147.43	-396.22	0.00	212540.57	1235890.79	N 39 53 4.57	W 108 13 23.57
Wasatch A	2581.98	12.86	249.59	2535.00	-4754.40	441.01	-153.79	-413.32	0.00	212534.21	1235873.69	N 39 53 4.50	W 108 13 23.79
	2600.00	12.86	249.59	2552.57	-4736.83	445.02	-155.19	-417.08	0.00	212532.81	1235869.93	N 39 53 4.48	W 108 13 23.84
	2700.00	12.86	249.59	2650.06	-4639.34	467.27	-162.95	-437.93	0.00	212525.05	1235849.08	N 39 53 4.40	W 108 13 24.10
	2800.00	12.86	249.59	2747.56	-4541.84	489.52	-170.71	-458.79	0.00	212517.29	1235828.22	N 39 53 4.32	W 108 13 24.37
	2900.00	12.86	249.59	2845.05	-4444.35	511.77	-178.47	-479.64	0.00	212509.53	1235807.37	N 39 53 4.23	W 108 13 24.63
	3000.00	12.86	249.59	2942.54	-4346.86	534.02	-186.23	-500.50	0.00	212501.77	1235786.51	N 39 53 4.15	W 108 13 24.89
	3100.00	12.86	249.59	3040.04	-4249.36	556.27	-193.99	-521.35	0.00	212494.01	1235765.66	N 39 53 4.07	W 108 13 25.16
	3200.00	12.86	249.59	3137.53	-4151.87	578.53	-201.75	-542.21	0.00	212486.25	1235744.81	N 39 53 3.98	W 108 13 25.42
	3300.00	12.86	249.59	3235.02	-4054.38	600.78	-209.51	-563.06	0.00	212478.49	1235723.95	N 39 53 3.90	W 108 13 25.69
	3400.00	12.86	249.59	3332.51	-3956.89	623.03	-217.27	-583.92	0.00	212470.73	1235703.10	N 39 53 3.82	W 108 13 25.95
	3500.00	12.86	249.59	3430.01	-3859.39	645.28	-225.03	-604.77	0.00	212462.97	1235682.24	N 39 53 3.74	W 108 13 26.22
	3600.00	12.86	249.59	3527.50	-3761.90	667.53	-232.79	-625.63	0.00	212455.21	1235661.39	N 39 53 3.65	W 108 13 26.48
	3700.00	12.86	249.59	3624.99	-3664.41	689.78	-240.55	-646.48	0.00	212447.46	1235640.54	N 39 53 3.57	W 108 13 26.74
	3800.00	12.86	249.59	3722.49	-3566.91	712.03	-248.31	-667.33	0.00	212439.70	1235619.68	N 39 53 3.49	W 108 13 27.01
	3833.35	12.86	249.59	3755.00	-3534.40	719.46	-250.90	-674.29	0.00	212437.11	1235612.73	N 39 53 3.46	W 108 13 27.10
10-3/4" Casing Point	3884.64	12.86	249.59	3805.00	-3484.40	730.87	-254.88	-684.99	0.00	212433.13	1235602.03	N 39 53 3.42	W 108 13 27.23
Drop 2 deg/100ft	3900.00	12.86	249.59	3819.98	-3469.42	734.29	-256.07	-688.19	0.00	212431.94	1235598.83	N 39 53 3.40	W 108 13 27.27
	3988.79	12.86	249.59	3906.54	-3382.86	754.04	-262.96	-706.71	0.00	212425.05	1235580.31	N 39 53 3.33	W 108 13 27.51
	4000.00	12.63	249.59	3917.48	-3371.92	756.52	-263.82	-709.02	2.00	212424.18	1235577.99	N 39 53 3.32	W 108 13 27.54
	4100.00	10.63	249.59	4015.42	-3273.98	776.68	-270.85	-727.92	2.00	212417.15	1235559.10	N 39 53 3.25	W 108 13 27.78
	4200.00	8.63	249.59	4114.00	-3175.40	793.41	-276.69	-743.60	2.00	212411.32	1235543.42	N 39 53 3.18	W 108 13 27.98
	4300.00	6.63	249.59	4213.11	-3076.29	806.69	-281.32	-756.05	2.00	212406.69	1235530.97	N 39 53 3.13	W 108 13 28.13
	4400.00	4.63	249.59	4312.62	-2976.78	816.51	-284.74	-765.25	2.00	212403.26	1235521.77	N 39 53 3.10	W 108 13 28.25
	4500.00	2.63	249.59	4412.42	-2876.98	822.84	-286.95	-771.19	2.00	212401.05	1235515.83	N 39 53 3.07	W 108 13 28.33
	4600.00	0.63	249.59	4512.37	-2777.03	825.69	-287.95	-773.86	2.00	212400.06	1235513.16	N 39 53 3.06	W 108 13 28.36
	4631.63	0.00	249.59	4544.00	-2745.40	825.87	-288.01	-774.02	2.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
Vertical Point	4700.00	0.00	249.59	4612.37	-2677.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	4800.00	0.00	249.59	4712.37	-2577.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	4900.00	0.00	249.59	4812.37	-2477.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5000.00	0.00	249.59	4912.37	-2377.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5100.00	0.00	249.59	5012.37	-2277.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5200.00	0.00	249.59	5112.37	-2177.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5300.00	0.00	249.59	5212.37	-2077.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5400.00	0.00	249.59	5312.37	-1977.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5500.00	0.00	249.59	5412.37	-1877.03	825.87	-288.01	-774.02	0.00	212400.00	1235513.00	N 39 53 3.06	W 108 13 28.36
	5567.63	0.00	249.59	5480.00	-1809.40	825.87	-288.01	-774.02	0.00	212400.00			

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Survey Tool Type	Borehole / Survey
0.000	27.000	1/100.000	SLB_NSG+SSHOT-Depth Only	Original Hole / PCU 297-12B10 R8	ivs 12-Sept-11
27.000	1015.413	1/100.000	SLB_NSG+SSHOT	Original Hole / PCU 297-12B10 R8	ivs 12-Sept-11
1015.413	6329.243	1/100.000	SLB_MWD-STD	Original Hole / PCU 297-12B10 R8	ivs 12-Sept-11
6329.243	13377.628	1/100.000	SLB_INC-ONLY	Original Hole / PCU 297-12B10 R8	ivs 12-Sept-11