

Table C1-1: Sediment Quality Data in Meliadin

Waterbody/Sample ID	Units	ML-W	ML-W	ML-W	ML-W	ML-W	ML-W	ML-W	ML-S	ML-S	ML-S	ML-S	ML-S	ML-S	ML-S	ML-S	ML-S	ML-S	ML-SE	ML-SE	ML-SE	ML-SE	ML-B	ML-B	ML-B	ML-B	ML-B	ML-B	ML-B	ML-B		
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm		
Replicate		3	4	5	1	2	1	2	1	2	3	4	5	1	2	1	2	1	2	1	2	1	2	3	4	5	1	2	1	2	1	2
Date Sampled		Jul-98	Jul-98	Jul-98	19-Jul-08	19-Jul-08	19-Jul-08	19-Jul-08	Jul-98	Jul-98	Jul-98	Jul-98	Jul-98	19-Jul-08	19-Jul-08	19-Jul-08	19-Jul-08	18-Jul-08	18-Jul-08	18-Jul-08	18-Jul-08	Jul-98	Jul-98	Jul-98	Jul-98	Jul-98	19-Jul-08	19-Jul-08	19-Jul-08	19-Jul-08		
GPS Coordinates (NAD83, Zone 15V)		09572, 6993461				0525608, 7000884				0525702, 7001082				0532278, 6989421				0535942, 6986209				-	0536432, 6985797									
Source ^a	RL&L 1999	RL&L 1999	RL&L 1999	Golder	Golder	Golder	Golder	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	Golder	Golder	Golder	Golder	Golder	Golder	Golder	Golder	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	Golder	Golder	Golder	Golder			
Conventional Parameters																																
Moisture	%	82	88	74	70	69	75	72	85	86	86	88	81	77	83	75	80	75	78	72	75	43.7	50.1	55.3	51	45	42	40	43	43		
Particle Size ^c																																
Sand (2.0 mm - 0.05 mm)	%	31.8	23.3	55.5	83	81	79	82	30.7	30.7	32.3	31.4	34.6	79	80	76	76	56	56	58	66	67.8	70.4	69.3	68.5	64.2	82	80	76	75		
Silt (0.05 mm - 2 µm)	%	66.1	73.7	42.7	14	15	16	14	66.1	66.2	64.5	64.9	62.9	16	14	18	17	36	39	37	31	32.2	29.6	30.7	31.5	35.8	16	17	22	21		
Clay (<2 µm)	%	1.9	2.8	1.7	2	4	5	3	3.3	3.1	3.1	3.5	2.6	5	6	6	7	9	6	5	4	0	0	0	0	0	2	3	2	4		
Texture	-	-	-	-	Loamy sand	Loamy sand	Loamy sand	Loamy sand	-	-	-	-	-	Loamy sand	Loamy sand	Loamy sand	Sandy loam	Sandy loam	Sandy loam	Sandy loam	Sandy loam	-	-	-	-	-	Loamy sand	Loamy sand	Loamy sand	Loamy sand		
Nutrients																																
Total Carbon	%	3.28	8.19	4.04	2.6	2.4	2.9	2.4	7.51	6.41	7.19	7.53	7.73	4	5	3.3	4	3.8	4.9	2.9	3.1	1.24	1.08	1.11	1.13	0.99	0.8	0.7	0.9	0.8		
Total Organic Carbon	%	3.25	8.14	4.01	2.6	2.4	2.9	2.4	7.4	6.26	7.1	7.45	7.65	4	5	3.3	4	3.8	4.9	2.9	3.1	1.17	1.03	1.04	1.06	0.94	0.8	0.7	0.9	0.8		
Total Inorganic Carbon	%	0.03	0.05	0.03	<0.1	<0.1	<0.1	<0.1	0.11	0.15	0.09	0.08	0.08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.07	0.05	0.07	0.07	0.05	<0.1	<0.1	<0.1	<0.1		
Total Nitrogen	%	0.33	0.78	0.4	-	-	-	-	0.61	0.52	0.6	0.64	0.67	-	-	-	-	-	-	-	-	0.15	0.14	0.13	0.14	0.13	-	-	-	-		
Total Nitrogen by LECO	%	-	-	-	0.23	0.2	0.24	0.22	-	-	-	-	-	0.31	-	0.29	0.29	0.39	0.51	0.29	0.3	-	-	-	-	-	0.08	0.08	0.19	0.08		
Total Phosphorus	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Cyanides																																
Cyanide, Total	mg/kg	2.7	4.5	3.1	1.9	1.8	1.6	1.7	6.2	6.1	6.8	7	2.5	2.4	2.1	2.3	1.8	1.7	2.9	1.7	2.1	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.6	0.6		
Total Metals																																
Aluminum (Al)	mg/kg	8750	9580	6840	-	-	-	-	10200	10300	10000	10500	11900	-	-	-	-	-	-	-	-	4090	3360	3300	4120	3370	-	-	-	-		
Antimony (Sb)	mg/kg	-	-	-	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2		
Arsenic (As)	mg/kg	5.3	8.4	7.5	4.5	3.6	4.3	3.2	38.5	47.1	39.4	49.7	36.4	5.8	4.9	4.8	4.9	7.5	8.2	7.6	7.6	2.1	1.7	1.8	2.5	1.6	2	1.8	2.2	2		
Barium (Ba)	mg/kg	85.3	99.2	65.5	62	57	67	53	122	125	141	138	131	59	50	52	50	45	51	50	49	81.9	25.4	24.2	29.6	24	21	19	27	26		
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
Bismuth (Bi)	mg/kg	<1	<1	<1	-	-	-	-	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	<1	<1	<1	<1	<1	-	-	-	-		
Boron (B)	mg/kg	<5	7.0	<5	-	-	-	-	<5	<5	<5	<5	11.0	-	-	-	-	-	-	-	-	<5	<5	<5	<5	<5	-	-	-	-		
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	0.6	0.5	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5		
Calcium (Ca)	mg/kg	6100	6460	4380	-	-	-	-	4390	4710	4580	4970	5320	-	-	-	-	-	-	-	-	3120	2450	2300	3220	2520	-	-	-	-		
Chromium (Cr)	mg/kg	32.1	35.3	25.6	19.9	18.9	22.2	18.3	51.2	50.9	49.8	51.1	53.1	28.6	24.4	26	25.6	26.6	29.2	28.1	29.4	17.3	15.2	15.2	17.5	14.4	14.6	13.2	16	16.3		
Cobalt (Co)	mg/kg	6.00	7.00	7	5	4	5	4	21	17	19	21	19.00	6	5	6	6	5	5	6	6	3.00	3.00	3	3	3	3	2	3	3		
Copper (Cu)	mg/kg	67	83	39	30	27	38	30	91	87	92	91	90	34	29	32	34	20	24	23	25	36	12	23	11	12	10	7	12	12		
Iron (Fe)	mg/kg	15000	17600	11300	-	-	-	-	33800	33600	33700	40800	36700	-	-	-	-	-	-	-	-	6800	5890	5860	6830	5790	-	-	-	-		
Lead (Pb)	mg/kg	7	8	6.0	<5	<5	<5	<5	11.0	11.0	12.0	13.0	12	<5	5	<5	<5	<5	5	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5		
Lithium (Li)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Magnesium (Mg)	mg/kg	4060	4510	3050	-	-	-	-	6040	6000	5940	6010	7930	-	-	-	-	-	-	-	-	2530	2300	2230	2490	2150	-	-	-	-		
Manganese (Mn)	mg/kg	214	206	162.0	-	-	-	-	560.0	615.0	583.0	615.0	571	-	-	-	-	-	-	-	-	94.5	78.9	81.5	95.4	78.7	-	-	-	-		
Mercury (Hg)	mg/kg	0.06	0.07	0.05	<0.05	<0.05	<0.05	<0.05	0.06	0.09	0.09	0.09	0.09	0.14	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	0.02	0.01	0.02	0.02	<0.05	<0.05	<0.05	<0.05		
Molybdenum (																																

Table C1-1: Sediment Quality Data in Meliadina

[illegible]

Table C1-3: Sediment Quality Data in Lakes of Peninsula Basin B, Meliadine Gold Project, 1994 to 2008

Waterbody/Sample ID	Units	B5	B5	B5	B5	B5	B5	B5	B5	B5	B6	B6	B6	B6	B7	B7	B36 ^b
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm	0-2 cm	0-10 cm	-
Replicate		1	2	3	4	5	1	2	1	2	1	2	1	2	1	1	1
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98	14-Jul-08	14-Jul-08	14-Jul-08	14-Jul-08	13-Jul-08	13-Jul-08	13-Jul-08	13-Jul-08	13-Jul-08	13-Jul-08	11-Aug-94
GPS Coordinates (NAD83, Zone 15V)								0538288, 6988122				0537775, 6989211				0537760, 6989535	-
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	Golder	Golder	Golder	Golder	Golder	Golder	Golder	Golder	Golder	Golder	Dillon 1994
Conventional Parameters																	
Moisture	%	78.9	83.9	72.7	65	70	85	83	82	78	89	94	90	90	77	79	21.2
Particle Size ^c																	
Sand (2.0 mm - 0.05 mm)	%	49.0	52.8	56.6	47.3	42.7	27	49	24	69	46	35	33	74	37	60	-
Silt (0.05 mm - 2 µm)	%	50.3	46.8	42.8	51.5	56.1	62	44	67	28	42	51	56	22	56	33	-
Clay (<2 µm)	%	0.7	0.5	0.5	1.0	1.1	11	7	8	3	12	14	11	4	7	7	-
Texture	-	-	-	-	-	-	Silt loam	Loam / Sandy loam	Silt loam	Sandy loam	Loam	Silt loam	Silt loam	Sandy loam	Silt loam	Sandy loam	-
Nutrients																	
Total Carbon	%	5.75	5.95	4.98	4.92	4.81	9	6.9	6.5	4.9	15.2	16.9	16.1	16.3	6	4.3	-
Total Organic Carbon	%	5.65	5.89	4.91	4.85	4.73	9	6.9	6.5	4.9	15.2	16.9	16.1	16.3	6	4.3	-
Total Inorganic Carbon	%	0.1	0.06	0.07	0.07	0.08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	-
Total Nitrogen	%	0.45	0.46	0.4	0.39	0.38	-	-	-	-	-	-	-	-	-	-	-
Total Nitrogen by LECO	%	-	-	-	-	-	0.9	0.65	0.58	0.43	1.31	1.44	1.37	1.37	0.58	0.4	-
Total Phosphorus	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanides																	
Cyanide, Total	mg/kg	1.4	1.3	1.3	1	1.4	3.3	2.1	2.4	2.2	4	7.7	3.6	3.7	<0.5	1.2	-
Total Metals																	
Aluminum (Al)	mg/kg	5590	5340	5140	5040	5000	-	-	-	-	-	-	-	-	-	-	6440
Antimony (Sb)	mg/kg	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	< 25
Arsenic (As)	mg/kg	54	54.8	45.7	44.9	46.1	66.5	23.8	92.2	22	51.4	76.8	50.4	111	35.6	55.4	3.58
Barium (Ba)	mg/kg	42.2	41	38.5	36.1	39.8	62	37	58	36	76	105	72	93	52	57	29.4
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	< 0.5
Bismuth (Bi)	mg/kg	<1	<1	<1	<1	<1	-	-	-	-	-	-	-	-	-	-	< 10
Boron (B)	mg/kg	<5	<5	<5	<5	5.0	-	-	-	-	-	-	-	-	-	-	-
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.5	<0.5	<0.5	<0.5	< 0.10
Calcium (Ca)	mg/kg	4130	4040	3810	3720	3940	-	-	-	-	-	-	-	-	-	-	13700
Chromium (Cr)	mg/kg	27.2	25.8	24.5	24.8	24.8	39.2	18.9	39.4	21.6	28.1	33.6	28.3	36.2	28.7	31.6	24
Cobalt (Co)	mg/kg	11.00	10.00	9.00	8.00	9.00	14.00	5.00	18.00	6.00	14.00	27.00	12.00	32.00	11.00	14.00	4.50
Copper (Cu)	mg/kg	41	41	38	34	41	56	28	58	32	103	154	104	155	43	48	15.4
Iron (Fe)	mg/kg	14500	13800	12900	12500	12600	-	-	-	-	-	-	-	-	-	-	10400
Lead (Pb)	mg/kg	6	6	6	5	6	10	6	9	5	10	14	10	14	6	7	2.1
Lithium (Li)	mg/kg	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.6
Magnesium (Mg)	mg/kg	3920	3760	3550	3360	3370	-	-	-	-	-	-	-	-	-	-	4700
Manganese (Mn)	mg/kg	126	120	117	115	122	-	-	-	-	-	-	-	-	-	-	149
Mercury (Hg)	mg/kg	0.04	0.05	0.03	0.05	0.04	<0.05	<0.05	<0.05	<0.05	0.07	0.08	0.06	0.07	<0.05	<0.05	< 0.005
Molybdenum (Mo)	mg/kg	2	2	2	2	2	4	2	5	2	4	6	5	7	5	6	< 4.0
Nickel (Ni)	mg/kg	34	34	30	27	30	44	19	48	20	53	74	50	81	37	46	14.6
Phosphorus (P)	mg/kg	549	525	499	511	540	-	-	-	-	-	-	-	-	-	-	403
Potassium (K)	mg/kg	1150	1090	1040	1040	1030	-	-	-	-	-	-	-	-	-	-	621
Selenium (Se)	mg/kg	0.6	0.5	0.4	0.4	0.5	0.9	0.4	0.9	0.5	1.3	1.8	1.4	1.9	0.8	0.9	< 0.10
Silver (Ag)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	< 2.0
Sodium (Na)	mg/kg	205	196	188	183	195	-	-	-	-	-	-	-	-	-	-	< 250
Strontium (Sr)	mg/kg	24	24	23	23	24	-	-	-	-	-	-	-	-	-	-	-
Thallium (Tl)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-
Tin (Sn)	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	< 30
Titanium (Ti)	mg/kg	709	684	657	667	676	-	-	-	-	-	-	-	-	-	-	-
Uranium (U)	mg/kg	<40	<40	<40	<40	<40	<2	<2	<2	<2	<2	3	2	3	<2	2	-
Vanadium (V)	mg/kg	25	24	23	23	23	35	18	38	21	29	34	29	37	28	31	19.2
Zinc (Zn)	mg/kg	48.9	47.2	44.6	40.9	42.1	60	30	60	30	70	100	70	100	40	50	21.6
Polycyclic Aromatic Hydrocarbons																	
Acenaphthene	mg/kg	<0.04	<0.05	<0.03	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Acenaphthylene	mg/kg	<0.04	<0.05	<0.03	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Acridine	mg/kg	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Anthracene	mg/kg	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Benz(a)anthracene	mg/kg	-	-	-	-	-	0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Benz(a)anthracene/Chrysene	mg/kg	<0.04	<0.05	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	<0.04	<0.05	<0.03	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-	<0.005	<0.005	<0.005	<0.005	-	-	-	-	<0.005	<0.005	-
Benzo(b or k)fluoranthene	mg/kg	<0.04	<0.05	<0.03	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	<0.04	<0.05	<0.03	-	-	<0.005	<0.005	<0.								

Table C1-4: Sediment Quality Data in Lakes of Peninsula Basin C, Meliadine Gold Project, 1994

Waterbody/Sample ID	Units	C5 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Conventional Parameters		
Moisture	%	18.9
Particle Size		-
Sand (2.0 mm - 0.05 mm)	%	-
Silt (0.05 mm - 2 μm)	%	-
Clay (<2 μm)	%	-
Texture	-	-
Nutrients		
Total Carbon	%	-
Total Organic Carbon	%	-
Total Inorganic Carbon	%	-
Total Nitrogen	%	-
Total Nitrogen by LECO	%	-
Total Phosphorus	mg/kg	-
Cyanides		
Cyanide, Total	mg/kg	-
Total Metals		
Aluminum (Al)	mg/kg	10200
Antimony (Sb)	mg/kg	< 25
Arsenic (As)	mg/kg	11.1
Barium (Ba)	mg/kg	34
Beryllium (Be)	mg/kg	< 0.5
Bismuth (Bi)	mg/kg	10
Boron (B)	mg/kg	-
Cadmium (Cd)	mg/kg	< 0.10
Calcium (Ca)	mg/kg	3810
Chromium (Cr)	mg/kg	42.4
Cobalt (Co)	mg/kg	7.40
Copper (Cu)	mg/kg	17.4
Iron (Fe)	mg/kg	18500
Lead (Pb)	mg/kg	2.1
Lithium (Li)	mg/kg	13.3
Magnesium (Mg)	mg/kg	7150
Manganese (Mn)	mg/kg	179
Mercury (Hg)	mg/kg	< 0.005
Molybdenum (Mo)	mg/kg	< 4.0
Nickel (Ni)	mg/kg	22.4
Phosphorus (P)	mg/kg	456
Potassium (K)	mg/kg	1430
Selenium (Se)	mg/kg	< 0.10
Silver (Ag)	mg/kg	< 2.0
Sodium (Na)	mg/kg	< 250
Strontium (Sr)	mg/kg	-

Waterbody/Sample ID	Units	C5 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Thallium (Tl)	mg/kg	-
Tin (Sn)	mg/kg	< 30
Titanium (Ti)	mg/kg	-
Uranium (U)	mg/kg	-
Vanadium (V)	mg/kg	34.4
Zinc (Zn)	mg/kg	37.8
Polycyclic Aromatic Hydrocarbons		
Acenaphthene	mg/kg	-
Acenaphthylene	mg/kg	-
Acridine	mg/kg	-
Anthracene	mg/kg	-
Benz(a)anthracene	mg/kg	-
Benz(a)anthracene/Chrysene	mg/kg	-
Benzo(a)pyrene	mg/kg	-
Benzo(b&j)fluoranthene	mg/kg	-
Benzo(b or k)fluoranthene	mg/kg	-
Benzo(ghi)perylene	mg/kg	-
Benzo(k)fluoranthene	mg/kg	-
Biphenyl	mg/kg	-
C2 sub'd B(a)A/chrysene	mg/kg	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-
C2 sub'd biphenyl	mg/kg	-
C2 sub'd dibenzothiophene	mg/kg	-
C2 sub'd fluoranthene/pyrene	mg/kg	-
C2 sub'd fluorene	mg/kg	-
C2 sub'd naphthalene	mg/kg	-
C2 sub'd phenanthrene/anth.	mg/kg	-
C3 sub'd dibenzothiophene	mg/kg	-
C3 sub'd fluoranthene/pyrene	mg/kg	-
C3 sub'd fluorene	mg/kg	-
C3 sub'd naphthalene	mg/kg	-
C3 sub'd phenanthrene/anth.	mg/kg	-
C4 sub'd dibenzothiophene	mg/kg	-
C4 sub'd naphthalene	mg/kg	-
C4 sub'd phenanthrene/anth.	mg/kg	-
Chrysene	mg/kg	-
Dibenzo(a,h)anthracene	mg/kg	-
Dibenzothiophene	mg/kg	-
Fluoranthene	mg/kg	-
Fluorene	mg/kg	-
Indeno(1,2,3-cd)pyrene	mg/kg	-
Methyl acenaphthene	mg/kg	-
Methyl B(a)A/chrysene	mg/kg	-
Methyl B(b&k)F/B(a)P	mg/kg	-
Methyl biphenyl	mg/kg	-

Waterbody/Sample ID	Units	C5 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Methyl dibenzothiophene	mg/kg	-
Methyl fluoranthene/pyrene	mg/kg	-
Methyl fluorene	mg/kg	-
Methyl phenanthrene/anthracene	mg/kg	-
Methyl naphthalenes	mg/kg	-
1-Methylnaphthalene	mg/kg	-
Naphthalene	mg/kg	-
Phenanthrene	mg/kg	-
Phenanthrene/Anthracene	mg/kg	-
Pyrene	mg/kg	-
Quinoline	mg/kg	-
Retene	mg/kg	-
Other Organic Compounds		
Benzene	mg/kg	-
Ethylbenzene	mg/kg	-
Xylenes	mg/kg	-
Toluene	mg/kg	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-
Total Extractables	mg/kg	-
Total Volatiles	mg/kg	-
Organochlorines		
Aldrin	mg/kg	-
Alpha-BHC	mg/kg	-
Beta-BHC	mg/kg	-
Gamma-BHC	mg/kg	-
Chlordane (alpha)	mg/kg	-
Chlordane (gamma)	mg/kg	-
Dieldrin	mg/kg	-
Endosulfan I	mg/kg	-
Endosulfan II	mg/kg	-
Endrin	mg/kg	-
Heptachlor	mg/kg	-
Methoxychlor	mg/kg	-
Mirex	mg/kg	-
Nonachlor	mg/kg	-
Oxychlordane	mg/kg	-
pp-DDD	mg/kg	-
pp-DDE	mg/kg	-
pp-DDT	mg/kg	-
Quintozine	mg/kg	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.

a = Data were obtained from Dillon (1994)

b = Station named PL-04 in Dillon 1994

Table C1-5: Sediment Quality Data in Lakes of Peninsula Basin D, Meliadine Gold Project, 1994

Waterbody/Sample ID	Units	D7 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Conventional Parameters		
Moisture	%	20.0
Particle Size		
Sand (2.0 mm - 0.05 mm)	%	-
Silt (0.05 mm - 2 μm)	%	-
Clay (<2 μm)	%	-
Texture	-	-
Nutrients		
Total Carbon	%	-
Total Organic Carbon	%	-
Total Inorganic Carbon	%	-
Total Nitrogen	%	-
Total Nitrogen by LECO	%	-
Total Phosphorus	mg/kg	-
Cyanides		
Cyanide, Total	mg/kg	-
Total Metals		
Aluminum (Al)	mg/kg	8800
Antimony (Sb)	mg/kg	< 25
Arsenic (As)	mg/kg	4.02
Barium (Ba)	mg/kg	25.4
Beryllium (Be)	mg/kg	< 0.5
Bismuth (Bi)	mg/kg	11
Boron (B)	mg/kg	-
Cadmium (Cd)	mg/kg	< 0.10
Calcium (Ca)	mg/kg	4190
Chromium (Cr)	mg/kg	26.7
Cobalt (Co)	mg/kg	5.70
Copper (Cu)	mg/kg	13.3
Iron (Fe)	mg/kg	14800
Lead (Pb)	mg/kg	3.2
Lithium (Li)	mg/kg	9.9
Magnesium (Mg)	mg/kg	6780
Manganese (Mn)	mg/kg	167
Mercury (Hg)	mg/kg	< 0.005
Molybdenum (Mo)	mg/kg	< 4.0
Nickel (Ni)	mg/kg	22.6
Phosphorus (P)	mg/kg	552
Potassium (K)	mg/kg	752
Selenium (Se)	mg/kg	< 0.10
Silver (Ag)	mg/kg	< 2.0
Sodium (Na)	mg/kg	< 250
Strontium (Sr)	mg/kg	-

Waterbody/Sample ID	Units	D7 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Thallium (Tl)	mg/kg	-
Tin (Sn)	mg/kg	< 30
Titanium (Ti)	mg/kg	-
Uranium (U)	mg/kg	-
Vanadium (V)	mg/kg	25
Zinc (Zn)	mg/kg	29.5
Polycyclic Aromatic Hydrocarbons		
Acenaphthene	mg/kg	-
Acenaphthylene	mg/kg	-
Acridine	mg/kg	-
Anthracene	mg/kg	-
Benz(a)anthracene	mg/kg	-
Benz(a)anthracene/Chrysene	mg/kg	-
Benzo(a)pyrene	mg/kg	-
Benzo(b&j)fluoranthene	mg/kg	-
Benzo(b or k)fluoranthene	mg/kg	-
Benzo(ghi)perylene	mg/kg	-
Benzo(k)fluoranthene	mg/kg	-
Biphenyl	mg/kg	-
C2 sub'd B(a)A/chrysene	mg/kg	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-
C2 sub'd biphenyl	mg/kg	-
C2 sub'd dibenzothiophene	mg/kg	-
C2 sub'd fluoranthene/pyrene	mg/kg	-
C2 sub'd fluorene	mg/kg	-
C2 sub'd naphthalene	mg/kg	-
C2 sub'd phenanthrene/anth.	mg/kg	-
C3 sub'd dibenzothiophene	mg/kg	-
C3 sub'd fluoranthene/pyrene	mg/kg	-
C3 sub'd fluorene	mg/kg	-
C3 sub'd naphthalene	mg/kg	-
C3 sub'd phenanthrene/anth.	mg/kg	-
C4 sub'd dibenzothiophene	mg/kg	-
C4 sub'd naphthalene	mg/kg	-
C4 sub'd phenanthrene/anth.	mg/kg	-
Chrysene	mg/kg	-
Dibenzo(a,h)anthracene	mg/kg	-
Dibenzothiophene	mg/kg	-
Fluoranthene	mg/kg	-
Fluorene	mg/kg	-
Indeno(c,d-123)pyrene	mg/kg	-
Methyl acenaphthene	mg/kg	-
Methyl B(a)A/chrysene	mg/kg	-
Methyl B(b&k)F/B(a)P	mg/kg	-
Methyl biphenyl	mg/kg	-

Waterbody/Sample ID	Units	D7 ^b
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Methyl dibenzothiophene	mg/kg	-
Methyl fluoranthene/pyrene	mg/kg	-
Methyl fluorene	mg/kg	-
Methyl	mg/kg	-
Methyl naphthalenes	mg/kg	-
1-Methylnaphthalene	mg/kg	-
Naphthalene	mg/kg	-
Phenanthrene	mg/kg	-
Phenanthrene/Anthracene	mg/kg	-
Pyrene	mg/kg	-
Quinoline	mg/kg	-
Retene	mg/kg	-
Other Organic Compounds		
Benzene	mg/kg	-
Ethylbenzene	mg/kg	-
Xylenes	mg/kg	-
Toluene	mg/kg	-
Total Extr. Hydrocarbons (C9-	mg/kg	-
Total Extr. Hydrocarbons (C10-	mg/kg	-
Total Extractables	mg/kg	-
Total Volatiles	mg/kg	-
Organochlorines		
Aldrin	mg/kg	-
Alpha-BHC	mg/kg	-
Beta-BHC	mg/kg	-
Gamma-BHC	mg/kg	-
Chlordane (alpha)	mg/kg	-
Chlordane (gamma)	mg/kg	-
Dieldrin	mg/kg	-
Endosulfan I	mg/kg	-
Endosulfan II	mg/kg	-
Endrin	mg/kg	-
Heptachlor	mg/kg	-
Methoxychlor	mg/kg	-
Mirex	mg/kg	-
Nonachlor	mg/kg	-
Oxychlordane	mg/kg	-
pp-DDD	mg/kg	-
pp-DDE	mg/kg	-
pp-DDT	mg/kg	-
Quintozine	mg/kg	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.

a = Data were obtained from Dillon (1994)

b = Station named MB-01 in Dillon 1994

Table C1-6: Sediment Quality Data in Little Meliadine Lake, Meliadine Gold Project, 1998

Waterbody/Sample ID	Units	LML	LML	LML	LML	LML
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm
Replicate		1	2	3	4	5
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98
GPS Coordinates						
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999
Conventional Parameters						
Moisture	%	78	73	78	72	76
Particle Size ^b						
Sand (2.0 mm - 0.05 mm)	%	12.5	14.2	15.5	13.1	11.5
Silt (0.05 mm - 2 µm)	%	83.7	81.9	81.2	83.2	84.5
Clay (<2 µm)	%	3.6	4.0	3.4	3.5	3.9
Texture	-	-	-	-	-	-
Nutrients						
Total Carbon	%	3.47	6.02	3.58	3.61	3.69
Total Organic Carbon	%	3.43	5.99	3.53	3.57	3.62
Total Inorganic Carbon	%	0.04	0.03	0.05	0.04	0.07
Total Nitrogen	%	0.37	0.55	0.39	0.39	0.41
Total Nitrogen by LECO	%	-	-	-	-	-
Total Phosphorus	mg/kg	-	-	-	-	-
Cyanides						
Cyanide, Total	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Total Metals						
Aluminum (Al)	mg/kg	12400	11000	11000	12600	12100
Antimony (Sb)	mg/kg	-	-	-	-	-
Arsenic (As)	mg/kg	5.3	<u>21.6</u>	4.7	5.6	5.5
Barium (Ba)	mg/kg	106	122	102	110	109
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1
Bismuth (Bi)	mg/kg	<1	<1	<1	<1	<1
Boron (B)	mg/kg	9.0	11.0	<5	6.0	7.0
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium (Ca)	mg/kg	5600	3910	4110	4690	4690
Chromium (Cr)	mg/kg	<u>51.7</u>	<u>42.4</u>	<u>41.5</u>	<u>47.2</u>	<u>46.1</u>
Cobalt (Co)	mg/kg	9.00	10.00	8.00	9.00	9.00
Copper (Cu)	mg/kg	<u>46</u>	<u>58</u>	<u>44</u>	<u>48</u>	<u>48</u>
Iron (Fe)	mg/kg	18000	29600	17000	18700	18600
Lead (Pb)	mg/kg	10	10	9	9	10
Lithium (Li)	mg/kg	-	-	-	-	-
Magnesium (Mg)	mg/kg	9240	6050	6300	7120	7050
Manganese (Mn)	mg/kg	262	468	211	226	224
Mercury (Hg)	mg/kg	0.01	0.06	0.05	0.06	0.06
Molybdenum (Mo)	mg/kg	2	4	2	2	2
Nickel (Ni)	mg/kg	27	34	26	28	28
Phosphorus (P)	mg/kg	1300	1360	656	708	708
Potassium (K)	mg/kg	4000	2820	2950	3350	3240
Selenium (Se)	mg/kg	0.8	1.2	0.6	0.9	0.9
Silver (Ag)	mg/kg	<1	<1	<1	<1	<1
Sodium (Na)	mg/kg	932	419	536	654	673
Strontium (Sr)	mg/kg	36	31	29	37	34
Thallium (Tl)	mg/kg	<1	<1	<1	<1	<1
Tin (Sn)	mg/kg	<5	<5	<5	<5	<5
Titanium (Ti)	mg/kg	1290	934	962	1100	1080
Uranium (U)	mg/kg	<40	<40	<40	<40	<40
Vanadium (V)	mg/kg	52	46	41	47	46
Zinc (Zn)	mg/kg	71	63.8	61.2	64	66.4
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-
Acridine	mg/kg	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene/Chrysene	mg/kg	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-
Benzo(b or k)fluoranthene	mg/kg	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-
Biphenyl	mg/kg	-	-	-	-	-
C2 sub'd B(a)A/chrysene	mg/kg	-	-	-	-	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
C2 sub'd biphenyl	mg/kg	-	-	-	-	-
C2 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C2 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C2 sub'd fluorene	mg/kg	-	-	-	-	-
C2 sub'd naphthalene	mg/kg	-	-	-	-	-
C2 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C3 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C3 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C3 sub'd fluorene	mg/kg	-	-	-	-	-
C3 sub'd naphthalene	mg/kg	-	-	-	-	-
C3 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C4 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C4 sub'd naphthalene	mg/kg	-	-	-	-	-
C4 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	-	-	-	-	-
Dibenzothiophene	mg/kg	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-
Indeno(c,d-123)pyrene	mg/kg	-	-	-	-	-
Methyl acenaphthene	mg/kg	-	-	-	-	-
Methyl B(a)A/chrysene	mg/kg	-	-	-	-	-
Methyl B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
Methyl biphenyl	mg/kg	-	-	-	-	-
Methyl dibenzothiophene	mg/kg	-	-	-	-	-
Methyl fluoranthene/pyrene	mg/kg	-	-	-	-	-
Methyl fluorene	mg/kg	-	-	-	-	-
Methyl phenanthrene/anthracene	mg/kg	-	-	-	-	-
Methyl naphthalenes	mg/kg	-	-	-	-	-
1-Methylnaphthalene	mg/kg	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-
Phenanthrene/Anthracene	mg/kg	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-
Quinoline	mg/kg	-	-	-	-	-
Retene	mg/kg	-	-	-	-	-
Other Organic Compounds						
Benzene	mg/kg	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-
Xylenes	mg/kg	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-	-	-	-	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-	-	-	-	-
Total Extractables	mg/kg	-	-	-	-	-
Total Volatiles	mg/kg	-	-	-	-	-
Organochlorines						
Aldrin	mg/kg	-	-	-	-	-
Alpha-BHC	mg/kg	-	-	-	-	-
Beta-BHC	mg/kg	-	-	-	-	-
Gamma-BHC	mg/kg	-	-	-	-	-
Chlordane (alpha)	mg/kg	-	-	-	-	-
Chlordane (gamma)	mg/kg	-	-	-	-	-
Dieldrin	mg/kg	-	-	-	-	-
Endosulfan I	mg/kg	-	-	-	-	-
Endosulfan II	mg/kg	-	-	-	-	-
Endrin	mg/kg	-	-	-	-	-
Heptachlor	mg/kg	-	-	-	-	-
Methoxychlor	mg/kg	-	-	-	-	-
Mirex	mg/kg	-	-	-	-	-
Nonachlor	mg/kg	-	-	-	-	-
Oxychlordane	mg/kg	-	-	-	-	-
pp-DDD	mg/kg	-	-	-	-	-
pp-DDE	mg/kg	-	-	-	-	-
pp-DDT	mg/kg	-	-	-	-	-
Quintozine	mg/kg	-	-	-	-	-

Notes:
Results are reported on a dry weight basis except if otherwise specified.
Values greater than or equal to ISQGs are bolded.
Values greater than or equal to PELs are bolded and underlined.
% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.
a = Data were obtained from RL&L (1999)
b = Particle sizes were estimated from the following weight fractions: sand = 62.5 to 500 µm; silt = 2.762 to 62.5 µm; clay = 0.691 to 2.762 µm.



Table C1-7: Sediment Quality Data in DI2 Lake, Meliadine Gold Project, 1994

Waterbody/Sample ID	Units	DI2
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Conventional Parameters		
Moisture	%	27.9
Particle Size		
Sand (2.0 mm - 0.05 mm)	%	-
Silt (0.05 mm - 2 μm)	%	-
Clay (<2 μm)	%	-
Texture	-	-
Nutrients		
Total Carbon	%	-
Total Organic Carbon	%	-
Total Inorganic Carbon	%	-
Total Nitrogen	%	-
Total Nitrogen by LECO	%	-
Total Phosphorus	mg/kg	-
Cyanides		
Cyanide, Total	mg/kg	-
Total Metals		
Aluminum (Al)	mg/kg	3390
Antimony (Sb)	mg/kg	< 25
Arsenic (As)	mg/kg	4.03
Barium (Ba)	mg/kg	13.3
Beryllium (Be)	mg/kg	< 0.5
Bismuth (Bi)	mg/kg	< 10
Boron (B)	mg/kg	-
Cadmium (Cd)	mg/kg	< 0.10
Calcium (Ca)	mg/kg	1320
Chromium (Cr)	mg/kg	9.5
Cobalt (Co)	mg/kg	2.20
Copper (Cu)	mg/kg	2.5
Iron (Fe)	mg/kg	5770
Lead (Pb)	mg/kg	< 2.0
Lithium (Li)	mg/kg	4.7
Magnesium (Mg)	mg/kg	1940
Manganese (Mn)	mg/kg	68.9
Mercury (Hg)	mg/kg	< 0.005
Molybdenum (Mo)	mg/kg	< 4.0
Nickel (Ni)	mg/kg	6.5
Phosphorus (P)	mg/kg	170
Potassium (K)	mg/kg	332
Selenium (Se)	mg/kg	< 0.10
Silver (Ag)	mg/kg	< 2.0
Sodium (Na)	mg/kg	< 250
Strontium (Sr)	mg/kg	-

Waterbody/Sample ID	Units	DI2
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Thallium (Tl)	mg/kg	-
Tin (Sn)	mg/kg	< 30
Titanium (Ti)	mg/kg	-
Uranium (U)	mg/kg	-
Vanadium (V)	mg/kg	6.5
Zinc (Zn)	mg/kg	14.3
Polycyclic Aromatic Hydrocarbons		
Acenaphthene	mg/kg	-
Acenaphthylene	mg/kg	-
Acridine	mg/kg	-
Anthracene	mg/kg	-
Benz(a)anthracene	mg/kg	-
Benz(a)anthracene/Chrysene	mg/kg	-
Benzo(a)pyrene	mg/kg	-
Benzo(b&j)fluoranthene	mg/kg	-
Benzo(b or k)fluoranthene	mg/kg	-
Benzo(ghi)perylene	mg/kg	-
Benzo(k)fluoranthene	mg/kg	-
Biphenyl	mg/kg	-
C2 sub'd B(a)A/chrysene	mg/kg	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-
C2 sub'd biphenyl	mg/kg	-
C2 sub'd dibenzothiophene	mg/kg	-
C2 sub'd fluoranthene/pyrene	mg/kg	-
C2 sub'd fluorene	mg/kg	-
C2 sub'd naphthalene	mg/kg	-
C2 sub'd phenanthrene/anth.	mg/kg	-
C3 sub'd dibenzothiophene	mg/kg	-
C3 sub'd fluoranthene/pyrene	mg/kg	-
C3 sub'd fluorene	mg/kg	-
C3 sub'd naphthalene	mg/kg	-
C3 sub'd phenanthrene/anth.	mg/kg	-
C4 sub'd dibenzothiophene	mg/kg	-
C4 sub'd naphthalene	mg/kg	-
C4 sub'd phenanthrene/anth.	mg/kg	-
Chrysene	mg/kg	-
Dibenzo(a,h)anthracene	mg/kg	-
Dibenzothiophene	mg/kg	-
Fluoranthene	mg/kg	-
Fluorene	mg/kg	-
Indeno(c,d-123)pyrene	mg/kg	-
Methyl acenaphthene	mg/kg	-
Methyl B(a)A/chrysene	mg/kg	-
Methyl B(b&k)F/B(a)P	mg/kg	-
Methyl biphenyl	mg/kg	-

Waterbody/Sample ID	Units	DI2
Profile Depth		-
Replicate		1
Date Sampled		11-Aug-94
GPS Coordinates		-
Source ^a		Dillon 1994
Methyl dibenzothiophene	mg/kg	-
Methyl fluoranthene/pyrene	mg/kg	-
Methyl fluorene	mg/kg	-
Methyl phenanthrene/anthracene	mg/kg	-
Methyl naphthalenes	mg/kg	-
1-Methylnaphthalene	mg/kg	-
Naphthalene	mg/kg	-
Phenanthrene	mg/kg	-
Phenanthrene/Anthracene	mg/kg	-
Pyrene	mg/kg	-
Quinoline	mg/kg	-
Retene	mg/kg	-
Other Organic Compounds		
Benzene	mg/kg	-
Ethylbenzene	mg/kg	-
Xylenes	mg/kg	-
Toluene	mg/kg	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-
Total Extractables	mg/kg	-
Total Volatiles	mg/kg	-
Organochlorines		
Aldrin	mg/kg	-
Alpha-BHC	mg/kg	-
Beta-BHC	mg/kg	-
Gamma-BHC	mg/kg	-
Chlordane (alpha)	mg/kg	-
Chlordane (gamma)	mg/kg	-
Dieldrin	mg/kg	-
Endosulfan I	mg/kg	-
Endosulfan II	mg/kg	-
Endrin	mg/kg	-
Heptachlor	mg/kg	-
Methoxychlor	mg/kg	-
Mirex	mg/kg	-
Nonachlor	mg/kg	-
Oxychlordane	mg/kg	-
pp-DDD	mg/kg	-
pp-DDE	mg/kg	-
pp-DDT	mg/kg	-
Quintozine	mg/kg	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.
a = Data were obtained from Dillon (1994)

Table C1-8: Sediment Quality Data in Control Lake, Meliadine Gold Project, 1998 to 2008

Waterbody/Sample ID	Units	Control	Control	Control	Control	Control	Control	Control	Control	Control
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	0-2 cm	0-2 cm	0-10 cm	0-10 cm
Replicate		1	2	3	4	5	1	2	1	2
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98	18-Jul-08	18-Jul-08	18-Jul-08	18-Jul-08
GPS Coordinates (NAD83, Zone 15V)		0534701, 6986534								
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	Golder	Golder	Golder	Golder
Conventional Parameters										
Moisture	%	88	89.6	86.4	88	85	80	82	76	77
Particle Size ^b										
Sand (2.0 mm - 0.05 mm)	%	45.4	43.4	46.1	43.3	48.9	79	74	76	70
Silt (0.05 mm - 2 µm)	%	53.9	55.8	53.1	56.0	50.1	17	19	19	24
Clay (<2 µm)	%	0.8	0.8	0.7	0.7	0.7	4	7	5	6
Texture	-	-	-	-	-	-	Loamy sand	Sandy loam	Sandy loam /	Sandy loam
Nutrients										
Total Carbon	%	8.24	8.48	8.16	7.79	7.33	4.5	5.4	3.6	3.8
Total Organic Carbon	%	8.11	8.39	8.06	7.68	7.26	4.5	5.4	3.6	3.8
Total Inorganic Carbon	%	0.13	0.09	0.1	0.11	0.07	<0.1	<0.1	<0.1	<0.1
Total Nitrogen	%	0.61	0.64	0.62	0.61	0.56	-	-	-	-
Total Nitrogen by LECO	%	-	-	-	-	-	0.34	0.39	0.29	0.3
Total Phosphorus	mg/kg	-	-	-	-	-	-	-	-	-
Cyanides										
Cyanide, Total	mg/kg	1.2	1.3	1.2	1.2	1.1	1.6	3.6	2.2	2.6
Total Metals										
Aluminum (Al)	mg/kg	8060	8730	7810	7850	8360	-	-	-	-
Antimony (Sb)	mg/kg	-	-	-	-	-	<0.2	<0.2	<0.2	<0.2
Arsenic (As)	mg/kg	12.1	15.5	16.0	15.7	12.0	6.3	7.2	7.3	6.8
Barium (Ba)	mg/kg	51.2	96.2	54.9	50.1	51.8	37	41	39	38
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1
Bismuth (Bi)	mg/kg	<1	<1	<1	<1	<1	-	-	-	-
Boron (B)	mg/kg	8.0	7.0	7.0	6.0	6.0	-	-	-	-
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium (Ca)	mg/kg	4550	4890	4480	4400	4570	-	-	-	-
Chromium (Cr)	mg/kg	34.6	36.8	32.8	33.6	34.5	23.6	25.4	26.6	25.6
Cobalt (Co)	mg/kg	9.00	10.00	10.00	10.00	9.00	6.00	6.00	7.00	6.00
Copper (Cu)	mg/kg	60	61	60	65	58	26	30	35	35
Iron (Fe)	mg/kg	12700	13900	12500	13000	12600	-	-	-	-
Lead (Pb)	mg/kg	7	7	7	6	6	<5	<5	<5	<5
Lithium (Li)	mg/kg	-	-	-	-	-	-	-	-	-
Magnesium (Mg)	mg/kg	5450	5710	5220	5410	5410	-	-	-	-
Manganese (Mn)	mg/kg	163	175	156	159	161	-	-	-	-
Mercury (Hg)	mg/kg	0.12	0.12	0.11	0.11	0.09	<0.05	<0.05	0.06	<0.05
Molybdenum (Mo)	mg/kg	<1	3	3	3	3	1	1	1	2
Nickel (Ni)	mg/kg	29	31	30	30	28	18	21	21	20
Phosphorus (P)	mg/kg	524	545	526	520	497	-	-	-	-
Potassium (K)	mg/kg	1560	1730	1560	1530	1620	-	-	-	-
Selenium (Se)	mg/kg	0.5	0.6	0.5	0.6	0.5	0.3	0.3	0.4	0.3
Silver (Ag)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1
Sodium (Na)	mg/kg	205	228	290	211	225	-	-	-	-
Strontium (Sr)	mg/kg	20	23	20	19	22	-	-	-	-
Thallium (Tl)	mg/kg	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tin (Sn)	mg/kg	<5	<5	<5	<5	<5	<5	<5	<5	<5
Titanium (Ti)	mg/kg	818	893	764	768	851	-	-	-	-
Uranium (U)	mg/kg	<40	<40	<40	<40	<40	<2	<2	<2	<2
Vanadium (V)	mg/kg	32	35	31	31	33	21	24	26	24
Zinc (Zn)	mg/kg	51.3	57.9	65	53.4	54.3	30	30	30	30
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Acridine	mg/kg	-	-	-	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-	-	-	-
Benz(a)anthracene	mg/kg	-	-	-	-	-	-	-	-	-
Benz(a)anthracene/Chrysene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-
Benzo(b or k)fluoranthene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-	-	-	-
Biphenyl	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd B(a)A/chrysene	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd biphenyl	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd fluorene	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd naphthalene	mg/kg	-	-	-	-	-	-	-	-	-
C2 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-	-	-	-
C3 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-	-	-	-
C3 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-	-	-	-	-
C3 sub'd fluorene	mg/kg	-	-	-	-	-	-	-	-	-
C3 sub'd naphthalene	mg/kg	-	-	-	-	-	-	-	-	-
C3 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-	-	-	-
C4 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-	-	-	-
C4 sub'd naphthalene	mg/kg	-	-	-	-	-	-	-	-	-
C4 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Dibenzothiophene	mg/kg	-	-	-	-	-	-	-	-	-
Fluoranthene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Fluorene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Indeno(1,2,3-c,d)pyrene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Methyl acenaphthene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl B(a)A/chrysene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl B(b&k)F/B(a)P	mg/kg	-	-	-	-	-	-	-	-	-
Methyl biphenyl	mg/kg	-	-	-	-	-	-	-	-	-
Methyl dibenzothiophene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl fluoranthene/pyrene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl fluorene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl phenanthrene/anthracene	mg/kg	-	-	-	-	-	-	-	-	-
Methyl naphthalenes	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-	-	-	-
Naphthalene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-	-	-	-
Phenanthrene/Anthracene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Pyrene	mg/kg	<0.1	<0.1	<0.1	-	-	-	-	-	-
Quinoline	mg/kg	-	-	-	-	-	-	-	-	-
Retene	mg/kg	-	-	-	-	-	-	-	-	-
Other Organic Compounds										
Benzene	mg/kg	<0.01	<0.01	<0.01	-	-	-	-	-	-
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	-	-	-	-	-	-
Xylenes	mg/kg	<0.01	<0.01	<0.01	-	-	-	-	-	-
Toluene	mg/kg	<0.01	<0.01	<0.01	-	-	-	-	-	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-	-	-	-	-	-	-	-	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-	-	-	-	-	-	-	-	-
Total Extractables	mg/kg	7	9	15	-	-	-	-	-	-
Total Volatiles	mg/kg	<0.5	<0.5	1.4	-	-	-	-	-	-
Organochlorines										
Aldrin	mg/kg	-	-	-	-	-	-	-	-	-
Alpha-BHC	mg/kg	-	-	-	-	-	-	-	-	-
Beta-BHC	mg/kg	-	-	-	-	-	-	-	-	-
Gamma-BHC	mg/kg	-	-	-	-	-	-	-	-	-
Chlordane (alpha)	mg/kg	-	-	-	-	-	-	-	-	-
Chlordane (gamma)	mg/kg	-	-	-	-	-	-	-	-	-
Dieldrin	mg/kg	-	-	-	-	-	-	-	-	-
Endosulfan I	mg/kg	-	-	-	-	-	-	-	-	-
Endosulfan II	mg/kg	-	-	-	-	-	-	-	-	-
Endrin	mg/kg	-	-	-	-	-	-	-	-	-
Heptachlor	mg/kg	-	-	-	-	-	-	-	-	-
Methoxychlor	mg/kg	-	-	-	-	-	-	-	-	-
Mirex	mg/kg	-	-	-	-	-	-	-	-	-
Nonachlor	mg/kg	-	-	-	-	-	-	-	-	-
Oxychlordane	mg/kg	-	-	-	-	-	-	-	-	-
pp-DDD	mg/kg	-	-	-	-	-	-	-	-	-
pp-DDE	mg/kg	-	-	-	-	-	-	-	-	-
pp-DDT	mg/kg	-	-	-	-	-	-	-	-	-
Quintozine	mg/kg	-	-	-	-	-	-	-	-	-

Notes:
Results are reported on a dry weight basis except if otherwise specified.
Values greater than or equal to ISQs are bolded.
Values greater than or equal to PELs are bolded and underlined.
Non-detect values that have detection limits that are greater than or equal to guidelines are bolded and italicized and shaded.
% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.
a = Data were obtained from the following sources: Dillon (1994); 2008 and 2009 = Golder Associates Ltd.
b = Particle sizes were estimated from the following weight fractions: sand = 62.5 to 500 µm; silt = 2.762 to 62.5 µm; clay = 0.691 to 2.762 µm.



Table C1-9: Sediment Quality Data in Peter Lake, Meliadine Gold Project, 1998

Waterbody/Sample ID	Units	PL	PL	PL	PL	PL
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm
Replicate		1	2	3	4	5
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98
GPS Coordinates						
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999
Conventional Parameters						
Moisture	%	31	41	32	37	38
Particle Size ^b						
Sand (2.0 mm - 0.05 mm)	%	45.4	35.2	38.3	44.8	46.3
Silt (0.05 mm - 2 μm)	%	45.9	54.6	52.8	46.6	46.1
Clay (<2 μm)	%	8.6	10.3	8.7	8.8	7.5
Texture	-	-	-	-	-	-
Nutrients						
Total Carbon	%	0.52	0.54	0.54	0.42	0.42
Total Organic Carbon	%	0.49	0.51	0.51	0.36	0.38
Total Inorganic Carbon	%	0.03	0.03	0.03	0.06	0.04
Total Nitrogen	%	0.04	0.05	0.03	0.03	0.03
Total Nitrogen by LECO	%	-	-	-	-	-
Total Phosphorus	mg/kg	-	-	-	-	-
Cyanides						
Cyanide, Total	mg/kg	2.1	2.7	2.5	2.9	<0.5
Total Metals						
Aluminum (Al)	mg/kg	6050	7790	7200	5990	7150
Antimony (Sb)	mg/kg	-	-	-	-	-
Arsenic (As)	mg/kg	6.2	8.0	6.8	6.3	7.4
Barium (Ba)	mg/kg	48.5	62.2	54.9	45.9	51.4
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1
Bismuth (Bi)	mg/kg	<1	<1	<1	<1	<1
Boron (B)	mg/kg	<5	<5	<5	<5	<5
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium (Ca)	mg/kg	2530	3040	3170	2670	3640
Chromium (Cr)	mg/kg	18.3	23.1	20.4	17.7	23.8
Cobalt (Co)	mg/kg	4.00	5.00	4.00	4.00	5.00
Copper (Cu)	mg/kg	15	18	15	14	16
Iron (Fe)	mg/kg	12300	16100	13700	12400	15000
Lead (Pb)	mg/kg	7	8	7	7	8
Lithium (Li)	mg/kg	-	-	-	-	-
Magnesium (Mg)	mg/kg	2390	2890	2640	2350	4140
Manganese (Mn)	mg/kg	355	735	336	267	418
Mercury (Hg)	mg/kg	0.03	0.04	0.03	0.03	<0.01
Molybdenum (Mo)	mg/kg	2	3	2	2	4
Nickel (Ni)	mg/kg	12	14	13	12	13
Phosphorus (P)	mg/kg	546	589	560	528	610
Potassium (K)	mg/kg	1640	2090	1970	1570	2580
Selenium (Se)	mg/kg	0.4	0.5	0.3	0.4	0.4
Silver (Ag)	mg/kg	<1	<1	<1	<1	<1
Sodium (Na)	mg/kg	159	210	203	160	336
Strontium (Sr)	mg/kg	27	34	35	28	30

Waterbody/Sample ID	Units	PL	PL	PL	PL	PL
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm
Replicate		1	2	3	4	5
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98
GPS Coordinates						
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999
Thallium (Tl)	mg/kg	<1	<1	<1	<1	<1
Tin (Sn)	mg/kg	<5	<5	<5	<5	<5
Titanium (Ti)	mg/kg	619	690	571	596	808
Uranium (U)	mg/kg	<40	<40	<40	<40	<40
Vanadium (V)	mg/kg	35	45	39	34	52
Zinc (Zn)	mg/kg	30.3	41	31.7	30	37
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-
Acridine	mg/kg	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene/Chrysene	mg/kg	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-
Benzo(b or k)fluoranthene	mg/kg	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-
Biphenyl	mg/kg	-	-	-	-	-
C2 sub'd B(a)A/chrysene	mg/kg	-	-	-	-	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
C2 sub'd biphenyl	mg/kg	-	-	-	-	-
C2 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C2 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C2 sub'd fluorene	mg/kg	-	-	-	-	-
C2 sub'd naphthalene	mg/kg	-	-	-	-	-
C2 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C3 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C3 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C3 sub'd fluorene	mg/kg	-	-	-	-	-
C3 sub'd naphthalene	mg/kg	-	-	-	-	-
C3 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C4 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C4 sub'd naphthalene	mg/kg	-	-	-	-	-
C4 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	-	-	-	-	-
Dibenzothiophene	mg/kg	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-
Indeno(c,d-123)pyrene	mg/kg	-	-	-	-	-
Methyl acenaphthene	mg/kg	-	-	-	-	-
Methyl B(a)A/chrysene	mg/kg	-	-	-	-	-
Methyl B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
Methyl biphenyl	mg/kg	-	-	-	-	-

Waterbody/Sample ID	Units	PL	PL	PL	PL	PL
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm
Replicate		1	2	3	4	5
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98
GPS Coordinates						
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999
Methyl dibenzothiophene	mg/kg	-	-	-	-	-
Methyl fluoranthene/pyrene	mg/kg	-	-	-	-	-
Methyl fluorene	mg/kg	-	-	-	-	-
Methyl phenanthrene/anthracene	mg/kg	-	-	-	-	-
Methyl naphthalenes	mg/kg	-	-	-	-	-
1-Methylnaphthalene	mg/kg	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-
Phenanthrene/Anthracene	mg/kg	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-
Quinoline	mg/kg	-	-	-	-	-
Retene	mg/kg	-	-	-	-	-
Other Organic Compounds						
Benzene	mg/kg	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-
Xylenes	mg/kg	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-	-	-	-	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-	-	-	-	-
Total Extractables	mg/kg	-	-	-	-	-
Total Volatiles	mg/kg	-	-	-	-	-
Organochlorines						
Aldrin	mg/kg	-	-	-	-	-
Alpha-BHC	mg/kg	-	-	-	-	-
Beta-BHC	mg/kg	-	-	-	-	-
Gamma-BHC	mg/kg	-	-	-	-	-
Chlordane (alpha)	mg/kg	-	-	-	-	-
Chlordane (gamma)	mg/kg	-	-	-	-	-
Dieldrin	mg/kg	-	-	-	-	-
Endosulfan I	mg/kg	-	-	-	-	-
Endosulfan II	mg/kg	-	-	-	-	-
Endrin	mg/kg	-	-	-	-	-
Heptachlor	mg/kg	-	-	-	-	-
Methoxychlor	mg/kg	-	-	-	-	-
Mirex	mg/kg	-	-	-	-	-
Nonachlor	mg/kg	-	-	-	-	-
Oxychlordane	mg/kg	-	-	-	-	-
pp-DDD	mg/kg	-	-	-	-	-
pp-DDE	mg/kg	-	-	-	-	-
pp-DDT	mg/kg	-	-	-	-	-
Quintozine	mg/kg	-	-	-	-	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.

a = Data were obtained from RL&L (1999)

b = Particle sizes in 1998 samples were estimated from the following weight fractions:

sand = 62.5 to 500 μm ; silt = 2.762 to 62.5 μm ; clay = 0.691 to 2.762 μm .

Table C1-10: Sediment Quality Data in Lakes of the Atulik Lake Drainage, Meliadine Gold Project, 1994 to 2009

Waterbody/Sample ID	Units	DI1	DI1	DI1	DI1	DI1	DI5
Profile Depth		Surface	0-2 cm	0-2 cm	0-10 cm	0-10 cm	Surface
Replicate		1	1	2	1	2	1
Date Sampled		11-Aug-94	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-95
GPS Coordinates		-					-
Source ^a		Dillon 1994	Golder	Golder	Golder	Golder	Dillon 1995
Conventional Parameters							
Moisture	%	13.7	58	59	56	59	19.6
Particle Size ^b							
Sand (2.0 mm - 0.05 mm)	%	-	76	78	77	76	-
Silt (0.05 mm - 2 µm)	%	-	20	21	19	21	-
Clay (<2 µm)	%	-	4	2	3	3	-
Texture	-	-	Loamy sand	Loamy sand	Loamy sand	Loamy sand	-
Nutrients							
Total Carbon	%	-	1.5	1.6	1.2	1.6	-
Total Organic Carbon	%	-	1.5	1.6	1.2	1.6	-
Total Inorganic Carbon	%	-	<0.1	<0.1	<0.1	<0.1	-
Total Nitrogen	%	-	-	-	-	-	-
Total Nitrogen by LECO	%	-	0.14	0.15	0.1	0.14	-
Total Phosphorus	mg/kg	-	-	-	-	-	-
Cyanides							
Cyanide, Total	mg/kg	-	1.0	1.8	1.2	1.5	-
Total Metals							
Aluminum (Al)	mg/kg	7020	-	-	-	-	-
Antimony (Sb)	mg/kg	< 25	<0.2	<0.2	<0.2	<0.2	-
Arsenic (As)	mg/kg	5.22	6.6	7.2	6.9	7.5	10.4
Barium (Ba)	mg/kg	28.6	45	46	43	49	23.2
Beryllium (Be)	mg/kg	< 0.5	<1	<1	<1	<1	-
Bismuth (Bi)	mg/kg	< 10	-	-	-	-	-
Boron (B)	mg/kg	-	-	-	-	-	-
Cadmium (Cd)	mg/kg	< 0.10	<0.5	<0.5	<0.5	<0.5	< 2.0
Calcium (Ca)	mg/kg	1650	-	-	-	-	-
Chromium (Cr)	mg/kg	24	22.6	22.4	21.9	24	40.4
Cobalt (Co)	mg/kg	4.70	5.00	5.00	4.00	5.00	5.50
Copper (Cu)	mg/kg	15.8	22	22	20	22	5
Iron (Fe)	mg/kg	13600	-	-	-	-	-
Lead (Pb)	mg/kg	< 2.0	<5	<5	<5	<5	< 10.0
Lithium (Li)	mg/kg	11.1	-	-	-	-	-
Magnesium (Mg)	mg/kg	4800	-	-	-	-	-
Manganese (Mn)	mg/kg	119	-	-	-	-	-
Mercury (Hg)	mg/kg	< 0.005	<0.05	<0.05	<0.05	<0.05	< 0.005
Molybdenum (Mo)	mg/kg	< 4.0	1	<1	<1	<1	< 4.0
Nickel (Ni)	mg/kg	15.5	21	21	19	23	18.2
Phosphorus (P)	mg/kg	381	-	-	-	-	-
Potassium (K)	mg/kg	1200	-	-	-	-	-
Selenium (Se)	mg/kg	< 0.10	0.2	0.3	0.2	0.2	< 0.10
Silver (Ag)	mg/kg	< 2.0	<1	<1	<1	<1	< 2.0
Sodium (Na)	mg/kg	< 250	-	-	-	-	-
Strontium (Sr)	mg/kg	-	-	-	-	-	-
Thallium (Tl)	mg/kg	-	<1	<1	<1	<1	-
Tin (Sn)	mg/kg	< 30	<5	<5	<5	<5	< 30
Titanium (Ti)	mg/kg	-	-	-	-	-	-
Uranium (U)	mg/kg	-	<2	<2	<2	<2	-
Vanadium (V)	mg/kg	17.9	20	20	20	22	-
Zinc (Zn)	mg/kg	28.4	30	30	30	30	39.4

Waterbody/Sample ID	Units	DI1	DI1	DI1	DI1	DI1	DI5
Profile Depth		Surface	0-2 cm	0-2 cm	0-10 cm	0-10 cm	Surface
Replicate		1	1	2	1	2	1
Date Sampled		11-Aug-94	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-95
GPS Coordinates		-					-
Source ^a		Dillon 1994	Golder	Golder	Golder	Golder	Dillon 1995
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/kg	-	-	-	-	-	-
Acenaphthylene	mg/kg	-	-	-	-	-	-
Acridine	mg/kg	-	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-	-
Benz(a)anthracene	mg/kg	-	-	-	-	-	-
Benz(a)anthracene/Chrysene	mg/kg	-	-	-	-	-	-
Benzo(a)pyrene	mg/kg	-	-	-	-	-	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-	-
Benzo(b or k)fluoranthene	mg/kg	-	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	-	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-	-
Biphenyl	mg/kg	-	-	-	-	-	-
C2 sub'd B(a)A/chrysene	mg/kg	-	-	-	-	-	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-	-	-	-	-	-
C2 sub'd biphenyl	mg/kg	-	-	-	-	-	-
C2 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-
C2 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-	-
C2 sub'd fluorene	mg/kg	-	-	-	-	-	-
C2 sub'd naphthalene	mg/kg	-	-	-	-	-	-
C2 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-
C3 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-
C3 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-	-
C3 sub'd fluorene	mg/kg	-	-	-	-	-	-
C3 sub'd naphthalene	mg/kg	-	-	-	-	-	-
C3 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-
C4 sub'd dibenzothiophene	mg/kg	-	-	-	-	-	-
C4 sub'd naphthalene	mg/kg	-	-	-	-	-	-
C4 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	-	-	-	-	-	-
Dibenzothiophene	mg/kg	-	-	-	-	-	-
Fluoranthene	mg/kg	-	-	-	-	-	-
Fluorene	mg/kg	-	-	-	-	-	-
Indeno(c,d-123)pyrene	mg/kg	-	-	-	-	-	-
Methyl acenaphthene	mg/kg	-	-	-	-	-	-
Methyl B(a)A/chrysene	mg/kg	-	-	-	-	-	-
Methyl B(b&k)F/B(a)P	mg/kg	-	-	-	-	-	-
Methyl biphenyl	mg/kg	-	-	-	-	-	-
Methyl dibenzothiophene	mg/kg	-	-	-	-	-	-
Methyl fluoranthene/pyrene	mg/kg	-	-	-	-	-	-
Methyl fluorene	mg/kg	-	-	-	-	-	-
Methyl phenanthrene/anthracene	mg/kg	-	-	-	-	-	-
Methyl naphthalenes	mg/kg	-	-	-	-	-	-
1-Methylnaphthalene	mg/kg	-	-	-	-	-	-
Naphthalene	mg/kg	-	-	-	-	-	-
Phenanthrene	mg/kg	-	-	-	-	-	-
Phenanthrene/Anthracene	mg/kg	-	-	-	-	-	-
Pyrene	mg/kg	-	-	-	-	-	-
Quinoline	mg/kg	-	-	-	-	-	-
Retene	mg/kg	-	-	-	-	-	-

Waterbody/Sample ID	Units	DI1	DI1	DI1	DI1	DI1	DI5
Profile Depth		Surface	0-2 cm	0-2 cm	0-10 cm	0-10 cm	Surface
Replicate		1	1	2	1	2	1
Date Sampled		11-Aug-94	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-08	20-Jul-95
GPS Coordinates		-					-
Source ^a		Dillon 1994	Golder	Golder	Golder	Golder	Dillon 1995
Other Organic Compounds							
Benzene	mg/kg	-	-	-	-	-	-
Ethylbenzene	mg/kg	-	-	-	-	-	-
Xylenes	mg/kg	-	-	-	-	-	-
Toluene	mg/kg	-	-	-	-	-	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-	-	-	-	-	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-	-	-	-	-	-
Total Extractables	mg/kg	-	-	-	-	-	-
Total Volatiles	mg/kg	-	-	-	-	-	-
Organochlorines							
Aldrin	mg/kg	-	-	-	-	-	-
Alpha-BHC	mg/kg	-	-	-	-	-	-
Beta-BHC	mg/kg	-	-	-	-	-	-
Gamma-BHC	mg/kg	-	-	-	-	-	-
Chlordane (alpha)	mg/kg	-	-	-	-	-	-
Chlordane (gamma)	mg/kg	-	-	-	-	-	-
Dieldrin	mg/kg	-	-	-	-	-	-
Endosulfan I	mg/kg	-	-	-	-	-	-
Endosulfan II	mg/kg	-	-	-	-	-	-
Endrin	mg/kg	-	-	-	-	-	-
Heptachlor	mg/kg	-	-	-	-	-	-
Methoxychlor	mg/kg	-	-	-	-	-	-
Mirex	mg/kg	-	-	-	-	-	-
Nonachlor	mg/kg	-	-	-	-	-	-
Oxychlordane	mg/kg	-	-	-	-	-	-
pp-DDD	mg/kg	-	-	-	-	-	-
pp-DDE	mg/kg	-	-	-	-	-	-
pp-DDT	mg/kg	-	-	-	-	-	-
Quintozine	mg/kg	-	-	-	-	-	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

Non-detect values that have detection limits that are greater than or equal to guidelines are bolded and italicized and shaded.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.

a = Data were obtained from the following sources: 1994 to 1995 = Dillon (1994 and 1995); 2008 and 2009 = Golder Associates Ltd.

Table C1-11: Sediment Quality Data in Hudson Bay, Meliadine Gold Project, 1998

Waterbody/Sample ID	Units	Ocean	Ocean	Ocean	Ocean	Ocean
Profile Depth		top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm	top 5-10 cm
Replicate		1	2	3	4	5
Date Sampled		Jul-98	Jul-98	Jul-98	Jul-98	Jul-98
GPS Coordinates						
Source ^a		RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999	RL&L 1999
Conventional Parameters						
Moisture	%	33.5	29.1	29.4	32	12
Particle Size ^b						
Sand (2.0 mm - 0.05 mm)	%	28.3	26.0	26.2	28.3	26.8
Silt (0.05 mm - 2 μm)	%	67.6	69.2	69.5	67.4	68.6
Clay (<2 μm)	%	4.2	4.8	4.2	4.4	4.8
Texture	-	-	-	-	-	-
Nutrients						
Total Carbon	%	0.49	0.49	0.50	0.52	0.50
Total Organic Carbon	%	0.41	0.4	0.43	0.45	0.42
Total Inorganic Carbon	%	0.09	0.09	0.07	0.07	0.08
Total Nitrogen	%	0.03	0.03	0.03	0.04	0.03
Total Nitrogen by LECO	%	-	-	-	-	-
Total Phosphorus	mg/kg	-	-	-	-	-
Cyanides						
Cyanide, Total	mg/kg	<0.5	0.7	0.5	0.8	1
Total Metals						
Aluminum (Al)	mg/kg	6850	6790	6500	6480	7450
Antimony (Sb)	mg/kg	-	-	-	-	-
Arsenic (As)	mg/kg	5.3	4.5	4.6	5.2	5
Barium (Ba)	mg/kg	59.2	57.1	56.2	55.1	60.8
Beryllium (Be)	mg/kg	<1	<1	<1	<1	<1
Bismuth (Bi)	mg/kg	<1	<1	<1	<1	<1
Boron (B)	mg/kg	10.0	9.0	8.0	9.0	9.0
Cadmium (Cd)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Calcium (Ca)	mg/kg	4130	4170	3870	3980	4430
Chromium (Cr)	mg/kg	27.9	26.8	26.2	26.2	29.4
Cobalt (Co)	mg/kg	5.00	4.00	4.00	4.00	5.00
Copper (Cu)	mg/kg	15	15	16	16	16
Iron (Fe)	mg/kg	12800	12200	12900	12200	14000
Lead (Pb)	mg/kg	5	<5	6	<5	5
Lithium (Li)	mg/kg	-	-	-	-	-
Magnesium (Mg)	mg/kg	5070	4920	4940	4990	5280
Manganese (Mn)	mg/kg	128	124	119	120	137
Mercury (Hg)	mg/kg	0.05	0.04	0.03	0.04	0.04
Molybdenum (Mo)	mg/kg	<1	<1	<1	<1	<1
Nickel (Ni)	mg/kg	14	13	13	13	15
Phosphorus (P)	mg/kg	723	702	728	705	705
Potassium (K)	mg/kg	2810	2750	2680	2690	2950
Selenium (Se)	mg/kg	0.2	0.3	0.3	0.3	0.3
Silver (Ag)	mg/kg	<1	<1	<1	<1	<1
Sodium (Na)	mg/kg	3230	2940	2890	3820	3520
Strontium (Sr)	mg/kg	25	25	22	24	28
Thallium (Tl)	mg/kg	<1	<1	<1	<1	<1
Tin (Sn)	mg/kg	<5	<5	<5	<5	

Titanium (Ti)	mg/kg	807	814	721	744	869
Uranium (U)	mg/kg	<40	<40	<40	<40	<40
Vanadium (V)	mg/kg	28	27	26	26	29
Zinc (Zn)	mg/kg	34.7	30.9	36.4	40.4	37.9
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	mg/kg	<0.01	<0.01	<0.01	-	-
Acenaphthylene	mg/kg	<0.01	<0.01	<0.01	-	-
Acridine	mg/kg	-	-	-	-	-
Anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene	mg/kg	-	-	-	-	-
Benz(a)anthracene/Chrysene	mg/kg	<0.01	<0.01	<0.01	-	-
Benzo(a)pyrene	mg/kg	<0.01	<0.01	<0.01	-	-
Benzo(b&j)fluoranthene	mg/kg	-	-	-	-	-
Benzo(b or k)fluoranthene	mg/kg	<0.01	<0.01	<0.01	-	-
Benzo(ghi)perylene	mg/kg	<0.01	<0.01	<0.01	-	-
Benzo(k)fluoranthene	mg/kg	-	-	-	-	-
Biphenyl	mg/kg	-	-	-	-	-
C2 sub'd B(a)A/chrysene	mg/kg	-	-	-	-	-
C2 sub'd B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
C2 sub'd biphenyl	mg/kg	-	-	-	-	-
C2 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C2 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C2 sub'd fluorene	mg/kg	-	-	-	-	-
C2 sub'd naphthalene	mg/kg	-	-	-	-	-
C2 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C3 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C3 sub'd fluoranthene/pyrene	mg/kg	-	-	-	-	-
C3 sub'd fluorene	mg/kg	-	-	-	-	-
C3 sub'd naphthalene	mg/kg	-	-	-	-	-
C3 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
C4 sub'd dibenzothiophene	mg/kg	-	-	-	-	-
C4 sub'd naphthalene	mg/kg	-	-	-	-	-
C4 sub'd phenanthrene/anth.	mg/kg	-	-	-	-	-
Chrysene	mg/kg	-	-	-	-	-
Dibenzo(a,h)anthracene	mg/kg	<0.01	<0.01	<0.01	-	-
Dibenzothiophene	mg/kg	-	-	-	-	-
Fluoranthene	mg/kg	<0.01	<0.01	<0.01	-	-
Fluorene	mg/kg	<0.01	<0.01	<0.01	-	-
Indeno(c,d-123)pyrene	mg/kg	<0.01	<0.01	<0.01	-	-
Methyl acenaphthene	mg/kg	-	-	-	-	-
Methyl B(a)A/chrysene	mg/kg	-	-	-	-	-
Methyl B(b&k)F/B(a)P	mg/kg	-	-	-	-	-
Methyl biphenyl	mg/kg	-	-	-	-	-
Methyl dibenzothiophene	mg/kg	-	-	-	-	-
Methyl fluoranthene/pyrene	mg/kg	-	-	-	-	-
Methyl fluorene	mg/kg	-	-	-	-	-
Methyl phenanthrene/anthracene	mg/kg	-	-	-	-	-
Methyl naphthalenes	mg/kg	<0.01	<0.01	<0.01	-	-
2-Methylnaphthalene	mg/kg	-	-	-	-	-
Naphthalene	mg/kg	<0.01	<0.01	<0.01	-	-
Phenanthrene	mg/kg	-	-	-	-	-
Phenanthrene/Anthracene	mg/kg	<0.01	<0.01	<0.01	-	-
Pyrene	mg/kg	<0.01	<0.01	<0.01	-	-

Quinoline	mg/kg	-	-	-	-	-
Retene	mg/kg	-	-	-	-	-
Other Organic Compounds						
Benzene	mg/kg	<0.01	<0.01	<0.01	-	-
Ethylbenzene	mg/kg	<0.01	<0.01	<0.01	-	-
Xylenes	mg/kg	<0.01	<0.01	<0.01	-	-
Toluene	mg/kg	<0.01	<0.01	<0.01	-	-
Total Extr. Hydrocarbons (C9-40)	mg/kg	-	-	-	-	-
Total Extr. Hydrocarbons (C10-30)	mg/kg	-	-	-	-	-
Total Extractables	mg/kg	22	10	8	-	-
Total Volatiles	mg/kg	<0.5	<0.5	<0.5	-	-
Organochlorines						
Aldrin	mg/kg	-	-	-	-	-
Alpha-BHC	mg/kg	-	-	-	-	-
Beta-BHC	mg/kg	-	-	-	-	-
Gamma-BHC	mg/kg	-	-	-	-	-
Chlordane (alpha)	mg/kg	-	-	-	-	-
Chlordane (gamma)	mg/kg	-	-	-	-	-
Dieldrin	mg/kg	-	-	-	-	-
Endosulfan I	mg/kg	-	-	-	-	-
Endosulfan II	mg/kg	-	-	-	-	-
Endrin	mg/kg	-	-	-	-	-
Heptachlor	mg/kg	-	-	-	-	-
Methoxychlor	mg/kg	-	-	-	-	-
Mirex	mg/kg	-	-	-	-	-
Nonachlor	mg/kg	-	-	-	-	-
Oxychlordane	mg/kg	-	-	-	-	-
pp-DDD	mg/kg	-	-	-	-	-
pp-DDE	mg/kg	-	-	-	-	-
pp-DDT	mg/kg	-	-	-	-	-
Quintozine	mg/kg	-	-	-	-	-

Notes:

Results are reported on a dry weight basis except if otherwise specified.

Values greater than or equal to ISQGs are bolded.

Values greater than or equal to PELs are bolded and underlined.

Non-detect values that have detection limits that are greater than or equal to guidelines are bolded and italicized and shaded.

% = percent; mg/kg = milligrams per kilogram; < = less than; - = not available.

a = Data were obtained from RL&L (1999)

b = Particle sizes were estimated from the following weight fractions: sand = 62.5 to 500 µm; silt = 2.762 to 62.5 µm;



APPENDIX D

Aquatic Habitat

Appendix D1. R.L. & L. system of habitat, cover, and substrate classification and coding for small streams.

Habitat Type	Habitat Code	Mean Depth	Max. Depth	Surface	Turbulence	Substrate	Velocity
Riffles	RF	< 0.3 m	< 0.5 m	broken	high	coarse	high
	RF/BG	< 0.3 m	< 0.5 m	broken	high	coarse/boulders	high
Rapids	RA	> 0.3 m	> 0.5 m	broken	high	very coarse	high
Runs	R1	1.0 m	> 1.5 m	irregular	moderate	coarse	mod. - high
	R2	0.5 - 1.0 m	0.75 - 1.0 m	irregular	moderate	coarse	mod. - high
	R2/BG	0.5 - 1.0 m	0.75 - 1.0 m	irregular	moderate	coarse/boulders	mod. - high
	R3	< 0.5 m	0.75 m	rarely broken	moderate	coarse	moderate
	R3/BG	< 0.5 m	0.75 m	rarely broken	moderate	coarse/boulders	moderate
Pools	P1	1.0 m	> 1.5 m	smooth	low	variable	low
	P2	0.5 - 1.0 m	0.75 - 1.0 m	smooth	low	variable	low
	P3	< 0.5 m	0.75 m	smooth	low	variable	low
Flats	F1	1.0 m	> 1.5 m	smooth	laminar	finer	very low
	F2	0.5 - 1.0 m	0.75 - 1.0 m	smooth	laminar	finer	very low
	F2/BG	0.5 - 1.0 m	0.75 - 1.0 m	smooth	laminar	finer/boulders	very low
	F3	< 0.5 m	0.75 m	smooth	laminar	finer	very low
	F3/BG	< 0.5 m	0.75 m	smooth	laminar	finer/boulders	very low

Other Habitat Features

CH	chutes; areas of channel constriction
CA	cascade: rapid vertical descent over cobble/boulder substrate
IN	inlet; confluence with lake
OU	outlet from a lake
DIS	dispersed flow over grass without a defined channel
DRY	dry channel with no flow

Instream Cover

UC	undercut, overhanging bank
BG	boulder garden
AV	aquatic vegetation / submerged terrestrial veg.
OV	overhanging terrestrial vegetation
D/T	depth; turbulence

Substrate Classification

OM	organic material (detritus)
Fi	finer (silt/sand <2 mm)
Gr	gravel (2 - 64 mm)
Co	cobble (64 - 256 mm)
Bo	boulder (>256 mm)
BR	bedrock

Channel Type

Sin	entire flow through one channel
Dou	entire flow through two channels
Mul	flow through multiple (>2) channels
Dis	no defined channel (dispersed flow)

Bank Cover

Sh	shrubs
Gr	grasses and forbs
Ro	rock (gravel/cobble/boulder)
ES	exposed soil

Bank Type (%)

assigned as a percentage of well-defined banks
(e.g., 75% if one bank is well defined but the other is poorly defined for half its length)

Appendix D2. Instream habitat characteristics of streams in the Meliadine Study Area, 1997.

Stream	Survey Date	Unit #	Habitat Type ^a	Length (m)	Width ^b (m)	Area (m ²)	Chan nel Type	Bank Type ^a (%)	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate ^a (%)					Instream Cover ^a (%)					Bank Cover ^a (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Sh	Gr	Ro	ES
A0-1	15-Jun-97	1	R3	12.0	5.0	60	Sin	0	5.2	20	17	13	32	17	19	20	24	31	21			20	70	10		40	30				100		
A0-1	15-Jun-97	2	R3	6.0	7.0	42	Dou	0																									
A0-1	15-Jun-97	3	R3	7.0	3.0	21	Sin	50																									
A0-1	15-Jun-97	4	F3	48.0	20.0	960	Sin	40	25.0	35	70	40	75	48	2	3	2	4	2	90			5	5		5					100		
A0-1	15-Jun-97	5	R3	13.0	2.0	26	Sin	60																									
A0-1	15-Jun-97	6	RF	5.0	2.0	10	Sin	80	1.8	14	14	13	17	14	35	84	84	87	68			40	25	35		30							
A0-1	15-Jun-97	7	R3	9.0	4.5	41	Dou	60																									
A0-1	15-Jun-97	8	RF/BG	32.0	13.0	416	Mul	80																									
A0-1	15-Jun-97	9	P2	5.0	3.5	18	Sin	100	3.0	32	55	45	65	44	0	1	1	2	1			10	30	60	5	70	5			80	20		
A0-1	15-Jun-97	10	RF	10.0	5.0	50	Sin	50	4.8	13	20	14	22	16	9	25	25	30	20			20	45	35		25	5			80	20		
A0-1	15-Jun-97	11	IN	45.0	25.0	1125	Sin	80																									
A0-1	21-Jul-97	1	OU	30.0	9.5	285	Sin	100																									
A0-1	21-Jul-97	2	RF/BG	20.0	0.6	12	Dou	50	0.6	5	7	6	7	6	4	8	6	8	6												100		
A0-1	21-Jul-97	3	R3	25.0	1.2	30	Sin	100	1.2	12	16	10	18	13	2	5	4	5	4												100		
A1-2	19-Jun-97	1	OU	4.5	6.5	29	Sin	5																									
A1-2	19-Jun-97	2	R3	18.0	5.5	99	Dou	10																									
A1-2	19-Jun-97	3	R3	40.0	1.0	40	Sin	40	1.0	25	35	30	37	30	45	55	58	60	53	5	10	75	10	2	30	30				100			
A1-2	19-Jun-97	4	RF	20.0	2.6	52	Sin	40	2.6	20	15	22	23	19	63	27	32	65	41			5	10	80	5	3	20	30			100		
A2-3	19-Jun-97	1	OU	15.0	6.2	93	Sin	5																									
A2-3	19-Jun-97	2	R3	78.0	3.2	250	Sin	30	3.2	25	35	27	39	29	42	50	31	50	41	5	10	80	5		40	30				100			
A2-3	19-Jun-97	3	P3	4.5	1.5	7	Sin	30	1.5	35	40	42	42	39	2	19	48	48	23			5	75	20		60	10			100			
A2-3	19-Jun-97	4	R3	6.0	4.5	27	Dou	30																									
A3-4	19-Jun-97	1	OU	12.0	6.2	74	Sin	5	6.2	20	27	22	28	23	10	14	9	14	11	40	10	15	30	5		5	80			100			
A3-4	19-Jun-97	2	R3	25.0	1.4	35	Sin	20	1.4	26	30	34	34	30	20	82	49	84	50			5	5	80	10	2	40	5			100		
A4-5	19-Jun-97	1	OU	8.0	3.7	30	Sin	10																									
A4-5	19-Jun-97	2	R3	70.0	3.2	224	Dou	10	3.2	20	27	18	27	22	35	40	27	42	34	5	15	75	5		20	35				100			
A4-5	19-Jun-97	3	RF	10.0	2.3	23	Sin	10	2.2	15	20	13	22	16	64	70	59	72	64	5	20	65	10		30					100			
A4-5	19-Jun-97	4	RF/BG	15.0	2.2	33	Sin	40	2.0	25	30	22	30	26	45	69	71	74	62			5	5	80	10		40	10			100		
A4-5	19-Jun-97	5	R3	20.0	2.0	40	Dou	20																									
A5-6	15-Jun-97	1	OU	27.0	15.0	405	Sin	40																									
A5-6	15-Jun-97	2	R3	28.0	2.4	67	Sin	90	2.3	44	40	40	45	41	26	16	7	30	16			15	75	10	5	50	5			100			
A5-6	15-Jun-97	3	R3/BG	21.0	1.7	36	Sin	90	1.8	15	23	17	25	18	35	50	44	52	43			25	45	30	5	30				100			
A5-6	15-Jun-97	4	RF/BG	28.0	1.5	42	Mul	50																									
A5-6	15-Jun-97	5	R3	45.0	1.2	54	Mul	0																									
A5-6	15-Jun-97	6	F3	42.0	20.0	840	Sin	10	22.0	20	40	30	45	30	3	2	1	4	2	70	10		10	10		50				100			
A5-6	15-Jun-97	7	R3	25.0	3.5	88	Sin	20																									
A5-6	15-Jun-97	8	RF/BG	85.0	0.7	60	Mul	30																									
A5-6	15-Jun-97	9	F3	35.0	18.0	630	Sin	10																									
A5-6	13-Jul-97	1	OU	30.0	18.0	540	Sin	20																									
A5-6	13-Jul-97	2	R3	30.0	2.6	78	Sin	40	2.6	10	15	12	15	12				5		5	10	55	30	2	40	2				100			
A5-6	13-Jul-97	3	RF	13.0	1.6	21	Dou	30	1.6	5	7	5	8	6												5	15				100		
A5-6	13-Jul-97	4	R3	25.0	1.8	45	Sin	30																									
A5-6	13-Jul-97	5	R3/BG	50.0	1.0	50	Sin	30	1.2	7	12	6	14	8				15		5	10	55	30		40	15			40	60			
A5-6	13-Jul-97	6	R3	20.0	0.6	12	Sin	30																									

Appendix D2. Instream habitat characteristics of streams in the Meliadine Study Area, 1997.

Stream	Survey Date	Unit #	Habitat Type ^a	Length (m)	Width ^b (m)	Area (m ²)	Chan nel Type	Bank Type ^a (%)	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate ^a (%)					Instream Cover ^a (%)					Bank Cover ^a (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Sh	Gr	Ro	ES
A7-8	16-Jun-97	1	OU	13.0	10.0	130	Mul	10																									
A7-8	16-Jun-97	2	R3	5.0	1.5	8	Dou	30	2.2	11	13	14	15	13	30	35	25		30			40	45	15			10	20			100		
A7-8	16-Jun-97	3	RF/BG	12.0	1.1	13	Mul	40	1.4	16	13	10		13	20	40	30		30			30	20	50			30						
A7-8	16-Jun-97	4	R3	8.0	1.3	10	Sin	80	2.2	10	14	13		12	31	15	30		25			40	30	30	2	5	10			90	10		
A7-8	16-Jun-97	5	R3	32.0	1.0	32	Mul	60	0.9	15	18	17	20	17	50	45	28		41			30	40	30	5	20	5			100			
A7-8	16-Jun-97	6	DIS	75.0	50.0	3750	Dis	0																									
A7-8	22-Jul-97	1	OU	10.0	15.0	150	Mul	35																									
A7-8	22-Jul-97	2	R3/BG	40.0	1.0	40	Mul	55	1.0	5	7	5	7	6	4	5	4	5	4											10	90		
A7-8	22-Jul-97	3	F3/BG	10.0	2.2	22	Mul	45	2.2	5	2	6	6	4																10	90		
A7-8	22-Jul-97	4	R3/BG	50.0	1.3	65	Mul	60																									
B0-1	22-Jun-97	1	OU	8.0	4.0	32	Dou	60																									
B0-1	22-Jun-97	2	RF/BG	28.0	14.0	392	Mul	30	1.8	15	22	20	25	19	45	35	38	60	39			20	40	40	10	30	10			100			
B0-1	22-Jun-97	3	R3	15.0	12.0	180	Sin	40																									
B0-1	22-Jun-97	4	RF/BG	6.0	4.0	24	Dou	60																									
B0-1	22-Jun-97	5	R3	32.0	18.0	576	Mul	21	2.2	35	28	45	50	36	22	25	18	30	22	10	10	10	30	40	20	15	10						
B0-1	22-Jun-97	6	RF	7.0	6.0	42	Sin	20																									
B0-1	22-Jun-97	7	R3	14.0	8.0	112	Sin	40	6.5	28	35	30	40	31	8	5	7	10	7	5	20	40	20	15	2	10	5			100			
B0-1	22-Jun-97	8	RF/BG	10.0	14.0	140	Sin	30	14.0	15	22	28	35	22	35	30	35	40	33			50	20	30		15				90	10		
B0-1	19-Jul-97	1	R3	15.0	4.2	63	Sin	35																									
B0-1	19-Jul-97	2	R3/BG	45.0	1.0	45	Dou	40	1.0	5	11	8	13	8	7	34	26	34	22												100		
B0-1	19-Jul-97	3	R3	60.0	1.6	96	Mul	40	1.6	7	15	10	15	11	4	28	17	28	16												100		
B1-2	16-Jun-97	1	OU	10.0	4.5	45	Sin	10																									
B1-2	16-Jun-97	2	R3	22.0	3.7	81	Dou	25	3.6	15	25	20	30	20	52	57	44	60	51			35	60	5	5	15	5			100			
B1-2	16-Jun-97	3	RA	18.0	2.6	47	Sin	20	2.6	25	30	35	40	30	52	64	72	74	63			30	55	15	5	20	5			100			
B1-2	16-Jun-97	4	RF/BG	4.5	2.3	10	Sin	10	2.3	10	15	20	25	15	76	86	102	123	88			15	60	25		15				100			
B1-2	16-Jun-97	5	R3	25.0	4.3	108	Sin	5	4.5	10	20	15	25	15	37	40	25	38	34			35	60	5		10	10			100			
B1-2	16-Jun-97	6	R3/BG	8.0	3.7	30	Sin	10	3.7	20	30	18	32	23	44	50	47	54	47			20	70	10		15	5			100			
B1-2	16-Jun-97	7	R3	14.0	2.6	36	Dou	30																									
B1-2	16-Jun-97	8	R3/BG	15.0	2.3	35	Dou	30																									
B1-2	16-Jun-97	9	R3	60.0	2.4	144	Dou	50	2.4	30	35	30	38	32	29	36	42	48	36	10		10	55	25	5	60	5	5		100			
B1-2	19-Jul-97	1	OU	10.0	4.5	45	Dou	35																									
B1-2	19-Jul-97	2	R3/BG	60.0	4.2	252	Sin	30	4.2	10	15	9	15	11	12	36	40	49	29												100		
B1-2	19-Jul-97	3	RF/BG	20.0	3.7	74	Sin	25	3.7	7	5	6	7	6	11	26	32	34	23												100		
B1-2	19-Jul-97	4	R3/BG	80.0	4.3	344	Dou	30																									
B1-2	19-Jul-97	5	R3	20.0	3.6	72	Sin	30	3.6	13	15	14	15	14	7	40	35	42	27												100		
B1-2	24-Aug-97	1	F3	30.0	2.5	75	Sin	40																									
B1-2	24-Aug-97	2	F3/BG	40.0	1.5	60	Sin	50	1.5	3	4	5	5	4																			
B1-2	24-Aug-97	3	F3	10.0	0.6	6	Sin	50	0.6	10	12	11	12	11																			
B1-2	24-Aug-97	4	F3/BG	20.0	1.6	32	Sin	50																									
B1-2	24-Aug-97	5	F3	10.0	1.0	10	Sin	60																									
B1-2	24-Aug-97	6	F3/BG	20.0	3.5	70	Sin	60																									
B3-4	16-Jun-97	1	R3	25.0	3.2	80	Sin	30	3.2	25	35	30	37	30	42	56	47	60	48			5	85	10	3	30	5			5	95		
B3-4	16-Jun-97	2	R3	50.0	1.8	90	Mul	20	1.5	25	30	20	40	25	50	62	66	70	59			5	90	5	3	35	5			100			
B3-4	16-Jun-97	3	R3/BG	27.0	1.5	41	Sin	35	1.3	15	20	23	25	19	57	65	70	82	64			5	80	15	4	40	3						

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Stream	Survey Date	Unit #	Habitat Type ^a	Length (m)	Width ^b (m)	Area (m ²)	Chan nel Type	Bank Type ^a (%)	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate ^a (%)					Instream Cover ^a (%)					Bank Cover ^a (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Sh	Gr	Ro	ES
B3-4	20-Jul-97	1	OU	8.0	4.2	34	Sin	35																									
B3-4	20-Jul-97	2	R3/BG	70.0	1.2	84	Mul	40	1.2	6	15	10	15	10	5	19	20	25	15													100	
B3-4	20-Jul-97	3	P3	15.0	0.5	8	Dis	35	0.5	10	25	30	24	22	2	5	7	12	5													100	
B3-4	20-Jul-97	4	R3	8.0	1.2	10	Mul	30	0.6	15	27	16	30	19	2	10	8	12	7													100	
B3-4	20-Jul-97	5	F3/BG	10.0	2.2	22	Sin	30																									
B3-4	24-Aug-97	1	F3/BG	20.0	2.2	44	Sin	70	2.2	3	4	2	4	3																			
B3-4	24-Aug-97	2	DRY	80.0	2.0	160	Mul	60																									
B3-4	24-Aug-97	3	P3	10.0	0.5	5	Mul	60	0.5	5	20	10	20	12																			
B3-4	24-Aug-97	4	F3	15.0	1.5	23	Mul	60	1.5	6	8	5	8	6																			
B4-5	16-Jun-97	1	OU	7.0	6.0	42	Sin	10																									
B4-5	16-Jun-97	2	P3	8.0	1.8	14	Mul	20																									
B4-5	16-Jun-97	3	R3	85.0	2.0	170	Mul	10	1.4	12	20	13	25	15	15	21	18	25	18	45	30	10	10	5		10	60					100	
B4-5	16-Jun-97	4	P3	7.0	1.5	11	Mul	20	1.5	30	45	48	60	41	8	8	6	10	7	80	10	10					40						
B4-5	16-Jun-97	5	R3	140.0	1.8	252	Mul	10	1.7	6	12	10	14	9	35	28	30	40	31	100							100						100
B4-5	15-Jul-97	1	R3	125.0	0.6	75	Sin	35	0.7	15	13	14	20	14	14	21	17	30	17														100
B4-5	24-Aug-97	1	F3	120.0	0.6	72	Sin	30	0.6	7	12	5	13	8																			
B5-6	16-Jun-97	1	R3	15.0	1.5	23	Sin	60																									
B5-6	16-Jun-97	2	RF/BG	3.0	1.0	3	Dou	80																									
B5-6	16-Jun-97	3	P3	4.0	1.0	4	Sin	100	1.0	20	21	17	25	19	10	15	8	18	11			40	30	30	5	10	20					100	
B5-6	16-Jun-97	4	R3	12.0	0.7	8	Dou	80	0.8	4	12	8	15	8	15	20	18	20	18	10		20	30	40	10		40					100	
B5-6	16-Jun-97	5	CA	1.5	0.4	1	Mul	100																									
B5-6	16-Jun-97	6	P3	2.5	0.6	2	Mul	100																									
B5-6	16-Jun-97	7	CA	1.0	0.5	1	Mul	100																									
B5-6	16-Jun-97	8	P3	3.0	0.7	2	Mul	100																									
B5-6	16-Jun-97	9	CA	1.0	0.5	1	Mul	100																									
B5-6	16-Jun-97	10	P3	4.0	0.6	2	Mul	100																									
B5-6	16-Jun-97	11	RF/BG	12.0	0.7	8	Mul	100	0.6	5	15	10	18	10	30	40	40	45	37		30	20	50	5	30	10					90	10	
B5-6	16-Jun-97	12	RF	8.0	0.5	4	Mul	80	0.5	8	10	11	13	10	35	40	25	45	33		40	40	20		30	20						100	
B5-6	16-Jun-97	13	R3	4.0	0.6	2	Dou	60																									
B5-6	16-Jun-97	14	CA	0.5	0.5	0	Dou	100																									
B5-6	16-Jun-97	15	R3	5.0	0.6	3	Dou	100																									
B5-6	15-Jul-97	1	OU	6.0	2.5	15	Sin	20	2.5	10	15	20	21	15	2	4	1	4	2														100
B5-6	15-Jul-97	2	R3	50.0	2.0	100	Dou	35	2.0	6	10	5	10	7	2	1	0	2	1														100
B5-6	15-Jul-97	3	CA	50.0	0.7	35	Dou	50	0.7	5	10	7	10	7	10	19	12	19	14														100
B6-7	17-Jul-97	1	R3	6.0	3.6	22	Sin	15																									
B6-7	17-Jul-97	2	R3	95.0	0.6	57	Sin	40	0.6	20	20	15	20	18	26	32	25	32	28	5	10	80	5	2	60	5	2				5	95	
B6-7	17-Jul-97	3	RF	30.0	1.4	42	Sin	15	1.3	15	20	20	20	18	36	32	37	37	35		5	10	75	10	2	70	5	2				5	95
B6-7	18-Jul-97	1	OU	6.0	2.3	14	Sin	35																									
B6-7	18-Jul-97	2	R3/BG	3.0	1.5	5	Sin	40	1.5	5	8	7	10	7	3	6	2	6	4														100
B6-7	18-Jul-97	3	R3	110.0	1.0	110	Dou	40	1.0	10	11	12	12	11	2	11	4	11	6														100
B6-7	24-Aug-97	1	F3/BG	100.0	1.0	100	Sin	60	1.0	4	10	6	10	7																			
B6-7	24-Aug-97	2	DRY	30.0	1.0	30	Sin	70																									
B4-36	20-Jun-97	1	DIS	100.0	40.0	4000	Dis	0																									
B4-36	20-Jun-97	2	F3	40.0	25.0	1000	Mul	5	15.0	10	15	20	25	15	0	0	0	0	0	100													100
B4-36	20-Jun-97	3	R3	8.0	0.8	6	Sin	40	0.8	2	5	3	5	3	5	7	8	10	7	80	10	10											

Appendix D2. Instream habitat characteristics of streams in the Meliadine Study Area, 1997.

Stream	Survey Date	Unit #	Habitat Type ^a	Length (m)	Width ^b (m)	Area (m ²)	Chan nel Type	Bank Type ^a (%)	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate ^a (%)					Instream Cover ^a (%)					Bank Cover ^a (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Sh	Gr	Ro	ES
B45-46	17-Jun-97	1	R3	15.0	2.2	33	Dou	20																									
B45-46	17-Jun-97	2	R3	30.0	2.4	72	Mul	30	2.4	20	25	15	30	20	16	27	24	28	22	5	10	65	20		2	70	5						
B45-46	17-Jun-97	3	RF	3.5	1.6	6	Sin	60	1.6	10	15	17	20	14	30	37	33	38	33		5	55	40		2	80					100		
B45-46	17-Jun-97	4	R3	6.5	1.8	12	Sin	60	1.4	15	25	18	27	19	32	30	28	34	30		10	60	30		5	80					100		
B45-46	17-Jun-97	5	RF/BG	45.0	1.3	59	Sin	60																									
B45-46	17-Jun-97	6	R3	10.0	5.2	52	Sin	40																									
B51-52	17-Jun-97	1	R3	25.0	1.0	25	Mul	20																									
B51-52	17-Jun-97	2	RF/BG	5.0	0.6	3	Sin	30	0.6	15	20	10	20	15	42	36	48	48	42	10		50	40			80	10				100		
B51-52	17-Jun-97	3	P1	65.0	2.1	137	Sin	60	2.1	1	1	1	2	1	9	4	6	9	6	15	50	35			40		10				100		
B52-53	22-Jun-97	1	R3	55.0	1.5	83	Mul	20																									
B52-53	22-Jun-97	2	RF/BG	15.0	1.5	23	Sin	50																									
B52-53	22-Jun-97	3	R3	10.0	1.2	12	Sin	50	1.2	10	10	12	15	11	4	8	7	10	6	10		20	30	40	5	20					90	10	
B52-53	22-Jun-97	4	RF/BG	13.0	3.0	39	Mul	20	2.7	8	8	9	10	8	15	20	18	20	18			20	30	50		30					50	50	
B52-53	22-Jun-97	5	R3/BG	8.0	13.0	104	Sin	0	10.0	3	2	4	5	3	0	1	2	2	1			5	15	80		100					20	80	
B68-69	22-Jun-97	1	OU	40.0	15.0	600	Sin	40	18.0	18	24	22	30	21	0	0	0	0	0	60		5	5	30		10	5				80	20	
B68-69	22-Jun-97	2	R3/BG	32.0	3.0	96	Mul	60	2.8	10	15	15	20	13	5	12	10	15	9	25		15	30	30		30							
B68-69	22-Jun-97	3	R3	100.0	0.6	60	Mul	50																									
B68-69	22-Jun-97	4	RF/BG	20.0	0.8	16	Mul	60																									
D0-1	18-Jun-97	1	R3	12.0	6.5	78	Dou	30																									
D0-1	18-Jun-97	2	R3	30.0	4.5	135	Mul	20	1.6	25	30	20	30	25	34	61	32	65	42	5	15	75	5		2	40	5			5	95		
D0-1	18-Jun-97	3	P3	25.0	26.0	650	Sin	10	26.0	35	38	36	40	36	7	10	5	10	7	10	20	55	15			40	3				100		
D0-1	18-Jun-97	4	R3/BG	12.0	5.0	60	Dou	10	5.2	20	22	27	27	23	24	26	20	28	23	5	20	65	10			50	15				100		
D0-1	18-Jun-97	5	R3/BG	10.0	7.0	70	Sin	10	7.0	15	20	16	20	17	30	28	25	28	28			10	70	20		80	5				100		
D0-1	24-Jul-97	1	OU	10.0	2.4	24	Sin	35																									
D0-1	24-Jul-97	2	R3/BG	30.0	1.2	36	Dou	55	1.2	5	8	6	8	6	15	20	12	20	16												5	95	
D0-1	24-Jul-97	3	R3	25.0	0.5	13	Sin	60	0.5	7	10	9	12	9	11	8	9	12	9											5	95		
D0-1	24-Jul-97	4	F3	30.0	20.0	600	Sin	40																									
D0-1	24-Jul-97	5	R3/BG	20.0	5.2	104	Sin	40																									
D0-1	25-Aug-97	1	F3/BG	44.0	1.2	53	Dou	70	1.0	2	3	5	5	3																			
D0-1	25-Aug-97	2	F3	15.0	0.4	6	Sin	60	0.4	5	8	6	8	6																			
D0-1	25-Aug-97	3	P3	30.0	30.0	900	Sin	25																									
D0-1	25-Aug-97	4	F3/BG	35.0	4.5	158	Sin	25																									
D1-2	18-Jun-97	1	R3	32.0	0.6	19	Sin	20	0.6	22	24	20	24	22	71	52	32	84	52	5	35	50	10		2	30	20			5	95		
D1-2	26-Jul-97	1	R3	30.0	1.0	30	Sin	60	0.7	6	11	9	12	9	11	17	12	17	13												100		
D1-2	25-Aug-97	1	F3/BG	35.0	0.6	21	Sin	40	0.6	3	5	2	5	3																			
D3-4	18-Jun-97	1	DIS	60.0	100.0	6000	Dis	0																									
D3-4	18-Jun-97	2	R3	100.0	2.0	200	Mul	10	1.7	5	12	15	20	11	15	20	20	25	18	100						90					100		
D3-4	18-Jun-97	3	R3	40.0	5.0	200	Mul	20																									
D4-5	22-Jun-97	1	R3	7.0	4.5	32	Sin	50	4.7	30	30	25	30	28	1	2	2	3	2	20	10	30	30	10		5		1		5	95		
D4-5	22-Jun-97	2	IN	22.0	12.0	264	Sin	10	12.0	20	35	25	35	27	0	0	0	1	0	30		20	30	20		5	5				100		
D5-6	18-Jun-97	1	R3	100.0	20.0	2000	Mul	10																									
D5-6	18-Jun-97	2	P2	3.0	1.0	3	Sin	80																									
D5-6	18-Jun-97	3	R3	95.0	7.0	665	Mul	0	1.0	70	80	80	85	77	2	4	5	8	4	20	10	60	10		30		10				100		
D5-6	18-Jun-97	4	RF	3.0	0.8	2	Mul	40	4.0	30	40	40	45	37	2	3	4	10	3	100							50				100		
D5-6	18-Jun-97	5	R3	45.0	25.0	1125	Mul	10	0.6	35	40	40	45	38	20	15	15		17	20		40	30	10	30	30	10				100		
D5-6	18-Jun-97	6	IN	22.0	15.0	330	Mul	20	6.0	15	25	10	30	17	5	6	3	8	5	20	10	5	5	60		80	10				90	10	
D5-6	17-Jul-97	1	OU	15.																													

Appendix D2. Instream habitat characteristics of streams in the Meliadine Study Area, 1997.

Stream	Survey Date	Unit #	Habitat Type ^a	Length (m)	Width ^b (m)	Area (m ²)	Chan nel Type	Bank Type ^a (%)	Transect Width (m)	Water Depth (cm)					Water Velocity (cm/s)					Substrate ^a (%)					Instream Cover ^a (%)					Bank Cover ^a (%)			
										0.25w	0.5w	0.75w	Max	Mean	0.25w	0.5w	0.75w	Max	Mean	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Sh	Gr	Ro	ES
D6-7	18-Jun-97	1	OU	17.0	9.0	153	Sin	70																									
D6-7	18-Jun-97	2	R3	8.0	0.7	6	Sin	80																									
D6-7	18-Jun-97	3	R3	12.0	1.2	14	Dou	60																									
D6-7	18-Jun-97	4	RF	4.0	0.6	2	Sin	70	0.6	7	12	10	15	10	25	30	30	40	28			30	50	20		20					100		
D6-7	18-Jun-97	5	R3	5.0	0.7	4	Sin	80	0.8	15	20	20	25	18	18	15	10	25	14			40	50	10	5	20				10	90		
D6-7	17-Jul-97	1	R3	3.0	0.7	2	Sin	100	0.7	10	12	9	14	10	5	10	12	15	9		5	20	70	5	5	5				10	90		
D6-7	17-Jul-97	2	RF	2.0	0.4	1	Sin	100	0.5	7	5	4	10	5	40	50	45	60	45			30	60	10						15	85		
D6-7	17-Jul-97	3	R3/BG	8.0	0.5	4	Sin	100	0.5	10	12	15	18	12	15	25	10	30	17	5	5	20	30	40	10	10	5			15	85		
D6-7	17-Jul-97	4	R3	28.0	0.6	17	Sin	80	0.6	15	15	10	20	13	5	8	8	10	7	80			10	10	10	10	40			10	90		
D6-7	25-Aug-97	1	F3/BG	12.0	0.7	8	Sin	65	0.7	2	3	2	3	2																			
D6-7	25-Aug-97	2	F3	30.0	0.6	18	Sin	60	0.6	3	7	4	7	5																			
F0-1	21-Jun-97	1	R3	120.0	0.4	48	Mul	10	0.3	10	15	25	35	17	20	25	25	30	23	90		10			30		40				100		
F0-1	21-Jun-97	2	P1	8.0	1.5	12	Sin	80	1.8	30	40	86	140	52	2	3	2	4	2	90			10		10						100		
F0-1	21-Jun-97	3	R3	15.0	1.5	23	Sin	80																									
F0-1	21-Jun-97	4	P3	5.0	1.2	6	Sin	60	0.7	30	35	35	40	33	10	12	10	15	11	30	10	20	30	10	20	5				100			
F0-1	21-Jun-97	5	R3	20.0	0.6	12	Mul	20	0.6	8	10	12	16	10	30	30	25	40	28	10	10	20	40	20	20	10	10			95	5		
F5-6	21-Jun-97	1	R3	22.0	0.5	11	Sin	90	0.6	11	12	10	13	11	10	12	10	15	11	40	10	20	20	10	15	5	5				100		
F5-6	21-Jun-97	2	CA	1.0	0.2	0	Sin	100																									
F5-6	21-Jun-97	3	R3	55.0	0.2	11	Sin	90	0.2	5	7	7	10	6	25	30	30	40	28	60	10	15	15		30	5					100		
G0-1	18-Jun-97	1	RF	10.0	0.5	5	Sin	80																									
G0-1	18-Jun-97	2	R3	18.0	1.2	22	Sin	90																									
G0-1	18-Jun-97	3	R3	90.0	0.2	18	Sin	100																									
G0-1	18-Jun-97	4	CA	1.0	0.4	0	Sin	100																									
G0-1	18-Jun-97	5	P2	2.0	0.8	2	Sin	100																									
G0-1	18-Jun-97	6	R3	16.0	0.5	8	Sin	100																									
G0-1	18-Jun-97	7	RF	8.0	0.5	4	Sin	100	0.5	4	5	5	7	5	20	25	20	30	22	25	10	50	15		5					100			
G0-1	18-Jun-97	8	R3	34.0	0.4	14	Sin	100																									
G0-1	18-Jun-97	9	P2	2.0	0.8	2	Sin	100																									
G0-1	18-Jun-97	10	R3	6.0	0.3	2	Sin	100																									
G0-1	18-Jun-97	11	P3	4.0	0.6	2	Sin	100	0.6	40	45	50	55	45	1	3	2	5	2	70		20	10		30						100		
G0-1	18-Jun-97	12	R3	40.0	0.3	12	Sin	100																									
G0-1	18-Jun-97	13	P3	2.0	0.6	1	Sin	100	0.6	35	45	40	45	40	2	3	5	8	3	80	5	10	5		5					100			
G0-1	18-Jun-97	14	R3	4.0	0.4	2	Sin	100	0.4	3	5	8	10	5	28	30	20	35	26	90		5	5		10		10			60		40	
G0-1	18-Jun-97	15	CA	2.0	0.2	0	Sin	100																									
G0-1	18-Jun-97	16	P3	1.0	0.6	1	Sin	80																									
G0-1	18-Jun-97	17	IN	6.0	1.0	6	Sin	80																									
G1-2	17-Jun-97	1	OU	35.0	6.5	228	Sin	50																									
G1-2	17-Jun-97	2	R3	60.0	0.5	30	Sin	50	0.5	5	10	10	12	8	10	12	9	10	10	100					5		25				100		
G1-2	17-Jun-97	3	RF	35.0	0.4	14	Sin	50	0.4	5	6	5	10	5	15	20	25	30	20	30	25	20	20	5		5	15				100		
G1-2	17-Jun-97	4	R3	110.0	0.4	44	Mul	15																									
ML-MR	21-Jun-97	1	RF/BG	35.0	70.0	2450	Sin	100																									
ML-MR	21-Jun-97	2	R3	80.0	60.0	4800	Sin	100	80.0	30	35	40	60	35	20	25	25	30	23			30	30	40		30				5	75	20	
ML-MR	21-Jun-97	3	P1	40.0	10.0	400	Sin	100	40.0	200	250	200	300	217	5	8	7	10	7		10	20	40	30		30		30					
ML-MR	21-Jun-97	4	RA	70.0	55.0	3850	Sin	100	65.0	20	25	30	40	25	80	70	85	120	78			10	30	60		40		10		5	80	15	
ML-MR	24-Aug-97	1	R3	20.0	15.0	300	Sin	40																									
ML-MR	24-Aug-97	2	R3/BG	80.0	80.0	6400	Sin	40	50.0	25	30	18	36	24																			

^a see Appendix D1 for explanation of codes

^b wetted channel width includes areas enclosed by braided channels

Appendix D3. Summary of instream habitat characteristics of streams in the Meliadine Study Area, June 1997.

Stream	Survey Date	Total Length (m)	Total Area (m²)	Mean Width (m)	Habitat Type (% of total length)													Channel Type (% of total length)				Substrate (% of total area)					Instream Cover (% of total area)						
					RF	RF/BG	RA	CA	R2	R3	R3/BG	P1	P2	P3	F3	IN	OU	DIS	Sin	Dou	Mul	Dis	OM	Fi	Gr	Co	Bo	UC	BG	AV	OV	D/T	Total
A0-1	15-Jun-97	192	2768	14.4	8	17			24			3			25	23			76	8	17		18		18	35	29	1	33	9			43
A1-2	19-Jun-97	83	220	2.7	24				70								5		78	22				5	10	78	8	3	25	30			58
A2-3	19-Jun-97	104	376	3.6					81					4			14		94	6				3	8	78	13		50	20			70
A3-4	19-Jun-97	37	109	3.0					68								32		100				20	8	10	55	8	1	23	43			66
A4-5	19-Jun-97	123	350	2.8	8	12			73								7		27	73				5	13	73	8		30	15			45
A5-6	15-Jun-97	336	2221	6.6		34			29	6					23		8		53		47		23	3	13	43	17	3	27	18			48
A6-7	19-Jun-97	181	1395	7.7		1			19	30							49			80	20			5	5	62	28	2	57	22			80
A7-8	16-Jun-97	145	3943	27.2		8			31								9	52	6	3	39	52			35	34	31	2	14	6	5		27
B0-1	22-Jun-97	120	1498	12.5	6	37			51								7		38	12	50		4	8	30	28	31	8	18	6			32
B1-2	16-Jun-97	177	536	3.0		3	10		69	13							6		37	63			2		24	60	14	3	23	5	1		31
B3-4	16-Jun-97	192	357	1.9				31	49	14					5				38		62			7	4	74	15	7	45	8	1		61
B4-5	16-Jun-97	247	489	2.0					91						6		3		3		97		75	13	7	3	2		3	67			70
B5-6	16-Jun-97	77	64	0.8	10	20		5	47					18				25	32	43		3		33	30	35	5	18	23			45	
B6-7	17-Jun-97	131	121	0.9	23				77									100						5	10	78	8	2	65	5	2		74
B4-36	20-Jun-97	193	6356	32.9					4						21			75	4		21	75	93	3	3					63			63
B4-45	20-Jun-97	58	361	6.2					26							31	43		100				38	8	13	17	23	1	15	7			22
B45-46	17-Jun-97	110	233	2.1	3	41			56									59	14	27			2	8	60	30	3	77	2			81	
B51-52	17-Jun-97	95	165	1.7		5			26			68						74		26			13	25	43	20	20	40	10			70	
B52-53	22-Jun-97	101	260	2.6		28			64	8								33		67		3		15	25	57	2	50				52	
B68-69	22-Jun-97	192	772	4.0		10			52	17							21		21		79		43		10	18	30		20	3			23
D0-1	18-Jun-97	89	993	11.2					47	25				28					39	27	34			5	16	66	13	1	53	7			60
D1-2	18-Jun-97	32	19	0.6					100										100					5	35	50	10	2	30	20			52
D3-4	18-Jun-97	200	6400	32.0					70								30				70	30	100						90			90	
D4-5	22-Jun-97	29	296	10.2					24							76			100				25	5	25	30	15		5	3	1		8
D5-6	18-Jun-97	268	4125	15.4	1				90			1				8			1		99		40	5	26	11	18	15	28	20			63
D6-7	18-Jun-97	46	179	3.9	9				54								37		74	26					35	50	15	3	20				23
F0-1	21-Jun-97	168	101	0.6					92			5		3					17		83		55	5	13	20	8	20	4	13			36
F5-6	21-Jun-97	78	22	0.3				1	99										100				50	10	18	18	5	23	5	3			30
G0-1	18-Jun-97	246	100	0.4	7			1	85			2	3		2				100				66	4	21	9		11	1	3			15
G1-2	17-Jun-97	240	316	1.3	15				71								15		54		46		65	13	10	10	3	3	3	20			25
ML-MR	21-Jun-97	225	11500	51.1		16	31		36			18							100					3	20	33	43		33			13	47

Appendix D4. Habitat characteristics of streams in the Meliadine Study Area, June 1998 and July 2004.

Stream	Survey Date	Reach No. ^a	Domin. Habitat Type ^b	Stream Size							Flooded Width (m)	Channel Type (% length)				Flooded Banks (%)	Habitat Type (% length)				Depth >0.5 m (% length)	Substrate (% area)					Instream Cover (% area)		
				Length (m)	Area (m²)	Channel Width (m)			Depth (m)			Sin	Dou	Mul	Dis		Riffle	Run	Pool	Flat		OM	Fi	Gr	Co	Bo	UC	BG	AV
						Mean	Min.	Max.	Mean	Max.																			
A0-1	14-Jun-98	#1	Outlet	6	24	4.0	3.5	4.2	0.5	0.6	25	-	-	-	-	-	-	-	-	-	-			10	70	20		5	5
		#2	Run	23	35	1.5	0.8	2.0	0.6	0.7	30	10		90	-	100		90	10	-	5		5	5	60	30		25	10
		#3	Pond	54	1350	25.0	12.0	30.0	0.9	1.2	35	100				30				100	75	10	10	60	10		5	5	
		#4	Run	23	28	1.2	0.8	1.5	0.5	0.6	13	100				50		100			2		10	20	50	20		5	5
		#5	Riffle	32	26	0.8	0.6	1.0	0.4	0.6	15			100		80	80	10	10		2		5	5	30	60		15	10
		#6	Inlet	52	1040	20.0	10.0	25.0	0.9	1.0	20	-	-	-	-	-	-	-	-	-	-		5	10	35	50		10	
		Total	132	1438	10.9	0.6	30.0	0.7	1.2	25	60	0	40	0	58	19	36	4	41	32	9	10	10	59	12	0	6	5	
A1-2	14-Jun-98	#1	Outlet	9	63	7.0	4.0	7.5	0.4	0.5	10	-	-	-	-	-	-	-	-	-	5	10	30	45	10			2	10
		#2	Riffle	78	94	1.2	0.8	1.7	0.5	0.6	15	80	20	-	-	25	90		10		1		5	35	40	20		15	10
		#3	Inlet	5	7	1.3	1.0	1.5	0.3	0.4	20	-	-	-	-	-	-	-	-	-		5	20	65	10		2	5	
		Total	78	94	1.2	0.8	1.7	0.5	0.6	15	80	20			25	90		10		1		5	35	40	20		15	10	
A2-3	14-Jun-98	#1	Outlet	7	32	4.5	3.0	6.0	0.4	0.5	8	-	-	-	-	-	-	-	-	-	5	10	30	45	10				10
		#2	Run	83	66	0.8	0.5	1.5	0.5	0.6	6	90	10			40		85	15		2	5	10	25	45	15		5	15
		#3	Inlet	3	4	1.3	1.0	1.5	0.5	0.6	10	-	-	-	-	-	-	-	-	-		5	5	15	70	5			15
		Total	83	66	0.8	0.5	1.5	0.5	0.6	6	90	10			40		85	15		2	5	10	25	45	15		5	15	
A3-4	14-Jun-98	#1	Outlet	4	14	3.5	2.5	4.2	0.5	0.6	15	-	-	-	-	-	-	-	-	-	5	10	30	50	5				15
		#2	Run	26	18	0.7	0.5	1.0	0.5	0.6	15	100				50		95	5		1	10	15	20	50	5			15
		#3	Inlet	4	6	1.5	1.0	1.7	0.4	0.6	20	-	-	-	-	-	-	-	-	-		5	10	20	60	5			10
		Total	26	18	0.7	0.5	1.0	0.5	0.6	15	100				40		95	5		1	10	15	20	50	5		15	15	
A4-5	14-Jun-98	#1	Outlet	5	13	2.5	2.0	3.5	0.4	0.5	10	-	-	-	-	-	-	-	-	-	5	5	15	60	15				5
		#2	Run	112	146	1.3	0.8	1.8	0.5	0.6	10	90	10			40	15	80	5		2	5	10	25	35	25		15	10
		#3	Inlet	7	21	3.0	2.5	3.5	0.3	0.4	20	-	-	-	-	-	-	-	-	-		5	5	30	40	20		5	5
		Total	112	146	1.3	0.8	1.8	0.5	0.6	10	90	10			40	15	80	5		2	5	10	25	35	25		15	10	
A5-6	15-Jun-98	#1	Outlet	22	330	15.0	8.0	18.0	0.3	0.5	35	-	-	-	-	-	-	-	-	-	10	5	20	45	20			5	15
		#2	Run	48	72	1.5	0.9	2.0	0.5	0.6	12	90	10			70	40	60		1	10	10	15	30	45		10	5	
		#3	Riffle	34	17	0.5	0.3	0.7	0.3	0.5	20			90	10	20	90	10		5	10	15	40	30			5		
		#4	Run	64	45	0.7	0.5	1.0	0.5	0.6	40	70			30	100	5	95		1	5	20	55	20		5	10		
		#5	Pond	39	390	10.0	6.0	15.0	0.5	0.7	25	100				50			100	5	40	20	10	25	5			25	
		#6	Riffle	65	39	0.6	0.4	0.7	0.3	0.5	15			90	10	30	60	35	5	5	5	5	10	45	35		5	15	
		#7	Pool	17	136	8.0	6.0	10.0	0.4	0.5	20	100				95			100	1	50	25	5	15	5			25	
		#8	Run	139	139	1.0	0.6	1.5	0.5	0.7	25	40	50		10	80	10	80	10	3	10	20	10	45	15			15	
		Total	406	838	2.1	0.3	15.0	0.4	0.7	24	49	18	22	11	67	26	56	8	10	2	29	18	10	30	13	0	1	20	
A6-7	15-Jun-98	#1	Outlet	13	260	20.0	10.0	22.0	0.4	0.5	25	-	-	-	-	-	-	-	-	-	10	15	25	35	15				15
		#2	Riffle	95	86	0.9	0.6	1.5	0.4	0.6	35			100		30	55	40	5	1	10	5	20	30	45		35	5	
		#3	Run	18	126	7.0	5.0	8.0	0.3	0.4	7	100				5		100				10	25	65		50			
		#4	Inlet	9	108	12.0	9.0	15.0	0.3	0.4	18	-	-	-	-	-	-	-	-	-	5		5	30	60		40	5	
Total	113	212	1.9	0.6	8.0	0.4	0.6	31	16	0	84	0	26	46	50	4	0	1	0	2	14	27	57	0	44	2			
A7-8	15-Jun-98	#1	Outlet	14	168	12.0	6.0	18.0	0.5	0.7	35	-	-	-	-	-	-	-	-	-	50		5	15	30		5	25	
		#2	Riffle	55	55	1.0	0.4	2.0	0.3	0.5	1			100		5	60	30	10				20	50	30	3	10	10	
		#3	Run	82	90	1.1	0.5	1.8	0.4	0.7	50	50	20	30		50		70	30	5	5		5	20	70	5	40	15	
		Total	137	145	1.1	0.4	1.8	0.3	0.7	30	30	12	58	0	32	24	54	22	0	3	3	0	11	31	55	4	29	13	
B0-1	17-Jun-98	#1	Outlet	15	53	3.5	3.0	4.0	0.4	0.5	5	-	-	-	-	-	-	-	-	-	30	10	30	10	20				
		#2	Riffle	35	42	1.2	0.5	1.7	0.3	0.5	18			100		20	70	25	5				30	30	40	2	10	10	
		#3	Run	22	33	1.5	0.8	2.0	0.4	0.6	10	80		20		80	10	70	20	10			30	50	20		5	30	
		#4	Run	56	560	10.0	8.0	18.0	0.3	0.4	25	100				70		90	10				5	25	30	40		10	5
		#5	Inlet	23	345	15.0	14.0	18.0	0.4	0.5	20	-	-	-	-	-	-	-	-	-	5	10	25	40	20		5		
		Total	113	635	5.6	0.5	18.0	0.3	0.6	20	65	0	35	0	56	24	66	10	0	2	0	4	26	31	39	0	10	7	

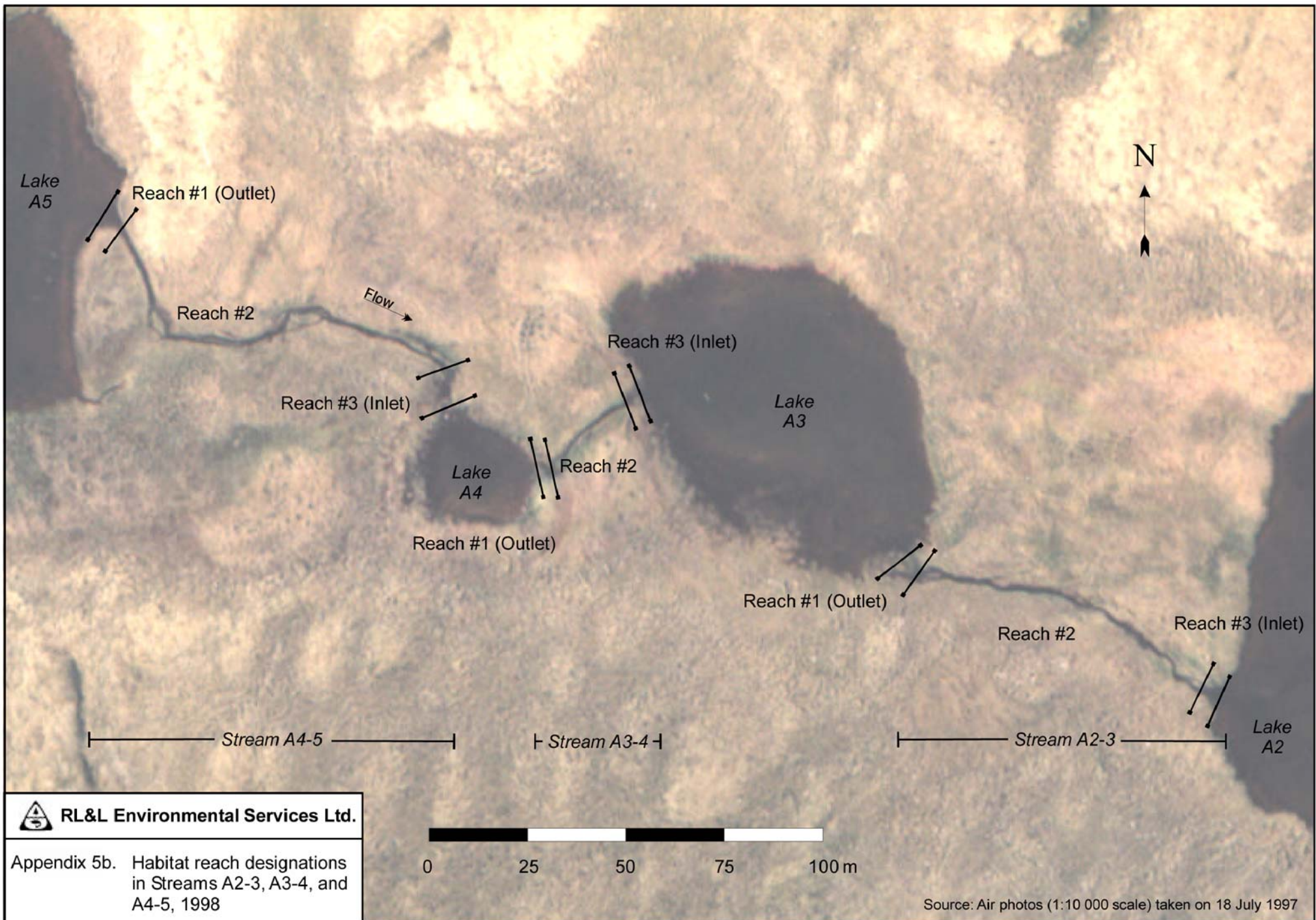
Appendix D4. Habitat characteristics of streams in the Meliadine Study Area, June 1998 and July 2004.

Stream	Survey Date	Reach No. ^a	Domin. Habitat Type ^b	Stream Size							Flooded Width (m)	Channel Type (% length)				Flooded Banks (%)	Habitat Type (% length)				Depth >0.5 m (% length)	Substrate (% area)					Instream Cover (% area)		
				Length (m)	Area (m²)	Channel Width (m)			Depth (m)			Sin	Dou	Mul	Dis		Riffle	Run	Pool	Flat		OM	Fi	Gr	Co	Bo	UC	BG	AV
						Mean	Min.	Max.	Mean	Max.																			
B1-2	13-Jun-98	#1	Outlet	8	48	6.0	3.0	7.0	0.5	0.6	12	-	-	-	-	-	-	-	-	-	-		5	20	45	30		10	5
		#2	Run	55	165	3.0	1.5	4.0	0.5	0.6	12	95	5		50	100							5	5	50	40		15	5
		#3	Run	35	53	1.5	0.7	1.8	0.6	0.7	10			100	50	20	80						5	5	40	50		15	5
		#4	Run	62	124	2.0	1.0	2.3	0.6	0.7	30	80	20		100	95	5						5	5	30	60		25	5
		#5	Inlet	9	14	1.5	1.0	2.5	0.8	0.9	13	-	-	-	-	-	-	-	-	-	90	5	5						5
		Total	152	342	2.2	0.7	4.0	0.6	0.7	19	67	10	23	0	70	5	93	2	0	0	0	0	5	5	41	49	0	19	5
B3-4	14-Jun-98	#1	Outlet	5	13	2.5	1.8	3.5	0.4	0.6	30	-	-	-	-	-	-	-	-	-			20	40	40	1	10	2	
		#2	Run	23	44	1.9	1.7	2.5	0.3	0.5	25	100			100	30	65	5					10	30	60		15	1	
		#3	Riffle	72	86	1.2	0.8	1.6	0.2	0.5	30		10	90	40	70	15	15					10	40	50	2	20	5	
		#4	Run	63	50	0.8	0.2	1.8	0.3	1.0	35			100	100	60	40			30	70		5	5	20	5	5	60	
		Total	158	181	1.1	0.2	2.5	0.3	1.0	31	15	5	81	0	73	36	40	24	0	12	20	0	9	28	44	2	15	19	
B4-5	14-Jun-98	#1	Outlet	11	55	5.0	2.5	10.0	0.5	0.7	5	-	-	-	-	-	-	-	-	-	10		5	65	20	1	10		
		#2	Run	55	44	0.8	0.5	1.6	0.3	0.4	25	50	10	40	100		100			15	5	20	45	15	2	10	10		
		#3	Run	91	91	1.0	0.6	1.5	0.2	0.3	10	70	5	25	100		100			100								20	
		Total	146	135	0.9	0.5	1.6	0.2	0.4	16	62	7	31	0	100	0	100	0	0	0	72	2	7	15	5	1	3	17	
B5-6	14-Jun-98	#1	Outlet	6	24	4.0	1.5	8.0	0.4	0.5	4	-	-	-	-	-	-	-	-	-	10		10	20	60		15	5	
		#2	Run	32	54	1.7	0.5	2.5	0.3	0.5	7	80	20		30	10	85	5		10		10	50	30		10	5		
		#3	Riffle	41	21	0.5	0.2	1.2	0.2	0.3	1		20	80	5	70	20	10					5	35	60	2	20	2	
		#4	Riffle	25	18	0.7	0.3	1.2	0.2	0.3	1		100		5	55	35	10					10	40	50	3	25	5	
		#5	Inlet	3	3	0.9	0.7	1.4	0.3	0.4	1	-	-	-	-	-	-	-	-	-	5		10	70	15		5	2	
		Total	98	92	0.9	0.2	2.5	0.2	0.5	3	26	40	33	0	13	47	45	8	0	0	6	0	9	45	40	1	15	4	
B6-7	13-Jun-98	#1	Outlet	3	5	1.5	1.3	2.2	0.3	0.4	2	-	-	-	-	-	-	-	-	-			20	50	30	1	3		
		#2	Run	85	60	0.7	0.5	1.5	0.3	0.5	25	95	2	3	30		97	3			2		18	60	20		10	5	
		#3	Riffle	33	40	1.2	0.6	1.4	0.2	0.4	1	90	10		5	86	10	4					10	30	60		25	2	
		Total	118	99	0.8	0.5	1.5	0.3	0.5	18	94	4	2	0	23	24	73	3	0	0	0	1	15	48	36	0	16	4	
D0-1	15-Jun-98	#1	Riffle	50	70	1.4	1.0	2.0	0.3	0.5	25	50	30	20	100	60	30	10					30	30	40		20		
		#2	Pond	30	600	20.0	15.0	30.0	0.6	0.8	40	100			100				100		20	5	30	30	15		10	10	
		#3	Riffle	20	120	6.0	5.0	8.0	0.3	0.4	30	100			100	70	10	20					20	30	50		30		
		#4	Inlet	10	200	20.0	15.0	20.0	0.4	0.6	20	-	-	-	-	-	-	-	-	-	5	5	20	30	40		20		
		Total	100	790	7.9	1.0	30.0	0.4	0.8	31	75	15	10	0	100	44	17	9	30	0	15	4	28	30	23	0	14	8	
ML-PL	17-Jun-98	#1	Run	50	2500	50.0	45.0	60.0	0.5	0.7	50	100			0		70	30		10			10	20	70		25		
		#2	Riffle	60	1800	30.0	5.0	40.0	0.4	0.5	40			100	0	90		10		2			5	25	70		30		
		Total	110	4300	39.1	5.0	60.0	0.4	0.7	45	45	0	55	0	0	49	32	19	0	6	0	0	8	22	70	0	27	0	
ML-MR	17-Jun-98	#1	Riffle	20	1400	70.0	65.0	75.0	0.3	0.6	70	100			0	80		20		5			10	30	60		30		
		#2	Run	60	4500	75.0	68.0	80.0	0.8	4.0	75	100			0		80	20		50			20	40	40		30		
		#3	Riffle	70	4900	70.0	60.0	75.0	0.3	0.6	70	100			0	100							20	30	50		40		
		Total	150	10800	72.0	60.0	80.0	0.5	4.0	72	100	0	0	0	0	57	32	11	0	21	0	0	19	34	47	0	35	0	
J0-1	07-Jul-04	#1	Run	16	11	0.7	0.4	1.2	0.1	0.2	-	100			-		100			-	25	75						10	
		#2	Run	88	176	2.0	1.0	6.0	0.1	0.2	-				-		60		40	-	98	2						80	
		#3	Run	34	85	2.5	0.5	4.0	0.1	0.3	-		50	50	-	9	90	1		-	88	10	1	1				90	
		#4	Run	44	18	0.4	0.2	4.0	0.1	0.8	-			100	-	9	90	1		-	75	20	3	2				90	
		#5	Run	16	160	10.0	6.0	15.0	0.2	0.3	-			100	-	5	95			-	50	30	5	5	10		2	80	
		Total	198	450	2.3	0.2	15.0	0.1	0.8	-	8	9	57	27	-	4	78	0.4	18	-	81	16	1	1	1	0	0.2	78	

^a see Appendices D5a to D5j for locations of reach breaks

^b inlets and outlets are not included in the totals nor in the "weighted mean" percentages of channel and habitat types





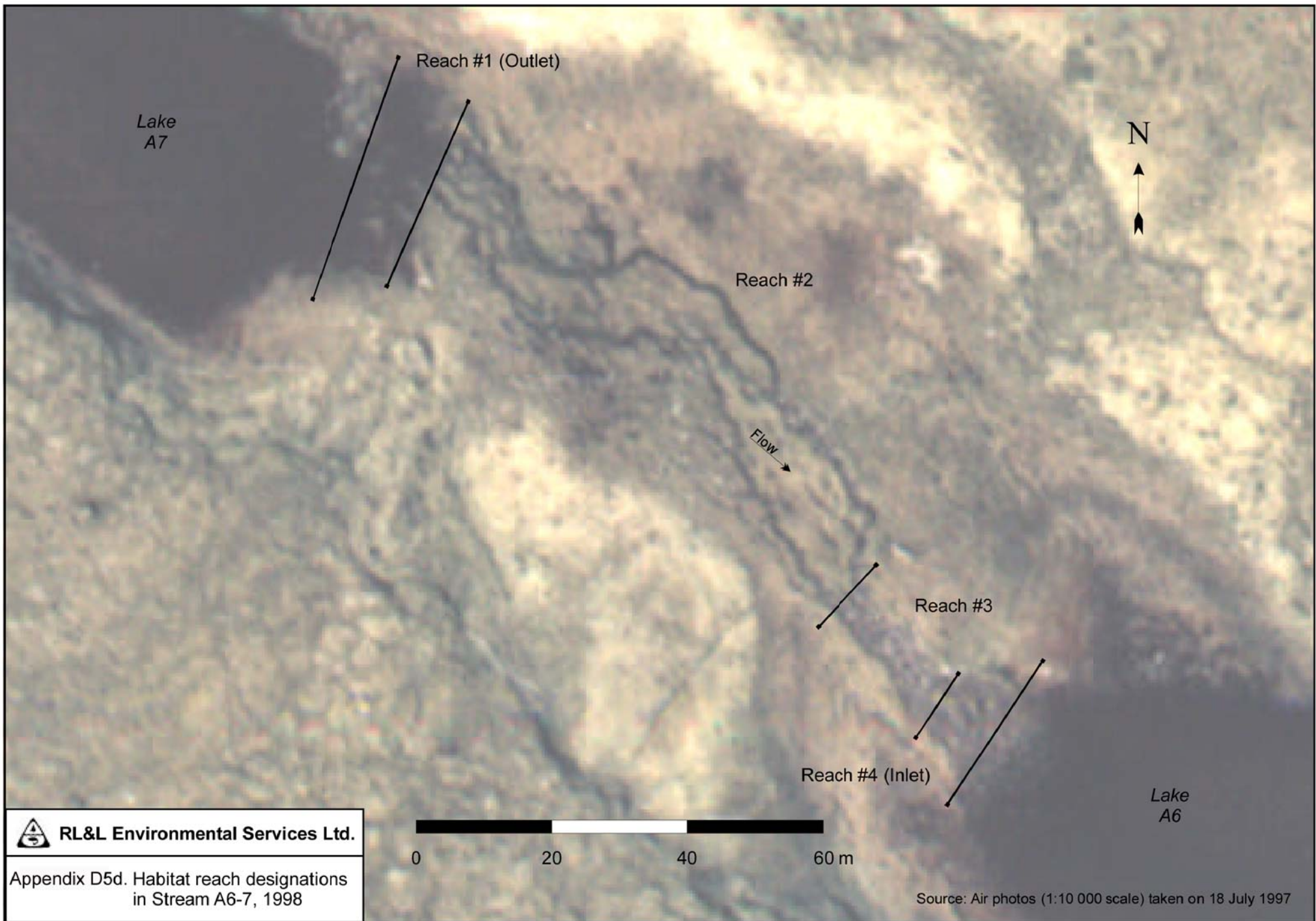
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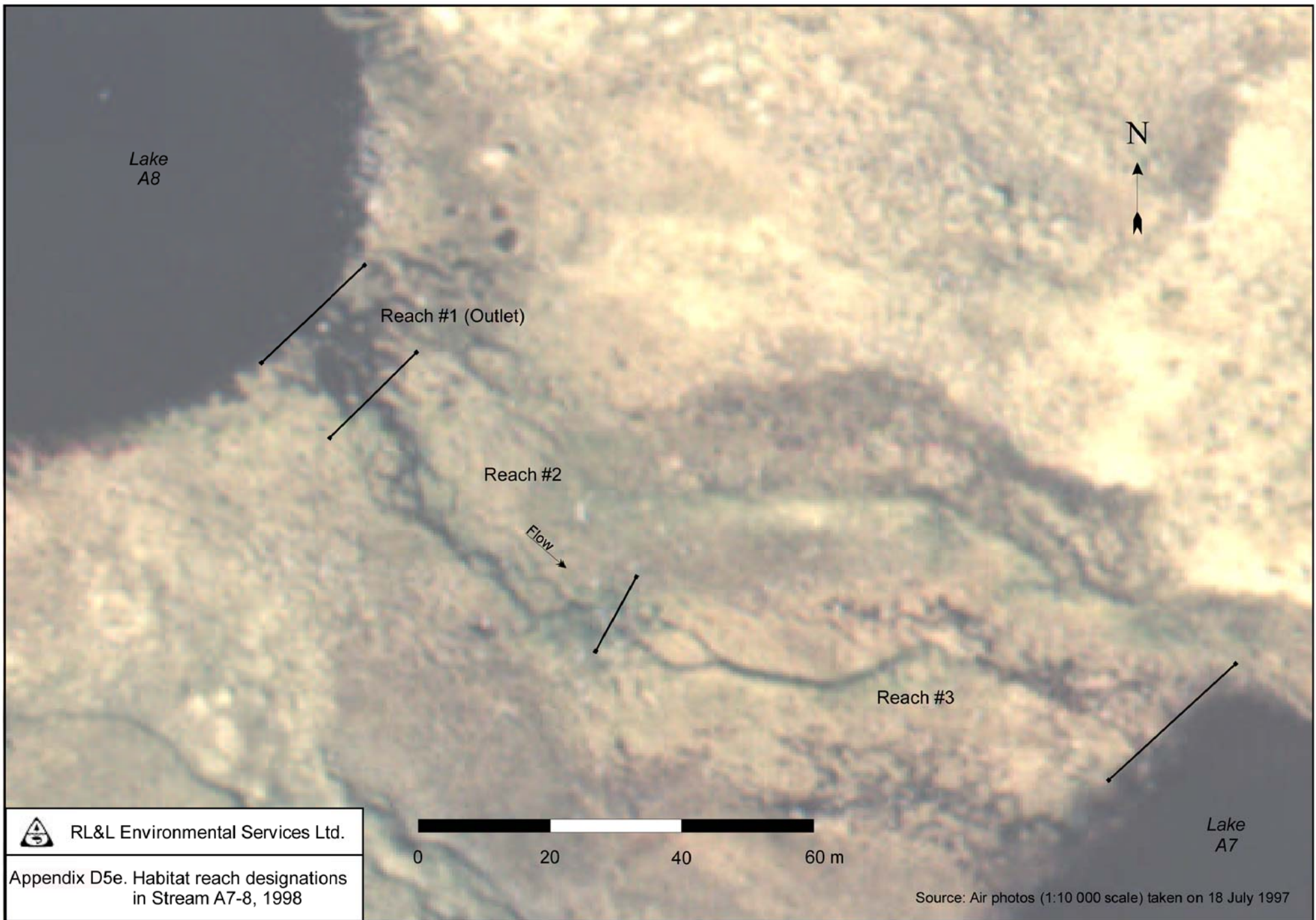
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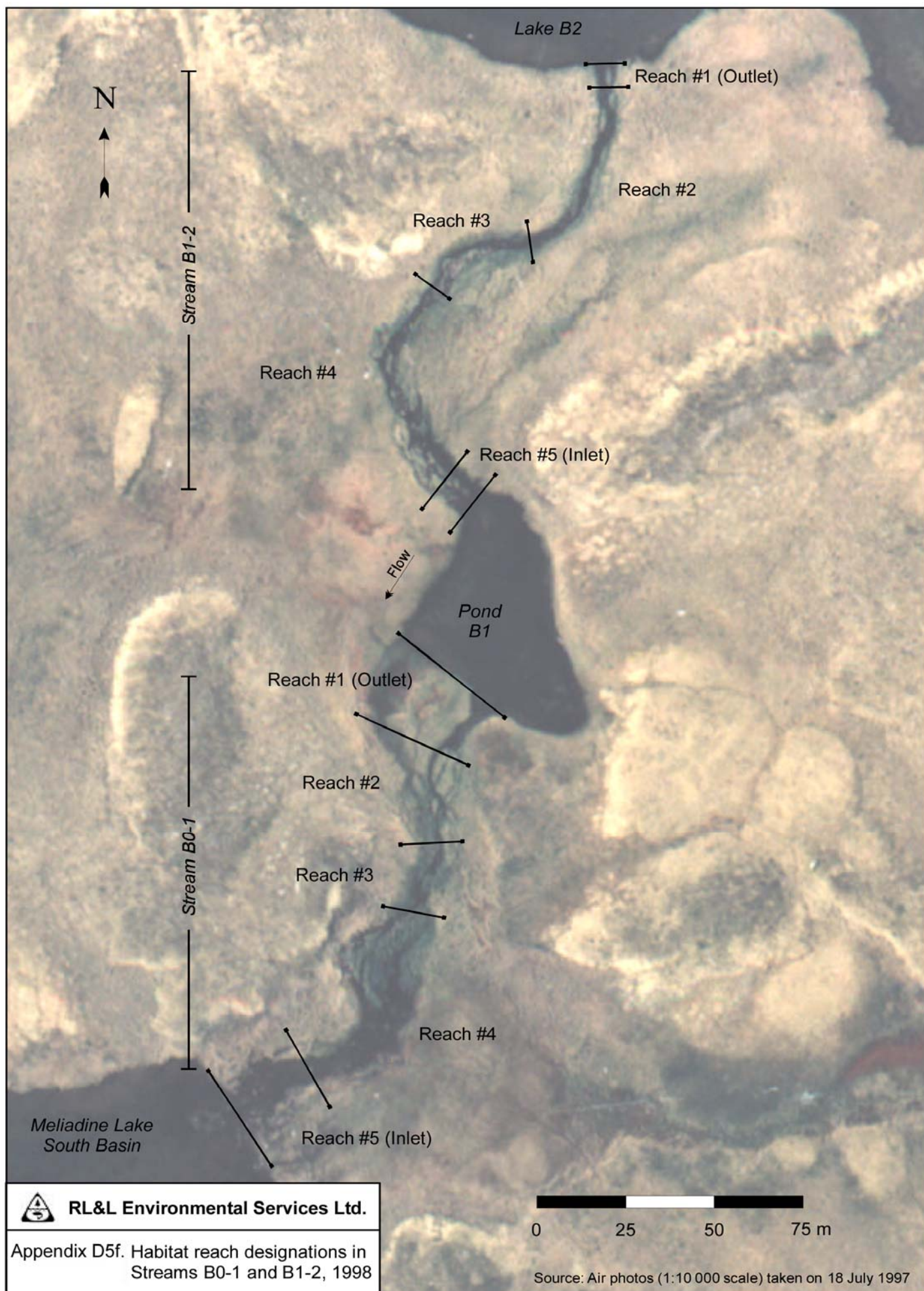


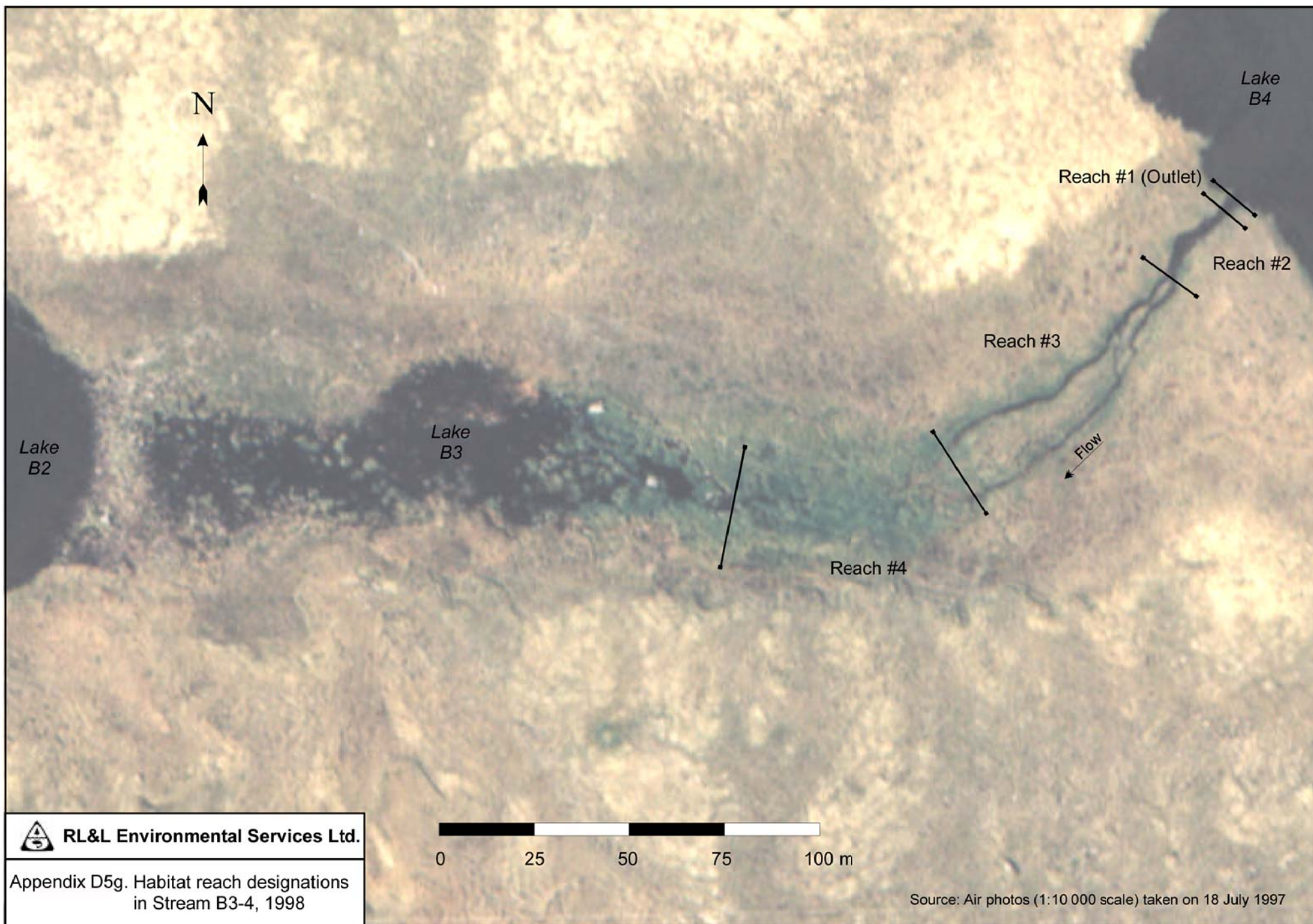
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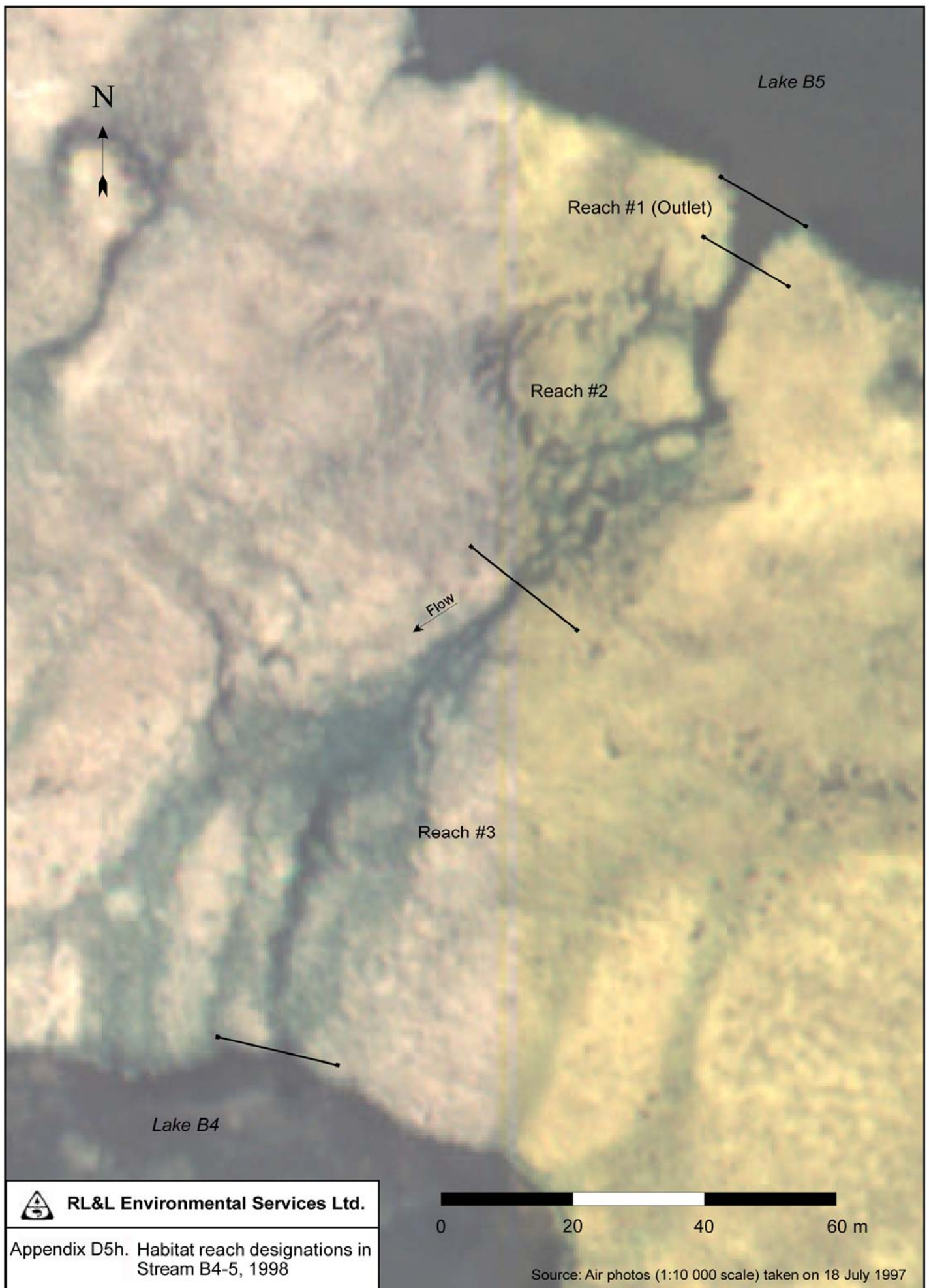
Appendix D5c. Habitat reach designations
in Stream A5-6, 1998

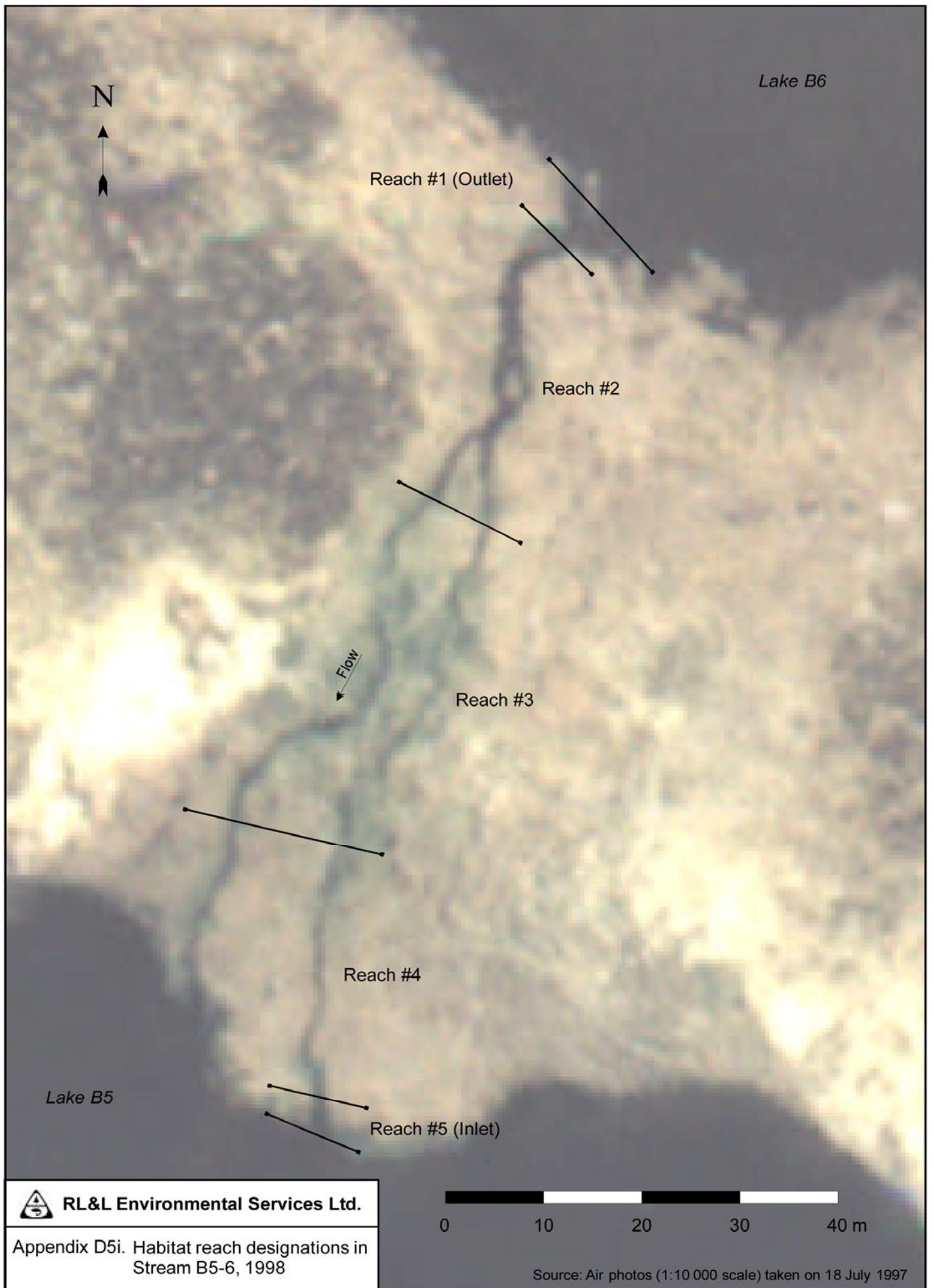


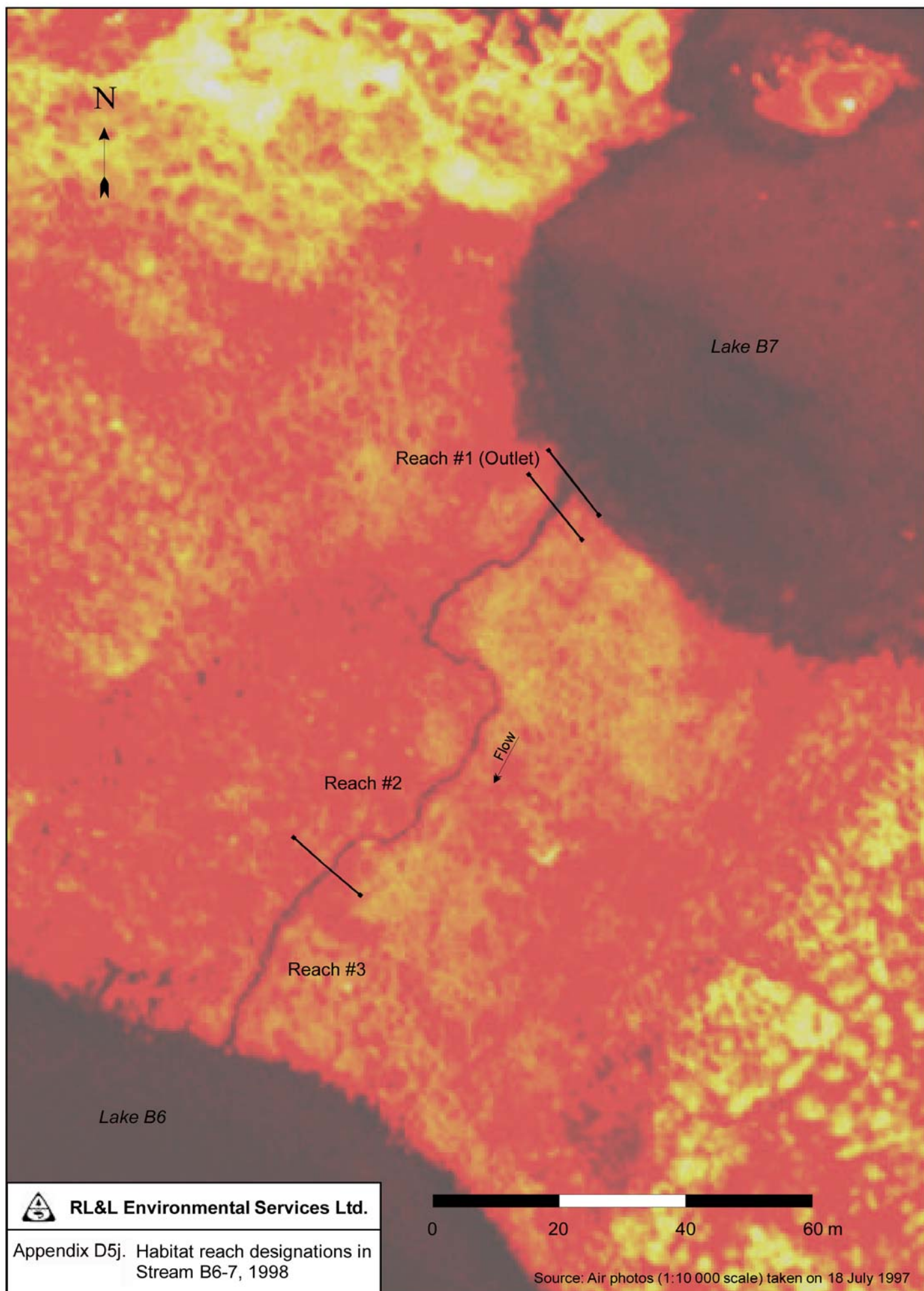












Appendix D6a. Aerial classification of streams in the Meliadine Study Area, 21 June 1997.

Stream ID	Class
A 0 - 1	4
A 2 - 2	5
A 2 - 18	0
A 2 - 3	5
A 3 - 4	4
A 4 - 5	4
A 5 - 6	4
A 5 - 19	1
A 5 - 50	1
A 6 - 7	4
A 6 - 30	1
A 6 - 31	1
A 6 - 44	2
A 7 - 8	4
A 8 - 9	1
A 8 - 35	1
A 8 - 37	1
A 8 - 40	1
A 9 - 10	2
A 10 - 11	1
A 11 - 12	1
A 12 - 13	1
A 13 - 14	0
A 14 - 15	1
A 15 - 16	0
A 16 - 17	0
A 19 - 20	0
A 19 - 22	2
A 22 - 23	0
A 22 - 24	1
A 24 - 25	1
A 25 - 26	1
A 26 - 27	2
A 27 - 28	1
A 28 - 29	0
A 31 - 32	0
A 35 - 36	0
A 37 - 38	1
A 38 - 39	1
A 40 - 41	2
A 41 - 42	2
A 42 - 43	0
A 44 - 45	3
A 45 - 46	3
A 45 - 49	0
A 46 - 47	0
A 47 - 48	0
A 50 - 51	1
A 51 - 52	1
A 51 - 53	0

Stream ID	Class
B 0 - 1	5
B 1 - 2	4
B 1 - 40	2
B 2 - 3	4
B 2 - 11	2
B 2 - 14	2
B 3 - 4	4
B 4 - 5	3
B 4 - 19	3
B 4 - 22	2
B 4 - 35	1
B 4 - 36	2
B 4 - 39	2
B 4 - 45	4
B 5 - 6	4
B 5 - 30	2
B 5 - 31	3
B 5 - 32	1
B 5 - 33	1
B 5 - 34	2
B 6 - 7	5
B 6 - 24	1
B 7 - 8	2
B 7 - 25	1
B 7 - 27	1
B 7 - 28	0
B 8 - 9	2
B 9 - 10	0
B 10 - 29	0
B 11 - 12	2
B 12 - 13	3
B 14 - 15	3
B 15 - 16	2
B 16 - 17	2
B 17 - 18	0
B 19 - 20	1
B 19 - 21	2
B 22 - 23	1
B 25 - 26	1
B 30 - 31	3
B 31 - 32	1
B 36 - 37	1
B 37 - 38	1
B 40 - 41	1
B 41 - 42	0

Stream ID	Class
B 44 - 45	3
B 45 - 46	4
B 46 - 47	1
B 46 - 52	3
B 46 - 57	1
B 46 - 59	3
B 46 - 64	1
B 46 - 65	2
B 47 - 48	2
B 48 - 49	5
B 48 - 93	1
B 49 - 50	4
B 49 - 86	3
B 50 - 51	4
B 51 - 52	6
B 52 - 53	4
B 52 - 74	0
B 52 - 75	1
B 52 - 78	2
B 53 - 54	2
B 54 - 55	3
B 55 - 56	1
B 56 - 83	1
B 57 - 58	1
B 59 - 60	1
B 59 - 62	1
B 60 - 61	3
B 60 - 63	0
B 65 - 66	2
B 66 - 67	3
B 67 - 68	3
B 68 - 69	3
B 69 - 70	1
B 69 - 71	0
B 69 - 72	0
B 69 - 73	1
B 69 - 76	1
B 76 - 77	2
B 78 - 79	1
B 79 - 80	0
B 86 - 87	3
B 86 - 92	0
B 87 - 88	3
B 89 - 90	0
B 90 - 91	0

Stream ID	Class
D 0 - 1	4
D 1 - 2	5
D 1 - 12	2
D 2 - 3	2
D 2 - 17	1
D 2 - 35	2
D 3 - 4	2
D 3 - 36	2
D 4 - 5	3
D 4 - 21	2
D 4 - 31	1
D 4 - 33	1
D 5 - 6	3
D 5 - 22	1
D 6 - 7	4
D 7 - 8	2
D 7 - 28	2
D 7 - 30	1
D 8 - 9	1
D 12 - 13	1
D 12 - 14	1
D 14 - 15	1
D 14 - 16	1
D 22 - 23	2
D 23 - 24	2
D 24 - 25	1
D 28 - 29	0
D 35 - 36	2
D 36 - 37	1

Class 0 dry or discontinuous watercourse

Class 1 dispersed flow through grass; undefined stream channel

Class 2 stream channel barely discernible; most flow dispersed over grass; substrate entirely organic

Class 3 well defined stream channels; substrate mostly organic; gravel and cobble areas present but infrequent

Class 4 most of stream channel composed of coarse (gravel/cobble/boulder) substrate

Class 5 stream channel entirely composed of coarse substrate; limited holding areas (deeper pools)

Class 6 stream channel entirely composed of coarse substrate; holding areas present

See Appendices D6b to D6e for stream locations



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Appendix D6b. Lakes and ponds in Basin A on the raised peninsula within Meliadine Lake.

*Meliadine Lake
(ML-E)*

WMC
Camp

A8

Basin A



0 0.5 1 km

Scale 1 : 25 600

Modified from a digital map provided
by AGRA Earth & Environmental Ltd.

