

A. APPENDIX A. SUMMARY OF QA/QC DATA (DUPLICATES, TRIPLICATES AND FIELD BLANKS) 1999 - 2004.

Table A-1. Summary of triplicate bacteriological water samples collected in 1999.

	Enterococcus (MPN/100 mL)	Fecal coliforms (MPN/100 mL)
Roscoe Bay		
Sept 2, 1999		
Replicate 1	15	7
Replicate 2	10	8
Replicate 3	11	7
Mean	12	7.3
Std. Dev.	2.65	0.58
% Relative Std. Dev.	22.05%	7.87%
West Gorge Harbour		
Sept 2, 1999		
Replicate 1	1	1
Replicate 2	1	1
Replicate 3	1	1
Mean	1	0
Std. Dev.	0	0
% Relative Std. Dev.	0.00%	0.00%
Melanie Cove		
Sept 4, 1999		
Replicate 1	25	8
Replicate 2	33	7
Replicate 3	15	2
Mean	24.33	5.7
Std. Dev.	9.02	3.21
% Relative Std. Dev.	37.06%	56.73%
Refuge Cove		
Sept 4, 1999		
Replicate 1	5	2
Replicate 2	2	1
Replicate 3	4	1
Mean	3.67	1.3
Std. Dev.	1.53	0.58
% Relative Std. Dev.	41.66%	43.30%
Squirrel Cove		
Sept 4, 1999		
Replicate 1	3	1
Replicate 2	3	1
Replicate 3	4	1
Mean	3.33	0
Std. Dev.	0.58	0
% Relative Std. Dev.	17.32%	0.00%

Table A-2. Summary of triplicate bacteriological water samples collected in 2000.

Roscoe Bay July 28, 2000	Fecal coliforms (MPN/100 mL)
Replicate 1	20
Replicate 2	20
Replicate 3	20
Mean	20
Std. Dev.	0.00
% Relative Std. Dev.	0.00%

Table A-3. Summary of triplicate sediment samples collected in 2000.

Prideaux Haven July 28, 2000	Sample 1	Sample 2	Sample 3	Mean	Std. Dev.	% Relative Std. Dev.
Depth (m)	15	75	12			
Clay 0.004mm	1.61	62.74	62.13	42	35.12	83.30%
Silt >0.004mm0.063mm	33.57	34.26	34.68	34	0.56	1.64%
Sand >0.063mm2.00mm	2.62	3	3.09	3	0.25	8.59%
Gravel >2.00mm	0	0	0.11	0	0.06	173.21%
Nitrogen, Total as N	8800	8800	8400	8667	230.94	2.66%
Residue (fixed) (mg/kg)	762000	753000	756000	757000	4582.58	0.61%
Residue (volatile) (mg/kg)	238000	247000	244000	243000	4582.58	1.89%
Aluminum	17400	17300	16800	17167	321.46	1.87%
Antimony	8	8	8	8	0.00	0.00%
Arsenic	12	10	11	11	1.00	9.09%
Barium	107	109	100	105	4.73	4.49%
Beryllium	0.4	0.3	0.3	0	0.06	17.32%
Boron	154	159	148	154	5.51	3.58%
Cadmium	21.1	21.1	18.5	20	1.50	7.42%
Calcium	11300	11300	10600	11067	404.15	3.65%
Chromium	39.3	36.5	36	37	1.78	4.77%
Cobalt	4.1	6.6	6	6	1.31	23.45%
Copper	79.5	79.9	75.1	78	2.66	3.41%
Iron	16700	16300	15600	16200	556.78	3.44%
Lead	23	27	25	25	2.00	8.00%
Magnesium	14400	14300	13300	14000	608.28	4.34%
Manganese	294	309	295	299	8.39	2.80%
Molybdenum	17	16	18	17	1.00	5.88%
Nickel	27	39	27	31	6.93	22.35%
Phosphorus	2130	2240	2050	2140	95.39	4.46%
Potassium	6460	6520	6040	6340	261.53	4.13%
Selenium	14	21	16	17	3.61	21.21%
Silicon	1530	1820	1460	1603	190.88	11.90%
Silver	2	2	2	2	0.00	0.00%
Sodium	38200	38900	36800	37967	1069.27	2.82%
Strontium	110	113	108	110	2.52	2.28%
Sulphur	15600	15600	14700	15300	519.62	3.40%
Tin	8	8	8	8	0.00	0.00%
Titanium	1440	1700	1650	1597	137.96	8.64%
Vanadium	62	61	60	61	1.00	1.64%
Zinc	189	189	187	188	1.15	0.61%

*All units µg/g unless otherwise stated.

Table A-4. Summary of duplicate and triplicate water samples collected in 2002.

Roscoe Bay July 17, 2002	Non- filterable Residue (Fixed)	TSS	Non- filterable Residue	Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate+ Nitrite	Nitrite	Enterococci (MPN/100g)	Fecal Coliform (MPN/100 mL)
Duplicate1	6	9	3	0.07	0.07	0.1	0.005	0.002	0.002	0.002	5	5
Duplicate2	1	4	4	0.1	0.1	0.1	0.005	0.002	0.002	0.002	13	11
Difference	5	5	1	0.03	0.03	0	0	0	0	0	8	6
Average	3.5	6.5	3.5	0	0	0.1	0.005	0.002	0.002	0.002	9	8
Relative % mean difference	142.86%	76.92%	28.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	88.89%	75.00%

Roscoe Bay July 22, 2002	Non- filterable Residue (Fixed)	TSS	Non- filterable Residue	Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate+ Nitrite	Nitrite	Ortho-P	Total P	Enterococci (MPN/100g)	Fecal Coliform (MPN/100 mL)
Duplicate1	5	8	3	0.02	0.02	0.1	0.005	0.002	0.002	0.002	0.002	0.009	2	17
Duplicate2	2	4	4	0.03	0.03	0.1	0.005	0.002	0.002	0.002	0.002	0.01	5	33
Difference	3	4	1	0.01	0.01	0	0	0	0	0	0	0.001	3	16
Average	3.5	6	3.5	0	0	0.1	0.005	0.002	0.002	0.002	0.002	0.0095	3.5	25
Relative % mean difference	85.71%	66.67%	28.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	10.53%	85.71%	64.00%

Roscoe Bay July 23, 2002	Non- filterable Residue (Fixed)	TSS	Non- filterable Residue	Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate+ Nitrite	Nitrite	Ortho-P	Total P	Enterococci (MPN/100g)	Fecal Coliform (MPN/100 mL)
Duplicate1	2	5	3	0.17	0.17	0.17	0.005	0.02	0.002	0.002	0.005	0.008	2	2
Duplicate2	1	4	4	0.25	0.24	0.25	0.005	0.002	0.002	0.002	0.006	0.008	5	8
Difference	1	1	1	0.08	0.07	0.08	0	0.018	0	0	0.001	0	3	6
Average	1.5	4.5	3.5	0	0	0.21	0.005	0.011	0.002	0.002	0.0055	0.008	3.5	5
Relative % mean difference	66.67%	22.22%	28.57%	0.00%	0.00%	38.10%	0.00%	163.64%	0.00%	0.00%	18.18%	0.00%	85.71%	120.00%

*All units mg/L unless otherwise stated.

Table A-4 (continued)

Roscoe Bay July 29, 2002	Non- filterable Residue (Fixed)	TSS	Non- filterable Residue	Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate+ Nitrite	Nitrite	Ortho-P	Total P	Enterococci (MPN/100g)	Fecal Coliform (MPN/100 mL)
Replicate 1	1	4	4	0.1	0.1	0.1	0.005	0.002	0.002	0.002	0.003	0.004	4	8
Replicate 2	1	4	4	0.1	0.1	0.1	0.005	0.002	0.002	0.002	0.002	0.007	4	2
Replicate 3	2	4	2	0.1	0.1	0.1	0.005	0.002	0.002	0.002	0.002	0.007	7	7
Mean	1.3	4.0	3.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.7
Std. Dev.	0.58	0.00	1.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.73	3.21
% Relative Std. Dev.	43.30%	0.00%	34.64%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	24.74%	28.87%	34.64%	56.73%

Desolation Central July 19, 2002	Non- filterable Residue (Fixed)	TSS	Non- filterable Residue	Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate+ Nitrite	Nitrite	Ortho-P	Total P	Enterococci (MPN/100g)	Fecal Coliform (MPN/100 mL)
Duplicate1	6	9	3	0.12	0.12	0.11	0.009	0.002	0.002	0.002	0.004	0.005	2	2
Duplicate2	3	4	1	0.25	0.26	0.25	0.006	0.002	0.002	0.002	0.002	0.006	2	2
Difference	3	5	2	0.13	0.14	0.14	0.003	0	0	0	0.002	0.001	0	0
Average	4.5	6.5	2	0	0	0.18	0.0075	0.002	0.002	0.002	0.003	0.0055	2	2
Relative % mean difference	66.67%	76.92%	100.00%	0.00%	0.00%	77.78%	40.00%	0.00%	0.00%	0.00%	66.67%	18.18%	0.00%	0.00%

Toba Inlet North July 18, 2002	Non- filterable Residue (Fixed)	Turbidity (NTU)	Total Kjeldahl N	Total N	Total Organic N	Ammonia N	Nitrate N Dissolved	Nitrate + Nitrite	Nitrite N
Duplicate1	33	23.1	0.02	0.04	0.1	0.005	0.002	0.021	0.002
Duplicate2	38	33.5	0.16	0.18	0.16	0.005	0.002	0.016	0.002
Difference	5	10.4	0.14	0.14	0.06	0	0	0.005	0
Average	35.5	28.3	0.09	0	0	0.005	0.002	0.0185	0.002
Relative % mean difference	14.08%	36.75%	155.56%	0.00%	0.00%	0.00%	0.00%	27.03%	0.00%

*All units mg/L unless otherwise stated.

Table A-5. Summary of field blanks collected in 2002.

	Detection Limit	Field Blank 17-Jul-02	Field Blank 19-Jul-02	Travel Blank 22-Jul-02	Field Blank 23-Jul-02	Field Blank 29-Jul-02
Non-filterable residue (fixed)	<1	<1	<1	<1	<1	<1
Non-filterable residue (TSS)	<4	<4	<4	<4	<4	<4
Non-filterable residue (volume)	<4	<4	<4	<4	<4	<4
Kjeldahl N	<0.02	0.14	0.05	<0.02	0.13	<0.02
Total N	<0.02	0.14	0.06	<0.02	0.13	<0.02
Total Organic N	<0.1	0.14	<0.1	<0.1	0.13	<0.1
Ammonia N	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate N Dissolved	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate+ Nitrite	<0.002	<0.002	0.014	<0.002	<0.002	<0.002
Nitrite	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Ortho-P	<0.001	0.002	0.004	<0.001		<0.001
Total P	<0.002		<0.002	0.003		0.003
Enterococci (MPN/100g)	<2	<2	<2	<2	<2	<2
Fecal Coliform (MPN/100 mL)	<2	<2	<2	<2	<2	<2

*All units mg/L unless otherwise stated.

Table A-6. Summary of duplicate sediment samples collected in 2002.

Toba Inlet North July 18m 2002	Sample 1	Sample 2	Difference	Average	Relative % mean difference
Gravel 2.0 mm	0.1	0.1	0	0.1	0.00%
Coarse Sand 0.59 mm	0.1	3.2	3.1	1.65	187.88%
Medium Sand 0.297 mm	0.4	8.9	8.5	4.65	182.80%
Fine Sand 0.149 mm	2.1	11.6	9.5	0	0.00%
Very Fine Sand 0.053 mm	51.3	64.9	13.6	0	0.00%
Silt 0.037 mm	15.3	5.2	10.1	10.25	98.54%
Inorganic Carbon-Total	500	500	0	500	0.00%
Organic Carbon-Total	7500	3500	4000	5500	72.73%
Carbon-Total	7500	3500	4000	5500	72.73%
Aluminum	13900	26500	12600	20200	62.38%
Antimony	0.1	0.2	0.1	0.15	66.67%
Arsenic	2.4	4.7	2.3	3.55	64.79%
Barium	226	284	58	255	22.75%
Beryllium	0.1	0.3	0.2	0.2	100.00%
Bismuth	0.1	0.1	0	0.1	0.00%
Cadmium	0.05	0.07	0.02	0.06	33.33%
Calcium	5720	8250	2530	6985	36.22%
Chromium	17.5	26.6	9.1	22.05	41.27%
Cobalt	9.2	16.4	7.2	12.8	56.25%
Copper	39.4	71	31.6	55.2	57.25%
Iron	26500	38800	12300	32650	37.67%
Lead	1.1	3	1.9	2.05	92.68%
Magnesium	10300	18100	7800	14200	54.93%
Manganese	268	501	233	384.5	60.60%
Molybdenum	0.5	1	0.5	0.75	66.67%
Nickel	9.1	19.1	10	14.1	70.92%
Phosphorus	1270	923	347	1096.5	31.65%
Potassium	4160	6090	1930	5125	37.66%
Selenium	0.5	0.5	0	0.5	0.00%
Silver	0.06	0.1	0.04	0.08	50.00%
Sodium	5810	7170	1360	6490	20.96%
Strontium	35.5	64.4	28.9	49.95	57.86%
Tellurium	0.1	0.1	0	0.1	0.00%
Thallium	0.21	0.31	0.1	0.26	38.46%
Tin	0.2	0.4	0.2	0.3	66.67%
Titanium	1730	2510	780	2120	36.79%
Vanadium	71	97	26	84	30.95%
Zinc	48.1	91.5	43.4	69.8	62.18%
Zirconium	0.5	1	0.5	0.75	66.67%

*all units µg/g unless otherwise stated

Table A-7. Summary of duplicate water samples collected in 2003.

Desolation Central July 9, 2003	Duplicate 1	Duplicate 2	Difference	Average	Relative % mean difference
Non-filterable residue (fixed)	3	5	2	4	50.00%
Non-filterable residue (TSS)	2	3	1	2.5	40.00%
Non-filterable residue (volume)	1	2	1	1.5	66.67%
Total Kjeldahl N	0.10	0.11	0.01	0	0.00%
Total N	0.10	0.11	0.01	0	0.00%
Total Organic N	0.10	0.11	0.01	0.105	9.52%
Ammonia N	0.005	0.005	0	0.005	0.00%
Nitrate N Dissolved	0.002	0.002	0	0.002	0.00%
Nitrate + Nitrite	0.002	0.002	0	0.002	0.00%
Nitrite N	0.002	0.002	0	0.002	0.00%
Fecal Coliform (MPN/100mL)	2	2	0	2	0.00%

*all units mg/L unless otherwise stated

Table A-8. Summary of replicate sediment samples collected in 2003.

Prideaux Haven July 8, 2003	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Physical						
Moisture (%W/W)	85.1	83.8	84.8	85	0.68	0.80%
% Gravel >2.00 mm	0.00	0.00	0.00	0	0.00	0.00%
% Sand 2.00mm > 0.063mm	2.55	3.41	2.25	3	0.60	22.00%
% Silt 0.063mm > 0.004mm	34.32	34.44	34.51	34	0.10	0.28%
% Clay 0.004 mm	63.14	62.16	63.24	63	0.60	0.95%
Inorganic Carbon-Total	1700	1700	1500	1633	115.47	7.07%
Organic Carbon-Total	86000	90000	89000	88333	2081.67	2.36%
Carbon-Total	88000	92000	90000	90000	2000.00	2.22%
Phosphorus Total	1100	1820	1250	1390	379.87	27.33%
Aluminum	7760	11600	7730	9030	2225.74	24.65%
Antimony	0.5	0.7	0.4	1	0.15	28.64%
Arsenic	9.1	18.6	9.4	12	5.40	43.67%
Barium	46.0	73.6	51.8	57	14.55	25.47%
Beryllium	0.1	0.2	0.1	0	0.06	43.30%
Bismuth	0.1	0.1	0.1	0	0.00	0.00%
Cadmium	14.3	19.0	15.8	16	2.40	14.67%
Calcium	5500	9360	5920	6927	2117.77	30.57%
Chromium	22	35	23.0	27	7.23	27.13%
Cobalt	2.9	4.6	3.2	4	0.91	25.44%
Copper	43.9	67.3	46.2	52	12.90	24.58%
Iron	8460	13500	9380	10447	2683.98	25.69%
Lead	3.7	5.4	3.7	4	0.98	23.00%
Magnesium	7620	13000	8890	9837	2812.16	28.59%
Manganese	126	194	135	152	36.94	24.35%
Molybdenum	10.5	16.6	10.8	13	3.44	27.22%
Nickel	15.4	22.6	14.5	18	4.44	25.37%
Potassium	2930	4930	3230	3697	1078.58	29.18%
Selenium	3.2	5.3	3.6	4	1.12	27.65%
Silver	0.33	0.54	0.36	0	0.11	27.70%
Sodium	26900	48300	33000	36067	11024.67	30.57%
Strontium	61.9	102	69.1	78	21.38	27.53%
Tellurium	0.1	0.1	0.1	0	0.00	0.00%
Thallium	0.37	0.47	0.41	0	0.05	12.08%
Tin	1.0	1.0	1.6	1	0.35	28.87%
Titanium	479	711	519	570	124.02	21.77%
Vanadium	27	40	27	31	7.51	23.95%
Zinc	103	137	105	115	19.08	16.59%
Zirconium	0.7	1.9	0.9	1	0.64	55.11%
Acenaphthene	0.01	0.01	0.01	0	0.00	0.00%
Acenaphthylene	0.01	0.01	0.01	0	0.00	0.00%
Anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(a)anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(b)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(k)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%

*all units µg/g unless otherwise stated

Table A-8 (continued)

Prideaux Haven July 8, 2003	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Benzo(g,h,i)perylene	0.02	0.02	0.02	0	0.00	0.00%
Benzo(a)pyrene	0.01	0.01	0.01	0	0.00	0.00%
Chrysene	0.01	0.01	0.01	0	0.00	0.00%
Dibenz(a,h)anthracene	0.02	0.02	0.02	0	0.00	0.00%
Fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Fluorene	0.01	0.01	0.01	0	0.00	0.00%
Indeno(1,2,3-c,d)pyrene	0.02	0.02	0.02	0	0.00	0.00%
Naphthalene	0.07	0.07	0.01	0	0.03	69.28%
Phenanthrene	0.01	0.01	0.01	0	0.00	0.00%
Pyrene	0.01	0.01	0.01	0	0.00	0.00%
Total PAH's	0.07	0.07	0.01	0	0.03	69.28%
Total Low MW PAH's	0.07	0.07	0.01	0	0.03	69.28%
Total High MW PAH's	0.01	0.01	0.01	0	0.00	0.00%
Fecal coliform	8	2	2	4	3.46	86.60%

*all units µg/g unless otherwise stated

Roscoe Bay July 8, 2003	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Physical						
Moisture (%W/W)	82.0	82.3	81.6	82	0.35	0.43%
% Gravel >2.00 mm	3.43	0.04	1.26	2	1.72	108.90%
% Sand 2.00mm > 0.063mm	11.64	6.02	8.10	9	2.84	33.09%
% Silt 0.063mm > 0.004mm	24.89	28.33	26.25	26	1.73	6.54%
% Clay 0.004 mm	60.03	65.62	64.39	63	2.94	4.64%
Inorganic Carbon-Total	1700	1900	950	1517	500.83	33.02%
Organic Carbon-Total	98000	98000	130000	108667	18475.21	17.00%
Carbon-Total	100000	100000	130000	110000	17320.51	15.75%
Phosphorus Total	1370	1190	1310	1290	91.65	7.10%
Aluminum	10100	12200	12800	11700	1417.74	12.12%
Antimony	0.5	0.5	0.5	1	0.00	0.00%
Arsenic	9.9	11.2	14.1	12	2.15	18.33%
Barium	62.4	63.6	74.4	67	6.61	9.89%
Beryllium	0.1	0.1	0.1	0	0.00	0.00%
Bismuth	0.1	0.1	0.1	0	0.00	0.00%
Cadmium	6.60	6.86	7.45	7	0.44	6.25%
Calcium	6910	6850	8580	7447	981.95	13.19%
Chromium	20.1	20.9	22.7	21	1.33	6.27%
Cobalt	4.0	4.6	4.6	4	0.35	7.87%
Copper	54.0	58.7	59.6	57	3.01	5.24%
Iron	11900	13800	13600	13100	1044.03	7.97%
Lead	16.7	12.0	12.0	14	2.71	20.00%
Magnesium	9110	10300	10400	9937	717.66	7.22%
Manganese	164	178	183	175	9.85	5.63%
Molybdenum	11.9	15.3	13.5	14	1.70	12.54%
Nickel	15.9	16.1	16.9	16	0.53	3.25%

*all units µg/g unless otherwise stated

Table A-8 (continued)

Roscoe Bay July 8, 2003	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Potassium	3500	3780	4020	3767	260.26	6.91%
Selenium	3.2	3.1	2.8	3	0.21	6.86%
Silver	0.34	0.34	0.37	0	0.02	4.95%
Sodium	26600	31500	29300	29133	2454.25	8.42%
Strontium	77.1	82.8	93.5	84	8.33	9.86%
Tellurium	0.1	0.1	0.1	0	0.00	0.00%
Thallium	0.23	0.27	0.26	0	0.02	8.22%
Tin	3.0	4.5	3.3	4	0.79	22.05%
Titanium	613	686	709	669	50.12	7.49%
Vanadium	32	35	36	34	2.08	6.06%
Zinc	108	136	116	120	14.42	12.02%
Zirconium	0.8	0.7	0.7	1	0.06	7.87%
Acenaphthene	0.01	0.01	0.01	0	0.00	0.00%
Acenaphthylene	0.01	0.01	0.01	0	0.00	0.00%
Anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(a)anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(b)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(k)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(g,h,i)perylene	0.02	0.02	0.02	0	0.00	0.00%
Benzo(a)pyrene	0.01	0.01	0.01	0	0.00	0.00%
Chrysene	0.01	0.01	0.01	0	0.00	0.00%
Dibenz(a,h)anthracene	0.02	0.02	0.02	0	0.00	0.00%
Fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Fluorene	0.01	0.01	0.01	0	0.00	0.00%
Indeno(1,2,3-c,d)pyrene	0.02	0.02	0.02	0	0.00	0.00%
Naphthalene	0.01	0.01	0.07	0	0.03	115.47%
Phenanthrene	0.01	0.01	0.01	0	0.00	0.00%
Pyrene	0.01	0.01	0.01	0	0.00	0.00%
Total PAH's	0.01	0.01	0.07	0	0.03	115.47%
Total Low MW PAH's	0.01	0.01	0.07	0	0.03	115.47%
Total High MW PAH's	0.01	0.01	0.01	0	0.00	0.00%
Fecal coliform (MPN/g)	2	2	2	2	0.00	0.00%

*all units µg/g unless otherwise stated

Table A-9. Summary of duplicate water data collected in 2004.

Roscoe Bay Sept 9, 2004	Duplicate 1	Duplicate 2	Difference	Average	Relative % mean difference
Nitrogen ammonia	0.028	0.034	0.006	0.031	19.35%
Nitrite nitrogen	0.004	0.003	0.001	0.0035	28.57%
Nitrate nitrogen	0.005	0.007	0.002	0.006	33.33%
Nitrate + Nitrite	0.009	0.01	0.001	0	0.00%
Total nitrogen	0.08	0.06	0.02	0	0.00%
Total Organic N	0.1	0.1	0	0.1	0.00%
Total Kjeldahl N	0.07	0.08	0.01	0.075	13.33%
Ortho-P	0.005	0.003	0.002	0.004	50.00%
P Total	0.01	0.012	0.002	0.011	18.18%
Enterococci (MPN/100 mL)	2	2	0	2	0.00%
Fecal coliforms (MPN/100 mL)	7	8	1	7.5	13.33%

*all units mg/L unless otherwise stated

Desolation Sound Central Aug 11, 2004	Duplicate 1	Duplicate 2	Difference	Average	Relative % mean difference
Nitrogen ammonia	0.062	0.061	0.001	0.0615	1.63%
Nitrite nitrogen	0.006	0.005	0.001	0.0055	18.18%
Nitrate nitrogen	0.002	0.002	0	0.002	0.00%
Nitrate + Nitrite	0.004	0.002	0.002	0.003	66.67%
Total nitrogen	0.10	0.1	0	0.1	0.00%
Total Organic N	0.1	0.1	0	0.1	0.00%
Total Kjeldahl N	0.09	0.1	0.01	0.095	10.53%
Total phosphorus	0.006	0.002	0.004	0.004	100.00%
Ortho-phosphorus	0.011	0.012	0.001	0.0115	8.70%
Arsenic Total (µg/L)	0.4	0.4	0	0.4	0.00%
Cadmium Total (µg/L)	0.1	0.1	0	0.1	0.00%
Chromium Total (µg/L)	0.5	0.5	0	0.5	0.00%
Cobalt Total (µg/L)	0.1	0.1	0	0.1	0.00%
Copper Total (µg/L)	0.2	0.4	0.2	0.3	66.67%
Iron Total (µg/L)	1	1	0	1	0.00%
Lead Total (µg/L)	0.1	0.1	0	0.1	0.00%
Manganese Total (µg/L)	1	1	0	1	0.00%
Nickel Total (µg/L)	0.5	0.5	0	0.5	0.00%
Zinc Total (µg/L)	1	1	0	1	0.00%

*all units mg/L unless otherwise stated

Table A-10. Summary of replicate sediment samples collected in 2004.

Prideaux Haven August 9, 2004	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Moisture (W/W)	86.2	85	84.8	85	0.76	0.89%
Carbon Total Inorganic	580	580	580	580	0.00	0.00%
Carbon Total Organic	26000	21000	22000	23000	2645.75	11.50%
Fecal coliforms (MPN/g)	2	2	2	2	0.00	0.00%
Hardness Total	84606.5	77654.2	82222.48	81494	3532.87	4.34%
Silver	0.53	0.53	0.49	1	0.02	4.47%
Aluminum	12200	11800	13000	12333	611.01	4.95%
Arsenic	14.8	14.1	13.8	14	0.51	3.61%
Barium	74.6	73	74.5	74	0.90	1.21%
Beryllium	0.2	0.2	0.2	0	0.00	0.00%
Calcium	10300	9000	9840	9713	659.19	6.79%
Cadmium	19.3	19.3	21.2	20	1.10	5.50%
Cobalt	4.9	4.7	5.1	5	0.20	4.08%
Chromium	33	31	33	32	1.15	3.57%
Carbon	26580	21580	22580	23580	2645.75	11.22%
Copper	68.5	65.7	70.7	68	2.51	3.67%
Iron	12700	12500	13400	12867	472.58	3.67%
Potassium	5740	5560	5870	5723	155.67	2.72%
Magnesium	14300	13400	14000	13900	458.26	3.30%
Manganese	194	187	199	193	6.03	3.12%
Molybdenum	15.2	13.1	11.3	13	1.95	14.79%
Sodium	62400	60900	63000	62100	1081.67	1.74%
Nickel	24.2	22.8	23.3	23	0.71	3.03%
Lead	4.5	5.5	4.2	5	0.68	14.38%
Phosphorus	1940	1830	1930	1900	60.83	3.20%
Antimony	0.5	0.4	0.4	0	0.06	13.32%
Selenium	4.9	4.7	4.5	5	0.20	4.26%
Tin	1	1.1	1.8	1	0.44	33.53%
Strontium	106	98.3	103	102	3.88	3.79%
Titanium	687	652	706	682	27.39	4.02%
Thallium	0.48	0.47	0.56	1	0.05	9.80%
Vanadium	36	34	35	35	1.00	2.86%
Zinc	123	120	137	127	9.07	7.16%
Acenaphthene	0.01	0.01	0.01	0	0.00	0.00%
Acenaphthylene	0.01	0.01	0.01	0	0.00	0.00%
Anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(a)anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(b+j)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(k)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(a)pyrene	0.01	0.01	0.01	0	0.00	0.00%
Chrysene	0.01	0.01	0.01	0	0.00	0.00%
Fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Fluorene	0.01	0.01	0.01	0	0.00	0.00%
Naphthalene	0.01	0.01	0.01	0	0.00	0.00%
Phenanthrene	0.01	0.01	0.01	0	0.00	0.00%
Pyrene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(g,h,i)perylene	0.02	0.02	0.02	0	0.00	0.00%
Dibenzo(a,h)anthracene	0.02	0.02	0.02	0	0.00	0.00%
Indeno(1,2,3-cd)pyrene	0.02	0.02	0.02	0	0.00	0.00%

*all units mg/L unless otherwise stated

Table A-10 (continued)

Roscoe Bay August 9, 2004	Replicate 1	Replicate 2	Replicate 3	Mean	Std. Dev.	% Relative Std. Dev.
Moisture (%(W/W))	83.9	83.5	82.2	83	0.89	1.07%
Carbon Total Inorganic	500	500	500	500	0.00	0.00%
Carbon Total Organic	23000	32000	26000	27000	4582.58	16.97%
Fecal coliforms (MPN/g)	2	2	2	2	0.00	0.00%
Hardness Total	75619.76	73835.02	72087.94	73848	1765.94	2.39%
Silver	0.47	0.47	0.46	0	0.01	1.24%
Aluminum	14400	14300	13600	14100	435.89	3.09%
Arsenic	16.6	13.9	14.4	15	1.44	9.60%
Barium	90.8	88.4	83.2	87	3.89	4.44%
Beryllium	0.2	0.2	0.2	0	0.00	0.00%
Calcium	8680	8460	8420	8520	140.00	1.64%
Cadmium	8.33	8.86	7.66	8	0.60	7.26%
Cobalt	5.8	6	5.7	6	0.15	2.62%
Chromium	26	27	25	26	1.00	3.85%
Carbon	23500	32500	26500	27500	4582.58	16.66%
Copper	79	76.7	72.8	76	3.13	4.11%
Iron	15600	15400	14700	15233	472.58	3.10%
Potassium	5790	5720	5350	5620	236.43	4.21%
Magnesium	13100	12800	12400	12767	351.19	2.75%
Manganese	222	225	212	220	6.81	3.10%
Molybdenum	13.5	17.2	13.8	15	2.06	13.85%
Sodium	43400	40900	42500	42267	1266.23	3.00%
Nickel	23.2	25.3	22.8	24	1.34	5.65%
Lead	9.6	7.7	8.8	9	0.95	10.96%
Phosphorus	1720	1590	1550	1620	88.88	5.49%
Antimony	0.5	0.6	0.5	1	0.06	10.83%
Selenium	4.8	5	4.4	5	0.31	6.45%
Tin	2.6	1.9	2.6	2	0.40	17.08%
Strontium	96.7	94.4	94.8	95	1.23	1.29%
Titanium	774	773	731	759	24.54	3.23%
Thallium	0.32	0.34	0.31	0	0.02	4.72%
Vanadium	40	45	39	41	3.21	7.78%
Zinc	119	121	122	121	1.53	1.27%
Acenaphthene	0.01	0.01	0.01	0	0.00	0.00%
Acenaphthylene	0.01	0.01	0.01	0	0.00	0.00%
Anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(a)anthracene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(b+j)fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Benzo(k)fluoranthene	0.02	0.02	0.02	0	0.00	0.00%
Benzo(a)pyrene	0.01	0.01	0.01	0	0.00	0.00%
Chrysene	0.01	0.01	0.01	0	0.00	0.00%
Fluoranthene	0.01	0.01	0.01	0	0.00	0.00%
Fluorene	0.02	0.02	0.02	0	0.00	0.00%
Naphthalene	0.01	0.01	0.01	0	0.00	0.00%
Phenanthrene	0.01	0.01	0.01	0	0.00	0.00%
Pyrene	0.02	0.02	0.02	0	0.00	0.00%
Benzo(g;h;i)perylene	0.01	0.01	0.01	0	0.00	0.00%
Dibenzo(a,h)anthracene	0.01	0.01	0.01	0	0.00	0.00%
Indeno(1;2;3-cd)pyrene	0.01	0.01	0.01	0	0.00	0.00%

*all units mg/L unless otherwise stated

B. APPENDIX B. SUMMARY OF WATER AND SEDIMENT QUALITY DATA

B1. FOCUS AREA B

Table B-1. Summary of Water Quality Data Collected at Site E248633, Galley Bay.

	19-Jul-02	23-Jul-02	25-Jul-02	26-Jul-02	29-Jul-02	90 th %ile	Median	Mean
Enterococci (MPN/100g)	<2	<2	8	5	2	6.8	2	3.8
Fecal Coliform (MPN/100mL)	<2	<2	2	<2	<2	2	<2	<2
Total Kjeldahl N	0.1	0.09		0.12	0.15			0.12
Total N	0.1	0.09		0.12	0.15			0.12
Total Organic N	0.1	<0.1		0.12	0.15			0.12
Ammonia N	<0.005	<0.005		<0.005	<0.005			<0.005
Nitrate N Dissolved	<0.002	<0.002		<0.002	<0.002			<0.002
Nitrate + Nitrite	<0.002	<0.002		<0.002	<0.002			<0.002
Nitrite N	<0.002	<0.002		<0.002	<0.002			<0.002

*all units mg/L unless otherwise stated

Table B-2. Summary of Water Quality Data Collected at Site E248635, Tenedos Bay.

	02-Sep-99	04-Sep-99	19-Jul-02	22-Jul-02	23-Jul-02	25-Jul-02	29-Jul-02
Temperature (Celsius)	18	15					
Salinity (ppt)	16.1	17.2					
Dissolved Oxygen	10.2	9.5					
Enterococci (MPN/100 mL)	<1	1	<2	<2	2	<2	2
Fecal coliforms (MPN/100 mL)	4	<1	<2	<2	8	<2	<2
Nitrogen ammonia	<0.005		<0.005	0.006	<0.005		<0.005
Nitrite nitrogen	<0.002		<0.002	<0.002	<0.002		<0.002
Nitrate nitrogen	<0.002		<0.002	<0.002	<0.002		<0.002
Nitrate + Nitrite			<0.002	<0.002	<0.002		<0.002
Total nitrogen	0.18		0.15	0.1	0.19		0.12
Total Organic N			0.15	<0.1	0.19		0.12
Total Kjeldahl N			0.15	0.1	0.19		0.12
pH (relative units)	8.28						
Total dissolved phosphorus	0.006						
Non-filterable residue (fixed)					3		
Non-filterable residue	13				7		
Non-filterable residue					4		
Chloride	9900						
Calcium	220						
Iron	<0.6						
Potassium	220						
Sodium	5710						
Phosphorus	<10						
Silicon	10						
Thallium	<0.2						
Potassium	220						
Silicon	10						
Dissolved Mercury	<0.00001						
Dissolved Uranium	0.0014						
Dissolved Arsenic	0.0006						
Dissolved Cadmium	0.0003						
Dissolved Chromium	<0.001						
Dissolved Cobalt	<0.00005						
Dissolved Copper	0.0005						
Dissolved Lead	<0.0001						
Dissolved Magnesium	640						
Dissolved Manganese	0.00105						
Dissolved Molybdenum	0.004						
Dissolved Nickel	0.00021						
Dissolved Selenium	<0.0005						
Dissolved Zinc	<0.0005						
Dissolved Calcium	207						
Dissolved Iron	<0.01						

*all units mg/L unless otherwise stated

Table B-3. Summary of Water Quality Data Collected at Site E248636, Prideaux Haven.

	02-Sep-99	02-Sep-99	02-Sep-99	4-Sep-99	04-Sep-99	28-Jul-00	17-Jul-02	19-Jul-02	22-Jul-02	23-Jul-02	29-Jul-02
	Melanie Cove	W. Prideaux Haven	E. Prideaux Haven	Melanie Cove	E. Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven
Boat Count											
Temperature (Celsius)	17.5	17.5	17.5	16.9	17.3						
Salinity (ppt)	15.5	15	15.2	16	16.2						
Dissolved Oxygen	9.2	9.4	9.3	9.3	9.9						
Enterococcus (MPN/100 mL)	1	2	3	25			<2	2	<2	<2	2
Fecal coliforms (MPN/100 mL)	1	1	4	8		<20	8	33	2	4	2
Chloride	8300										
Nitrogen ammonia	0.006	0.006					<0.005	<0.005	0.005	<0.005	<0.005
Nitrite nitrogen	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate nitrogen	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite	<0.002	<0.002					<0.002	<0.002	<0.002	<0.002	<0.002
Total nitrogen	0.15	0.15					0.06	0.11	0.17	0.09	0.1
Total Kjeldahl N							0.07	0.11	0.17	0.09	0.1
Total Organic N							<0.1	0.11	0.16	<0.1	0.1
pH (relative units)	8.26	8.2									
Dissolved phosphorus	0.006										
Total phosphorus		0.018									
Ortho-phosphorus											
Non-filterable residue (fixed)										3	
Non-filterable residue	15									6	
Non-filterable residue (volume)										3	
Calcium		158									
Iron		<0.06									
Potassium	171	171									
Sodium		4720									
Phosphorus		<1									
Silicon	1.2	1.2									
Thallium		0.05									

*all units mg/L unless otherwise stated

Table B-3 (continued) Summary of Water Quality Data Collected at Site E248636, Prideaux Haven

	08-Jul-03	09-Jul-03	10-Jul-03	15-Jul-03	16-Jul-03	9-Aug-04	10-Aug-04	11-Aug-04	12-Aug-04	13-Aug-04
	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven	Prideaux Haven
Boat Count	17	22	15	16	19					
Temperature (Celsius)	20.17	18.44	19.76	18.79	18.95					
Salinity (ppt)	11.68	12.79	16.61	20.37	18.32					
Dissolved Oxygen	9.21	8.95	9.75	10.16	9.67					
Enterococcus (MPN/100 mL)						2	2	<2	4	<2
Fecal coliforms (MPN/100 mL)	5	<2	5	2	2	2	13	23	49	8
Chloride										
Nitrogen ammonia	<0.005	<0.005	0.013	0.005	<0.005	0.024	0.039	0.05	0.054	0.022
Nitrite nitrogen	0.002	0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.005	0.005	0.007
Nitrate nitrogen	<0.02	<0.02	<0.02	<0.02	<0.02	0.007	0.005	<0.002	0.005	0.008
Nitrate + Nitrite	0.005	0.004	0.002	<0.002	<0.002	0.01	0.005	0.003	0.01	0.015
Total nitrogen	0.09	0.09	0.08	0.10	0.08	0.06	0.09	0.08	0.09	0.09
Total Kjeldahl N	0.09	0.09	0.08	0.10	0.08	0.05	0.09	0.08	0.08	0.07
Total Organic N	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
pH (relative units)										
Dissolved phosphorus										
Total phosphorus	0.005	0.007	0.009	0.016	0.029	0.009	0.009	0.01	0.009	0.009
Ortho-phosphorus	0.009	0.010	0.004	0.006	0.002	0.004	0.004	0.003	0.002	0.004
Non-filterable residue (fixed)		5	2	3	4					
Non-filterable residue	2	3	4	6	9					
Non-filterable residue (volume)		2	2	3	5					

*all units mg/L unless otherwise stated

Table B-3 (continued) Summary of Water Quality Data Collected at Site E248636, Prideaux Haven

	02-Sep-99
Dissolved Mercury	<0.00001
Dissolved Uranium	0.0013
Dissolved Arsenic	0.0006
Dissolved Cadmium	0.00004
Dissolved Chromium	<0.001
Dissolved Cobalt	<0.00005
Dissolved Copper	0.0006
Dissolved Lead	<0.0001
Dissolved Magnesium	605
Dissolved Manganese	0.00091
Dissolved Molybdenum	0.005
Dissolved Nickel	0.0002
Dissolved Selenium	0.0007
Dissolved Zinc	0.0006
Dissolved Calcium	196
Dissolved Iron	<0.01

*all units mg/L unless otherwise stated

Table B-4. Summary of Water Quality Data Collected at Site E248637, Roscoe Bay.

	02- Sep-99	28-Jul- 00	17-Jul- 02	22-Jul- 02	23-Jul- 02	25-Jul- 02	29-Jul- 02	15-Jul- 03	16-Jul- 03	17-Jul- 03
Boat Count								15	23	18
Temperature (Celsius)	17.2							19.99	20.48	19.21
Salinity (ppt)	16.8							18.72	19.37	19.63
Dissolved Oxygen	9.3							9.30	9.29	9.56
Enterococcus (MPN/100 mL)	15		5	2	2	<2	4			
Fecal coliforms (MPN/100 mL)	7	<20	5	17	<2	5	8	8	8	<2
Nitrogen ammonia	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrite nitrogen	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate nitrogen	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002
Total nitrogen	0.19		0.07	<0.02	0.17	0.1	0.1	0.08	0.09	0.08
Total Organic N			<0.1	<0.1	0.17	0.1	0.1	<0.10	<0.10	<0.10
Total Kjeldahl N			0.07	<0.02	0.17	0.1	0.1	0.09	0.09	0.08
pH (relative units)	8.28									
Total dissolved phosphorus	0.008									
Ortho-P			0.004	0.002	0.005	0.003	0.003	0.001	0.003	0.004
P Total			0.015	0.009	0.008	0.009	0.004	0.008	0.012	0.011
Non-filterable residue (fixed)			6	5	2		<1	3	6	3
Non-filterable residue	24		9	8	5		<4	5	8	4
Non-filterable residue (volume)			3	3	3		<4	2	2	1

*all units mg/L unless otherwise stated

Table B-4 (continued). Summary of Water Quality Data Collected at Site E248637, Roscoe Bay.

	9-Aug-04	10-Aug-04	11-Aug-04	12-Aug-04	13-Aug-04
Boat Count					
Temperature (Celsius)					
Salinity (ppt)					
Dissolved Oxygen					
Enterococcus (MPN/100 mL)	<2	<2	2	4	<2
Fecal coliforms (MPN/100 mL)	7	17	14	540	<2
Nitrogen ammonia	0.028	0.039	0.051	0.054	0.066
Nitrite nitrogen	0.004	<0.002	0.005	0.005	0.006
Nitrate nitrogen	0.005	0.004	<0.002	0.004	0.002
Nitrate + Nitrite	0.009	0.004	0.004	0.009	0.008
Total nitrogen	0.08	0.09	0.1	0.11	0.11
Total Organic N	<0.10	<0.10	<0.10	<0.10	<0.10
Total Kjeldahl N	0.07	0.09	0.1	0.1	0.1
pH (relative units)					
Total dissolved phosphorus					
Ortho-P	0.005	0.004	0.003	0.004	0.004
P Total	0.01	0.011	0.017	0.009	0.012
Non-filterable residue (fixed)					
Non-filterable residue					
Non-filterable residue (volume)					

*all units mg/L unless otherwise stated

Table B-4 (continued). Summary of Water Quality Data Collected at Site E248637, Roscoe Bay.

	02-Sep-99
Potassium	188
Silicon	<0.6
Chloride	10000
Calcium	175
Iron	<0.06
Potassium	188
Sodium	5350
Phosphorus	<1
Silicon	<0.6
Thallium	<0.02
Dissolved Mercury	<0.00001
Dissolved Uranium	0.00134
Dissolved Arsenic	0.0005
Dissolved Cadmium	0.00003
Dissolved Chromium	<0.001
Dissolved Cobalt	<0.00005
Dissolved Copper	0.0006
Dissolved Lead	<0.0001
Dissolved Magnesium	628
Dissolved Manganese	0.00125
Dissolved Molybdenum	0.005
Dissolved Nickel	0.00022
Dissolved Selenium	0.0006
Dissolved Zinc	0.0007
Dissolved Calcium	204
Dissolved Iron	<0.01

*all units mg/L unless otherwise stated

Table B-5. Summary of Water Quality Data Collected at Site E248638, Refuge Cove.

	4-Sep-99	17-Jul-02	19-Jul-02	22-Jul-02	23-Jul-02	29-Jul-02	09-Jul-03	10-Jul-03	15-Jul-03	16-Jul-03	17-Jul-03
Temperature (Celsius)	17						17.91	17.77	17.53	19.29	18.44
Salinity (ppt)	15.5						19.42	23.69	23.52	21.55	22.15
Dissolved Oxygen (mg/L)	10.1						9.18	11.43	9.08	9.74	9.72
Enterococcus (MPN/100 mL)	5	33	2	<2	7	5					
Fecal coliforms (MPN/100 mL)	2	2	8	<2	8	<2	<2	<2	8	13	2
Total Kjeldahl N		0.11	0.17	0.09	0.22	0.12	0.12	0.08	0.17	0.15	0.13
Total N		0.1	0.17	0.09	0.22	0.12	0.12	0.10	0.16	0.15	0.13
Total Organic N		0.11	0.16	<0.1	0.22	0.12	0.12	<0.10	0.16	0.15	0.13
Ammonia N		<0.005	0.007	0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005
Nitrate N Dissolved		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite		<0.002	0.005	<0.002	<0.002	<0.002	<0.002	0.017	<0.002	0.002	0.002
Nitrite N		<0.002	<0.002	<0.002	<0.002	<0.002	0.002	0.004	<0.002	<0.002	<0.002
Ortho-P							0.006	0.009	0.013	0.006	0.006
P Total							0.013	0.021	0.033	0.018	0.017
Non-filterable residue (fixed)					3		7	5	3	3	2
Non-filterable residue					6		5	8	6	5	4
Non-filterable residue (volume)					3		2	3	3	2	2

*all units mg/L unless otherwise stated

Table B-5 (continued). Summary of Water Quality Data Collected at Site E248638, Refuge Cove.

	9-Aug-04	10-Aug-04	11-Aug-04	12-Aug-04	13-Aug-04
Temperature (Celsius)					
Salinity (ppt)					
Dissolved Oxygen (mg/L)					
Enterococcus (MPN/100 mL)	<2	<2	<2	<2	17
Fecal coliforms (MPN/100 mL)	4	<2	170	17	6
Total Kjeldahl N	0.06	0.09	0.1	0.1	0.12
Total N	0.07	0.09	0.1	0.11	0.12
Total Organic N	<0.10	<0.10	<0.10	<0.10	<0.10
Ammonia N	0.032	0.042	0.064	0.088	0.045
Nitrate N Dissolved	0.004	<0.002	<0.002	0.002	<0.002
Nitrate + Nitrite	0.007	0.002	0.005	0.007	0.003
Nitrite N	0.003	<0.002	0.005	0.005	0.005
Ortho-P	0.003	0.004	0.002	0.003	0.01
P Total	0.011	0.011	0.016	0.012	0.008
Non-filterable residue (fixed)					
Non-filterable residue					
Non-filterable residue (volume)					

*all units mg/L unless otherwise stated

Table B-6. Summary of Water Quality Data Collected at Site E248639, Desolation South.

	02-Sep-99	4-Sep-99	19-Jul-02	22-Jul-02	23-Jul-02	26-Jul-02	29-Jul-02	08-Jul-03	09-Jul-03	10-Jul-03	15-Jul-03	16-Jul-03
Temperature (Celsius)	17.8	17.2						18.44	18.79	18.99	18.06	19.38
Salinity (ppt)	15.2	15.2						18.80	16.24	18.77	21.39	19.79
Dissolved Oxygen (mg/L)	9.2	10.1						10.02	9.17	9.50	9.32	10.11
Enterococcus (MPN/100 mL)	<1	<1	<2	<2	<2	5	<2					
Fecal coliforms (MPN/100 mL)	<1	<1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Nitrogen ammonia (mg/L)	<0.005		0.009	<0.005	<0.005	<0.005	<0.005	0.007	<0.005	<0.005	<0.005	<0.005
Nitrite nitrogen (mg/L)	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002
Nitrate nitrogen (mg/L)	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	0.007	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite			<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Total nitrogen (mg/L)	0.15		0.12	0.14	0.05	0.12	0.16	0.12	0.10	0.10	0.11	0.09
Total Organic N			0.11	0.14	<0.1	0.12	0.16	0.10	0.10	0.10	0.11	<0.10
Total Kjeldahl N			0.12	0.14	0.05	0.12	0.16	0.11	0.10	0.10	0.11	0.09
pH (relative units)	8.21											
Total dissolved phosphorus	0.007											
Total phosphorus			0.005	0.01	0.007	0.009	0.015	0.009	0.009	0.015	0.023	0.015
Ortho-phosphorus			0.004	0.002	<0.001	0.004	0.004	0.003	0.003	0.004	0.011	0.003
Non-filterable residue (fixed)			6	1	<1		1	2	3	3	5	4
Non-filterable residue			9	<4	<4		<4	3	2	5	8	7
Non-filterable residue (volume)			3	<4	<4		<4	1	1	2	3	3

*all units mg/L unless otherwise stated

Table B-6 (continued). Summary of Water Quality Data Collected at Site E248639, Desolation South.

	09-Aug-04	10-Aug-04	11-Aug-04	12-Aug-04	13-Aug-04
Temperature (Celsius)					
Salinity (ppt)					
Dissolved Oxygen (mg/L)					
Enterococcus (MPN/100 mL)	<2	<2	<2	<2	<2
Fecal coliforms (MPN/100 mL)	<2	<2	<2	<2	<2
Nitrogen ammonia (mg/L)	0.02	0.033	0.062	0.056	0.073
Nitrite nitrogen (mg/L)	0.004	<0.002	0.006	0.005	0.005
Nitrate nitrogen (mg/L)	0.004	0.005	<0.002	0.002	0.004
Nitrate + Nitrite	0.008	0.005	0.004	0.007	0.009
Total nitrogen (mg/L)	0.06	0.08	0.10	0.15	0.12
Total Organic N	<0.10	<0.10	<0.10	<0.10	<0.10
Total Kjeldahl N	0.06	0.07	0.09	0.14	0.11
pH (relative units)					
Total dissolved phosphorus					
Total phosphorus	0.009	0.007	0.006	0.002	0.004
Ortho-phosphorus	0.004	0.004	0.011	0.01	0.019
Non-filterable residue (fixed)					
Non-filterable residue					
Non-filterable residue (volume)					

*all units mg/L unless otherwise stated

Table B-6 (continued). Summary of Water Quality Data Collected at Site E248639, Desolation South.

	2-Sep-99	10-Aug-04	11-Aug-04	12-Aug-04
Arsenic Total (µg/L)		0.3	0.4	0.4
Cadmium Total (µg/L)		0.1	<0.1	0.1
Chromium Total (µg/L)		<0.5	<0.5	<0.5
Cobalt Total (µg/L)		<0.1	<0.1	<0.1
Copper Total (µg/L)		0.3	0.2	0.4
Iron Total (µg/L)		<1	<1	<1
Lead Total (µg/L)		<0.1	<0.1	<0.1
Manganese Total (µg/L)		<1	<1	1
Nickel Total (µg/L)		<0.5	<0.5	<0.5
Zinc Total (µg/L)		<1	<1	1
Calcium	152			
Chloride	8700			
Iron	<0.06			
Phosphorus	<1			
Potassium	163			
Silicon	<0.6			
Sodium	4550			
Thallium	<0.02			
Dissolved Arsenic	0.0006			
Dissolved Cadmium	0.00003			
Dissolved Calcium	192			
Dissolved Chromium	<0.001			
Dissolved Cobalt	<0.00005			
Dissolved Copper	0.0006			
Dissolved Iron	<0.01			
Dissolved Lead	0.0004			
Dissolved Magnesium	600			
Dissolved Manganese	0.00151			
Dissolved Mercury	<0.00001			
Dissolved Molybdenum	0.004			
Dissolved Nickel	0.0002			
Dissolved Selenium	<0.0005			
Dissolved Uranium	0.00134			
Dissolved Zinc	<0.0005			

*all units mg/L unless otherwise stated

Table B-7. Summary of Water Quality Data Collected at Site E248651, Grace Harbour.

	2-Sep-99	04-Sep-99	16-Jul-02	24-Jul-02	25-Jul-02	26-Jul-02	30-Jul-02	08-Jul-03	09-Jul-03	10-Jul-03	15-Jul-03	16-Jul-03	9-Aug-04	10-Aug-04	11-Aug-04	12-Aug-04	13-Aug-04
Time				9:25	10:10	8:35	9:35	9:10	8:58	9:15	10:30	8:30					
Tide			Flood	ebb	ebb	ebb	Flood	Flood	Slack	Ebb	Ebb	Ebb					
Temperature (°C)	17.2	16.5	17.69	19.86	20.12	19.81	17.69	18.24	17.66	18.17	18.33	18.62					
Salinity (ppt)	23	18.1	25.36	24.11	24.35	24.51	25.48	25.55	25.86	25.89	25.99	26.00					
Dissolved Oxygen (mg/L)	9	10.1	9.05	11	11.21	10.25	10.42	12.36	11.80	12.51	12.86	12.80					
Boat Count								11	12	10	6	11					
Non-filterable residue (fixed)			7	<1		11	2	4	7	5	6	5					
Non-filterable residue (TSS)	19		9	5		11	5	7	11	8	9	8					
Non-filterable residue (volume)			2	5		<1	3	3	4	3	3	3					
Total Kjeldahl nitrogen	0.16		0.18	0.15	0.17	0.17	0.17	0.18	0.19	0.15	0.17	0.20	0.13	0.16	0.14	0.16	0.17
Total N			0.18	0.15	0.17	0.18	0.17	0.19	0.19	0.15	0.17	0.19	0.14	0.16	0.14	0.17	0.17
Total Organic N			0.18	0.15	0.17	0.17	0.17	0.16	0.19	0.14	0.16	0.20	<0.10	<0.10	<0.10	<0.10	<0.10
Nitrogen ammonia	<0.005		<0.005	<0.005	<0.005	<0.005	<0.005	0.021	<0.005	0.005	0.011	<0.005	0.089	0.113	0.114	0.096	0.111
Nitrate nitrogen	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.002	0.007	<0.002	0.005	0.002	0.007	0.004	0.005
Nitrite nitrogen	<0.002		<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.007	0.005	0.004
Ortho-P			0.012	0.008		0.007	0.007	0.023	0.016	0.013	0.018	0.014	0.01	0.013	0.01	0.009	0.011
P Total	<10		0.028	0.023		0.027	0.026	0.036	0.031	0.029	0.034	0.048	0.027	0.027	0.029	0.023	0.021
Total dissolved phosphorus	0.018																
Enterococcus (MPN/100 mL)	2	20	<2	<2	<2	2	<2						<2	<2	<2	<2	<2
Fecal coli. (MPN/100 mL)	<1	2	<2	33	2	46	2	33	<2	<2	<2	<2	2	<2	5	2	5
pH (relative units)	8.2																
Chloride	12000																
Sodium	7900																
Arsenic (µg/L)									0.3	0.2	0.3			0.6	0.5	0.5	
Cadmium (µg/L)									0.1	0.1	0.1			0.1	0.1	0.1	
Chromium (µg/L)									<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	
Cobalt (µg/L)									<0.1	<0.1	<0.1			<0.1	<0.1	<0.1	
Copper (µg/L)									0.3	0.4	0.3			0.5	0.4	0.5	
Iron (µg/L)									2	2	3			<1	5	5	
Lead (µg/L)									<0.1	<0.1	<0.1			<0.1	<0.1	<0.1	
Manganese (µg/L)									1	1	1			1	1	1	
Nickel (µg/L)									<0.5	<0.5	<0.5			<0.5	<0.5	<0.5	
Zinc (µg/L)									1	1	2			2	1	1	

*all units mg/L unless otherwise stated



Table B-8. Summary of Sediment Quality Data Collected at Site E248635, Tenedos Bay.

	22-Jul-02
Sample Depth (m)	22
Gravel 2.0 mm (%)	<0.1
Coarse Sand 0.59 mm (%)	0.7
Medium Sand 0.297 mm (%)	3.2
Fine Sand 0.149 mm (%)	25.9
Very Fine Sand 0.053 mm (%)	67.1
Silt 0.037 mm (%)	2.1
Fecal coliforms (MPN/100g)	20
Inorganic Carbon-Total	<500
Organic Carbon-Total	5700
Carbon-Total	5700
Metals Total (µg/g)	
Aluminum	4960
Antimony	0.1
Arsenic	1.6
Barium	11.8
Beryllium	<0.1
Bismuth	<0.1
Cadmium	0.28
Calcium	3740
Chromium	2.6
Cobalt	1.4
Copper	5.7
Iron	4270
Lead	1.1
Magnesium	2520
Manganese	67.2
Molybdenum	0.2
Nickel	1.9
Phosphorus	444
Potassium	526
Selenium	<0.5
Silver	<0.05
Sodium	4360
Strontium	23.8
Tellurium	<0.1
Thallium	0.18
Tin	0.2
Titanium	155
Vanadium	9
Zinc	13.5
Zirconium	<0.5
Sample description	fine sand, even brown color, no oxidized layer

*all units µg/g unless otherwise stated

Table B-9. Summary of Sediment Quality Data Collected at Site E248636, Prideaux Haven.

	Melanie Cove 2-Sep-99	Prideaux Haven 28-Jul-00	Prideaux Haven 08-Jul-03	Prideaux Haven 22-Jul-02	Prideaux Haven 9-Aug-04
Sample Depth (m)	10	15		9.9	
Moisture (%W/W)			85.1		86.2
Particle Size (%)					
Clay <0.004mm	58.76	1.61	63.14		62.19
>0.004mm<0.063mm	38.24	33.57	34.32		34.65
Sand >0.063mm<2.00mm	3.00	2.62	2.55		3.05
Gravel >2.00mm	0.00	0	0		0.11
Particle size distribution (% w/w) - Analyzed by PSC					
Gravel 2.0 mm				<0.1	
Coarse Sand 0.59 mm				0.2	
Medium Sand 0.297 mm				2.3	
Fine Sand 0.149 mm				9.2	
Very Fine Sand 0.053 mm				42.7	
Silt 0.037 mm				22.5	
General					
Residue (fixed) (mg/kg)		762000			
Residue (volatile) (mg/kg)	242000	238000			
Solid Phase MicroTox %(5min, 15 min)	>10				
Solid Phase Duplicates	>10				
Sulphides (µg/g)		0.18			
Nitrogen, Total as N (µg/g)	8300	8800			
Inorganic Carbon-Total (µg/g)			1700	<500	580
Organic Carbon-Total (µg/g)			86000	86000	26000
Carbon-Total (µg/g)			88000	86000	26580
Enterococci (MPN/100g)	20				
Fecal coliform (MPN/g)	80		8	<20	<2
Metals (µg/g)					
Aluminum	18100	17400	7760	11100	12200
Antimony	<8	<8	0.5	0.4	0.5
Arsenic	10	12	9.1	13.2	14.8
Barium	106	107	46.0	72.2	74.6
Beryllium	1	0.4	<0.1	0.2	0.2
Bismuth			<0.1	<0.1	<0.1
Boron	130	154			
Cadmium	27.5	21.1	14.3	17.6	19.3
Calcium	12400	11300	5500	9320	10300
Chromium	43.5	39.3	22	33.2	33
Cobalt	12	4.1	2.9	4.4	4.9
Copper	88.4	79.5	43.9	55.7	68.5
Iron	18200	16700	8460	12100	12700
Lead	10	23	3.7	3.6	4.5
Magnesium	14100	14400	7620	13900	14300
Manganese	321	294	126	186	194

*all units µg/g unless otherwise stated

Table B-9 (continued). Summary of Sediment Quality Data Collected at Site E248636, Prideaux Haven

	Melanie Cove 2-Sep-99	Prideaux Haven 28-Jul-00	Prideaux Haven 08-Jul-03	Melanie Cove 22-Jul-02	Prideaux Haven 9-Aug-04
Molybdenum	21	17	10.5	10.1	15.2
Nickel	27	27	15.4	20.3	24.2
Phosphorus	2000	2130	1100	1950	1940
Potassium	6480	6460	2930	3620	5740
Selenium	<8	14	3.2	3.9	4.9
Silicon	324	1530			
Silver	<2	<2	0.33	0.44	0.53
Sodium	45700	38200	26900	50700	62400
Strontium	123	110	61.9	92.9	106
Sulphur	17700	15600			
Tellurium			<0.1	<0.1	0.1
Thallium			0.37	0.48	0.48
Tin	<8	<8	1.0	1.6	1
Titanium	1790	1440	479	670	687
Vanadium	62	62	27	35	36
Zinc	217	189	103	120	123
Zirconium			0.7	1.3	1.2
PAH's (µg/g)					
Acenaphthene			<0.01		<0.01
Acenaphthylene			<0.01		<0.01
Anthracene			<0.01		<0.01
Benzo(a)anthracene			<0.01		<0.01
Benzo(b)fluoranthene			<0.01		<0.01
Benzo(k)fluoranthene			<0.01		<0.01
Benzo(g,h,i)perylene			<0.02		<0.02
Benzo(a)pyrene			<0.01		<0.01
Chrysene			<0.01		<0.01
Dibenz(a,h)anthracene			<0.02		<0.02
Fluoranthene			<0.01		<0.01
Fluorene			<0.01		<0.01
Indeno(1,2,3-c,d)pyrene			<0.02		<0.02
Naphthalene			0.07		<0.01
Phenanthrene			<0.01		<0.01
Pyrene			<0.01		<0.01
Total PAH's			0.07		<0.01
Total Low MW PAH's			0.07		<0.01
Total High MW PAH's			<0.01		<0.01
Field Notes:	dark, fine mud reducing odour, flocc'd organic matter	Uniform brown fine sand; 3cm fine particulate at surface, oxidized	Very "spongy", smelly, brown & uniform mud (uncompacted)	Big mud, thick, brown, gelatinous, some black reduced layer underneath, smelly	

*all units µg/g unless otherwise stated

Table B-10. Summary of Sediment Quality Data Collected at Site E248637, Roscoe Bay.

	02-Sep-99	28-Jul-00	17-Jul-02	08-Jul-03	9-Aug-04
Sample collection depth (m)	10	25			
Moisture (%W/W)				82.0	83.9
Gravel >2.00 mm (%)	0.00	0.14		3.43	0.12
Sand <2.00mm>0.063 mm (%)	9.30	11.34		11.64	7.61
Silt < 0.063mm>0.004mm (%)	28.21	26.64		24.89	25.57
Clay <0.004mm (%)	62.49	61.88		60.03	66.7
Particle size distribution (% w/w) - Analyzed by PSC					
Gravel 2.0 mm			<0.1		
Coarse Sand 0.59 mm			0.7		
Medium Sand 0.297 mm			2.8		
Fine Sand 0.149 mm			14.4		
Very Fine Sand 0.053 mm			51.2		
Silt 0.037 mm			15.8		
Residue volatile	256000	248000			
Solid Phase MicroTox %(5min, 15 min)	9.58				
Solid Phase Duplicates	2.41				
Inorganic Carbon-Total			960	1700	<500
Organic Carbon-Total			97000	98000	23000
Carbon-Total			98000	100000	<23500
Total nitrogen (ug/g)	8500	7500			
Sulphides (µg/g)		0.16			
Enterococcus (MPN/100 g)	50				
Fecal coliforms (MPN/100 g)	110		20	<2	<2
Metals (µg/g)					
Aluminum	19700	<20300	16900	10100	14400
Antimony	10	8	0.4	0.5	0.5
Arsenic	20	9	18.1	9.9	16.6
Barium	116	108	107	62.4	90.8
Beryllium	1	0.4	0.2	<0.1	0.2
Bismuth			<0.1	<0.1	<0.1
Boron	199	231			
Cadmium	9.5	6.1	9.25	6.60	8.33
Calcium	13800	14000	13500	6910	8680
Chromium	30.9	25.7	30.2	20.1	26
Cobalt	12	6.8	6.1	4.0	5.8
Copper	84.2	82	72.2	54.0	79
Iron	19600	19000	18400	11900	15600
Lead	20	28	13	16.7	9.6
Magnesium	13300	13900	14600	9110	13100
Manganese	321	321	244	164	222
Molybdenum	18	18	11.5	11.9	13.5
Nickel	24	25	23	15.9	23.2
Phosphorus	1880	1920	2050	1370	1720
Potassium	6210	6400	3910	3500	5790
Selenium	<8	14	4	3.2	4.8
Silicon	292	<1930			

*all units µg/g unless otherwise stated

Table B-10 (continued). Summary of Sediment Quality Data Collected at Site E248637, Roscoe Bay.

	02-Sep-99	28-Jul-00	17-Jul-02	08-Jul-03	9-Aug-04
Silver (µg/g)	<2	2	0.51	0.34	0.47
Sodium (µg/g)	37400	36800	38400	26600	43400
Strontium (µg/g)	144	144	130	77.1	96.7
Sulphur (µg/g)	16000	<14400			
Tellurium			<0.1	<0.1	0.1
Thallium			0.4	0.23	0.32
Tin (µg/g)	<8	8	3.4	3.0	2.6
Titanium (µg/g)	1820	1770	932	613	774
Vanadium (µg/g)	64	67	43	32	40
Zinc (µg/g)	182	230	137	108	119
Zirconium			1.1	0.8	1.7
Polycyclic Aromatic Hydrocarbons (µg/g)					
Acenaphthene				<0.01	<0.01
Acenaphthylene				<0.01	<0.01
Anthracene				<0.01	<0.01
Benzo(a)anthracene				<0.01	<0.01
Benzo(b)fluoranthene				<0.01	<0.01
Benzo(k)fluoranthene				<0.01	<0.01
Benzo(g,h,i)perylene				0.02	0.02
Benzo(a)pyrene				<0.01	<0.01
Chrysene				<0.01	<0.01
Dibenz(a,h)anthracene				<0.02	<0.02
Fluoranthene				<0.01	<0.01
Fluorene				<0.01	<0.01
Indeno(1,2,3-c,d)pyrene				<0.02	<0.02
Naphthalene				<0.01	<0.01
Phenanthrene				<0.01	<0.01
Pyrene				<0.01	<0.01
Total PAH's				<0.01	<0.01
Total Low MW PAH's				<0.01	<0.01
Total High MW PAH's				<0.01	<0.01
Description	fine mud, strong odour, flocc'd organic matter	Fine brown sand, oxidized	Brown, uniform mud, smelly	Brown, uniform, non- compacted mud	

*all units µg/g unless otherwise stated

Table B-11. Summary of Sediment Quality Data Collected at Site E248638, Refuge Cove.

	16-Jul-02
Sample Depth (m)	45
Gravel 2.0 mm (% w/w)	<0.1
Coarse Sand 0.59 mm (% w/w)	0.2
Medium Sand 0.297 mm (% w/w)	1.1
Fine Sand 0.149 mm (% w/w)	13.9
Very Fine Sand 0.053 mm (% w/w)	72.6
Silt 0.037 mm (% w/w)	8.1
Fecal coliforms (MPN/100g)	<20
Inorganic Carbon-Total	<500
Organic Carbon-Total	5500
Carbon-Total	5500
Aluminum	4850
Antimony	< 0.1
Arsenic	1
Barium	10.5
Beryllium	< 0.1
Bismuth	< 0.1
Cadmium	0.18
Calcium	3620
Chromium	3
Cobalt	2
Copper	6.8
Iron	4650
Lead	1.4
Magnesium	2720
Manganese	78.4
Molybdenum	0.2
Nickel	2.9
Phosphorus	573
Potassium	439
Selenium	< 0.5
Silver	< 0.05
Sodium	3050
Strontium	21.9
Tellurium	< 0.1
Thallium	0.06
Tin	0.2
Titanium	166
Vanadium	12
Zinc	18
Zirconium	< 0.5
Sample Description	Collected on north side of island in bay. Good mud, brown, uniform.

*all units µg/g unless otherwise stated

Table B-12. Summary of Sediment Quality Data Collected at Site E248651, Grace Harbour.

	02-Sep-99	24-Jul-02	09-Jul-03	10-Aug-04
Sample collection depth (m)	14	12	12	
Moisture (%)		35.8	33.8	83.9
Clay <0.004mm (%)	5.26		6.74	76.65
Silt < 0.063mm>0.004mm (%)	25.66		19.78	19.22
Sand <2.00mm>0.063 mm (%)	69.00		73.43	3.89
Gravel >2.00 mm (%)	0.07		0.06	0.24
Gravel 2.0 mm (%)		<0.1		
Coarse Sand 0.59 mm (%)		1.9		
Medium Sand 0.297 mm (%)		3.8		
Fine Sand 0.149 mm (%)		10.9		
Very Fine Sand 0.053 mm (%)		69.1		
Silt 0.037 mm (%)		7.3		
Clay <0.037 mm (%)		7.1		
Inorganic Carbon-Total		1100	570	<500
Organic Carbon-Total		8300	13000	38000
Carbon-Total		9400	14000	<38500
Total nitrogen	780			
Residue volatile	21400			
Solid Phase MicroTox %(5min)	2.08			
Solid Phase MicroTox %(15 min)	1.41			
Hardness Total				59220.62
Enterococcus (MPN/100 g)	20			
Fecal coliforms (MPN/100 g)	<20	<20	<2	<2
Aluminum	9930	5610	6140	11900
Antimony	<8	<0.1	0.1	0.3
Arsenic	<8	2	2.8	13.4
Barium	17	13.4	16.7	42.4
Beryllium	0.7	<0.1	0.1	0.2
Bismuth		<0.1	<0.1	<0.1
Boron	10			
Cadmium	1	0.96	0.94	4.47
Calcium	9220	4590	5020	7060
Chromium	7.6	4.5	4.9	16
Cobalt	6.5	1.9	2.4	3.3
Copper	9.9	8.9	11.6	48.6
Iron	7140	7100	6390	11500
Lead	10	1.8	2.5	10
Magnesium	2270	3130	2870	10100
Manganese	160	80.7	94.3	124
Molybdenum	<2	0.5	0.6	12.9
Nickel	5	3.8	4.9	15.9
Phosphorus	670	718	674	915
Potassium	1030	586	1160	4070
Selenium	<8	<0.5	<0.5	3.4
Silicon	360			
Silver	<2	0.07	0.08	0.55
Sodium	3230	5000	5840	55700
Strontium	66.1	29.3	34.3	72.7
Sulphur	1320			
Tellurium		<0.1	<0.1	0.2
Thallium		0.23	0.28	0.34
Tin	<8	0.1	0.2	0.7
Titanium	1120	224	216	271
Vanadium	26	15	15	30

*all units µg/g unless otherwise stated

Table B-12 (continued) Grace Harbour sediments

	02-Sep-99	24-Jul-02	09-Jul-03	10-Aug-04
Zinc	21.2	20.3	27.3	83
Zirconium		<0.5	<0.5	1.1
Polycyclic Aromatic Hydrocarbons				
Acenaphthene		<0.01	<0.01	<0.1
Acenaphthylene		<0.01	<0.01	<0.1
Anthracene		<0.01	<0.01	<0.1
Benzo(a)anthracene		<0.01	<0.01	<0.01
Benzo(b)fluoranthene		<0.01	<0.01	<0.01
Benzo(k)fluoranthene		<0.01	<0.01	<0.02
Benzo(g,h,i)perylene		<0.02	<0.02	<0.01
Benzo(a)pyrene		<0.01	<0.01	<0.01
Chrysene		<0.01	<0.01	<0.01
Dibenz(a,h)anthracene		<0.02	<0.02	<0.02
Fluoranthene		<0.01	<0.01	<0.01
Fluorene		<0.01	<0.01	<0.01
Indeno(1,2,3-c,d)pyrene		<0.02	<0.02	<0.02
Naphthalene		<0.01	0.02	<0.01
Phenanthrene		<0.01	<0.01	<0.01
Pyrene		<0.01	<0.01	<0.01
Total PAH's		<0.01	0.02	<0.01
Total Low MW PAH's		<0.01	0.02	<0.01
Total High MW PAH's		<0.01	<0.01	<0.01
Description	Fine sand, silt, dark, not anoxic organic matter	Brown mud, some lighter brown mud in thin surface layer	Dark brown, uniform mud. A few worms.	

*all units µg/g unless otherwise stated

B2. FOCUS AREA A

Table B-13. Summary of Water Quality Data Collected at Site E248640, Teakerne Arm.

	17-Jul-03
Ammonia Dissolved	<0.005
Nitrate Dissolved	<0.002
Nitrate + Nitrite Diss	<0.002
Nitrite Diss.	<0.002
Nitrogen Total	0.21
Ortho-Phosphate	0.013
Phosphorus - total	0.049
Residue Volume Non-filt.	2
Residue Fixed Non-filt.	2
Residue Non-filterable	4

*all units mg/L unless otherwise stated

Table B-14. Summary of Water Quality Data Collected at Site E248641, Forbes Bay.

	17-Jul-02	19-Jul-02	22-Jul-02	23-Jul-02	29-Jul-02
Enterococci (MPN/100g)	<2	<2	<2	<2	<2
Fecal Coliform (MPN/100mL)	5	<2	<2	2	<2
Total Kjeldahl N	<0.02	0.21	<0.02	0.07	0.09
Total N	<0.02	0.21	<0.02	0.07	0.08
Total Organic N	<0.1	0.21	<0.1	<0.1	<0.1
Ammonia N	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate N Dissolved	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite	0.005	<0.002	<0.002	<0.002	<0.002
Nitrite N	<0.002	<0.002	<0.002	<0.002	<0.002
Residue Fixed Non-filt.				2	
Residue Non-filterable				5	
Residue Volume Non-filt.				3	

*all units mg/L unless otherwise stated

Table B-15. Summary of Water Quality Data Collected at Site E248642, Attwood Bay.

	17-Jul-02	19-Jul-02	22-Jul-02	23-Jul-02	29-Jul-02
Enterococci (MPN/100g)	<2	2	<2	<2	<2
Fecal Coliform (MPN/100mL)	2	5	<2	<2	<2
Total Kjeldahl N	0.03	0.1	<0.02	0.18	0.07
Total N	0.03	0.1	<0.02	0.18	0.06
Total Organic N	<0.1	<0.1	<0.1	0.18	<0.1
Ammonia N	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate N Dissolved	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrite N	<0.002	<0.002	<0.002	<0.002	<0.002
Residue Fixed Non-filt.				3	
Residue Non-filterable				8	
Residue Volume Non-filt.				5	

*all units mg/L unless otherwise stated

Table B-16. Summary of Water Quality Data Collected at Site E248643, Redonda Bay.

	17-Jul-02	19-Jul-02	22-Jul-02	23-Jul-02	29-Jul-02
Enterococci (MPN/100g)	<2	2	5	<2	<2
Fecal Coliform (MPN/100mL)	<2	<2	<2	<2	<2
Total Kjeldahl N	0.05	0.26	0.05	0.22	0.16
Total N	0.05	0.27	0.05	0.22	0.16
Total Organic N	<0.1	0.26	<0.1	0.22	0.16
Ammonia N	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrate N Dissolved	<0.002	<0.002	<0.002	<0.002	<0.002
Nitrate + Nitrite	<0.002	0.002	<0.002	<0.002	<0.002
Nitrite N	<0.002	<0.002	<0.002	<0.002	<0.002
Residue Fixed Non-filt.				4	
Residue Non-filterable				8	
Residue Volume Non-filt.				4	

*all units mg/L unless otherwise stated

Table B-17. Summary of Sediment Quality Data Collected at Site E248634, Pendrell Sound.

	17-Jul-02
Sample Depth (m)	20
Particle size distribution (% w/w)	
Gravel 2.0 mm	0.2
Coarse Sand 0.59 mm	0.4
Medium Sand 0.297 mm	1.2
Fine Sand 0.149 mm	24.5
Very Fine Sand 0.053 mm	67.3
Silt 0.037 mm	3
Inorganic Carbon-Total	<500
Organic Carbon-Total	6700
Carbon-Total	6700
Fecal coliforms (MPN/100g)	<20
Metals Total (µg/g)	
Aluminum	10100
Antimony	0.2
Arsenic	1.3
Barium	11.9
Beryllium	0.1
Bismuth	<0.1
Cadmium	0.13
Calcium	5760
Chromium	5.7
Cobalt	4.5
Copper	13.8
Iron	11200
Lead	3.1
Magnesium	6670
Manganese	198
Molybdenum	0.1
Nickel	4.4
Phosphorus	820
Potassium	464
Selenium	<0.5
Silver	<0.05
Sodium	3590
Strontium	40.4
Tellurium	<0.1
Thallium	0.23
Tin	0.5
Titanium	594
Vanadium	22
Zinc	38.3
Zirconium	<0.5

3/4 way up Sound on west side.
Fine sand, oxidized, uniform

Sample description

*all units µg/g unless otherwise stated

Table B-18. Summary of Sediment Quality Data Collected at Site E248641, Forbes Bay.

	22-Jul-02
Sample Depth (m)	84
Gravel 2.0 mm (%ww)	<0.1
Coarse Sand 0.59 mm (%ww)	2.1
Medium Sand 0.297 mm (%ww)	12.1
Fine Sand 0.149 mm (%ww)	15.8
Very Fine Sand 0.053 mm (%ww)	55.7
Silt 0.037 mm (%ww)	9.1
Inorganic Carbon-Total	960
Organic Carbon-Total	22000
Carbon-Total	23000
Fecal coliforms (MPN/100g)	<20
Metals, Total (µg/g)	
Aluminum	11400
Antimony	<0.1
Arsenic	4.1
Barium	28.6
Beryllium	<0.1
Bismuth	<0.1
Cadmium	0.27
Calcium	4280
Chromium	7.1
Cobalt	6
Copper	25.7
Iron	14900
Lead	4.9
Magnesium	6590
Manganese	205
Molybdenum	2.4
Nickel	5.5
Phosphorus	515
Potassium	1190
Selenium	<0.5
Silver	0.09
Sodium	9160
Strontium	45.2
Tellurium	<0.1
Thallium	0.11
Tin	0.2
Titanium	580
Vanadium	38
Zinc	41.7
Zirconium	<0.5

*all units µg/g unless otherwise stated

Table B-18 (continued). Forbes Bay Sediment

	22-Jul-02
Polycyclic Aromatic Hydrocarbons (µg/g)	
Acenaphthene	<0.01
Acenaphthylene	<0.01
Anthracene	<0.01
Benzo(a)anthracene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Benzo(g,h,i)perylene	<0.02
Benzo(a)pyrene	<0.01
Chrysene	<0.01
Dibenz(a,h)anthracene	<0.02
Fluoranthene	<0.01
Fluorene	<0.01
Indeno(1,2,3-c,d)pyrene	<0.02
Naphthalene	<0.01
Phenanthrene	<0.01
Pyrene	<0.01
Total PAH's	<0.01
Total Low MW PAH's	<0.01
Total High MW PAH's	<0.01

Off main beach/creek
mouth. Sandy, dark brown,
pebbles and wood
particles, silt, oxidized

Sample Description

*all units µg/g unless otherwise stated

Table B-19. Summary of Sediment Quality Data Collected at Site E248642, Attwood Bay.

	16-Jul-02
Sample Depth (m)	50
Gravel 2.0 mm (%ww)	<0.1
Coarse Sand 0.59 mm (%ww)	5.6
Medium Sand 0.297 mm (%ww)	8.9
Fine Sand 0.149 mm (%ww)	18
Very Fine Sand 0.053 mm (%ww)	58.7
Silt 0.037 mm (%ww)	5
Inorganic Carbon-Total	<500
Organic Carbon-Total	9500
Carbon-Total	9500
Fecal coliforms (MPN/100g)	<20
Metals (µg/g)	
Aluminum	6760
Antimony	0.2
Arsenic	1.4
Barium	33.6
Beryllium	<0.1
Bismuth	<0.1
Cadmium	0.13
Calcium	3710
Chromium	5.3
Cobalt	3.5
Copper	12.1
Iron	8840
Lead	2.8
Magnesium	4660
Manganese	144
Molybdenum	0.3
Nickel	4.5
Phosphorus	784
Potassium	1240
Selenium	<0.5
Silver	0.05
Sodium	4050
Strontium	27.7
Tellurium	<0.1
Thallium	0.08
Tin	0.2
Titanium	442
Vanadium	24
Zinc	37.6
Zirconium	0.7

*all units µg/g unless otherwise stated

Table B-19 (continued). Attwood Bay sediments

	16-Jul-02
Polycyclic Aromatic Hydrocarbons (µg/g)	
Acenaphthene	<0.01
Acenaphthylene	<0.01
Anthracene	<0.01
Benzo(a)anthracene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Benzo(g,h,i)perylene	<0.02
Benzo(a)pyrene	<0.01
Chrysene	<0.01
Dibenz(a,h)anthracene	<0.02
Fluoranthene	<0.01
Fluorene	<0.01
Indeno(1,2,3-c,d)pyrene	<0.02
Naphthalene	<0.01
Phenanthrene	<0.01
Pyrene	<0.01
Total PAH's	<0.01
Total Low MW PAH's	<0.01
Total High MW PAH's	<0.01
Sample Description	Sample obtained on SE side of Bay, oxidized mud, uniform, brown-gray, casings & polychaetes

*all units µg/g unless otherwise stated

Table B-20. Summary of Sediment Quality Data Collected at Site E248643, Redonda Bay.

	16-Jul-02
Sample Depth (m)	40
Gravel 2.0 mm (%ww)	0.5
Coarse Sand 0.59 mm (%ww)	1.9
Medium Sand 0.297 mm (%ww)	10.1
Fine Sand 0.149 mm (%ww)	18.6
Very Fine Sand 0.053 mm (%ww)	52.5
Silt 0.037 mm (%ww)	11
Inorganic Carbon-Total	<500
Organic Carbon-Total	20000
Carbon-Total	20000
Fecal coliforms (MPN/100g)	<20
Metals Total (µg/g)	
Aluminum	18100
Antimony	0.8
Arsenic	6.4
Barium	114
Beryllium	0.3
Bismuth	<0.1
Cadmium	0.57
Calcium	7340
Chromium	21
Cobalt	11.6
Copper	40.4
Iron	21800
Lead	8.7
Magnesium	11600
Manganese	286
Molybdenum	1.1
Nickel	20
Phosphorus	722
Potassium	3830
Selenium	1.8
Silver	0.12
Sodium	16900
Strontium	58.3
Tellurium	<0.1
Thallium	0.2
Tin	0.8
Titanium	1260
Vanadium	66
Zinc	85
Zirconium	2.2

*all units µg/g unless otherwise stated

Table B-20 (continued). Redonda Bay Sediments

	16-Jul-02
Polycyclic Aromatic Hydrocarbons (µg/g)	
Acenaphthene	<0.01
Acenaphthylene	<0.01
Anthracene	<0.01
Benzo(a)anthracene	<0.01
Benzo(b)fluoranthene	<0.01
Benzo(k)fluoranthene	<0.01
Benzo(g,h,i)perylene	<0.02
Benzo(a)pyrene	<0.01
Chrysene	<0.01
Dibenz(a,h)anthracene	<0.02
Fluoranthene	<0.01
Fluorene	<0.01
Indeno(1,2,3-c,d)pyrene	<0.02
Naphthalene	<0.01
Phenanthrene	<0.01
Pyrene	<0.01
Total PAH's	<0.01
Total Low MW PAH's	<0.01
Total High MW PAH's	<0.01

Sample obtained on south side of bay near small cabin on rocks.
Fine sand, uniform, brown-gray, fine silicate 'spicules'.

Sample Description

*all units µg/g unless otherwise stated

B3. GREATER DESOLATION SOUND FOCUS AREA**Table B-21. Summary of Water Quality Data Collected at Site E248645, Toba Inlet South.**

	15-Jul-03
Ammonia Dissolved	0.006
Nitrate Dissolved	<0.002
Nitrate + Nitrite Diss	<0.002
Nitrite Diss.	<0.002
Nitrogen Total	0.18
Ortho-Phosphate	0.016
Phosphorus - total	0.037
Residue Volume Non-filt.	3
Residue Fixed Non-filt.	6
Residue Non-filterable	9

*All units mg/L unless otherwise stated

Table B-22. Summary of Water Quality Data Collected Throughout Greater Desolation Sound.

	Bute Inlet North	Bute Inlet North	Bute Inlet Centre	Bute Inlet Centre	Bute Inlet South	Bute Inlet South	Frederick Arm	Frederick Arm	Phillips Arm	Phillips Arm	Ramsay Arm	Ramsay Arm	Toba Inlet North	Toba Inlet North	Toba Inlet Centre	Toba Inlet Centre	
July 18,2002																	
Depth	0m	30m	0m	30m	0m	30m	0m	30m	0m	30m	0m	30m	0m	30m	0m	30m	
Physical (mg/L)																	
Res Non-filt (TSS)	37		5		<4		8		7		<4		33		7		
Turbidity (NTU)	25.1	33.3	5.51	0.32	1.66	1.5	0.89	0.48	0.53	0.96	0.21	0.2	23.1	1.43	1.13	2.3	
Nitrogen (mg/L)																	
Total Kjeldahl N	<0.02	0.08	0.02	0.05	0.03	0.08	0.23	0.09	0.06	0.1	0.05	0.19	<0.02	0.1	0.05	0.13	
Total N	0.03	0.32	0.02	0.4	0.04	0.21	0.48	0.41	0.1	0.42	0.05	0.44	0.04	0.26	0.05	0.13	
Total Organic N	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.23	<0.1	<0.1	0.1	<0.1	0.19	<0.1	0.1	<0.1	0.13	
Ammonia N	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
Nitrate N Dissolved	0.08	0.23	<0.002	0.35	<0.002	0.14	0.25	0.32	0.05	0.31	<0.002	0.25	<0.002	0.14	<0.002	<0.002	
Nitrate + Nitrite	0.083	0.233	<0.002	0.351	0.002	0.136	0.251	0.325	0.045	0.318	<0.002	0.249	0.021	0.154	<0.002	<0.002	
Nitrite N	0.002	0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.003	<0.002	0.003	0.002	0.011	<0.002	0.002	

Table B-23. Summary of Sediment Quality Data Collected Throughout Greater Desolation Sound, July 18, 2002

	Bute Inlet North	Frederick Arm	Phillips Arm	Toba Inlet North
Particle size distribution (% w/w)				
Gravel 2.0 mm	<0.1	0.2	<0.1	<0.1
Coarse Sand 0.59 mm	1.3	0.1	1.8	<0.1
Medium Sand 0.297 mm	6.3	2	6.6	0.4
Fine Sand 0.149 mm	10	8.8	12	2.1
Very Fine Sand 0.053 mm	61.6	55.7	59	51.3
Silt 0.037 mm	8	14.9	10.9	15.3
>2.00 mm (gravel)	0	0	0	0
<2.00 & >0.063 mm (sand)	0.33	7.3	2.65	19.67
<0.063 & >0.004 mm (silt)	64.25	55.25	59.26	75.62
<0.004mm (clay)	35.42	37.45	38.08	4.71
Inorganic Carbon-Total	<500	580	1200	<500
Organic Carbon-Total	3000	35000	35000	7500
Carbon-Total	3000	36000	36000	7500
Fecal coliforms (MPN/100g)	45	130	<20	3500
Metals (µg/g)				
Aluminum	25400	21200	20500	13900
Antimony	0.1	0.4	0.3	<0.1
Arsenic	5	7.7	11.4	2.4
Barium	276	75.7	96.4	226
Beryllium	0.2	0.3	0.3	<0.1
Bismuth	<0.1	<0.1	<0.1	<0.1
Cadmium	0.08	0.32	1.78	<0.05
Calcium	8120	9730	10000	5720
Chromium	25.4	23.7	26.9	17.5
Cobalt	15.4	10.4	8.4	9.2
Copper	67.4	45.9	42.8	39.4
Iron	38300	28300	27400	26500
Lead	2.8	11.9	7.6	1.1
Magnesium	16800	12800	12500	10300
Manganese	487	284	267	268
Molybdenum	0.9	2	4.2	0.5
Nickel	18.4	17.2	15.8	9.1
Phosphorus	906	855	912	1270
Potassium	5890	2790	3130	4160
Selenium	<0.5	1.3	1	<0.5
Silver	0.09	0.21	0.27	0.06
Sodium	6860	25600	20800	5810
Strontium	61.8	79.7	78	35.5
Tellurium	<0.1	<0.1	<0.1	<0.1
Thallium	0.27	0.13	0.31	0.21
Tin	0.4	0.8	0.5	0.2
Titanium	2450	1440	1320	1730
Vanadium	94	69	61	71
Zinc	86.1	72.4	76.5	48.1
Zirconium	0.9	2.2	1.8	<0.5