Nelson Bay River	Field				Surface water monitoring																																									
Sites/Parameters	D.O.	E.C.	pH	Redox	Turbid(field)	Temp	Susp. Solids	Turbid (lab)	T/Alk	Acidity	SO4	Cl	T/Hardness	Ca	Mg	Na	K	T/Al	T/As	T/Ba	T/Be	T/Cd	T/Cr	T/Co	T/Cu	T/Pb	T/Mn	T/Mo	T/Ni	T/Se	T/V	T/Zn	T/Fe	T/Hg	F	NH4/N	NOx/N	TN	TKN	TP	T Anions	T Cations	Visual or odour HC	Visual or odour O&G
	% sat.	uS/cm		mV	NTU	ºC	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	meq/L		
ANZECC guidelines 95%	**90-110**	**350.0**	**6.5-7.5**		**2 to 25**													**0.550**	**0.013**			**0.0002**	**0.001**		**0.0014**	**0.0034**	**1.900**		**0.0110**			**0.008**		**0.0006**											
NBRSW01 Nelson Bay River @ Rebecca Road bridge																																														
18-Feb-10	Not sampled								3	7	4.0	62.0	19.0	1	4	38.0	2.00	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	0.002	0.0020	0.087	not sampled	<0.001	not sampled	<0.01	0.036	not sampled	<0.0001	not sampled	<0.01	<0.01	0.50	0.50	0.020	not sampled	not sampled	None	None
23-Mar-10	79.4	163.6	4.17	223.0	1.9	15.5	3		<2	17	11.5	37.2	16.6	1.20	3.43	19.1	0.20	0.362	<0.001	0.004	sample	<0.0001	<0.001	<0.0005	<0.001	<0.0005	0.014	<0.0005	0.0006	<0.005	not sampled	0.006	0.302	not sampled	not sampled	0.013	<0.002	0.54	0.53	0.006	not sampled	not sampled	None	None
04-May-10	78.2	153.7	4.00	369	0.7	13.3	2	2.4	<1	25	5.0	39.0	12.0	<1	3	21.0	<1	Not sampled	0.002	0.006	<0.001	0.0002	<0.001	0.001	0.008	0.1520	0.010	not sampled	0.0020	not sampled	<0.01	0.011	not sampled	<0.0001	<0.1	0.010	<0.01	1.10	1.10	<0.01	not sampled	not sampled	None	None
22-Jul-10	70.6	63.6	4.66	Not sampled	Not sampled	8.5	<5	2.2	1	16	10.0	55.0	6.0	<1	1	19.0	<1	Not sampled	<0.001	0.003	<0.001	0.0011	<0.001	<0.001	0.001	<0.001	0.003	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	0.150	0.80	0.60	<0.01	not sampled	not sampled	None - good flow	
16-Nov-10	75.9	72.8	6.01	Not sampled	Not sampled	13.3	25	3.9	3	16	9.0	17.0	<1	<1	<1	12.0	<1	Not sampled	<0.001	0.003	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0030	0.003	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.001	1.40	1.40	0.060	not sampled	not sampled	nil	nil
18-May-11	73.1	95.1	6.72	Not sampled	Not sampled	10.6	<5	4.8	<1	20	<1	26.0	8.0	<1	2	18.0	<1	Not sampled	<0.001	0.003	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.60	1.60	<0.01	0.720	0.940	nil	nil
NBRSW02 Nelson Bay River @ Wuthering Heights Spur Rd bridge																																														
18-Feb-10	Not sampled								<1	10	4.0	60.0	18.0	1	3	33.0	2.00	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.068	not sampled	<0.001	not sampled	<0.01	0.008	not sampled	<0.0001	not sampled	<0.01	<0.01	0.40	0.40	0.020	not sampled	not sampled	None	None
23-Mar-10	87.5	188.5	5.00	216	5.4	16.0	6		<2	10	9.9	47.3	15.4	1.14	3.10	25.1	0.90	0.274	<0.001	0.003	sample	<0.0001	<0.001	<0.0005	0.001	<0.0005	0.031	<0.0005	<0.0005	<0.005	not sampled	0.008	0.661	not sampled	not sampled	0.012	<0.002	0.43	0.43	0.015	not sampled	not sampled	None	None
04-May-10	86.7	151.3	4.02	327	7.4	13.3	6	2.6	<1	23	5.0	<1	12.0	<1	3	22.0	<1	Not sampled	<0.001	0.006	<0.001	0.0001	<0.001	<0.001	0.001	0.0010	0.010	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.20	1.20	0.060	not sampled	not sampled	None	None
22-Jul-10	79.3	74.1	5.09	Not sampled	Not sampled	8.5	<5	2.4	1	15	7.0	60.0	7.0	<1	2	20.0	<1	Not sampled	<0.001	0.004	<0.001	0.0017	<0.001	<0.001	0.004	<0.001	0.004	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	0.040	0.60	0.60	<0.01	not sampled	not sampled	None - fast flow	
16-Nov-10	75.2	81.9	6.18	Not sampled	Not sampled	13.9	12	4.4	<1	14	2.0	20.0	4.0	<1	1	13.0	<1	Not sampled	<0.001	0.005	<0.001	0.0001	0.005	<0.001	0.002	0.0060	0.007	not sampled	<0.001	not sampled	0.010	<0.005	not sampled	<0.0001	<0.1	<0.01	0.010	1.30	1.30	0.050	not sampled	not sampled	nil	nil
18-May-11	72	96.3	6.83	Not sampled	Not sampled	10.5	<5	6.7	<1	15	<1	26.0	8.0	<1	2	20.0	<1	Not sampled	<0.001	0.002	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.007	not sampled	<0.001	not sampled	<0.01	0.021	not sampled	<0.0001	<0.1	<0.01	<0.01	1.00	1.00	<0.01	0.720	1.040	nil	nil
NBRSW03 Nelson Bay River above mine																																														
18-Feb-10	Not sampled								<1	12	4.0	52.0	11.0	<1	3	28.0	1.00	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.023	not sampled	<0.001	not sampled	<0.01	0.006	not sampled	<0.0001	not sampled	0.020	0.010	0.30	0.30	0.020	not sampled	not sampled	None	None
23-Mar-10	88.9	150.4	5.09	229	6.2	16.2	7		<2	9	5.9	40.1	10.3	0.82	2.15	21.7	1.03	0.232	<0.001	0.003	sample	<0.0001	<0.001	<0.0005	0.001	<0.0005	0.026	<0.0005	<0.0005	<0.005	not sampled	0.010	0.969	not sampled	not sampled	0.006	<0.002	0.51	0.51	0.018	not sampled	not sampled	None	None
04-May-10	98.0	146.0	3.77	300	2.8	12.9	4	2.6	<1	23	5.0	35.0	15.0	1	3	22.0	<1	Not sampled	<0.001	0.007	<0.001	0.0002	<0.001	<0.001	0.001	0.0010	0.010	not sampled	<0.001	not sampled	<0.01	0.009	not sampled	<0.0001	<0.1	<0.01	<0.01	1.20	1.20	<0.01	not sampled	not sampled	None	None
22-Jul-10	74.3	77.7	5.37	Not sampled	Not sampled	8.2	<5	2.4	4	16	6.0	50.0	8.0	<1	2	22.0	<1	Not sampled	<0.001	0.004	<0.001	0.0012	<0.001	<0.001	0.001	<0.001	0.006	not sampled	<0.001	not sampled	<0.01	0.007	not sampled	<0.0001	<0.1	<0.01	<0.01	0.90	0.90	<0.01	not sampled	not sampled	None - fast flow - foam	
16-Nov-10	75.4	88.9	6.71	Not sampled	Not sampled	12.9	<5	6.6	<1	14	9.0	22.0	5.0	<1	1	14.0	1.00	Not sampled	<0.001	0.006	<0.001	<0.0001	0.006	<0.001	0.003	0.0120	0.016	not sampled	0.0010	not sampled	0.010	0.012	not sampled	<0.0001	<0.1	0.020	0.010	1.50	1.50	0.050	not sampled	not sampled	nil	nil
18-May-11	93.9	100.7	6.28	Not sampled	Not sampled	10.6	<5	5.0	<1	15	<1	28.0	8.0	<1	2	22.0	<1	Not sampled	0.001	0.003	<0.001	0.0002	<0.001	<0.001	<0.001	0.0040	0.007	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.20	1.20	<0.01	0.780	1.140	nil	nil
NBRSW04 Nelson Bay River below mine																																														
18-Feb-10	Not sampled								34	14	16.0	40.0	57.0	9	8	23.0	2.00	Not sampled	0.004	0.007	<0.001	<0.0001	0.001	<0.001	0.003	0.0020	0.052	not sampled	0.0020	not sampled	<0.01	0.014	not sampled	<0.0001	not sampled	<0.01	0.100	0.60	0.50	0.050	not sampled	not sampled	None	None
23-Mar-10	87.6	148.7	6.30	195	4.6	16.7	4		<2	8	5.3	39.5	9.1	0.80	2.10	21.2	0.97	0.208	<0.001	0.003	sample	<0.0001	<0.001	<0.0005	<0.001	<0.0005	0.031	<0.0005	<0.0005	<0.005	not sampled	0.003	0.807	not sampled	not sampled	0.008	<0.002	0.42	0.41	0.014	not sampled	not sampled	None	None
04-May-10	100.0	147.0	3.80	260	1.5	13.0	2	1.6	<1	21	5.0	<1	15.0	1	3	22.0	<1	Not sampled	<0.001	0.007	<0.001	0.0002	<0.001	<0.001	0.001	<0.001	0.011	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.40	1.40	10.600	not sampled	not sampled	None	None
22-Jul-10	79.1	80.0	6.29	Not sampled	Not sampled	8.4	<5	2.0	1	16	6.0	50.0	8.0	<1	2	22.0	1.00	Not sampled	<0.001	0.004	<0.001	<0.0001	<0.001	<0.001	<0.001	<0.001	0.009	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	0.70	0.70	<0.01	not sampled	not sampled	None - fast flow - foam	
16-Nov-10	75.2	100.5	6.37	Not sampled	Not sampled	13.4	20	4.1	<1	13	15.0	<1	5.0	<1	1	13.0	<1	Not sampled	<0.001	0.004	<0.001	<0.0001	0.005	<0.001	0.001	0.0050	0.011	not sampled	<0.001	not sampled	0.010	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.10	1.10	0.060	not sampled	not sampled	nil	nil
18-May-11	85.9	101.3	5.92	Not sampled	Not sampled	11.2	<5	6.7	<1	18	<1	28.0	8.0	<1	2	20.0	<1	Not sampled	<0.001	0.003	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0080	0.007	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.20	1.20	<0.01	0.780	1.060	nil	nil
NBRSW05 Nelson Bay River @ Temma Rd bridge																																														
18-Feb-10	Not sampled								14	40	78.0	190.0	131.0	17	22	109.0	11.00	Not sampled	0.003	0.016	<0.001	<0.0001	0.001	0.014	0.006	0.0040	0.178	not sampled	0.0160	not sampled	<0.01	0.034	not sampled	<0.0001	not sampled	<0.01	<0.01	1.80	1.80	0.280	not sampled	not sampled	None	None
23-Mar-10	88.2	186.5	4.70	271	2.7	16.0	5		<2	8	6.5	50.2	11.0	0.90	2.51	26.4	1.07	0.187	<0.001	0.003		<0.0001	<0.001	<0.0005	<0.001	0.0006	0.032	<0.0005	<0.0005	<0.005	not sampled	0.010	0.895	not sampled	not sampled	0.006	<0.002	0.44	0.44	0.012	not sampled	not sampled	None	None
04-May-10	97.9	151.1	4.04	271	0.6	13.5	<1	1.7	<1	21	6.0	45.0	16.0	1	3	23.0	<1	Not sampled	<0.001	0.007	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0010	0.011	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.10	1.10	0.100	not sampled	not sampled	None	None
22-Jul-10	74.9	97.0	4.62	Not sampled	Not sampled	8.7	<5	2.7	<1	16	6.0	55.0	9.0	<1	2	25.0	<1	Not sampled	<0.001	0.004	<0.001	0.0002	<0.001	<0.001	<0.001	<0.001	0.008	not sampled	<0.001	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	0.020	0.50	0.50	<0.01	not sampled	not sampled	None - good flow	
16-Nov-10	86.2	98.2	5.16	Not sampled	Not sampled	13.6	<5	3.7	<1	13	25.0	22.0	5.0	<1	1	15.0	<1	Not sampled	<0.001	0.005	<0.001	0.0006	0.005	<0.001	<0.001	0.0030	0.01	not sampled	<0.001	not sampled	<0.01	0.009	not sampled	<0.0001	<0.1	0.020	<0.01	1.20	1.20	0.260	not sampled	not sampled	nil	nil
18-May-11	89.5	102.5	6.27	Not sampled	Not sampled	11.0	<5	7.7	<1	16	<1	20.0	8.0	<1	2	20.0	<1	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	0.006	<0.001	0.006	not sampled	<0.001	not sampled	<0.01	0.006	not sampled	<0.0001	<0.1	<0.01	<0.01	1.10	1.10	<0.01	0.570	1.070	nil	nil
NBRSW06 Sardine Creek on Temma Rd																																														
18-Feb-10	Not sampled								<1	11	3.0	65.0	22.0	2	4	35.0	2.00	Not sampled	<0.001	0.005	<0.001	0.0001	<0.001	<0.001	<0.001	<0.001	0.038	not sampled	<0.001	not sampled	<0.01	0.005	not sampled	<0.0001	not sampled	0.030	0.010	0.50	0.50	0.020	not sampled	not sampled	None	None
23-Mar-10	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	not sampled	not sampled	dry	dry
04-May-10	79.6	334.0	4.74	256	0.7	13.8	1	1.0	3	17	24.0	93.0	40.0	3	8	54.0	3.00	Not sampled	<0.001	0.008	<0.001	0.0001	<0.001	<0.001	0.001	0.0010	0.038	not sampled	<0.001	not sampled	<0.01	0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	1.00	1.00	<0.01	not sampled	not sampled	None	None
22-Jul-10	70.6	229.0	4.39	Not sampled	Not sampled	9.7	<5	4.0	<1	23	12.0	45.0	27.0	2	5	57.0	2.00	Not sampled	<0.001	0.008	<0.001	0.0045	0.001	<0.001	0.002	0.0010	0.012	not sampled	0.0010	not sampled	<0.01	<0.005	not sampled	<0.0001	<0.1	<0.01	<0.01	0.80	0.80	<0.01	not sampled	not sampled	None - good flow - foam	
16/11/2010	75.3	233.0	5.26	Not sampled	Not sampled	12.5	<5	3.7	<1	13	25.0	22.0	5.0	<1	1	15.0	<1	Not sampled	<0.001	0.005	<0.001	0.0006	0.005	<0.001	<0.001	0.0030	0.010	not sampled	<0.001	not sampled	<0.01	0.009	not sampled	<0.0001	<0.1	<0.01	<0.01	1.10	1.10	0.060	not sampled	not sampled	nil	nil
18/05/2011	75.9	319	6.3	Not sampled	Not sampled	11.5	<5	5.2	<1	25	9.0	81.0	36.0	3	7	73.0	4.00	Not sampled	<0.01	0.006	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0020	0.022	not sampled	<0.001	not sampled	<0.01	0.006	not sampled	<0.0001	<0.1	<0.01	<0.01	1.70	1.70	<0.01	2.460	4.040		
NBRSW07 below tailings dam																																														
18/05/2011	80.9	207.4	6.06	Not sampled	Not sampled	10.9	<5	12.3	2	4	<1	56.0	21.0	2	4	50.0	2.00	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0040	0.054		0.0010		<0.01	0.005		<0.0001	<0.1	<0.01	<0.01	1.20	1.20	<0.01	1.640	2.660	nil	nil
NBRSW08 below sedimentation basin																																														
18/05/2011	75.2	264	6.4	Not sampled	Not sampled	11.3	<5	9.0	4	2	<1	71.0	26.0	2	5	68.0	2.00	Not sampled	<0.001	0.005	<0.001	<0.0001	<0.001	<0.001	<0.001	0.0010	0.018		<0.001		<0.01	<0.005		<0.0001	<0.1	<0.01	0.010	1.10	1.10	<0.01	2.080	3.520	nil	nil