

Appendix J – Water Quality Data from the Monitoring Site SQ34420 at the mouth of the Hurunui River

Water Quality Samples for site SQ34420

<u>Well Number</u>	<u>Collection Date</u>	<u>Sample ID</u>	<u>Parameter Name</u>	<u>Value</u>	<u>Units</u>
	16/08/2017	182659805	Black disc clarity	0.20	m
	16/08/2017	182659805	Conductivity field	9.02	mS/m
	16/08/2017	182659805	Dissolved Oxygen	11.58	mg/L
	16/08/2017	182659805	Dissolved Oxygen % saturation	99.0	%
	16/08/2017	182659805	Dissolved Reactive Phosphorus	0.0059	mg/L
	16/08/2017	182659805	E coli	160	MPN/100mL
	16/08/2017	182659805	Filtration, Unpreserved		
	16/08/2017	182659805	Meter Number	99	
	16/08/2017	182659805	Nitrate-N + Nitrite-N	0.53	g/m3
	16/08/2017	182659805	pH field	7.74	pH Units
	16/08/2017	182659805	Rain	Not Raining	
	16/08/2017	182659805	Rain Previously	Light	
	16/08/2017	182659805	Site is Dry	No	
	16/08/2017	182659805	Time (NZST)	12:04	
	16/08/2017	182659805	Total Ammoniacal-N	< 0.010	g/m3
	16/08/2017	182659805	Total Nitrogen	0.64	g/m3
	16/08/2017	182659805	Total Nitrogen Digestion		
	16/08/2017	182659805	Total Phosphorus	0.039	mg/L
	16/08/2017	182659805	Total Phosphorus Digestion		

16/08/2017	182659805	Total Suspended Solids	71	mg/L
16/08/2017	182659805	Turbidity	40	NTU
16/08/2017	182659805	Visual observation method	Bed not visible	
16/08/2017	182659805	Water Clarity	Turbid	
16/08/2017	182659805	Water Colour	brown/yellow	
16/08/2017	182659805	Water Temperature	8.1	°C
19/07/2017	181181805	Black disc clarity	2.38	m
19/07/2017	181181805	Conductivity Field	12.94	mS/m
19/07/2017	181181805	Cyanobacterial mat - Rec (instream)	5	%
19/07/2017	181181805	Cyanobacterial mat - SoE (instream)	5	%
19/07/2017	181181805	Didymo (instream)	30	%
19/07/2017	181181805	Dissolved Oxygen	13.10	mg/L
19/07/2017	181181805	Dissolved Oxygen % saturation	109.9	%
19/07/2017	181181805	Dissolved Reactive Phosphorus	< 0.0010	mg/L
19/07/2017	181181805	E coli	44	MPN/100mL
19/07/2017	181181805	Epiphytic periphyton (instream)	0	%
19/07/2017	181181805	Filtration, Unpreserved		
19/07/2017	181181805	Macrophytes - emergent (instream)	0	%
19/07/2017	181181805		0	%

		Macrophytes - submerged (instream)		
19/07/2017	181181805	Meter Number	99	
19/07/2017	181181805	Nitrate-N + Nitrite-N	0.52	g/m3
19/07/2017	181181805	Periphyton filaments - long green (instream)	1	%
19/07/2017	181181805	Periphyton filaments - long other (instream)	0	%
19/07/2017	181181805	Periphyton filaments - short green (instream)	1	%
19/07/2017	181181805	Periphyton filaments - short other (instream)	0	%
19/07/2017	181181805	Periphyton film (instream)	15	%
19/07/2017	181181805	Periphyton mats - other (instream)	10	%
19/07/2017	181181805	Periphyton mats - thick (instream)	25	%
19/07/2017	181181805	Periphyton sludge (instream)	30	%
19/07/2017	181181805	Periphyton total cover (instream)	80	%
19/07/2017	181181805	pH field	8.61	pH Units
19/07/2017	181181805	Rain	not raining	
19/07/2017	181181805	Rain Previously	nil	
19/07/2017	181181805	Sedimentation (instream)	20	%
19/07/2017	181181805	Time (NZST)	1316	
19/07/2017	181181805	Total Ammoniacal-N	< 0.010	g/m3

19/07/2017	181181805	Total Nitrogen	0.63	g/m3
19/07/2017	181181805	Total Nitrogen Digestion		
19/07/2017	181181805	Total Phosphorus	< 0.004	mg/L
19/07/2017	181181805	Total Phosphorus Digestion		
19/07/2017	181181805	Total Suspended Solids	2.3	mg/L
19/07/2017	181181805	Turbidity	2.3	NTU
19/07/2017	181181805	Visual observation method	Instream	
19/07/2017	181181805	Water Clarity	clear	
19/07/2017	181181805	Water Colour	green	
19/07/2017	181181805	Water Temperature	7.4	°C
14/06/2017	179235305	Ammonium Nitrogen	< 0.010	mg/L
14/06/2017	179235305	Black disc clarity	1.4	m
14/06/2017	179235305	Conductivity field	11.19	mS/m
14/06/2017	179235305	Cyanobacterial mat - Rec (instream)	0	%
14/06/2017	179235305	Cyanobacterial mat - SoE (instream)	5	%
14/06/2017	179235305	Didymo (instream)	0	%
14/06/2017	179235305	Dissolved Oxygen	12.67	mg/L
14/06/2017	179235305	Dissolved Oxygen % saturation	105.2	%
14/06/2017	179235305	Dissolved Reactive Phosphorus	< 0.0010	mg/L

14/06/2017	179235305	E coli	365	MPN/100mL
14/06/2017	179235305	Epiphytic periphyton (instream)	0	%
14/06/2017	179235305	Filtration, Unpreserved		
14/06/2017	179235305	Macrophytes - emergent (instream)	0	%
14/06/2017	179235305	Macrophytes - submerged (instream)	0	%
14/06/2017	179235305	Meter Number	D26	
14/06/2017	179235305	Nitrate-N + Nitrite-N	0.45	g/m3
14/06/2017	179235305	Periphyton filaments - long green (instream)	2	%
14/06/2017	179235305	Periphyton filaments - long other (instream)	5	%
14/06/2017	179235305	Periphyton filaments - short green (instream)	3	%
14/06/2017	179235305	Periphyton filaments - short other (instream)	10	%
14/06/2017	179235305	Periphyton film (instream)	20	%
14/06/2017	179235305	Periphyton mats - other (instream)	15	%
14/06/2017	179235305	Periphyton mats - thick (instream)	20	%
14/06/2017	179235305	Periphyton sludge (instream)	0	%
14/06/2017	179235305	Periphyton total cover (instream)	75	%

14/06/2017	179235305	pH field	8.39	pH Units
14/06/2017	179235305	Rain	Not Raining	
14/06/2017	179235305	Rain Previously	Nil	
14/06/2017	179235305	Sedimentation (instream)	10	%
14/06/2017	179235305	Site is Dry	No	
14/06/2017	179235305	Time (NZST)	12:40	
14/06/2017	179235305	Total Nitrogen	0.52	g/m3
14/06/2017	179235305	Total Nitrogen Digestion		
14/06/2017	179235305	Total Phosphorus	0.006	mg/L
14/06/2017	179235305	Total Phosphorus Digestion		
14/06/2017	179235305	Total Suspended Solids	5.0	mg/L
14/06/2017	179235305	Turbidity	1.83	NTU
14/06/2017	179235305	Visual observation method	Instream	
14/06/2017	179235305	Water Clarity	Opaque	
14/06/2017	179235305	Water Colour	green	
14/06/2017	179235305	Water Temperature	7.4	°C
17/05/2017	177713005	Ammonium Nitrogen	< 0.010	mg/L
17/05/2017	177713005	Black disc clarity	3.6	m
17/05/2017	177713005	Conductivity Field	11.69	mS/m
17/05/2017	177713005	Cyanobacterial mat - Rec (instream)	0	%
17/05/2017	177713005	Cyanobacterial mat - SoE (instream)	0	%
17/05/2017	177713005		2	%

		Didymo (instream)		
17/05/2017	177713005	Dissolved Oxygen	12.00	mg/L
17/05/2017	177713005	Dissolved Oxygen % saturation	108.0	%
17/05/2017	177713005	Dissolved Reactive Phosphorus	< 0.0010	mg/L
17/05/2017	177713005	E coli	72	MPN/100mL
17/05/2017	177713005	Epiphytic periphyton (instream)	0	%
17/05/2017	177713005	Filtration, Unpreserved		
17/05/2017	177713005	Macrophytes - emergent (instream)	0	%
17/05/2017	177713005	Macrophytes - submerged (instream)	0	%
17/05/2017	177713005	Meter Number	D32	
17/05/2017	177713005	Nitrate-N + Nitrite-N	0.63	g/m3
17/05/2017	177713005	Periphyton filaments - long green (instream)	0	%
17/05/2017	177713005	Periphyton filaments - long other (instream)	1	%
17/05/2017	177713005	Periphyton filaments - short green (instream)	0	%
17/05/2017	177713005	Periphyton filaments - short other (instream)	0	%
17/05/2017	177713005	Periphyton film (instream)	10	%
17/05/2017	177713005		10	%

		Periphyton mats - other (instream)		
17/05/2017	177713005	Periphyton mats - thick (instream)	0	%
17/05/2017	177713005	Periphyton sludge (instream)	10	%
17/05/2017	177713005	Periphyton total cover (instream)	30	%
17/05/2017	177713005	pH field	7.6	pH Units
17/05/2017	177713005	Rain	not raining	
17/05/2017	177713005	Rain Previously	light	
17/05/2017	177713005	Sedimentation (instream)	50	%
17/05/2017	177713005	Time (NZST)	13:10	
17/05/2017	177713005	Total Nitrogen	0.67	g/m3
17/05/2017	177713005	Total Nitrogen Digestion		
17/05/2017	177713005	Total Phosphorus	< 0.004	mg/L
17/05/2017	177713005	Total Phosphorus Digestion		
17/05/2017	177713005	Total Suspended Solids	0.6	mg/L
17/05/2017	177713005	Turbidity	0.65	NTU
17/05/2017	177713005	Visual observation method	instream	
17/05/2017	177713005	Water Clarity	clear	
17/05/2017	177713005	Water Colour	colourless	
17/05/2017	177713005	Water Temperature	10.4	°C
12/04/2017	175796905	Ammonium Nitrogen	< 0.010	mg/L
12/04/2017	175796905		1.20	m

		Black disc clarity		
12/04/2017	175796905	Conductivity field	11.21	mS/m
12/04/2017	175796905	Cyanobacterial mat - Rec (instream)	0	%
12/04/2017	175796905	Cyanobacterial mat - SoE (instream)	0	%
12/04/2017	175796905	Didymo (instream)	0	%
12/04/2017	175796905	Dissolved Oxygen	10.14	mg/L
12/04/2017	175796905	Dissolved Oxygen % saturation	99.8	%
12/04/2017	175796905	Dissolved Reactive Phosphorus	0.0011	mg/L
12/04/2017	175796905	E coli	185	MPN/100mL
12/04/2017	175796905	Epiphytic periphyton (instream)	0	%
12/04/2017	175796905	Filtration, Unpreserved		
12/04/2017	175796905	Macrophytes - emergent (instream)	0	%
12/04/2017	175796905	Macrophytes - submerged (instream)	0	%
12/04/2017	175796905	Meter Number	D31	
12/04/2017	175796905	Nitrate-N + Nitrite-N	0.51	g/m3
12/04/2017	175796905	Periphyton filaments - long green (instream)	0	%
12/04/2017	175796905	Periphyton filaments - long other (instream)	0	%

12/04/2017	175796905	Periphyton filaments - short green (instream)	0	%
12/04/2017	175796905	Periphyton filaments - short other (instream)	0	%
12/04/2017	175796905	Periphyton film (instream)	1	%
12/04/2017	175796905	Periphyton mats - other (instream)	0	%
12/04/2017	175796905	Periphyton mats - thick (instream)	0	%
12/04/2017	175796905	Periphyton sludge (instream)	0	%
12/04/2017	175796905	Periphyton total cover (instream)	1	%
12/04/2017	175796905	pH field	7.78	pH Units
12/04/2017	175796905	Rain	Raining	
12/04/2017	175796905	Rain Previously	Light	
12/04/2017	175796905	Sedimentation (instream)	15	%
12/04/2017	175796905	Site is Dry	No	
12/04/2017	175796905	Time (NZST)	13:51	
12/04/2017	175796905	Total Nitrogen	0.65	g/m3
12/04/2017	175796905	Total Nitrogen Digestion		
12/04/2017	175796905	Total Phosphorus	0.009	mg/L
12/04/2017	175796905	Total Phosphorus Digestion		
12/04/2017	175796905	Total Suspended Solids	5.7	mg/L
12/04/2017	175796905	Turbidity	2.4	NTU

12/04/2017	175796905	Visual observation method	Instream	
12/04/2017	175796905	Water Clarity	Opaque	
12/04/2017	175796905	Water Colour	green	
12/04/2017	175796905	Water Temperature	14.4	°C
15/03/2017	174103404	Ammonium Nitrogen	0.015	mg/L
15/03/2017	174103404	Black disc clarity	0.85	m
15/03/2017	174103404	Conductivity field	9.59	mS/m
15/03/2017	174103404	Cyanobacterial mat - Rec (instream)	0	%
15/03/2017	174103404	Cyanobacterial mat - SoE (instream)	0	%
15/03/2017	174103404	Didymo (instream)	0	%
15/03/2017	174103404	Dissolved Oxygen	10.42	mg/L
15/03/2017	174103404	Dissolved Oxygen % saturation	103.9	%
15/03/2017	174103404	Dissolved Reactive Phosphorus	< 0.0010	mg/L
15/03/2017	174103404	E coli	116	MPN/100mL
15/03/2017	174103404	Epiphytic periphyton (instream)	0	%
15/03/2017	174103404	Filtration, Unpreserved		
15/03/2017	174103404	Macrophytes - emergent (instream)	0	%
15/03/2017	174103404	Macrophytes - submerged (instream)	0	%

15/03/2017	174103404	Meter Number	D26	
15/03/2017	174103404	Nitrate-N + Nitrite-N	0.28	g/m3
15/03/2017	174103404	Periphyton filaments - long green (instream)	1	%
15/03/2017	174103404	Periphyton filaments - long other (instream)	0	%
15/03/2017	174103404	Periphyton filaments - short green (instream)	1	%
15/03/2017	174103404	Periphyton filaments - short other (instream)	0	%
15/03/2017	174103404	Periphyton film (instream)	40	%
15/03/2017	174103404	Periphyton mats - other (instream)	1	%
15/03/2017	174103404	Periphyton mats - thick (instream)	0	%
15/03/2017	174103404	Periphyton sludge (instream)	2	%
15/03/2017	174103404	Periphyton total cover (instream)	45	%
15/03/2017	174103404	pH field	7.49	pH Units
15/03/2017	174103404	Rain	Not Raining	
15/03/2017	174103404	Rain Previously	Nil	
15/03/2017	174103404	Sedimentation (instream)	20	%
15/03/2017	174103404	Site is Dry	No	
15/03/2017	174103404	Time (NZST)	12:29	
15/03/2017	174103404	Total Nitrogen	0.33	g/m3
15/03/2017	174103404	Total Nitrogen Digestion		

15/03/2017	174103404	Total Phosphorus	< 0.004	mg/L
15/03/2017	174103404	Total Phosphorus Digestion		
15/03/2017	174103404	Total Suspended Solids	7.2	mg/L
15/03/2017	174103404	Turbidity	3.6	NTU
15/03/2017	174103404	Visual observation method	Instream	
15/03/2017	174103404	Water Clarity	Turbid	
15/03/2017	174103404	Water Colour	green	
15/03/2017	174103404	Water Temperature	16.1	°C
15/02/2017	172431903	Ammonium Nitrogen	< 0.010	mg/L
15/02/2017	172431903	Black disc clarity	0.14	m
15/02/2017	172431903	Conductivity field	6.87	mS/m
15/02/2017	172431903	Dissolved Oxygen	10.12	mg/L
15/02/2017	172431903	Dissolved Oxygen % saturation	100.4	%
15/02/2017	172431903	Dissolved Reactive Phosphorus	0.0014	mg/L
15/02/2017	172431903	E coli	517	MPN/100mL
15/02/2017	172431903	Filtration, Unpreserved		
15/02/2017	172431903	Meter Number	D29	
15/02/2017	172431903	Nitrate-N + Nitrite-N	0.095	g/m3
15/02/2017	172431903	pH field	7.74	pH Units
15/02/2017	172431903	Rain	Not Raining	
15/02/2017	172431903	Rain Previously	Nil	

15/02/2017	172431903	Site is Dry	No	
15/02/2017	172431903	Time (NZST)	12:08	
15/02/2017	172431903	Total Nitrogen	0.154	g/m3
15/02/2017	172431903	Total Nitrogen Digestion		
15/02/2017	172431903	Total Phosphorus	0.009	mg/L
15/02/2017	172431903	Total Phosphorus Digestion		
15/02/2017	172431903	Total Suspended Solids	71	mg/L
15/02/2017	172431903	Turbidity	49	NTU
15/02/2017	172431903	Visual observation method	Bed not visible	
15/02/2017	172431903	Water Clarity	Turbid	
15/02/2017	172431903	Water Colour	brown/yellow	
15/02/2017	172431903	Water Temperature	14.9	°C
11/01/2017	170635905	Ammonium Nitrogen	< 0.010	mg/L
11/01/2017	170635905	Black disc clarity	5.63	m
11/01/2017	170635905	Conductivity field	9.47	mS/m
11/01/2017	170635905	Cyanobacterial mat - Rec (instream)	10	%
11/01/2017	170635905	Cyanobacterial mat - SoE (instream)	10	%
11/01/2017	170635905	Didymo (instream)	0	%
11/01/2017	170635905	Dissolved Oxygen	9.53	mg/L
11/01/2017	170635905	Dissolved Oxygen % saturation	101.0	%

11/01/2017	170635905	Dissolved Reactive Phosphorus	< 0.0010	mg/L
11/01/2017	170635905	E coli	68	MPN/100mL
11/01/2017	170635905	Epiphytic periphyton (instream)	0	%
11/01/2017	170635905	Filtration, Unpreserved		
11/01/2017	170635905	Macrophytes - emergent (instream)	0	%
11/01/2017	170635905	Macrophytes - submerged (instream)	0	%
11/01/2017	170635905	Meter Number	D29	
11/01/2017	170635905	Nitrate-N + Nitrite-N	0.21	g/m3
11/01/2017	170635905	Periphyton filaments - long green (instream)	2	%
11/01/2017	170635905	Periphyton filaments - long other (instream)	0	%
11/01/2017	170635905	Periphyton filaments - short green (instream)	2	%
11/01/2017	170635905	Periphyton filaments - short other (instream)	0	%
11/01/2017	170635905	Periphyton film (instream)	70	%
11/01/2017	170635905	Periphyton mats - other (instream)	0	%
11/01/2017	170635905	Periphyton mats - thick (instream)	10	%
11/01/2017	170635905	Periphyton sludge (instream)	0	%

11/01/2017	170635905	Periphyton total cover (instream)	85	%
11/01/2017	170635905	pH field	8.07	pH Units
11/01/2017	170635905	Rain	Not Raining	
11/01/2017	170635905	Rain Previously	Nil	
11/01/2017	170635905	Sedimentation (instream)	5	%
11/01/2017	170635905	Site is Dry	No	
11/01/2017	170635905	Time (NZST)	09:24	
11/01/2017	170635905	Total Nitrogen	0.26	g/m3
11/01/2017	170635905	Total Nitrogen Digestion		
11/01/2017	170635905	Total Phosphorus	< 0.004	mg/L
11/01/2017	170635905	Total Phosphorus Digestion		
11/01/2017	170635905	Total Suspended Solids	1.7	mg/L
11/01/2017	170635905	Turbidity	0.78	NTU
11/01/2017	170635905	Visual observation method	Instream	
11/01/2017	170635905	Water Clarity	Clear	
11/01/2017	170635905	Water Colour	colourless	
11/01/2017	170635905	Water Temperature	17.7	°C
14/12/2016	169723105	Ammonium Nitrogen	< 0.010	mg/L
14/12/2016	169723105	Black disc clarity	1.32	m
14/12/2016	169723105	Conductivity field	8.92	mS/m
14/12/2016	169723105	Dissolved Oxygen	9.64	mg/L
14/12/2016	169723105		102.0	%

		Dissolved Oxygen % saturation		
14/12/2016	169723105	Dissolved Reactive Phosphorus	< 0.0010	mg/L
14/12/2016	169723105	E coli	15	MPN/100mL
14/12/2016	169723105	Filtration, Unpreserved		
14/12/2016	169723105	Meter Number	D32	
14/12/2016	169723105	Nitrate-N + Nitrite-N	0.186	g/m3
14/12/2016	169723105	pH field	7.87	pH Units
14/12/2016	169723105	Rain	Not Raining	
14/12/2016	169723105	Rain Previously	Nil	
14/12/2016	169723105	Site is Dry	No	
14/12/2016	169723105	Time (NZST)	12:20	
14/12/2016	169723105	Total Nitrogen	0.23	g/m3
14/12/2016	169723105	Total Nitrogen Digestion		
14/12/2016	169723105	Total Phosphorus	0.004	mg/L
14/12/2016	169723105	Total Phosphorus Digestion		
14/12/2016	169723105	Total Suspended Solids	3.3	mg/L
14/12/2016	169723105	Turbidity	2.4	NTU
14/12/2016	169723105	Visual observation method	Bed not visible	
14/12/2016	169723105	Water Clarity	Opaque	
14/12/2016	169723105	Water Colour	milky/grey	
14/12/2016	169723105	Water Temperature	17.7	°C
21/11/2016	168340405	Ammonium Nitrogen	< 0.010	mg/L

21/11/2016	168340405	Black disc clarity	0.38	m
21/11/2016	168340405	Conductivity field	8.49	mS/m
21/11/2016	168340405	Dissolved Oxygen	10.86	mg/L
21/11/2016	168340405	Dissolved Oxygen % saturation	108.2	%
21/11/2016	168340405	Dissolved Reactive Phosphorus	< 0.0010	mg/L
21/11/2016	168340405	E coli	49	MPN/100mL
21/11/2016	168340405	Filtration, Unpreserved		
21/11/2016	168340405	Meter Number	D32	
21/11/2016	168340405	Nitrate-N + Nitrite-N	0.153	g/m3
21/11/2016	168340405	pH field	7.89	pH Units
21/11/2016	168340405	Rain	Not Raining	
21/11/2016	168340405	Rain Previously	Nil	
21/11/2016	168340405	Site is Dry	No	
21/11/2016	168340405	Time (NZST)	11:26	
21/11/2016	168340405	Total Nitrogen	0.21	g/m3
21/11/2016	168340405	Total Nitrogen Digestion		
21/11/2016	168340405	Total Phosphorus	0.016	mg/L
21/11/2016	168340405	Total Phosphorus Digestion		
21/11/2016	168340405	Total Suspended Solids	19.8	mg/L
21/11/2016	168340405	Turbidity	12.2	NTU
21/11/2016	168340405	Visual observation method	Bed not visible	
21/11/2016	168340405	Water Clarity	Turbid	

21/11/2016	168340405	Water Colour	milky/grey	
21/11/2016	168340405	Water Temperature	15.1	°C
12/10/2016	166337305	Ammonium Nitrogen	< 0.010	mg/L
12/10/2016	166337305	Black disc clarity	2.13	m
12/10/2016	166337305	Conductivity field	8.36	mS/m
12/10/2016	166337305	Cyanobacterial mat - Rec (instream)	0	%
12/10/2016	166337305	Cyanobacterial mat - SoE (instream)	0	%
12/10/2016	166337305	Didymo (instream)	0	%
12/10/2016	166337305	Dissolved Oxygen	11.01	mg/L
12/10/2016	166337305	Dissolved Oxygen % saturation	102.2	%
12/10/2016	166337305	Dissolved Reactive Phosphorus	0.0012	mg/L
12/10/2016	166337305	E coli	66	MPN/100mL
12/10/2016	166337305	Epiphytic periphyton (instream)	0	%
12/10/2016	166337305	Filtration, Unpreserved		
12/10/2016	166337305	Macrophytes - emergent (instream)	0	%
12/10/2016	166337305	Macrophytes - submerged (instream)	0	%
12/10/2016	166337305	Meter Number	D26	
12/10/2016	166337305	Nitrate-N + Nitrite-N	0.20	g/m3
12/10/2016	166337305		0	%

		Periphyton filaments - long green (instream)		
12/10/2016	166337305	Periphyton filaments - long other (instream)	0	%
12/10/2016	166337305	Periphyton filaments - short green (instream)	0	%
12/10/2016	166337305	Periphyton filaments - short other (instream)	0	%
12/10/2016	166337305	Periphyton film (instream)	80	%
12/10/2016	166337305	Periphyton mats - other (instream)	2	%
12/10/2016	166337305	Periphyton mats - thick (instream)	0	%
12/10/2016	166337305	Periphyton sludge (instream)	0	%
12/10/2016	166337305	Periphyton total cover (instream)	80	%
12/10/2016	166337305	pH field	7.46	pH Units
12/10/2016	166337305	Rain	Not Raining	
12/10/2016	166337305	Rain Previously	Nil	
12/10/2016	166337305	Sedimentation (instream)	30	%
12/10/2016	166337305	Site is Dry	No	
12/10/2016	166337305	Time (NZST)	10:06	
12/10/2016	166337305	Total Nitrogen	0.23	g/m3
12/10/2016	166337305	Total Nitrogen Digestion		
12/10/2016	166337305	Total Phosphorus	< 0.004	mg/L
12/10/2016	166337305			

		Total Phosphorus Digestion		
12/10/2016	166337305	Total Suspended Solids	2.8	mg/L
12/10/2016	166337305	Turbidity	2.3	NTU
12/10/2016	166337305	Visual observation method	Instream	
12/10/2016	166337305	Water Clarity	Opaque	
12/10/2016	166337305	Water Colour	colourless	
12/10/2016	166337305	Water Temperature	11.2	°C
14/09/2016	164829805	Ammonium Nitrogen	< 0.010	mg/L
14/09/2016	164829805	Black disc clarity	0.71	m
14/09/2016	164829805	Conductivity field	8.42	mS/m
14/09/2016	164829805	Dissolved Oxygen	11.86	mg/L
14/09/2016	164829805	Dissolved Oxygen % saturation	107.4	%
14/09/2016	164829805	Dissolved Reactive Phosphorus	< 0.0010	mg/L
14/09/2016	164829805	E coli	35	MPN/100mL
14/09/2016	164829805	Filtration, Unpreserved		
14/09/2016	164829805	Meter Number	D27	
14/09/2016	164829805	Nitrate-N + Nitrite-N	0.180	g/m3
14/09/2016	164829805	pH field	7.45	pH Units
14/09/2016	164829805	Rain	Not Raining	
14/09/2016	164829805	Rain Previously	Nil	
14/09/2016	164829805	Site is Dry	No	
14/09/2016	164829805	Time (NZST)	13:40	

14/09/2016	164829805	Total Nitrogen	0.23	g/m3
14/09/2016	164829805	Total Nitrogen Digestion		
14/09/2016	164829805	Total Phosphorus	< 0.004	mg/L
14/09/2016	164829805	Total Phosphorus Digestion		
14/09/2016	164829805	Total Suspended Solids	5.3	mg/L
14/09/2016	164829805	Turbidity	3.8	NTU
14/09/2016	164829805	Visual observation method	Bed not visible	
14/09/2016	164829805	Water Clarity	Opaque	
14/09/2016	164829805	Water Colour	milky/grey	
14/09/2016	164829805	Water Temperature	11.2	°C
17/08/2016	163266304	Ammonium Nitrogen	< 0.010	mg/L
17/08/2016	163266304	Black disc clarity	1.81	m
17/08/2016	163266304	Conductivity field	9.42	mS/m
17/08/2016	163266304	Cyanobacterial mat - Rec (instream)	0	%
17/08/2016	163266304	Cyanobacterial mat - SoE (instream)	0	%
17/08/2016	163266304	Didymo (instream)	0	%
17/08/2016	163266304	Dissolved Oxygen	12.75	mg/L
17/08/2016	163266304	Dissolved Oxygen % saturation	103.6	%
17/08/2016	163266304	Dissolved Reactive Phosphorus	0.0020	mg/L

17/08/2016	163266304	E coli	43	MPN/100mL
17/08/2016	163266304	Epiphytic periphyton (instream)	0	%
17/08/2016	163266304	Filtration, Unpreserved		
17/08/2016	163266304	Macrophytes - emergent (instream)	0	%
17/08/2016	163266304	Macrophytes - submerged (instream)	0	%
17/08/2016	163266304	Meter Number	D26	
17/08/2016	163266304	Nitrate-N + Nitrite-N	0.34	g/m3
17/08/2016	163266304	Periphyton filaments - long green (instream)	0	%
17/08/2016	163266304	Periphyton filaments - long other (instream)	0	%
17/08/2016	163266304	Periphyton filaments - short green (instream)	0	%
17/08/2016	163266304	Periphyton filaments - short other (instream)	0	%
17/08/2016	163266304	Periphyton film (instream)	15	%
17/08/2016	163266304	Periphyton mats - other (instream)	0	%
17/08/2016	163266304	Periphyton mats - thick (instream)	0	%
17/08/2016	163266304	Periphyton sludge (instream)	0	%
17/08/2016	163266304	Periphyton total cover (instream)	15	%

17/08/2016	163266304	pH field	7.29	pH Units
17/08/2016	163266304	Rain	Not Raining	
17/08/2016	163266304	Rain Previously	Nil	
17/08/2016	163266304	Sedimentation (instream)	5	%
17/08/2016	163266304	Site is Dry	No	
17/08/2016	163266304	Time (NZST)	10:48	
17/08/2016	163266304	Total Nitrogen	0.36	g/m3
17/08/2016	163266304	Total Nitrogen Digestion		
17/08/2016	163266304	Total Phosphorus	0.004	mg/L
17/08/2016	163266304	Total Phosphorus Digestion		
17/08/2016	163266304	Total Suspended Solids	3.0	mg/L
17/08/2016	163266304	Turbidity	2.1	NTU
17/08/2016	163266304	Visual observation method	Instream	
17/08/2016	163266304	Water Clarity	Opaque	
17/08/2016	163266304	Water Colour	milky/grey	
17/08/2016	163266304	Water Temperature	6.9	°C
13/07/2016	161520805	Ammonium Nitrogen	< 0.010	mg/L
13/07/2016	161520805	Black disc clarity	3.62	m
13/07/2016	161520805	Conductivity field	8.81	mS/m
13/07/2016	161520805	Cyanobacterial mat - Rec (instream)	0	%
13/07/2016	161520805	Cyanobacterial mat - SoE (instream)	0	%
13/07/2016	161520805		0	%

		Didymo (instream)		
13/07/2016	161520805	Dissolved Oxygen	13.88	mg/L
13/07/2016	161520805	Dissolved Oxygen % saturation	115.0	%
13/07/2016	161520805	Dissolved Reactive Phosphorus	< 0.0010	mg/L
13/07/2016	161520805	E coli	228	MPN/100mL
13/07/2016	161520805	Epiphytic periphyton (instream)	0	%
13/07/2016	161520805	Filtration, Unpreserved		
13/07/2016	161520805	Macrophytes - emergent (instream)	0	%
13/07/2016	161520805	Macrophytes - submerged (instream)	0	%
13/07/2016	161520805	Meter Number	D26	
13/07/2016	161520805	Nitrate-N + Nitrite-N	0.32	g/m3
13/07/2016	161520805	Periphyton filaments - long green (instream)	0	%
13/07/2016	161520805	Periphyton filaments - long other (instream)	0	%
13/07/2016	161520805	Periphyton filaments - short green (instream)	0	%
13/07/2016	161520805	Periphyton filaments - short other (instream)	0	%
13/07/2016	161520805	Periphyton film (instream)	75	%
13/07/2016	161520805		0	%

		Periphyton mats - other (instream)		
13/07/2016	161520805	Periphyton mats - thick (instream)	0	%
13/07/2016	161520805	Periphyton sludge (instream)	1	%
13/07/2016	161520805	Periphyton total cover (instream)	75	%
13/07/2016	161520805	pH field	7.39	pH Units
13/07/2016	161520805	Rain	Not Raining	
13/07/2016	161520805	Rain Previously	Nil	
13/07/2016	161520805	Sedimentation (instream)	5	%
13/07/2016	161520805	Site is Dry	No	
13/07/2016	161520805	Time (NZST)	13:37	
13/07/2016	161520805	Total Nitrogen	0.37	g/m3
13/07/2016	161520805	Total Nitrogen Digestion		
13/07/2016	161520805	Total Phosphorus	< 0.004	mg/L
13/07/2016	161520805	Total Phosphorus Digestion		
13/07/2016	161520805	Total Suspended Solids	1.9	mg/L
13/07/2016	161520805	Turbidity	0.94	NTU
13/07/2016	161520805	Visual observation method	Instream	
13/07/2016	161520805	Water Clarity	Clear	
13/07/2016	161520805	Water Colour	green	
13/07/2016	161520805	Water Temperature	6.8	°C
13/04/2016	156744801	Ammonium Nitrogen	< 0.010	mg/L

13/04/2016	156744801	Black disc clarity	4.39	m
13/04/2016	156744801	Conductivity field	7.75	mS/m
13/04/2016	156744801	Cyanobacterial mat - Rec (instream)	5	%
13/04/2016	156744801	Cyanobacterial mat - SoE (instream)	5	%
13/04/2016	156744801	Didymo (instream)	0	%
13/04/2016	156744801	Dissolved Oxygen	10.85	mg/L
13/04/2016	156744801	Dissolved Oxygen % saturation	106.5	%
13/04/2016	156744801	Dissolved Reactive Phosphorus	< 0.0010	mg/L
13/04/2016	156744801	E coli	66	MPN/100mL
13/04/2016	156744801	Epiphytic periphyton (instream)	0	%
13/04/2016	156744801	Filtration, Unpreserved		
13/04/2016	156744801	Macrophytes - emergent (instream)	0	%
13/04/2016	156744801	Macrophytes - submerged (instream)	0	%
13/04/2016	156744801	Meter Number	D20	
13/04/2016	156744801	Nitrate-N + Nitrite-N	0.37	g/m3
13/04/2016	156744801	Periphyton filaments - long green (instream)	10	%
13/04/2016	156744801	Periphyton filaments - long other (instream)	0	%

13/04/2016	156744801	Periphyton filaments - short green (instream)	0	%
13/04/2016	156744801	Periphyton filaments - short other (instream)	0	%
13/04/2016	156744801	Periphyton film (instream)	60	%
13/04/2016	156744801	Periphyton mats - other (instream)	0	%
13/04/2016	156744801	Periphyton mats - thick (instream)	5	%
13/04/2016	156744801	Periphyton sludge (instream)	10	%
13/04/2016	156744801	Periphyton total cover (instream)	85	%
13/04/2016	156744801	Rain	Not Raining	
13/04/2016	156744801	Rain Previously	Light	
13/04/2016	156744801	Sedimentation (instream)	20	%
13/04/2016	156744801	Site is Dry	No	
13/04/2016	156744801	Time (NZST)	13:20	
13/04/2016	156744801	Total Nitrogen	0.41	g/m3
13/04/2016	156744801	Total Nitrogen Digestion		
13/04/2016	156744801	Total Phosphorus	0.004	mg/L
13/04/2016	156744801	Total Phosphorus Digestion		
13/04/2016	156744801	Total Suspended Solids	1.6	mg/L
13/04/2016	156744801	Turbidity	0.62	NTU
13/04/2016	156744801		Instream	

		Visual observation method		
13/04/2016	156744801	Water Clarity	Clear	
13/04/2016	156744801	Water Colour	green	
13/04/2016	156744801	Water Temperature	15.0	°C
13/01/2016	152417806	Ammonium Nitrogen	< 0.010	mg/L
13/01/2016	152417806	Black disc clarity	1.95	m
13/01/2016	152417806	Conductivity field	8.02	mS/m
13/01/2016	152417806	Cyanobacterial mat	2	%
13/01/2016	152417806	Didymo	1	%
13/01/2016	152417806	Dissolved Oxygen	9.88	mg/L
13/01/2016	152417806	Dissolved Oxygen % saturation	104.2	%
13/01/2016	152417806	Dissolved Reactive Phosphorus	0.0013	mg/L
13/01/2016	152417806	E coli	62	MPN/100mL
13/01/2016	152417806	Epiphytic periphyton	0	%
13/01/2016	152417806	Filtration, Unpreserved		
13/01/2016	152417806	Macrophytes (emergent)	0	%
13/01/2016	152417806	Macrophytes (submerged)	0	%
13/01/2016	152417806	Meter Number	D20	
13/01/2016	152417806	Nitrate-N + Nitrite-N	0.171	g/m3
13/01/2016	152417806	Periphyton (long filament)	0	%
13/01/2016	152417806	Periphyton (thick mats)	2	%

13/01/2016	152417806	Periphyton (total cover)	25	%
13/01/2016	152417806	pH field	7.66	pH Units
13/01/2016	152417806	Rain	Not Raining	
13/01/2016	152417806	Rain Previously	Moderate	
13/01/2016	152417806	Sedimentation	2	%
13/01/2016	152417806	Site is Dry	No	
13/01/2016	152417806	Time (NZST)	12:39	
13/01/2016	152417806	Total Nitrogen	0.22	g/m3
13/01/2016	152417806	Total Nitrogen Digestion		
13/01/2016	152417806	Total Phosphorus	< 0.004	mg/L
13/01/2016	152417806	Total Phosphorus Digestion		
13/01/2016	152417806	Total Suspended Solids	2.6	mg/L
13/01/2016	152417806	Turbidity	1.62	NTU
13/01/2016	152417806	Visual observation method	Bankside	
13/01/2016	152417806	Water Clarity	Opaque	
13/01/2016	152417806	Water Colour	milky/grey	
13/01/2016	152417806	Water Temperature	17.2	°C
14/10/2015	148862906	Ammonium Nitrogen	< 0.010	mg/L
14/10/2015	148862906	Black disc clarity	0.49	m
14/10/2015	148862906	Conductivity field	7.49	mS/m
14/10/2015	148862906	Dissolved Oxygen	10.77	mg/L
14/10/2015	148862906	Dissolved Oxygen % saturation	100.6	%

14/10/2015	148862906	Dissolved Reactive Phosphorus	0.0011	mg/L
14/10/2015	148862906	E coli	133	MPN/100mL
14/10/2015	148862906	Filtration, Unpreserved		
14/10/2015	148862906	Meter Number	D20	
14/10/2015	148862906	Nitrate-N + Nitrite-N	0.135	g/m3
14/10/2015	148862906	pH field	7.88	pH Units
14/10/2015	148862906	Rain	Not Raining	
14/10/2015	148862906	Rain Previously	Light	
14/10/2015	148862906	Site is Dry	No	
14/10/2015	148862906	Time (NZST)	11:38	
14/10/2015	148862906	Total Nitrogen	0.183	g/m3
14/10/2015	148862906	Total Nitrogen Digestion		
14/10/2015	148862906	Total Phosphorus	0.007	mg/L
14/10/2015	148862906	Total Phosphorus Digestion		
14/10/2015	148862906	Total Suspended Solids	9.0	mg/L
14/10/2015	148862906	Turbidity	6.2	NTU
14/10/2015	148862906	Visual observation method	Bed not visible	
14/10/2015	148862906	Water Clarity	Turbid	
14/10/2015	148862906	Water Colour	milky/grey	
14/10/2015	148862906	Water Temperature	12.5	°C
15/07/2015	145062506	Ammonium Nitrogen	< 0.010	mg/L
15/07/2015	145062506	Bed is Visible	Yes	
15/07/2015	145062506	Black disc clarity	1.95	m

15/07/2015	145062506	Conductivity field	8.24	mS/m
15/07/2015	145062506	Cyanobacterial mat - Rec (instream)	0	%
15/07/2015	145062506	Cyanobacterial mat - SoE (instream)	0	%
15/07/2015	145062506	Didymo (instream)	0	%
15/07/2015	145062506	Dissolved Oxygen	12.50	mg/L
15/07/2015	145062506	Dissolved Oxygen % saturation	101.1	%
15/07/2015	145062506	Dissolved Reactive Phosphorus	0.0033	mg/L
15/07/2015	145062506	E coli	1120	MPN/100mL
15/07/2015	145062506	Epiphytic periphyton (instream)	0	%
15/07/2015	145062506	Filtration, Unpreserved		
15/07/2015	145062506	Macrophytes - emergent (instream)	0	%
15/07/2015	145062506	Macrophytes - submerged (instream)	0	%
15/07/2015	145062506	Meter Number	D27	
15/07/2015	145062506	Nitrate-N + Nitrite-N	0.32	g/m3
15/07/2015	145062506	Periphyton filaments - long green (instream)	0	%
15/07/2015	145062506	Periphyton filaments - long other (instream)	0	%
15/07/2015	145062506	Periphyton filaments - short	0	%

		green (instream)		
15/07/2015	145062506	Periphyton filaments - short other (instream)	0	%
15/07/2015	145062506	Periphyton film (instream)	5	%
15/07/2015	145062506	Periphyton mats - other (instream)	0	%
15/07/2015	145062506	Periphyton mats - thick (instream)	0	%
15/07/2015	145062506	Periphyton sludge (instream)	0	%
15/07/2015	145062506	Periphyton total cover (instream)	5	%
15/07/2015	145062506	pH field	7.83	pH Units
15/07/2015	145062506	Rain	Not Raining	
15/07/2015	145062506	Rain Previously	Nil	
15/07/2015	145062506	Sedimentation (instream)	5	%
15/07/2015	145062506	Site is Dry	No	
15/07/2015	145062506	Time (NZST)	11:42	
15/07/2015	145062506	Total Nitrogen	0.34	g/m3
15/07/2015	145062506	Total Nitrogen Digestion		
15/07/2015	145062506	Total Phosphorus	< 0.004	mg/L
15/07/2015	145062506	Total Phosphorus Digestion		
15/07/2015	145062506	Total Suspended Solids	5.0	mg/L
15/07/2015	145062506	Turbidity	2.6	NTU
15/07/2015	145062506		instream	

		Visual observation method		
15/07/2015	145062506	Water Clarity	Opaque	
15/07/2015	145062506	Water Colour	green	
15/07/2015	145062506	Water Temperature	6.1	°C
15/04/2015	141275906	Ammonium Nitrogen	< 0.010	mg/L
15/04/2015	141275906	Bed is Visible	Yes	
15/04/2015	141275906	Black disc clarity	0.63	m
15/04/2015	141275906	Conductivity field	7.84	mS/m
15/04/2015	141275906	Cyanobacterial mat	1	%
15/04/2015	141275906	Didymo	0	%
15/04/2015	141275906	Dissolved Oxygen	11.21	mg/L
15/04/2015	141275906	Dissolved Oxygen % saturation	103.0	%
15/04/2015	141275906	Dissolved Reactive Phosphorus	0.0012	mg/L
15/04/2015	141275906	E coli	249	MPN/100mL
15/04/2015	141275906	Epiphytic periphyton	0	%
15/04/2015	141275906	Filtration, Unpreserved		
15/04/2015	141275906	Macrophytes (emergent)	0	%
15/04/2015	141275906	Macrophytes (submerged)	0	%
15/04/2015	141275906	Meter Number	D25	
15/04/2015	141275906	Nitrate and Nitrite Nitrogen	0.199	mg/L
15/04/2015	141275906	Periphyton (long filament)	0	%

15/04/2015	141275906	Periphyton (thick mats)	1	%
15/04/2015	141275906	Periphyton (total cover)	20	%
15/04/2015	141275906	pH field	7.72	pH Units
15/04/2015	141275906	Rain	Not Raining	
15/04/2015	141275906	Rain Previously	Moderate	
15/04/2015	141275906	Sedimentation	15	%
15/04/2015	141275906	Site is Dry	No	
15/04/2015	141275906	Time (NZST)	12:53	
15/04/2015	141275906	Total Nitrogen	0.23	mg/L
15/04/2015	141275906	Total Nitrogen Digestion		
15/04/2015	141275906	Total Phosphorus	0.008	mg/L
15/04/2015	141275906	Total Phosphorus Digestion		
15/04/2015	141275906	Total Suspended Solids	11.2	mg/L
15/04/2015	141275906	Turbidity	10.3	NTU
15/04/2015	141275906	Water Clarity	Turbid	
15/04/2015	141275906	Water Colour	milky/grey	
15/04/2015	141275906	Water Temperature	11.6	°C
14/01/2015	137308206	Ammonium Nitrogen	< 0.010	mg/L
14/01/2015	137308206	Bed is Visible	Yes	
14/01/2015	137308206	Black disc clarity	5.34	m
14/01/2015	137308206	Conductivity field	9.50	mS/m
14/01/2015	137308206	Cyanobacterial mat	15	%
14/01/2015	137308206	Didymo	0	%
14/01/2015	137308206	Dissolved Oxygen	9.74	mg/L

14/01/2015	137308206	Dissolved Oxygen % saturation	109.3	%
14/01/2015	137308206	Dissolved Reactive Phosphorus	< 0.0010	mg/L
14/01/2015	137308206	E coli	49	MPN/100mL
14/01/2015	137308206	Epiphytic periphyton	0	%
14/01/2015	137308206	Filtration, Unpreserved		
14/01/2015	137308206	Macrophytes (emergent)	0	%
14/01/2015	137308206	Macrophytes (submerged)	0	%
14/01/2015	137308206	Meter Number	D29	
14/01/2015	137308206	Nitrate and Nitrite Nitrogen	0.24	mg/L
14/01/2015	137308206	Periphyton (long filament)	0	%
14/01/2015	137308206	Periphyton (thick mats)	15	%
14/01/2015	137308206	Periphyton (total cover)	70	%
14/01/2015	137308206	pH field	8.88	pH Units
14/01/2015	137308206	Rain	Not Raining	
14/01/2015	137308206	Rain Previously	Nil	
14/01/2015	137308206	Sedimentation	45	%
14/01/2015	137308206	Site is Dry	No	
14/01/2015	137308206	Time (NZST)	13:42	
14/01/2015	137308206	Total Nitrogen	0.29	mg/L
14/01/2015	137308206	Total Nitrogen Digestion		
14/01/2015	137308206	Total Phosphorus	< 0.004	mg/L
14/01/2015	137308206	Total Phosphorus Digestion		

14/01/2015	137308206	Total Suspended Solids	1.2	mg/L
14/01/2015	137308206	Turbidity	0.71	NTU
14/01/2015	137308206	Water Clarity	Clear	
14/01/2015	137308206	Water Colour	green	
14/01/2015	137308206	Water Temperature	21.0	°C
15/10/2014	133952106	Ammonium Nitrogen	< 0.010	mg/L
15/10/2014	133952106	Black disc clarity	0.63	m
15/10/2014	133952106	Conductivity Field	8.5	mS/m
15/10/2014	133952106	Cyanobacterial mat	0	%
15/10/2014	133952106	Dissolved Oxygen	11.23	mg/L
15/10/2014	133952106	Dissolved Oxygen % saturation	105.4	%
15/10/2014	133952106	Dissolved Reactive Phosphorus	0.0018	mg/L
15/10/2014	133952106	E coli	29	MPN/100mL
15/10/2014	133952106	Epiphytic periphyton	0	%
15/10/2014	133952106	Filtration, Unpreserved		
15/10/2014	133952106	Macrophytes (emergent)	0	%
15/10/2014	133952106	Macrophytes (submerged)	0	%
15/10/2014	133952106	Meter Number	D29	
15/10/2014	133952106	Nitrate and Nitrite Nitrogen	0.24	mg/L
15/10/2014	133952106	Periphyton (long filament)	0	%
15/10/2014	133952106	Periphyton (thick mats)	0	%

15/10/2014	133952106	Periphyton (total cover)	15	%
15/10/2014	133952106	pH field	7.27	pH Units
15/10/2014	133952106	Rain	not raining	
15/10/2014	133952106	Rain Previously	nil	
15/10/2014	133952106	Sedimentation	5	%
15/10/2014	133952106	Time (NZST)	1218	
15/10/2014	133952106	Total Nitrogen	0.26	mg/L
15/10/2014	133952106	Total Nitrogen Digestion		
15/10/2014	133952106	Total Phosphorus	0.006	mg/L
15/10/2014	133952106	Total Phosphorus Digestion		
15/10/2014	133952106	Total Suspended Solids	9.9	mg/L
15/10/2014	133952106	Turbidity	5.6	NTU
15/10/2014	133952106	Water Clarity	turbid	
15/10/2014	133952106	Water Colour	milky/grey	
15/10/2014	133952106	Water Temperature	13.0	°C
13/11/2012	1206070	Ammonia Nitrogen	0.018	mg/L
13/11/2012	1206070	Conductivity	8.5	mS/m
13/11/2012	1206070	Dissolved Oxygen	10.8	mg/L
13/11/2012	1206070	Dissolved Oxygen % saturation	100.0	%
13/11/2012	1206070	Dissolved Reactive Phosphorus	0.004	mg/L
13/11/2012	1206070	E coli	150	MPN/100mL
13/11/2012	1206070	Nitrate and Nitrite Nitrogen	0.27	mg/L
13/11/2012	1206070	pH	7.9	pH Units

13/11/2012	1206070	Rain	not raining	
13/11/2012	1206070	Rain Previously	moderate	
13/11/2012	1206070	Total Nitrogen	0.32	mg/L
13/11/2012	1206070	Total Phosphorus	0.010	mg/L
13/11/2012	1206070	Total Suspended Solids	7.2	mg/L
13/11/2012	1206070	Turbidity	3.9	NTU
13/11/2012	1206070	Water Clarity	opaque	
13/11/2012	1206070	Water Colour	green	
13/11/2012	1206070	Water Temperature	12.2	°C
13/11/2012	1206070	YSI/550 DO meter number	D26	
7/11/2012	1205678	Ammonia Nitrogen	0.006	mg/L
7/11/2012	1205678	calm	yes	
7/11/2012	1205678	choppy	no	
7/11/2012	1205678	Conductivity field	94.6	mS/m
7/11/2012	1205678	Dissolved Oxygen	10.05	mg/L
7/11/2012	1205678	Dissolved Reactive Phosphorus	0.003	mg/L
7/11/2012	1205678	High Tide at Lyttelton	1022	hh:mm
7/11/2012	1205678	Nitrate and Nitrite Nitrogen	0.20	mg/L
7/11/2012	1205678	pH field	7.8	pH Units
7/11/2012	1205678	Rain	not raining	
7/11/2012	1205678	Rain Previously	no rain	
7/11/2012	1205678	sea bed disturbed by waves	yes	
7/11/2012	1205678	Total Nitrogen	0.19	mg/L
7/11/2012	1205678		0.014	mg/L

		Total Phosphorus		
7/11/2012	1205678	Water Clarity	opaque	
7/11/2012	1205678	Water Colour	green/blue/milky	
7/11/2012	1205678	Water Temperature	12.47	°C
7/11/2012	1205678	Wind Strength	Light	
16/10/2012	1205298	Ammonia Nitrogen	0.016	mg/L
16/10/2012	1205298	Conductivity	7.0	mS/m
16/10/2012	1205298	Dissolved Oxygen	11.7	mg/L
16/10/2012	1205298	Dissolved Oxygen % saturation	108	%
16/10/2012	1205298	Dissolved Reactive Phosphorus	0.006	mg/L
16/10/2012	1205298	E coli	84	MPN/100mL
16/10/2012	1205298	Nitrate and Nitrite Nitrogen	0.16	mg/L
16/10/2012	1205298	pH	7.7	pH Units
16/10/2012	1205298	Rain	not raining	
16/10/2012	1205298	Rain Previously	light rain	
16/10/2012	1205298	Total Nitrogen	0.10	mg/L
16/10/2012	1205298	Total Phosphorus	0.071	mg/L
16/10/2012	1205298	Total Suspended Solids	130	mg/L
16/10/2012	1205298	Turbidity	61	NTU
16/10/2012	1205298	Water Clarity	turbid	
16/10/2012	1205298	Water Colour	milky/grey	
16/10/2012	1205298	Water Temperature	10.9	°C
16/10/2012	1205298	YSI/550 DO meter number	D20	
24/09/2012	1205535		0.011	mg/L

		Ammonia Nitrogen		
24/09/2012	1205536	Ammonia Nitrogen	0.009	mg/L
24/09/2012	1205537	Ammonia Nitrogen	0.011	mg/L
24/09/2012	1205535	calm	no	
24/09/2012	1205536	calm	yes	
24/09/2012	1205537	calm	yes	
24/09/2012	1205535	choppy	no	
24/09/2012	1205536	choppy	no	
24/09/2012	1205537	choppy	no	
24/09/2012	1205535	Conductivity field	94.8	mS/m
24/09/2012	1205536	Conductivity field	94.8	mS/m
24/09/2012	1205537	Conductivity field	94.5	mS/m
24/09/2012	1205535	Dissolved Oxygen	8.58	mg/L
24/09/2012	1205536	Dissolved Oxygen	8.07	mg/L
24/09/2012	1205537	Dissolved Oxygen	10.49	mg/L
24/09/2012	1205535	Dissolved Reactive Phosphorus	0.002	mg/L
24/09/2012	1205536	Dissolved Reactive Phosphorus	0.002	mg/L
24/09/2012	1205537	Dissolved Reactive Phosphorus	0.002	mg/L
24/09/2012	1205535	High Tide at Lyttelton	1117	hh:mm
24/09/2012	1205536	High Tide at Lyttelton	1117	hh:mm
24/09/2012	1205537	High Tide at Lyttelton	1117	hh:mm

24/09/2012	1205535	Nitrate and Nitrite Nitrogen	0.36	mg/L
24/09/2012	1205536	Nitrate and Nitrite Nitrogen	0.35	mg/L
24/09/2012	1205537	Nitrate and Nitrite Nitrogen	0.39	mg/L
24/09/2012	1205535	pH field	7.8	pH Units
24/09/2012	1205536	pH field	7.8	pH Units
24/09/2012	1205537	pH field	7.8	pH Units
24/09/2012	1205535	Rain	not raining	
24/09/2012	1205536	Rain	not raining	
24/09/2012	1205537	Rain	not raining	
24/09/2012	1205535	Rain Previously	no rain	
24/09/2012	1205536	Rain Previously	no rain	
24/09/2012	1205537	Rain Previously	no rain	
24/09/2012	1205535	Total Nitrogen	0.41	mg/L
24/09/2012	1205536	Total Nitrogen	0.49	mg/L
24/09/2012	1205537	Total Nitrogen	0.38	mg/L
24/09/2012	1205535	Total Phosphorus	0.012	mg/L
24/09/2012	1205536	Total Phosphorus	<0.008	mg/L
24/09/2012	1205537	Total Phosphorus	<0.008	mg/L
24/09/2012	1205535	Water Clarity	clear	
24/09/2012	1205536	Water Clarity	opaque	
24/09/2012	1205537	Water Clarity	clear	
24/09/2012	1205535	Water Temperature	11.52	°C
24/09/2012	1205536	Water Temperature	12.30	°C
24/09/2012	1205537	Water Temperature	12.18	°C
24/09/2012	1205535	Wind Strength	calm	
24/09/2012	1205536	Wind Strength	calm	
24/09/2012	1205537	Wind Strength	calm	

18/09/2012	1204912	Ammonia Nitrogen	0.007	mg/L
18/09/2012	1204912	Conductivity	8.4	mS/m
18/09/2012	1204912	Dissolved Oxygen	11.4	mg/L
18/09/2012	1204912	Dissolved Oxygen % saturation	103.1	%
18/09/2012	1204912	Dissolved Reactive Phosphorus	0.006	mg/L
18/09/2012	1204912	E coli	20	MPN/100mL
18/09/2012	1204912	Macrophytes (emergent)	Too deep & fast	%
18/09/2012	1204912	Macrophytes (submerged)	Too deep & fast	%
18/09/2012	1204912	Nitrate and Nitrite Nitrogen	0.34	mg/L
18/09/2012	1204912	Periphyton (long filament)	Too deep & fast	%
18/09/2012	1204912	Periphyton (thick mats)	Too deep & fast	%
18/09/2012	1204912	Periphyton (total cover)	Too deep & fast	%
18/09/2012	1204912	pH	7.8	pH Units
18/09/2012	1204912	Rain	not raining	
18/09/2012	1204912	Rain Previously	moderate	
18/09/2012	1204912	Sedimentation	Too deep & fast	%
18/09/2012	1204912	Total Nitrogen	0.31	mg/L
18/09/2012	1204912	Total Phosphorus	0.017	mg/L
18/09/2012	1204912	Total Suspended Solids	27	mg/L
18/09/2012	1204912	Turbidity	18	NTU
18/09/2012	1204912	Water Clarity	opaque	
18/09/2012	1204912	Water Colour	clear	
18/09/2012	1204912		10.3	°C

		Water Temperature		
18/09/2012	1204912	YSI/550 DO meter number	D26	
8/08/2012	1203720	Ammonia Nitrogen	0.011	mg/L
8/08/2012	1203720	Conductivity	9.7	mS/m
8/08/2012	1203720	Dissolved Oxygen	11.3	mg/L
8/08/2012	1203720	Dissolved Oxygen % saturation	98.6	%
8/08/2012	1203720	Dissolved Reactive Phosphorus	0.008	mg/L
8/08/2012	1203720	E coli	76	MPN/100mL
8/08/2012	1203720	Nitrate and Nitrite Nitrogen	0.49	mg/L
8/08/2012	1203720	pH	7.9	pH Units
8/08/2012	1203720	Rain	raining	
8/08/2012	1203720	Rain Previously	moderate	
8/08/2012	1203720	Total Nitrogen	0.61	mg/L
8/08/2012	1203720	Total Phosphorus	0.026	mg/L
8/08/2012	1203720	Total Suspended Solids	36	mg/L
8/08/2012	1203720	Turbidity	16	NTU
8/08/2012	1203720	Water Clarity	turbid	
8/08/2012	1203720	Water Colour	milky/grey	
8/08/2012	1203720	Water Temperature	8.5	°C
8/08/2012	1203720	YSI/550 DO meter number	D23	
2/08/2012	1204186	Ammonia Nitrogen	0.027	mg/L
2/08/2012	1204186	calm	yes	
2/08/2012	1204186		76.7	mS/m

		Conductivity field		
2/08/2012	1204186	Dissolved Oxygen	15.40	mg/L
2/08/2012	1204186	Dissolved Reactive Phosphorus	0.020	mg/L
2/08/2012	1204186	High Tide at Lyttelton	1629	hh:mm
2/08/2012	1204186	Nitrate and Nitrite Nitrogen	0.43	mg/L
2/08/2012	1204186	pH field	7.8	pH Units
2/08/2012	1204186	Rain	not raining	
2/08/2012	1204186	Rain Previously	heavy	
2/08/2012	1204186	Total Nitrogen	0.87	mg/L
2/08/2012	1204186	Total Phosphorus	0.91	mg/L
2/08/2012	1204186	Water Clarity	turbid	
2/08/2012	1204186	Water Colour	brown/yellow	
2/08/2012	1204186	Water Temperature	7.86	°C
2/08/2012	1204186	Wind Strength	calm	
18/07/2012	1203501	Ammonia Nitrogen	0.016	mg/L
18/07/2012	1203501	Conductivity	7.0	mS/m
18/07/2012	1203501	Dissolved Oxygen	12.1	mg/L
18/07/2012	1203501	Dissolved Oxygen % saturation	100.9	%
18/07/2012	1203501	Dissolved Reactive Phosphorus	0.002	mg/L
18/07/2012	1203501	E coli	110	MPN/100mL
18/07/2012	1203501	Nitrate and Nitrite Nitrogen	0.16	mg/L
18/07/2012	1203501	pH	7.7	pH Units
18/07/2012	1203501	Rain	not raining	

18/07/2012	1203501	Rain Previously	no rain	
18/07/2012	1203501	Total Nitrogen	0.14	mg/L
18/07/2012	1203501	Total Phosphorus	0.035	mg/L
18/07/2012	1203501	Total Suspended Solids	51	mg/L
18/07/2012	1203501	Turbidity	34	NTU
18/07/2012	1203501	Water Clarity	turbid	
18/07/2012	1203501	Water Colour	brown/yellow	
18/07/2012	1203501	Water Temperature	7.7	°C
18/07/2012	1203501	YSI/550 DO meter number	D23	
13/07/2012	1203239	Ammonia Nitrogen	0.025	mg/L
13/07/2012	1203759	Ammonia Nitrogen	0.020	mg/L
13/07/2012	1203760	Ammonia Nitrogen	0.019	mg/L
13/07/2012	1203239	calm	yes	
13/07/2012	1203759	calm	yes	
13/07/2012	1203760	calm	yes	
13/07/2012	1203239	choppy	no	
13/07/2012	1203759	choppy	no	
13/07/2012	1203760	choppy	no	
13/07/2012	1203239	Conductivity field	102.1	mS/m
13/07/2012	1203759	Conductivity field	101.9	mS/m
13/07/2012	1203760	Conductivity field	102.0	mS/m
13/07/2012	1203759	Dissolved Oxygen	12.73	mg/L
13/07/2012	1203760	Dissolved Oxygen	12.20	mg/L
13/07/2012	1203239	Dissolved Oxygen	14.07	mg/L

13/07/2012	1203759	Dissolved Reactive Phosphorus	0.002	mg/L
13/07/2012	1203760	Dissolved Reactive Phosphorus	0.002	mg/L
13/07/2012	1203239	Dissolved Reactive Phosphorus	0.001	mg/L
13/07/2012	1203239	Easting	1622372.71	
13/07/2012	1203759	Easting	1622372.71	
13/07/2012	1203760	Easting	1622372.71	
13/07/2012	1203239	High Tide at Lyttelton	1210	hh:mm
13/07/2012	1203759	High Tide at Lyttelton	1210	hh:mm
13/07/2012	1203760	High Tide at Lyttelton	1210	hh:mm
13/07/2012	1203759	Nitrate and Nitrite Nitrogen	0.39	mg/L
13/07/2012	1203760	Nitrate and Nitrite Nitrogen	0.40	mg/L
13/07/2012	1203239	Nitrate and Nitrite Nitrogen	0.40	mg/L
13/07/2012	1203239	Northing	5249452.78	
13/07/2012	1203759	Northing	5249452.78	
13/07/2012	1203760	Northing	5249452.78	
13/07/2012	1203239	pH field	7.8	pH Units
13/07/2012	1203759	pH field	7.8	pH Units
13/07/2012	1203760	pH field	7.9	pH Units
13/07/2012	1203759	Rain	not raining	
13/07/2012	1203760	Rain	not raining	
13/07/2012	1203239	Rain	not raining	
13/07/2012	1203759	Rain Previously	no rain	
13/07/2012	1203760	Rain Previously	no rain	
13/07/2012	1203239	Rain Previously	no rain	
13/07/2012	1203239		no	

		sea bed disturbed by waves		
13/07/2012	1203759	sea bed disturbed by waves	no	
13/07/2012	1203760	sea bed disturbed by waves	no	
13/07/2012	1203759	Total Nitrogen	0.40	mg/L
13/07/2012	1203760	Total Nitrogen	0.41	mg/L
13/07/2012	1203239	Total Nitrogen	0.39	mg/L
13/07/2012	1203759	Total Phosphorus	<0.008	mg/L
13/07/2012	1203760	Total Phosphorus	<0.008	mg/L
13/07/2012	1203239	Total Phosphorus	<0.008	mg/L
13/07/2012	1203759	Water Clarity	clear	
13/07/2012	1203760	Water Clarity	clear	
13/07/2012	1203239	Water Clarity	clear	
13/07/2012	1203759	Water Colour	green/blue	
13/07/2012	1203760	Water Colour	green/blue	
13/07/2012	1203759	Water Temperature	7.31	°C
13/07/2012	1203760	Water Temperature	7.24	°C
13/07/2012	1203239	Water Temperature	6.67	°C
13/07/2012	1203239	Wind Direction	N 360	° NWSE
13/07/2012	1203759	Wind Direction	N 360	° NWSE
13/07/2012	1203760	Wind Direction	N 360	° NWSE
13/07/2012	1203239	Wind Strength	calm	
13/07/2012	1203759	Wind Strength	calm	
13/07/2012	1203760	Wind Strength	calm	
2/05/2002	2202506	Ammonia Nitrogen	0.021	mg/L

2/05/2002	2202506	Clarity Tube	85	cm
2/05/2002	2202506	Cloud Cover	75	%
2/05/2002	2202506	Dissolved Reactive Phosphorus	0.003	mg/L
2/05/2002	2202506	E coli	120	MPN/100mL
2/05/2002	2202506	Faecal Coliforms	55	CFU/100mL
2/05/2002	2202506	Nitrate and Nitrite Nitrogen	0.38	mg/L
2/05/2002	2202506	Rain	not raining	
2/05/2002	2202506	Rain Previously	no rain	
2/05/2002	2202506	Total Nitrogen	0.38	mg/L
2/05/2002	2202506	Total Phosphorus	<0.008	mg/L
2/05/2002	2202506	Water Clarity	clear	
2/05/2002	2202506	Weed Growth	Light	
31/01/2002	2200581	Ammonia Nitrogen	0.028	mg/L
31/01/2002	2200581	Cloud Cover	12.5	%
31/01/2002	2200581	Dissolved Reactive Phosphorus	0.024	mg/L
31/01/2002	2200581	E coli	74	MPN/100mL
31/01/2002	2200581	Faecal Coliforms	36	CFU/100mL
31/01/2002	2200581	Nitrate and Nitrite Nitrogen	0.35	mg/L
31/01/2002	2200581	Rain	not raining	
31/01/2002	2200581	Rain Previously	no rain	
31/01/2002	2200581	Total Nitrogen	0.50	mg/L
31/01/2002	2200581	Total Phosphorus	0.095	mg/L
31/01/2002	2200581	Water Clarity	turbid	
31/01/2002	2200581	Weed Growth	Light	
7/11/2001	2106653	Ammonia Nitrogen	0.025	mg/L

7/11/2001	2106653	Clarity Tube	40	cm
7/11/2001	2106653	Cloud Cover	37.5	%
7/11/2001	2106653	Dissolved Reactive Phosphorus	0.008	mg/L
7/11/2001	2106653	E coli	35	MPN/100mL
7/11/2001	2106653	Faecal Coliforms	20	CFU/100mL
7/11/2001	2106653	Nitrate and Nitrite Nitrogen	0.24	mg/L
7/11/2001	2106653	Rain	not raining	
7/11/2001	2106653	Rain Previously	no rain	
7/11/2001	2106653	Total Nitrogen	0.38	mg/L
7/11/2001	2106653	Total Phosphorus	<0.008	mg/L
7/11/2001	2106653	Water Clarity	turbid	
7/11/2001	2106653	Weed Growth	nil	
5/09/2001	2105384	Ammonia Nitrogen	0.048	mg/L
5/09/2001	2105384	Clarity Tube	93	cm
5/09/2001	2105384	Cloud Cover	100	%
5/09/2001	2105384	Dissolved Reactive Phosphorus	0.009	mg/L
5/09/2001	2105384	E coli	93	MPN/100mL
5/09/2001	2105384	Faecal Coliforms	140	CFU/100mL
5/09/2001	2105384	Nitrate and Nitrite Nitrogen	0.35	mg/L
5/09/2001	2105384	Rain	not raining	
5/09/2001	2105384	Rain Previously	no rain	
5/09/2001	2105384	Total Nitrogen	0.40	mg/L
5/09/2001	2105384	Total Phosphorus	0.12	mg/L
5/09/2001	2105384	Water Clarity	clear	
5/09/2001	2105384	Weed Growth	Light	

8/08/2001	2104867	Ammonia Nitrogen	0.049	mg/L
8/08/2001	2104867	Clarity Tube	80	cm
8/08/2001	2104867	Cloud Cover	0	%
8/08/2001	2104867	Dissolved Reactive Phosphorus	0.016	mg/L
8/08/2001	2104867	E coli	52	MPN/100mL
8/08/2001	2104867	Faecal Coliforms	35	CFU/100mL
8/08/2001	2104867	Nitrate and Nitrite Nitrogen	0.51	mg/L
8/08/2001	2104867	Rain	not raining	
8/08/2001	2104867	Rain Previously	no rain	
8/08/2001	2104867	Total Nitrogen	0.61	mg/L
8/08/2001	2104867	Total Phosphorus	<0.008	mg/L
8/08/2001	2104867	Water Clarity	opaque	
8/08/2001	2104867	Weed Growth	nil	
27/06/2001	2104028	Ammonia Nitrogen	0.056	mg/L
27/06/2001	2104028	Cloud Cover	100	%
27/06/2001	2104028	Dissolved Reactive Phosphorus	0.008	mg/L
27/06/2001	2104028	E coli	60	MPN/100mL
27/06/2001	2104028	Faecal Coliforms	64	CFU/100mL
27/06/2001	2104028	Nitrate and Nitrite Nitrogen	0.34	mg/L
27/06/2001	2104028	Rain	not raining	
27/06/2001	2104028	Rain Previously	no rain	
27/06/2001	2104028	Total Nitrogen	0.48	mg/L
27/06/2001	2104028	Total Phosphorus	0.010	mg/L
27/06/2001	2104028	Water Clarity	opaque	
27/06/2001	2104028	Weed Growth	nil	

17/05/2001	2103410	Ammonia Nitrogen	0.070	mg/L
17/05/2001	2103410	Clarity Tube	87cm	cm
17/05/2001	2103410	Cloud Cover	12.5	%
17/05/2001	2103410	Dissolved Reactive Phosphorus	0.006	mg/L
17/05/2001	2103410	E coli	90	MPN/100mL
17/05/2001	2103410	Faecal Coliforms	110	CFU/100mL
17/05/2001	2103410	Nitrate and Nitrite Nitrogen	0.71	mg/L
17/05/2001	2103410	Rain	not raining	
17/05/2001	2103410	Rain Previously	no rain	
17/05/2001	2103410	Total Nitrogen	0.90	mg/L
17/05/2001	2103410	Total Phosphorus	<0.008	mg/L
17/05/2001	2103410	Water Clarity	clear	
17/05/2001	2103410	Weed Growth	Light	
27/02/2001	2101965	Ammonia Nitrogen	0.076	mg/L
27/02/2001	2101965	Cloud Cover	62.5	%
27/02/2001	2101965	Dissolved Reactive Phosphorus	0.008	mg/L
27/02/2001	2101965	E coli	31	MPN/100mL
27/02/2001	2101965	Faecal Coliforms	27	CFU/100mL
27/02/2001	2101965	Nitrate and Nitrite Nitrogen	0.61	mg/L
27/02/2001	2101965	Rain	not raining	
27/02/2001	2101965	Rain Previously	no rain	
27/02/2001	2101965	Total Nitrogen	0.67	mg/L
27/02/2001	2101965	Total Phosphorus	0.024	mg/L
27/02/2001	2101965	Water Clarity	clear	
27/02/2001	2101965	Weed Growth	moderate	

GHD

GHD Building

226 Antigua Street, Christchurch 8011

T: 64 3 378 0900 F: 64 3 377 8575 E: chcmail@ghd.com

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		Name	Signature	Name	Signature	Date
A	H Galloway	S Douglass		S Douglass		11/08/17

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