

ANNUAL CHEMICAL ANALYSIS REPORT - 2025

Selwyn District Council Water Supply

					S00580	S00577	S00579	G01673	S00827
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Acheron	Arthurs Pass	Castle Hill	Claremont	Dalethorpe
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.009	0.16	0.006	< 0.002	0.031
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	49	10	42	72	78
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	1.1	< 0.5	< 0.5	4	4.2
Electrical Conductivity	(µS/cm)	-	-	-	73	15	62	107	116
Electrical Conductivity	(mS/m)	-	-	-	7.3	1.5	6.2	10.7	11.6
Fluoride	(g/m ³)		1.5	0.75	0.07	< 0.05	0.1	0.06	0.17
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	< 1.0	1.8	1.5	< 1.0	8.3
Nitrate	(g/m ³)	-	50	25	< 0.3	< 0.3	< 0.3	5.6	2.2
Nitrate-N	(g/m ³)	-	11.3	5.65	< 0.05	< 0.05	< 0.05	1.27	0.5
Nitrite	(g/m ³)	-	3	1.5	< 0.007	0.011	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	0.003	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	7.9	6.9	7.6	7.9	7.1
Sulphate	(g/m ³)	<250	-	-	2	0.7	3.6	3.2	2.4
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	36	6.7	28	39	48
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	0.0055
Total Boron	(g/m ³)	-	2.4	1.2	0.0081	< 0.0053	0.0119	0.0191	0.026
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	11.2	2.2	8.9	13.8	12.1
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	0.00169	0.004	0.0033	0.00173	0.0036
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	33	6.1	25	40	45
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	0.127	< 0.021	< 0.021	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00043	0.00044	0.00036	0.00023	0.00053
Total Magnesium	(g/m ³)	200	-	-	1.19	0.144	0.81	1.36	3.6
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	0.0052	< 0.00053	< 0.00053	< 0.00053
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	6.4	< 0.5	< 0.5	1
Total Potassium	(g/m ³)	-	-	-	0.24	0.27	0.39	0.83	0.6
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	2.1	0.53	2.7	5.5	6
Total Zinc	(g/m ³)	<1.5	-	-	0.0014	0.0096	0.0019	0.0103	0.0031
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	98	69.2	98.7	> 99.5	93.2
Turbidity	NTU	2	5	2.5	0.14	3.5	0.1	0.06	0.08

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Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	G01961-2	G01961	G00726	G02166	G01957
					Darfield SH73 Bore 1	Darfield SH73 Bore 2	Dunsandel	Greater West Melton - Edendale	Greater West Melton - Elizabeth Allen
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.003	< 0.002	0.006	0.002	0.004
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	116	109	125	89	83
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	8.3	7.7	7.7	6.7	3.4
Electrical Conductivity	(µS/cm)	-	-	-	173	163	186	133	124
Electrical Conductivity	(mS/m)	-	-	-	17.3	16.3	18.6	13.3	12.4
Fluoride	(g/m ³)		1.5	0.75	0.05	0.06	0.1	0.05	0.06
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	1.5	2.8	7.8	< 1.0	3.2
Nitrate	(g/m ³)	-	50	25	26	23	17.6	9.9	6.9
Nitrate-N	(g/m ³)	-	11.3	5.65	6	5.2	4	2.2	1.56
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	7.8	7.5	7.2	8.1	7.4
Sulphate	(g/m ³)	<250	-	-	1.2	1.1	7.8	2.9	5.9
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	48	47	56	43	44
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.02	0.022	0.025	0.02	0.022
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	21	19.8	17.5	16.4	15.6
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	0.00108	< 0.00053	0.0023	0.00162	0.004
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	60	57	68	47	47
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00013	0.00013	0.00032	0.00014	0.00033
Total Magnesium	(g/m ³)	200	-	-	2	1.87	5.9	1.43	2
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	< 0.00053	0.00161
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m ³)	-	-	-	0.94	0.9	1.14	0.91	0.89
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	9.8	9.3	9.8	7.4	5.2
Total Zinc	(g/m ³)	<1.5	-	-	0.0145	0.026	0.009	0.0118	0.0143
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	99.3	> 99.5	98.5	99.5	99.1
Turbidity	NTU	2	5	2.5	0.09	0.31	0.09	< 0.05	0.22

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					G01958	G03061	G01775	S00828	G00822
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Greater West Melton - Jacqueline	Greater West Melton - Ridgeland	Greater West Melton - Royston	Hartley's Road	Hororata
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.003	0.004	0.006	0.014	0.044
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	80	80	95	72	68
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	2.9	4.5	4.4	3.3	3.7
Electrical Conductivity	(µS/cm)	-	-	-	120	120	141	108	101
Electrical Conductivity	(mS/m)	-	-	-	12	12	14.1	10.8	10.1
Fluoride	(g/m ³)		1.5	0.75	0.06	0.06	0.06	0.11	0.11
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	3.1	1.1	3.5	4.9	2.4
Nitrate	(g/m ³)	-	50	25	5.7	9.4	8.1	2.5	1.4
Nitrate-N	(g/m ³)	-	11.3	5.65	1.28	2.1	1.83	0.58	0.32
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	7.4	7.8	7.4	7.3	7.5
Sulphate	(g/m ³)	<250	-	-	5.9	3.8	6.4	3.7	3.1
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	44	40	49	44	42
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.021	0.02	0.022	0.031	0.03
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	15.6	14.5	18.2	12.3	11.4
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	0.00094	0.00094	0.0024	0.0087	0.0132
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	47	43	56	42	38
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	0.025	< 0.021	< 0.021	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00035	0.00038	0.00031	0.00096	0.00125
Total Magnesium	(g/m ³)	200	-	-	1.94	1.65	2.5	2.6	2.3
Total Manganese	(g/m ³)	<0.04	0.4	0.2	0.00059	0.0024	< 0.00053	< 0.00053	< 0.00053
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	0.9
Total Potassium	(g/m ³)	-	-	-	0.85	0.85	0.97	0.7	0.77
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	4.7	5.7	5.8	5.3	5.2
Total Zinc	(g/m ³)	<1.5	-	-	0.0178	0.027	0.14	0.0124	0.009
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	99.3	99.2	98.6	96.8	90.3
Turbidity	NTU	2	5	2.5	0.72	0.3	0.14	0.07	0.17

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					G00671	G00725	S00578	G00501	G03119
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Jowers Rd	Kirwee - High St	Lake Coleridge	Leeston - Gallipoli	Leeston - Leeston Dunsandel
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.003	0.003	0.003	< 0.002	< 0.002
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	113	113	42	72	81
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	6.4	8.5	0.9	4.4	5.3
Electrical Conductivity	(µS/cm)	-	-	-	169	169	63	108	120
Electrical Conductivity	(mS/m)	-	-	-	16.9	16.9	6.3	10.8	12
Fluoride	(g/m ³)		1.5	0.75	< 0.05	0.06	0.05	0.09	0.1
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	4.5	1.1	< 1.0	1.1	1.1
Nitrate	(g/m ³)	-	50	25	11.3	26	< 0.3	4.7	7.3
Nitrate-N	(g/m ³)	-	11.3	5.65	2.6	6	< 0.05	1.07	1.64
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	7.4	7.9	7.9	7.9	7.9
Sulphate	(g/m ³)	<250	-	-	6.9	3	3.8	2.1	2.1
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	59	42	28	42	44
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.02	0.02	0.0194	0.0179	0.0187
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	22	20	9.3	11.9	12.7
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	0.00086	0.00074
Total Copper	(g/m ³)	<1	2	1	0.0018	0.00135	0.00133	0.003	0.0045
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	67	59	26	40	44
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00031	0.00012	0.00024	0.00022	0.00094
Total Magnesium	(g/m ³)	200	-	-	2.7	2	0.69	2.6	3.1
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	< 0.5	0.6	1.2	< 0.5
Total Potassium	(g/m ³)	-	-	-	1.05	1.11	0.41	0.86	0.89
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	6.5	8.3	2.1	6.3	6.9
Total Zinc	(g/m ³)	<1.5	-	-	0.0195	0.0156	0.0036	0.0114	0.0135
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	99.2	99.2	99.2	> 99.5	> 99.5
Turbidity	NTU	2	5	2.5	0.1	0.09	0.31	0.07	0.09

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Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	G02129	G03127	G11199	G03115	G03114
					Lincoln - Eastfield	Lincoln - Kakahi	Lincoln - Marion	Lincoln - Veuve	Prebbleton - Shands
Absorbance at 254 nm	AU cm ⁻¹		-	-	< 0.002	0.002	0.005	< 0.002	< 0.002
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	96	97	97	96	85
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	8	8.5	8.6	8	5.3
Electrical Conductivity	(µS/cm)	-	-	-	143	145	145	143	127
Electrical Conductivity	(mS/m)	-	-	-	14.3	14.5	14.5	14.3	12.7
Fluoride	(g/m ³)		1.5	0.75	0.07	0.07	0.06	0.06	0.06
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	1	1.1	1	< 1.0	1.1
Nitrate	(g/m ³)	-	50	25	6	8.5	8.4	5.6	2.2
Nitrate-N	(g/m ³)	-	11.3	5.65	1.36	1.93	1.91	1.27	0.51
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	8	8	8	8.1	8
Sulphate	(g/m ³)	<250	-	-	1.9	1.5	1.5	2.3	2.3
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	52	51	50	51	53
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.0197	0.02	0.021	0.0187	0.0192
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	17.8	17.2	17.2	17.3	15.8
Total Chromium	(g/m ³)	-	0.05	0.025	0.00061	< 0.00053	< 0.00053	0.00063	0.00064
Total Copper	(g/m ³)	<1	2	1	0.00116	0.0068	0.00176	0.0021	0.0033
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	52	51	52	50	46
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021	0.036
Total Lead	(g/m ³)	-	0.01	0.005	0.00021	0.00046	0.00068	0.00042	0.0002
Total Magnesium	(g/m ³)	200	-	-	1.88	2	2.1	1.59	1.6
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	< 0.00053	0.00063
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	0.00059	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m ³)	-	-	-	0.91	0.93	0.93	0.89	0.85
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	8.7	8.6	8.6	8.2	7.6
Total Zinc	(g/m ³)	<1.5	-	-	0.008	0.0149	0.0127	0.0068	0.0044
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	> 99.5	99.5	98.8	> 99.5	> 99.5
Turbidity	NTU	2	5	2.5	0.05	0.09	0.08	0.05	0.34

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Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	G00165	G00463	G02128	G00668	G03020
					Prebbleton Tosswill Bore 1	Prebbleton Tosswill Bore 2	Prebbleton Tosswill Bore 3	Rakaia Huts	Rolleston - Baltimore
Absorbance at 254 nm	AU cm ⁻¹		-	-	< 0.002	0.002	< 0.002	< 0.002	0.006
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	81	78	85	66	95
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	5.2	4.9	5.6	2	7.8
Electrical Conductivity	(µS/cm)	-	-	-	121	116	126	99	141
Electrical Conductivity	(mS/m)	-	-	-	12.1	11.6	12.6	9.9	14.1
Fluoride	(g/m ³)		1.5	0.75	0.06	0.06	0.06	< 0.05	0.06
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	1	1.1	< 1.0	1.2	< 1.0
Nitrate	(g/m ³)	-	50	25	3.1	3.4	3.2	3.4	13.7
Nitrate-N	(g/m ³)	-	11.3	5.65	0.69	0.76	0.73	0.77	3.1
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	8	7.9	8	7.8	8
Sulphate	(g/m ³)	<250	-	-	2.6	2.7	2.4	3.7	1.3
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	48	45	49	41	46
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.0186	0.0186	0.0186	0.021	0.021
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	14.8	14.1	16	14	16.4
Total Chromium	(g/m ³)	-	0.05	0.025	0.00058	0.00054	0.00059	< 0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	< 0.00053	0.006	0.00096	0.0043	0.00127
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	43	41	46	40	49
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00012	0.00058	< 0.00011	0.00031	0.00037
Total Magnesium	(g/m ³)	200	-	-	1.53	1.46	1.52	1.21	1.86
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	0.00087	< 0.00053	< 0.00053
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	0.00068	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m ³)	-	-	-	0.79	0.78	0.84	0.89	0.95
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	7	6.7	7.5	4	8.1
Total Zinc	(g/m ³)	<1.5	-	-	0.0044	0.0103	0.0039	0.007	0.0113
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	> 99.5	> 99.5	> 99.5	> 99.5	98.7
Turbidity	NTU	2	5	2.5	0.46	0.06	0.1	0.09	0.08

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					G02192	G03084	G11196	G11197	G02009
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Rolleston - Helpet Park 1, Bore 1	Rolleston - Helpet Park 1, Bore 2	Rolleston - Helpet Park 2, Bore 3	Rolleston - Helpet Park 2, Bore 4	Rolleston - Illinois
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.002	0.003	0.003	< 0.002	0.005
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	116	101	91	89	149
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	10.6	10.3	7.4	6.6	16.6
Electrical Conductivity	(µS/cm)	-	-	-	173	151	136	133	223
Electrical Conductivity	(mS/m)	-	-	-	17.3	15.1	13.6	13.3	22.3
Fluoride	(g/m ³)		1.5	0.75	0.06	0.06	0.06	0.07	0.07
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	1.3	< 1.0	1.1	1.1	1.8
Nitrate	(g/m ³)	-	50	25	17.7	14.9	7.9	5.8	32
Nitrate-N	(g/m ³)	-	11.3	5.65	4	3.4	1.77	1.3	7.1
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	7.9	7.9	8	8	7.7
Sulphate	(g/m ³)	<250	-	-	3.5	1.8	1.5	1.5	6.6
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	52	44	50	52	51
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.022	0.02	0.023	0.022	0.022
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	19	17.7	15.9	15.4	21
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	0.0064	0.00076	0.00065	0.00073	< 0.00053
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	59	51	49	47	70
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	0.022	0.036
Total Lead	(g/m ³)	-	0.01	0.005	0.00031	0.00014	0.00024	0.00024	0.00019
Total Magnesium	(g/m ³)	200	-	-	2.7	1.75	2.3	2.2	4.3
Total Manganese	(g/m ³)	<0.04	0.4	0.2	0.00071	< 0.00053	0.00142	0.0022	0.00143
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	0.5	< 0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m ³)	-	-	-	1.09	0.97	0.93	0.87	1.38
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	10.7	9.3	8	7.8	14.5
Total Zinc	(g/m ³)	<1.5	-	-	0.015	0.0097	0.023	0.031	0.067
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	99.5	99.3	99.4	> 99.5	98.8
Turbidity	NTU	2	5	2.5	0.36	0.05	0.1	0.11	0.36

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Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	G01672	G00167	G02191	G01113	G01874
					Rolleston - Izone Bore	Rolleston - Moore Bore 1	Rolleston - Moore Bore 2	Rolleston - Overbury	Rolleston - Westland
Absorbance at 254 nm	AU cm ⁻¹		-	-	< 0.002	< 0.002	< 0.002	< 0.002	0.002
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	94	88	93	121	107
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	7.8	6.7	7.8	13.5	11.1
Electrical Conductivity	(µS/cm)	-	-	-	140	131	139	180	160
Electrical Conductivity	(mS/m)	-	-	-	14	13.1	13.9	18	16
Fluoride	(g/m ³)		1.5	0.75	0.06	0.06	0.06	0.06	0.06
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	< 1.0	1	1	1.2	< 1.0
Nitrate	(g/m ³)	-	50	25	12.9	7.4	12	21	18.4
Nitrate-N	(g/m ³)	-	11.3	5.65	2.9	1.67	2.7	4.9	4.1
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	8	8	8	7.9	7.9
Sulphate	(g/m ³)	<250	-	-	1.3	1.4	1.5	2.6	1.8
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	46	48	46	47	44
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.021	0.022	0.021	0.022	0.0199
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	16.6	15.5	16.2	20	18.6
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Copper	(g/m ³)	<1	2	1	0.00077	0.00142	0.0009	0.00082	0.00141
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	49	47	48	60	54
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021	0.021
Total Lead	(g/m ³)	-	0.01	0.005	< 0.00011	0.00036	0.00034	0.00012	0.00031
Total Magnesium	(g/m ³)	200	-	-	1.74	2.1	1.91	2.5	1.8
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	< 0.00053	0.00104
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	< 0.5	0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m ³)	-	-	-	0.9	0.9	0.93	1.06	0.98
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	8.1	7.7	8	11	9.6
Total Zinc	(g/m ³)	<1.5	-	-	0.0048	0.0143	0.0114	0.0169	0.0197
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	> 99.5	> 99.5	> 99.5	> 99.5	99.4
Turbidity	NTU	2	5	2.5	0.09	0.12	0.09	0.06	0.44

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					G00820	G11246	G03053	S10058	G01794
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Sheffield - Roecombe Rd Bore 1	Sheffield - Roecombe Rd Bore 2	Southbridge	Springfield	Springston
Absorbance at 254 nm	AU cm ⁻¹		-	-	0.021	0.025	0.002	0.022	< 0.002
Approx Total Dissolved Salts	(g/m ³)	<1000	-	-	98	101	102	75	98
Bromide	(g/m ³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m ³)	<250	-	-	5.9	6.6	5.3	2.7	9.1
Electrical Conductivity	(µS/cm)	-	-	-	147	151	152	111	146
Electrical Conductivity	(mS/m)	-	-	-	14.7	15.1	15.2	11.1	14.6
Fluoride	(g/m ³)		1.5	0.75	0.12	0.11	< 0.05	0.13	0.07
Free Carbon Dioxide	(g/m ³ at 25°C)	-	-	-	12.2	12.6	1.2	4.9	1.1
Nitrate	(g/m ³)	-	50	25	12.8	13.3	14.4	4.7	9.1
Nitrate-N	(g/m ³)	-	11.3	5.65	2.9	3	3.3	1.07	2.1
Nitrite	(g/m ³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m ³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	6.9	6.8	7.9	7.3	7.9
Sulphate	(g/m ³)	<250	-	-	6.3	6.6	4.3	3.2	1.9
Total Alkalinity	(g/m ³ as CaCO ₃)	-	-	-	44	45	52	45	49
Total Antimony	(g/m ³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m ³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m ³)	-	1.5	0.75	< 0.0053	0.0056	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m ³)	-	2.4	1.2	0.033	0.032	0.02	0.031	0.021
Total Cadmium	(g/m ³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m ³)	-	-	-	13.6	14	21	12.5	17.4
Total Chromium	(g/m ³)	-	0.05	0.025	< 0.00053	< 0.00053	< 0.00053	< 0.00053	0.00059
Total Copper	(g/m ³)	<1	2	1	0.0049	0.00189	0.00134	0.008	0.00093
Total Hardness	(g/m ³ as CaCO ₃)	<200	-	-	52	54	60	45	52
Total Iron	(g/m ³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	0.042	< 0.021
Total Lead	(g/m ³)	-	0.01	0.005	0.00095	0.00045	0.00014	0.00111	< 0.00011
Total Magnesium	(g/m ³)	200	-	-	4.4	4.7	2	3.4	2.1
Total Manganese	(g/m ³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	0.0037	< 0.00053
Total Mercury	(g/m ³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m ³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m ³)	-	-	-	0.8	0.7	< 0.5	0.6	< 0.5
Total Potassium	(g/m ³)	-	-	-	1.09	1.13	1.16	0.81	0.92
Total Selenium	(g/m ³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m ³)	<200	-	-	7.8	7.9	6.7	4.8	8.7
Total Zinc	(g/m ³)	<1.5	-	-	0.158	0.0037	0.0052	0.009	0.0056
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	95.3	94.4	99.5	95	> 99.5
Turbidity	NTU	2	5	2.5	0.1	0.09	0.2	0.67	0.09

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					G00675	G00680	G01169	G01315
Determinents	Units	Guideline Value	Maximum Acceptable Value	1/2 MAV	Tai Tapu	Taumutu	Te Pirita	Upper Selwyn Huts
Absorbance at 254 nm	AU cm-1		-	-	< 0.002	0.004	0.003	< 0.002
Approx Total Dissolved Salts	(g/m³)	<1000	-	-	98	71	107	119
Bromide	(g/m³)	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05
Chloride	(g/m³)	<250	-	-	6.7	5.5	6.3	8
Electrical Conductivity	(µS/cm)	-	-	-	146	106	160	178
Electrical Conductivity	(mS/m)	-	-	-	14.6	10.6	16	17.8
Fluoride	(g/m³)		1.5	0.75	0.08	0.06	< 0.05	0.07
Free Carbon Dioxide	(g/m³ at 25°C)	-	-	-	1.2	1	1.4	2.2
Nitrate	(g/m³)	-	50	25	1.3	6.6	23	1.1
Nitrate-N	(g/m³)	-	11.3	5.65	0.3	1.48	5.2	0.24
Nitrite	(g/m³)	-	3	1.5	< 0.007	< 0.007	< 0.007	< 0.007
Nitrite-N	(g/m³)	-	0.91	0.455	< 0.002	< 0.002	< 0.002	< 0.002
pH	pH units	7.0 - 8.5	-	-	8	7.8	7.8	7.8
Sulphate	(g/m³)	<250	-	-	2.3	2.7	3.9	2.8
Total Alkalinity	(g/m³ as CaCO₃)	-	-	-	61	36	45	74
Total Antimony	(g/m³)	-	0.02	0.01	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	(g/m³)	-	0.01	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Barium	(g/m³)	-	1.5	0.75	< 0.0053	< 0.0053	< 0.0053	< 0.0053
Total Boron	(g/m³)	-	2.4	1.2	0.0192	0.0187	0.0184	0.0194
Total Cadmium	(g/m³)	-	0.004	0.002	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	(g/m³)	-	-	-	16.6	11.6	21	19.1
Total Chromium	(g/m³)	-	0.05	0.025	< 0.00053	0.00065	< 0.00053	0.00059
Total Copper	(g/m³)	<1	2	1	0.00117	0.00083	0.0027	0.00118
Total Hardness	(g/m³ as CaCO₃)	<200	-	-	53	37	63	62
Total Iron	(g/m³)	<0.3	-	-	< 0.021	< 0.021	< 0.021	< 0.021
Total Lead	(g/m³)	-	0.01	0.005	0.00046	0.00021	0.00127	0.00044
Total Magnesium	(g/m³)	200	-	-	2.7	2	2.4	3.5
Total Manganese	(g/m³)	<0.04	0.4	0.2	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Mercury	(g/m³)	-	0.007	0.0035	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	(g/m³)	-	0.08	0.04	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Organic Carbon	(g/m³)	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5
Total Potassium	(g/m³)	-	-	-	0.85	0.88	1.06	1
Total Selenium	(g/m³)	-	0.04	0.02	< 0.0011	< 0.0011	< 0.0011	< 0.0011
Total Sodium	(g/m³)	<200	-	-	9.1	5.8	5.3	12.7
Total Zinc	(g/m³)	<1.5	-	-	0.0132	0.0025	0.0046	0.0108
Transmittance at 254 nm	%T, 1 cm cell	80	-	-	> 99.5	99.2	99.2	> 99.5
Turbidity	NTU	2	5	2.5	< 0.05	0.07	< 0.05	0.05