



# **APPENDIX I**

## **Groundwater Composition Data**



**ANZ Shallow Bore Analysis 2013-2014**

Location	Bore Depth	Date	swl	Temperature	pH	EC	Cl-	DRP	TP	TS	cBOD5	E.coli
	m		m	oC	pH Units	mS/m	g/m3	g/m3	g/m3	g/m3	g O2/m3	MPN / 100mL
<b>325413</b>	6.38	17/06/2013	3.86	14.5	6.2	48.3	43.0	0	0.004	0	0	110
		14/04/2014	3.93	14.5	6.3	27.4	34.0	0	0	0	0	5,800
		15/05/2014	4.06	14.4	6.5	30.2	39.0	0	0.004	0	0	490
<b>325416B</b>	6.37	17/06/2013	3.83	14.0	6.0	54.2	36.0	0.006	0.026	0	0	1
		14/04/2014	3.83	15.0	6.1	49.9	39.0	0	0.008	0	0	51
<b>325411</b>	6.07	17/06/2013	1.80	14.5	6.5	28.7	17.4	0	0.099	0.007	0	10
		14/04/2014	1.85	14.0	6.6	27.5	16.5	0.064	0.230	0.004	0	0
		15/05/2014	1.78	14.8	6.7	28.7	16.2	0.075	0.230	0.002	0	0
<b>325016</b>	7.09	17/06/2013	2.31	14.5	6.4	75.8	98.0	0	1.620	0.075	0	3
		14/04/2014	2.63	14.0	6.4	71.4	102.0	0.28	1.140	0.053	0	5
		15/05/2014	2.53	14.7	6.5	72.9	101.0	0.26	1.370	0.042	0	6
<b>325275B</b>	5.79	17/06/2013	1.97	14.5	6.3	43.7	40.0	0	0.007	0	0	4
		14/04/2014	2.35	15.0	6.4	40.1	41.0	0	0	0	0	13
		15/05/2014	2.18	NA	6.4	40.3	41.0	0	0	0	0	1
<b>325273A</b>	5.33	17/06/2013	2.16	14.5	6.5	47.7	45.0	0	0.010	0.004	0	0
		14/04/2014	3.26	15.5	6.6	51.5	67.0	0	0.006	0	0	8
		15/05/2014	2.32	NA	6.6	48.4	63.0	0	0.009	0.002	0	3
<b>325269C</b>	6.92	17/06/2013	5.78	15.0	6.5	147.0	188.0	0.055	0.085	0.006	0	1
		14/04/2014	6.25	15.5	6.6	195.5	340.0	0.128	0.800	0.023	0	25
		15/05/2014	6.18	NA	6.7	199.1	350.0	0.148	0.920	0.005	0	0
<b>AVERAGE</b>			3.24	14.64	6.44	66.42	85.86	0.05	0.33	0.01	0.00	326.55
<b>MAX</b>			6.25	15.50	6.70	199.10	350.00	0.28	1.62	0.08	0.00	5800.00
<b>MIN</b>			1.78	14.00	6.00	27.40	16.20	0.00	0.00	0.00	0.00	0.00

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Location	Bore Depth	Date	swl	Temperature	pH	EC	Cl-	DRP	TP	TS	cBOD5	E.coli	
	m		m	°C	pH Units	mS/m	g/m3	g/m3	g/m3	g/m3	g O2/m3	MPN / 100mL	
<b>31 Matai</b>	9.02	17/06/2013	3.88	15.0	6.6	69.3	86.0	0.000	0.450	0.260	3	0.000	
		14/04/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
		15/05/2014	NA	NA	NA	6.7	75	99.0	0.000	0.360	0.230	4	0.000
<b>28 Aorangi</b>	7.31	17/06/2013	2.76	14.5	6.4	36.9	27.0	0.113	0.690	0.021	0.000	1	
		14/04/2014	2.90	15.5	6.5	33.4	27.0	0.260	0.560	0.081	0.000	0.000	
		15/05/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>23 Matai</b>	5.27	17/06/2013	3.19	13.0	6.5	54.2	64.0	0.007	0.550	0.028	0.000	0.000	
		14/04/2014	3.45	14.5	6.5	59.5	80.0	0.163	0.530	0.013	0.000	7	
		15/05/2014	4.89	NA	6.6	58.3	84.0	0.076	0.560	0.005	0.000	12	
<b>1415 Waugh</b>	4.65	17/06/2013	4.01	14.5	6.5	37.9	35.0	0.000	1.140	0.044	0.000	0.000	
		14/04/2014	NA	14.5	6.6	34.5	37.0	0.007	0.660	0.017	0.000	6	
		15/05/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
<b>1427 Waugh</b>	NA	17/06/2013	NA	14.5	6.4	42.3	46.0	0.009	0.320	0.000	0.000	0.000	
		14/04/2014	NA	14.5	6.5	42.4	54.0	0.000	0.127	0.002	0.000	2	
		15/05/2014	NA		6.6	43.4	53.0	0.065	0.280	0.000	0.000	0.000	
<b>1447 Waugh</b>	NA	17/06/2013	NA	14.5	6.5	69.8	112.0	0.057	0.153	0.041	0.000	0.000	
		14/04/2014	NA	14.5	6.5	68.9	115.0	0.018	0.130	0.034	0.000	0.000	
		15/05/2014	NA		6.6	71.5	117.0	0.000	0.340	0.006	0.000	0.000	
<b>1459 Waugh</b>	NA	17/06/2013	NA	14.6	6.6	83.9	138.0	0.000	0.000	0.000	0.000	0.000	
		14/04/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
		15/05/2014	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
<b>AVERAGE</b>					6.5	55.1	73.38	0.048	0.428	0.049	0	1.75	
<b>MAX</b>					6.7	83.90	138.00	0.26	1.14	0.26	4.00	12.00	
<b>MIN</b>					6.4	33.4	27.0	0.0	0.0	0.0	0.0	0.0	



**ANZ Shallow Bore Analysis 2013-2014**

<b>Location</b>	<b>TN</b>	<b>NH4-N</b>	<b>NO2-N</b>	<b>NO3-N</b>	<b>NO2-N + NO3-N</b>	<b>TKN</b>
	g/m3	g/m3	g/m3	g/m3	g/m3	g/m3
<b>31 Matai</b>	1.45	1.100	0.012	0.000	0.008	1.44
	NA	NA	NA	NA	NA	NA
	1.60	1.400	0.000	0.000	0.000	1.64
<b>28 Aorangi</b>	0.56	0.300	0.000	0.04	0.050	0.52
	0.48	0.280	0.000	0.000	0.000	0.47
	NA	NA	NA	NA	NA	NA
<b>23 Matai</b>	0.75	0.570	0.009	0.01	0.015	0.73
	0.90	0.590	0.000	0.000	0.000	0.88
	1.10	0.600	0.000	0.000	0.000	0.85
<b>1415 Waugh</b>	0.60	0.400	0.011	0.01	0.016	0.58
	0.62	0.360	0.008	0.01	0.014	0.60
	NA	NA	NA	NA	NA	NA
<b>1427 Waugh</b>	0.54	0.370	0.013	0.00	0.017	0.53
	0.66	0.350	0.003	0.03	0.029	0.63
	0.60	0.390	0.000	0.000	0.000	0.59
<b>1447 Waugh</b>	0.31	0.113	0.000	0.04	0.050	0.26
	0.20	0.118	0.000	0.000	0.000	0.23
	0.30	0.133	0.000	0.000	0.000	0.27
<b>1459 Waugh</b>	0.84	0.016	0.000	0.62	0.630	0.21
	NA	NA	NA	NA	NA	NA
	NA	NA	NA	NA	NA	NA
<b>AVERAGE</b>	0.72	0.44	0.00	0.05	0.05	0.65
<b>MAX</b>	1.60	1.40	0.01	0.62	0.63	1.64
<b>MIN</b>	0.20	0.02	0.00	0.00	0.00	0.21

