

## Lake Manuwai at Surface intake

<b>Sample ID = 20224463</b>	<b>Date Collected 17/08/2022</b>	<b>Time 11:30</b>	
<b>Site 101985</b>	<b>Lake Manuwai at Surface intake</b>		
<b>Measurement</b>	<b>Method</b>	<b>Value</b>	<b>Units</b>
Ammoniacal Nitrogen	Ammonia by DA	0.014	g/m3-N
Chlorophyll a	Chlorophyll by UVVIS	0.016	g/m3
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	49.1	us/cm
Dissolved Oxygen	ODO	9.48	mg/L
Dissolved Oxygen Percent Saturation	ODO %	91.9	% Sat
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.006	g/m3-P
Faecal Coliforms (presumptive)	Faecal coliforms by Membrane Filtration	11	CFU/100ml
Iron Total	Iron (Total) by ICP-MS	0.2	g/m3
Manganese Total	Manganese (Total) by ICP-MS	0.028	g/m3
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.013	g/m3-N
pH	pH (field meter)	6.24	pH
Secchi Depth - with viewer	Secchi with viewer	2.63	m
Temperature	Temperature - YSI	13.9	degC
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.242	g/m3
Total Nitrogen	TN by Calculation	0.26	g/m3-N
Total Phosphorus	TP by DA	0.015	g/m3-P
Total Suspended Solids	Suspended Solids by Gravimetry	3.6	g/m3

<b>Sample ID = 20224464</b>	<b>Date Collected 17/08/2022</b>	<b>Time 11:20</b>	
<b>Site 101986</b>	<b>Lake Manuwai at Bottom (13 m) intake point</b>		
<b>Measurement</b>	<b>Method</b>	<b>Value</b>	<b>Units</b>
Ammoniacal Nitrogen	Ammonia by DA	0.019	g/m3-N
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	49.3	us/cm
Dissolved Oxygen	ODO	9.01	mg/L

Dissolved Oxygen Percent Saturation	ODO %	86.9	% Sat
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.003	g/m3-P
Iron Total	Iron (Total) by ICP-MS	0.22	g/m3
Manganese Total	Manganese (Total) by ICP-MS	0.029	g/m3
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.014	g/m3-N
pH	pH (field meter)	6.19	pH
Temperature	Temperature - YSI	13.7	degC
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.347	g/m3
Total Nitrogen	TN by Calculation	0.36	g/m3-N
Total Phosphorus	TP by DA	0.013	g/m3-P
Total Suspended Solids	Suspended Solids by Gravimetry	2.6	g/m3

<b>Sample ID = 20224465</b>	<b>Date Collected 17/08/2022</b>	<b>Time 10:55</b>	
<b>Site 327834</b>	<b>Lake Manuwai Weir at Ironbark Road</b>		
<b>Measurement</b>	<b>Method</b>	<b>Value</b>	<b>Units</b>
Ammoniacal Nitrogen	Ammonia by DA	0.066	g/m3-N
Chlorophyll a	Chlorophyll by UVVIS	0.0033	g/m3
Conductivity at 25 deg C (uS/cm)	SPC (field meter)	70	us/cm
Dissolved Oxygen	ODO	9.01	mg/L
Dissolved Oxygen Percent Saturation	ODO %	87.9	% Sat
Dissolved Reactive Phosphorus	Dissolved Reactive Phosphorus by DA	0.006	g/m3-P
Faecal Coliforms (presumptive)	Faecal coliforms by Membrane Filtration	5100	CFU/100ml
Iron Total	Iron (Total) by ICP-MS	1.4	g/m3
Manganese Total	Manganese (Total) by ICP-MS	0.02	g/m3
Nitrite/nitrate nitrogen	NO3NO2 by FA	0.29	g/m3-N
pH	pH (field meter)	6.16	pH
Temperature	Temperature - YSI	14.21	degC
Total Kjeldahl Nitrogen	TKN by DA_TKN	0.667	g/m3
Total Nitrogen	TN by Calculation	0.95	g/m3-N
Total Phosphorus	TP by DA	0.06	g/m3-P

Total Suspended Solids	Suspended Solids by Gravimetry	16.8	g/m <sup>3</sup>
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Methods used: Standard Methods for the Examination of Water and Waste Water. APHA, AWWA, WEF, 1998 20th edition