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Certificate of Analysis: Final

Cawthron Contract Number: 60026

Project Number: C05535

Timaru District Council
PO Box 522
TIMARU

Attention: John Clemens

Customer Order No: 38330
Customer Ref: Downlands Ponds / Opihi
Email Recipients: Pauline Robertson, John Clemens

Sample Details

Laboratory ID: C05535-1 **Sample Type:** Water **Date Sampled:** 21/12/2021 15:00
Description: Raw Pond 1 **Date Received:** 22/12/2021 07:30
Customer ID: Downlands Pond 1

Species	Description	Unit Count (Units/mL)	Cell Count (Cells/mL)	*Mean Cell Vol. (µm³)**	*Biovolume (mm³/L)**
Total Cyanobacteria cell count			2		0.00008
Total unit count		1			
Pseudanabaena sp. (1.3-2.6 µm)	Potentially Toxic Cyanobacteria		2	39	0.00008
Pseudanabaenaceae	Cyanobacteria (not known to be toxic)	1			

Method: In-house, based on Hotzel and Croome 1999
Biovolume Method: In-house, based on NZ Guidelines for Cyanobacteria in Recreational Fresh Waters - Interim Guidelines (Table A4.1) 2009

Sample Details

Laboratory ID: C05535-2 **Sample Type:** Water **Date Sampled:** 21/12/2021 15:00
Description: Raw Pond 2 **Date Received:** 22/12/2021 07:30
Customer ID: Downlands Pond 2

Species	Description	Unit Count (Units/mL)	Cell Count (Cells/mL)	*Mean Cell Vol. (µm³)**	*Biovolume (mm³/L)**
Total Cyanobacteria cell count			2		0.00008
Total unit count		1			
Pseudanabaena sp. (1.3-2.6 µm)	Potentially Toxic Cyanobacteria		2	39	0.00008
Pseudanabaenaceae	Cyanobacteria (not known to be toxic)	<1			

Method: In-house, based on Hotzel and Croome 1999
Biovolume Method: In-house, based on NZ Guidelines for Cyanobacteria in Recreational Fresh Waters - Interim Guidelines (Table A4.1) 2009

ilac-MRA ACCREDITED IANZ TESTING LABORATORY

Test results indicated as not accredited are outside the scope of the laboratory's accreditation

Report Number: 919533
Project Number: C05535

* Indicates an analysis that is not IANZ accredited

V18.55 SL:FW

T (+64) 03 548 2839 | F (+64) 03 546 9464 | 98 Halifax Street East, Nelson 7010. Private Bag 2, Nelson 7042. New Zealand | www.cawthron.org.nz

Sample Details

Laboratory ID: C05535-3 **Sample Type:** Water **Date Sampled:** 21/12/2021 16:00

Description: Opihi Gallery **Date Received:** 22/12/2021 07:30

Customer ID: Opihi Source

Species	Description	Unit Count (Units/mL)	Cell Count (Cells/mL)	*Mean Cell Vol. (µm³)**	*Biovolume (mm³/L)**
Total Cyanobacteria cell count			5400		0.003
Total unit count		68000			
Picocyanobacteria (< 1 µm)	Potentially Toxic Cyanobacteria		5400	0.52	0.003
Planktolyngbya sp.	Cyanobacteria (not known to be toxic)	68000			

Method: In-house, based on Hotzel and Croome 1999

Biovolume Method: In-house, based on NZ Guidelines for Cyanobacteria in Recreational Fresh Waters - Interim Guidelines (Table A4.1) 2009

Results apply to samples as received unless otherwise specified.

Taxa identifications and enumeration are reported to the best possible certainty within the limitations of bright field microscopy and on-going taxonomic reviews. These limitations are most apparent in organisms with a cell diameter less than 2.5µm.

Our routine detection limits for chemical testing relate to samples with a clean matrix.
Reported detection limits may be higher for individual samples if there is insufficient sample or the matrix is complex.

< means less than, > means greater than

Date Generated: 24/12/21

Authorised by: Sumali Nanayakkara

Position: Senior Technician, Natural Toxins Laboratory

Signature:

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