



Certificate of Analysis

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Client:	Timaru District Council	Lab No:	2864753	SPV1
Contact:	Pauline Robertson C/- Timaru District Council PO Box 522 Timaru 7940	Date Received:	11-Feb-2022	
		Date Reported:	17-Feb-2022	
		Quote No:		
		Order No:	38674	
		Client Reference:		
		Submitted By:	Pauline Robertson	

Sample Type: Aqueous

	Sample Name:	Armadillos 09-Feb-2022 9:10 am	Aorangi Stadium 09-Feb-2022 9:30 am	108 Meadows Rd 09-Feb-2022 10:00 am	Ophi Gallery 09-Feb-2022 12:10 pm	
	Lab Number:	2864753.1	2864753.2	2864753.3	2864753.4	
Dissolved Manganese	g/m ³	0.0014	0.037	0.0013	0.0068	-
Total Manganese	g/m ³	0.0033	0.120	0.0029	0.0072	-

Summary of Methods

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively simple matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis. A detection limit range indicates the lowest and highest detection limits in the associated suite of analytes. A full listing of compounds and detection limits are available from the laboratory upon request. Unless otherwise indicated, analyses were performed at Hill Laboratories, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Aqueous

Test	Method Description	Default Detection Limit	Sample No
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) 23 rd ed. 2017.	-	1-4
Filtration for dissolved metals analysis	Sample filtration through 0.45µm membrane filter and preservation with nitric acid. APHA 3030 B 23 rd ed. 2017.	-	1-4
Dissolved Manganese	Filtered sample, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017.	0.0005 g/m ³	1-4
Total Manganese	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B 23 rd ed. 2017 / US EPA 200.8.	0.00053 g/m ³	1-4

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Testing was completed on 17-Feb-2022. For completion dates of individual analyses please contact the laboratory.

Samples are held at the laboratory after reporting for a length of time based on the stability of the samples and analytes being tested (considering any preservation used), and the storage space available. Once the storage period is completed, the samples are discarded unless otherwise agreed with the customer. Extended storage times may incur additional charges.

This certificate of analysis must not be reproduced, except in full, without the written consent of the signatory.

Ara Heron BSc (Tech)
Client Services Manager - Environmental



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