

R J Hill Laboratories Limited 28 Duke Street Frankton 3204 Private Bag 3205 Hamilton 3240 New Zealand

**6 0508 HILL LAB** (44 555 22)
**6** +64 7 858 2000
☑ mail@hill-labs.co.nz
⊕ www.hill-labs.co.nz

## **Certificate of Analysis**

Client:	Western BOP District Council
Contact:	Erika MacGregor
	C/- Western BOP District Council
	Private Bag 12803
	Tauranga Mail Centre
	Tauranga 3143

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Lab No:	3684218 SPv1
Date Received:	02-Oct-2024
Date Reported:	07-Oct-2024
Quote No:	126522
Order No:	67497
<b>Client Reference:</b>	WSZ & CSZ Annual bore testing part 2
Submitted By:	Erika MacGregor

## Sample Type: Drinking Water for DWSNZ Compliance

Sample Type. Diff	Comunic Norman		C01610 W877	C01061 W870	C01612 W8710
	Sample Name:	G01609 - Tahawai WSZ5 01-Oct-2024	G01610 - WSZ7	G01061 - WSZ9	G01612 - WSZ10 01-Oct-2024 11:00 am
		11:00 am	01-Oct-2024 10:40 am	01-Oct-2024 10:50 am	01-Oct-2024 11:00 am
	Lab Normalian		0004040.0	2004040.0	2004040 4
	Lab Number:	3684218.1	3684218.2	3684218.3	3684218.4
Total Alkalinity	g/m <sup>3</sup> as CaCO <sub>3</sub>	57	54	49	41
Total Antimony	g/m³	< 0.00021	< 0.00021	< 0.00021	< 0.00021
Total Arsenic	g/m³	0.0016	< 0.0011	< 0.0011	< 0.0011
Total Barium	g/m³	< 0.0053	0.0070	0.0072	< 0.0053
Total Cadmium	g/m³	< 0.000053	< 0.000053	< 0.000053	< 0.000053
Total Calcium	g/m³	4.9	8.8	8.7	7.5
Total Chromium	g/m³	< 0.00053	0.00084	0.00104	0.00114
Total Copper	g/m³	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Lead	g/m³	0.00012	< 0.00011	< 0.00011	< 0.00011
Total Magnesium	g/m³	6.2	4.3	3.7	3.4
Total Mercury	g/m³	< 0.00008	< 0.00008	< 0.00008	< 0.00008
Total Nickel	g/m³	< 0.00053	< 0.00053	< 0.00053	< 0.00053
Total Sodium	g/m³	18.6	11.1	10.0	8.4
Chloride	g/m³	17.4	8.7	8.7	8.8
Sulphate	g/m³	3.2	1.6	1.6	1.6

## 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 Labs, 28 Duke Street, Frankton, Hamilton 3204.

Sample Type: Drinking Water for DWSNZ Compliance				
Test	Method Description	Default Detection Limit	Sample No	
Total Digestion	Nitric acid digestion. APHA 3030 E (modified) : Online Edition.	-	1-4	
Total Alkalinity	Titration to pH 4.5 (M-alkalinity), autotitrator. APHA 2320 B (modified for Alkalinity <20) : Online Edition.	1.0 g/m <sup>3</sup> as CaCO <sub>3</sub>	1-4	
Total Antimony	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00021 g/m <sup>3</sup>	1-4	
Total Arsenic	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.0011 g/m <sup>3</sup>	1-4	
Total Barium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.0053 g/m³	1-4	
Total Cadmium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.000053 g/m <sup>3</sup>	1-4	
Total Calcium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.053 g/m³	1-4	
Total Chromium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00053 g/m <sup>3</sup>	1-4	
Total Copper	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00053 g/m <sup>3</sup>	1-4	
Total Lead	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00011 g/m <sup>3</sup>	1-4	



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Sample Type: Drinking Water for DWSNZ Compliance					
Test	Method Description	Default Detection Limit	Sample No		
Total Magnesium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.021 g/m <sup>3</sup>	1-4		
Total Mercury	Bromine Oxidation followed by Atomic Fluorescence. US EPA Method 245.7, Feb 2005.	0.00008 g/m <sup>3</sup>	1-4		
Total Nickel	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition / US EPA 200.8.	0.00053 g/m <sup>3</sup>	1-4		
Total Sodium	Nitric acid digestion, ICP-MS, trace level. APHA 3125 B : Online Edition.	0.021 g/m <sup>3</sup>	1-4		
Chloride	Filtered sample. Ion Chromatography. APHA 4110 B (modified) : Online Edition.	0.5 g/m <sup>3</sup>	1-4		
Sulphate	Filtered sample. Ion Chromatography. APHA 4110 B (modified) : Online Edition.	0.5 g/m <sup>3</sup>	1-4		

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

Testing was completed between 03-Oct-2024 and 07-Oct-2024. 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