

## Food &amp; Water Testing

**ANALYTICAL REPORT**

REPORT CODE

AR-26-NC-017724-01

REPORT DATE

25/05/2026

Attention Otago Regional Council

Contact for your orders:

[REDACTED]

Order code:

EUNZCH-00255797

Contract:

Shotover

Submission Reference:

Shotover WWTP

Purchase Order Number:

[REDACTED]

SAMPLE CODE

817-2026-00046426

Sample Name

GT7800RC

Sampling Point code:

GT7800RC

Sampling Point name:

1. Upstream WWTP (before the SH6 bridge) - ORC Sam

Reception Date &amp; Time:

19/05/2026 8:30

Reception temperature:

6.4 °C

Analysis Started on:

19/05/2026

Analysis Ending Date:

25/05/2026

Product Type

Surface water, raw water

Sampler(s)

[REDACTED]

Sampled Date &amp; Time

18/05/2026 13:30

## RESULTS

## LOQ

## NC03M Total Nitrogen in Water by Discrete Analyser (Trace)

Total Nitrogen (N)	0.03	mg/l	0.01
--------------------	------	------	------

## NC04C Total Oxidised Nitrogen in Water by Discrete Analyser

Total Oxidised Nitrogen	0.03	mg/l	0.01
-------------------------	------	------	------

## NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode

Biochemical oxygen demand (BOD)	<2	mg/l	2
---------------------------------	----	------	---

## NCOAE Total Suspended Solids in Water by Gravimetry

Suspended Solids	16.9	mg/l	2.5
------------------	------	------	-----

## NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)

pH	7.6		0.1
----	-----	--	-----

## © NCOAK Ammoniacal Nitrogen by Discrete Analyser

Ammonia nitrogen	<0.01	mg/l	0.01
------------------	-------	------	------

## NC76G Total Phosphorus in Water by Discrete Analyser (Trace)

Total phosphorus	0.03	mg/l	0.01
------------------	------	------	------

## ZMJU7 Enumeration of Escherichia coli by Membrane Filtration

Escherichia coli	5	cfu/100 ml	1
------------------	---	------------	---

SAMPLE CODE

817-2026-00046427

Sample Name

GT7790RC

Sampling Point code:

GT7790RC

Sampling Point name:

2. Final Discharge post UV - ORC Sampling

Reception Date &amp; Time:

19/05/2026 8:30

Reception temperature:

6.4 °C

Analysis Started on:

19/05/2026

Analysis Ending Date:

25/05/2026

Product Type

Surface water, raw water

Sampler(s)

[REDACTED]

Sampled Date &amp; Time

18/05/2026 14:50

## RESULTS

## LOQ

## Food & Water Testing

	RESULTS	LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>	
	Total Nitrogen (N) 4.35 mg/l	0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>	
	Total Oxidised Nitrogen 3.6 mg/l	0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>	
	Biochemical oxygen demand (BOD) <2 mg/l	2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>	
	Suspended Solids 5.6 mg/l	2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>	
	pH 6.8	0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>	
	Ammonia nitrogen 0.05 mg/l	0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>	
	Total phosphorus 0.85 mg/l	0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>	
	Escherichia coli 5 cfu/100 ml	1

<b>SAMPLE CODE</b>	<b>817-2026-00046428</b>		
<b>Sample Name</b>	GT781ORC		
<b>Sampling Point code:</b>	GT781ORC	<b>Sampling Point name:</b>	3. Discharge to the river - ORC Sampling
<b>Reception Date &amp; Time:</b>	19/05/2026 8:30	<b>Reception temperature:</b>	6.4 °C
<b>Analysis Started on:</b>	19/05/2026	<b>Analysis Ending Date:</b>	25/05/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	[REDACTED]
<b>Sampled Date &amp; Time</b>	18/05/2026 14:30		

	RESULTS	LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>	
	Total Nitrogen (N) 4.55 mg/l	0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>	
	Total Oxidised Nitrogen 3.5 mg/l	0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>	
	Biochemical oxygen demand (BOD) <2 mg/l	2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>	
	Suspended Solids 4.3 mg/l	2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>	
	pH 7.0	0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>	
	Ammonia nitrogen 0.06 mg/l	0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>	
	Total phosphorus 0.87 mg/l	0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>	
	Escherichia coli 21 cfu/100 ml	1

## Food & Water Testing

<b>SAMPLE CODE</b>	<b>817-2026-00046429</b>		
<b>Sample Name</b>	GT782ORC		
<b>Sampling Point code:</b>	GT782ORC	<b>Sampling Point name:</b>	4. 200 meters downstream - ORC Sampling
<b>Reception Date &amp; Time:</b>	19/05/2026 8:30	<b>Reception temperature:</b>	6.4 °C
<b>Analysis Started on:</b>	19/05/2026	<b>Analysis Ending Date:</b>	25/05/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	[REDACTED]
<b>Sampled Date &amp; Time</b>	18/05/2026 14:15		

	RESULTS		LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	0.20 mg/l	0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	0.14 mg/l	0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	4.1 mg/l	2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.7	0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	<0.01 mg/l	0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	0.05 mg/l	0.01
<b>ZMJU7</b>	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	2 cfu/100 ml	1

<b>SAMPLE CODE</b>	<b>817-2026-00046430</b>		
<b>Sample Name</b>	GT784ORC		
<b>Sampling Point code:</b>	GT784ORC	<b>Sampling Point name:</b>	5. Upstream of Kawarau River - ORC Sampling
<b>Reception Date &amp; Time:</b>	19/05/2026 8:30	<b>Reception temperature:</b>	6.4 °C
<b>Analysis Started on:</b>	19/05/2026	<b>Analysis Ending Date:</b>	25/05/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	[REDACTED]
<b>Sampled Date &amp; Time</b>	18/05/2026 13:50		

	RESULTS		LOQ
<b>NC03M</b>	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	0.18 mg/l	0.01
<b>NC04C</b>	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	0.12 mg/l	0.01
<b>NC05B</b>	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	<2 mg/l	2
<b>NC0AE</b>	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	<2.5 mg/l	2.5
<b>NC0AF</b>	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.2	0.1
<b>© NC0AK</b>	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	<0.01 mg/l	0.01
<b>NC76G</b>	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		

## Food & Water Testing

	RESULTS	LOQ
<b>NC76G Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
Total phosphorus	<0.01	mg/l
		0.01
<b>ZMJU7 Enumeration of Escherichia coli by Membrane Filtration</b>		
Escherichia coli	28	cfu/100 ml
		1

<b>SAMPLE CODE</b>	817-2026-00046431		
<b>Sample Name</b>	GT785ORC		
<b>Sampling Point code:</b>	GT785ORC	<b>Sampling Point name:</b>	6. Downstream of Kawarau River - ORC Sampling
<b>Reception Date &amp; Time:</b>	19/05/2026 8:30	<b>Reception temperature:</b>	6.4 °C
<b>Analysis Started on:</b>	19/05/2026	<b>Analysis Ending Date:</b>	25/05/2026
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	[REDACTED]
<b>Sampled Date &amp; Time</b>	18/05/2026 13:07		

	RESULTS	LOQ
<b>NC03M Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
Total Nitrogen (N)	0.04	mg/l
		0.01
<b>NC04C Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
Total Oxidised Nitrogen	0.04	mg/l
		0.01
<b>NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
Biochemical oxygen demand (BOD)	<2	mg/l
		2
<b>NC0AE Total Suspended Solids in Water by Gravimetry</b>		
Suspended Solids	2.7	mg/l
		2.5
<b>NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
pH	7.7	0.1
<b>© NC0AK Ammoniacal Nitrogen by Discrete Analyser</b>		
Ammonia nitrogen	<0.01	mg/l
		0.01
<b>NC76G Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
Total phosphorus	<0.01	mg/l
		0.01
<b>ZMJU7 Enumeration of Escherichia coli by Membrane Filtration</b>		
Escherichia coli	3	cfu/100 ml
		1

LIST OF METHODS	
<b>NC03M Total Nitrogen in Water by Discrete Analyser (Trace):</b> APHA 24th Edition 4500-P J/4500-NH	<b>NC04C Total Oxidised Nitrogen in Water by Discrete Analyser:</b> APHA 24th Edition 4500-NO3 H
<b>NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode:</b> APHA 24th Edition 5210 B	<b>NC0AE Total Suspended Solids in Water by Gravimetry:</b> APHA 24th Edition 2540 D
<b>NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time):</b> APHA 24th Edition 4500-H B	<b>NC0AK Ammoniacal Nitrogen by Discrete Analyser:</b> ISBN 0117516139 mod.
<b>NC76G Total Phosphorus in Water by Discrete Analyser (Trace):</b> APHA 24th Edition 4500 P B/J mod	<b>ZMJU7 Escherichia coli E [IVC] &lt;1 &gt;8 000 cfu/100 ml (0) mTEC Agar-F:</b> US EPA 1603 2014

Signature

## Food & Water Testing

### EXPLANATORY NOTE

- ① Test is not accredited
- ② Test is subcontracted within Eurofins group and is accredited
- ③ Test is subcontracted within Eurofins group and is not accredited
- ④ Test is subcontracted outside Eurofins group and is accredited
- ⑤ Test is subcontracted outside Eurofins group and is not accredited
- ⑥ Test result is provided by the customer and is not accredited
- ⑦ Tested at the sampling point by Eurofins and is not accredited
- ⑧ Tested at the sampling point by Eurofins and is accredited
- ⑨ Test is RLP accredited
- ⑩ Test is subcontracted within Eurofins group and is RLP accredited

**N/A** means Not Applicable

**Not Detected** means not detected at or above the Limit of Quantification (LOQ)

**LOQ** means Limit of Quantification and the unit of LOQ is the same as the result unit

**✘** (Unsatisfactory) means does not meet the specification

**✔** (Satisfactory) means meets the specification

**MAV** means Maximum Allowable Value

This report applies exclusively to the samples provided by the Customer and does not represent the entire lot or batch from which the samples were drawn. This document may only be reproduced in full. Partial reproduction is not permitted without prior written approval from Eurofins.

Tests are identified by a unique five-digit code; detailed descriptions are available upon request. Accreditation applies only to the specific tests listed in this report and does not extend to comments, interpretations, or graphical representations.

Eurofins may subcontract part or all of the services to an approved third party. The Customer authorises the release of all necessary information for this purpose.

All samples become the property of Eurofins to the extent necessary for service delivery. Eurofins is not obliged to store samples and may dispose of them after analysis unless storage has been agreed upon in writing. If storage is arranged, Eurofins will take commercially reasonable steps to maintain samples for the agreed period.

The Customer is solely responsible for the sampling process and warrants that samples provided are representative of the lot or batch. Eurofins accepts no liability regarding the Customer's production process or sample homogeneity. Where Eurofins provides sampling services, IANZ-approved methodologies and/or best practices are used; however, Eurofins shall not be liable if the collected sample is not representative of the source or if the Customer's instructions to Eurofins are followed and require testing of part of the sample only or testing of a certain type.

Services are provided using current technology and standard methods applied by Eurofins. Eurofins exercises reasonable care in performing services but does not guarantee fitness for any specific purpose.

This report is based on information, documents, and/or samples provided by or on behalf of the Customer and is intended solely for the Customer's use. It is the responsibility of the Customer to advise any person to whom the Customer provides this report that Eurofins has no liability to that person for their reliance on this report. Eurofins, its employees, agents, or subcontractors shall not be liable for actions taken based on this report or for incorrect results arising from unclear, erroneous, incomplete, or misleading information provided by the Customer. Eurofins shall have no liability for indirect or consequential losses, including but not limited to loss of production, contracts, profits, business interruption, goodwill, or product recall costs. Eurofins General Terms and Conditions apply.

Unless otherwise stated, all tests (except subcontracted tests) are performed at 142 Esk Street, Invercargill.

### END OF REPORT

**EUROFINS ELS LIMITED IS A MINISTRY FOR PRIMARY INDUSTRIES  
RECOGNISED LABORATORY UNDER SECTION 101 OF THE ANIMAL PRODUCTS ACT:1999.**