

## Food &amp; Water Testing

## ANALYTICAL REPORT

REPORT CODE

AR-25-NC-014985-01

REPORT DATE

26/05/2025

**Attention** Otago Regional Council  
compliance  
Private Bag 1954  
9054 DUNEDIN  
NEW ZEALAND

**Phone** (0800) 474 082

**Email** ,

**Copy to:** regulatory

**Contact for your orders:**

**Contract:** Shotover WWTP

**Submission Reference:** Emergency Discharge to Shotover River

**Order code:**

EUNZCH-00217913

**Purchase Order Number:**

SAMPLE CODE

817-2025-00050882

**Sample Name**

GT7800RC

**Sample Reference**

U/S WWTP and SH6 Bridge

**Reception Date & Time:**

19/05/2025 13:34

**Reception temperature:**

8.4 °C

**Analysis Started on:**

20/05/2025

**Analysis Ending Date:**

26/05/2025

**Product Type**

Surface water, raw water

**Sampler(s)**

**Sampled Date & Time**

19/05/2025 11:29

## RESULTS

## LOQ

*NCOAK Ammoniacal Nitrogen by Discrete Analyser				
Ammonia nitrogen	<0.01	mg/l	0.01	
*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration				
Escherichia coli	7	cfu/100 ml	1	
*NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)				
pH	7.8		0.1	
*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode				
Biochemical oxygen demand (BOD)	<2	mg/l	2	
*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)				
Total Nitrogen (N)	0.09	mg/l	0.01	
*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser				
Total Oxidised Nitrogen	0.03	mg/l	0.01	
*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)				
Total phosphorus	0.30	mg/l	0.01	
*NCOAE Total Suspended Solids in Water by Gravimetry				
Suspended Solids	148	mg/l	2.5	

SAMPLE CODE

817-2025-00050883

**Sample Name**

GT7790RC

**Sample Reference**

Final discharge post UV

**Reception Date & Time:**

19/05/2025 13:34

**Reception temperature:**

8.4 °C

**Analysis Started on:**

20/05/2025

**Analysis Ending Date:**

26/05/2025

**Product Type**

Treated Effluent

**Sampler(s)**

**Sampled Date & Time**

19/05/2025 12:59

## RESULTS

## LOQ

*NCOAK Ammoniacal Nitrogen by Discrete Analyser				
Ammonia nitrogen	9.55	mg/l	0.01	

## Food & Water Testing

RESULTS			LOQ
*ZMJU7	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	8	cfu/100 ml
			1
*NCOAF	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.4	0.1
*NC05B	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	11	mg/l
			2
*NC03M	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	15.2	mg/l
			0.01
*NC04C	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	2.3	mg/l
			0.01
*NC76G	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	1.90	mg/l
			0.01
*NCOAE	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	21.2	mg/l
			2.5

SAMPLE CODE		817-2025-00050884	
Sample Name	GT7810RC		
Sample Reference	Shotover WWTP discharge to Shotover river		
Reception Date & Time:	19/05/2025 13:34	Reception temperature:	8.4 °C
Analysis Started on:	20/05/2025	Analysis Ending Date:	26/05/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	19/05/2025 12:23		

RESULTS			LOQ
*NCOAK	<b>Ammoniacal Nitrogen by Discrete Analyser</b>		
	Ammonia nitrogen	8.14	mg/l
			0.01
*ZMJU7	<b>Enumeration of Escherichia coli by Membrane Filtration</b>		
	Escherichia coli	15	cfu/100 ml
			1
*NCOAF	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
	pH	7.6	0.1
*NC05B	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
	Biochemical oxygen demand (BOD)	6	mg/l
			2
*NC03M	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
	Total Nitrogen (N)	14.5	mg/l
			0.01
*NC04C	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
	Total Oxidised Nitrogen	1.7	mg/l
			0.01
*NC76G	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
	Total phosphorus	1.88	mg/l
			0.01
*NCOAE	<b>Total Suspended Solids in Water by Gravimetry</b>		
	Suspended Solids	22.4	mg/l
			2.5

SAMPLE CODE		817-2025-00050885	
Sample Name	GT7820RC		
Sample Reference	Approx 200m D/S of discharge to Shotover river		
Reception Date & Time:	19/05/2025 13:34	Reception temperature:	8.4 °C
Analysis Started on:	20/05/2025	Analysis Ending Date:	26/05/2025
Product Type	Surface water, raw water	Sampler(s)	
Sampled Date & Time	19/05/2025 12:35		

## Food & Water Testing

	RESULTS	LOQ
<b>*NC0AK Ammoniacal Nitrogen by Discrete Analyser</b>		
Ammonia nitrogen	0.38 mg/l	0.01
<b>*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration</b>		
Escherichia coli	9 cfu/100 ml	1
<b>*NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
pH	7.8	0.1
<b>*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
Biochemical oxygen demand (BOD)	<2 mg/l	2
<b>*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
Total Nitrogen (N)	0.70 mg/l	0.01
<b>*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
Total Oxidised Nitrogen	0.12 mg/l	0.01
<b>*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
Total phosphorus	0.10 mg/l	0.01
<b>*NC0AE Total Suspended Solids in Water by Gravimetry</b>		
Suspended Solids	37.7 mg/l	2.5

<b>SAMPLE CODE</b>	<b>817-2025-00050886</b>		
<b>Sample Name</b>	GT7840RC		
<b>Sample Reference</b>	U/S of Kawarau river		
<b>Reception Date &amp; Time:</b>	19/05/2025 13:34	<b>Reception temperature:</b>	8.4 °C
<b>Analysis Started on:</b>	20/05/2025	<b>Analysis Ending Date:</b>	26/05/2025
<b>Product Type</b>	Surface water, raw water	<b>Sampler(s)</b>	
<b>Sampled Date &amp; Time</b>	19/05/2025 11:52		

	RESULTS	LOQ
<b>*NC0AK Ammoniacal Nitrogen by Discrete Analyser</b>		
Ammonia nitrogen	0.01 mg/l	0.01
<b>*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration</b>		
Escherichia coli	9 cfu/100 ml	1
<b>*NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>		
pH	7.6	0.1
<b>*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>		
Biochemical oxygen demand (BOD)	<2 mg/l	2
<b>*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)</b>		
Total Nitrogen (N)	0.08 mg/l	0.01
<b>*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser</b>		
Total Oxidised Nitrogen	0.02 mg/l	0.01
<b>*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)</b>		
Total phosphorus	<0.01 mg/l	0.01
<b>*NC0AE Total Suspended Solids in Water by Gravimetry</b>		
Suspended Solids	4.6 mg/l	2.5

## Food & Water Testing

**SAMPLE CODE** 817-2025-00050887

**Sample Name** GT785ORC

**Sample Reference** D/S of Kawarau river

**Reception Date & Time:** 19/05/2025 13:34

**Reception temperature:** 8.4 °C

**Analysis Started on:** 20/05/2025

**Analysis Ending Date:** 26/05/2025

**Product Type** Surface water, raw water

**Sampler(s)**

**Sampled Date & Time** 19/05/2025 11:09

### RESULTS

### LOQ

*NC0AK	<b>Ammoniacal Nitrogen by Discrete Analyser</b>			
	Ammonia nitrogen	0.01	mg/l	0.01
*ZMJU7	<b>Enumeration of Escherichia coli by Membrane Filtration</b>			
	Escherichia coli	8	cfu/100 ml	1
*NC0AF	<b>pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)</b>			
	pH	7.8		0.1
*NC05B	<b>Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode</b>			
	Biochemical oxygen demand (BOD)	<2	mg/l	2
*NC03M	<b>Total Nitrogen in Water by Discrete Analyser (Trace)</b>			
	Total Nitrogen (N)	0.12	mg/l	0.01
*NC04C	<b>Total Oxidised Nitrogen in Water by Discrete Analyser</b>			
	Total Oxidised Nitrogen	0.03	mg/l	0.01
*NC76G	<b>Total Phosphorus in Water by Discrete Analyser (Trace)</b>			
	Total phosphorus	0.06	mg/l	0.01
*NC0AE	<b>Total Suspended Solids in Water by Gravimetry</b>			
	Suspended Solids	35.1	mg/l	2.5

### LIST OF METHODS

NC03M **Total Nitrogen in Water by Discrete Analyser (Trace):**  
 APHA Online Edition 4500-P J/4500-NH

NC05B **Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode:** APHA Online Edition 5210 B

NC0AF **pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time):** APHA 24th Edition 4500-H B

NC76G **Total Phosphorus in Water by Discrete Analyser (Trace):** APHA Online Edition 4500-P B/J mod.

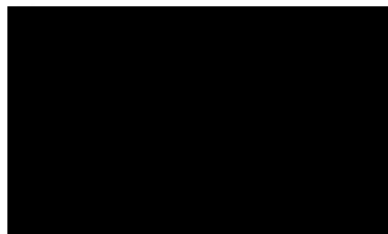
NC04C **Total Oxidised Nitrogen in Water by Discrete Analyser:**  
 APHA Online Edition 4500-NO3 H

NC0AE **Total Suspended Solids in Water by Gravimetry:** APHA Online Edition 2540 D

NC0AK **Ammoniacal Nitrogen by Discrete Analyser:** ISBN 0117516139 mod.

ZMJU7 **Escherichia coli E [IVC] <1 >8 000 cfu/100 ml (0) mTEC**  
 Agar-F: US-EPA 1603:2014

Signature



### EXPLANATORY NOTE

## Food & Water Testing

- 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
- \*Test was performed at Eurofins ELS Limited, 142 Esk Street, Invercargill

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

The Customer acknowledges and accepts that: (a) where Eurofins is not responsible for sampling, the test result(s) in this report apply only to the sample as received. Customer is solely responsible for the sampling process and warrants that the sample provided to Eurofins is representative of the lot / batch from which the samples were drawn; and (b) Eurofins expresses no opinion and accepts no liability in respect of the Customer's production process or homogeneity of the product.

The tests are identified by a five-digit code, their description is available on request.

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Unless otherwise stated, all tests in this analytical report (except for subcontracted tests) are performed at 43 Detroit Drive, Rolleston, Christchurch, NEW ZEALAND.

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### END OF REPORT

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