

Food & Water Testing

ANALYTICAL REPORT

REPORT CODE **AR-25-NC-010799-01** REPORT DATE **15/04/2025**

Attention Otago Regional Council
 [REDACTED]
 Private Bag 1954
 9054 DUNEDIN
 NEW ZEALAND

Phone [REDACTED] Copy to: compliance [REDACTED] regulatory
 Email [REDACTED]

Contact for your orders: [REDACTED] Order code: EUNZCH-00213654
 Contract: Incident Response
 Submission Reference: Emergency discharge to Shotover River Treated Effluent Purchase Order Number: [REDACTED]

SAMPLE CODE 817-2025-00036179

Sample Name IN25.0273A
 Sample Reference U/S WWTP and SH6 Bridge
 Reception Date & Time: 07/04/2025 16:00 Reception temperature: 12.8 °C
 Analysis Started on: 08/04/2025 Analysis Ending Date: 14/04/2025
 Product Type Surface water, raw water Sampler(s) [REDACTED]
 Sampled Date & Time 07/04/2025 13:25

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	8.0		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)	0.03	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	0.04	mg/l	0.01
*NCOAE Total Suspended Solids in Water by Gravimetry			
Suspended Solids	76.0	mg/l	2.5

SAMPLE CODE 817-2025-00036180

Sample Name IN25.0273B
 Sample Reference Final Discharge Post UV
 Reception Date & Time: 07/04/2025 16:00 Reception temperature: 12.8 °C
 Analysis Started on: 08/04/2025 Analysis Ending Date: 15/04/2025
 Product Type Treated Effluent Sampler(s) [REDACTED]
 Sampled Date & Time 07/04/2025 15:00

RESULTS LOQ

***NCOAK Ammoniacal Nitrogen by Discrete Analyser**

Food & Water Testing

	RESULTS			LOQ
*NCOAK Ammoniacal Nitrogen by Discrete Analyser	Ammonia nitrogen	8.10	mg/l	0.01
*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration	Escherichia coli	<1	cfu/100 ml	1
*NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)	pH	7.3		0.1
*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode	Biochemical oxygen demand (BOD)	13	mg/l	2
*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)	Total Nitrogen (N)	15.8	mg/l	0.01
*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser	Total Oxidised Nitrogen	4.4	mg/l	0.01
*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)	Total phosphorus	2.23	mg/l	0.01
*NCOAE Total Suspended Solids in Water by Gravimetry	Suspended Solids	16.2	mg/l	2.5

SAMPLE CODE	817-2025-00036181		
Sample Name	IN25.0273C		
Sample Reference	Shotover WWTP Discharge to Shotover River		
Reception Date & Time:	07/04/2025 16:00	Reception temperature:	12.8 °C
Analysis Started on:	08/04/2025	Analysis Ending Date:	14/04/2025
Product Type	Surface water, raw water	Sampler(s)	██████████
Sampled Date & Time	07/04/2025 13:35		

	RESULTS			LOQ
*NCOAK Ammoniacal Nitrogen by Discrete Analyser	Ammonia nitrogen	9.03	mg/l	0.01
*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration	Escherichia coli	4	cfu/100 ml	1
*NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)	pH	7.5		0.1
*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode	Biochemical oxygen demand (BOD)	11	mg/l	2
*NC03M Total Nitrogen in Water by Discrete Analyser (Trace)	Total Nitrogen (N)	15.5	mg/l	0.01
*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser	Total Oxidised Nitrogen	4.1	mg/l	0.01
*NC76G Total Phosphorus in Water by Discrete Analyser (Trace)	Total phosphorus	2.87	mg/l	0.01
*NCOAE Total Suspended Solids in Water by Gravimetry	Suspended Solids	13.0	mg/l	2.5

Food & Water Testing

SAMPLE CODE	817-2025-00036182
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Sample Name	IN25.0273D		
Sample Reference	Approx 20m D/S of Discharge Shotover River		
Reception Date & Time:	07/04/2025 16:00	Reception temperature:	12.8 °C
Analysis Started on:	08/04/2025	Analysis Ending Date:	14/04/2025
Product Type	Surface water, raw water	Sampler(s)	██████████
Sampled Date & Time	07/04/2025 14:04		

RESULTS

LOQ

Ⓢ	NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
		Ammonia nitrogen	0.03	mg/l
				0.01
	*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
		Escherichia coli	54	cfu/100 ml
				1
	*NC0AF	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)	0.14	mg/l
				0.01
	*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
		Total Oxidised Nitrogen	0.04	mg/l
				0.01
	*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
		Total phosphorus	0.03	mg/l
				0.01
	*NC0AE	Total Suspended Solids in Water by Gravimetry		
		Suspended Solids	20.2	mg/l
				2.5

SAMPLE CODE	817-2025-00036183
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Sample Name	IN25.0273E		
Sample Reference	U/S of Kawarau River		
Reception Date & Time:	07/04/2025 16:00	Reception temperature:	12.8 °C
Analysis Started on:	08/04/2025	Analysis Ending Date:	14/04/2025
Product Type	Surface water, raw water	Sampler(s)	██████████
Sampled Date & Time	07/04/2025 13:40		

RESULTS

LOQ

Ⓢ	NC0AK	Ammoniacal Nitrogen by Discrete Analyser		
		Ammonia nitrogen	<0.01	mg/l
				0.01
	*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration		
		Escherichia coli	110	cfu/100 ml
				1
	*NC0AF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)		
		pH	7.3	
				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)	0.13	mg/l
				0.01
	*NC04C	Total Oxidised Nitrogen in Water by Discrete Analyser		
		Total Oxidised Nitrogen	0.10	mg/l
				0.01
	*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)		
		Total phosphorus	<0.01	mg/l
				0.01

Food & Water Testing

RESULTS	LOQ
*NCOAE Total Suspended Solids in Water by Gravimetry Suspended Solids <2.5 mg/l 2.5	

SAMPLE CODE	817-2025-00036184		
Sample Name	IN25.0273F		
Sample Reference	D/S of Kawarau River		
Reception Date & Time:	07/04/2025 16:00	Reception temperature:	12.8 °C
Analysis Started on:	08/04/2025	Analysis Ending Date:	14/04/2025
Product Type	Surface water, raw water	Sampler(s)	[REDACTED]
Sampled Date & Time	07/04/2025 12:41		

RESULTS	LOQ
⊙*NCOAK Ammoniacal Nitrogen by Discrete Analyser Ammonia nitrogen 0.21 mg/l 0.01	
*ZMJU7 Enumeration of Escherichia coli by Membrane Filtration Escherichia coli 23 cfu/100 ml 1	
*NCOAF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time) pH 8.0 0.1	
*NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode Biochemical oxygen demand <2 mg/l 2 (BOD)	
*NC03M Total Nitrogen in Water by Discrete Analyser (Trace) Total Nitrogen (N) 0.46 mg/l 0.01	
*NC04C Total Oxidised Nitrogen in Water by Discrete Analyser Total Oxidised Nitrogen 0.14 mg/l 0.01	
*NC76G Total Phosphorus in Water by Discrete Analyser (Trace) Total phosphorus 0.06 mg/l 0.01	
*NCOAE Total Suspended Solids in Water by Gravimetry Suspended Solids 8.5 mg/l 2.5	

LIST OF METHODS	
NC03M Total Nitrogen in Water by Discrete Analyser (Trace): APHA Online Edition 4500-P J/4500-NH	NC04C Total Oxidised Nitrogen in Water by Discrete Analyser: APHA Online Edition 4500-NO3 H
NC05B Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode: APHA Online Edition 5210 B	NC0AE Total Suspended Solids in Water by Gravimetry: APHA Online Edition 2540 D
NC0AF pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time): APHA 24th Edition 4500-H B	NC0AK Ammoniacal Nitrogen by Discrete Analyser: ISBN 0117516139 mod.
NC76G Total Phosphorus in Water by Discrete Analyser (Trace): APHA Online Edition 4500-P B/J mod.	ZMJU7 Escherichia coli E (Water) [NZ Water] <1 >8 000 /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.

Accreditation does not apply to comments or graphical representations.

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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