

Food & Water Testing

ANALYTICAL REPORT

REPORT CODE		AR-25-NC-017879-01		REPORT DATE	23/06/2025
Attention	Private Bag 19 9054 DUNED	954 IN			
Phone Email	NEW ZEALAN	D		Copy to: regulatory	
Contact Contrac	for your orders: t: ion Reference:	Shotover WWTP Emergency Discharge to Shotover River		Order code: Purchase Order Number:	EUNZCH-00220093
	E CODE	817-2025-00058270			
Sample Sample Receptic Analysis Product	Name Reference on Date & Time: s Started on:	GT7800RC U/S WWTP and SH6 Bridge GT7800RC 17/06/2025 12:51 18/06/2025 Surface water, raw water 17/06/2025 12:51		Reception temperature: Analysis Ending Date: Sampler(s)	6.1 °C 23/06/2025
		RESULTS		LOQ	
	Ammonia nitrogen	ogen by Discrete Analyse <0.01	mg/l	0.01	
*ZMJU7	Enumeration of E Escherichia coli	scherichia coli by Memb	cfu/100 ml	1	
*NCOAF	pH in Water by Manual Electrode (Tested beyond 15 min			ute APHA holding time) 0.1	
*NC05B	•	l Oxygen Demand (TBOD	5 Days) by E mg/l		
*NC03M		Water by Discrete Analys	ser (Trace) mg/l	0.01	
*NC04C	Total Oxidised Ni	trogen in Water by Discre	ete Analyser	0.01	
*NC76G		s in Water by Discrete An <0.01			
*NCOAE	Total Suspended Suspended Solids	Solids in Water by Gravid 6.1	m etry mg/l	2.5	
SAMPL	E CODE	817-2025-00058271			
Sample Name Sample Reference Reception Date & Time: Analysis Started on: Product Type		GT7790RC Final Discharge Post UV 17/06/2025 13:55 18/06/2025 Surface water, raw water	GT779ORC	Reception temperature: Analysis Ending Date: Sampler(s)	6.1 °C 23/06/2025
Sampled	Date & Time	17/06/2025 13:55		100	
© [*] NCOAK	Ammoniacal Nitro Ammonia nitrogen	RESULTS ogen by Discrete Analyse 0.06	e r mg/l	LOQ 0.01	
Eurofins E 43 Detroit Rolleston Christchur NEW ZEA	ch 7614	Eurofins ELS Lim 142 Esk Street Invercargill 9810 NEW ZEALAND	ited	Phone (Christchurch) + Phone (Invercargill) www.eurofins.co.nz	64 3 343 5227



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Food & Water Testing

		RESUL	TS	LOQ				
*ZMJU7	Enumeration of F	Escherichia coli by M						
	Escherichia coli	3	cfu/100 ml					
*NCOAF		-		hinute APHA holding time)				
NOUAF	pH in water by Wi	7.0						
*NC05B	pH 7.0 0.1 Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode							
NCOOD	Iotal Biochemical Oxygen Demand (IBOD 5 Days) by El Biochemical oxygen demand <6 mg/l							
	(BOD)		iiig/i	2				
*NC03М		Water by Discrete Ar	nalvser (Trace)					
	Total Nitrogen (N)	5.40	mg/l	0.01				
*NC04C	-	trogen in Water by D	iscrete Analyser					
	Total Oxidised Nitrogen 4.0 mg/l			0.01				
*NC76G		s in Water by Discret						
	Total phosphorus	1.48	mg/l	0.01				
*NCOAE		Solids in Water by G	0					
	Suspended Solids	3.0	mg/l	2.5				
				2.0				
SAMPI	E CODE	817-2025-00058	272					
Sample		GT7810RC						
	Reference	Shotover WWTP Disc	charge to shotover	river GT7810RC				
Reception	on Date & Time:	17/06/2025 13:18		Reception temperature:	6.1 °C			
-	s Started on:	18/06/2025		Analysis Ending Date:	23/06/2025			
Product	• •	Surface water, raw w		Sampler(s)				
Sampled	Date & Time	17/06/2025 13:18						
		RESUL	_TS	LOQ				
@ [™] NC0AK	Ammoniacal Nitre	ogen by Discrete Ana	alyser					
	Ammonia nitrogen	0.06	mg/l	0.01				
*ZMJU7	Enumeration of E	Scherichia coli by M	on					
	Escherichia coli	32	cfu/100 ml	1				
*NCOAF	pH in Water by M	anual Electrode (Tes	ted beyond 15 m	ninute APHA holding time)				
	рН	7.3	-	0.1				
*NC05B	Total Biochemica	l Oxygen Demand (T	Electrode					
	Biochemical oxygen		mg/l	2				
	(BOD)							
*NC03M	Total Nitrogen in	Water by Discrete Ar	nalyser (Trace)					
	Total Nitrogen (N)	6.17	mg/l	0.01				
*NC04C	Total Oxidised Ni	trogen in Water by D	iscrete Analyser					
	Total Oxidised Nitrog	gen 4.2	mg/l	0.01				
*NC76G	Total Phosphorus	s in Water by Discret	e Analyser (Trac	e)				
	Total phosphorus	1.70	mg/l	0.01				
*NCOAE	Total Suspended	Solids in Water by G	ravimetry					
	Suspended Solids	4.6	mg/l	2.5				
SAMPLE CODE 8		817-2025-00058	273					
Sample	Name	GT7820RC						
Sample Reference		Approx 200m d/s of Discharge to shotove						
Reception Date & Time:		17/06/2025 13:24		Reception temperature:	6.1 °C			
Analysis Started on:		18/06/2025		Analysis Ending Date:	23/06/2025			
Product Type Sampled Date & Time		Surface water, raw w		Sampler(s)				
Sampled		17/06/2025 13:24						

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		RESU	LTS	LOQ				
୭ [™] NCOAK	Ammoniacal Nitrogen by Discrete Analyser							
	Ammonia nitrogen	0.01	mg/l	0.01				
*ZMJU7	Enumeration of Escherichia coli by Membrane Filtration							
	Escherichia coli	3	cfu/100 ml	1				
*NCOAF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)							
	рН	7.9		0.1				
*NC05B	Total Biochemica	I Oxygen Demand (TBOD 5 Days) by	Electrode				
	Biochemical oxygen ((BOD)	demand <2	mg/l	2				
*NC03M	Total Nitrogen in	Water by Discrete A	nalyser (Trace)					
	Total Nitrogen (N)	0.30	mg/l	0.01				
*NC04C	Total Oxidised Nit	trogen in Water by I	Discrete Analyser					
	Total Oxidised Nitrog	gen 0.23	mg/l	0.01				
*NC76G	Total Phosphorus	s in Water by Discre	te Analyser (Trac	e)				
	Total phosphorus	0.10	mg/l	0.01				
*NCOAE	Total Suspended	Solids in Water by (Gravimetry					
	Suspended Solids	15.4	mg/l	2.5				
SAMPL	E CODE	817-2025-00058	8274					
Sample		GT7840RC						
-	Reference	u/s of kawarau river		_				
-	on Date & Time: s Started on:	17/06/2025 13:00 18/06/2025)	Reception temperature: Analysis Ending Date:	6.1 °C 23/06/2025			
Product		Surface water, raw	water	Sampler(s)	23/06/2023			
		17/06/2025 13:01		oampier(s)				
	Date & Time							
	I Date & Time	RESU	LTS	LOQ				
				LOQ				
		RESU ogen by Discrete An <0.01		LOQ 0.01				
	Ammoniacal Nitro Ammonia nitrogen	ogen by Discrete An	a lyser mg/l	0.01				
ð NCOAK	Ammoniacal Nitro Ammonia nitrogen	ogen by Discrete An <0.01	a lyser mg/l	0.01 DN				
ð NCOAK	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli	ogen by Discrete An <0.01 Scherichia coli by N 140	nalyser mg/l flembrane Filtratio cfu/100 ml	0.01 DN				
ĴNCOAK [*] ZMJU7	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli	ogen by Discrete An <0.01 Scherichia coli by N 140	nalyser mg/l flembrane Filtratio cfu/100 ml	0.01 on 1				
ĴNCOAK [*] ZMJU7	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH	ogen by Discrete An <0.01 scherichia coli by N 140 anual Electrode (Tes	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m	0.01 on 1 ninute APHA holding time) 0.1				
o [*] NCOAK [*] ZMJU7 [*] NCOAF	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (*	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m	0.01 on 1 ninute APHA holding time) 0.1				
ðncoak *Zmju7 *Ncoaf	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen o (BOD)	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (*	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l	0.01 on 1 ninute APHA holding time) 0.1 Electrode				
ðncoak *Zmju7 *Ncoaf *Nco5b	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen o (BOD)	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l	0.01 on 1 ninute APHA holding time) 0.1 Electrode				
o [*] NCOAK [*] ZMJU7 [*] NCOAF [*] NCO5B [*] NCO3M	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen of (BOD) Total Nitrogen in M Total Nitrogen (N)	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2 Water by Discrete A 0.14	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l nalyser (Trace) mg/l	0.01 on 1 hinute APHA holding time) 0.1 Electrode 2 0.01				
o [*] NCOAK [*] ZMJU7 [*] NCOAF [*] NCO5B [*] NCO3M	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen of (BOD) Total Nitrogen in M Total Nitrogen (N)	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2 Water by Discrete A 0.14 trogen in Water by D	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l nalyser (Trace) mg/l	0.01 on 1 hinute APHA holding time) 0.1 Electrode 2 0.01				
ðNCOAK *ZMJU7 *NCOAF *NCO5B *NCO3M	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen of (BOD) Total Nitrogen in M Total Nitrogen (N) Total Oxidised Nitrogen	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2 Water by Discrete A 0.14 trogen in Water by D	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l nalyser (Trace) mg/l Discrete Analyser mg/l	0.01 on 1 hinute APHA holding time) 0.1 Electrode 2 0.01				
<pre> *XCOAK *ZMJU7 *NCOAF *NCO5B *NCO3M *NCO3M *NCO4C </pre>	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemica Biochemical oxygen of (BOD) Total Nitrogen in M Total Nitrogen (N) Total Oxidised Nitrogen	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2 Water by Discrete A 0.14 trogen in Water by D gen 0.09	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l nalyser (Trace) mg/l Discrete Analyser mg/l	0.01 on 1 hinute APHA holding time) 0.1 Electrode 2 0.01				
othered for the second	Ammoniacal Nitro Ammonia nitrogen Enumeration of E Escherichia coli pH in Water by Ma pH Total Biochemical Biochemical oxygen of (BOD) Total Nitrogen in M Total Nitrogen (N) Total Oxidised Nitrog Total Oxidised Nitrog Total Phosphorus	ogen by Discrete An <0.01 Scherichia coli by N 140 anual Electrode (Tes 7.3 I Oxygen Demand (* demand <2 Water by Discrete A 0.14 trogen in Water by Discrete gen 0.09 s in Water by Discrete	mg/l mg/l Membrane Filtratio cfu/100 ml sted beyond 15 m TBOD 5 Days) by mg/l mg/l Discrete Analyser mg/l te Analyser (Trac mg/l	0.01 DN 1 Dinute APHA holding time) 0.1 Electrode 2 0.01 0.01 e)				





Food & Water Testing

SAMPL	E CODE	817-2025-0005827	5					
Sample Name Sample Reference Reception Date & Time: Analysis Started on: Product Type Sampled Date & Time		GT7850RC d/s of kawarau river GT7850RC 17/06/2025 12:32 18/06/2025 Surface water, raw water 17/06/2025 12:32			otion temperature: /sis Ending Date:	6.1 °C 23/06/2025		
				Samp	Sampler(s)			
		RESULTS		L	.OQ			
₫ NCOAK	Ammoniacal Nitrogen by Discrete Analyser							
	Ammonia nitrogen	<0.01	mg/l		0.01			
*ZMJU7	Enumeration of Esc	cherichia coli by Memb	orane Filtrat	tion				
	Escherichia coli	1	cfu/100 m	nl	1			
*NCOAF	pH in Water by Manual Electrode (Tested beyond 15 minute APHA holding time)							
	рH	7.9			0.1			
*NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by Electrode							
	Biochemical oxygen der (BOD)	mand <2	mg/l		2			
*NC03M	Total Nitrogen in Wa	ater by Discrete Analy	ser (Trace)					
	Total Nitrogen (N)	0.02	mg/l		0.01			
*NC04C	Total Oxidised Nitro	ogen in Water by Discr	ete Analyse	ər				
	Total Oxidised Nitrogen	0.04	mg/l		0.01			
*NC76G	Total Phosphorus in Water by Discrete Analyser (Trace)							
	Total phosphorus	<0.01	mg/l		0.01			
*NCOAE	Total Suspended So	olids in Water by Grav	imetry					
	Suspended Solids	7.9	mg/l		2.5			
LIST OF	METHODS							
NC03M	Total Nitrogen in Water by Discrete Analyser (Trace):NAPHA Online Edition 4500-P J/4500-NH			NC04C	Total Oxidised Nitroge APHA Online Edition 45	en in Water by Discrete Analyser: 500-NO3 H		
NC05B	Total Biochemical Oxygen Demand (TBOD 5 Days) by N Electrode: APHA Online Edition 5210 B 8			NC0AE	Total Suspended Solid Online Edition 2540 D	ds in Water by Gravimetry: APHA		
NC0AF	pH in Water by Manual Electrode (Tested beyond 15 Ninute APHA holding time): APHA 24th Edition 4500-H B			NC0AK	Ammoniacal Nitrogen 0117516139 mod.	by Discrete Analyser: ISBN		
NC76G	Total Phosphorus in Water by Discrete Analyser (Trace): APHA Online Edition 4500-P B/J mod.			ZMJU7	Escherichia coli E [IV0 Agar-F: US-EPA 1603:2	C] <1 >8 000 cfu/100 ml (0) mTEC 2014		
			Signatu	ire				

Um

Tonia Bulling

Head of Southern Laboratory (K T P)

EXPLANATORY NOTE

Eurofins ELS Limited 43 Detroit Drive Rolleston Christchurch 7614 NEW ZEALAND Eurofins ELS Limited 142 Esk Street Invercargill 9810 NEW ZEALAND Phone (Christchurch) +64 3 343 5227 Phone (Invercargill) www.eurofins.co.nz





Food & Water Testing

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