

COFFS HARBOUR LABORATORY

Environmental Analysis

Page 1 of 7



KEMPSEY SHIRE COUNCIL
BLAKE GIDDY
P.O. BOX 3078
WEST KEMPSEY NSW 2440

BATCHNUMBER: 24/2558
No. of SAMPLES: 12
DATE COLLECTED: 06/11/24
DATE RECEIVED: 06/11/24
TIME RECEIVED: 16:30
DATE TESTING COMMENCED:
06/11/24

(AMENDED) REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
24/2558/1	South Kempsey TP
24/2558/2	Crescent Head CW
24/2558/3	Gladstone TP
24/2558/4	Frederickton TP
24/2558/5	South West Rocks CW
24/2558/6	North St Final TP
24/2558/7	Hat Head C Well
24/2558/8	South Kempsey STP Head Wall Day Pond
24/2558/9	Upstream Gladstone TP
24/2558/10	Downstream Gladstone TP
24/2558/11	Upstream Frederickton TP
24/2558/12	Downstream Frederickton TP

ANALYSIS	UNITS	24/2558/1	24/2558/2	24/2558/3	24/2558/4	METHOD NO
pH	pH unit	7.0	7.2	7.7	7.3	APHA 4500-H+ B
Conductivity	µS/cm	-	1,010	-	-	APHA 2510 B
Turbidity	NTU	-	0.95	-	-	APHA 2130 B
Transmittance	%	-	-	57.4	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	5	2	19	7	APHA 2540 D
Biochem Oxygen Demand (BOD ₅)	mg/L	4	<2	6	3	APHA 5210 B



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ANALYSIS	UNITS	24/2558/1	24/2558/2	24/2558/3	24/2558/4	METHODNO
Nitrate Nitrogen	mg/L	-	5.24	-	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	1.64	0.29	0.34	0.27	APHA 4500-NH3 H
Total Nitrogen	mg/L	2.81	6.82	1.65	1.71	APHA 4500-P J
Total Phosphorus	mg/L	6.32	0.58	9.10	9.73	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	15	27	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	13,000	0	285	230	ELM 3

ANALYSIS	UNITS	24/2558/5	24/2558/6	24/2558/7	24/2558/8	METHODNO
pH	pH unit	6.9	8.4	7.3	-	APHA 4500-H+ B
Conductivity	µS/cm	607	-	849	-	APHA 2510 B
Turbidity	NTU	1.6	-	0.60	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	543	-	EL7B
Alkalinity	mg CaCO ₃ /L	30	-	74	-	APHA 2320 B
Total Suspended Solids	mg/L	<2	37	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	5	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	1.75	0.26	-	APHA 4500-NO3 I
Nitrite Nitrogen	mg/L	-	0.23	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.03	0.86	0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	4.29	4.92	1.05	-	APHA 4500-P J
Total Phosphorus	mg/L	0.33	0.50	0.09	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	40	-	-	APHA 10200 H
Potassium	mg/L	16	-	18	-	EL9A
Chloride	mg/L	92	-	124	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	1	15	9	1,650	ELM 3



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ANALYSIS	UNITS	24/2558/9	24/2558/10	24/2558/11	24/2558/12	METHODNO
pH	pH unit	-	-	-	-	APHA 4500-H+ B
Conductivity	µS/cm	-	-	-	-	APHA 2510 B
Turbidity	NTU	-	-	-	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	-	-	-	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	-	-	-	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	-	-	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	-	-	-	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	-	-	-	-	APHA 4500-P J
Total Phosphorus	mg/L	-	-	-	-	APHA 4500-P J
Oil & Grease	mg/L	-	-	-	-	EL23A
Chlorophyll-a	µg/L	-	-	-	-	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	165	20	80	20	ELM 3

ANALYSIS	UNITS	24/2558/1	24/2558/2	24/2558/3	24/2558/4	METHODNO
PFAS*						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
PFPeA (2706-90-3)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFHxA (307-24-4)	ug/L	0.022	0.021	<0.01	<0.01	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOA (335-67-1)	ug/L	<0.01	0.030	<0.01	0.057	NR70
PFNA (375-95-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDA (335-76-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFUdA (2058-94-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFTTrDA (72629-94-8)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFTeDA (376-06-7)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFHxDA (67905-19-5)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
PFODO (16517-11-6)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
FOUEA (70887-84-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFDS (335-77-3)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFPeS (2706-91-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFHxS (355-46-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFOS (1763-23-1)	ug/L	0.025	0.032	<0.02	0.031	NR70
PFNS (68259-12-1)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
PFBS (375-73-5)	ug/L	<0.01	0.02	<0.01	<0.01	NR70



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ANALYSIS	UNITS	24/2558/1	24/2558/2	24/2558/3	24/2558/4	METHODNO
PFOSA (754-91-6)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-MeFOSA (31506-32-8)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-EtFOSA (4151-50-2)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70
N-MeFOSAA (2355-31-9)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.05	<0.05	<0.05	<0.05	NR70
4:2FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
6:2FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
10:2FTS (120226-60-0)	ug/L	<0.01	<0.01	<0.01	<0.01	NR70
8:2diPAP (678-41-1)	ug/L	<0.02	<0.02	<0.02	<0.02	NR70



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ANALYSIS	UNITS	24/2558/5	24/2558/6	24/2558/7	24/2558/8	METHODNO
PFAS*						
PFBA (375-22-4)	ug/L	<0.05	<0.05	<0.05	-	NR70
PFPeA (2706-90-3)	ug/L	0.033	<0.02	<0.02	-	NR70
PFHxA (307-24-4)	ug/L	0.021	<0.01	<0.01	-	NR70
PFHpA (375-85-9)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOA (335-67-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFNA (375-95-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDA (335-76-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFUdA (2058-94-8)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDoA (307-55-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFTriDA (72629-94-8)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFTeDA (376-06-7)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFHxDA (67905-19-5)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFODO (16517-11-6)	ug/L	<0.05	<0.05	<0.05	-	NR70
FOUEA (70887-84-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFDS (335-77-3)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFPeS (2706-91-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFHxS (355-46-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFHpS (375-92-8)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOS (1763-23-1)	ug/L	<0.02	<0.02	<0.02	-	NR70
PFNS (68259-12-1)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFBS (375-73-5)	ug/L	<0.01	<0.01	<0.01	-	NR70
PFOSA (754-91-6)	ug/L	<0.01	<0.01	<0.01	-	NR70
N-MeFOSA (31506-32-8)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-EtFOSA (4151-50-2)	ug/L	<0.02	<0.02	<0.02	-	NR70
N-MeFOSAA (2355-31-9)	ug/L	<0.01	<0.01	<0.01	-	NR70
N-EtFOSAA (2991-50-6)	ug/L	<0.01	<0.01	<0.01	-	NR70
N-MeFOSE (24448-09-7)	ug/L	<0.05	<0.05	<0.05	-	NR70
N-EtFOSE (1691-99-2)	ug/L	<0.05	<0.05	<0.05	-	NR70
4:2FTS (757124-72-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
6:2FTS (27619-97-2)	ug/L	<0.01	<0.01	<0.01	-	NR70
8:2FTS (39108-34-4)	ug/L	<0.01	<0.01	<0.01	-	NR70
10:2FTS (120226-60-0)	ug/L	<0.01	<0.01	<0.01	-	NR70
8:2 diPAP (678-41-1)	ug/L	<0.02	<0.02	<0.02	-	NR70



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ANALYSIS	UNITS	24/2558/9	24/2558/10	24/2558/11	24/2558/12	METHODNO
PFAS*						
PFBA (375-22-4)	ug/L	-	-	-	-	NR70
PFPeA (2706-90-3)	ug/L	-	-	-	-	NR70
PFHxA (307-24-4)	ug/L	-	-	-	-	NR70
PFHpA (375-85-9)	ug/L	-	-	-	-	NR70
PFOA (335-67-1)	ug/L	-	-	-	-	NR70
PFNA (375-95-1)	ug/L	-	-	-	-	NR70
PFDA (335-76-2)	ug/L	-	-	-	-	NR70
PFUdA (2058-94-8)	ug/L	-	-	-	-	NR70
PFDoA (307-55-1)	ug/L	-	-	-	-	NR70
PFTTrDA (72629-94-8)	ug/L	-	-	-	-	NR70
PFTeDA (376-06-7)	ug/L	-	-	-	-	NR70
PFHxDA (67905-19-5)	ug/L	-	-	-	-	NR70
PFODO (16517-11-6)	ug/L	-	-	-	-	NR70
FOUEA (70887-84-2)	ug/L	-	-	-	-	NR70
PFDS (335-77-3)	ug/L	-	-	-	-	NR70
PFPeS (2706-91-4)	ug/L	-	-	-	-	NR70
PFHxS (355-46-4)	ug/L	-	-	-	-	NR70
PFHpS (375-92-8)	ug/L	-	-	-	-	NR70
PFOS (1763-23-1)	ug/L	-	-	-	-	NR70
PFNS (68259-12-1)	ug/L	-	-	-	-	NR70
PFBS (375-73-5)	ug/L	-	-	-	-	NR70
PFOSA (754-91-6)	ug/L	-	-	-	-	NR70
N-MeFOSA (31506-32-8)	ug/L	-	-	-	-	NR70
N-EtFOSA (4151-50-2)	ug/L	-	-	-	-	NR70
N-MeFOSAA (2355-31-9)	ug/L	-	-	-	-	NR70
N-EtFOSAA (2991-50-6)	ug/L	-	-	-	-	NR70
N-MeFOSE (24448-09-7)	ug/L	-	-	-	-	NR70
N-EtFOSE (1691-99-2)	ug/L	-	-	-	-	NR70
4:2FTS (757124-72-4)	ug/L	-	-	-	-	NR70
6:2FTS (27619-97-2)	ug/L	-	-	-	-	NR70
8:2FTS (39108-34-4)	ug/L	-	-	-	-	NR70
10:2FTS (120226-60-0)	ug/L	-	-	-	-	NR70
8:2 diPAP (678-41-1)	ug/L	-	-	-	-	NR70



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Comments

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 24th Edition, 2023, APHA. Raw data sheets stating analysis dates are available upon request.

Tests marked with '#' are not covered by NATA Accreditation.

Note: Microbiological results are presumptive.

Measurement Uncertainty is available upon request.

*Analysis conducted by a subcontracted laboratory (NATA Accreditation Number 198) RN1447775.

Note: This amended report replaces previous report emailed on 21/11/24. The PFAS results have been amended after a discrepancy was found in subcontracted lab's initial report.

Report Date: 21/11/24



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Approved:

A handwritten signature in black ink that reads "Shane Ewart".

Shane Ewart
Technical Supervisor
Microbiology and Chemistry

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