

COFFS HARBOUR LABORATORY

Environmental Analysis

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KEMPSEY SHIRE COUNCIL
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BATCH NUMBER: 23/0981
No. of SAMPLES: 12
DATE COLLECTED: 10/05/23
DATE RECEIVED: 10/05/23
TIME RECEIVED: 16:30
DATE TESTING COMMENCED:
10/05/23

REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
23/0981/1	South Kempsey TP
23/0981/2	Crescent Head CW
23/0981/3	Gladstone TP
23/0981/4	Frederickton TP
23/0981/5	South West Rocks CW
23/0981/6	North St Final TP
23/0981/7	Hat Head C Well
23/0981/8	South Kempsey STP Head Wall Day Pond
23/0981/9	Upstream Gladstone TP
23/0981/10	Downstream Gladstone TP
23/0981/11	Upstream Frederickton TP
23/0981/12	Downstream Frederickton TP

ANALYSIS	UNITS	23/0981/1	23/0981/2	23/0981/3	23/0981/4	METHOD NO
pH	pH unit	6.9	7.1	8.3	7.7	APHA 4500-H+ B
Conductivity	$\mu\text{S/cm}$	-	1,010	-	-	APHA 2510 B
Turbidity	NTU	-	1.7	-	-	APHA 2130 B
Transmittance	%	-	-	54.8	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO ₃ /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	<2	3	22	7	APHA 2540 D
Biochem Oxygen Demand (BOD ₅)	mg/L	4	2	5	3	APHA 5210 B



Accredited for compliance with ISO/IEC 17025 - Testing
[Accreditation Numbers: 12359 (Chemical) & 14565 (Microbiological)]

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian and International standards.

ANALYSIS	UNITS	23/0981/1	23/0981/2	23/0981/3	23/0981/4	METHODNO
Nitrate Nitrogen	mg/L	-	12.7	-	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	1.34	1.67	0.28	1.76	APHA 4500-NH3 H
Total Nitrogen	mg/L	5.71	16.9	2.40	7.79	APHA 4500-P J
Total Phosphorus	mg/L	3.94	0.28	6.87	3.67	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	2	EL23A
Chlorophyll-a	µg/L	-	-	58	5	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	345	20	600	260	ELM 3

ANALYSIS	UNITS	23/0981/5	23/0981/6	23/0981/7	23/0981/8	METHODNO
pH	pH unit	7.0	8.8	6.9	-	APHA 4500-H+ B
Conductivity	µS/cm	598	-	1,020	-	APHA 2510 B
Turbidity	NTU	1.0	-	0.60	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	653	-	EL7B
Alkalinity	mg CaCO ₃ /L	42	-	52	-	APHA 2320 B
Total Suspended Solids	mg/L	<2	42	<2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	<2	12	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	4.29	3.27	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	0.68	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	<0.02	0.11	<0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	5.46	9.04	3.84	-	APHA 4500-P J
Total Phosphorus	mg/L	0.63	0.24	0.03	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	186	-	-	APHA 10200 H
Potassium	mg/L	16	-	23	-	EL9A
Chloride	mg/L	93	-	119	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	90	3	16,000	ELM 3



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ANALYSIS	UNITS	23/0981/9	23/0981/10	23/0981/11	23/0981/12	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-NO3 I
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	34	70	96	52	ELM 3

Comments

Sample(s) collected by client and analysed as received in accordance with "Standard Methods for the Examination of Water & Wastewater", 23rd Edition, 2017, 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.

Thermotolerant Coliforms are equivalent to Faecal Coliforms.

Report Date: 18/05/23



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Approved:

Shane Ewart
Technical Supervisor
Microbiology and Chemistry

The results of the tests, calibrations and/or measurements included in this document are traceable to Australia