

# COFFS HARBOUR LABORATORY

## Environmental Analysis

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KEMPSEY SHIRE COUNCIL  
BARRY YOUNG  
P.O. BOX 78  
WEST KEMPSEY NSW 2440

BATCHNUMBER: 22/2316  
No. of SAMPLES: 12  
DATE COLLECTED: 09/11/22  
DATE RECEIVED: 09/11/22  
TIME RECEIVED: 16:35  
DATE TESTING COMMENCED:  
09/11/22

### REPORT OF ANALYSIS

SAMPLE REFERENCE	SAMPLE DESCRIPTION
22/2316/1	South Kempsey TP
22/2316/2	Crescent Head CW
22/2316/3	Gladstone TP
22/2316/4	Frederickton TP
22/2316/5	South West Rocks CW
22/2316/6	North St Final TP
22/2316/7	Hat Head C Well
22/2316/8	South Kempsey STP Head Wall Day Pond
22/2316/9	Upstream Gladstone TP
22/2316/10	Downstream Gladstone TP
22/2316/11	Upstream Frederickton TP
22/2316/12	Downstream Frederickton TP

ANALYSIS	UNITS	22/2316/1	22/2316/2	22/2316/3	22/2316/4	METHOD NO
pH	pH unit	7.0	7.2	7.5	7.9	APHA 4500-H+ B
Conductivity	$\mu\text{S/cm}$	-	726	-	-	APHA 2510 B
Turbidity	NTU	-	1.5	-	-	APHA 2130 B
Transmittance	%	-	-	57.2	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	-	-	EL7B
Alkalinity	mg CaCO <sub>3</sub> /L	-	-	-	-	APHA 2320 B
Total Suspended Solids	mg/L	7	10	13	7	APHA 2540 D
Biochem Oxygen Demand (BOD <sub>5</sub> )	mg/L	3	<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	22/2316/1	22/2316/2	22/2316/3	22/2316/4	METHODNO
Nitrate Nitrogen	mg/L	-	0.04	-	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	-	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	4.25	0.83	0.05	0.12	APHA 4500-NH3 H
Total Nitrogen	mg/L	5.09	2.04	1.49	1.75	APHA 4500-P J
Total Phosphorus	mg/L	2.82	0.20	5.98	4.49	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	<2	EL23A
Chlorophyll-a	µg/L	-	-	46	61	APHA 10200 H
Potassium	mg/L	-	-	-	-	EL9A
Chloride	mg/L	-	-	-	-	EL10
Arsenic	mg/L	-	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	5,600	5	25	200	ELM 3

ANALYSIS	UNITS	22/2316/5	22/2316/6	22/2316/7	22/2316/8	METHODNO
pH	pH unit	7.1	7.2	7.4	-	APHA 4500-H+ B
Conductivity	µS/cm	546	-	924	-	APHA 2510 B
Turbidity	NTU	2.2	-	0.70	-	APHA 2130 B
Transmittance	%	-	-	-	-	APHA 5910
Total Dissolved Solids	mg/L	-	-	591	-	EL7B
Alkalinity	mg CaCO <sub>3</sub> /L	55	-	123	-	APHA 2320 B
Total Suspended Solids	mg/L	6	31	2	-	APHA 2540 D
Biochem Oxygen Demand (BOD5)	mg/L	2	9	<2	-	APHA 5210 B
Nitrate Nitrogen	mg/L	-	1.67	0.81	-	APHA 4500-NO3I
Nitrite Nitrogen	mg/L	-	0.30	-	-	APHA 4500-NO 2
Ammonia Nitrogen	mg/L	0.09	0.75	<0.02	-	APHA 4500-NH3 H
Total Nitrogen	mg/L	4.57	5.58	1.56	-	APHA 4500-P J
Total Phosphorus	mg/L	1.24	0.58	0.10	-	APHA 4500-P J
Oil & Grease	mg/L	<2	<2	<2	-	EL23A
Chlorophyll-a	µg/L	-	268	-	-	APHA 10200 H
Potassium	mg/L	16	-	23	-	EL9A
Chloride	mg/L	84	-	121	-	EL10
Arsenic	mg/L	<0.012	-	-	-	EL9A
Thermotolerant Coliforms	cfu/100mL	0	55	0	360	ELM 3



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ANALYSIS	UNITS	22/2316/9	22/2316/10	22/2316/11	22/2316/12	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 <sub>3</sub> /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	100	135	130	165	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: 21/11/22



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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