

# **CERTIFICATE OF ANALYSIS**

Telephone

**Work Order** Page : EW2000329 : 1 of 5

Client Laboratory MERRY BEACH CARAVAN PARK : Environmental Division NSW South Coast

Contact : David Jansen Contact : Glenn Davies

Address Address : Merry Beach Rd : 1/19 Ralph Black Dr, North Wollongong 2500

4/13 Geary PI, North Nowra 2541

Accreditation No. 825

Accredited for compliance with ISO/IEC 17025 - Testing

· 04-Feb-2020 15:52

Australia NSW Australia

: +61 2 4225 3125 **Project Date Samples Received** : Merry Beach Monitoring : 22-Jan-2020 16:23

Order number : P0501061 **Date Analysis Commenced** : 22-Jan-2020

C-O-C number Issue Date

Site : Merry Beach

: WO/010/16 Quote number No. of samples received : 12

No. of samples analysed : 12

Kioloa NSW 2539

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

General Comments

Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with **Quality Review and Sample Receipt Notification.** 

### Signatories

Telephone

Sampler

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	Position	Accreditation Category		

Ankit Joshi Inorganic Chemist Sydney Inorganics, Smithfield, NSW Ashesh Patel Senior Chemist Sydney Inorganics, Smithfield, NSW

Geetha Ramasundara Chemistry Teamleader Inorganics, Fyshwick, ACT Glenn Davies **Environmental Services Representative** Laboratory - Wollongong, NSW

Sarah Griffiths Sydney Microbiology, Smithfield, NSW Microbiologist

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#### **General Comments**

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When sampling time information is not provided by the client, sampling dates are shown without a time component. In these instances, the time component has been assumed by the laboratory for processing purposes.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key: CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.

LOR = Limit of reporting

- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- MF = membrane filtration
- CFU = colony forming unit
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 100cfu.
- Microbiological Comment: According to ALS work instruction for membrane filtration, the suggested volume for filtration of non-treated / non-drinking water starts from 50 mL if the sample is turbid. A result of <2 cfu/100 mL is reported when there is no target organism growth from a volume of 50 mL. It may be informative to record this fact.</li>

Microbiological Comment: The samples were tested out of holding time. It may be informative to record this fact.

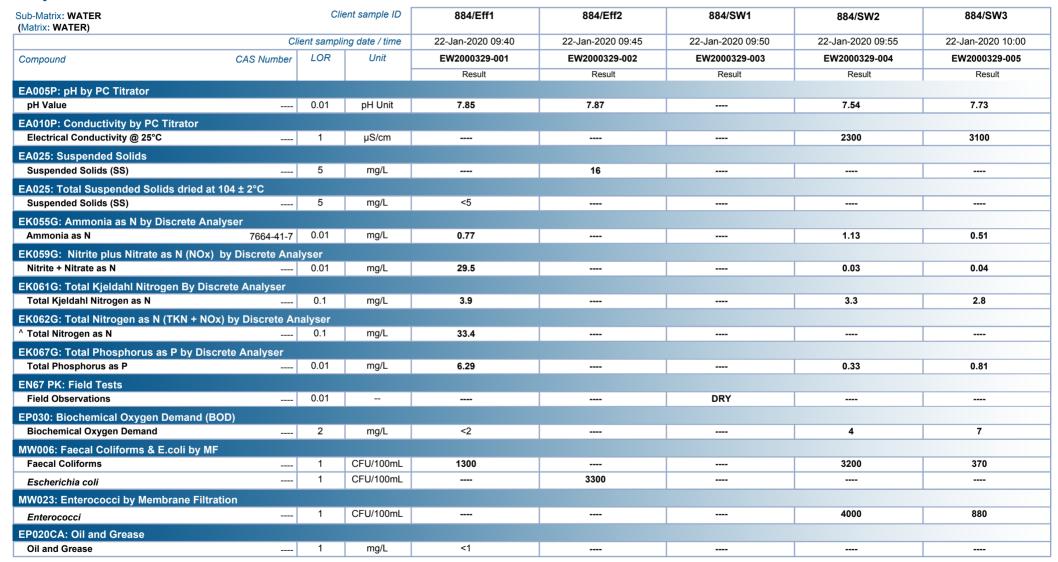
- Microbiological Comment: Membrane filtration results are reported as estimate (~) due to the presence of many non-target organism colonies that may have inhibited the growth of the target organisms on the filter membrane. It may be informative to record this fact.
- EP030 : The residue DO is less than 1 mg/L for sample 12, this indicates that the sample has not been diluted enough. The result reported is estimated from the greatest dilution.
- EW2000329-003: A sample was not able to be taken for analysis due to the site being dry.
- Field data supplied by ALS Wollongong.
- MW023 is ALS's internal code and is equivalent to AS4276.9.
- MW006 is ALS's internal code and is equivalent to AS4276.7.

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## **Analytical Results**





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## **Analytical Results**





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# Analytical Results



Sub-Matrix: WATER (Matrix: WATER)	Client sample ID			884/GW6	Influent					
	Client sampling date / time			22-Jan-2020 11:25	22-Jan-2020 09:42					
Compound	CAS Number	LOR	Unit	EW2000329-011	EW2000329-012					
				Result	Result					
EA005P: pH by PC Titrator										
pH Value		0.01	pH Unit	7.22	7.95					
EA010P: Conductivity by PC Titrator										
Electrical Conductivity @ 25°C		1	μS/cm	1670						
EA025: Total Suspended Solids dried a	t 104 ± 2°C									
Suspended Solids (SS)		5	mg/L		3880					
EK055G: Ammonia as N by Discrete Analyser										
Ammonia as N	7664-41-7	0.01	mg/L	0.34	17.6					
EK059G: Nitrite plus Nitrate as N (NOx	) by Discrete Ana	lyser								
Nitrite + Nitrate as N		0.01	mg/L	2.13	0.10					
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser										
Total Kjeldahl Nitrogen as N		0.1	mg/L	2.6	226					
EK062G: Total Nitrogen as N (TKN + NO	Ox) by Discrete An	alyser								
^ Total Nitrogen as N		0.1	mg/L		226					
EK067G: Total Phosphorus as P by Discrete Analyser										
Total Phosphorus as P		0.01	mg/L	0.19	131					
EP030: Biochemical Oxygen Demand (I	BOD)									
Biochemical Oxygen Demand		2	mg/L	7	156					
MW006: Faecal Coliforms & E.coli by M	F									
Faecal Coliforms		1	CFU/100mL	~6	6800000					
Escherichia coli		1	CFU/100mL		6800000					
MW023: Enterococci by Membrane Filti	ration							1		
Enterococci		1	CFU/100mL	32						
								<u> </u>		
EP020CA: Oil and Grease Oil and Grease		1	mg/L		<1					
On and Grease		ı	IIIg/L							