

MOSSVALE NSW

AUSTRALIA

CERTIFICATE OF ANALYSIS

Work Order : **EW2100481** Page : 1 of 5

Client : WINGECARRIBEE SHIRE COUNCIL Laboratory : Environmental Division NSW South Coast

Contact : Helen Harrison Contact : Tyler Anderson

Address : PO BOX 141 Address : 1/19 Ralph Black Dr, North Wollongong 2500

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Australia NSW Australia

Telephone : +61 2 8784 8555

Project : RRC Quarterly Date Samples Received : 03-Feb-2021 15:40

Order number : ---- Date Analysis Commenced : 03-Feb-2021

C-O-C number : ---- Issue Date : 09-Feb-2021 16:27

Sampler : Robert DaLio

Site : ----

Quote number : WO/067/12

No. of samples received : 6
No. of samples analysed : 6



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted, unless the sampling was conducted by ALS. 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

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 Ivan Taylor Analyst Sydney Inorganics, Smithfield, NSW Robert DaLio Sampler Laboratory - Wollongong, NSW

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General Comments

The analytical procedures used by ALS have been developed from established internationally recognised procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are fully validated and are often at the 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

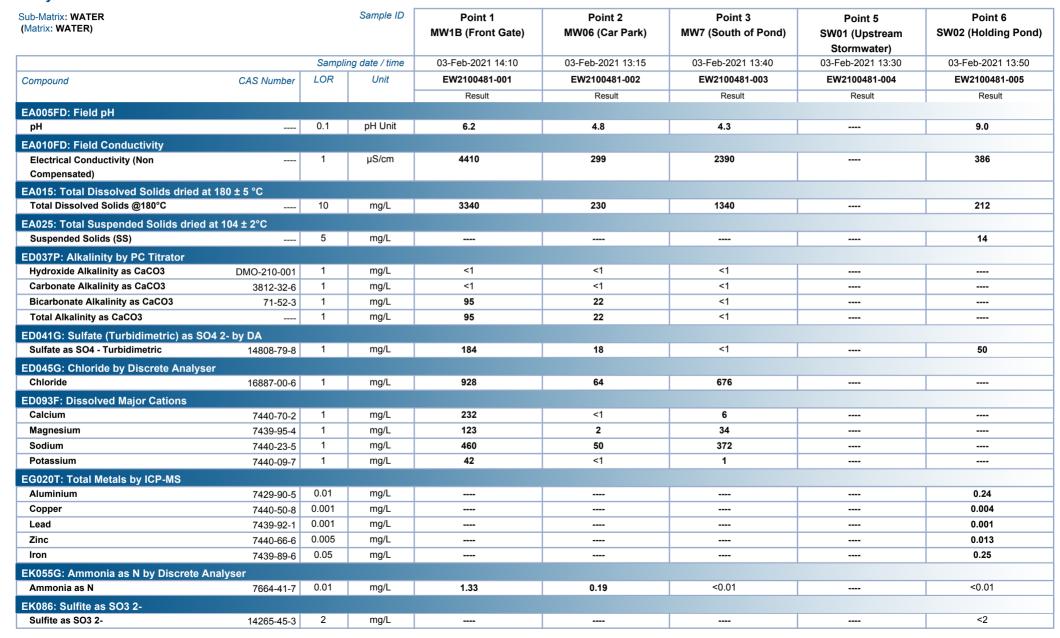
- ^ = This result is computed from individual analyte detections at or above the level of reporting
- ø = ALS is not NATA accredited for these tests.
- ~ = Indicates an estimated value.
- Analytical work for this work order will be conducted at ALS Sydney.
- TDS by method EA-015 may bias high for various samples due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- Ionic Balance out of acceptable limits due to analytes not quantified in this report.
- pH performed by ALS Wollongong via in-house method EA005FD and EN67 PK.
- Electrical conductivity performed by ALS Wollongong via in-house method EA010FD and EN67 PK.
- Sampling and groundwater depth measurements completed by ALS Wollongong via inhouse sampling method EN/67.11 Groundwater Sampling.
- All field analysis performed by ALS Wollongong were completed at the time of sampling.
- Sampling completed by ALS Wollongong in accordace with in-house sampling method EN/67.4 Lakes and Reservoirs
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.

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Analytical Results



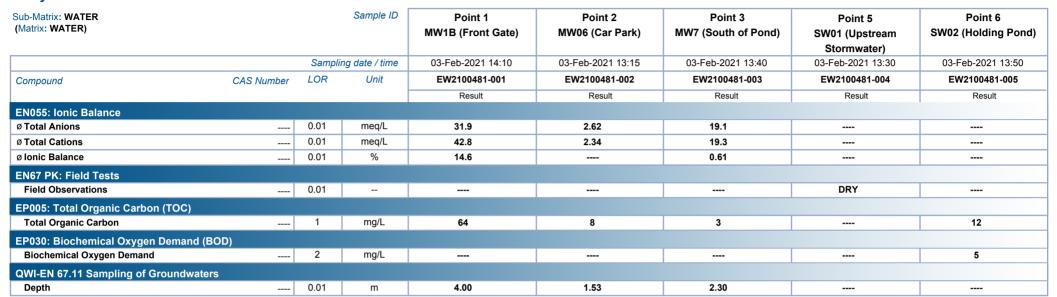


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Analytical Results





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Analytical Results



Sub-Matrix: WATER (Matrix: WATER)			Sample ID	Point 7 SW03 (Polishing				
Compline data / time				Pond)				
Sampling date / time				03-Feb-2021 13:45				
Compound	CAS Number	LOR	Unit	EW2100481-006			*******	
				Result				
EA005FD: Field pH								
pH		0.1	pH Unit	8.4				
EA010FD: Field Conductivity								
Electrical Conductivity (Non		1	μS/cm	1410				
Compensated)								
EA025: Total Suspended Solids dried at 104 ± 2°C								
Suspended Solids (SS)		5	mg/L	88				
EK055G: Ammonia as N by Discrete Analy	/ser							
Ammonia as N	7664-41-7	0.01	mg/L	0.27				
EP005: Total Organic Carbon (TOC)								
Total Organic Carbon		1	mg/L	38				
EP030: Biochemical Oxygen Demand (BO	D)							
Biochemical Oxygen Demand		2	mg/L	4				

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry) 14913 (Biology).

(WATER) EP005: Total Organic Carbon (TOC)

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) ED045G: Chloride by Discrete Analyser

(WATER) ED041G: Sulfate (Turbidimetric) as SO4 2- by DA

(WATER) ED037P: Alkalinity by PC Titrator

(WATER) ED093F: Dissolved Major Cations

(WATER) EA015: Total Dissolved Solids dried at 180 \pm 5 °C

(WATER) EN055: Ionic Balance

(WATER) EP030: Biochemical Oxygen Demand (BOD)

(WATER) EA025: Total Suspended Solids dried at 104 ± 2°C

(WATER) EK086: Sulfite as SO3 2-

(WATER) EG020T: Total Metals by ICP-MS