



## CERTIFICATE OF ANALYSIS

Work Order	: CA2401684	Page	: 1 of 3
Client	: Department of Planning and Environment (DPIE)	Laboratory	: ALS Water Resources Group
Contact	: Mark Bradshaw	Contact	: Client Services
Address	: 21 Harris Street Tumut NSW 2720 NSW 2720	Address	: 2/33 Couranga Cr Hume ACT Australia 2620
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Project	: Cootamundra	Date Samples Received	: 12-Mar-2024 08:30
Order number	:	Date Analysis Commenced	: 13-Mar-2024
C-O-C number	: ----	Issue Date	: 21-Mar-2024 16:02
Sampler	: ----		
Site	: ----		
Quote number	: ----		
No. of samples received	: 4		
No. of samples analysed	: 4		



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
Amanda Gonzalez	Laboratory Technician	Inorganics, Hume, ACT
Clare Kennedy	Analyst	Inorganics, Hume, ACT
Geetha Ramasundara	Chemistry Teamleader	Inorganics, Hume, ACT
Titus Vimalasiri	Metals Teamleader	Inorganics, Hume, ACT



## 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 Contract 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.

- For samples collected by ALS WRG, sampling was carried out in accordance with Procedure EN67
- Result for pH in water tested in the laboratory may be indicative only as holding time is generally not achievable.



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	CW1 Offtake 1	CW2 Jubilee Park	CW3 Albert Park	CW4 Offtake 2	----
Sampling date / time					11-Mar-2024 00:00	11-Mar-2024 00:00	11-Mar-2024 00:00	11-Mar-2024 00:00	----
Compound	CAS Number	LOR	Unit		CA2401684-001	CA2401684-002	CA2401684-003	CA2401684-004	-----
					Result	Result	Result	Result	----
<b>EA005CA: pH</b>									
pH	----	0.01	pH Unit		7.73	7.73	7.74	7.70	----
<b>EA010CA: Conductivity</b>									
Electrical Conductivity @ 25°C	----	2	µS/cm		277	297	304	308	----
<b>EA041CA: Colour - True</b>									
Colour (True)	----	1	PCU		2	1	2	1	----
<b>EA045CA: Turbidity</b>									
Turbidity	----	0.1	NTU		0.4	0.5	1.2	0.4	----
<b>EA043CA: UV Absorbance - Filtered</b>									
ø UV Absorbance @ 254nm	----	0.01	AU		0.03	0.04	0.03	0.03	----
<b>ED037CA: Alkalinity</b>									
Hydroxide Alkalinity as CaCO3	DMO-210-001	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	----
Carbonate Alkalinity as CaCO3	3812-32-6	0.1	mg/L		<0.1	<0.1	<0.1	<0.1	----
Bicarbonate Alkalinity as CaCO3	71-52-3	0.1	mg/L		74.2	73.3	95.4	81.7	----
Total Alkalinity as CaCO3	----	1	mg/L		74	73	95	82	----
<b>EP002CA: Dissolved Organic Carbon</b>									
ø Dissolved Organic Carbon (as NPOC)	----	1	mg/L		2	3	4	5	----
<b>ED009CA: Anions</b>									
Chloride	16887-00-6	0.1	mg/L		13.7	16.8	18.0	20.7	----
<b>EG005CA: Total Metals by ICP-OES</b>									
Aluminium	7429-90-5	0.02	mg/L		0.05	0.06	0.05	0.05	----
Iron	7439-89-6	0.02	mg/L		<0.02	<0.02	0.18	<0.02	----
Manganese	7439-96-5	0.001	mg/L		0.008	0.024	0.033	0.013	----
<b>EA066CA: Calcium Hardness as CaCO3</b>									
ø Calcium Hardness as CaCO3	----	1	mg/L		40	41	40	40	----
<b>EA065CA: Total Hardness</b>									
ø Total Hardness as CaCO3	----	1	mg/L		68	69	68	68	----