

CERTIFICATE OF ANALYSIS

Work Order	: WN2115149	Page	: 1 of 2			
Client		Laboratory	: ALS Water - Newcastle			
Contact		Contact	: Andrea Swan			
Address	: 59 Binnia Street	Address : 5/585 Maitland Road Newcastle West NSW Australia 2				
	COOLAH NSW 2843					
Telephone	: 0268492000	Telephone	: +61 2 4014 2500			
Project	: Coolah STP - EPL 4445	Date Samples Received	: 24-Dec-2021 08:45	AND DR.		
Order number	:	Date Analysis Commenced	: 24-Dec-2021			
C-O-C number	:	Issue Date	: 30-Dec-2021 16:48			
Sampler				Hac-MRA NATA		
Site	:					
Quote number	: WN Blanket Quote			Accreditation No. 825		
No. of samples received	: 1			Accredited for compliance with		
No. of samples analysed	: 1			ISO/IEC 17025 - Testing		

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
Gregory Towers	Technical Officer	Chemistry, Newcastle West, NSW
Ruby Buller	Laboratory Technician	Chemistry, Newcastle West, NSW



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.

 \sim = Indicates an estimated value.

• EP021: Oil and Grease LOR has been raised due to insufficient sample volume provided for standard analysis. 1L is required for standard analysis.

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	Effluent Coolah point 4					
Sampling date / time				21-Dec-2021 14:30					
Compound	CAS Number	LOR	Unit	WN2115149-001					
				Result					
EA005: pH									
pH Value		0.01	pH Unit	9.08					
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)		1	mg/L	88					
EK062A: Total Nitrogen as N									
Total Nitrogen as N		0.1	mg/L	7.5					
EK067A: Total Phosphorus as P									
Total Phosphorus as P		0.05	mg/L	2.10					
EP021: Total Oil and Grease									
Total Oil and Grease		2	mg/L	<4					
EP030.WN: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand		2	mg/L	35					