

CERTIFICATE OF ANALYSIS

Work Order	: WN2206515	Page	: 1 of 3			
Client		Laboratory	: ALS Water - Newcastle			
Contact	: Luke Renshaw	Contact	: Andrea Swan			
Address	: 137-139 OBERON STREET OBERON NSW,AUSTRALIA 2787	Address	: 5/585 Maitland Road Newcastle West NSW Australia 2304			
Telephone	:	Telephone	: +61 2 4014 2500			
Project	: OBERON WASTE WATER	Date Samples Received	: 07-Jun-2022 09:00	AMUUD.		
Order number	: 16075	Date Analysis Commenced	: 07-Jun-2022			
C-O-C number	:	Issue Date	: 14-Jun-2022 18:09			
Sampler	: Luke Renshaw		形	IC-MRA NATA		
Site	:					
Quote number	: WN Blanket Quote			Accreditation No. 825		
No. of samples received	: 4			Accreditation No. 825		
No. of samples analysed	: 4			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		
Andrea Hropot	Technical Assistant	Microbiology, Newcastle West, NSW		
Gregory Towers	Technical Officer	Chemistry, Newcastle West, NSW		
Neil Martin	Team Leader - Chemistry	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 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.

• Holding time was not met. Therefore Microbiological result may be indicative.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	ExPond Works Discharge EMP1	Up-Stream EMP3	Down-Stream EMP4	ExPond Works Discharge EMP1	
		Sampli	ing date / time	06-Jun-2022 09:15	06-Jun-2022 09:00	06-Jun-2022 09:30	06-Jun-2022 10:30	
Compound	CAS Number	LOR	Unit	WN2206515-001	WN2206515-002	WN2206515-003	WN2206515-004	
				Result	Result	Result	Result	
EA005: pH								
pH Value		0.01	pH Unit	7.73	7.41	7.38		
EA025: Total Suspended Solids dried at	t 104 ± 2°C							
Suspended Solids (SS)		5	mg/L	<5				
EK055A: Ammonia as N								
Ammonia as N	7664-41-7	0.05	mg/L	1.32				
EK059A: Nitrite and Nitrate as N (NOx)								
Nitrite + Nitrate as N		0.05	mg/L	7.28	0.14	0.34		
EK061A: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N		0.2	mg/L	3.3	0.6	0.6		
EK062A: Total Nitrogen as N								
Total Nitrogen as N		0.1	mg/L	10.6	0.8	0.9		
EK067A: Total Phosphorus as P								
Total Phosphorus as P		0.05	mg/L	0.41	0.05	0.07		
EP008.WN: Chlorophyll a and Pheophyl	tin a							
Chlorophyll a		1.0	µg/L	2.7				
EP021: Total Oil and Grease								
Total Oil and Grease		2	mg/L	<2				
EP030.WN: Biochemical Oxygen Demar	nd (BOD)							
Biochemical Oxygen Demand		2	mg/L	2				
MW006.WN: Thermotolerant Coliforms	& E coli (ME)							
Faecal Coliforms	<u></u>	1	CFU/100mL				260	