

# **CERTIFICATE OF ANALYSIS**

Work Order	ES2043490	Page	: 1 of 4				
Client	: INTEGRA WATER TREATMENT SOLUTIONS	Laboratory	: Environmental Division Sydney				
Contact	: Sample Results	Contact	: Customer Services ES				
Address	: UNIT B 195 Port Hacking Rd.	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164				
	MIRANDA NSW, AUSTRALIA 2228						
Telephone	:	Telephone	: +61-2-8784 8555				
Project	: Alexander Downs Wholesale Meats	Date Samples Received	: 08-Dec-2020 12:23				
Order number	:	Date Analysis Commenced	: 08-Dec-2020				
C-O-C number	:	Issue Date	: 15-Dec-2020 16:18				
Sampler	: JEFF MOULDS		Hac-MRA NATA				
Site	: AD/Kurri Meats						
Quote number	: EN/222		Accreditation No. 825				
No. of samples received	: 4		Accredited for compliance with				
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
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, 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 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.

• EK058G: LOR raised for Nitrate on sample 4 due to sample matrix.

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.</li>



## Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	wastewater treatment plant in	wastewater treatment plant out	Pond Number 2	Pond Number 3	
	Sampling date / time			08-Dec-2020 10:00	08-Dec-2020 00:00	08-Dec-2020 00:00	08-Dec-2020 00:00	
Compound	CAS Number	LOR	Unit	ES2043490-001	ES2043490-002	ES2043490-003	ES2043490-004	
				Result	Result	Result	Result	
EA005: pH								
pH Value		0.01	pH Unit	6.92	7.20	7.42	7.69	
EA006: Sodium Adsorption Ratio (S	AR)							
^ Sodium Adsorption Ratio		0.01	-				7.24	
EA010P: Conductivity by PC Titrato	r							
Electrical Conductivity @ 25°C		1	µS/cm	1380	1300	1240	1430	
EA015: Total Dissolved Solids dried	at 180 ± 5 °C							
Total Dissolved Solids @180°C		10	mg/L				732	
EA025: Total Suspended Solids drie	d at 104 ± <u>2°C</u>							
Suspended Solids (SS)		5	mg/L	1200	578	1240	162	
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L				18	
Magnesium	7439-95-4	1	mg/L				8	
Sodium	7440-23-5	1	mg/L				147	
EK055G: Ammonia as N by Discrete	Analyser							
Ammonia as N	7664-41-7	0.01	mg/L				57.5	
EK057G: Nitrite as N by Discrete Ar	alyser							
Nitrite as N	14797-65-0	0.01	mg/L				0.71	
EK058G: Nitrate as N by Discrete A	nalyser							
Nitrate as N	14797-55-8	0.01	mg/L				<0.10	
EK059G: Nitrite plus Nitrate as N (N	Ox) by Discrete Anal	lyser						
Nitrite + Nitrate as N		0.01	mg/L				0.78	
EK061G: Total Kjeldahl Nitrogen By	Discrete Analyser							
Total Kjeldahl Nitrogen as N		0.1	mg/L				75.2	
EK062G: Total Nitrogen as N (TKN +	NOx) by Discrete An	alyser						
^ Total Nitrogen as N		0.1	mg/L				76.0	
EK067G: Total Phosphorus as P by	Discrete Analys <u>er</u>							
Total Phosphorus as P		0.01	mg/L				3.81	
EP020: Oil and Grease (O&G)								
Oil & Grease		5	mg/L				<5	
EP030: Biochemical Oxygen Deman	d (BOD)							
Biochemical Oxygen Demand		2	mg/L				51	
EP030: Carbonaceous Biochemical	Oxygen Demand (CB	OD)						
CBOD		2	mg/L				30	



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Sub-Matrix: WATER (Matrix: WATER)		S	ample ID	wastewater treatment plant in	wastewater treatment plant out	Pond Number 2	Pond Number 3	
		Sampling da	ate / time	08-Dec-2020 10:00	08-Dec-2020 00:00	08-Dec-2020 00:00	08-Dec-2020 00:00	
Compound	CAS Number	LOR	Unit	ES2043490-001	ES2043490-002	ES2043490-003	ES2043490-004	
				Result	Result	Result	Result	
EP030: Carbonaceous Biochemical Oxygen Demand (CBOD) - Continued								