



CERTIFICATE OF ANALYSIS

Work Order : **ES2509741**
Client : **INTEGRA WATER TREATMENT SOLUTIONS**
Contact : Liam Moore
Address : UNIT B 195 PORT HACKING ROAD
MIRANDA NSW, AUSTRALIA 2228
Telephone : ----
Project : Alexander Downs Wholesale Meats - MARCH 2025 sample event
Order number : ----
C-O-C number : ----
Sampler : MICHAEL AXE
Site : AD/ Kurri Meats
Quote number : EN/222
No. of samples received : 4
No. of samples analysed : 4

Page : 1 of 4
Laboratory : Environmental Division Sydney
Contact : Wael Saleh
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone : +61 2 8784 8555
Date Samples Received : 04-Apr-2025 15:20
Date Analysis Commenced : 05-Apr-2025
Issue Date : 10-Apr-2025 17:31



Accreditation No. 825
Accredited for compliance with
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	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, 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.

- EK057G, EK041G: LOR raised for Nitrite and Sulfate due to sample matrix.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H⁺ to the Cations and Nitrate, SiO₂ and Fluoride to the Anions.
- It has been noted that Nitrite is greater than NO_x, however this difference is within the limits of experimental variation.
- EK059G: LOR raised for NO_x due to sample matrix.
- TDS by method EA-015 sample 1 may bias high due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- 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.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	waste water treatment plant in	waste water treatment plant out	Pond Number 2	Pond Number 3	----
Sampling date / time				04-Apr-2025 12:20	04-Apr-2025 12:35	04-Apr-2025 12:45	04-Apr-2025 13:00	----	
Compound	CAS Number	LOR	Unit	ES2509741-001	ES2509741-002	ES2509741-003	ES2509741-004	-----	
				Result	Result	Result	Result	----	
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit	7.31	7.32	7.66	7.96	----	
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm	1930	2060	1720	1740	----	
EA015: Total Dissolved Solids dried at 180 ± 5 °C									
Total Dissolved Solids @180°C	----	10	mg/L	1560	1380	876	873	----	
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	844	650	160	22	----	
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	DMO-210-001	1	mg/L	<1	<1	<1	<1	----	
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	----	
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	703	790	701	701	----	
Total Alkalinity as CaCO3	----	1	mg/L	703	790	701	701	----	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	13	19	181	----	
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L	168	136	126	122	----	
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L	12	14	19	21	----	
Magnesium	7439-95-4	1	mg/L	9	9	8	10	----	
Sodium	7440-23-5	1	mg/L	198	166	160	174	----	
Potassium	7440-09-7	1	mg/L	126	93	89	86	----	
ED093F: SAR and Hardness Calculations									
^ Sodium Adsorption Ratio	----	0.01	-	10.5	8.51	7.76	7.82	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	64.5	96.2	84.0	75.6	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.10	<0.01	0.02	0.02	----	
EK058G: Nitrate as N by Discrete Analyser									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	waste water treatment plant in	waste water treatment plant out	Pond Number 2	Pond Number 3	----
Sampling date / time					04-Apr-2025 12:20	04-Apr-2025 12:35	04-Apr-2025 12:45	04-Apr-2025 13:00	----
Compound	CAS Number	LOR	Unit		ES2509741-001	ES2509741-002	ES2509741-003	ES2509741-004	-----
					Result	Result	Result	Result	----
EK058G: Nitrate as N by Discrete Analyser - Continued									
Nitrate as N	14797-55-8	0.01	mg/L		<0.10	0.02	<0.01	0.04	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.10	0.02	0.01	0.06	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		175	147	99.1	77.9	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		175	147	99.1	78.0	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		40.5	18.0	6.82	3.66	----
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L		18.8	19.9	18.0	21.2	----
∅ Total Cations	----	0.01	meq/L		17.8	18.5	16.9	17.5	----
∅ Ionic Balance	----	0.01	%		2.76	3.56	2.98	9.68	----
EP020: Oil and Grease (O&G)									
Oil & Grease	----	5	mg/L		50	17	<5	7	----
EP026SP: Chemical Oxygen Demand (Spectrophotometric)									
Chemical Oxygen Demand	----	10	mg/L		3280	1730	392	187	----
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		773	523	64	38	----