CERTIFICATE OF ANALYSIS

Work Order	: **CA2203152**	Page	: 1 of 4
Client	: **Southern Meats**	Laboratory	: ALS Water Resources Group
Contact	: Andy Grealy	Contact	: Client Services
Address	: Mazamet Road Goulburn NSW 2580	Address	: 16B Lithgow Street Fyshwick ACT Australia 2609
Telephone	: 02 4824 0000	Telephone	: +61 2 6202 5404
Project	: ----	Date Samples Received	: 06-May-2022 10:30
Order number	: ----	Date Analysis Commenced	: 06-May-2022
C-O-C number	: ----	Issue Date	: 17-May-2022 16:32
Sampler	: ----		
Site	: ----		
Quote number	: ----		
No. of samples received	: 8		
No. of samples analysed	: 8		

Accreditation No. 992
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*
Clare Kennedy	Analyst	Inorganics, Fyshwick, ACT
Geetha Ramasundara	Chemistry Teamleader	Inorganics, Fyshwick, ACT
Jing Zeng	Analyst	Inorganics, Fyshwick, ACT
Titus Vimalasiri	Metals Teamleader	Inorganics, Fyshwick, 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	1 EX DAFF	2 EX ANAEROBIC	3 AEROBIC	4 SETTLING POND 2	5 STORAGE DAM 1
			Sampling date / time	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00
Compound	CAS Number	LOR	Unit	CA2203152-001	CA2203152-002	CA2203152-003	CA2203152-004	CA2203152-005
				Result	Result	Result	Result	Result
EA005CA: pH								
pH	----	0.01	pH Unit	7.21	7.41	7.79	8.00	7.96
EA010CA: Conductivity								
Electrical Conductivity @ 25°C	----	2	µS/cm	2120	2840	3330	3250	2300
ED009CA: Anions								
Chloride	16887-00-6	0.1	mg/L	127	105	124	126	147
EA015CA: Total Dissolved Solids								
Total Dissolved Solids	----	10	mg/L	2200	1070	1240	1210	1020
EA025CA: Suspended Solids								
Suspended Solids (SS)	----	2	mg/L	2590	1910	372	324	132
EP030CA: Biochemical Oxygen Demand								
Biochemical Oxygen Demand	----	2	mg/L	3320	158	228	163	31
EP026CA: Chemical Oxygen Demand								
Chemical Oxygen Demand	----	5	mg/L	6810	2300	805	735	340
EK059CA: Nitrite plus Nitrate as N								
Nitrite + Nitrate as N	----	0.05	mg/L N	<0.05	<0.05	<0.05	<0.05	1.76
EK061CA: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	315	300	283	274	134
EK062CA: Total Nitrogen as N								
Total Nitrogen as N	----	0.05	mg/L N	315	300	283	274	136
EK067CA: Total Phosphorus as P								
Total Phosphorus as P	----	0.01	mg/L P	51.0	43.6	38.1	37.9	28.0
EG005CA: Dissolved Metals by ICP-OES								
Calcium	7440-70-2	0.10	mg/L	2.05	20.5	26.3	24.4	29.6
Magnesium	7439-95-4	0.10	mg/L	4.61	14.1	16.8	15.4	19.9
Sodium	7440-23-5	0.1	mg/L	313	256	302	272	239
EA006CA: Sodium Adsorption Ratio								
ø Sodium Adsorption Ratio	----	0.01	-	27.7	10.7	11.3	10.6	8.33

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	6 STORAGE DAM 2	7 RUNOFF DAM 1	8 RUNOFF DAM 2	----	----
			Sampling date / time	06-May-2022 00:00	06-May-2022 00:00	06-May-2022 00:00	----	----
Compound	CAS Number	LOR	Unit	CA2203152-006	CA2203152-007	CA2203152-008	--------	--------
				Result	Result	Result	----	----
EA005CA: pH								
pH	----	0.01	pH Unit	8.03	8.11	7.80	----	----
EA010CA: Conductivity								
Electrical Conductivity @ 25°C	----	2	µS/cm	2240	696	734	----	----
ED009CA: Anions								
Chloride	16887-00-6	0.1	mg/L	106	64.6	76.6	----	----
EA015CA: Total Dissolved Solids								
Total Dissolved Solids	----	10	mg/L	1020	502	510	----	----
EA025CA: Suspended Solids								
Suspended Solids (SS)	----	2	mg/L	157	12	15	----	----
EP030CA: Biochemical Oxygen Demand								
Biochemical Oxygen Demand	----	2	mg/L	30	<2	<2	----	----
EP026CA: Chemical Oxygen Demand								
Chemical Oxygen Demand	----	5	mg/L	321	126	142	----	----
EK059CA: Nitrite plus Nitrate as N								
Nitrite + Nitrate as N	----	0.05	mg/L N	1.50	0.60	0.06	----	----
EK061CA: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N	----	0.05	mg/L N	104	4.39	4.27	----	----
EK062CA: Total Nitrogen as N								
Total Nitrogen as N	----	0.05	mg/L N	106	4.99	4.33	----	----
EK067CA: Total Phosphorus as P								
Total Phosphorus as P	----	0.01	mg/L P	29.4	10.5	7.05	----	----
EG005CA: Dissolved Metals by ICP-OES								
Calcium	7440-70-2	0.10	mg/L	27.7	18.0	14.6	----	----
Magnesium	7439-95-4	0.10	mg/L	17.8	12.2	10.7	----	----
Sodium	7440-23-5	0.1	mg/L	236	109	125	----	----
EA006CA: Sodium Adsorption Ratio								
ø Sodium Adsorption Ratio	----	0.01	-	8.62	4.88	6.04	----	----