

CERTIFICATE OF ANALYSIS

Work Order : CA2103318 Page : 1 of 4

Client Laboratory : Southern Meats : ALS Water Resources Group

Contact : Andy Grealy Contact : Client Services

Address Address : 16B Lithgow Street Fyshwick ACT Australia 2609 : Mazamet Road

Goulburn NSW 2580

Telephone : 02 4824 0000 Date Samples Received Project : Monthly Wastewater

Order number C-O-C number Sampler Site

Quote number No. of samples received : 8 No. of samples analysed : 8

Telephone : +61 2 6202 5404 : 26-May-2021 10:50 **Date Analysis Commenced**

: 26-May-2021 Issue Date : 07-Jun-2021 14:23



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 Inorganics, Fyshwick, ACT Analyst Geetha Ramasundara Chemistry Teamleader Inorganics, Fyshwick, ACT Jing Zeng Analyst Inorganics, Fyshwick, ACT Titus Vimalasiri Metals Teamleader Inorganics, Fyshwick, ACT Page : 2 of 4
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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.
- 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.

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Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	STHMEATS1 Ex Daf	STHMEATS2 Circular Anaerobic Lagoon	STHMEATS3 Aerated Lagoon	STHMEATS4 Settling Pond 2	STHMEATS5 Storage Dam 1
		Sampling date / time		25-May-2021 13:30	25-May-2021 13:35	25-May-2021 13:40	25-May-2021 13:45	25-May-2021 13:50
Compound	CAS Number	LOR	Unit	CA2103318-001	CA2103318-002	CA2103318-003	CA2103318-004	CA2103318-005
				Result	Result	Result	Result	Result
EA005CA: pH								
рН		0.01	pH Unit	7.22	7.49	7.71	7.85	7.97
EA010CA: Conductivity								
Electrical Conductivity @ 25°C		2	μS/cm	1910	3520	3300	3210	2410
ED009CA: Anions								
Chloride	16887-00-6	0.1	mg/L	120	140	149	155	159
EA015CA: Total Dissolved Solids								
Total Dissolved Solids		10	mg/L	1940	1280	1300	1330	1210
EA025CA: Suspended Solids								
Suspended Solids (SS)		2	mg/L	3890	302	442	335	114
EP030CA: Biochemical Oxygen Demand								
Biochemical Oxygen Demand		2	mg/L	7630	277	180	174	40
EP026CA: Chemical Oxygen Demand								
Chemical Oxygen Demand		5	mg/L	11700	860	904	822	353
EK059CA: Nitrite plus Nitrate as N								
Nitrite + Nitrate as N		0.05	mg/L N	<0.50	<0.50	<0.50	<0.50	3.53
EK061CA: Total Kjeldahl Nitrogen as N								
Total Kjeldahl Nitrogen as N		0.05	mg/L N	267	244	253	239	118
EK062CA: Total Nitrogen as N								
Total Nitrogen as N		0.05	mg/L N	267	244	253	239	122
EK067CA: Total Phosphorus as P								
Total Phosphorus as P		0.01	mg/L P	56.6	35.0	36.2	37.2	29.8
EG005CA: Total Metals by ICP-OES								
Calcium	7440-70-2	0.05	mg/L	34.8	30.1	36.3	35.4	32.3
Magnesium	7439-95-4	0.05	mg/L	21.6	21.8	22.7	22.6	22.5
Sodium	7440-23-5	0.1	mg/L	289	325	332	335	312
EA006CA: Sodium Adsorption Ratio								
Ø Sodium Adsorption Ratio		0.01	- 1	24.2	9.90	10.0	9.99	9.58

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Analytical Results

Sub-Matrix: WATER			Sample ID	STHMEATS6	STHMEATS7	STHMEATS8	
(Matrix: WATER)			Storage Dam 2	Run Off Dam 1	Run Off Dam 2		
	Sampling date / time			25-May-2021 13:55	25-May-2021 14:00	25-May-2021 00:00	
Compound	CAS Number	LOR	Unit	CA2103318-006	CA2103318-007	CA2103318-008	
				Result	Result	Result	
EA005CA: pH							
pH		0.01	pH Unit	8.05	8.46	7.94	
EA010CA: Conductivity							
Electrical Conductivity @ 25°C		2	μS/cm	2290	1240	898	
ED009CA: Anions							
Chloride	16887-00-6	0.1	mg/L	190	142	87.3	
EA015CA: Total Dissolved Solids							
Total Dissolved Solids		10	mg/L	1220	810	567	
EA025CA: Suspended Solids							
Suspended Solids (SS)		2	mg/L	104	16	15	
EP030CA: Biochemical Oxygen Demand							
Biochemical Oxygen Demand		2	mg/L	27	4	6	
EP026CA: Chemical Oxygen Demand							
Chemical Oxygen Demand		5	mg/L	326	158	157	
EK059CA: Nitrite plus Nitrate as N							
Nitrite + Nitrate as N		0.05	mg/L N	2.03	0.43	1.15	
EK061CA: Total Kjeldahl Nitrogen as N							
Total Kjeldahl Nitrogen as N		0.05	mg/L N	80.4	6.00	10.6	
EK062CA: Total Nitrogen as N							
Total Nitrogen as N		0.05	mg/L N	82.4	6.43	11.8	
EK067CA: Total Phosphorus as P							
Total Phosphorus as P		0.01	mg/L P	32.2	15.4	9.85	
EG005CA: Total Metals by ICP-OES							
Calcium	7440-70-2	0.05	mg/L	35.2	22.5	17.9	
Magnesium	7439-95-4	0.05	mg/L	24.0	19.4	14.4	
Sodium	7440-23-5	0.1	mg/L	352	229	150	
EA006CA: Sodium Adsorption Ratio							
Ø Sodium Adsorption Ratio		0.01	-	10.2	8.10	6.19	