

CERTIFICATE OF ANALYSIS

Work Order	: ES1708062	Page	: 1 of 5
Client	: SMK CONSULTANTS	Laboratory	: Environmental Division Sydney
Contact	: JAMES MAXWELL	Contact	: Customer Services ES
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Telephone	: +61 02 6752 1021	Telephone	: +61-2-8784 8555
Project	: LDC Ginning Storm Water Overflow	Date Samples Received	: 05-Apr-2017 08:30
Order number	: 15-119	Date Analysis Commenced	: 06-Apr-2017
C-O-C number	: ----	Issue Date	: 10-Apr-2017 16:31
Sampler	: ----		
Site	: ----		
Quote number	: SYBQ/364/15		
No. of samples received	: 1		
No. of samples analysed	: 1		



This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW



General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by 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 no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component.

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.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Client sample ID			15-119-2	----	----	----	----
Client sampling date / time		[04-Apr-2017]			----	----	----	----	
Compound	CAS Number	LOR	Unit	ES1708062-001	-----	-----	-----	-----	
				Result	----	----	----	----	
EA025: Total Suspended Solids dried at 104 ± 2°C									
Suspended Solids (SS)	----	5	mg/L	84	----	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.15	----	----	----	----	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L	8.0	----	----	----	----	
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L	8.2	----	----	----	----	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	0.70	----	----	----	----	
EP068A: Organochlorine Pesticides (OC)									
alpha-BHC	319-84-6	0.5	µg/L	<0.5	----	----	----	----	
Hexachlorobenzene (HCB)	118-74-1	0.5	µg/L	<0.5	----	----	----	----	
beta-BHC	319-85-7	0.5	µg/L	<0.5	----	----	----	----	
gamma-BHC	58-89-9	0.5	µg/L	<0.5	----	----	----	----	
delta-BHC	319-86-8	0.5	µg/L	<0.5	----	----	----	----	
Heptachlor	76-44-8	0.5	µg/L	<0.5	----	----	----	----	
Aldrin	309-00-2	0.5	µg/L	<0.5	----	----	----	----	
Heptachlor epoxide	1024-57-3	0.5	µg/L	<0.5	----	----	----	----	
trans-Chlordane	5103-74-2	0.5	µg/L	<0.5	----	----	----	----	
alpha-Endosulfan	959-98-8	0.5	µg/L	<0.5	----	----	----	----	
cis-Chlordane	5103-71-9	0.5	µg/L	<0.5	----	----	----	----	
Dieldrin	60-57-1	0.5	µg/L	<0.5	----	----	----	----	
4,4'-DDE	72-55-9	0.5	µg/L	<0.5	----	----	----	----	
Endrin	72-20-8	0.5	µg/L	<0.5	----	----	----	----	
beta-Endosulfan	33213-65-9	0.5	µg/L	<0.5	----	----	----	----	
4,4'-DDD	72-54-8	0.5	µg/L	<0.5	----	----	----	----	
Endrin aldehyde	7421-93-4	0.5	µg/L	<0.5	----	----	----	----	
Endosulfan sulfate	1031-07-8	0.5	µg/L	<0.5	----	----	----	----	
4,4'-DDT	50-29-3	2	µg/L	<2.0	----	----	----	----	
Endrin ketone	53494-70-5	0.5	µg/L	<0.5	----	----	----	----	
Methoxychlor	72-43-5	2	µg/L	<2.0	----	----	----	----	
^ Total Chlordane (sum)	----	0.5	µg/L	<0.5	----	----	----	----	
^ Sum of DDD + DDE + DDT	72-54-8/72-55-9/50-29-3	0.5	µg/L	<0.5	----	----	----	----	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Client sample ID	15-119-2	----	----	----	----
Client sampling date / time				[04-Apr-2017]	----	----	----	----	
Compound	CAS Number	LOR	Unit	ES1708062-001	-----	-----	-----	-----	
				Result	----	----	----	----	
EP068A: Organochlorine Pesticides (OC) - Continued									
^ Sum of Aldrin + Dieldrin	309-00-2/60-57-1	0.5	µg/L	<0.5	----	----	----	----	
EP068B: Organophosphorus Pesticides (OP)									
Dichlorvos	62-73-7	0.5	µg/L	<0.5	----	----	----	----	
Demeton-S-methyl	919-86-8	0.5	µg/L	<0.5	----	----	----	----	
Monocrotophos	6923-22-4	2	µg/L	<2.0	----	----	----	----	
Dimethoate	60-51-5	0.5	µg/L	<0.5	----	----	----	----	
Diazinon	333-41-5	0.5	µg/L	<0.5	----	----	----	----	
Chlorpyrifos-methyl	5598-13-0	0.5	µg/L	<0.5	----	----	----	----	
Parathion-methyl	298-00-0	2	µg/L	<2.0	----	----	----	----	
Malathion	121-75-5	0.5	µg/L	<0.5	----	----	----	----	
Fenthion	55-38-9	0.5	µg/L	<0.5	----	----	----	----	
Chlorpyrifos	2921-88-2	0.5	µg/L	<0.5	----	----	----	----	
Parathion	56-38-2	2	µg/L	<2.0	----	----	----	----	
Pirimphos-ethyl	23505-41-1	0.5	µg/L	<0.5	----	----	----	----	
Chlorfenvinphos	470-90-6	0.5	µg/L	<0.5	----	----	----	----	
Bromophos-ethyl	4824-78-6	0.5	µg/L	<0.5	----	----	----	----	
Fenamiphos	22224-92-6	0.5	µg/L	<0.5	----	----	----	----	
Prothiofos	34643-46-4	0.5	µg/L	<0.5	----	----	----	----	
Ethion	563-12-2	0.5	µg/L	<0.5	----	----	----	----	
Carbophenothion	786-19-6	0.5	µg/L	<0.5	----	----	----	----	
Azinphos Methyl	86-50-0	0.5	µg/L	<0.5	----	----	----	----	
EP068S: Organochlorine Pesticide Surrogate									
Dibromo-DDE	21655-73-2	0.5	%	86.1	----	----	----	----	
EP068T: Organophosphorus Pesticide Surrogate									
DEF	78-48-8	0.5	%	94.3	----	----	----	----	



Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP068S: Organochlorine Pesticide Surrogate			
Dibromo-DDE	21655-73-2	30	120
EP068T: Organophosphorus Pesticide Surrogate			
DEF	78-48-8	27	129