

## CERTIFICATE OF ANALYSIS

**Work Order** : **EW1703405**  
**Client** : **WOLLONGONG CITY COUNCIL**  
**Contact** : MR WAYDE PETERSON  
**Address** : 41 BURELLI STREET  
 WOLLONGONG NSW, AUSTRALIA 2500  
  
**Telephone** : +61 02 4227 7111  
**Project** : Stormwater adjacent to Pony Club  
**Order number** : 3071587  
**C-O-C number** : ----  
**Sampler** : Robert DaLio  
**Site** : HELENSBURGH LANDFILL  
**Quote number** : SY/454/14 Tender  
**No. of samples received** : 1  
**No. of samples analysed** : 1

**Page** : 1 of 3  
**Laboratory** : Environmental Division NSW South Coast  
**Contact** : Glenn Davies  
**Address** : 1/19 Ralph Black Dr, North Wollongong 2500  
 4/13 Geary Pl, North Nowra 2541  
 Australia NSW  
**Telephone** : 02 42253125  
**Date Samples Received** : 09-Aug-2017 16:30  
**Date Analysis Commenced** : 09-Aug-2017  
**Issue Date** : 18-Aug-2017 00:35



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. 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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	Inorganic Chemist	Sydney Inorganics, Smithfield, NSW
Celine Conceicao	Senior Spectroscopist	Sydney Inorganics, Smithfield, NSW
Glenn Davies	Environmental Services Representative	Laboratory - Wollongong, NSW
Sarah Axisa	Microbiologist	Sydney Microbiology, 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.

- MF = membrane filtration
- CFU = colony forming unit
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- Sampling and sample data supplied by ALS Wollongong.
- Sampling completed as per FWI-EN002 Surface Water Sampling.
- Field tests completed on day of sampling/receipt.
- MW006 is ALS's internal code and is equivalent to AS4276.7.



### Analytical Results

Sub-Matrix: WATER (Matrix: WATER)		Client sample ID			Stormwater adjacent to Pony Club	----	----	----	----
Client sampling date / time				09-Aug-2017 10:15	----	----	----	----	
Compound	CAS Number	LOR	Unit	EW1703405-001	-----	-----	-----	-----	
				Result	----	----	----	----	
<b>EA005FD: Field pH</b>									
pH	----	0.1	pH Unit	7.9	----	----	----	----	
<b>EA010FD: Field Conductivity</b>									
Electrical Conductivity (Non Compensated)	----	1	µS/cm	1120	----	----	----	----	
<b>EA015: Total Dissolved Solids dried at 180 ± 5 °C</b>									
Total Dissolved Solids @180°C	----	10	mg/L	628	----	----	----	----	
<b>EA075FD: Field Redox Potential</b>									
Redox Potential	----	0.1	mV	112	----	----	----	----	
<b>ED093T: Total Major Cations</b>									
Potassium	7440-09-7	1	mg/L	36	----	----	----	----	
<b>EK055G: Ammonia as N by Discrete Analyser</b>									
Ammonia as N	7664-41-7	0.01	mg/L	0.50	----	----	----	----	
<b>EP005: Total Organic Carbon (TOC)</b>									
Total Organic Carbon	----	1	mg/L	26	----	----	----	----	
<b>EP025FD: Field Dissolved Oxygen</b>									
Dissolved Oxygen	----	0.01	mg/L	12.9	----	----	----	----	
<b>MW006: Faecal Coliforms &amp; E.coli by MF</b>									
Faecal Coliforms	----	1	CFU/100mL	~9	----	----	----	----	