

# Analytical Report 202838



## Laboratory Services

**Issue Date:** 30/04/2019  
**Issued By :** Sydney Water Laboratory Services

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### Sydney Water Approved Signatory

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Cyrell Cascabel, Nutrients Analyst

Jouliet Ashak, Microbiology Analyst



Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

**Corporate Accreditation No 63**

**Accredited for compliance with ISO/IEC 17025 - Testing**

**SAMPLE SUMMARY**

<u>Client Sample ID</u>	<u>Sample Number</u>	<u>Sampling Procedure</u>	<u>Date Sampled</u>	<u>Date Received</u>	<u>Date Authorised</u>	<u>Description</u>
Point 1	L19030937	1	10/04/2019	11/04/2019	29/04/2019	Polisher
Point 2	L19030938	1	10/04/2019	11/04/2019	29/04/2019	Turkeys
Point 3	L19030939	1	10/04/2019	11/04/2019	17/04/2019	Inlet STW
Point 4	L19030940	1	10/04/2019	11/04/2019	17/04/2019	Splitter box large aerator
Point 5	L19030941	1	10/04/2019	11/04/2019	17/04/2019	Outlet of sml aerator

**Sampling procedures**

- 1 Samples analysed as received.
- 2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
- 3 Samples collected as per FS procedures SAWI 070.
- 4 Results reported as received from WNSW.

**ANALYTICAL RESULTS**

<b>Client Sample ID</b>	Point 1	Point 2	Point 3	Point 4	Point 5			
<b>Sampled Date</b>	10/04/2019 07:30:00 AM	10/04/2019 07:45:00 AM	10/04/2019 08:11:00 AM	10/04/2019 08:00:00 AM	10/04/2019 08:06:00 AM			
<b>Sample Number</b>	L19030937	L19030938	L19030939	L19030940	L19030941			

**CHEMISTRY**

**WC12MET : Conductivity**

Conductivity (mS/m)	mS/m	113.6	127.9	-	-	-		
Date of Performance	DD/MM/YY	12/04/19	12/04/19					

**WC17NS : Biological oxygen demand**

BOD5	mg/L	4	2	54	130	26		
Date of Performance	DD/MM/YY	12/04/19	12/04/19	12/04/19	12/04/19	12/04/19		

**WC26NS500 : Grease**

Oil & Grease	mg/L	<5	<5	-	-	-		
Date of Performance	DD/MM/YY	15/04/19	15/04/19					

**WC44NS : Determination of Total, Fixed & Volatile Suspended Solids**

Total Suspended Solids	mg/L	12	10	-	-	-		
Date of Performance	DD/MM/YY	12/04/19	12/04/19					

**MICRO**

"-" = Not required or refer to Laboratory comment

Client Sample ID		Point 1	Point 2	Point 3	Point 4	Point 5			
<b>Sampled Date</b>		10/04/2019 07:30:00 AM	10/04/2019 07:45:00 AM	10/04/2019 08:11:00 AM	10/04/2019 08:00:00 AM	10/04/2019 08:06:00 AM			
<b>Sample Number</b>		L19030937	L19030938	L19030939	L19030940	L19030941			
<b>MICRO</b>									
MI01MUG : Faecal Coliform and/or E. coli									
E.coli	CFU/100mL	-	2	-	-	-			
Faecal Coliform	CFU/100mL	-	2	-	-	-			
Date of Performance	D/M/Y H:M		11/04/19 16:29						
<b>NUTRIENTS</b>									
NU102 : Nitrogen & Phosphorus									
Total Nitrogen	mg/L	2.47	3.35	-	-	-			
Total Phosphorus	mg/L	0.469	0.660	-	-	-			
Date of Performance	DD/MM/YY	12/04/19	12/04/19						

**COMMENTS**

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L19030938	Method	MI01MUG	-	Result confirmed. Sample analysed outside recommended holding time of 24Hrs.

**Analysis**

MI01MUG

**Analysis Requirements**

Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.

"- " = Not required or refer to Laboratory comment

**LABORATORY QC RESULTS**

N/A - Not Applicable

PQL - Practical Quantitation Limit

LOQ - Limit of Quantification

RPD - Relative Percent Difference

SPIKE/Positive Control - Addition of a known amount and concentration

Duplicate Precision = Accepted - Result 2 within 95% confidence limits of result 1

Duplicate Precision = Outlier - Result 2 outside 95% confidence limits of result 1

Duplicate Precision = Not calculated - Result is outside test range

LOQ	Blank	Positive Control <i>Acceptance Criteria</i>	Negative Control <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	Precision <i>Acceptance Criteria</i>
<b>MI01MUG [Membrane Filtration]E.coli</b>						
<1 CFU/100mL	<1	Accepted	Accepted	2	1	Not Calculated
<b>MI01MUG [Membrane Filtration]Faecal Coliform</b>						
<1 CFU/100mL	<1	Accepted	Accepted	2	1	Not Calculated

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>NU102 Total Nitrogen</b>						
<0.05 mg/L	<0.05	0.93 <i>0.88 - 1.12 mg/L</i>	107 % Recovery <i>80 - 120 % Recovery</i>	0.45	0.45	B <i>0 - 0 %</i>
<b>NU102 Total Phosphorus</b>						
<0.002 mg/L	<0.002	0.052 <i>0.045 - 0.055 mg/L</i>	98 % Recovery <i>80 - 120 % Recovery</i>	0.046	0.046	0.00 % <i>0 - 20 %</i>
<b>WC12MET Conductivity (mS/m)</b>						
<0.1 mS/m	F	140.0 <i>139.3 - 143.3 mS/m</i>	E	140.7	140.6	0.71e-1 % <i>0 - 20 %</i>
<b>WC17NS BOD5</b>						
<2 mg/L	<2	210 <i>139 - 257 mg/L</i>	E	26	24	8.00 % <i>0 - 50 %</i>

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>WC26NS500 Oil &amp; Grease</b>						
<5 mg/L	<5	88 85.1 - 101.5 mg/L	E			
<b>WC44NS Total Suspended Solids</b>						
<2 mg/L	<2	53 42.5 - 57.5 mg/L	E	1200	1100	8.70 % 0 - 20 %

Extra Note:

- F: Blank is not applicable for this analyte
- B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ  
Sample diluted – outside of test limits
- E: Spike is not applicable for this analyte
- DUPLICATE Total Suspended Solids Sample diluted – outside of test limits