



Corporate Accreditation No 63
Accredited for compliance with ISO/IEC 17025 - Testing



Analytical Report 243906

Issue Date: 05/05/2021
Issued By : Sydney Water Laboratory Services

Delivery Address: Sydney Water Corporation
51 Hermitage Rd
West Ryde NSW 2114
Telephone: (02) 9800 6935
Email: analyticalservices@sydneywater.com.au

Attention: Victor Papierniak-Wojtowicz
Customer: Cobar Shire Council
Customer ID: ZCSC

Address: PO Box 223, Cobar NSW 2835
Telephone: 6836 5800
Email: victor.papierniak@cobar.nsw.gov.au

CONTENTS

1. Sydney Water Approved Signatory
2. Sample Summary
3. Analytical results
4. Comments
5. Laboratory QC results

Sydney Water Approved Signatory

Jeya Gajendran, Clean & Waste Water Analyst
Kathryn Gamble, Microbiology Analyst

Ricardo Quintana, Clean & Waste Water Analyst
Greta Haddad, Nutrients Laboratory Supervisor

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.

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 POLISHER	L21038364	1	21/04/2021	22/04/2021	03/05/2021	
POINT 2 TURKEYS	L21038365	1	21/04/2021	22/04/2021	04/05/2021	
SPLITTER BOX 1	L21038366	1	21/04/2021	22/04/2021	03/05/2021	
SPLITTER BOX 2	L21038367	1	21/04/2021	22/04/2021	03/05/2021	
INLET	L21038368	1	21/04/2021	22/04/2021	03/05/2021	

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

Client Sample ID		POINT 1 POLISHER	POINT 2 TURKEYS	SPLITTER BOX 1	SPLITTER BOX 2	INLET			
Sampled Date		21/04/2021 07:25:00 AM	21/04/2021 07:40:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM			
Sample Number		L21038364	L21038365	L21038366	L21038367	L21038368			
CHEMISTRY									
WC12MET : Conductivity									
Conductivity (mS/m)	mS/m	89.0	89.2	-	-	-			
Date of Performance	DD/MM/YY	22/04/21	23/04/21						
WC17NS : Biological oxygen demand									
CBOD5	mg/L	2	4	79	7	73			
Date of Performance	DD/MM/YY	23/04/21	23/04/21	23/04/21	23/04/21	23/04/21			
WC26NS500 : Grease									
Oil & Grease	mg/L	<5	<5	-	-	-			
Date of Performance	DD/MM/YY	23/04/21	23/04/21						
WC44NS : Determination of Total, Fixed & Volatile Suspended Solids									
Total Suspended Solids	mg/L	6	7	-	-	-			
Date of Performance	DD/MM/YY	23/04/21	23/04/21						
WC62NS : Total Dissolved Solids in water									

"-" = Not required or refer to Laboratory comment

Client Sample ID	POINT 1 POLISHER	POINT 2 TURKEYS	SPLITTER BOX 1	SPLITTER BOX 2	INLET			
Sampled Date	21/04/2021 07:25:00 AM	21/04/2021 07:40:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM			
Sample Number	L21038364	L21038365	L21038366	L21038367	L21038368			

CHEMISTRY

WC62NS : Total Dissolved Solids in water(Continued)

Total Dissolved Solids	mg/L	-	502	-	-	-		
Date of Performance	DD/MM/YY		22/04/21					

MICRO

MI01 : Faecal Coliform and/or E. coli

Faecal Coliform	CFU/100mL	-	3	-	-	-		
Date of Performance	D/M/Y H:M		22/04/21 14:57					

MI28 : Total Coliforms and/or E.coli

E.coli	Orgs / 100mL	-	2	-	-	-		
Total Coliforms	Orgs / 100mL	-	77000	-	-	-		
Date of Performance	D/M/Y H:M		22/04/21 14:56					

NUTRIENTS

NU102 : Nitrogen & Phosphorus

"-" = Not required or refer to Laboratory comment

Client Sample ID		POINT 1 POLISHER	POINT 2 TURKEYS	SPLITTER BOX 1	SPLITTER BOX 2	INLET			
Sampled Date		21/04/2021 07:25:00 AM	21/04/2021 07:40:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM	21/04/2021 07:15:00 AM			
Sample Number		L21038364	L21038365	L21038366	L21038367	L21038368			
NUTRIENTS									
NU102 : Nitrogen & Phosphorus(Continued)									
Total Nitrogen	mg/L	3.08	4.61	-	-	-			
Total Phosphorus	mg/L	0.670	0.980	-	-	-			
Date of Performance	DD/MM/YY	26/04/21	26/04/21						

COMMENTS

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L21038365	Method	MI01	-	Result confirmed. Sample analysed outside recommended holding time of 24Hrs.
L21038365	Method	MI28	-	Sample analysed outside recommended holding time of 24Hrs

Analysis

WC62NS

MI01

Analysis Requirements

This method is not NATA accredited for saline matrix.

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

WC62NS

MI01

This method is not NATA accredited for saline matrix.

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>
MI01 [Membrane Filtration]Faecal Coliform						
<1 CFU/100mL	<1	Accepted	Accepted	3	1	Not Calculated
MI28 [Enzyme Substrate Techniques]E.coli						
<1 Orgs / 100mL	<1	Accepted	Accepted	2	1	Accepted
MI28 [Enzyme Substrate Techniques]Total Coliforms						
<1 Orgs / 100mL	<1	Accepted	Accepted	77000	77000	Accepted

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
NU102 Total Nitrogen						
<0.05 mg/L	<0.05	0.94 <i>0.88 - 1.12 mg/L</i>	89 % Recovery <i>80 - 120 % Recovery</i>	1.28	1.29	0.78 % <i>0 - 20 %</i>
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.049 <i>0.045 - 0.055 mg/L</i>	89 % Recovery <i>80 - 120 % Recovery</i>	0.002	0.002	B <i>0 - 0 %</i>
WC12MET Conductivity (mS/m)						
<0.1 mS/m	F	141.0 <i>139.3 - 143.3 mS/m</i>	E	943.3	942.7	0.64e-1 % <i>0 - 20 %</i>

LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
WC17NS CBOD5						
<2 mg/L	F	180 139 - 257 mg/L	E	73	70	4.20 % 0 - 20 %
WC26NS500 Oil & Grease						
<5 mg/L	<5	88 85.1 - 101.5 mg/L	E			
WC44NS Total Suspended Solids						
<2 mg/L	<2	50 42.5 - 57.5 mg/L	E	200	200	0.00 % 0 - 20 %
WC62NS Total Dissolved Solids						
<10 mg/L	<10	292 255 - 345 mg/L	E	658	652	0.92 % 0 - 20 %

Extra Note:

F: Blank is not applicable for this analyte

E: Spike is not applicable for this analyte

DUPLICATE Total Phosphorus B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ