

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



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Analytical Report 253993

Issue Date: 16/11/2021

Issued By: Sydney Water Laboratory Services

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Sydney Water Approved Signatory

Dwijal Dave, Clean & Waste Water Analyst
Linda Gao, Metals Analyst
Alice Sorokin, Microbiology Senior Analyst
Greta Haddad, Nutrients Laboratory Supervisor

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</u> Sample ID	Sample Number	Sampling Procedure	<u>Date</u> Sampled	<u>Date</u> <u>Received</u>	<u>Date</u> <u>Authorised</u>	<u>Description</u>
POINT 1 POLISHER	L21097899	1	04/11/2021	05/11/2021	15/11/2021	COBAR STP (WASTE WATER)
POINT 2 TURKEYS	L21097900	1	04/11/2021	05/11/2021	15/11/2021	COBAR STP (WASTE WATER)
SPITTER BOX 1	L21097901	1	04/11/2021	05/11/2021	12/11/2021	COBAR STP (WASTE WATER)
SPITTER BOX 2	L21097902	1	04/11/2021	05/11/2021	12/11/2021	COBAR STP (WASTE WATER)
S INLET	L21097903	1	04/11/2021	05/11/2021	12/11/2021	COBAR STP (WASTE WATER)

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	SPITTER BOX 1	SPITTER BOX 2	S INLET			
Sampled Date		04/11/2021 07:00:00 AM							
Sample Number		L21097899	L21097900	L21097901	L21097902	L21097903			
CHEMISTRY									
WC12 : Conductivity & Salinity	/								
Salinity	ppt	-	0.4	-	-	0.4			
Date of Performance	DD/MM/YY		05/11/21			05/11/21			
WC12MET : Conductivity									
Conductivity (mS/m)	mS/m	84.5	85.6	-	-	-			
Date of Performance	DD/MM/YY	05/11/21	05/11/21						
WC17NS : Biochemical oxyge	n demand								
BOD5	mg/L	9	3	440	33	160			
Date of Performance	DD/MM/YY	06/11/21	06/11/21	06/11/21	06/11/21	06/11/21			
WC26NS500 : Oil & Grease									
Oil & Grease	mg/L	<5	<5	-	-	-			
Date of Performance	DD/MM/YY	08/11/21	08/11/21						
WC44NS : Total, Fixed & Vola	tile Suspende	d Solids							

[&]quot;-" = Not required or refer to Laboratory comment



Client Sample ID		POINT 1 POLISHER	POINT 2 TURKEYS	SPITTER BOX 1	SPITTER BOX	S INLET		
Sampled Date		04/11/2021 07:00:00 AM						
Sample Number		L21097899	L21097900	L21097901	L21097902	L21097903		
CHEMISTRY								
WC44NS : Total, Fixed & Vola	atile Suspended	d Solids(Continued)						
Total Suspended Solids	mg/L	18	6	-	-	-		
Date of Performance	DD/MM/YY	08/11/21	08/11/21					
METALS	•				•			
TM70SAR : Metals by Inducti	vely Coupled P	Plasma Atomic Emiss	ion Spectrometry					
SAR*	RATIO	-	3.3	-	-	2.5		
TM70SDT : Single digestion f	or Metals							
Total Digestion	DONE	-	Done	-	-	Done		
Date of Performance	DD/MM/YY		06/11/21			06/11/21		
TM70TW : Metals by ICPAES	l.							
Total Calcium	mg/L	-	32.9	-	-	20.5		
Total Magnesium	mg/L	-	17.0	-	-	6.29		
Total Sodium	mg/L	-	94.3	-	-	51.0		
	1							

^{*} Indicates NATA accreditation does not cover the performance of this service

[&]quot;-" = Not required or refer to Laboratory comment



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Client Sample ID		POINT 1 POLISHER	POINT 2 TURKEYS	SPITTER BOX 1	SPITTER BOX 2	S INLET		
Sampled Date		04/11/2021 07:00:00 AM						
Sample Number		L21097899	L21097900	L21097901	L21097902	L21097903		
METALS	•				•			
Date of Performance	DD/MM/YY		06/11/21			06/11/21		
MICRO								
MI01 : Faecal Coliform and/o	or E. coli							
E.coli	CFU/100mL	-	1	-	-	-		
Faecal Coliform	CFU/100mL	-	1	-	-	-		
Date of Performance	D/M/Y H:M		05/11/21 17:13					
NUTRIENTS					•			
NU102 : Total Nitrogen & Tot	al Phosphorus							
Total Nitrogen	mg/L	5.98	5.30	-	-	-		
Total Phosphorus	mg/L	2.51	2.34	-	-	-		
Date of Performance	DD/MM/YY	09/11/21	09/11/21					

COMMENTS

Sample IDComment LevelMethodTestCommentL21097900MethodMI01-Result confirmed. Sample processed outside of holding time, result may be affected.

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<u>Analysis</u>	Analysis Requirements
MI01	Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.
WC12	Conductivity measured @ 25 degrees Celsius
MI01	Faecal Coliforms and/or E.Coli: all results are presumptive unless indicated otherwise.

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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

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	LOQ	Blank	Positive Control	Negative Control	Duplicate1 Duplicate2		Precision		
			Acceptance Criteria	Acceptance Criteria			Acceptance Criteria		
MI01	01 [Membrane Filtration]E.coli								
	<1 CFU/100mL	<1	Accepted	Accepted	1	<1	Not Calculated		
MI01	MI01 [Membrane Filtration]Faecal Coliform								
	<1 CFU/100mL	<1	Accepted	Accepted	1	<1	Not Calculated		

LOQ	Blank	Control	Spike	Duplicate1	Duplicate2	RPD
		Acceptance Criteria	Acceptance Criteria			Acceptance Criteria
NU102 Total Nitrogen						
<0.05 mg/L	<0.05	0.95	94 % Recovery	0.92	0.92	0.00 %
		0.88 - 1.12 mg/L	80 - 120 % Recovery			0 - 50 %
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.051	94 % Recovery	0.048	0.048	0.00 %
		0.045 - 0.055 mg/L	80 - 120 % Recovery			0 - 20 %
TM70TW Total Calcium						
<0.01 mg/L	<0.01	48.8	96 % Recovery	20.8	20.9	0.48 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 20 %
TM70TW Total Magnesium						
<0.02 mg/L	<0.02	50.4	99 % Recovery	11.2	11.3	0.89 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 20 %

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LOQ	Blank	Control	Spike	Duplicate1	Duplicate2	RPD
		Acceptance Criteria	Acceptance Criteria			Acceptance Criteria
TM70TW Total Sodium						
<0.05 mg/L	<0.05	48.6	88 % Recovery	110.0	111.0	0.90 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 20 %
WC12MET Conductivity (m	S/m)			•		
<0.1 mS/m	F	141.0	E	340.4	340.5	0.29e-1 %
		139.3 - 143.3 mS/m				0 - 20 %
WC12 Salinity						
<0.1 ppt	F	0.7	E	0.4	0.4	В
		0.6 - 0.8 ppt				0 - 0 %
WC17NS BOD5		•				
<2 mg/L	<2	180	E	440	370	17.28 %
		139 - 257 mg/L				0 - 20 %
WC26NS500 Oil & Grease						
<5 mg/L	<5	88	E	39	39	В
		85.1 - 101.5 mg/L				0 - 0 %
WC44NS Total Suspended	Solids			•		
<2 mg/L	<2	52	E	240	240	0.00 %
		42.5 - 57.5 mg/L				0 - 20 %

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Extra Note:

F: Blank is not applicable for this analyte

E: Spike is not applicable for this analyte

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

DUPLICATE Oil & Grease B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

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