

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



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Analytical Report 257781

26/01/2022 Issue Date:

Sydney Water Laboratory Services Issued By:

> Victor Papierniak-Wojtowicz Attention:

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# **Sydney Water Approved Signatory**

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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	<u>Sample</u> <u>Number</u>	Sampling Procedure	<u>Date</u> Sampled	<u>Date</u> <u>Received</u>	<u>Date</u> <u>Authorised</u>	<u>Description</u>
POINT 1	L22005007	1	17/01/2022	18/01/2022	25/01/2022	POLISHER (WASTE WATER)
POINT 2	L22005008	1	17/01/2022	18/01/2022	25/01/2022	TURKEYS (WASTE WATER)
SPITTER BOX 1	L22005009	1	17/01/2022	18/01/2022	25/01/2022	(WASTE WATER)
SPITTER BOX 2	L22005010	1	17/01/2022	18/01/2022	25/01/2022	(WASTE WATER)
INLET	L22005011	1	17/01/2022	18/01/2022	25/01/2022	(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	POINT 2	SPITTER BOX 1	SPITTER BOX	INLET			
Sampled Date		17/01/2022 08:00:00 AM							
Sample Number		L22005007	L22005008	L22005009	L22005010	L22005011			
CHEMISTRY	CHEMISTRY								
WC12 : Conductivity & Salinity	1								
Salinity	ppt	-	0.4	-	-	0.4			
Date of Performance	DD/MM/YY		18/01/22			18/01/22			
WC12MET : Conductivity	WC12MET : Conductivity								
Conductivity (mS/m)	mS/m	73.4	80.7	-	-	-			
Date of Performance	DD/MM/YY	18/01/22	18/01/22						
WC17NS : Biochemical oxyge	n demand								
BOD5	mg/L	10	6	120	15	85			
Date of Performance	DD/MM/YY	19/01/22	19/01/22	19/01/22	19/01/22	19/01/22			
WC26NS500 : Oil & Grease									
									<b>-</b>
Oil & Grease	mg/L	<5	<5	-	-	-			
Date of Performance	DD/MM/YY	19/01/22	19/01/22						
WC44NS : Total, Fixed & Vola	tile Suspended	d Solids							

<sup>&</sup>quot;-" = Not required or refer to Laboratory comment



Client Sample ID		POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET		
Sampled Date		17/01/2022 08:00:00 AM						
Sample Number		L22005007	L22005008	L22005009	L22005010	L22005011		
CHEMISTRY					<u> </u>			
WC44NS : Total, Fixed & Vola	atile Suspende	d Solids(Continued)						
Total Suspended Solids	mg/L	64	13	-	-	-		
Date of Performance	DD/MM/YY	19/01/22	19/01/22					
METALS	•		•	•	•			
TM70SAR : Metals by Inducti	vely Coupled P	Plasma Atomic Emiss	ion Spectrometry					
SAR*	RATIO	-	4.2	-	-	2.5		
TM70SDT : Single digestion f	or Metals							
Total Digestion	DONE	-	Done	-	-	Done		
Date of Performance	DD/MM/YY		19/01/22			19/01/22		
TM70TW : Metals by ICPAES								
Total Calcium	mg/L	-	24.4	-	-	23.3		
Total Magnesium	mg/L	-	13.8	-	-	8.17		
Total Sodium	mg/L	-	105	-	-	56.0		
	1							

<sup>\*</sup> Indicates NATA accreditation does not cover the performance of this service

<sup>&</sup>quot;-" = Not required or refer to Laboratory comment



		DOWET 4	500.50	ODITTED DOV	0017750 001			
Client Sample ID		POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET		
Sampled Date		17/01/2022 08:00:00 AM						
Sample Number		L22005007	L22005008	L22005009	L22005010	L22005011		
METALS							•	•
Date of Performance	DD/MM/YY		19/01/22			19/01/22		
MICRO								
MI01 : Faecal Coliform and	/or E. coli							
E.coli	CFU/100mL	-	~30	-	-	-		
Faecal Coliform	CFU/100mL	-	~30	-	-	-		
Date of Performance	D/M/Y H:M		18/01/22 13:49					
NUTRIENTS								
NU102 : Total Nitrogen & To	otal Phosphorus							
Total Nitrogen	mg/L	3.99	2.89	-	-	-		
Total Phosphorus	mg/L	4.25	2.36	-	-	-		
Date of Performance	DD/MM/YY	19/01/22	19/01/22					

<sup>(~):</sup> Counts of target colonies are outside the optimal precision range.

### COMMENTS

Sample IDComment LevelMethodTestCommentL22005008MethodMI01-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	[Membrane Filtration]E.col	i							
	<1 CFU/100mL	<1	Accepted	Accepted	~30	~21	Accepted		
MI01	101 [Membrane Filtration]Faecal Coliform								
	<1 CFU/100mL	<1	Accepted	Accepted	~30	~21	Accepted		

LOQ	Blank	Control	Spike	Duplicate1	Duplicate2	RPD
		Acceptance Criteria	Acceptance Criteria			Acceptance Criteria
NU102 Total Nitrogen						
<0.05 mg/L	<0.05	0.93	93 % Recovery	0.70	0.69	1.44 %
		0.88 - 1.12 mg/L	80 - 120 % Recovery			0 - 50 %
NU102 Total Phosphorus						
<0.002 mg/L	<0.002	0.050	85 % Recovery	0.002	0.002	В
		0.045 - 0.055 mg/L	80 - 120 % Recovery			0 - 0 %
TM70TW Total Calcium						
<0.01 mg/L	<0.01	48.0	94 % Recovery	0.13	0.13	0.00 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 50 %
TM70TW Total Magnesium						
<0.02 mg/L	<0.02	49.8	93 % Recovery	0.26	0.26	0.00 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 50 %

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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	46.9	89 % Recovery	31.3	31.2	0.32 %
		40.0 - 60.0 mg/L	80 - 120 % Recovery			0 - 20 %
WC12MET Conductivity (m	S/m)			•		
<0.1 mS/m	F	140.5	E			
		139.3 - 143.3 mS/m				
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	170	E	120	120	0.00 %
		139 - 257 mg/L				0 - 20 %
WC26NS500 Oil & Grease						
<5 mg/L	<5	95	E	28	32	В
		85.1 - 101.5 mg/L				0 - 0 %
WC44NS Total Suspended	Solids	•				
<2 mg/L	<2	52	E	380	350	8.22 %
		42.5 - 57.5 mg/L				0 - 20 %

<sup>\*</sup> Indicates NATA accreditation does not cover the performance of this service



#### 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

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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