



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



## Analytical Report 262770

**Issue Date:** 22/04/2022  
**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](mailto: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](mailto: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  
Jouliet Ashak, Microbiology Analyst

Ricardo Quintana, Clean & Waste Water Analyst  
Cyrell Cascabel, Nutrients Analyst

Linda Gao, Metals 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	L22031362	1	12/04/2022	13/04/2022	21/04/2022	POLISHER COBAR STP (WASTEWATER)
POINT 2	L22031363	1	12/04/2022	13/04/2022	21/04/2022	TURKEYS COBAR STP (WASTEWATER)
SPITTER BOX 1	L22031364	1	12/04/2022	13/04/2022	20/04/2022	COBAR STP (WASTEWATER)
SPITTER BOX 2	L22031365	1	12/04/2022	13/04/2022	20/04/2022	COBAR STP (WASTEWATER)
INLET	L22031366	1	12/04/2022	13/04/2022	21/04/2022	COBAR STP (WASTEWATER)

**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	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>		12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM			
<b>Sample Number</b>		L22031362	L22031363	L22031364	L22031365	L22031366			
<b>CHEMISTRY</b>									
<b>WC12 : Conductivity &amp; Salinity</b>									
Salinity	ppt	-	0.4	-	-	0.4			
Date of Performance	DD/MM/YY		14/04/22			20/04/22			
<b>WC12MET : Conductivity</b>									
Conductivity (mS/m)	mS/m	-	72.0	-	-	-			
Date of Performance	DD/MM/YY		14/04/22						
<b>WC17NS : Biochemical oxygen demand</b>									
BOD5	mg/L	3	5	150	9	98			
Date of Performance	DD/MM/YY	14/04/22	14/04/22	14/04/22	14/04/22	14/04/22			
<b>WC26NS250 : Oil &amp; Grease</b>									
Oil & Grease	mg/L	<10	-	-	-	-			
Date of Performance	DD/MM/YY	14/04/22							
<b>WC26NS500 : Oil &amp; Grease</b>									

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>	POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM			
<b>Sample Number</b>	L22031362	L22031363	L22031364	L22031365	L22031366			

**CHEMISTRY**

WC26NS500 : Oil & Grease(Continued)

Oil & Grease	mg/L	-	<5	-	-	-		
Date of Performance	DD/MM/YY		14/04/22					

WC44NS : Total, Fixed & Volatile Suspended Solids

Total Suspended Solids	mg/L	10	10	-	-	-		
Date of Performance	DD/MM/YY	18/04/22	18/04/22					

**METALS**

TM70SAR : Metals by Inductively Coupled Plasma Atomic Emission Spectrometry

SAR*	RATIO	-	4.1	-	-	2.3		
------	-------	---	-----	---	---	-----	--	--

TM70SDT : Single digestion for Metals

Total Digestion	DONE	-	Done	-	-	Done		
Date of Performance	DD/MM/YY		19/04/22			19/04/22		

TM70TW : Metals by ICPAES.

\* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>	POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM			
<b>Sample Number</b>	L22031362	L22031363	L22031364	L22031365	L22031366			

**METALS**

TM70TW : Metals by ICPAES.(Continued)

Total Calcium	mg/L	-	29.8	-	-	27.6		
Total Magnesium	mg/L	-	12.1	-	-	7.08		
Total Sodium	mg/L	-	105	-	-	51.9		
Date of Performance	DD/MM/YY		19/04/22			19/04/22		

**MICRO**

MI01 : Faecal Coliform and/or E. coli

E.coli	CFU/100mL	-	~770	-	-	-		
Faecal Coliform	CFU/100mL	-	~1200	-	-	-		
Date of Performance	D/M/Y H:M		13/04/22 14:03					

**NUTRIENTS**

NU102 : Total Nitrogen & Total Phosphorus

Total Nitrogen	mg/L	3.21	2.70	-	-	-		
----------------	------	------	------	---	---	---	--	--

\* Indicates NATA accreditation does not cover the performance of this service

"-" = Not required or refer to Laboratory comment

<b>Client Sample ID</b>		POINT 1	POINT 2	SPITTER BOX 1	SPITTER BOX 2	INLET			
<b>Sampled Date</b>		12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM	12/04/2022 08:00:00 AM			
<b>Sample Number</b>		L22031362	L22031363	L22031364	L22031365	L22031366			
<b>NUTRIENTS</b>									
NU102 : Total Nitrogen & Total Phosphorus(Continued)									
Total Phosphorus	mg/L	3.79	3.24	-	-	-			
Date of Performance	DD/MM/YY	14/04/22	14/04/22						

(~): Counts of target colonies are outside the optimal precision range.

**COMMENTS**

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L22031363	Method	MI01	-	Result confirmed. Sample processed outside of holding time, result may be affected.

**Analysis**

**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.

\* Indicates NATA accreditation does not cover the performance of this service

"-" = 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

\* Indicates NATA accreditation does not cover the performance of this service

LOQ	Blank	Positive Control <i>Acceptance Criteria</i>	Negative Control <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	Precision <i>Acceptance Criteria</i>
<b>MI01 [Membrane Filtration]E.coli</b>						
<1 CFU/100mL	<1	Accepted	Accepted	~770	~610	Not Calculated
<b>MI01 [Membrane Filtration]Faecal Coliform</b>						
<1 CFU/100mL	<1	Accepted	Accepted	~1200	~920	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	0.99 <i>0.88 - 1.12 mg/L</i>	92 % Recovery <i>80 - 120 % Recovery</i>	0.71	0.72	1.40 % <i>0 - 50 %</i>
<b>NU102 Total Phosphorus</b>						
<0.002 mg/L	<0.002	0.050 <i>0.045 - 0.055 mg/L</i>	98 % Recovery <i>80 - 120 % Recovery</i>	0.020	0.020	B <i>0 - 0 %</i>
<b>TM70TW Total Calcium</b>						
<0.01 mg/L	<0.01	50.7 <i>40.0 - 60.0 mg/L</i>	97 % Recovery <i>80 - 120 % Recovery</i>	29.1	29.2	0.34 % <i>0 - 20 %</i>
<b>TM70TW Total Magnesium</b>						
<0.02 mg/L	<0.02	51.8 <i>40.0 - 60.0 mg/L</i>	100 % Recovery <i>80 - 120 % Recovery</i>	13.6	13.6	0.00 % <i>0 - 20 %</i>

\* Indicates NATA accreditation does not cover the performance of this service



LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
<b>TM70TW Total Sodium</b>						
<0.05 mg/L	<0.05	<b>49.0</b> 40.0 - 60.0 mg/L	<b>90 % Recovery</b> 80 - 120 % Recovery	47.8	47.8	<b>0.00 %</b> 0 - 20 %
<b>WC12MET Conductivity (mS/m)</b>						
<0.1 mS/m	F	<b>140.7</b> 139.3 - 143.3 mS/m	E			
<b>WC12 Salinity</b>						
<0.1 ppt	F	<b>0.7</b> 0.6 - 0.8 ppt	E	0.4	0.4	<b>B</b> 0 - 0 %
<b>WC17NS BOD5</b>						
<2 mg/L	<2	<b>190</b> 139 - 257 mg/L	E	150	150	<b>0.00 %</b> 0 - 20 %
<b>WC26NS250 Oil &amp; Grease</b>						
<10 mg/L	<10	<b>94</b> 85.1 - 101.5 mg/L	E			
<b>WC26NS500 Oil &amp; Grease</b>						
<5 mg/L	<5	<b>94</b> 85.1 - 101.5 mg/L	E			
<b>WC44NS Total Suspended Solids</b>						
<2 mg/L	<2	<b>51</b> 42.5 - 57.5 mg/L	E	460	480	<b>4.26 %</b> 0 - 20 %

\* 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

\* Indicates NATA accreditation does not cover the performance of this service