



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



## Analytical Report 266427

**Issue Date:** 26/06/2022  
**Issued By :** Sydney Water Laboratory Services

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### **Sydney Water Approved Signatory**

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Ricardo Quintana, Clean & Waste Water Analyst  
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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<br/>Sample ID</u> | <u>Sample<br/>Number</u> | <u>Sampling<br/>Procedure</u> | <u>Date<br/>Sampled</u> | <u>Date<br/>Received</u> | <u>Date<br/>Authorised</u> | <u>Description</u>     |
|-----------------------------|--------------------------|-------------------------------|-------------------------|--------------------------|----------------------------|------------------------|
| PT 1 POLISHER               | L22047774                | 1                             | 14/06/2022              | 16/06/2022               | 22/06/2022                 | COBAR STP (WASTEWATER) |
| PT 2 TURKEYS                | L22047775                | 1                             | 14/06/2022              | 16/06/2022               | 25/06/2022                 | COBAR STP (WASTEWATER) |
| SPITTER BOX 1               | L22047776                | 1                             | 14/06/2022              | 16/06/2022               | 22/06/2022                 | COBAR STP (WASTEWATER) |
| SPITTER BOX 2               | L22047777                | 1                             | 14/06/2022              | 16/06/2022               | 22/06/2022                 | COBAR STP (WASTEWATER) |
| INLET                       | L22047778                | 1                             | 14/06/2022              | 16/06/2022               | 22/06/2022                 | 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>                                      |          | PT 1<br>POLISHER          | PT 2 TURKEYS              | SPITTER BOX 1             | SPITTER BOX<br>2          | INLET                     |  |  |  |
| <b>Sampled Date</b>  |          | 14/06/2022<br>07:44:00 AM | 14/06/2022<br>08:20:00 AM | 14/06/2022<br>07:35:00 AM | 14/06/2022<br>07:30:00 AM | 14/06/2022<br>07:41:00 AM |  |  |  |
| <b>Sample Number</b>   |          | L22047774                 | L22047775                 | L22047776                 | L22047777                 | L22047778                 |  |  |  |
| <b>CHEMISTRY</b>   |          |                           |                           |                           |                           |                           |  |  |  |
| <b>WC12 : Conductivity &amp; Salinity</b>                    |          |                           |                           |                           |                           |                           |  |  |  |
| Salinity   | ppt      | -                         | 0.3                       | -                         | -                         | 0.4                       |  |  |  |
| Date of Performance  | DD/MM/YY |                           | 16/06/22                  |                           |                           | 16/06/22                  |  |  |  |
| <b>WC12MET : Conductivity</b>                                |          |                           |                           |                           |                           |                           |  |  |  |
| Conductivity (mS/m)  | mS/m     | 68.7                      | 64.9                      | -                         | -                         | -                         |  |  |  |
| Date of Performance  | DD/MM/YY | 16/06/22                  | 16/06/22                  |                           |                           |                           |  |  |  |
| <b>WC17NS : Biochemical oxygen demand</b>                    |          |                           |                           |                           |                           |                           |  |  |  |
| BOD5   | mg/L     | <2                        | <2                        | 140                       | 12                        | 120                       |  |  |  |
| Date of Performance  | DD/MM/YY | 17/06/22                  | 17/06/22                  | 17/06/22                  | 17/06/22                  | 17/06/22                  |  |  |  |
| <b>WC26NS500 : Oil &amp; Grease</b>                          |          |                           |                           |                           |                           |                           |  |  |  |
| Oil & Grease   | mg/L     | <5                        | <5                        | -                         | -                         | -                         |  |  |  |
| Date of Performance  | DD/MM/YY | 17/06/22                  | 17/06/22                  |                           |                           |                           |  |  |  |
| <b>WC44NS : Total, Fixed &amp; Volatile Suspended Solids</b> |          |                           |                           |                           |                           |                           |  |  |  |

"-" = Not required or refer to Laboratory comment

|                         |                           |                           |                           |                           |                           |  |  |  |
|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|--|--|
| <b>Client Sample ID</b> | PT 1<br>POLISHER          | PT 2 TURKEYS              | SPITTER BOX 1             | SPITTER BOX<br>2          | INLET                     |  |  |  |
| <b>Sampled Date</b>     | 14/06/2022<br>07:44:00 AM | 14/06/2022<br>08:20:00 AM | 14/06/2022<br>07:35:00 AM | 14/06/2022<br>07:30:00 AM | 14/06/2022<br>07:41:00 AM |  |  |  |
| <b>Sample Number</b>    | L22047774                 | L22047775                 | L22047776                 | L22047777                 | L22047778                 |  |  |  |

**CHEMISTRY**

WC44NS : Total, Fixed & Volatile Suspended Solids(Continued)

|                        |          |          |          |   |   |   |  |  |
|------------------------|----------|----------|----------|---|---|---|--|--|
| Total Suspended Solids | mg/L     | 7        | 6        | - | - | - |  |  |
| Date of Performance    | DD/MM/YY | 17/06/22 | 20/06/22 |   |   |   |  |  |

**METALS**

TM70SAR : Metals by Inductively Coupled Plasma Atomic Emission Spectrometry

|      |       |   |     |   |   |     |  |  |
|------|-------|---|-----|---|---|-----|--|--|
| SAR* | RATIO | - | 3.4 | - | - | 2.9 |  |  |
|------|-------|---|-----|---|---|-----|--|--|

TM70SDT : Single digestion for Metals

|                     |          |   |          |   |   |          |  |  |
|---------------------|----------|---|----------|---|---|----------|--|--|
| Total Digestion     | DONE     | - | Done     | - | - | Done     |  |  |
| Date of Performance | DD/MM/YY |   | 17/06/22 |   |   | 17/06/22 |  |  |

TM70TW : Metals by ICPAES.

|                 |      |   |      |   |   |      |  |  |
|-----------------|------|---|------|---|---|------|--|--|
| Total Calcium   | mg/L | - | 28.7 | - | - | 30.9 |  |  |
| Total Magnesium | mg/L | - | 9.13 | - | - | 11.6 |  |  |
| Total Sodium    | mg/L | - | 82.5 | - | - | 73.6 |  |  |

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

"-" = Not required or refer to Laboratory comment

|   |           |                           |                           |                           |                           |                           |  |  |  |
|---|-----------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|--|--|--|
| <b>Client Sample ID</b>                   |           | PT 1<br>POLISHER          | PT 2 TURKEYS              | SPITTER BOX 1             | SPITTER BOX<br>2          | INLET                     |  |  |  |
| <b>Sampled Date</b>                       |           | 14/06/2022<br>07:44:00 AM | 14/06/2022<br>08:20:00 AM | 14/06/2022<br>07:35:00 AM | 14/06/2022<br>07:30:00 AM | 14/06/2022<br>07:41:00 AM |  |  |  |
| <b>Sample Number</b>                      |           | L22047774                 | L22047775                 | L22047776                 | L22047777                 | L22047778                 |  |  |  |
| <b>METALS</b>                             |           |                           |                           |                           |                           |                           |  |  |  |
| Date of Performance                       | DD/MM/YY  |                           | 17/06/22                  |                           |                           | 17/06/22                  |  |  |  |
| <b>MICRO</b>                              |           |                           |                           |                           |                           |                           |  |  |  |
| MI01 : Faecal Coliform and/or E. coli     |           |                           |                           |                           |                           |                           |  |  |  |
| E.coli                                    | CFU/100mL | -                         | 23                        | -                         | -                         | -                         |  |  |  |
| Faecal Coliform                           | CFU/100mL | -                         | 23                        | -                         | -                         | -                         |  |  |  |
| Date of Performance                       | D/M/Y H:M |                           | 16/06/22 14:31            |                           |                           |                           |  |  |  |
| <b>NUTRIENTS</b>                          |           |                           |                           |                           |                           |                           |  |  |  |
| NU102 : Total Nitrogen & Total Phosphorus |           |                           |                           |                           |                           |                           |  |  |  |
| Total Nitrogen                            | mg/L      | 48.3                      | 7.29                      | -                         | -                         | -                         |  |  |  |
| Total Phosphorus                          | mg/L      | 6.30                      | 4.24                      | -                         | -                         | -                         |  |  |  |
| Date of Performance                       | DD/MM/YY  | 16/06/22                  | 16/06/22                  |                           |                           |                           |  |  |  |

**COMMENTS**

| <u>Sample ID</u> | <u>Comment Level</u> | <u>Method</u> | <u>Test</u> | <u>Comment</u>  |
|------------------|----------------------|---------------|-------------|---|
| L22047775        | Method               | MI01          | -           | Result confirmed. Sample processed outside of holding time, result may be affected. |

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"-" = Not required or refer to Laboratory comment

**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. |

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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<br><i>Acceptance Criteria</i> | Negative Control<br><i>Acceptance Criteria</i> | Duplicate1 | Duplicate2 | Precision<br><i>Acceptance Criteria</i> |
|--|-------|--|--|------------|------------|---|
| <b>MI01 [Membrane Filtration]E.coli</b>          |       |  |  |            |            |   |
| <1 CFU/100mL                                     | <1    | Accepted                                       | Accepted                                       | 23         | 22         | Accepted                                |
| <b>MI01 [Membrane Filtration]Faecal Coliform</b> |       |  |  |            |            |   |
| <1 CFU/100mL                                     | <1    | Accepted                                       | Accepted                                       | 23         | 22         | Accepted                                |

| LOQ                           | Blank  | Control<br><i>Acceptance Criteria</i> | Spike<br><i>Acceptance Criteria</i>          | Duplicate1 | Duplicate2 | RPD<br><i>Acceptance Criteria</i> |
|-------------------------------|--------|---------------------------------------|--|------------|------------|-----------------------------------|
| <b>NU102 Total Nitrogen</b>   |        |                                       |  |            |            |                                   |
| <0.05 mg/L                    | <0.05  | 0.95<br><i>0.88 - 1.12 mg/L</i>       | 96 % Recovery<br><i>80 - 120 % Recovery</i>  | 0.66       | 0.67       | 1.50 %<br><i>0 - 50 %</i>         |
| <b>NU102 Total Phosphorus</b> |        |                                       |  |            |            |                                   |
| <0.002 mg/L                   | <0.002 | 0.052<br><i>0.045 - 0.055 mg/L</i>    | 111 % Recovery<br><i>80 - 120 % Recovery</i> | 0.019      | 0.019      | B<br><i>0 - 0 %</i>               |
| <b>TM70TW Total Calcium</b>   |        |                                       |  |            |            |                                   |
| <0.01 mg/L                    | <0.01  | 51.9<br><i>40.0 - 60.0 mg/L</i>       | 99 % Recovery<br><i>80 - 120 % Recovery</i>  | 28.7       | 28.6       | 0.35 %<br><i>0 - 20 %</i>         |
| <b>TM70TW Total Magnesium</b> |        |                                       |  |            |            |                                   |
| <0.02 mg/L                    | <0.02  | 51.1<br><i>40.0 - 60.0 mg/L</i>       | 100 % Recovery<br><i>80 - 120 % Recovery</i> | 9.13       | 9.15       | 0.22 %<br><i>0 - 20 %</i>         |

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| LOQ                                  | Blank | Control<br><i>Acceptance Criteria</i> | Spike<br><i>Acceptance Criteria</i>  | Duplicate1 | Duplicate2 | RPD<br><i>Acceptance Criteria</i> |
|--------------------------------------|-------|---------------------------------------|--------------------------------------|------------|------------|-----------------------------------|
| <b>TM70TW Total Sodium</b>           |       |                                       |                                      |            |            |                                   |
| <0.05 mg/L                           | <0.05 | 52.7<br>40.0 - 60.0 mg/L              | 90 % Recovery<br>80 - 120 % Recovery | 82.5       | 82.5       | 0.00 %<br>0 - 20 %                |
| <b>WC12MET Conductivity (mS/m)</b>   |       |                                       |                                      |            |            |                                   |
| <0.1 mS/m                            | F     | 140.6<br>139.3 - 143.3 mS/m           | E                                    | 68.7       | 68.8       | 0.15 %<br>0 - 20 %                |
| <b>WC12 Salinity</b>                 |       |                                       |                                      |            |            |                                   |
| <0.1 ppt                             | F     | 0.7<br>0.6 - 0.8 ppt                  | E                                    | 0.3        | 0.3        | B<br>0 - 0 %                      |
| <b>WC17NS BOD5</b>                   |       |                                       |                                      |            |            |                                   |
| <2 mg/L                              | <2    | 200<br>139 - 257 mg/L                 | E                                    | 140        | 160        | 13.33 %<br>0 - 20 %               |
| <b>WC26NS500 Oil &amp; Grease</b>    |       |                                       |                                      |            |            |                                   |
| <5 mg/L                              | <5    | 92<br>85.1 - 101.5 mg/L               | E                                    |            |            |                                   |
| <b>WC44NS Total Suspended Solids</b> |       |                                       |                                      |            |            |                                   |
| <2 mg/L                              | <2    | 51<br>42.5 - 57.5 mg/L                | E                                    | 780        | 780        | 0.00 %<br>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