

22 Dalmore Drive Scoresby 3179 Tel. 03 8756 8183 Fax. 03 9763 1862





ALGAL REPORT

| CLIENT: | Australian Laboratory Services Pty Ltd SA | | | | |
|----------------------------|---|--|--|--|--|
| LABORATORY NO./BATCH NO. : | 187816 22-45580 | | | | |
| LOCALITY: | EM2209350-012 | | | | |
| SITE: | North Jacks Point | | | | |
| SAMPLE: | Surface | | | | |
| DATE SAMPLED : | 19/05/2022 | | | | |
| DATE ANALYSED : | 24/05/2022 | | | | |
| SAMPLED BY: | Sample analysed as received | | | | |

COMMENTS: + A diverse community of algal taxa were observed. Current levels are likely to influence water quality.

| Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields | 1.0169 1 : 1 | Toxigenic (T) or Potentially toxic (P) | - 200x 20 | - 100x 500 | Total Cell Count (cells/mL) | Individual Algal Unit Volume (um3) | Total Biovolume (mm3/L) | |
|---|-----------------|---|--------------|---------------|-----------------------------------|---|-------------------------------|--|
| BACILLARIOPHYCEAE | | | | | | | | |
| Nitzschia | | | 145 | 0 | 7130 | 400 | 2.85180 | |
| Pennales | | | 1 | 0 | 49 | 300 | 0.01475 | |
| Pennales (small <20um) | | | 1 | 0 | 49 | 251 | 0.01234 | |
| CHLOROPHYCEAE | | | | | | | | |
| Ankistrodesmoideae | | | 191 | 0 | 9391 | 132 | 1.23965 | |
| Chlorococcoids (<10um) | | | 725 | 0 | 35648 | 60 | 2.13885 | |
| Monoraphidium (small) | | | 38 | 0 | 1868 | 16 | 0.02989 | |
| CHRYSOPHYCEAE | | | | | | | | |
| Synura | | | 42 | 0 | 2065 | 300 | 0.61953 | |
| CRYPTOPHYCEAE | | | | | | | | |
| Cryptomonads | | | 15 | 0 | 738 | 320 | 0.23601 | |
| CYANOPHYCEAE | | | | | | | | |
| Synechococcales small (iauv <20) | | | 14000 | 0 | 688367 | 5.25 | 3.61392 | |
| DINOPHYCEAE | | | | | | | | |
| Gymnodiniales | | | 3 | 0 | 148 | 2000 | 0.29501 | |
| Gymnodiniales (small) | | | 11 | 0 | 541 | 500 | 0.27043 | |
| OTHER PHYTOPLANKTON | | | | | | | | |
| Other small flagellates | | | 10 | 0 | 492 | 80 | 0.03934 | |
| TOTAL BGA | | 688367 | | | | 3.61392 | | |
| TOTAL TOXIGENIC BGA | | 0 | | | | 0.00000 | | |
| TOTAL POTENTIALLY TOXIC BGA | | 0 | | | | 0.00000 | | |
| TOTAL ALGAE | | | | | 746486 | | 11.36154 | |

ANALYST: Adam Deliyiannis (signatory) REVIEWED: Kirsten Mudie (signatory) DATE: 24/05/2022
Biologist Biologist

METHOD NO.: MB010/MW024VCA Page 1 of 2



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| Sedgewick-Rafter Vol.(ml) Concentration | 1.0169 1 : 1 | Toxigenic (T) or Potentially | | | Total Cell | Individual Algal Unit | Total |
|---|-----------------|------------------------------------|--------|--------|---------------------|--------------------------|----------------------|
| Magnification | | toxic (P) | - 200x | - 100x | Count (cells/mL) | Volume | Biovolume (mm3/L) |
| Fields | | * | 20 | 500 | (cells/iliL) | (um3) | (111113/2) |

⁺ The comments are discretionary and are for the purpose of helping to understand WQ implications. The comments are not accredited by NATA.

The biovolume values reported are those derived from documented information, including scientific literature. These are average values and not those measured on

A Certificate of analysis will follow, linked by the above batch number. Independent algal reports are forwarded to clients expeditiously to facilitate operational decision making.

ANALYST: Adam Deliyiannis (signatory) REVIEWED: Kirsten Mudie (signatory) DATE: **24/05/2022 Biologist** Biologist

METHOD NO.: MB010/MW024VCA Page 2 of 2

^{*} P's and T's denote those cyanobacteria/blue-green algae (BGA) associated with toxin production in Australian waters. Overseas studies have shown other cyanobacteria to produce toxins. All contain lipopolysaccharides (LPS) in their cell wall and many have been found to produce β-N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.