

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



DATE: 02/03/2021



## **ALGAL REPORT**

| CLIENT:                   | Australian Laboratory Services Pty Ltd SA |
|---------------------------|---|
| LABORATORY NO./BATCH NO.: | 6906815 21-12031                          |
| LOCALITY:                 | EM2103113_004                             |
| SITE:                     | Snipe Point                               |
| SAMPLE:                   | Surface                                   |
| DATE SAMPLED :            | 24/02/2021                                |
| DATE ANALYSED :           | 1/03/2021                                 |
| SAMPLED BY:               | Sample analysed as received               |

**COMMENTS: +** A diverse algal community was observed with low biovolume BGA abundant. Water quality may be impaired.

| Sedgewick-Rafter Vol.(ml)<br>Concentration<br>Magnification<br>Fields | 1.0145<br>1 : 1 | Toxigenic<br>(T) or<br>Potentially<br>toxic (P) | - 200x<br>20 | - 100x<br>500 | Total Cell<br>Count<br>(cells/mL) | Individual<br>Algal Unit<br>Volume<br>(um3) | Total<br>Biovolume<br>(mm3/L) |
|---|-----------------|---|--------------|---------------|-----------------------------------|---|-------------------------------|
| BACILLARIOPHYCEAE   |                 |   |              |               |                                   |   |                               |
| Centrales   |                 |   | 1            | 0             | 49                                | 200   | 0.00986                       |
| Naviculales   |                 |   | 0            | 1             | 2                                 | 1400  | 0.00276                       |
| Nitzschia   |                 |   | 376          | 0             | 18531                             | 400   | 7.41252                       |
| Pennales  |                 |   | 3            | 0             | 148                               | 300   | 0.04436                       |
| Pennales (small <20um)  |                 |   | 1            | 0             | 49                                | 251   | 0.01237                       |
| CHLOROPHYCEAE   |                 |   |              |               |                                   |   |                               |
| Ankistrodesmoideae  |                 |   | 760          | 0             | 37457                             | 132   | 4.94431                       |
| Chlamydomonads  |                 |   | 1            | 0             | 49                                | 250   | 0.01232                       |
| Chlorococcoids (<10um)  |                 |   | 1280         | 0             | 63085                             | 60  | 3.78512                       |
| CHRYSOPHYCEAE   |                 |   |              |               |                                   |   |                               |
| Other Chrysophyceae   |                 |   | 2            | 0             | 99                                | 350   | 0.03450                       |
| CRYPTOPHYCEAE   |                 |   |              |               |                                   |   |                               |
| Cryptomonads  |                 |   | 4            | 0             | 197                               | 320   | 0.06309                       |
| СҮАПОРНҮСЕЛЕ  |                 |   |              |               |                                   |   |                               |
| Synechococcales small (iauv <20)                                      |                 |   | 5920         | 0             | 291769                            | 5.25  | 1.53179                       |
| DINOPHYCEAE   |                 |   |              |               |                                   |   |                               |
| Dinoflagellates   |                 |   | 32           | 0             | 1577                              | 20000                                       | 31.54263                      |
| Gymnodiniales (small)   |                 |   | 11           | 0             | 542                               | 500   | 0.27107                       |
| Peridiniales  |                 |   | 1            | 0             | 49                                | 5000  | 0.24643                       |
| OTHER PHYTOPLANKTON   |                 | 1   |              |               |                                   |   |                               |
| Prasinophytes   |                 |   | 1            | 0             | 49                                | 100   | 0.00493                       |

ANALYST: Kirsten Mudie (signatory)
Biologist

REVIEWED: Adam Deliyiannis
Biologist

METHOD NO.: MB010/MW024VCA Page 1 of 2



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|--|-----------------|---|--------------|---------------|-----------------------------------|---|-------------------------------|
| Fields   |                 |   | 20           | 300           |                                   |   |                               |

| 9 1.53179  | 291769 | TOTAL BGA                   |
|------------|--------|-----------------------------|
| 0.00000    | 0      | TOTAL TOXIGENIC BGA         |
| 0.00000    | 0      | TOTAL POTENTIALLY TOXIC BGA |
| 2 49.91804 | 413652 | TOTAL ALGAE                 |

<sup>+</sup> 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 individual samples.

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: Kirsten Mudie (signatory) REVIEWED: Adam Deliyiannis DATE: 02/03/2021
Biologist Biologist

METHOD NO.: MB010/MW024VCA Page 2 of 2

<sup>\*</sup> 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.