

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





ALGAL REPORT

| CLIENT: | ALS |
|---------------------------|-----------------------------|
| LABORATORY NO./BATCH NO.: | 6657126 20-37229 |
| LOCALITY: | EM2013637_008 |
| SITE: | 3.2km South of Salt Creek |
| SAMPLE: | Surface |
| DATE SAMPLED : | 5/08/2020 |
| DATE ANALYSED : | 10/08/2020 |
| SAMPLED BY: | Sample analysed as received |

COMMENTS: + A diverse algal community was observed. Current excessive levels of small BGA and greens will impair water quality.

| Sedgewick-Rafter Vol.(ml) 1.00 Concentration 1 Magnification Fields | (T) or | - 200x 20 | - 100x 500 | Total Cell Count (cells/mL) | Individual Algal Unit Volume (um3) | Total Biovolume (mm3/L) |
|---|--------|--------------|---------------|-----------------------------------|---|-------------------------------|
| BACILLARIOPHYCEAE | | | | | | |
| Amphora | | 5 | 0 | 250 | 500 | 0.12478 |
| Entomoneis | | 0 | 2 | 4 | 1000 | 0.00399 |
| Navicula | | 1 | 0 | 50 | 1400 | 0.06987 |
| Nitzschia | | 36 | 0 | 1797 | 400 | 0.71871 |
| Pennales | | 7 | 0 | 349 | 300 | 0.10481 |
| Pennales (small <20um) | | 3 | 0 | 150 | 251 | 0.03758 |
| CHLOROPHYCEAE | | | | | | |
| Ankistrodesmoideae | | 590 | 0 | 29447 | 132 | 3.88700 |
| Chlorococcoids (<10um) | | 4960 | 0 | 247554 | 60 | 14.85326 |
| CRYPTOPHYCEAE | | | | | | |
| Cryptomonads | | 13 | 0 | 649 | 320 | 0.20763 |
| CYANOPHYCEAE | | | | | | |
| Planktolyngbya | | 10 | 0 | 499 | 3.8 | 0.00190 |
| Synechococcales small (iauv <20) | | 35400 | 0 | 1766820 | 5.25 | 9.27580 |
| DINOPHYCEAE | | | <u> </u> | | | |
| Gymnodiniales | | 15 | 0 | 749 | 2000 | 1.49730 |
| Gymnodiniales (small) | | 7 | 0 | 349 | 500 | 0.17469 |
| Peridiniales | | 2 | 0 | 100 | 5000 | 0.49910 |
| OTHER PHYTOPLANKTON | | | | · | | |
| Other small flagellates | | 14 | 0 | 699 | 80 | 0.05590 |
| Prasinophytes | | 34 | 0 | 1697 | 100 | 0.16969 |

ANALYST: Kirsten Mudie (signatory) REVIEWED: Adam Deliyiannis DATE: 11/08/2020
Biologist Biologist

METHOD NO.: MB010/MW024CV Page 1 of 2



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COMMENTS: + A diverse algal community was observed. Current excessive levels of small BGA and greens will impair water quality.

| Sedgewick-Rafter Vol.(ml) Concentration | 1.0018 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 | (CCIIS/IIIL) | (um3) | (IIIII3/L) |

| 9 9.27770 | 1767319 | TOTAL BGA |
|-----------|---------|-----------------------------|
| 0.00000 | 0 | TOTAL TOXIGENIC BGA |
| 0.00000 | 0 | TOTAL POTENTIALLY TOXIC BGA |
| 31.68202 | 2051163 | TOTAL ALGAE |

⁺ 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: 11/08/2020
Biologist Biologist

METHOD NO.: MB010/MW024CV 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.