

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6796591 20-56146
LOCALITY :	EM2021368_016
SITE :	Bonneys
SAMPLE :	Surface
DATE SAMPLED :	1/12/2020
DATE ANALYSED :	3/12/2020
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse community of algal taxa was observed. Small synechococcales dominated the sample. Current levels are likely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.024	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

### BACILLARIOPHYCEAE

<i>Centrales</i>		1	0	49	200	0.00977
<i>Chaetoceros</i>		18	0	879	200	0.17578
<i>Gyrosigma</i>		2	0	98	1400	0.13672
<i>Naviculales</i>		16	0	781	1400	1.09375
<i>Nitzschia</i>		9	0	439	400	0.17578
<i>Pennales</i>		8	0	391	300	0.11719
<i>Pennales (small &lt;20um)</i>		104	0	5078	251	1.27461
<i>Pleurosigma</i>		1	0	49	2000	0.09766

### CHLOROPHYCEAE

<i>Chlorococcoids (&lt;10um)</i>		21	0	1025	60	0.06152
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### CYANOPHYCEAE

<i>Planktolyngbya</i>		16	0	781	3.8	0.00297
<i>Pseudanabaena</i>		0	12	23	12.5	0.00029
<i>Synechococcales small (iauv &lt;20)</i>		1960	0	95703	5.25	0.50244

### DINOPHYCEAE

<i>Gymnodiniales</i>		1	0	49	2000	0.09766
<i>Gymnodiniales (small)</i>		1	0	49	500	0.02441

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		16	0	781	80	0.06250
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TOTAL BGA	96507	0.50570
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	106175	3.83305

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+ 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.

\* 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  $\beta$ -N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.