

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7171299 21-46438
LOCALITY :	EM2119079-013
SITE :	Seagull Island
SAMPLE :	Surface
DATE SAMPLED :	22/09/2021
DATE ANALYSED :	28/09/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. Excessive levels of low biovolume BGA Synechococcales are likely to influence water quality.

Sedgewick-Rafter Vol.(ml)	1.0303	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>Amphora</i>		3	0	146	500	0.07279
<i>Naviculales</i>		2	0	97	1400	0.13588
<i>Nitzschia</i>		1	0	49	400	0.01941
<i>Pennales</i>		1	0	49	300	0.01456
<i>Pennales (small <20um)</i>		1	0	49	251	0.01218

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		46	0	2232	132	0.29467
<i>Chlorococcoids (<10um)</i>		22	0	1068	60	0.06406

CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	49	320	0.01553
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CYANOPHYCEAE

<i>Synechococcales small (iauv <20)</i>		22320	0	1083180	5.25	5.68669
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DINOPHYCEAE

<i>Dinoflagellates</i>		0	1	2	20000	0.03882
<i>Gymnodiniales</i>		3	0	146	2000	0.29118
<i>Gymnodiniales (small)</i>		1	0	49	500	0.02426

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		6	0	291	80	0.02329
<i>Prasinophytes</i>		1	0	49	100	0.00485
<i>Raphidophytes</i>		4	0	194	7000	1.35883

TOTAL BGA	1083180	5.68669
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	1087650	8.05702

ANALYST: *Adam Deliyannis*
Biologist

REVIEWED: *Louise Ungemach (signatory)*
Biologist

DATE: **29/09/2021**

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