

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7171298 21-46438
LOCALITY :	EM2119079-012
SITE :	North Jacks Point
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)	1.0242	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

BACILLARIOPHYCEAE

<i>Amphora</i>		1	0	49	500	0.02441
<i>Centrales</i>		1	0	49	200	0.00976
<i>Naviculales</i>		0	1	2	1400	0.00273
<i>Nitzschia</i>		1	0	49	400	0.01953
<i>Pennales</i>		2	0	98	300	0.02929
<i>Pennales (small <20um)</i>		2	0	98	251	0.02451

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		62	0	3027	132	0.39953
<i>Chlorococcoids (<10um)</i>		53	0	2587	60	0.15524

CYANOPHYCEAE

<i>Planktolyngbya</i>		7	0	342	3.8	0.00130
<i>Synechococcales small (iauv <20)</i>		20080	0	980277	5.25	5.14646

DINOPHYCEAE

<i>Gymnodiniales</i>		3	0	146	2000	0.29291
<i>Gymnodiniales (small)</i>		1	0	49	500	0.02441

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		10	0	488	80	0.03905
<i>Prasinophytes</i>		1	0	49	100	0.00488
<i>Raphidophytes</i>		4	0	195	7000	1.36692

TOTAL BGA	980619	5.14775
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	987505	7.54094

ANALYST: *Adam Deliyiannis*
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.