

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7136734 21-41798
LOCALITY :	EM2116912-012
SITE :	North Jacks Point
SAMPLE :	Surface
DATE SAMPLED :	24/08/2021
DATE ANALYSED :	27/08/2021
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 impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0046	Toxigenic (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>		2	0	100	500	0.04977
<i>Nitzschia</i>		3	0	149	400	0.05973
<i>Pennales</i>		5	0	249	300	0.07466
<i>Pennales (small &lt;20um)</i>		3	0	149	251	0.03748
<i>Pleurosigma</i>		0	2	4	2000	0.00796

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		78	0	3882	132	0.51244
<i>Chlorococcoids (&lt;10um)</i>		63	0	3136	60	0.18813

### CHRYSOPHYCEAE

<i>Other Chrysophytes</i>		2	0	100	200	0.01991
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### CYANOPHYCEAE

<i>Planktolyngbya</i>		15	0	747	3.8	0.00284
<i>Synechococcales small (iauv &lt;20)</i>		16160	0	804300	5.25	4.22258

### DINOPHYCEAE

<i>Gymnodiniales</i>		1	0	50	2000	0.09954
<i>Gymnodiniales (small)</i>		3	0	149	500	0.07466

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		20	0	995	80	0.07963
<i>Prasinophytes</i>		1	0	50	100	0.00498
<i>Raphidophytes</i>		1	0	50	7000	0.34840

TOTAL BGA	805047	4.22541
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	814110	5.78270

ANALYST: *Adam Deliyannis*  
Biologist

REVIEWED: *Karen Simonsen (signatory)*  
Biologist

DATE: **27/08/2021**

METHOD NO.: MB010/MW024VCA

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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.