

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6750302 20-50047
LOCALITY :	EM2018692_011
SITE :	Long Point
SAMPLE :	Surface
DATE SAMPLED :	21/10/2020
DATE ANALYSED :	26/10/2020
SAMPLED BY :	Sample analysed as received

**COMMENTS: +** A diverse algal community was observed with current algal levels unlikely to impair water quality. The presence of toxigenic BGA Nodularia is noteworthy.

Sedgewick-Rafter Vol.(ml)	1.0208	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>Chaetoceros</i>		8	0	392	200	0.07837
<i>Cocconeis</i>		0	1	2	450	0.00088
<i>Licmophora</i>		0	3	6	850	0.00500
<i>Nitzschia</i>		0	1	2	400	0.00078
<i>Pennales (small &lt;20um)</i>		1	0	49	251	0.01229

### CHLOROPHYCEAE

<i>Chlamydomonads</i>		4	0	196	250	0.04898
<i>Chlorococcoids (&lt;10um)</i>		32	0	1567	60	0.09404
<i>Crucigenia</i>		8	0	392	30	0.01176
<i>Oocystis</i>		4	0	196	300	0.05878
<i>Planctonema</i>		0	18	35	800	0.02821
<i>Selenastrum</i>		1	0	49	250	0.01225

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		52	0	2547	320	0.81505
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### CYANOPHYCEAE

<i>Nodularia spumigena</i>	T	0	20	39	227	0.00889
<i>Oscillatoriales (iauv 1-100)</i>	P	0	72	141	60.8	0.00858
<i>Oscillatoriales (iauv 101-200)</i>	P	0	125	245	142.8	0.03497
<i>Planktolyngbya</i>		0	12	24	3.8	0.00009
<i>Synechococcales small (iauv &lt;20)</i>		528	0	25862	5.25	0.13578

### DINOPHYCEAE

<i>Protoperdinium</i>		0	1	2	31000	0.06074
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### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		32	0	1567	80	0.12539
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ANALYST: **Kirsten Mudie (signatory)**  
Biologist

REVIEWED: **Adam Deliyannis**  
Biologist

DATE: **27/10/2020**

METHOD NO.: MB010/MW024CV

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TOTAL BGA	26311	0.18831
TOTAL TOXIGENIC BGA	39	0.00889
TOTAL POTENTIALLY TOXIC BGA	386	0.04355
TOTAL ALGAE	33313	1.54083

+ 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.

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