

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7086227 21-35420
LOCALITY :	EM2113768-020
SITE :	Mark Point
SAMPLE :	Surface
DATE SAMPLED :	14/07/2021
DATE ANALYSED :	20/07/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse algal community was observed with current levels unlikely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0138	Toxicogenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Concentration	1 : 1	*	- 200x	- 100x			
Magnification			20	500			
Fields							

### BACILLARIOPHYCEAE

Centrales		4	0	197	200	0.03946
Chaetoceros		0	3	6	200	0.00118
Pennales		3	0	148	300	0.04439
Pennales (small <20um)		5	0	247	251	0.06190

### CHLOROPHYCEAE

Chlorococcoids (<10um)		26	0	1282	60	0.07694
Closterium		0	2	4	4130	0.01630
Crucigenia		8	0	395	30	0.01184
Dictyosphaerium		4	0	197	20	0.00395
Dimorphococcus		0	8	16	20	0.00032
Lagerheimia		1	0	49	500	0.02466
Monoraphidium		7	0	345	900	0.31071
Oocystis		2	0	99	300	0.02959
Planctonema		11	0	543	800	0.43401
Tetrastrum		4	0	197	40	0.00789

### CRYPTOPHYCEAE

Cryptomonads		11	0	543	320	0.17360
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### CYANOPHYCEAE

Aphanizomenonaceae family - straight	P	0	44	87	67	0.00582
Limnolyngbya		192	0	9469	4.9	0.04640
Planktolyngbya		77	0	3798	3.8	0.01443
Synechococcales small (iauv <20)		123	0	6066	5.25	0.03185

### DINOPHYCEAE

Gymnodiniales		1	0	49	2000	0.09864
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### EUGLENOPHYCEAE

ANALYST: **Kirsten Mudie (signatory)**  
Biologist

REVIEWED: **Adam Deliyannis**  
Biologist

DATE: **20/07/2021**

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**COMMENTS:** + A diverse algal community was observed with current levels unlikely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0138	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							
<i>Eutreptia</i>			0	4	8	1000	0.00789
<b>OTHER PHYTOPLANKTON</b>							
<i>Other filaments (cells)</i>			0	6	12	400	0.00473
<i>Other small flagellates</i>			12	0	592	80	0.04735
<i>Prasinophytes</i>			1	0	49	100	0.00493
<b>TOTAL BGA</b>					<b>19420</b>		<b>0.09849</b>
<b>TOTAL TOXIGENIC BGA</b>					<b>0</b>		<b>0.00000</b>
<b>TOTAL POTENTIALLY TOXIC BGA</b>					<b>87</b>		<b>0.00582</b>
<b>TOTAL ALGAE</b>					<b>24398</b>		<b>1.49876</b>

+ 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.