

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7545133 22-57032
LOCALITY :	EM2213883-006
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	20/07/2022
DATE ANALYSED :	26/07/2022
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse algal community was observed with high levels of algae that are likely to impair water quality.

Sedgewick-Rafter Vol.(ml)	1.0099	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>Chaetoceros</i>		52	0	2575	200	0.51490
<i>Navicula</i>		2	0	99	1400	0.13863
<i>Nitzschia</i>		1	0	50	400	0.01980
<i>Pennales</i>		2	0	99	300	0.02971
<i>Pennales (small &lt;20um)</i>		3	0	149	251	0.03728
<i>Pleurosigma</i>		0	1	2	2000	0.00396

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		510	0	25250	132	3.33300
<i>Chlamydomonads</i>		24	0	1188	250	0.29706
<i>Chlorococcoids (&lt;10um)</i>		2420	0	119814	60	7.18883
<i>Dictyosphaerium</i>		12	0	594	20	0.01188
<i>Monoraphidium (small)</i>		4	0	198	16	0.00317

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	50	320	0.01584
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### CYANOPHYCEAE

<i>Synechococcales small (iauv &lt;20)</i>		9100	0	450540	5.25	2.36533
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### DINOPHYCEAE

<i>Dinoflagellates</i>		0	2	4	20000	0.07922
<i>Gymnodiniales</i>		7	0	347	2000	0.69314
<i>Gymnodiniales (small)</i>		2	0	99	500	0.04951

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		400	0	19804	80	1.58432
<i>Prasinophytes</i>		2	0	99	100	0.00990

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

REVIEWED: **Adam Deliyiannis (signatory)**  
Biologist

DATE: **26/07/2022**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml)	1.0099	Toxigenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
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TOTAL BGA	450540	2.36533
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	620961	16.37548

+ 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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Biologist

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