

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6933881 21-15798
LOCALITY :	EM2104707_018
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	17/03/2021
DATE ANALYSED :	23/03/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + High levels of low biovolume BGA and greens were present amongst a diverse algal community. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml)	1.0145	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>Amphora</i>		3	0	148	500	0.07393
<i>Naviculales</i>		1	0	49	1400	0.06900
<i>Nitzschia</i>		3	0	148	400	0.05914
<i>Pennales</i>		1	0	49	300	0.01479
<i>Pennales (small <20um)</i>		7	0	345	251	0.08659

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		120	0	5914	132	0.78068
<i>Chlorococcoids (<10um)</i>		660	0	32528	60	1.95170
<i>Filamentous Green</i>		0	24	47	386	0.01826
<i>Oocystis</i>		2	0	99	300	0.02957
<i>Selenastrum</i>		1	0	49	250	0.01232

CYANOPHYCEAE

<i>Planktolyngbya</i>		43	0	2119	3.8	0.00805
<i>Synechococcales small (iauv <20)</i>		2680	0	132085	5.25	0.69345

DINOPHYCEAE

<i>Dinoflagellates</i>		8	0	394	20000	7.88566
<i>Gymnodiniales (small)</i>		5	0	246	500	0.12321

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		30	0	1479	80	0.11828
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TOTAL BGA	134204	0.70150
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	175699	11.92464

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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.

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

REVIEWED: **Adam Deliyiannis**
Biologist

DATE: **23/03/2021**

METHOD NO.: MB010/MW024VCA

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