

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7086221 21-35420
LOCALITY :	EM2113768-014
SITE :	McGrath Flat North
SAMPLE :	Surface
DATE SAMPLED :	13/07/2021
DATE ANALYSED :	20/07/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A moderately diverse algal community was observed with excessive levels of low biovolume BGA noted. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml)	1.0311	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

BACILLARIOPHYCEAE

<i>Centrales</i>	1	0	48	200	0.00970
<i>Chaetoceros</i>	2	0	97	200	0.01940
<i>Nitzschia</i>	2	0	97	400	0.03879
<i>Pennales (small <20um)</i>	2		97	251	0.02434

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>	380	0	18427	132	2.43235
<i>Chlamydomonads</i>	1	0	48	250	0.01212
<i>Chlorococcoids (<10um)</i>	90	0	4364	60	0.26186
<i>Monoraphidium</i>	1	0	48	900	0.04364

CYANOPHYCEAE

<i>Pseudanabaena</i>	0	25	48	12.5	0.00061
<i>Synechococcales small (iauv <20)</i>	4740	0	229852	5.25	1.20672

DINOPHYCEAE

<i>Gymnodiniales</i>	1	0	48	2000	0.09698
<i>Gymnodiniales (small)</i>	2	0	97	500	0.04849

OTHER PHYTOPLANKTON

<i>Other small flagellates</i>	30	0	1455	80	0.11638
<i>Prasinophytes</i>	135	0	6546	100	0.65464

TOTAL BGA	229900	1.20733
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	261272	4.96603

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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.