

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7136738 21-41798
LOCALITY :	EM2116912-016
SITE :	Morella Basin @Gauge
SAMPLE :	Surface
DATE SAMPLED :	24/08/2021
DATE ANALYSED :	27/08/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed. Current combined levels are unlikely to impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0018	Toxigenic (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

<i>Amphora</i>		1	0	50	500	0.02496
<i>Cocconeis</i>		0	2	4	450	0.00180
<i>Entomoneis</i>		0	2	4	1000	0.00399
<i>Naviculales</i>		3	0	150	1400	0.20962
<i>Pennales</i>		2	0	100	300	0.02995
<i>Pennales (small <20um)</i>		7	0	349	251	0.08769

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		15	0	749	132	0.09882
<i>Chlamydomonads</i>		1	0	50	250	0.01248
<i>Chlorococcoids (<10um)</i>		35	0	1747	60	0.10481
<i>Filamentous Green</i>		6	0	299	386	0.11559
<i>Oocystis</i>		17	0	848	300	0.25454
<i>Scenedesmus</i>		0	4	8	250	0.00200

CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	50	320	0.01597
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CYANOPHYCEAE

<i>Aphanizomenonaceae family - straight</i>	P	0	83	166	67	0.01110
<i>Limnithrix/Geitlerinema/Anagnostidinema</i>	P	14	0	699	17.5	0.01223
<i>Planktolyngbya</i>		165	0	8235	3.8	0.03129
<i>Pseudanabaena</i>		4	0	200	12.5	0.00250
<i>Synechococcales small (iauv <20)</i>		15	0	749	5.25	0.00393

DINOPHYCEAE

<i>Gymnodiniales</i>		0	4	8	2000	0.01597
<i>Peridinales</i>		12	0	599	5000	2.99461

OTHER PHYTOPLANKTON

ANALYST: **Karen Simonsen (signatory)**
Biologist

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **30/08/2021**

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0018 1 : 1	Toxigenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um ³)	Total Biovolume (mm ³ /L)
Other small flagellates			5	0	250	80	0.01996
Prasinophytes			7	0	349	100	0.03494
Raphidophytes			1	0	50	7000	0.34937
TOTAL BGA					10049		0.06105
TOTAL TOXIGENIC BGA					0		0.00000
TOTAL POTENTIALLY TOXIC BGA					865		0.02333
TOTAL ALGAE					15713		4.43812

+ 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.