

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7171289 21-46438
LOCALITY :	EM2119079-003
SITE :	DS Tauwiche
SAMPLE :	Surface
DATE SAMPLED :	23/09/2021
DATE ANALYSED :	27/09/2021
SAMPLED BY :	Sample analysed as received

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

Sedgewick-Rafter Vol.(ml)	1.0722	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

Centrales		16	0	746	200	0.14923
Pennales		0	5	9	300	0.00280

CHLOROPHYCEAE

Ankistrodesmus		2	0	93	132	0.01231
Ankyra		1	0	47	40	0.00187
Chlamydomonads		1	0	47	250	0.01166
Chlorococcoids (<10um)		256	0	11938	60	0.71628
Closterium		1	0	47	4130	0.19259
Colonial green (cells)		18	0	839	100	0.08394
Crucigenia		688	0	32084	30	0.96251
Dictyosphaerium		36	0	1679	20	0.03358
Didymocystis		20	0	933	41	0.03824
Dimorphococcus		8	0	373	20	0.00746
Elakatothrix		0	2	4	45	0.00017
Eremosphaera		2	0	93	700	0.06529
Golenkinia		1	0	47	400	0.01865
Lagerheimia		16	0	746	500	0.37306
Monoraphidium		20	0	933	900	0.83940
Nephrocystium		4	0	187	200	0.03731
Oocystis		392	0	18280	300	5.48405
Pediastrum		12	0	560	60	0.03358
Planctonema		336	0	15669	800	12.53497
Scenedesmus		72	0	3358	250	0.83940
Staurostrum		1	0	47	2000	0.09327
Tetrastrum		24	0	1119	40	0.04477

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **28/09/2021**

METHOD NO.: MB010/MW024VCA

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DATE SAMPLED :	23/09/2021
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COMMENTS: + A diverse algal community was observed with low biovolume BGA present in excessive levels. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml)	1.0722	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							

CHRYSTOPHYCEAE

Other Chrysophyceae		5	0	233	350	0.08161
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CRYPTOPHYCEAE

Cryptomonads		1	0	47	320	0.01492
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CYANOPHYCEAE

Aphanizomenonaceae family - straight	P	0	12	22	67	0.00150
Limnolyngbya (Planktolynbya circumcreta)		2440	0	113785	4.9	0.55755
Planktolynbya		1320	0	61556	3.8	0.23391
Pseudanabaena		10	0	466	12.5	0.00583
Romeria		4	0	187	31	0.00578
Synechococcales small (iauv <20)		36200	0	1688118	5.25	8.86262

TOTAL BGA	1864134	9.66719
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	22	0.00150
TOTAL ALGAE	1954292	32.34008

+ 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.

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Biologist

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