

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	6796587 20-56146
LOCALITY :	EM2021368_012
SITE :	DS Tauwiche
SAMPLE :	Surface
DATE SAMPLED :	1/12/2020
DATE ANALYSED :	3/12/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A highly diverse and abundant algal community was observed with current algal levels sufficient to impair water quality.

Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0099 1 : 1	Toxicogenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
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BACILLARIOPHYCEAE

<i>Centrales</i>			2	0	99	200	0.01980
<i>Nitzschia</i>			2	0	99	400	0.03961
<i>Pennales (small <20um)</i>			110	0	5446	251	1.36697

CHLOROPHYCEAE

<i>Ankistrodesmus</i>			40	0	1980	132	0.26141
<i>Botryococcus</i>			0	100	198	98	0.01941
<i>Chlorococcoids (<10um)</i>			20	0	990	60	0.05941
<i>Closterium</i>			1	0	50	4130	0.20448
<i>Colonial green (cells)</i>			270	0	13368	100	1.33677
<i>Crucigenia</i>			540	0	26735	30	0.80206
<i>Dictyosphaerium</i>			14	0	693	20	0.01386
<i>Didymocystis</i>			120	0	5941	41	0.24359
<i>Eremosphaera</i>			0	12	24	700	0.01664
<i>Golenkinia</i>			15	0	743	400	0.29706
<i>Hyaloraphidium</i>			1	0	50	750	0.03713
<i>Lagerheimia</i>			45	0	2228	500	1.11397
<i>Nephrocystium</i>			7	0	347	200	0.06931
<i>Oocystis</i>			320	0	15843	300	4.75295
<i>Pediastrum</i>			14	0	693	60	0.04159
<i>Planctonema</i>			1640	0	81196	800	64.95693
<i>Scenedesmus</i>			120	0	5941	250	1.48530
<i>Schroederia</i>			1	0	50	550	0.02723
<i>Selenastrum</i>			12	0	594	250	0.14853
<i>Tetraedron</i>			2	0	99	150	0.01485
<i>Tetrastrum</i>			24	0	1188	40	0.04753

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **04/12/2020**

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)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

CRYPTOPHYCEAE

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

<i>Limnolyngbya (Planktolyngbya circumcreta)</i>		790	0	39113	4.9	0.19165
<i>Planktolyngbya</i>		205	0	10150	3.8	0.03857
<i>Synechococcales small (iauv <20)</i>		12160	0	602040	5.25	3.16071

EUGLENOPHYCEAE

<i>Euglena</i>		0	2	4	7000	0.02773
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OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		2	0	99	80	0.00792
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TOTAL BGA	651303	3.39093
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	816051	80.81879

+ 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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