

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7394975 22-15545
LOCALITY :	EM2204816-003
SITE :	DS Tauwitschere
SAMPLE :	Surface
DATE SAMPLED :	16/03/2022
DATE ANALYSED :	25/03/2022
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A highly diverse algal community was observed. Current algal levels may mildly influence water quality.

Sedgewick-Rafter Vol.(ml)	1.0168	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							

### BACILLARIOPHYCEAE

<i>Aulacoseira</i>		5	0	246	2860	0.70319
<i>Centrales</i>		316	0	15539	200	3.10779
<i>Pennales</i>		28	0	1377	300	0.41306

### CHLOROPHYCEAE

<i>Botryococcus</i>		0	40	79	98	0.00771
<i>Chlamydomonads</i>		1	0	49	250	0.01229
<i>Chlorococcoids (&lt;10um)</i>		58	0	2852	60	0.17113
<i>Colonial green (cells)</i>		36	0	1770	100	0.17703
<i>Crucigenia</i>		112	0	5507	30	0.16522
<i>Dictyosphaerium</i>		32	0	1574	20	0.03147
<i>Dimorphococcus</i>		14	0	688	20	0.01377
<i>Lagerheimia</i>		1	0	49	500	0.02459
<i>Monoraphidium (small)</i>		30	0	1475	16	0.02360
<i>Monoraphidium (large)</i>		2	0	98	400	0.03934
<i>Oocystis</i>		28	0	1377	300	0.41306
<i>Planctonema</i>		97	0	4770	800	3.81589
<i>Scenedesmus</i>		48	0	2360	250	0.59009
<i>Staurastrum</i>		1	0	49	2000	0.09835
<i>Tetraedron</i>		1	0	49	150	0.00738
<i>Tetrastrum</i>		8	0	393	40	0.01574

### CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	49	320	0.01574
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### CYANOPHYCEAE

<i>Aphanizomenonaceae family - straight</i>	P	21	0	1033	67	0.06919
<i>Cuspidothrix issatschenkoi</i>		32	0	1574	57	0.08969

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

REVIEWED: **Adam Deliyannis (signatory)**  
Biologist

DATE: **25/03/2022**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0168 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)
<i>Limnolyngbya</i>			1710	0	84087	4.9	0.41203
<i>Planktolingbya</i>			2070	0	101790	3.8	0.38680
<i>Pseudanabaena</i>			12	0	590	12.5	0.00738
<i>Raphidiopsis</i>		P	7	0	344	59	0.02031
<i>Romeria</i>			5	0	246	31	0.00762
<i>Synechococcales small (iauv &lt;20)</i>			3180	0	156373	5.25	0.82096
<b>EUGLENOPHYCEAE</b>							
<i>Euglena</i>			2	0	98	7000	0.68843
<b>TOTAL BGA</b>					<b>346037</b>		<b>1.81398</b>
<b>TOTAL TOXIGENIC BGA</b>					<b>0</b>		<b>0.00000</b>
<b>TOTAL POTENTIALLY TOXIC BGA</b>					<b>1377</b>		<b>0.08950</b>
<b>TOTAL ALGAE</b>					<b>386485</b>		<b>12.34883</b>

+ 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  $\beta$ -N-methylamino-L-alanine (BMAA) and its analogues. Therefore all cyanobacteria could be considered to pose a level of risk.