

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7241917 21-55807
LOCALITY :	EM2123012-018
SITE :	US Tauwitschere
SAMPLE :	Surface
DATE SAMPLED :	16/11/2021
DATE ANALYSED :	22/11/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A highly diverse range of algal taxa was observed. Current excessive levels of low biovolume BGA Synechococcales will impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0327	Toxicogenic (T) or Potentially toxic (P)	- 200x	- 100x	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
Concentration	1 : 1	*	20	500			
Magnification							
Fields							

### BACILLARIOPHYCEAE

<i>Aulacoseira</i>		0	68	132	2860	0.37664
<i>Centrales</i>		4	0	194	200	0.03873
<i>Nitzschia</i>		0	2	4	400	0.00155
<i>Pennales</i>		5	0	242	300	0.07263
<i>Urosolenia</i>		1	0	48	966	0.04677

### CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		3	0	145	132	0.01917
<i>Ankistrodesmus</i>		4	0	194	132	0.02556
<i>Chlorococcoids (&lt;10um)</i>		47	0	2276	60	0.13654
<i>Closterium</i>		0	6	12	4130	0.04799
<i>Crucigenia</i>		208	0	10071	30	0.30212
<i>Dictyosphaerium</i>		20	0	968	20	0.01937
<i>Didymocystis</i>		16	0	775	41	0.03176
<i>Dimorphococcus</i>		4	0	194	20	0.00387
<i>Filamentous Green</i>		33	0	1598	386	0.61673
<i>Lagerheimia</i>		3	0	145	500	0.07263
<i>Monoraphidium</i>		4	0	194	900	0.17430
<i>Oocystis</i>		72	0	3486	300	1.04580
<i>Pediastrum</i>		9	0	436	60	0.02615
<i>Planctonema</i>		268	0	12976	800	10.38056
<i>Scenedesmus</i>		26	0	1259	250	0.31471
<i>Tetraedron</i>		2	0	97	150	0.01453
<i>Tetrastrum</i>		8	0	387	40	0.01549

### CHRYSTOPHYCEAE

<i>Other Chrysophyceae</i>		1	0	48	350	0.01695
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ANALYST: *Adam Deliyannis (signatory)* REVIEWED: *Kirsten Mudie (signatory)*  
Biologist Biologist

DATE: 22/11/2021

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### CRYPTOPHYCEAE

<i>Cryptomonads</i>		1	0	48	320	0.01549
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### CYANOPHYCEAE

<i>Chroococcus (small cells)</i>		0	28	54	12	0.00065
<i>Limnolyngbya (Planktolynbya circumcreta)</i>		3250	0	157355	4.9	0.77104
<i>Planktolynbya</i>		2550	0	123463	3.8	0.46916
<i>Synechococcales small (iauv &lt;20)</i>		5200	0	251767	5.25	1.32178

### OTHER PHYTOPLANKTON

<i>Other small flagellates</i>		3	0	145	80	0.01162
<i>Raphidophytes</i>		2	0	97	7000	0.67783

TOTAL BGA	532639	2.56262
TOTAL TOXIGENIC BGA	0	0.00000
TOTAL POTENTIALLY TOXIC BGA	0	0.00000
TOTAL ALGAE	568810	17.06811

+ 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.

ANALYST: *Adam Deliyannis (signatory)* REVIEWED: *Kirsten Mudie (signatory)*  
Biologist Biologist

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METHOD NO.: MB010/MW024VCA

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