

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	187808 22-45580
LOCALITY :	EM2209350-004
SITE :	DS Tauwitschere
SAMPLE :	Surface
DATE SAMPLED :	18/05/2022
DATE ANALYSED :	24/05/2022
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with low biovolume BGA most numerous. Water quality may be impaired.

Sedgewick-Rafter Vol.(ml)	1.032	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

<i>Aulacoseira</i>	0	12	23	2860	0.06651
<i>Centrales</i>	6	0	291	200	0.05814
<i>Pennales</i>	4	0	194	300	0.05814
<i>Pennales (small <20um)</i>	3	0	145	251	0.03648

CHLOROPHYCEAE

<i>Actinastrum</i>	0	4	8	60	0.00047
<i>Chlorococcoids (<10um)</i>	10	0	484	60	0.02907
<i>Crucigenia</i>	112	0	5426	30	0.16279
<i>Dictyosphaerium</i>	38	0	1841	20	0.03682
<i>Didymocystis</i>	8	0	388	41	0.01589
<i>Dimorphococcus</i>	18	0	872	20	0.01744
<i>Elakatothrix</i>	1	0	48	45	0.00218
<i>Micractinium</i>	4	0	194	30	0.00581
<i>Monoraphidium (small)</i>	52	0	2519	16	0.04031
<i>Monoraphidium (large)</i>	1	0	48	400	0.01938
<i>Oocystis</i>	88	0	4264	300	1.27907
<i>Pediastrum</i>	0	8	16	60	0.00093
<i>Planctonema</i>	248	0	12016	800	9.61240
<i>Scenedesmus</i>	8	0	388	250	0.09690
<i>Staurostrum</i>	0	2	4	2000	0.00775
<i>Tetraedron</i>	4	0	194	150	0.02907
<i>Tetrastrum</i>	16	0	775	40	0.03101

CRYPTOPHYCEAE

<i>Cryptomonads</i>	1	0	48	320	0.01550
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CYANOPHYCEAE

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

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

DATE: **24/05/2022**

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.032 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)
<i>Aphanizomenonaceae family - straight</i>		P	0	52	101	67	0.00675
<i>Cuspidothrix issatschenkoi</i>			0	50	97	57	0.00552
<i>Limnolyngbya</i>			340	0	16473	4.9	0.08072
<i>Planktolyngbya</i>			2310	0	111919	3.8	0.42529
<i>Pseudanabaena</i>			48	0	2326	12.5	0.02907
<i>Synechococcales small (iauv <20)</i>			1410	0	68314	5.25	0.35865
TOTAL BGA					199230		0.90600
TOTAL TOXIGENIC BGA					0		0.00000
TOTAL POTENTIALLY TOXIC BGA					101		0.00675
TOTAL ALGAE					229416		12.52807

+ 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.

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

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

DATE: **24/05/2022**

METHOD NO.: MB010/MW024VCA

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