

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7007882 21-25384
LOCALITY :	EM2108900_013
SITE :	DS Tauwicheere
SAMPLE :	Surface
DATE SAMPLED :	12/05/2021
DATE ANALYSED :	20/05/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse algal community was observed with excessive levels of low biovolume BGA present. Potentially toxic BGA were noted. Water quality is likely to be impaired and a health risk may be posed.

Sedgewick-Rafter Vol.(ml)	1.0046	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>Centrales</i>		16	0	796	200	0.15927
<i>Chaetoceros</i>		1	0	50	200	0.00995
<i>Licmophora</i>		1	0	50	850	0.04231
<i>Nitzschia</i>		5	0	249	400	0.09954
<i>Pennales</i>		10	0	498	300	0.14931

CHLOROPHYCEAE

<i>Ankistrodesmus</i>		20	0	995	132	0.13140
<i>Botryococcus</i>		0	65	129	98	0.01268
<i>Chlamydomonads</i>		1	0	50	250	0.01244
<i>Chlorococcoids (<10um)</i>		16	0	796	60	0.04778
<i>Colonial green (cells)</i>		32	0	1593	100	0.15927
<i>Crucigenia</i>		40	0	1991	30	0.05973
<i>Didymocystis</i>		4	0	199	41	0.00816
<i>Eremosphaera</i>		0	30	60	700	0.04181
<i>Hyaloraphidium</i>		1	0	50	750	0.03733
<i>Lagerheimia</i>		8	0	398	500	0.19908
<i>Oocystis</i>		38	0	1891	300	0.56739
<i>Pediastrum</i>		12	0	597	60	0.03584
<i>Planctonema</i>		200	0	9954	800	7.96337
<i>Scenedesmus</i>		32	0	1593	250	0.39817
<i>Selenastrum</i>		2	0	100	250	0.02489
<i>Tetrastrum</i>		8	0	398	40	0.01593

CYANOPHYCEAE

<i>Aphanizomenonaceae family - straight</i>	P	564	0	28071	67	1.88075
<i>Limnolyngbya (Planktolynbya circumcreta)</i>		2120	0	105515	4.9	0.51702

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

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **21/05/2021**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0046 1 : 1	Toxicogenic (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>Planktolyngbya</i>			4360	0	217002	3.8	0.82461
<i>Pseudanabaena</i>			41	0	2041	12.5	0.02551
<i>Raphidiopsis</i>		P	126	0	6271	59	0.37000
<i>Synechococcales</i> small (iauv <20)			8320	0	414095	5.25	2.17400
EUGLENOPHYCEAE							
<i>Euglena</i>			2	0	100	7000	0.69679
OTHER PHYTOPLANKTON							
<i>Other filaments (cells)</i>			0	95	189	400	0.07565
<i>Other small flagellates</i>			1	0	50	80	0.00398
TOTAL BGA			772995			5.79188	
TOTAL TOXIGENIC BGA			0			0.00000	
TOTAL POTENTIALLY TOXIC BGA			34342			2.25075	
TOTAL ALGAE			795771			16.74394	

+ 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.