

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7136724 21-41798
LOCALITY :	EM2116912-002
SITE :	US Tauwichee
SAMPLE :	Surface
DATE SAMPLED :	25/08/2021
DATE ANALYSED :	27/08/2021
SAMPLED BY :	Sample analysed as received

COMMENTS: + A diverse community of algal taxa was observed. Elevated levels of debris/sediment was observed. Excessive levels of low biovolume BGA Synechococcales are likely to impact water quality.

Sedgewick-Rafter Vol.(ml)	1.0744	Toxigenic (T) or Potentially toxic (P)			Total Cell Count (cells/mL)	Individual Algal Unit Volume (um3)	Total Biovolume (mm3/L)
Concentration	1 : 1	*	- 200x	- 100x			
Magnification			20	500			
Fields							

BACILLARIOPHYCEAE

<i>Fragilariaceae</i>		41	0	1908	500	0.95402
<i>Pennales (small <20um)</i>		21	0	977	251	0.24530

CHLOROPHYCEAE

<i>Ankistrodesmoideae</i>		6	0	279	132	0.03686
<i>Botryococcus</i>		0	385	717	98	0.07023
<i>Chlamydomonads</i>		2	0	93	250	0.02327
<i>Chlorococcoids (<10um)</i>		58	0	2699	60	0.16195
<i>Closterium</i>		0	7	13	4130	0.05382
<i>Crucigenia</i>		280	0	13031	30	0.39092
<i>Dictyosphaerium</i>		28	0	1303	20	0.02606
<i>Didymocystis</i>		2	0	93	41	0.00382
<i>Eremosphaera</i>		3	0	140	700	0.09773
<i>Lagerheimia</i>		8	0	372	500	0.18615
<i>Monoraphidium</i>		3	0	140	900	0.12565
<i>Oocystis</i>		133	0	6190	300	1.85685
<i>Pediastrum</i>		24	0	1117	60	0.06701
<i>Planctonema</i>		463	0	21547	800	17.23753
<i>Scenedesmus</i>		18	0	838	250	0.20942
<i>Staurastrum</i>		0	1	2	2000	0.00372
<i>Tetraedron</i>		0	2	4	150	0.00056

CRYPTOPHYCEAE

<i>Cryptomonads</i>		2	0	93	320	0.02978
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CYANOPHYCEAE

<i>Limnolyngbya</i>		6500	0	302494	4.9	1.48222
<i>Planktolyngbya</i>		8400	0	390916	3.8	1.48548

ANALYST: **Karen Simonsen (signatory)**
Biologist

REVIEWED: **Adam Deliyannis**
Biologist

DATE: **27/08/2021**

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Concentration	1 : 1	*	20	500			
Magnification							
Fields							
Synechococcales small (iauv <20)			15200	0	707372	5.25	3.71370
TOTAL BGA					1400782		6.68140
TOTAL TOXIGENIC BGA					0		0.00000
TOTAL POTENTIALLY TOXIC BGA					0		0.00000
TOTAL ALGAE					1452338		28.46205

+ 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.