

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7171288 21-46438
LOCALITY :	EM2119079-002
SITE :	US Tauwichee
SAMPLE :	Surface
DATE SAMPLED :	23/09/2021
DATE ANALYSED :	27/09/2021
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse algal community was observed with low biovolume BGA present in excessive levels. Water quality is likely to be impaired.

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

Centrales	20	0	995	200	0.19908
Pennales	0	5	10	300	0.00299

### CHLOROPHYCEAE

Botryococcus	0	45	90	98	0.00878
Chlorococcoids (<10um)	248	0	12343	60	0.74059
Chlorolobion	3	0	149	70	0.01045
Closterium	1	0	50	4130	0.20555
Colonial green (cells)	10	0	498	100	0.04977
Crucigenia	432	0	21501	30	0.64503
Dictyosphaerium	80	0	3982	20	0.07963
Didymocystis	16	0	796	41	0.03265
Dimorphococcus	28	0	1394	20	0.02787
Eremosphaera	0	2	4	700	0.00279
Lagerheimia	12	0	597	500	0.29863
Monoraphidium	64	0	3185	900	2.86681
Nephrocystium	4	0	199	200	0.03982
Oocystis	360	0	17918	300	5.37527
Pediastrum	10	0	498	60	0.02986
Planctonema	540	0	26876	800	21.50109
Scenedesmus	76	0	3783	250	0.94565
Schroederia	0	2	4	550	0.00219
Staurostrum	0	5	10	2000	0.01991
Tetraedron	8	0	398	150	0.05973
Tetrastrum	48	0	2389	40	0.09556

### CHRYSTOPHYCEAE

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

REVIEWED: **Adam Deliyannis**  
Biologist

DATE: **28/09/2021**

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**COMMENTS:** + A diverse algal community was observed with low biovolume BGA present in excessive levels. Water quality is likely to be impaired.

Sedgewick-Rafter Vol.(ml)	1.0046	Toxigenic (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							
Other Chrysophyceae			2	0	100	350	0.03484
<b>CRYPTOPHYCEAE</b>							
Cryptomonads			1	0	50	320	0.01593
<b>CYANOPHYCEAE</b>							
Limnolyngbya (Planktolynbya circumcreta)			4380	0	217997	4.9	1.06819
Planktolynbya			3790	0	188632	3.8	0.71680
Pseudanabaena			22	0	1095	12.5	0.01369
Synechococcales small (iauv <20)			14920	0	742584	5.25	3.89857
<b>EUGLENOPHYCEAE</b>							
Euglena			0	1	2	7000	0.01394
TOTAL BGA					1150308		5.69724
TOTAL TOXIGENIC BGA					0		0.00000
TOTAL POTENTIALLY TOXIC BGA					0		0.00000
TOTAL ALGAE					1248129		39.00166

+ 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.

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Biologist

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Biologist

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METHOD NO.: MB010/MW024VCA

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