ALS Water
22 Dalmore Drive Scoresby 3179
Tel. 03 8756 8183 Fax. 03 9763 1862

ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7007881 21-25384
LOCALITY :	EM2108900_012
SITE :	US Tauwitchere
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) 1.0099 **Concentration** 1 : 1 **Magnification** **Fields**	**Toxigenic (T) or Potentially toxic (P)** *	- 200x 20	- 100x 500	**Total Cell Count (cells/mL)**	**Individual Algal Unit Volume (um3)**	**Total Biovolume (mm3/L)**
BACILLARIOPHYCEAE						
Centrales		4	0	198	200	0.03961
Licmophora		0	2	4	850	0.00337
Nitzschia		3	0	149	400	0.05941
Pennales		3	0	149	300	0.04456
Pennales (small <20um)		2	0	99	251	0.02485
CHLOROPHYCEAE						
Ankistrodesmus		24	0	1188	132	0.15685
Botryococcus		0	70	139	98	0.01359
Chlorococcoids (<10um)		24	0	1188	60	0.07129
Colonial green (cells)		36	0	1782	100	0.17824
Crucigenia		42	0	2079	30	0.06238
Dictyosphaerium		0	28	55	20	0.00111
Didymocystis		4	0	198	41	0.00812
Eremosphaera		1	0	50	700	0.03466
Hyaloraphidium		10	0	495	750	0.37132
Lagerheimia		10	0	495	500	0.24755
Oocystis		92	0	4555	300	1.36647
Pediastrum		8	0	396	60	0.02376
Planctonema		122	0	6040	800	4.83216
Scenedesmus		50	0	2475	250	0.61887
Selenastrum		3	0	149	250	0.03713
Staurastrum		1	0	50	2000	0.09902
Tetraedron		3	0	149	150	0.02228
Tetrastrum		16	0	792	40	0.03169
CYANOPHYCEAE						

ANALYST: *Kirsten Mudie (signatory)* REVIEWED: *Adam Deliyiannis* DATE: **21/05/2021**

Biologist **Biologist**

METHOD NO.: MB010/MW024VCA

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Aphanizomenonaceae family - straight	P	626	0	30993	67	2.07654
Chrysosporum	P	0	36	71	69	0.00492
Dolichospermum - straight (≥8µm)		0	51	101	433	0.04373
Limnolyngbya (Planktolyngbya circumcreta)		4160	0	205961	4.9	1.00921
Microcystis	P	0	700	1386	74	0.10258
Planktolyngbya		6180	0	305971	3.8	1.16269
Pseudanabaena		72	0	3565	12.5	0.04456
Raphidiopsis	P	204	0	10100	59	0.59590
Synechococcales small (iauv <20)		26220	0	1298148	5.25	6.81528
DINOPHYCEAE						
Gymnodiniales		1	0	50	2000	0.09902
EUGLENOPHYCEAE						
Euglena		0	2	4	7000	0.02773

TOTAL BGA	**1856296**	**11.85542**
TOTAL TOXIGENIC BGA	**0**	**0.00000**
TOTAL POTENTIALLY TOXIC BGA	**42550**	**2.77995**
TOTAL ALGAE	**1879224**	**20.33045**

+ 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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