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. :	6796586 20-56146
LOCALITY :	EM2021368_011
SITE :	US Tauwichere
SAMPLE :	Surface
DATE SAMPLED :	1/12/2020
DATE ANALYSED :	3/12/2020
SAMPLED BY :	Sample analysed as received

COMMENTS: + A highly diverse and abundant algal community was observed with current algal levels sufficient to impair water quality.

Sedgewick-Rafter Vol.(ml) 1.0145 **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		2	0	99	200	0.01971
Nitzschia		2	0	99	400	0.03943
Pennales (small <20um)		310	0	15278	251	3.83489
CHLOROPHYCEAE						
Ankistrodesmus		50	0	2464	132	0.32528
Botryococcus		0	320	631	98	0.06182
Chlorococcoids (<10um)		55	0	2711	60	0.16264
Closterium		2	0	99	4130	0.40710
Colonial green (cells)		265	0	13061	100	1.30606
Crucigenia		280	0	13800	30	0.41400
Dictyosphaerium		60	0	2957	20	0.05914
Didymocystis		10	0	493	41	0.02021
Elakatothrix		2	0	99	45	0.00444
Eremosphaera		2	0	99	700	0.06900
Golenkinia		5	0	246	400	0.09857
Hyaloraphidium		1	0	49	750	0.03696
Lagerheimia		115	0	5668	500	2.83391
Nephrocytium		10	0	493	200	0.09857
Oocystis		290	0	14293	300	4.28783
Pediastrum		28	0	1380	60	0.08280
Planctonema		2420	0	119271	800	95.41646
Scenedesmus		190	0	9364	250	2.34105
Selenastrum		70	0	3450	250	0.86249
Tetraedron		3	0	148	150	0.02218
Tetrastrum		24	0	1183	40	0.04731

ANALYST: *Kirsten Mudie (signatory)* REVIEWED: *Adam Deliyiannis* DATE: **04/12/2020**
Biologist **Biologist**

METHOD NO.: MB010/MW024VCA

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CRYPTOPHYCEAE						
Cryptomonads		1	0	49	320	0.01577
CYANOPHYCEAE						
Aphanizomenonaceae family - straight	P	0	8	16	67	0.00106
Limnolyngbya (Planktolyngbya circumcreta)		2120	0	104485	4.9	0.51198
Limnothrix/Geitlerinema/Anagnostidinema	P	0	95	187	17.5	0.00328
Planktolyngbya		1150	0	56678	3.8	0.21538
Synechococcales small (iauv <20)		15720	0	774766	5.25	4.06752

TOTAL BGA		**936132**	**4.79921**
TOTAL TOXIGENIC BGA		**0**	**0.00000**
TOTAL POTENTIALLY TOXIC BGA		**203**	**0.00433**
TOTAL ALGAE		**1143616**	**117.66685**

+ 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 Deliyiannis* **Biologist**

DATE: **04/12/2020**

METHOD NO.: MB010/MW024VCA