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. :	7152210 21-43664
LOCALITY :	EM2118068-001
SITE :	Murray Mouth
SAMPLE :	Surface
DATE SAMPLED :	9/09/2021
DATE ANALYSED :	14/09/2021
SAMPLED BY :	Sample analysed as received

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

Sedgewick-Rafter Vol.(ml) 1.0242 **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		7	0	342	200	0.06835
Naviculales		0	3	6	1400	0.00820
Pennales		0	1	2	300	0.00059
Pennales (small <20um)		1	0	49	251	0.01225
CHLOROPHYCEAE						
Ankyra		1	0	49	40	0.00195
Chlamydomonads		1	0	49	250	0.01220
Chlorococcoids (<10um)		54	0	2636	60	0.15817
Closterium		1	0	49	4130	0.20162
Colonial green (cells)		36	0	1757	100	0.17575
Crucigenia		56	0	2734	30	0.08202
Dictyosphaerium		144	0	7030	20	0.14060
Didymocystis		12	0	586	41	0.02402
Dimorphococcus		10	0	488	20	0.00976
Lagerheimia		12	0	586	500	0.29291
Monoraphidium		60	0	2929	900	2.63620
Nephrocytium		8	0	391	200	0.07811
Oocystis		94	0	4589	300	1.37668
Pediastrum		4	0	195	60	0.01172
Planctonema		156	0	7616	800	6.09256
Scenedesmus		22	0	1074	250	0.26850
Staurastrum		1	0	49	2000	0.09764
Tetraedron		2	0	98	150	0.01465
Tetrastrum		12	0	586	40	0.02343
CRYPTOPHYCEAE						

ANALYST: *Kirsten Mudie (signatory)* REVIEWED: *Adam Deliyiannis* DATE: **14/09/2021**

Biologist **Biologist**

METHOD NO.: MB010/MW024VCA

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Cryptomonads		2	0	98	320	0.03124
CYANOPHYCEAE						
Limnolyngbya (Planktolyngbya circumcreta)		655	0	31976	4.9	0.15668
Planktolyngbya		1265	0	61756	3.8	0.23467
Pseudanabaena		10	0	488	12.5	0.00610
Romeria		14	0	683	31	0.02119
Synechococcales small (iauv <20)		7880	0	384690	5.25	2.01963
DINOPHYCEAE						
Gymnodiniales		0	1	2	2000	0.00391

TOTAL BGA	**479593**	**2.43827**
TOTAL TOXIGENIC BGA	**0**	**0.00000**
TOTAL POTENTIALLY TOXIC BGA	**0**	**0.00000**
TOTAL ALGAE	**513583**	**14.26130**

+ 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)* REVIEWED: *Adam Deliyiannis* DATE: **14/09/2021**
Biologist **Biologist**

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