

## ALGAL REPORT

CLIENT :	Australian Laboratory Services Pty Ltd SA
LABORATORY NO./BATCH NO. :	7366795 22-11365
LOCALITY :	EM2203091-001
SITE :	Murray Mouth
SAMPLE :	Surface
DATE SAMPLED :	22/02/2022
DATE ANALYSED :	28/02/2022
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A highly diverse algal community was observed. Current algal levels may mildly influence water quality.

Sedgewick-Rafter Vol.(ml)	1.0333	Toxicogenic (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

Centrales		14	0	677	200	0.13549
Naviculales		0	1	2	1400	0.00271
Nitzschia		0	3	6	400	0.00232
Pennales		2	0	97	300	0.02903
Pennales (small <20um)		1	0	48	251	0.01215

### CHLOROPHYCEAE

Botryococcus		0	60	116	98	0.01138
Chlorococcoids (<10um)		30	0	1452	60	0.08710
Crucigenia		56	0	2710	30	0.08129
Dictyosphaerium		16	0	774	20	0.01548
Didymocystis		2	0	97	41	0.00397
Dimorphococcus		0	16	31	20	0.00062
Monoraphidium (small)		12	0	581	16	0.00929
Oocystis		18	0	871	300	0.26130
Planctonema		87	0	4210	800	3.36785
Scenedesmus		19	0	919	250	0.22985
Tetrastrum		4	0	194	40	0.00774

### CHRYSTOPHYCEAE

Other Chrysophytes		1	0	48	200	0.00968
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### CRYPTOPHYCEAE

Cryptomonads		5	0	242	320	0.07742
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### CYANOPHYCEAE

Cuspidothrix issatschenkoi		0	229	443	57	0.02526
Limnolynghya		285	0	13791	4.9	0.06757
Limnolynghya/Geitlerinema/Anagnostidinema	P	25	0	1210	17.5	0.02117

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

REVIEWED: **Adam Deliyannis (signatory)**  
Biologist

DATE: **28/02/2022**

METHOD NO.: MB010/MW024VCA

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Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0333 1 : 1	Toxigenic (T) or Potentially toxic (P) *	- 200x 20	- 100x 500	Total Cell Count (cells/mL)	Individual Algal Unit Volume (um <sup>3</sup> )	Total Biovolume (mm <sup>3</sup> /L)
<i>Planktolyngbya</i>			593	0	28694	3.8	0.10904
<i>Pseudanabaena</i>			21	0	1016	12.5	0.01270
<i>Synechococcales</i> small (iauv <20)			480	0	23227	5.25	0.12194
<b>EUGLENOPHYCEAE</b>							
<i>Euglena</i>			0	2	4	7000	0.02710
<b>TOTAL BGA</b>					<b>68381</b>	<b>0.35769</b>	
<b>TOTAL TOXIGENIC BGA</b>					<b>0</b>	<b>0.00000</b>	
<b>TOTAL POTENTIALLY TOXIC BGA</b>					<b>1210</b>	<b>0.02117</b>	
<b>TOTAL ALGAE</b>					<b>81460</b>	<b>4.72946</b>	

+ 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.