

## ALGAL REPORT

CLIENT :	ALS
LABORATORY NO./BATCH NO. :	6681715 20-40763
LOCALITY :	EM2014780-011
SITE :	Murray Mouth
SAMPLE :	Surface
DATE SAMPLED :	26/08/2020
DATE ANALYSED :	28/08/2020
SAMPLED BY :	Sample analysed as received

**COMMENTS:** + A diverse community of algal taxa was observed. Current levels of low biovolume BGA may mildly influence water quality.

Sedgewick-Rafter Vol.(ml) Concentration Magnification Fields	1.0333 1 : 1	Toxicogenic (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)
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### BACILLARIOPHYCEAE

<i>Pennales (small &lt;20um)</i>		1	0	48	251	0.01215
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### CHLOROPHYCEAE

<i>Ankistrodesmus</i>		6	0	290	132	0.03832
<i>Chlamydomonads</i>		1	0	48	250	0.01210
<i>Chlorococcoids (&lt;10um)</i>		124	0	6000	60	0.36001
<i>Closterium</i>		1	0	48	4130	0.19985
<i>Crucigenia</i>		32	0	1548	30	0.04645
<i>Didymocystis</i>		2	0	97	41	0.00397
<i>Hyaloraphidium</i>		19	0	919	750	0.68954
<i>Lagerheimia</i>		3	0	145	500	0.07258
<i>Oocystis</i>		65	0	3145	300	0.94358
<i>Pediastrum</i>		6	0	290	60	0.01742
<i>Planctonema</i>		36	0	1742	800	1.39359
<i>Scenedesmus</i>		14	0	677	250	0.16936
<i>Selenastrum</i>		4	0	194	250	0.04839
<i>Tetraedron</i>		2	0	97	150	0.01452

### CHRYSTOPHYCEAE

<i>Other Chrysophyceae</i>		1	0	48	350	0.01694
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### CRYPTOPHYCEAE

<i>Cryptomonads</i>		18	0	871	320	0.27872
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### CYANOPHYCEAE

<i>Limnolyngbya (Planktolyngbya circumcreta)</i>		200	0	9678	4.9	0.04742
<i>Microcystis</i>	P	0	50	97	74	0.00716
<i>Planktolyngbya</i>		364	0	17613	3.8	0.06693
<i>Pseudanabaena</i>		212	0	10258	12.5	0.12823

ANALYST: **Adam Deliyiannis**  
Biologist

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

DATE: **28/08/2020**

METHOD NO.: MB010/MW024CV

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Concentration	1 : 1						
Magnification							
Fields							
<i>Synechococcales small (iauv &lt;20)</i>			2220	0	107423	5.25	0.56397
<b>DINOPHYCEAE</b>							
<i>Dinoflagellates</i>			0	2	4	20000	0.07742
<i>Gymnodiniales (small)</i>			1	0	48	500	0.02419
<b>OTHER PHYTOPLANKTON</b>							
<i>Other small flagellates</i>			5	0	242	80	0.01936
<i>Prasinophytes</i>			2	0	97	100	0.00968
<b>TOTAL BGA</b>			<b>145069</b>			<b>0.81371</b>	
<b>TOTAL TOXIGENIC BGA</b>			<b>0</b>			<b>0.00000</b>	
<b>TOTAL POTENTIALLY TOXIC BGA</b>			<b>97</b>			<b>0.00716</b>	
<b>TOTAL ALGAE</b>			<b>161667</b>			<b>5.26184</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.