



Corporate Accreditation No 63
Accredited for compliance with ISO/IEC 17025 - Testing



Analytical Report 282367

Issue Date: 06/04/2023
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Sydney Water Approved Signatory

[REDACTED]	, Phycology Analysis	[REDACTED]	, Organics Analyst
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Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered. Uncertainty estimates are available for all accredited test results.

SAMPLE SUMMARY

<u>Client Sample ID</u>	<u>Sample Number</u>	<u>Sampling Procedure</u>	<u>Date Sampled</u>	<u>Date Received</u>	<u>Date Authorised</u>	<u>Description</u>
232125	L23028874	1	03/04/2023	04/04/2023	06/04/2023	D/S MAIN WEIR (WATER SAMPLE)
232128	L23028875	1	03/04/2023	04/04/2023	06/04/2023	WTP (WATER SAMPLE)
232131	L23028876	1	03/04/2023	04/04/2023	06/04/2023	U/S MENINDEE CREEK (WATER SAMPLE)
232134	L23028877	1	03/04/2023	04/04/2023	06/04/2023	D/S MENINDEE CREEK (WATER SAMPLE)
232137	L23028878	1	03/04/2023	04/04/2023	06/04/2023	U/S WEIR 32 (WATER SAMPLE)

Sampling procedures

- 1 Samples analysed as received.
- 2 Samples collected as per FS procedures SAWI 070, Excluding Oil & Grease which is collected as per clients instructions.
- 3 Samples collected as per FS procedures SAWI 070.
- 4 Results reported as received from WNSW.

ANALYTICAL RESULTS

Client Sample ID		232125	232128	232131	232134	232137			
Sampled Date		03/04/2023 07:40:00 AM	03/04/2023 08:25:00 AM	03/04/2023 08:56:00 AM	03/04/2023 09:33:00 AM	03/04/2023 10:28:00 AM			
Sample Number		L23028874	L23028875	L23028876	L23028877	L23028878			
ALGAL									
MA70CENTI : Total Algal ID & Enumeration, Including ASU & Biovolumes									
Blue Green ASU	ASU/mL	5866	3700	860.7	1823	948.5			
Blue Green Biovol	mm3/L	4.6	7.68	1.22	2.58	0.447			
Potentially Toxic Algae	cells/mL	27790	33890	6950	7820	1840			
Potentially Toxic ASU	ASU/mL	798	1016	223.2	264.6	62.4			
Potentially Toxic Biovol	mm3/L	0.81	1.07	0.246	0.273	0.06			
Potentially Toxic Blue Green	cells/mL	27790	33340	6950	7820	1840			
Potentially Toxic Blue Green ASU	ASU/mL	798	999.8	223.2	264.6	62.4			
Potentially Toxic Blue Green Biovol	mm3/L	0.81	1.05	0.246	0.273	0.06			
Total Algae	cells/mL	2479000	975700	244700	747400	438000			
Total ASU	ASU/mL	12370	11950	9203	8655	5272			

Client Sample ID	232125	232128	232131	232134	232137			
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Sample Number	L23028874	L23028875	L23028876	L23028877	L23028878			

ALGAL

MA70CENTI : Total Algal ID & Enumeration, Including ASU & Biovolumes(Continued)

Total Biovol	mm3/L	7.89	15.55	8.09	7	3.05		
Total Blue Green	cells/mL	2442000	903300	187400	700700	403600		
Total Colonies	cols/mL	0.00	0.00	0.00	0.00	0.00		

MA91 : Individual Species Total Count, Total BioVol, Total ASU

Algae Source*	N/A	EXTERNAL	EXTERNAL	EXTERNAL	EXTERNAL	EXTERNAL		
Date of Performance	DD/MM/YY	06/04/23 00:00	06/04/23 00:00	06/04/23 00:00	06/04/23 00:00	06/04/23 00:00		

ORGANICS

TC0049DWI : Algal Toxins

Anatoxin-a(extracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1		
Anatoxin-a(intracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1		
Anatoxin-a(total)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1		
Cylindrospermopsin (extra cellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05		

* Indicates NATA accreditation does not cover the performance of this service

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Sample Number		L23028874	L23028875	L23028876	L23028877	L23028878			
ORGANICS									
TC0049DWI : Algal Toxins(Continued)									
Cylindrospermopsin (intra cellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Cylindrospermopsin(total)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin LR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin LR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin LR(total)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin RR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin RR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin RR(total)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin YR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			

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Sample Number		L23028874	L23028875	L23028876	L23028877	L23028878			
ORGANICS									
TC0049DWI : Algal Toxins(Continued)									
Microcystin YR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Microcystin YR(total)	ug/L	<0.05	<0.05	<0.05	<0.05	<0.05			
Nodularin (extracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1			
Nodularin (intracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1			
Nodularin (total)	ug/L	<0.1	<0.1	<0.1	<0.1	<0.1			
Date of Performance	DD/MM/YY	04/04/23	04/04/23	04/04/23	04/04/23	04/04/23			
TC0061DWI : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS									
C1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
C2	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3			
dcGTX2	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
dcGTX3	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3			
dcNeo	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			

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Sampled Date		03/04/2023 07:40:00 AM	03/04/2023 08:25:00 AM	03/04/2023 08:56:00 AM	03/04/2023 09:33:00 AM	03/04/2023 10:28:00 AM			
Sample Number		L23028874	L23028875	L23028876	L23028877	L23028878			
ORGANICS									
TC0061DWI : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS(Continued)									
dcSTX	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
GTX1	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
GTX2	ug/L	<1	<1	<1	<1	<1			
GTX3	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
GTX4	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3			
GTX5	ug/L	<0.5	<0.5	<0.5	<0.5	<0.5			
GTX6	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3			
Neosaxitoxin	ug/L	<0.3	<0.3	<0.3	<0.3	<0.3			
Saxitoxin	ug/L	<0.4	<0.4	<0.4	<0.4	<0.4			
Date of Performance	DD/MM/YY	04/04/23	04/04/23	04/04/23	04/04/23	04/04/23			

COMMENTS

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L23028874	Method	MA91	-	Debris present in the sample.

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L23028875	Method	MA91	-	Debris present in the sample.
L23028876	Method	MA91	-	Debris present in the sample.
L23028877	Method	MA91	-	Debris present in the sample.
L23028878	Method	MA91	-	Debris present in the sample.

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LABORATORY QC RESULTS

N/A - Not Applicable

PQL - Practical Quantitation Limit

LOQ - Limit of Quantification

RPD - Relative Percent Difference

SPIKE/Positive Control - Addition of a known amount and concentration

Duplicate Precision = Accepted - Result 2 within 95% confidence limits of result 1

Duplicate Precision = Outlier - Result 2 outside 95% confidence limits of result 1

Duplicate Precision = Not calculated - Result is outside test range

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
TC0049DWI Anatoxin-a(extracellular)						
<0.1 ug/L	<0.1	87 50.0 - 120.0 ug/L	75 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DWI Anatoxin-a(intracellular)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DWI Anatoxin-a(total)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DWI Cylindrospermopsin (extracellular)						
<0.05 ug/L	<0.05	92 50.0 - 120.0 ug/L	84 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Cylindrospermopsin (intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Cylindrospermopsin(total)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
TC0049DWI Microcystin LR(extracellular)						
<0.05 ug/L	<0.05	70 50.0 - 120.0 ug/L	64 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin LR(intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin LR(total)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin RR(extracellular)						
<0.05 ug/L	<0.05	74 50.0 - 120.0 ug/L	66 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin RR(intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin RR(total)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin YR(extracellular)						
<0.05 ug/L	<0.05	73 50.0 - 120.0 ug/L	68 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
TC0049DWI Microcystin YR(intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Microcystin YR(total)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DWI Nodularin (extracellular)						
<0.1 ug/L	<0.1	70 50.0 - 120.0 ug/L	68 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DWI Nodularin (intracellular)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DWI Nodularin (total)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0061DWI C1						
<0.5 ug/L	<0.5	100 70.0 - 130.0 ug/L	93 % Recovery 50.0 - 130.0 % Recovery	<0.5	<0.5	B 0.0 - 0.0 %
TC0061DWI C2						
<0.3 ug/L	<0.3	100 70.0 - 130.0 ug/L	99 % Recovery 50.0 - 130.0 % Recovery	<0.3	<0.3	B 0.0 - 0.0 %

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
TC0061DWI dcGTX2						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	83 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DWI dcGTX3						
<0.3 ug/L	<0.3	100 <i>70.0 - 130.0 ug/L</i>	76 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DWI dcNeo						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	55 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DWI dcSTX						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	55 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DWI GTX1						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	71 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DWI GTX2						
<1 ug/L	<1	97 <i>70.0 - 130.0 ug/L</i>	90 % Recovery <i>50.0 - 130.0 % Recovery</i>	<1	<1	B <i>0.0 - 0.0 %</i>
TC0061DWI GTX3						
<0.5 ug/L	<0.5	98 <i>70.0 - 130.0 ug/L</i>	80 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>

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LOQ	Blank	Control <i>Acceptance Criteria</i>	Spike <i>Acceptance Criteria</i>	Duplicate1	Duplicate2	RPD <i>Acceptance Criteria</i>
TC0061DWI GTX4						
<0.3 ug/L	<0.3	97 70.0 - 130.0 ug/L	84 % Recovery 50.0 - 130.0 % Recovery	<0.3	<0.3	B 0.0 - 0.0 %
TC0061DWI GTX5						
<0.5 ug/L	<0.5	110 70.0 - 130.0 ug/L	94 % Recovery 50.0 - 130.0 % Recovery	<0.5	<0.5	B 0.0 - 0.0 %
TC0061DWI GTX6						
<0.3 ug/L	<0.3	99 70.0 - 130.0 ug/L	87 % Recovery 50.0 - 130.0 % Recovery	<0.3	<0.3	B 0.0 - 0.0 %
TC0061DWI Neosaxitoxin						
<0.3 ug/L	<0.3	100 70.0 - 130.0 ug/L	55 % Recovery 50.0 - 130.0 % Recovery	<0.3	<0.3	B 0.0 - 0.0 %
TC0061DWI Saxitoxin						
<0.4 ug/L	<0.4	110 70.0 - 130.0 ug/L	51 % Recovery 50.0 - 130.0 % Recovery	<0.4	<0.4	B 0.0 - 0.0 %

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Extra Note:

F: Blank is not applicable for this analyte

E: Spike is not applicable for this analyte

DUPLICATE Anatoxin-a(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Anatoxin-a(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Anatoxin-a(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cyndrospermopsin (extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cyndrospermopsin (intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Cyndrospermopsin(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin LR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin RR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Microcystin YR(total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (extracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (intracellular) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Nodularin (total) B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE C1 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE C2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcGTX2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcGTX3 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcNeo B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE dcSTX B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX1 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX2 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX3 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX4 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX5 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE GTX6 B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Neosaxitoxin B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

DUPLICATE Saxitoxin B: Duplicate RPD reject criteria is not applicable, results are <10 times LOQ

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