



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



Analytical Report 284006

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Sydney Water Approved Signatory

[REDACTED SIGNATURE]

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>
232602	L23034933	1	24/04/2023	26/04/2023	03/05/2023	SW1 (LIQUID)
232603	L23034934	1	24/04/2023	26/04/2023	03/05/2023	SW2 (LIQUID)
232604	L23034935	1	24/04/2023	26/04/2023	03/05/2023	SW3 (LIQUID)
232605	L23034936	1	24/04/2023	26/04/2023	03/05/2023	SW4 (LIQUID)
232614	L23034937	1	24/04/2023	26/04/2023	05/05/2023	SW1 (LIQUID)
232615	L23034938	1	24/04/2023	26/04/2023	05/05/2023	SW2 (LIQUID)
232616	L23034939	1	24/04/2023	26/04/2023	05/05/2023	SW3 (LIQUID)
232617	L23034940	1	24/04/2023	26/04/2023	05/05/2023	SW4 (LIQUID)

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		232602	232603	232604	232605	232614	232615	232616	232617
Sampled Date		24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM
Sample Number		L23034933	L23034934	L23034935	L23034936	L23034937	L23034938	L23034939	L23034940
ALGAL									
MA70CENT : Total Algal ID & Enumeration, Including ASU & Biovolumes									
Blue Green ASU	ASU/mL	-	-	-	-	5609	3227	2666	3922
Blue Green Biovol	mm3/L	-	-	-	-	2.85	4.69	1.47	2.37
Potentially Toxic Algae	cells/mL	-	-	-	-	7400	8060	4350	1440
Potentially Toxic ASU	ASU/mL	-	-	-	-	424.7	292	212.2	40.4
Potentially Toxic Biovol	mm3/L	-	-	-	-	0.676	0.324	0.316	0.04
Potentially Toxic Blue Green	cells/mL	-	-	-	-	7400	4370	4350	1440
Potentially Toxic Blue Green ASU	ASU/mL	-	-	-	-	424.7	184.4	212.2	40.4
Potentially Toxic Blue Green Biovol	mm3/L	-	-	-	-	0.676	0.23	0.316	0.04
Total Algae	cells/mL	-	-	-	-	1442000	773600	633200	1015000
Total ASU	ASU/mL	-	-	-	-	19290	11160	9146	8414

"-" = Not required or refer to Laboratory comment

Client Sample ID	232602	232603	232604	232605	232614	232615	232616	232617
Sampled Date	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM
Sample Number	L23034933	L23034934	L23034935	L23034936	L23034937	L23034938	L23034939	L23034940

ALGAL

MA70CENT : Total Algal ID & Enumeration, Including ASU & Biovolumes(Continued)

Total Biovol	mm3/L	-	-	-	-	14.9	12.67	6.36	5.22
Total Blue Green	cells/mL	-	-	-	-	1352000	703600	574300	977500
Total Colonies	cols/mL	-	-	-	-	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
Date of Performance	DD/MM/YY					05/05/23 00:00	05/05/23 00:00	05/05/23 00:00	05/05/23 00:00

ORGANICS

TC0049DW : Algal Toxins

Anatoxin-a(extracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Anatoxin-a(intracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Cylindrospermopsin (extra cellular)	ug/L	0.09	0.09	0.08	0.10	-	-	-	-

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

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Sampled Date		24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM
Sample Number		L23034933	L23034934	L23034935	L23034936	L23034937	L23034938	L23034939	L23034940
ORGANICS									
TC0049DW : Algal Toxins(Continued)									
Cylindrospermopsin (intracellular)	ug/L	<0.05	<0.05	0.05	<0.05	-	-	-	-
Microcystin LR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Microcystin LR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Microcystin RR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Microcystin RR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Microcystin YR(extracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Microcystin YR(intracellular)	ug/L	<0.05	<0.05	<0.05	<0.05	-	-	-	-
Nodularin (extracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Nodularin (intracellular)	ug/L	<0.1	<0.1	<0.1	<0.1	-	-	-	-
Date of Performance	DD/MM/YY	26/04/23	26/04/23	26/04/23	26/04/23				

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Client Sample ID	232602	232603	232604	232605	232614	232615	232616	232617
Sampled Date	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM	24/04/2023 11:30:00 AM	24/04/2023 09:55:00 AM	24/04/2023 10:35:00 AM	24/04/2023 09:58:36 AM
Sample Number	L23034933	L23034934	L23034935	L23034936	L23034937	L23034938	L23034939	L23034940

ORGANICS

TC0061DW : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS

C1	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
C2	ug/L	<0.3	<0.3	<0.3	<0.3	-	-	-	-
dcGTX2	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
dcGTX3	ug/L	<0.3	<0.3	<0.3	<0.3	-	-	-	-
dcNeo	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
dcSTX	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
GTX1	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
GTX2	ug/L	<1	<1	<1	<1	-	-	-	-
GTX3	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
GTX4	ug/L	<0.3	<0.3	<0.3	<0.3	-	-	-	-
GTX5	ug/L	<0.5	<0.5	<0.5	<0.5	-	-	-	-
GTX6	ug/L	<0.3	<0.3	<0.3	<0.3	-	-	-	-

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Sample Number		L23034933	L23034934	L23034935	L23034936	L23034937	L23034938	L23034939	L23034940
ORGANICS									
TC0061DW : Paralytic Shellfish Toxins (PST) Analysis by UPLCMSMS(Continued)									
Neosaxitoxin	ug/L	<0.3	<0.3	<0.3	<0.3	-	-	-	-
Saxitoxin	ug/L	<0.4	<0.4	<0.4	<0.4	-	-	-	-
Date of Performance	DD/MM/YY	30/04/23	30/04/23	30/04/23	30/04/23				

COMMENTS

<u>Sample ID</u>	<u>Comment Level</u>	<u>Method</u>	<u>Test</u>	<u>Comment</u>
L23034937	Method	MA91	-	Debris present in the sample.
L23034938	Method	MA91	-	Debris present in the sample.
L23034939	Method	MA91	-	Debris present in the sample.
L23034940	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>
TC0049DW Anatoxin-a(extracellular)						
<0.1 ug/L	<0.1	97 50.0 - 120.0 ug/L	110 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DW Anatoxin-a(intracellular)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DW Cylindrospermopsin (extracellular)						
<0.05 ug/L	<0.05	90 50.0 - 120.0 ug/L	110 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Cylindrospermopsin (intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Microcystin LR(extracellular)						
<0.05 ug/L	<0.05	70 50.0 - 120.0 ug/L	74 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Microcystin LR(intracellular)						
<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>
TC0049DW Microcystin RR(extracellular)						
<0.05 ug/L	<0.05	76 50.0 - 120.0 ug/L	80 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Microcystin RR(intracellular)						
<0.05 ug/L	F		E	0.06	0.07	B 0.0 - 0.0 %
TC0049DW Microcystin YR(extracellular)						
<0.05 ug/L	<0.05	76 50.0 - 120.0 ug/L	88 % Recovery 50.0 - 130.0 % Recovery	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Microcystin YR(intracellular)						
<0.05 ug/L	F		E	<0.05	<0.05	B 0.0 - 0.0 %
TC0049DW Nodularin (extracellular)						
<0.1 ug/L	<0.1	74 50.0 - 120.0 ug/L	85 % Recovery 50.0 - 130.0 % Recovery	<0.1	<0.1	B 0.0 - 0.0 %
TC0049DW Nodularin (intracellular)						
<0.1 ug/L	F		E	<0.1	<0.1	B 0.0 - 0.0 %
TC0061DW C1						
<0.5 ug/L	<0.5	93 70.0 - 130.0 ug/L	86 % Recovery 50.0 - 130.0 % Recovery	<0.5	<0.5	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>
TC0061DW C2						
<0.3 ug/L	<0.3	98 <i>70.0 - 130.0 ug/L</i>	110 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DW dcGTX2						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	100 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DW dcGTX3						
<0.3 ug/L	<0.3	98 <i>70.0 - 130.0 ug/L</i>	71 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DW dcNeo						
<0.5 ug/L	<0.5	120 <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>
TC0061DW dcSTX						
<0.5 ug/L	<0.5	130 <i>70.0 - 130.0 ug/L</i>	61 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DW GTX1						
<0.5 ug/L	<0.5	100 <i>70.0 - 130.0 ug/L</i>	82 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DW GTX2						
<1 ug/L	<1	100 <i>70.0 - 130.0 ug/L</i>	100 % Recovery <i>50.0 - 130.0 % Recovery</i>	<1	<1	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>
TC0061DW GTX3						
<0.5 ug/L	<0.5	97 <i>70.0 - 130.0 ug/L</i>	86 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DW GTX4						
<0.3 ug/L	<0.3	110 <i>70.0 - 130.0 ug/L</i>	98 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DW GTX5						
<0.5 ug/L	<0.5	96 <i>70.0 - 130.0 ug/L</i>	95 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.5	<0.5	B <i>0.0 - 0.0 %</i>
TC0061DW GTX6						
<0.3 ug/L	<0.3	110 <i>70.0 - 130.0 ug/L</i>	91 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DW Neosaxitoxin						
<0.3 ug/L	<0.3	110 <i>70.0 - 130.0 ug/L</i>	55 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.3	<0.3	B <i>0.0 - 0.0 %</i>
TC0061DW Saxitoxin						
<0.4 ug/L	<0.4	130 <i>70.0 - 130.0 ug/L</i>	56 % Recovery <i>50.0 - 130.0 % Recovery</i>	<0.4	<0.4	B <i>0.0 - 0.0 %</i>

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

DUPLICATE Cylindrospermopsin (intracellular) 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 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 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 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 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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