

Phycology

Sydney Water Approved Signatory:

██████████, Analyst

██████████, 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.

Accreditation No.: 610 Biological testing
Accredited for compliance with ISO/IEC 17025

REPORT

Report no: 287134 Depth : N/A
 Supercedes Report No: Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 29/06/2023
 Analyst: [REDACTED]

Lims No: L23050852 Date Sampled: 14/06/2023

Client ID: E9-6 Address: [REDACTED]
 Site: [REDACTED]

Client: Department of Planning and Environment

Method: MA71CENT Issued By : Sydney Water
 Laboratory Services
 Issued On : 30/06/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaena</i>	243	Taste & Odour	35.72	0.025
<i>Anabaenopsis</i>	278	Potentially toxic	19.18	0.032
<i>Anagnostidinema</i>	278		8.39	0.004
<i>Aphanizomenonaceae</i>	2567	Potentially toxic, taste & odour	171.98	0.266
<i>Cocoid Blue Green Picoplankton</i>	259196	Filter clogging?	492.47	0.117
<i>Cuspidothrix issatschenkoi</i>	2879		146.82	0.156
<i>Microcystis</i>	1327	Potentially toxic, taste & odour	37.28	0.036
<i>Non toxic Aphanizomenonaceae</i>	399	Taste & Odour	16.35	0.017
<i>Planktolingbya</i>	1659	Filter clogging	16.59	0.132
<i>Pseudanabaena</i>	30157		241.25	0.301
<i>Radiocystis</i>	4425	Potentially toxic	136.29	0.136
<i>Raphidiopsis</i>	173	Potentially toxic	10.43	0.011
<i>Raphidiopsis raciborskii</i>	2168	Potentially toxic, taste & odour	81.95	0.063
<i>Sphaerospermopsis aphanizomenoides</i>	692		20.76	0.026
Subtotal	306441		1,435.46	1.322

	Cells/ mL	ASU/ mL	Biovolum mm3/L
Total Blue Green	306400	1435.00	1.320
* Potentially Toxic Blue Green	10770	446.70	0.533

Comment:
 Debris present in the sample.

*Taxa with potential to produce toxins.

ASU : One ASU (Area Standard Unit) equals $400\mu\text{m}^2$ of algal cells (as cross sectional area)

Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.

Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece* ; *Cyanodictyon*

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REPORT

Report no: 287134 Depth : N/A
 Supercedes Report No: Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 28/06/2023

Lims No: L23050853 Date Sampled: 14/06/2023 Analyst: [REDACTED]

Client ID: E10-6 Address: [REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA71CENT Issued By : Sydney Water Disclaimer: Samples analysed as received.
 Laboratory Services
 Issued On : 30/06/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaena</i>	1804	Taste & Odour	265.18	0.191
<i>Anabaenopsis</i>	555	Potentially toxic	38.29	0.065
<i>Anagnostidinema</i>	28022		846.26	0.494
<i>Cocoid Blue Green Picoplankton</i>	1022958	Filter clogging?	1,943.62	0.461
<i>Cuspidothrix issatschenkoi</i>	11100		566.10	0.602
<i>Dolichospermum affine</i>	1943		79.08	0.090
<i>Dolichospermum cf planctonicum/smithii</i>	6313	Taste & Odour	721.57	1.599
<i>Merismopedia</i>	8849		8.84	0.074
<i>Non toxic Aphanizomenonaceae</i>	3399	Taste & Odour	139.35	0.151
<i>Planktolyngbya</i>	5162	Filter clogging	51.62	0.412
<i>Planktothrix</i>	16095	Potentially toxic	1,110.55	3.049
<i>Pseudanabaena</i>	36281		290.24	0.362
<i>Raphidiopsis raciborskii</i>	16317	Potentially toxic, taste & odour	616.78	0.478
<i>Sphaerospermopsis aphanizomenoides</i>	833		24.99	0.031
<i>Spirulina</i>	5899		88.48	0.021
Subtotal	1165530		6,790.95	8.080

	Cells/ mL	ASU/ mL	Biovolum mm3/L
Total Blue Green	1166000	6791.00	8.080
* Potentially Toxic Blue Green	32970	1766.00	3.590

Comment:

Debris present in the sample.

*Taxa with potential to produce toxins.

ASU : One ASU (Area Standard Unit) equals $400\mu\text{m}^2$ of algal cells (as cross sectional area)

Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.

Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece* ; *Cyanodictyon*

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REPORT

Report no: 287134 Depth : N/A
 Supercedes Report No: Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 29/06/2023
 Lims No: L23050854 Date Sampled: 14/06/2023 Analyst: [REDACTED]

Client ID: B4-6 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA71CENT Issued By : Sydney Water Disclaimer: Samples analysed as received.
 Laboratory Services
 Issued On : 30/06/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Cocoid Blue Green Picoplankton</i>	944754	Filter clogging?	1,795.03	0.426
<i>Dolichospermum circinale</i>	1179	Potentially toxic, taste & odour	102.45	0.204
<i>Merismopedia</i>	8849		8.84	0.074
<i>Sphaerospermopsis reniformis</i>	486	Taste & Odour	19.48	0.022
Subtotal	955268		1,925.80	0.726
	Cells/ mL		ASU/ mL	Biovolume mm3/L
Total Blue Green	955300		1926.00	0.726
* Potentially Toxic Blue Green	1180		102.50	0.204

Comment:
 Debris present in the sample.

*Taxa with potential to produce toxins.
 ASU : One ASU (Area Standard Unit) equals 400µm² of algal cells (as cross sectional area)
 Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.
 Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece*
 ; *Cyanodictyon*

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REPORT

Report no:

287134

Depth :

N/A

Supercedes Report No:

Chlorophyll a:

NA

Microcystin equivalents:

NA

Date analysed:

29/06/2023

Lims No: L23050855

Date Sampled:

14/06/2023

Analyst:

Client ID: E6-6

Address:

Site:

Client: Department of Planning and Environment

Method: MA71CENT

Issued By : Sydney Water

Laboratory Services

Issued On : 30/06/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anagnostidinema</i>	28760		868.55	0.507
<i>Chroococcus species 2</i>	7374		435.06	0.635
<i>Cocoid Blue Green Picoplankton</i>	846640	Filter clogging?	1,608.61	0.382
<i>Cuspidothrix issatschenkoi</i>	18849		961.29	1.022
<i>Dolichospermum affine</i>	468		19.04	0.021
<i>Merismopedia</i>	14822		14.82	0.124
<i>Microcystis</i>	9734	Potentially toxic, taste & odour	273.52	0.270
<i>Myxobaktron</i>	11504		202.47	0.058
<i>Non toxic Aphanizomenonaceae</i>	1943	Taste & Odour	79.66	0.086
<i>Phormidium species 1</i>	2775	Potentially toxic, taste & odour	46.62	0.056
<i>Planktolyngbya</i>	41296	Filter clogging	412.96	3.303
<i>Pseudanabaena</i>	362371		2,898.96	3.623
<i>Raphidiopsis raciborskii</i>	902	Potentially toxic, taste & odour	34.09	0.026
<i>Spirulina</i>	5088		76.32	0.018
<i>Synechococcus cf</i>	2212		27.20	0.014
Subtotal	1354738		7,959.17	10.145

	Cells/ mL	ASU/ mL	Biovolum mm3/L
Total Blue Green	1355000	7959.00	10.150
* Potentially Toxic Blue Green	13410	354.20	0.352

Comment:

Debris present in the sample.

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Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece* ; *Cyanodictyon*

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REPORT

Report no:

287134

Depth :

N/A

Supercedes Report No:

Chlorophyll a:

NA

Microcystin equivalents:

NA

Date analysed:

30/06/2023

Lims No: L23050856

Date Sampled:

14/06/2023

Analyst:

Client ID: E6.5-6

Address:

Site:

Client: Department of Planning and Environment

Method: MA71CENT

Issued By : Sydney Water

Laboratory Services

Issued On : 30/06/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	1512	Potentially toxic	104.32	0.179
<i>Aphanizomenonaceae</i>	416	Potentially toxic, taste & odour	27.87	0.043
<i>Cocoid Blue Green Picoplankton</i>	3160906	Filter clogging?	6,005.72	1.427
<i>Cuspidothrix issatschenkoi</i>	486		24.78	0.026
<i>Dolichospermum affine</i>	763		31.05	0.035
<i>Dolichospermum circinale</i>	451	Potentially toxic, taste & odour	39.19	0.078
<i>Merismopedia</i>	17698		17.69	0.149
<i>Microcystis</i>	20851	Potentially toxic, taste & odour	585.91	0.580
<i>Myxobaktron</i>	4425		77.88	0.022
<i>Non toxic Aphanizomenonaceae</i>	694	Taste & Odour	28.45	0.030
<i>Planktolyngbya</i>	91441	Filter clogging	914.41	7.315
<i>Pseudanabaena</i>	147338		1,178.70	1.473
<i>Raphidiopsis</i>	538	Potentially toxic	32.44	0.036
<i>Raphidiopsis raciborskii</i>	28659	Potentially toxic, taste & odour	1,083.31	0.840
<i>Sphaerospermopsis aphanizomenoides</i>	17094		512.82	0.643
<i>Sphaerospermopsis reniformis</i>	1873	Taste & Odour	75.10	0.086
<i>Spirulina</i>	35691		535.36	0.132
<i>Synechococcus cf</i>	2212		27.20	0.014
Subtotal	3533048		11,302.20	13.108

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	3533000	11300.00	13.110
* Potentially Toxic Blue Green	51890	1841.00	1.720

Comment:

Debris present in the sample.

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Report no:

287134

Depth :

N/A

Supercedes Report No:

Chlorophyll a:

NA

Microcystin equivalents:

NA

Date analysed:

30/06/2023

Lims No: L23050857

Date Sampled:

14/06/2023

Analyst:

Client ID: E7-6

Address:

Site:

Client: Department of Planning and Environment

Method: MA71CENT

Issued By : Sydney Water

Laboratory Services

Issued On : 30/06/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	139	Potentially toxic	9.59	0.016
<i>Cocoid Blue Green Picoplankton</i>	2802738	Filter clogging?	5,325.20	1.265
<i>Merismopedia</i>	86279		86.27	0.726
<i>Myxobaktron</i>	2876		50.61	0.014
<i>Non toxic Aphanizomenonaceae</i>	260	Taste & Odour	10.66	0.011
<i>Pseudanabaena</i>	19173		153.38	0.191
<i>Raphidiopsis raciborskii</i>	6228	Potentially toxic, taste & odour	235.41	0.182
<i>Sphaerospermopsis aphanizomenoides</i>	2461		73.83	0.092
<i>Sphaerospermopsis reniformis</i>	399	Taste & Odour	15.99	0.018
<i>Spirulina</i>	8849		132.73	0.032
<i>Synechococcus cf</i>	1475		18.14	0.009
Subtotal	2930877		6,111.81	2.556

	Cells/ mL	ASU/ mL	Biovolum mm3/L
Total Blue Green	2931000	6112.00	2.560
* Potentially Toxic Blue Green	6370	245.00	0.198

Comment:
Debris present in the sample.

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 Cocoid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeothece*; *Cyanodictyon*

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