PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037189**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232878	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Anabaenopsis	**7701**	**Potentially toxic**	**531.36**	**0.913**
Anagnostidinema	**47195**		**1,425.28**	**0.832**
Coccoid Blue Green Picoplankton	**713829**	**Filter clogging?**	**1,356.27**	**0.322**
Cuspidothrix issatschenkoi	**833**		**42.48**	**0.045**
Dolichospermum affine	**16685**		**679.07**	**0.775**
Merismopedia	**11799**		**11.79**	**0.099**
Microcystis	**5807**	**Potentially toxic, taste & odour**	**163.17**	**0.161**
Myxobaktron	**1475**		**25.96**	**0.007**
Planktolyngbya	**365764**	**Filter clogging**	**3,657.64**	**29.261**
Pseudanabaena	**859471**		**6,875.76**	**8.594**
Raphidiopsis	**14933**		**900.45**	**1.006**
Raphidiopsis raciborskii	**24809**	**Potentially toxic, taste & odour**	**937.78**	**0.727**
Sphaerospermopsis eucompacta	**694**	**Taste & Odour**	**20.54**	**0.021**
Sphaerospermopsis reniformis	**40959**	**Taste & Odour**	**1,642.45**	**1.901**
Spirulina	**164225**		**2,463.37**	**0.611**
Synechococcus cf	**33848**		**416.33**	**0.228**
Subtotal	**2310027**		**21,149.70**	**45.503**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**2310000**	**21150.00**	**45.500**
*** Potentially Toxic Blue Green**	**38320**	**1632.00**	**1.800**

SWC, [redacted]
(PO Box 73) West Ryde NSW 2114

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

Phycology

Sydney Water Approved Signatory:

[redacted], Analyst [redacted], Supervisor ,

Where a result is required to meet a compliance limit or specification the associated uncertainty must be considered.
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Accreditation No.: 610 Biological testing
Accredited for compliance with ISO/IEC 17025

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PHYTOPLANKTON ANALYSIS REPORT

Report no: 284809 | *Depth :* N/A

Supercedes Report No: | *Chlorophyll a:* NA

Microcystin equivalents: NA

Date analysed: 18/05/2023

Lims No: L23037190 | *Date Sampled:* 30/04/2023 | *Analyst:* [redacted]

Client ID: 232879 | *Address:* [redacted]

Site:

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**1111007**	**Filter clogging?**	**2,110.91**	**0.501**
Subtotal	**1111007**		**2,110.91**	**0.501**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**1111000**	**2111.00**	**0.501**
*** Potentially Toxic Blue Green**	**0**	**0.00**	**0.000**

Comment:

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Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.
Coccoid Blue Green Picoplankton: *Aphanocapsa; Aphanothece; Cyanogranis; Cyanonephron; Cyanocatena; Gloeocapsa; Gloeothece ; Cyanodictyon*

Phycology

Sydney Water Approved Signatory:

[redacted], Analyst [redacted], Supervisor ,

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PHYTOPLANKTON ANALYSIS REPORT

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037191**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232880	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Anabaenopsis	**208**	**Potentially toxic**	**14.35**	**0.024**
Coccoid Blue Green Picoplankton	**3492084**	**Filter clogging?**	**6,634.95**	**1.576**
Cuspidothrix issatschenkoi	**416**		**21.21**	**0.022**
Myxobaktron	**737**		**12.97**	**0.003**
Planktolyngbya	**28760**	**Filter clogging**	**287.60**	**2.300**
Pseudanabaena	**59732**		**477.85**	**0.597**
Sphaerospermopsis reniformis	**817**	**Taste & Odour**	**32.76**	**0.037**
Synechococcus cf	**3761**		**46.26**	**0.025**
Subtotal	**3586515**		**7,527.95**	**4.584**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**3587000**	**7528.00**	**4.580**
*** Potentially Toxic Blue Green**	**208**	**14.40**	**0.024**

Comment:
Debris present in the sample.

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

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PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037192**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232881	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**871417**	**Filter clogging?**	**1,655.69**	**0.393**
Pseudanabaena	**711**		**5.68**	**0.007**
Sphaerospermopsis reniformis	**382**	**Taste & Odour**	**15.31**	**0.017**
Subtotal	**872510**		**1,676.68**	**0.417**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**872500**	**1677.00**	**0.417**
*** Potentially Toxic Blue Green**	**0**	**0.00**	**0.000**

Comment:
Debris present in the sample.

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

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PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037193**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232882	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**1046630**	**Filter clogging?**	**1,988.59**	**0.472**
Cuspidothrix issatschenkoi	**243**		**12.39**	**0.013**
Dolichospermum affine	**848**		**34.51**	**0.039**
Merismopedia	**82592**		**82.59**	**0.695**
Pseudanabaena	**50071**		**400.56**	**0.500**
Raphidiopsis	**382**		**23.03**	**0.025**
Raphidiopsis raciborskii	**3975**	**Potentially toxic, taste & odour**	**150.25**	**0.116**
Sphaerospermopsis aphanizomenoides	**1700**		**51.00**	**0.064**
Sphaerospermopsis reniformis	**555**	**Taste & Odour**	**22.25**	**0.025**
Synechococcus cf	**1475**		**18.14**	**0.009**
Subtotal	**1188471**		**2,783.31**	**1.958**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**1188000**	**2783.00**	**1.960**
*** Potentially Toxic Blue Green**	**3980**	**150.30**	**0.116**

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

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[redacted], Analyst [redacted], Supervisor ,

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PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037194**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232883	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Anabaenopsis	**1006**	**Potentially toxic**	**69.41**	**0.119**
Anagnostidinema	**8849**		**267.23**	**0.156**
Coccoid Blue Green Picoplankton	**2228872**	**Filter clogging?**	**4,234.85**	**1.006**
Dolichospermum affine	**1970**		**80.17**	**0.091**
Planktolyngbya	**17698**	**Filter clogging**	**176.98**	**1.415**
Pseudanabaena	**35396**		**283.16**	**0.353**
Raphidiopsis	**3318**		**200.07**	**0.223**
Raphidiopsis raciborskii	**5488**	**Potentially toxic, taste & odour**	**207.44**	**0.160**
Sphaerospermopsis aphanizomenoides	**4600**		**138.00**	**0.173**
Sphaerospermopsis reniformis	**451**	**Taste & Odour**	**18.08**	**0.020**
Spirulina	**737**		**11.05**	**0.002**
Synechococcus cf	**737**		**9.06**	**0.004**
Subtotal	**2309122**		**5,695.50**	**3.722**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**2309000**	**5696.00**	**3.720**
*** Potentially Toxic Blue Green**	**6490**	**276.90**	**0.279**

Comment:
Debris present in the sample.

SWC [redacted]
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Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.
Coccoid Blue Green Picoplankton: *Aphanocapsa; Aphanothece; Cyanogranis; Cyanonephron; Cyanocatena; Gloeocapsa; Gloeothece ; Cyanodictyon*

Phycology

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PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*284809*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**18/05/2023**
Lims No: **L23037195**	***Date Sampled:***	**30/04/2023**	*Analyst:* [redacted]
Client ID: 232884	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 19/05/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**2555272**	**Filter clogging?**	**4,855.01**	**1.153**
Dolichospermum circinale	**416**	**Potentially toxic, taste & odour**	**36.15**	**0.072**
Merismopedia	**4425**		**4.42**	**0.037**
Subtotal	**2560113**		**4,895.58**	**1.262**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**2560000**	**4896.00**	**1.260**
*** Potentially Toxic Blue Green**	**416**	**36.20**	**0.072**

Comment:
Debris present in the sample.

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Biovolume : Biovolume is calculated from cell linear dimensions. Guidelines based on Biovolume.
Coccoid Blue Green Picoplankton: *Aphanocapsa; Aphanothece; Cyanogranis; Cyanonephron; Cyanocatena; Gloeocapsa; Gloeothece ; Cyanodictyon*

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