PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091450**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239571	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Anabaena	**2671**	**Taste & Odour**	**392.63**	**0.283**
Coccoid Blue Green Picoplankton	**64958**	**Filter clogging?**	**123.42**	**0.029**
Merismopedia	**3318**		**3.31**	**0.027**
Subtotal	**70947**		**519.36**	**0.339**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**70950**	**519.40**	**0.339**
*** Potentially Toxic Blue Green**	**0**	**0.00**	**0.000**

Comment:

Sample received unpreserved/ partially preserved, results may be compromised.Debris present in the sample. Cells resembling bacteria present.

*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*

[redacted]

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.
Uncertainty estimates are available for all accredited test results.

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

PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091451**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239572	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**7190**	**Filter clogging?**	**13.66**	**0.003**
Merismopedia	**1659**		**1.65**	**0.013**
Microcystis	**553**	**Potentially toxic, taste & odour**	**15.53**	**0.015**
Subtotal	**9402**		**30.84**	**0.031**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**9400**	**30.80**	**0.031**
*** Potentially Toxic Blue Green**	**553**	**15.50**	**0.015**

Comment:

Debris present in the sample. Sample contained cells resembling bacteria.

*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*

[redacted]

Phycology

Sydney Water Approved Signatory:

[redacted] Analyst [redacted] Supervisor ,

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PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091452**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239573	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Anagnostidinema	**278**		**8.39**	**0.004**
Coccoid Blue Green Picoplankton	**37498**	**Filter clogging?**	**71.24**	**0.016**
Subtotal	**37776**		**79.63**	**0.020**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**37780**	**79.60**	**0.020**
*** Potentially Toxic Blue Green**	**0**	**0.00**	**0.000**

Comment:

Sample received unpreserved/ partially preserved, results may be compromised.Debris present in the sample. Cells resembling bacteria present.

*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*

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

Phycology

Sydney Water Approved Signatory:

[redacted] Analyst [redacted] Supervisor ,

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PHYTOPLANKTON ANALYSIS REPORT

Sydney WATER

Report no:	*295472*	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091453**	*Date Sampled:*	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239574	*Address:*	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Aphanizomenonaceae	**989**	**Potentially toxic, taste & odour**	**66.26**	**0.102**
Coccoid Blue Green Picoplankton	**2516690**	**Filter clogging?**	**4,781.71**	**1.136**
Dolichospermum	**208**	**Potentially toxic, taste & odour**	**19.01**	**0.033**
Dolichospermum circinale	**3484**	**Potentially toxic, taste & odour**	**302.75**	**0.605**
Non toxic Aphanizomenonaceae	**104**	**Taste & Odour**	**4.26**	**0.004**
Subtotal	**2521475**		**5,173.99**	**1.880**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**2521000**	**5174.00**	**1.880**
*** Potentially Toxic Blue Green**	**4680**	**388.00**	**0.740**

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*

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

Phycology

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PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091454**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239575	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**105083**	**Filter clogging?**	**199.65**	**0.047**
Dolichospermum circinale	**555**	**Potentially toxic, taste & odour**	**48.22**	**0.096**
Microcystis	**830**	**Potentially toxic, taste & odour**	**23.32**	**0.023**
Non toxic Aphanizomenonaceae	**208**	**Taste & Odour**	**8.52**	**0.009**
Subtotal	**106676**		**279.71**	**0.175**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**106700**	**279.70**	**0.175**
*** Potentially Toxic Blue Green**	**1390**	**71.50**	**0.119**

Comment:

Sample received unpreserved/ partially preserved, results may be compromised. 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*

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

Phycology

Sydney Water Approved Signatory:

[redacted] Analyst [redacted] Supervisor ,

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Accredited for compliance with ISO/IEC 17025

PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091455**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239576	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Aphanizomenonaceae	**208**	**Potentially toxic, taste & odour**	**13.93**	**0.021**
Coccoid Blue Green Picoplankton	**42172**	**Filter clogging?**	**80.12**	**0.019**
Dolichospermum	**588**	**Potentially toxic, taste & odour**	**53.74**	**0.095**
Merismopedia	**3180**		**3.18**	**0.026**
Pseudanabaena	**1383**		**11.06**	**0.013**
Subtotal	**47531**		**162.03**	**0.174**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**47530**	**162.00**	**0.174**
*** Potentially Toxic Blue Green**	**796**	**67.70**	**0.116**

Comment:

Sample received unpreserved/ partially preserved, results may be compromised.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*

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

Phycology

Sydney Water Approved Signatory:

[redacted] Analyst [redacted] Supervisor ,

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PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091456**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239577	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**2267808**	**Filter clogging?**	**4,308.83**	**1.023**
Dolichospermum circinale	**3559**	**Potentially toxic, taste & odour**	**309.27**	**0.618**
Subtotal	**2271367**		**4,618.10**	**1.641**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**2271000**	**4618.00**	**1.640**
*** Potentially Toxic Blue Green**	**3560**	**309.30**	**0.618**

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*

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

Phycology

Sydney Water Approved Signatory:

[redacted] Analyst [redacted] Supervisor ,

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

PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091457**	***Date Sampled:***	**9/11/2023**	*Analyst:* [redacted]
Client ID: 239578	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**1760090**	**Filter clogging?**	**3,344.17**	**0.794**
Dolichospermum circinale	**607**	**Potentially toxic, taste & odour**	**52.74**	**0.105**
Non toxic Aphanizomenonaceae	**312**	**Taste & Odour**	**12.79**	**0.013**
Subtotal	**1761009**		**3,409.70**	**0.912**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**1761000**	**3410.00**	**0.912**
*** Potentially Toxic Blue Green**	**607**	**52.70**	**0.105**

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 ,

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Accredited for compliance with ISO/IEC 17025

PHYTOPLANKTON ANALYSIS REPORT

Report no:	***295472***	*Depth :*	**N/A**
Supercedes Report No:		*Chlorophyll a:*	**NA**
		Microcystin equivalents:	**NA**
		Date analysed:	**5/12/2023**
Lims No: **L23091458**	***Date Sampled:***	**7/11/2023**	*Analyst:* [redacted]
Client ID: 239579	***Address:***	[redacted]	
Site:			

Client: **Department of Planning and Environment**

Method: **MA71CENT**

Issued By : Sydney Water Laboratory Services
Issued On : 06/12/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Cyanophyta (Blue green)				
Coccoid Blue Green Picoplankton	**4943**	**Filter clogging?**	**9.39**	**0.002**
Subtotal	**4943**		**9.39**	**0.002**

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	**4940**	**9.39**	**0.002**
*** Potentially Toxic Blue Green**	**0**	**0.00**	**0.000**

Comment:
Sample received unpreserved/ partially preserved, results may be compromised. Sample contained debris and cells resembling bacteria.

*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*

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

Phycology

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