

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 21/04/2023
 Analyst: [REDACTED]

Lims No: L23031984 Date Sampled: 11/04/2023

Client ID: 232246 Address: [REDACTED]
 Site: [REDACTED]

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	3746	Potentially toxic	258.47	0.444
<i>Anagnostidinema</i>	9398		283.81	0.165
<i>Aphanocapsa</i>	144794		550.21	0.188
<i>Cuspidothrix issatschenkoi</i>	2868		146.26	0.155
<i>Cyanocatena</i>	166806		633.86	0.236
<i>Cyanogranis</i>	65815		197.44	0.045
<i>Cyanonephron</i>	18749		41.24	0.007
<i>Dolichospermum cf planctonicum/smithii</i>	1480	Taste & Odour	169.16	0.374
<i>Microcystis</i>	26123	Potentially toxic, taste & odour	734.05	0.726
<i>Microcystis species 2</i>	2516	Potentially toxic, taste & odour	143.66	0.213
<i>Myxobaktron</i>	56220		989.47	0.283
<i>Phormidium species 1</i>	1526	Potentially toxic, taste & odour	25.63	0.031
<i>Planktolyngbya</i>	40263	Filter clogging	402.63	3.221
<i>Planktothrix</i>	3727	Potentially toxic	257.16	0.706
<i>Pseudanabaena</i>	37166		297.32	0.371
<i>Raphidiopsis</i>	1341		80.86	0.090
<i>Raphidiopsis raciborskii</i>	62752	Potentially toxic, taste & odour	2,372.02	1.840
<i>Sphaerospermopsis aphanizomenoides</i>	7816		234.48	0.294
<i>Sphaerospermopsis reniformis</i>	3423	Taste & Odour	137.26	0.158
Subtotal	656529		7,954.99	9.547
<u>Chrysophyta (Golden brown)</u>				
<i>Dichotomococcus</i>	1106		13.82	0.009
Subtotal	1106		13.82	0.009
<u>Bacillariophyta (Diatom)</u>				

REPORT

Report no:	283368	Depth :	N/A
Supercedes Report No:	283238	Chlorophyll a:	NA
		Microcystin equivalents:	NA
		Date analysed:	21/04/2023
Lims No: L23031984	Date Sampled: 11/04/2023	Analyst:	[REDACTED]

Client ID: 232246

Address: [REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA70CENT

 Issued By: [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Aulacoseira</i>	2434	Filter clogging	990.63	1.462
<i>Cyclotella</i>	3954	Filter clogging	268.87	0.308
<i>Cyclotella species 4</i>	93	Filter clogging	145.18	1.310
<i>Cyclotella/Stephanodiscus</i>	277	Filter clogging	14.81	0.021
<i>Cylindrotheca closterium</i>	139		45.85	0.034
<i>Nitzschia</i>	555		119.88	0.056
<i>Skeletonema</i>	553	Filter clogging	414.75	0.036
<i>Synedra</i>	231		137.21	0.126
<i>Urosolenia</i>	553	Filter clogging	389.86	0.513
Subtotal	8789		2,527.04	3.866
<u>Dinophyta (Dinoflagellate)</u>				
<i>Peridinium species 2</i>	46		200.23	2.378
Subtotal	46		200.23	2.378
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	139	Discolouration of water	245.75	0.321
Subtotal	139		245.75	0.321
<u>Chlorophyta (Green)</u>				
<i>Actinastrum</i>	1480		93.24	0.031
<i>Ankistrodesmus</i>	1106		415.85	0.149
<i>Chlamydomonas</i>	553	Taste & Odour	44.24	0.047
<i>Closteriopsis</i>	277		2,260.32	1.451
<i>Crucigenia</i>	5531		44.24	0.105
<i>Dictyosphaerium</i>	3318		238.89	0.049
<i>Golenkinia</i>	553		38.71	0.100
<i>Kirchneriella</i>	4729		236.45	0.089

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 21/04/2023

Lims No: L23031984 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232246 Address: Building 1, 480 WEEROONA RD

Site:
 Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Koliella</i>	20740	Filter clogging	311.10	0.033
<i>Monoraphidium cf</i>	830		22.24	0.016
<i>Mougeotia</i>	23601	Filter clogging	84,231.96	193.150
<i>Oocystis</i>	830		78.85	0.084
<i>Pediastrum</i>	93		11.16	0.004
<i>Planctonema</i>	2206		183.09	0.249
<i>Scenedesmus species 1</i>	13661		1,065.55	0.749
<i>Scenedesmus species 2</i>	93		46.38	0.082
<i>Schroederia</i>	277		56.23	0.037
<i>Selenastrum</i>	3318		2,252.92	2.169
<i>Staurastrum</i>	139		735.44	0.288
<i>Tetraedron</i>	1936		822.80	0.193
<i>Tetrastrum</i>	1106		151.52	0.190
Subtotal	86377		93,341.18	199.265
<u>Cryptophyta (Monad)</u>				
<i>Chroomonas</i>	277	Common after flood	66.48	0.068
<i>Cryptomonas</i>	277	Common after flood, Taste & Odour	149.58	0.263
Subtotal	554		216.06	0.331

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	656500	7955.00	9.550
* Potentially Toxic Blue Green	100400	3791.00	3.960
* Potentially Toxic Algae	100400	3791.00	3.960
Total Algae	753500	104500.00	215.700

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*

Phycology

Sydney Water Approved Signatory:

[Redacted]

[Redacted]



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: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 22/04/2023

Lims No: L23031986 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232251 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	2696	Potentially toxic	186.02	0.319
<i>Aphanocapsa</i>	130082		494.31	0.168
<i>Cyanocatena</i>	400998		1,523.79	0.567
<i>Cyanogranis</i>	44002		132.00	0.030
<i>Cyanonephron</i>	4425		9.73	0.001
<i>Dolichospermum cf planctonicum/smithii</i>	2149	Taste & Odour	245.63	0.544
<i>Merismopedia</i>	23461		23.46	0.197
<i>Microcystis</i>	2522	Potentially toxic, taste & odour	70.86	0.070
<i>Myxobaktron</i>	1770		31.15	0.008
<i>Planktolyngbya</i>	14601	Filter clogging	146.01	1.168
<i>Pseudanabaena</i>	2876		23.00	0.028
<i>Romeria</i>	664		10.62	0.004
<i>Snowella</i>	3318		41.14	0.026
Subtotal	633564		2,937.72	3.130
<u>Chrysophyta (Golden brown)</u>				
<i>Chrysochromulina</i>	111	potentially ichthyotoxic - (?) toxic to fish	3.24	0.002
<i>Dichotomococcus</i>	6205		77.56	0.052
<i>Mallomonas species 1</i>	111		60.05	0.168
Subtotal	6427		140.85	0.222
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	191	Filter clogging	77.73	0.114
<i>Cyclotella</i>	2876	Filter clogging	195.56	0.224
<i>Cyclotella/Stephanodiscus</i>	111	Filter clogging	5.93	0.008
<i>Navicula</i>	17		22.86	0.028

REPORT

Report no:	283368	Depth :	N/A
Supercedes Report No:	283238	Chlorophyll a:	NA
		Microcystin equivalents:	NA
		Date analysed:	22/04/2023
Lims No: L23031986	Date Sampled: 11/04/2023	Analyst:	[REDACTED]

Client ID: 232251

Address: [REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA70CENT

 Issued By : [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm ³ /L
<i>Nitzschia</i>	996		215.13	0.100
<i>Skeletonema</i>	221	Filter clogging	165.75	0.014
<i>Synedra</i>	434		257.79	0.238
<i>Urosolenia</i>	52	Filter clogging	36.66	0.048
Subtotal	4898		977.41	0.774
<u>Dinophyta (Dinoflagellate)</u>				
<i>Peridinium species 1</i>	17		17.00	0.071
Subtotal	17		17.00	0.071
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	156	Discolouration of water	275.80	0.360
<i>Phacus</i>	221		1,400.69	0.767
<i>Trachelomonas</i>	35	Common after flood	98.21	0.079
Subtotal	412		1,774.70	1.206
<u>Chlorophyta (Green)</u>				
<i>Actinastrum</i>	416		26.20	0.008
<i>Ankistrodesmus</i>	1217		457.59	0.164
<i>Chlamydomonas</i>	885	Taste & Odour	70.80	0.075
<i>Coelastrum</i>	1770		58.41	0.120
<i>Crucigenia</i>	2555		20.44	0.048
<i>Dictyosphaerium</i>	16592		1,194.62	0.248
<i>Golenkinia</i>	996		69.72	0.180
<i>Micractinium</i>	17		0.22	0.000
<i>Monoraphidium arcuatum</i>	104		28.22	0.022
<i>Monoraphidium cf</i>	221		5.92	0.004
<i>Mougeotia</i>	1509	Filter clogging	5,385.62	12.349

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 22/04/2023
 Analyst: [REDACTED]

Lims No: L23031986 Date Sampled: 11/04/2023

Client ID: 232251 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Oocystis</i>	774		73.53	0.078
<i>Pediastrum</i>	1145		137.40	0.053
<i>Scenedesmus species 1</i>	4646		362.38	0.254
<i>Schroederia</i>	111		22.53	0.015
<i>Spermatozopsis</i>	111		2.10	0.004
<i>Sphaerocystis</i>	278		31.41	0.008
<i>Staurastrum</i>	156		825.39	0.323
<i>Tetrastrum</i>	885		121.24	0.152
<i>Treubaria</i>	17		1.07	0.001
Subtotal	34405		8,894.81	14.106
<u>Cryptophyta (Monad)</u>				
<i>Chroomonas</i>	774	Common after flood	185.76	0.191
<i>Cryptomonas</i>	111	Common after flood, Taste & Odour	59.94	0.105
Subtotal	885		245.70	0.296

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	633600	2938.00	3.130
* Potentially Toxic Blue Green	5220	256.90	0.389
* Potentially Toxic Algae	5330	260.10	0.391
Total Algae	680600	14990.00	19.810

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*

Phycology

Sydney Water Approved Signatory:

[REDACTED]

[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

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023

Lims No: L23031988 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232256 Address: Building 1, 480 WEEROONA RD

Site:

Client: Department of Planning and Environment

Method: MA70CENT

Issued By: [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Cocoid Blue Green Picoplankton</i>	150089	Filter clogging?	285.16	0.067
<i>Dolichospermum</i>	2255	Potentially toxic, taste & odour	206.10	0.365
<i>Merismopedia</i>	2765		2.76	0.023
<i>Microcystis</i>	1936	Potentially toxic, taste & odour	54.40	0.053
<i>Non toxic Aphanizomenonaceae</i>	347	Taste & Odour	14.22	0.015
<i>Planktolyngbya</i>	4286	Filter clogging	42.86	0.342
<i>Pseudanabaena</i>	1561		12.48	0.015
<i>Raphidiopsis raciborskii</i>	1693	Potentially toxic, taste & odour	63.99	0.049
<i>Synechococcus cf</i>	705		8.67	0.004
Subtotal	165637		690.64	0.933
<u>Chrysophyta (Golden brown)</u>				
<i>Chrysochromulina</i>	138	potentially ichthyotoxic - (?) toxic to fish	4.02	0.003
Subtotal	138		4.02	0.003
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	1221	Filter clogging	496.94	0.733
<i>Cyclotella</i>	2074	Filter clogging	141.03	0.161
<i>Cyclotella/Stephanodiscus</i>	968	Filter clogging	51.78	0.076
<i>Melosira</i>	35	Filter clogging	14.24	0.021
<i>Nitzschia</i>	243		52.48	0.024
<i>Synedra</i>	104		61.77	0.057
Subtotal	4645		818.24	1.072
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	173	Discolouration of water	305.86	0.400

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023

Lims No: L23031988 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232256 Address: Building 1, [REDACTED]

Site:
 Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
Subtotal	173		305.86	0.400
<u>Chlorophyta (Green)</u>				
<i>Ankistrodesmus</i>	691		259.81	0.093
<i>Chlamydomonas</i>	277	Taste & Odour	22.16	0.023
<i>Crucigenia</i>	1369		10.95	0.026
<i>Dictyosphaerium</i>	1383		99.57	0.020
<i>Kirchneriella</i>	1244		62.20	0.023
<i>Koliella</i>	996	Filter clogging	14.94	0.001
<i>Micractinium</i>	278		3.61	0.004
<i>Monoraphidium cf</i>	1977		52.98	0.038
<i>Oocystis</i>	996		94.62	0.101
<i>Pediastrum</i>	139		16.68	0.006
<i>Planctonema</i>	1332		110.55	0.150
<i>Scenedesmus species 1</i>	6996		545.68	0.383
<i>Sphaerocystis</i>	277		31.30	0.008
<i>Tetraedron</i>	277		117.72	0.027
Subtotal	18232		1,442.77	0.903
<u>Cryptophyta (Monad)</u>				
<i>Chroomonas</i>	2627	Common after flood	630.48	0.651
<i>Cryptomonas</i>	277	Common after flood, Taste & Odour	149.58	0.263
Subtotal	2904		780.06	0.914

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	165600	690.60	0.933
* Potentially Toxic Blue Green	5880	324.50	0.467
* Potentially Toxic Algae	6020	328.50	0.470
Total Algae	191700	4042.00	4.230

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*

Phycology

Sydney Water Approved Signatory:

[Redacted]

[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

REPORT

Report no:	283368	Depth :	N/A
Supercedes Report No:	283238	Chlorophyll a:	NA
		Microcystin equivalents:	NA
		Date analysed:	24/04/2023

Lims No: L23031990	Date Sampled: 11/04/2023	Analyst:	[REDACTED]
--------------------	--------------------------	----------	------------

Client ID: 232261	Address:	[REDACTED]
-------------------	----------	------------

Site:

Client: Department of Planning and Environment

Method: MA70CENT

 Issued By : [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	1058	Potentially toxic	73.00	0.125
<i>Cocoid Blue Green Picoplankton</i>	63727	Filter clogging?	121.08	0.028
<i>Cuspidothrix issatschenkoi</i>	191		9.74	0.010
<i>Dolichospermum</i>	346	Potentially toxic, taste & odour	31.62	0.056
<i>Merismopedia</i>	8020		8.02	0.067
<i>Microcystis</i>	138	Potentially toxic, taste & odour	3.87	0.003
<i>Microcystis species 2</i>	415	Potentially toxic, taste & odour	23.69	0.035
<i>Myxobaktron</i>	69		1.21	0.000
<i>Non toxic Aphanizomenonaceae</i>	104	Taste & Odour	4.26	0.004
<i>Planktolynbya</i>	18479	Filter clogging	184.79	1.478
<i>Pseudanabaena</i>	5178		41.42	0.051
<i>Raphidiopsis raciborskii</i>	225	Potentially toxic, taste & odour	8.50	0.006
<i>Rhabdoderma</i>	1106		28.53	0.014
<i>Synechococcus cf</i>	954		11.73	0.006
Subtotal	100010		551.46	1.883
<u>Chrysophyta (Golden brown)</u>				
<i>Dichotomococcus</i>	968		12.10	0.008
Subtotal	968		12.10	0.008
<u>Bacillariophyta (Diatom)</u>				
<i>Acanthoceras</i>	69	Filter clogging	152.49	0.390
<i>Aulacoseira</i>	437	Filter clogging	177.85	0.262
<i>Cyclotella</i>	2005	Filter clogging	136.34	0.156
<i>Cyclotella/Stephanodiscus</i>	138	Filter clogging	7.38	0.010
<i>Cylindrotheca closterium</i>	52		17.15	0.012

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023
 Analyst: [REDACTED]

Lims No: L23031990

Date Sampled: 11/04/2023

Client ID: 232261

Address: [REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA70CENT

Issued By : [REDACTED]
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Nitzschia</i>	207		44.71	0.020
<i>Synedra</i>	69		40.98	0.037
Subtotal	2977		576.90	0.887
<u>Dinophyta (Dinoflagellate)</u>				
<i>Peridinium species 1</i>	17		17.00	0.071
Subtotal	17		17.00	0.071
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	87	Discolouration of water	153.81	0.201
Subtotal	87		153.81	0.201
<u>Chlorophyta (Green)</u>				
<i>Actinastrum</i>	553		34.83	0.011
<i>Ankistrodesmus</i>	138		51.88	0.018
<i>Ankyra</i>	69		14.00	0.017
<i>Chlamydomonas</i>	1659	Taste & Odour	132.72	0.141
<i>Chodatella</i>	138		26.63	0.013
<i>Coelastrum</i>	553		18.24	0.037
<i>Crucigenia</i>	2364		18.91	0.044
<i>Dictyosphaerium</i>	1673		120.45	0.025
<i>Elakatothrix</i>	35		3.04	0.001
<i>Koliella</i>	1037	Filter clogging	15.55	0.001
<i>Micractinium</i>	684		8.89	0.010
<i>Monoraphidium cf</i>	1659		44.46	0.032
<i>Oocystis</i>	3871		367.74	0.394
<i>Pediastrum</i>	328		39.36	0.015
<i>Planctonema</i>	1244		103.25	0.140

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023
 Analyst: [REDACTED]

Lims No: L23031990 Date Sampled: 11/04/2023

Client ID: 232261 Address: [REDACTED]
 Site: [REDACTED]

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Scenedesmus species 1</i>	6471		504.73	0.354
<i>Scenedesmus species 2</i>	173		86.29	0.153
<i>Schroederia</i>	69		14.00	0.009
<i>Sphaerocystis</i>	346		39.09	0.010
<i>Staurastrum</i>	17		89.94	0.035
<i>Tetraedron</i>	1037		440.72	0.103
<i>Tetrastrum</i>	1936		265.23	0.332
Subtotal	26054		2,439.95	1.895
<u>Cryptophyta (Monad)</u>				
<i>Chroomonas</i>	1244	Common after flood	298.56	0.308
<i>Cryptomonas</i>	207	Common after flood, Taste & Odour	111.78	0.196
Subtotal	1451		410.34	0.504

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	100000	551.50	1.880
* Potentially Toxic Blue Green	2180	140.70	0.225
* Potentially Toxic Algae	2180	140.70	0.225
Total Algae	131600	4162.00	5.450

Comment:
 Debris present in the sample. Algae caught in debris.

*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*

Phycology

Sydney Water Approved Signatory:

[REDACTED]

[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

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023

Lims No: L23031992 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232266 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By : [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Cols/ mL	Significance	ASU/ mL	Biovolum mm3/L
<u>Cyanophyta (Blue green)</u>					
<i>Cocoid Blue Green Picoplankton</i>	200350		Filter clogging?	380.66	0.090
<i>Merismopedia</i>	10232			10.23	0.086
<i>Microcystis</i>	1908		Potentially toxic, taste & odour	53.61	0.053
<i>Non toxic Aphanizomenonaceae</i>	3318		Taste & Odour	136.03	0.147
<i>Planktolyngbya</i>	7854		Filter clogging	78.54	0.628
<i>Pseudanabaena</i>	243			1.94	0.002
<i>Synechococcus cf</i>	539			6.62	0.003
Subtotal	224444			667.63	1.009
<u>Chrysophyta (Golden brown)</u>					
<i>Dichotomococcus</i>	553			6.91	0.004
Subtotal	553			6.91	0.004
<u>Bacillariophyta (Diatom)</u>					
<i>Acanthoceras</i>	138		Filter clogging	304.98	0.781
<i>Aulacoseira</i>	416		Filter clogging	169.31	0.250
<i>Cyclotella</i>	2129		Filter clogging	144.77	0.166
<i>Cyclotella species 4</i>	139		Filter clogging	216.99	1.957
<i>Cyclotella/Stephanodiscus</i>	277		Filter clogging	14.81	0.021
<i>Cylindrotheca closterium</i>	17			5.60	0.004
<i>Nitzschia</i>	52			11.23	0.005
<i>Synedra</i>	17			10.09	0.009
<i>Urosolenia</i>	277		Filter clogging	195.28	0.257
Subtotal	3462			1,073.06	3.450
<u>Euglenophyta (Euglenoid)</u>					

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023

Lims No: L23031992 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232266 Address: [REDACTED]

Site: [REDACTED]

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Cols/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Euglena</i>	69		Discolouration of water	121.99	0.159
Subtotal	69			121.99	0.159
<u>Chlorophyta (Green)</u>					
<i>Botryococcus Species 3</i>		17.00	Filter clogging	310.88	5.803
<i>Chlamydomonas</i>	138		Taste & Odour	11.04	0.011
<i>Crucigenia</i>	277			2.21	0.005
<i>Dictyosphaerium</i>	3042			219.02	0.045
<i>Kirchneriella</i>	1383			69.15	0.026
<i>Koliella</i>	277		Filter clogging	4.15	0.000
<i>Monoraphidium arcuatum</i>	17			4.61	0.003
<i>Monoraphidium cf</i>	4148			111.16	0.081
<i>Planctonema</i>	1450			120.35	0.163
<i>Scenedesmus species 1</i>	6346			494.98	0.348
<i>Scenedesmus species 2</i>	35			17.45	0.030
<i>Schroederia</i>	35			7.10	0.004
<i>Sphaerocystis</i>	138			15.59	0.004
<i>Tetraedron</i>	553			235.02	0.055
<i>Tetrastrum</i>	553			75.76	0.095
Subtotal	18392	17.00		1,698.47	6.673
<u>Cryptophyta (Monad)</u>					
<i>Chroomonas</i>	1797		Common after flood	431.28	0.445
<i>Cryptomonas</i>	277		Common after flood, Taste & Odour	149.58	0.263
Subtotal	2074			580.86	0.708
<u>Xanthophyta</u>					
<i>Centritractus</i>	138			165.60	0.650

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 24/04/2023

Lims No: L23031992 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232266 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By: [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Cols/ mL	Significance	ASU/ mL	Biovolum mm3/L
Subtotal	138			165.60	0.650

	Cells/ mL	Cols/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	224400		667.60	1.010
* Potentially Toxic Blue Green	1910		53.60	0.053
* Potentially Toxic Algae	1910		53.60	0.053
Total Algae	249100		4315.00	12.650

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.

Coccolid Blue Green Picoplankton: *Aphanocapsa*; *Aphanothece*; *Cyanogranis*; *Cyanonephron*; *Cyanocatena*; *Gloeocapsa*; *Gloeotheca* ; *Cyanodictyon*

Phycology

Sydney Water Approved Signatory:

[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

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 21/04/2023

Lims No: L23031994 Date Sampled: 11/04/2023 Analyst: [REDACTED]

Client ID: 232271 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm3/L
<u>Cyanophyta (Blue green)</u>				
<i>Anabaenopsis</i>	2581	Potentially toxic	178.08	0.306
<i>Anagnostidinema</i>	59363		1,792.76	1.046
<i>Aphanocapsa</i>	124625		473.57	0.161
<i>Cuspidothrix issatschenkoi</i>	3792		193.39	0.205
<i>Cyanocatena</i>	586531		2,228.81	0.830
<i>Cyanogranis</i>	99479		298.43	0.069
<i>Cyanonephron</i>	12352		27.17	0.005
<i>Dolichospermum</i>	973	Potentially toxic, taste & odour	88.93	0.157
<i>Merismopedia</i>	6268		6.26	0.052
<i>Microcystis</i>	33848	Potentially toxic, taste & odour	951.12	0.941
<i>Myxobaktron</i>	4314		75.92	0.021
<i>Oscillatoria</i>	7735	Potentially toxic, taste & odour	12,801.42	3.867
<i>Phormidium species 1</i>	13424	Potentially toxic, taste & odour	225.52	0.273
<i>Planktolynbya</i>	149808	Filter clogging	1,498.08	11.984
<i>Planktothricoides cf species 2</i>	4625		565.63	1.689
<i>Planktothrix</i>	486	Potentially toxic	33.53	0.092
<i>Pseudanabaena</i>	81264		650.11	0.812
<i>Raphidiopsis raciborskii</i>	73031	Potentially toxic, taste & odour	2,760.57	2.142
<i>Rhabdoderma</i>	16961		437.59	0.225
<i>Sphaerospermopsis aphanizomenoides</i>	23477		704.31	0.884
<i>Sphaerospermopsis reniformis</i>	1064	Taste & Odour	42.66	0.049
<i>Synechococcus cf</i>	553		6.80	0.003
Subtotal	1306554		26,040.66	25.813
<u>Chrysophyta (Golden brown)</u>				
<i>Chrysochromulina</i>	553	potentially ichthyotoxic - (?) toxic to fish	16.14	0.014

REPORT

Report no:	283368	Depth :	N/A
Supercedes Report No:	283238	Chlorophyll a:	NA
		Microcystin equivalents:	NA
		Date analysed:	21/04/2023
Lims No: L23031994	Date Sampled: 11/04/2023	Analyst:	[REDACTED]

Client ID: 232271

Address: [REDACTED]

Site:

Client: Department of Planning and Environment

Method: MA70CENT

 Issued By : Kate Mclennan
 Commercial Client Representative
 Issued On : 24/04/2023

Disclaimer: Samples analysed as received.
TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolume mm ³ /L
<i>Dichotomococcus</i>	8554		106.92	0.072
<i>Mallomonas species 1</i>	184		99.54	0.278
Subtotal	9291		222.60	0.364
<u>Bacillariophyta (Diatom)</u>				
<i>Aulacoseira</i>	2442	Filter clogging	993.89	1.467
<i>Cyclotella</i>	3687	Filter clogging	250.71	0.287
<i>Cylindrotheca closterium</i>	463		152.74	0.114
<i>Navicula</i>	46		61.87	0.077
<i>Nitzschia</i>	2581		557.49	0.260
<i>Synedra</i>	369		219.18	0.202
<i>Urosolenia</i>	2212	Filter clogging	1,559.46	2.052
Subtotal	11800		3,795.34	4.459
<u>Dinophyta (Dinoflagellate)</u>				
<i>Peridinium species 1</i>	369		369.00	1.541
Subtotal	369		369.00	1.541
<u>Euglenophyta (Euglenoid)</u>				
<i>Euglena</i>	139	Discolouration of water	245.75	0.321
Subtotal	139		245.75	0.321
<u>Chlorophyta (Green)</u>				
<i>Actinastrum</i>	3484		219.49	0.073
<i>Ankistrodesmus</i>	4056		1,525.05	0.547
<i>Ankyra</i>	184		37.35	0.046
<i>Chlamydomonas</i>	1475	Taste & Odour	118.00	0.125
<i>Chlorogonium</i>	184		60.44	0.115
<i>Chodatella</i>	369		71.21	0.036

REPORT

Report no: 283368 Depth : N/A
 Supercedes Report No: 283238 Chlorophyll a: NA
 Microcystin equivalents: NA
 Date analysed: 21/04/2023
 Analyst: [REDACTED]

Lims No: L23031994 Date Sampled: 11/04/2023

Client ID: 232271 Address: [REDACTED]
 Site:

Client: Department of Planning and Environment

Method: MA70CENT Issued By : [REDACTED] Disclaimer: Samples analysed as received.
 Commercial Client Representative
 Issued On : 24/04/2023

TAXA

	Cells/ mL	Significance	ASU/ mL	Biovolum mm3/L
<i>Crucigenia</i>	369		2.95	0.007
<i>Dictyosphaerium</i>	10951		788.47	0.164
<i>Elakatothrix</i>	369		32.10	0.014
<i>Golenkinia</i>	369		25.83	0.066
<i>Koliella</i>	53685	Filter clogging	805.27	0.086
<i>Lagerheimia</i>	553		106.72	0.133
<i>Monoraphidium cf</i>	4203		112.64	0.082
<i>Mougeotia</i>	29221	Filter clogging	104,289.74	239.144
<i>Oocystis</i>	6637		630.51	0.676
<i>Pediastrum</i>	555		66.60	0.026
<i>Planctonema</i>	11559		959.39	1.306
<i>Scenedesmus species 1</i>	16518		1,288.40	0.906
<i>Sphaerocystis</i>	922		104.18	0.026
<i>Tetraedron</i>	737		313.22	0.073
<i>Tetrastrum</i>	1475		202.07	0.253
<i>Treubaria</i>	184		11.59	0.015
Subtotal	148059		111,771.22	243.919
<u>Cryptophyta (Monad)</u>				
<i>Chroomonas</i>	922	Common after flood	221.28	0.228
<i>Cryptomonas</i>	184	Common after flood, Taste & Odour	99.36	0.174
Subtotal	1106		320.64	0.402
<u>Xanthophyta</u>				
<i>Centritractus</i>	184		220.80	0.867
Subtotal	184		220.80	0.867

	Cells/ mL	ASU/ mL	Biovolume mm3/L
Total Blue Green	1307000	26040.00	25.810
* Potentially Toxic Blue Green	132100	17040.00	7.780
* Potentially Toxic Algae	132600	17060.00	7.790
Total Algae	1478000	142990.00	277.700

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*

Phycology

Sydney Water Approved Signatory:

[Redacted]

[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