



DEW - Department of Environment and Water  
ATTN: Claire Sims  
81-95 Waymouth Street

SA 5000 AUSTRALIA

14/08/2023

Dear Claire

Please find attached the Final Analytical Report for

**Customer Service Request:** 143419-2022-CSR-11

**Account:** 143419

**Project:**

AWQC-182874 DEW - Healthy Coorong Healthy Basin - Non Routine Event 9- 22/23

This report has also been sent to: Tim Branford

**AWQC Sample Receipt hours are Monday and Tuesday 8:30am to 8pm and Wednesday, Thursday and Friday 8:30am to 4:30pm.**

Yours sincerely,

Corrina Smith  
Customer Service Officer  
[Corrina.Smith@sawater.com.au](mailto:Corrina.Smith@sawater.com.au)



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## FINAL REPORT: 367921

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## Report Information

Project Name	AWQC-182874
Customer	DEW - Department of Environment and Water
CSR_ID	143419-2022-CSR-11

## Analytical Results

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	27/06/2023 11:30:00AM
Sample Received Date	28/06/2023 4:05:24PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7643
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 6.8°C</b>			
<b>Algal Identification T0393(ADEL)</b>			
Other Organisms		2050 cells/mL	
<b>BLUE GREEN ALGAE</b>			
Aphanocapsa		102000 cells/mL	
Aphanizomenon		1840 cells/mL	
Dolichospermum (straight small)		3260 cells/mL	
Cylindrospermopsis raciborskii		1830 cells/mL	
Geitlerinema		1040 cells/mL	
Cuspidothrix		64 cells/mL	
Phormidium narrow spp		84 cells/mL	
Nodularia spumigena		122 cells/mL	
Sphaerospermopsis		90 cells/mL	
Dolichospermum circinale		30 cells/mL	
Pseudanabaena		25200 cells/mL	
Planktolyngbya		20700 cells/mL	
<b>DIATOMS</b>			
Aulacoseira		1250 cells/mL	
Guinardia		1150 cells/mL	
<b>GREEN ALGAE</b>			
Planctonema		5450 cells/mL	
Pediastrum		700 cells/mL	
Scenedesmus		800 cells/mL	
Gonatozygon		300 cells/mL	
Monoraphidium		1600 cells/mL	



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Sampled Date	27/06/2023 11:30:00AM
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Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7643
Status	Endorsed
Collection Type	Customer Collected

### Sample temperature at time of receipt 6.8°C

### Algal Biovolume T0393(ADEL)

27/06/2023

#### BLUE GREEN ALGAE

Aphanocapsa	0.05 mm3/L
Aphanizomenon	0.09 mm3/L
Dolichospermum (straight small)	0.27 mm3/L
Cylindrospermopsis raciborskii	0.08 mm3/L
Geitlerinema	0.03 mm3/L
Cuspidothrix	<0.01 mm3/L
Phormidium narrow spp	<0.01 mm3/L
Nodularia spumigena	0.03 mm3/L
Sphaerospermopsis	<0.01 mm3/L
Dolichospermum circinale	<0.01 mm3/L
Pseudanabaena	0.33 mm3/L
Planktolyngbya	0.10 mm3/L

#### DIATOMS

Aulacoseira	3.58 mm3/L
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#### GREEN ALGAE

Pediastrum	0.84 mm3/L
Scenedesmus	0.20 mm3/L
Gonatozygon	1.23 mm3/L
Monoraphidium	1.44 mm3/L

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.98 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.11 mm3/L



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**Analytical Results**

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Sampled Date	27/06/2023 11:30:00AM
Sample Received Date	28/06/2023 4:05:24PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7643
Status	Endorsed
Collection Type	Customer Collected

**Sample temperature at time of receipt 6.8°C**

**Algal Count - Total T0393(ADEL)**

27/06/2023

Algae - Total	168000 cells/mL
Blue Green Algae - Total	156000 cells/mL
Diatoms - Total	2400 cells/mL
Geosmin-MIB producing BGA - Total	26400 cells/mL
Green Algae - Total	8850 cells/mL
Toxin producing BGA - Total	1980 cells/mL

**Sample temperature at time of receipt 6.8°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)**

28/06/2023

Chlorophyll a	0.1	2.92 µg/L
Phaeophytin a	0.1	0.89 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 6.8°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	71 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	5560 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	13.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	58.9 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.60 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	9.568 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.2 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.021 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			





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Collection Type	Customer Collected

### Silica - Reactive T0111-01(ADEL)

Silica - Reactive	0.05	0.25 mg/L
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### TKN as N T0112-01(ADEL)

TKN as Nitrogen	0.05	1.59 mg/L
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04/07/2023

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 6.8°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	9.2 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	11.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 6.8°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		139 mg/L	
Bicarbonate		169 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	15400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	9210 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	11 NTU	



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Sampled Date	27/06/2023 11:30:00AM
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Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 6.8°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	10 mg/L	





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**Analytical Results**

Sampling Point	11504-DEW - Mundoo Upstream
Sampled Date	27/06/2023 12:10:00PM
Sample Received Date	29/06/2023 2:47:56PM
Sample Analysis Completed	27/07/2023 10:28:06AM
Sample ID	*2023-003-7640
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 19.9°C**

**Algal Identification T0393(ADEL)**

**BLUE GREEN ALGAE**

Cylindrospermopsis raciborskii	122 cells/mL
Dolichospermum planctonicum	12 cells/mL
Dolichospermum circinale	22 cells/mL
Phormidium	100 cells/mL
Phormidium narrow spp	150 cells/mL
Cyanodictyon	180000 cells/mL
Cyanogranis	112000 cells/mL
Cuspidothrix	2200 cells/mL
Anabaena	1070 cells/mL
Sphaerospermopsis	1380 cells/mL
Planktolynbya	53000 cells/mL

**DIATOMS**

Aulacoseira	630 cells/mL
Nitzschia	760 cells/mL
Fragilaria	130 cells/mL
Cyclotella	50 cells/mL

**GREEN ALGAE**

Planctonema	4100 cells/mL
Gonatozygon	240 cells/mL
Scenedesmus	1350 cells/mL
Pediastrum	310 cells/mL
Oocystis	390 cells/mL
Tetrastrum	200 cells/mL
Dictyosphaerium	420 cells/mL
Actinastrum	320 cells/mL

**Sample temperature at time of receipt 19.9°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023



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Sample ID	*2023-003-7640
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

#### BLUE GREEN ALGAE

Cylindrospermopsis raciborskii	<0.01 mm3/L
Dolichospermum planctonicum	<0.01 mm3/L
Dolichospermum circinale	<0.01 mm3/L
Phormidium	0.01 mm3/L
Phormidium narrow spp	<0.01 mm3/L
Cyanodictyon	0.09 mm3/L
Cyanogranis	0.06 mm3/L
Cuspidothrix	0.13 mm3/L
Anabaena	0.08 mm3/L
Sphaerospermopsis	0.13 mm3/L
Planktolyngbya	0.26 mm3/L

#### DIATOMS

Aulacoseira	1.80 mm3/L
Nitzschia	1.05 mm3/L
Fragilaria	0.08 mm3/L
Cyclotella	0.03 mm3/L

#### GREEN ALGAE

Gonatozygon	0.99 mm3/L
Scenedesmus	0.34 mm3/L
Pediastrum	0.37 mm3/L
Oocystis	0.12 mm3/L
Dictyosphaerium	<0.01 mm3/L
Actinastrum	0.02 mm3/L

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.76 mm3/L
# Total Diatom Biovolume	2.96 mm3/L



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Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.02 mm3/L

*Sample temperature at time of receipt 19.9°C*

### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	359000 cells/mL
Blue Green Algae - Total	350000 cells/mL
Diatoms - Total	1570 cells/mL
Geosmin-MIB producing BGA - Total	284 cells/mL
Green Algae - Total	7330 cells/mL
Toxin producing BGA - Total	144 cells/mL

*Sample temperature at time of receipt 19.9°C*

### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

29/06/2023

Chlorophyll a	0.1	45.7 µg/L
Phaeophytin a	0.1	18.1 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

*Sample temperature at time of receipt 19.9°C*

### Ammonia as N (ADEL)

11/07/2023

# Ammonia as N	1	50 µg/L
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### Chloride T0104-02(ADEL)

12/07/2023

Chloride	4.0	217 mg/L
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### Nitrate + Nitrite as N (ADEL)

11/07/2023

# Nitrate + Nitrite as N	0.5	13.0 µg/L
# Nitrate + Nitrite as NO3	2.3	57.6 µg/L
# Nitrate as Nitrogen		false µg/L

### Nitrogen - Total TMZ-M06(ADEL)

29/06/2023

Nitrogen - Total		2.20 mg/L
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### Phosphorus - Filterable Reactive as P (ADEL)

11/07/2023

# Phosphorus -Filterable Reactive as PO4	1.5	12.259 µg/L
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Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
Phosphorus-Filterable Reactive as P	0.5	4.1 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.221 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			12/07/2023
Silica - Reactive	0.05	0.38 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	2.19 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	12.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	17.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			03/07/2023
Alkalinity as Calcium Carbonate		142 mg/L	
Bicarbonate		174 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			03/07/2023
Conductivity	2	1090 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	605 mg/L	
<b>pH T0010-01(ADEL)</b>			03/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.1 °C	



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Sample Analysis Completed	27/07/2023 10:28:06AM
Sample ID	*2023-003-7640
Status	Endorsed
Collection Type	Customer Collected

<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	20 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			03/07/2023
Suspended Solids	1.0	40 mg/L	





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**Analytical Results**

Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	27/06/2023 12:15:00PM
Sample Received Date	29/06/2023 2:48:09PM
Sample Analysis Completed	27/07/2023 4:56:30PM
Sample ID	*2023-003-7641
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 19.9°C*

**Algal Identification T0393(ADEL)**

**BLUE GREEN ALGAE**

Cylindrospermopsis raciborskii	96 cells/mL
Phormidium narrow spp	236 cells/mL
Dolichospermum circinale	14 cells/mL
Cyanodictyon	36500 cells/mL
Planktolyngbya	52000 cells/mL
Anabaena	1770 cells/mL
Cuspidothrix	2120 cells/mL

**CRYPTOPHYTES**

Cryptomonas	40 cells/mL
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**DIATOMS**

Nitzschia	780 cells/mL
Navicula	170 cells/mL
Fragilaria	530 cells/mL
Aulacoseira	1230 cells/mL

**GREEN ALGAE**

Scenedesmus	1050 cells/mL
Oocystis	260 cells/mL
Gonatozygon	90 cells/mL
Planctonema	6050 cells/mL
Dictyosphaerium	300 cells/mL
Pediastrum	390 cells/mL
Crucigenia	840 cells/mL
Actinastrum	160 cells/mL

*Sample temperature at time of receipt 19.9°C*

**Algal Biovolume T0393(ADEL)**

27/06/2023

**BLUE GREEN ALGAE**

Cylindrospermopsis raciborskii	<0.01 mm3/L
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Sampled Date	27/06/2023 12:15:00PM
Sample Received Date	29/06/2023 2:48:09PM
Sample Analysis Completed	27/07/2023 4:56:30PM
Sample ID	*2023-003-7641
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

Phormidium narrow spp	<0.01 mm3/L
Dolichospermum circinale	<0.01 mm3/L
Cyanodictyon	0.02 mm3/L
Planktolingbya	0.26 mm3/L
Anabaena	0.14 mm3/L
Cuspidothrix	0.12 mm3/L

#### CRYPTOPHYTES

Cryptomonas	0.04 mm3/L
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#### DIATOMS

Nitzschia	1.08 mm3/L
Navicula	0.20 mm3/L
Fragilaria	0.34 mm3/L
Aulacoseira	3.52 mm3/L

#### GREEN ALGAE

Scenedesmus	0.26 mm3/L
Oocystis	0.08 mm3/L
Gonatozygon	0.37 mm3/L
Dictyosphaerium	<0.01 mm3/L
Pediastrum	0.47 mm3/L
Crucigenia	0.03 mm3/L
Actinastrum	0.01 mm3/L

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.54 mm3/L
# Total Diatom Biovolume	5.14 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.02 mm3/L



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Status	Endorsed
Collection Type	Customer Collected

### Sample temperature at time of receipt 19.9°C

#### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	105000 cells/mL
Blue Green Algae - Total	92700 cells/mL
Diatoms - Total	2710 cells/mL
Geosmin-MIB producing BGA - Total	250 cells/mL
Green Algae - Total	9140 cells/mL
Toxin producing BGA - Total	110 cells/mL

### Sample temperature at time of receipt 19.9°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

29/06/2023

Chlorophyll a	0.1	53.5 µg/L
Phaeophytin a	0.1	25.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	98 µg/L	
<b>Chloride T0104-02(ADEL)</b>			12/07/2023
Chloride	4.0	181 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	23.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	102 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			29/06/2023
Nitrogen - Total		2.67 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	13.455 µg/L	
Phosphorus-Filterable Reactive as P	0.5	4.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.150 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			12/07/2023



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## Analytical Results

Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	27/06/2023 12:15:00PM
Sample Received Date	29/06/2023 2:48:09PM
Sample Analysis Completed	27/07/2023 4:56:30PM
Sample ID	*2023-003-7641
Status	Endorsed
Collection Type	Customer Collected

<b>Silica - Reactive T0111-01(ADEL)</b>			12/07/2023
Silica - Reactive	0.05	0.38 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	2.65 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	12.7 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	20.2 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 19.9°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			03/07/2023
Alkalinity as Calcium Carbonate		143 mg/L	
Bicarbonate		175 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			03/07/2023
Conductivity	2	962 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	534 mg/L	
<b>pH T0010-01(ADEL)</b>			03/07/2023
pH		7.9 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	34 NTU	



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**Analytical Results**

Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	27/06/2023 12:15:00PM
Sample Received Date	29/06/2023 2:48:09PM
Sample Analysis Completed	27/07/2023 4:56:30PM
Sample ID	*2023-003-7641
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 19.9°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			03/07/2023
Suspended Solids	1.0	56 mg/L	







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**Analytical Results**

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:47PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7646
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 3.7°C**

**Algal Identification T0393(ADEL)**

Other Organisms	3350 cells/mL
<b>BLUE GREEN ALGAE</b>	
Cylindrospermopsis raciborskii	280 cells/mL
Phormidium narrow spp	160 cells/mL
Planktothrix	80 cells/mL
Aphanizomenon	9730 cells/mL
Pseudanabaena	42500 cells/mL
Planktolyngbya	61500 cells/mL
Romeria	900 cells/mL
Geitlerinema	2950 cells/mL
Cyanogranis	418000 cells/mL
Cyanocatena	53000 cells/mL
Cyanodictyon	61000 cells/mL
<b>GREEN ALGAE</b>	
Planctonema	9650 cells/mL
Scenedesmus	900 cells/mL
Closterium	160 cells/mL
Gonatozygon	690 cells/mL
Tetrastrum	6800 cells/mL
Crucigenia	2800 cells/mL
Monoraphidium	2550 cells/mL
Kirchneriella	5100 cells/mL
Oocystis	1200 cells/mL
Oocystis sp_1_(small_cells)	3000 cells/mL

**Sample temperature at time of receipt 3.7°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>BLUE GREEN ALGAE</b>	
Cylindrospermopsis raciborskii	0.01 mm3/L





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## Analytical Results

Sampling Point	353179-EPA - Tauwichee Barrage Upstream
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:47PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7646
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

Phormidium narrow spp	<0.01 mm3/L
Planktothrix	0.02 mm3/L
Aphanizomenon	0.48 mm3/L
Pseudanabaena	0.55 mm3/L
Planktolyngbya	0.31 mm3/L
Romeria	0.01 mm3/L
Geitlerinema	0.07 mm3/L
Cyanogranis	0.21 mm3/L
Cyanocadena	<0.01 mm3/L
Cyanodictyon	0.03 mm3/L

#### GREEN ALGAE

Scenedesmus	0.22 mm3/L
Closterium	0.86 mm3/L
Gonatozygon	2.83 mm3/L
Crucigenia	0.08 mm3/L
Monoraphidium	2.30 mm3/L
Kirchneriella	0.12 mm3/L
Oocystis	0.36 mm3/L
Oocystis sp_1_(small_cells)	0.52 mm3/L

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	1.69 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.01 mm3/L

### Sample temperature at time of receipt 3.7°C

### Algal Count - Total T0393(ADEL)

27/06/2023



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**Analytical Results**

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:47PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7646
Status	Endorsed
Collection Type	Customer Collected

**Algal Count - Total T0393(ADEL)** 27/06/2023

Algae - Total	683000 cells/mL
Blue Green Algae - Total	650000 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	45600 cells/mL
Green Algae - Total	32800 cells/mL
Toxin producing BGA - Total	280 cells/mL

**Sample temperature at time of receipt 3.7°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)** 28/06/2023

Chlorophyll a	0.1	39.4 µg/L
Phaeophytin a	0.1	14.6 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 3.7°C**

**Ammonia as N (ADEL)** 11/07/2023

# Ammonia as N	1	10 µg/L
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**Chloride T0104-02(ADEL)** 10/07/2023

Chloride	4.0	342 mg/L
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**Nitrate + Nitrite as N (ADEL)** 11/07/2023

# Nitrate + Nitrite as N	0.5	29.7 µg/L
# Nitrate + Nitrite as NO3	2.3	132 µg/L
# Nitrate as Nitrogen		false µg/L

**Nitrogen - Total TMZ-M06(ADEL)** 28/06/2023

Nitrogen - Total		1.80 mg/L
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**Phosphorus - Filterable Reactive as P (ADEL)** 11/07/2023

# Phosphorus -Filterable Reactive as PO4	1.5	10.465 µg/L
Phosphorus-Filterable Reactive as P	0.5	3.5 µg/L

**Phosphorus - Total T0109-44(ADEL)** 04/07/2023

Phosphorus - Total	0.005	0.052 mg/L
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**Silica - Reactive T0111-01(ADEL)**

Silica - Reactive	0.05	0.12 mg/L
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**Analytical Results**

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:47PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7646
Status	Endorsed
Collection Type	Customer Collected

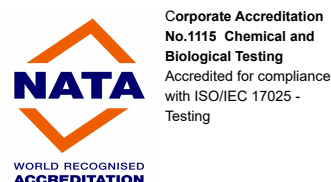
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<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.77 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	11.1 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	15.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		145 mg/L	
Bicarbonate		176 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	1290 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	717 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.3 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	24 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			





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**Analytical Results**

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:47PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7646
Status	Endorsed
Collection Type	Customer Collected

**Suspended Solids T0160-01(ADEL)**

29/06/2023

Suspended Solids	1.0	38 mg/L
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## Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:33PM
Sample Analysis Completed	10/08/2023 12:45:46PM
Sample ID	*2023-003-7647
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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### *Sample temperature at time of receipt 3.7°C*

#### Algal Identification T0393(ADEL)

Other Organisms	700 cells/mL
<b>BLUE GREEN ALGAE</b>	
Anabaena	2670 cells/mL
Sphaerospermopsis	815 cells/mL
Phormidium	38 cells/mL
Planktolyngbya	38400 cells/mL
Cuspidothrix	60 cells/mL
Cylindrospermopsis raciborskii	32 cells/mL
Cyanodictyon	70800 cells/mL
Cyanogranis	182000 cells/mL
Pseudanabaena	15000 cells/mL
<b>DIATOMS</b>	
Aulacoseira	102 cells/mL
<b>GREEN ALGAE</b>	
Planctonema	6220 cells/mL
Oocystis	500 cells/mL
Monoraphidium	1500 cells/mL
Scenedesmus	1650 cells/mL
Elakatothrix	75 cells/mL
Crucigenia	720 cells/mL

### *Sample temperature at time of receipt 3.7°C*

#### Algal Biovolume T0393(ADEL)

27/06/2023

<b>BLUE GREEN ALGAE</b>	
Anabaena	0.21 mm3/L
Sphaerospermopsis	0.08 mm3/L
Phormidium	<0.01 mm3/L
Planktolyngbya	0.19 mm3/L
Cuspidothrix	<0.01 mm3/L



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## Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:33PM
Sample Analysis Completed	10/08/2023 12:45:46PM
Sample ID	*2023-003-7647
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

Cylindrospermopsis raciborskii	<0.01 mm3/L
Cyanodictyon	0.04 mm3/L
Cyanogranis	0.09 mm3/L
Pseudanabaena	0.20 mm3/L

#### DIATOMS

Aulacoseira	0.29 mm3/L
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#### GREEN ALGAE

Oocystis	0.15 mm3/L
Monoraphidium	1.35 mm3/L
Scenedesmus	0.41 mm3/L
Elakatothrix	<0.01 mm3/L
Crucigenia	0.02 mm3/L

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.81 mm3/L
# Total Diatom Biovolume	0.29 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.01 mm3/L

### Sample temperature at time of receipt 3.7°C

### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	321000 cells/mL
Blue Green Algae - Total	310000 cells/mL
Diatoms - Total	102 cells/mL
Geosmin-MIB producing BGA - Total	15000 cells/mL
Green Algae - Total	10700 cells/mL
Toxin producing BGA - Total	32 cells/mL



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## Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:33PM
Sample Analysis Completed	10/08/2023 12:45:46PM
Sample ID	*2023-003-7647
Status	Endorsed
Collection Type	Customer Collected

*Sample temperature at time of receipt 3.7°C*

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)**

28/06/2023

Chlorophyll a	0.1	39.8 µg/L
Phaeophytin a	0.1	14.3 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 3.7°C</i>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	11 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	1130 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	9.1 µg/L	
# Nitrate + Nitrite as NO3	2.3	40.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.65 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	7.774 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.6 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.060 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	0.16 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.64 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 3.7°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023



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### Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	27/06/2023 12:45:00PM
Sample Received Date	28/06/2023 2:27:33PM
Sample Analysis Completed	10/08/2023 12:45:46PM
Sample ID	*2023-003-7647
Status	Endorsed
Collection Type	Customer Collected

<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	11.6 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	15.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		143 mg/L	
Bicarbonate		175 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	4120 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	2320 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.2 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	21 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	44 mg/L	



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**Analytical Results**

Sampling Point	31522-EPA - Mark Point
Sampled Date	27/06/2023 1:20:00PM
Sample Received Date	28/06/2023 2:27:21PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7642
Status	Endorsed
Collection Type	Customer Collected

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Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 3.7°C**

**Algal Identification T0393(ADEL)**

Other Organisms	700 cells/mL
<b>BLUE GREEN ALGAE</b>	
Aphanizomenon	2530 cells/mL
Dolichospermum (straight small)	60 cells/mL
Cylindrospermopsis raciborskii	92 cells/mL
Romeria	9240 cells/mL
Pseudanabaena	7370 cells/mL
Planktolyngbya	4400 cells/mL
Aphanocapsa	9200 cells/mL
Cyanogranis	3200 cells/mL
<b>DIATOMS</b>	
Guinardia	7050 cells/mL
<b>GREEN ALGAE</b>	
Planctonema	2750 cells/mL
Monoraphidium	300 cells/mL
Crucigenia	1000 cells/mL
Oocystis	550 cells/mL
Closterium	300 cells/mL

**Sample temperature at time of receipt 3.7°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>BLUE GREEN ALGAE</b>	
Aphanizomenon	0.12 mm3/L
Dolichospermum (straight small)	<0.01 mm3/L
Cylindrospermopsis raciborskii	<0.01 mm3/L
Romeria	0.14 mm3/L
Pseudanabaena	0.10 mm3/L
Planktolyngbya	0.02 mm3/L
Aphanocapsa	<0.01 mm3/L



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## Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	27/06/2023 1:20:00PM
Sample Received Date	28/06/2023 2:27:21PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7642
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

Cyanogranis	<0.01 mm3/L
<b>GREEN ALGAE</b>	
Monoraphidium	0.27 mm3/L
Crucigenia	0.03 mm3/L
Oocystis	0.16 mm3/L
Closterium	1.61 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.38 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.01 mm3/L

### Sample temperature at time of receipt 3.7°C

#### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	48000 cells/mL
Blue Green Algae - Total	36100 cells/mL
Diatoms - Total	7050 cells/mL
Geosmin-MIB producing BGA - Total	7370 cells/mL
Green Algae - Total	4900 cells/mL
Toxin producing BGA - Total	92 cells/mL

### Sample temperature at time of receipt 3.7°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	37.1 µg/L
Phaeophytin a	0.1	10.4 µg/L



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## Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	27/06/2023 1:20:00PM
Sample Received Date	28/06/2023 2:27:21PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7642
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	<1 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	5580 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	2.4 µg/L	
# Nitrate + Nitrite as NO3	2.3	10.6 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.11 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	7.176 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.4 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.006 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	<0.05 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.11 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	10.2 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	10.9 mg/L	



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**Analytical Results**

Sampling Point	31522-EPA - Mark Point
Sampled Date	27/06/2023 1:20:00PM
Sample Received Date	28/06/2023 2:27:21PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7642
Status	Endorsed
Collection Type	Customer Collected

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Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		138 mg/L	
Bicarbonate		169 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	16400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	9850 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	4.8 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 3.7°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	<1 mg/L	



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**Analytical Results**

Sampling Point	31523-EPA - Long Point
Sampled Date	27/06/2023 2:30:00PM
Sample Received Date	28/06/2023 4:17:52PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7629
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 2.7°C**

**Algal Identification T0393(ADEL)**

Other Organisms	200 cells/mL
<b>BLUE GREEN ALGAE</b>	
Cylindrospermopsis raciborskii	98 cells/mL
Aphanizomenon	476 cells/mL
Dolichospermum (straight small)	74 cells/mL
Pseudanabaena	3100 cells/mL
<b>CRYPTOPHYTES</b>	
Cryptomonas	300 cells/mL
<b>DIATOMS</b>	
Guinardia	6300 cells/mL
<b>GREEN ALGAE</b>	
Monoraphidium	600 cells/mL
Scenedesmus	200 cells/mL
Planctonema	1050 cells/mL
Crucigenia	400 cells/mL
Oocystis	300 cells/mL

**Sample temperature at time of receipt 2.7°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>BLUE GREEN ALGAE</b>	
Cylindrospermopsis raciborskii	<0.01 mm3/L
Aphanizomenon	0.02 mm3/L
Dolichospermum (straight small)	<0.01 mm3/L
Pseudanabaena	0.04 mm3/L
<b>CRYPTOPHYTES</b>	
Cryptomonas	0.33 mm3/L
<b>GREEN ALGAE</b>	
Monoraphidium	0.54 mm3/L
Scenedesmus	0.05 mm3/L





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## Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	27/06/2023 2:30:00PM
Sample Received Date	28/06/2023 4:17:52PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7629
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

Crucigenia	0.01 mm3/L
Oocystis	0.09 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.06 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.01 mm3/L

### Sample temperature at time of receipt 2.7°C

#### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	12900 cells/mL
Blue Green Algae - Total	3750 cells/mL
Diatoms - Total	6300 cells/mL
Geosmin-MIB producing BGA - Total	3100 cells/mL
Green Algae - Total	2550 cells/mL
Toxin producing BGA - Total	98 cells/mL

### Sample temperature at time of receipt 2.7°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	40.0 µg/L
Phaeophytin a	0.1	10.3 µg/L

## Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 2.7°C

#### Ammonia as N (ADEL)

11/07/2023

# Ammonia as N	1	52 µg/L
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## Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	27/06/2023 2:30:00PM
Sample Received Date	28/06/2023 4:17:52PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7629
Status	Endorsed
Collection Type	Customer Collected

<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	6190 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	6.4 µg/L	
# Nitrate + Nitrite as NO3	2.3	28.4 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.24 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	4.186 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.4 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.141 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	0.05 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.23 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 2.7°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	9.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	11.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 2.7°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		137 mg/L	
Bicarbonate		168 mg/L	



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**Analytical Results**

Sampling Point	31523-EPA - Long Point
Sampled Date	27/06/2023 2:30:00PM
Sample Received Date	28/06/2023 4:17:52PM
Sample Analysis Completed	2/08/2023 11:34:58AM
Sample ID	*2023-003-7629
Status	Endorsed
Collection Type	Customer Collected

<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	17900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	10800 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	4.2 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 2.7°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	<1 mg/L	





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**Analytical Results**

Sampling Point	53032-EPA - Nooneameena
Sampled Date	27/06/2023 3:00:00PM
Sample Received Date	28/06/2023 4:18:18PM
Sample Analysis Completed	8/08/2023 12:52:09PM
Sample ID	*2023-003-7649
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 2.7°C*

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Cryptomonas		10 cells/mL	
Chroomonas		150 cells/mL	
<b>DIATOMS</b>			
Pennate diatoms small_spp		60 cells/mL	
Pennate diatoms		20 cells/mL	

*Sample temperature at time of receipt 2.7°C*

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
Cryptomonas		0.01 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated	mm3/L
# Total Blue_Green Algae Biovolume		0.00	mm3/L
# Total Diatom Biovolume		Not Calculated	mm3/L
# Total Green Algae Biovolume		0.00	mm3/L
Total Toxic BGA Biovolume		0.00	mm3/L

*Sample temperature at time of receipt 2.7°C*

**Algal Count - Total T0393(ADEL)**

27/06/2023

Algae - Total	240 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	80 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL





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**Analytical Results**

Sampling Point	53032-EPA - Nooneameena
Sampled Date	27/06/2023 3:00:00PM
Sample Received Date	28/06/2023 4:18:18PM
Sample Analysis Completed	8/08/2023 12:52:09PM
Sample ID	*2023-003-7649
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Count - Total T0393(ADEL)</b>	27/06/2023
Green Algae - Total	0 cells/mL
Toxin producing BGA - Total	0 cells/mL

<b>Sample temperature at time of receipt 2.7°C</b>	
<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/06/2023
Chlorophyll a	0.1 2.15 µg/L
Phaeophytin a	0.1 2.32 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 2.7°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	6 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	10200 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	36.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	159 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.32 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	6.578 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.2 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.047 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	0.98 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.28 mg/L	





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**Analytical Results**

Sampling Point	53032-EPA - Nooameena
Sampled Date	27/06/2023 3:00:00PM
Sample Received Date	28/06/2023 4:18:18PM
Sample Analysis Completed	8/08/2023 12:52:09PM
Sample ID	*2023-003-7649
Status	Endorsed
Collection Type	Customer Collected

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Organic Chemistry	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 2.7°C*

**Dissolved Organic Carbon T0158-07(ADEL)** 05/07/2023

Dissolved Organic Carbon	1	11.9 mg/L
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**Total Organic Carbon T0158-07(ADEL)** 05/07/2023

Total Organic Carbon	1	11.9 mg/L
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Inorganic Chemistry - Physical	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 2.7°C*

**Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)** 30/06/2023

Alkalinity as Calcium Carbonate		146 mg/L
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Bicarbonate		178 mg/L
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Carbonate		0 mg/L
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Hydroxide		0 mg/L
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**Conductivity & Total Dissolved Solids T0016-01(ADEL)** 30/06/2023

Conductivity	2	28700 µS/cm
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Note		Conductivity measurement is corrected to 25°C
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Total Dissolved Solids (by EC)	1	18300 mg/L
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**pH T0010-01(ADEL)** 30/06/2023

pH		7.7 pH units
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Temperature at which pH is measured		22.0 °C
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**Turbidity T0018-01(ADEL)** 03/07/2023

Turbidity	0.1	2.5 NTU
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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 2.7°C*

**Suspended Solids T0160-01(ADEL)** 29/06/2023

Suspended Solids	1.0	<1 mg/L
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**Analytical Results**

Sampling Point	31524-EPA - Bonneys
Sampled Date	27/06/2023 3:36:00PM
Sample Received Date	28/06/2023 4:18:05PM
Sample Analysis Completed	8/08/2023 11:11:13AM
Sample ID	*2023-003-7644
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 2.7°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		40 cells/mL	
Cryptomonas		20 cells/mL	
<b>DIATOMS</b>			
Pennate diatoms		40 cells/mL	
Guinardia		30 cells/mL	
<b>EUGLENOPHYTES</b>			
Trachelomonas		10 cells/mL	
<b>GREEN ALGAE</b>			
Closterium small_spp		10 cells/mL	
Crucigenia		40 cells/mL	

**Sample temperature at time of receipt 2.7°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
Cryptomonas		0.02 mm3/L	
<b>EUGLENOPHYTES</b>			
Trachelomonas		0.03 mm3/L	
<b>GREEN ALGAE</b>			
Crucigenia		<0.01 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated	mm3/L
# Total Blue_Green Algae Biovolume		0.00	mm3/L
# Total Diatom Biovolume		Not Calculated	mm3/L





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**Analytical Results**

Sampling Point	31524-EPA - Bonneys
Sampled Date	27/06/2023 3:36:00PM
Sample Received Date	28/06/2023 4:18:05PM
Sample Analysis Completed	8/08/2023 11:11:13AM
Sample ID	*2023-003-7644
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Biovolume T0393(ADEL)</b>	27/06/2023
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 2.7°C**

<b>Algal Count - Total T0393(ADEL)</b>	27/06/2023
Algae - Total	190 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	70 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	50 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 2.7°C**

<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/06/2023
Chlorophyll a	0.1 15.1 µg/L
Phaeophytin a	0.1 4.57 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 2.7°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	108 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	11900 mg/L	
<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			11/07/2023
Nitrate + Nitrite as N	0.003	0.375 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		2.16 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	47.242 µg/L	
Phosphorus-Filterable Reactive as P	0.5	15.8 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023





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## Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	27/06/2023 3:36:00PM
Sample Received Date	28/06/2023 4:18:05PM
Sample Analysis Completed	8/08/2023 11:11:13AM
Sample ID	*2023-003-7644
Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.091 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	1.30 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.78 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 2.7°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	13.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	13.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 2.7°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		150 mg/L	
Bicarbonate		183 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	33400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	21800 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	4.5 NTU	



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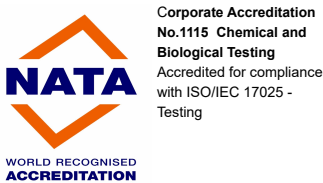
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**Analytical Results**

Sampling Point	31524-EPA - Bonneys
Sampled Date	27/06/2023 3:36:00PM
Sample Received Date	28/06/2023 4:18:05PM
Sample Analysis Completed	8/08/2023 11:11:13AM
Sample ID	*2023-003-7644
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 2.7°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	<1 mg/L	







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**Analytical Results**

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/06/2023 3:55:00PM
Sample Received Date	28/06/2023 4:12:02PM
Sample Analysis Completed	9/08/2023 12:54:31PM
Sample ID	*2023-003-7632
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 5.4°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>	
Naviculoids	40 cells/mL
<b>GREEN ALGAE</b>	
Unicellular green algae	54000 cells/mL
Chlorella	651000 cells/mL

**Sample temperature at time of receipt 5.4°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>GREEN ALGAE</b>	
Chlorella	29.3 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 5.4°C**

**Algal Count - Total T0393(ADEL)**

27/06/2023

Algae - Total	705000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	40 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	705000 cells/mL
Toxin producing BGA - Total	0 cells/mL





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## Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/06/2023 3:55:00PM
Sample Received Date	28/06/2023 4:12:02PM
Sample Analysis Completed	9/08/2023 12:54:31PM
Sample ID	*2023-003-7632
Status	Endorsed
Collection Type	Customer Collected

**Sample temperature at time of receipt 5.4°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)**

28/06/2023

Chlorophyll a	0.1	93.6 µg/L
Phaeophytin a	0.1	33.1 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	16 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	23500 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	23.8 µg/L	
# Nitrate + Nitrite as NO <sub>3</sub>	2.3	105 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		3.39 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO <sub>4</sub>	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.092 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	3.80 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	3.37 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			



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### Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/06/2023 3:55:00PM
Sample Received Date	28/06/2023 4:12:02PM
Sample Analysis Completed	9/08/2023 12:54:31PM
Sample ID	*2023-003-7632
Status	Endorsed
Collection Type	Customer Collected

<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	17.3 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	21.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		179 mg/L	
Bicarbonate		218 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	60500 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	44400 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	12 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	7 mg/L	



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**Analytical Results**

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	27/06/2023 4:20:00PM
Sample Received Date	28/06/2023 4:11:48PM
Sample Analysis Completed	9/08/2023 3:28:07PM
Sample ID	*2023-003-7636
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 5.4°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		20 cells/mL	
<b>DIATOMS</b>			
Pennate diatoms		10 cells/mL	
Nitzschia		4 cells/mL	
Navicula		60 cells/mL	
<b>DINOFLAGELLATES</b>			
Oxyrrhis		30 cells/mL	
<b>GREEN ALGAE</b>			
Chlorella		5670 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 5.4°C**

**Algal Biovolume T0393(ADEL)**

27/06/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
<b>DIATOMS</b>			
Nitzschia		<0.01 mm3/L	
Navicula		0.07 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		0.26 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated mm3/L	
# Total Blue_Green Algae Biovolume		0.00 mm3/L	





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## Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	27/06/2023 4:20:00PM
Sample Received Date	28/06/2023 4:11:48PM
Sample Analysis Completed	9/08/2023 3:28:07PM
Sample ID	*2023-003-7636
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/06/2023

# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	0.26 mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 5.4°C

### Algal Count - Total T0393(ADEL)

27/06/2023

Algae - Total	5790 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	74 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	5670 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 5.4°C

### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	2.13 µg/L
Phaeophytin a	0.1	1.88 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Ammonia as N T0100-01(ADEL)</b>			13/07/2023
Ammonia as N	0.005	0.236 mg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	17400 mg/L	
<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			11/07/2023
Nitrate + Nitrite as N	0.003	0.128 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		2.09 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO <sub>4</sub>	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	



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## Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	27/06/2023 4:20:00PM
Sample Received Date	28/06/2023 4:11:48PM
Sample Analysis Completed	9/08/2023 3:28:07PM
Sample ID	*2023-003-7636
Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.026 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	1.94 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.96 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 5.4°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	16.0 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	16.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 5.4°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		169 mg/L	
Bicarbonate		206 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	48000 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	33400 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	4.8 NTU	



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**Analytical Results**

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	27/06/2023 4:20:00PM
Sample Received Date	28/06/2023 4:11:48PM
Sample Analysis Completed	9/08/2023 3:28:07PM
Sample ID	*2023-003-7636
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 5.4°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	2 mg/L	





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**Analytical Results**

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	28/06/2023 8:00:00AM
Sample Received Date	28/06/2023 2:36:34PM
Sample Analysis Completed	10/08/2023 9:08:52AM
Sample ID	*2023-003-7645
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.2°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Naviculoids		30 cells/mL	
<b>DINOFLAGELLATES</b>			
Gymnodinioids		2 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		14200 cells/mL	
Unicellular green algae		37300 cells/mL	
Chlorella		708000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 4.2°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>GREEN ALGAE</b>			
Chlorella		31.9 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated mm3/L	
# Total Blue_Green Algae Biovolume		0.00 mm3/L	
# Total Diatom Biovolume		Not Calculated mm3/L	
# Total Green Algae Biovolume		Not Calculated mm3/L	
Total Toxic BGA Biovolume		0.00 mm3/L	

**Sample temperature at time of receipt 4.2°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	760000 cells/mL
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## Analytical Results

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	28/06/2023 8:00:00AM
Sample Received Date	28/06/2023 2:36:34PM
Sample Analysis Completed	10/08/2023 9:08:52AM
Sample ID	*2023-003-7645
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

28/06/2023

Blue Green Algae - Total	0 cells/mL
Diatoms - Total	30 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	760000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 4.2°C

### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	59.1 µg/L
Phaeophytin a	0.1	18.6 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	3 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	21300 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	9.7 µg/L	
# Nitrate + Nitrite as NO3	2.3	43.0 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.86 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			19/07/2023
Phosphorus - Total	0.005	0.057 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	7.22 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			19/07/2023



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**Analytical Results**

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	28/06/2023 8:00:00AM
Sample Received Date	28/06/2023 2:36:34PM
Sample Analysis Completed	10/08/2023 9:08:52AM
Sample ID	*2023-003-7645
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			19/07/2023
TKN as Nitrogen	0.05	1.85 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	16.1 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	20.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		241 mg/L	
Bicarbonate		294 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	57300 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	41500 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.1 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	8.9 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			





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**Analytical Results**

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	28/06/2023 8:00:00AM
Sample Received Date	28/06/2023 2:36:34PM
Sample Analysis Completed	10/08/2023 9:08:52AM
Sample ID	*2023-003-7645
Status	Endorsed
Collection Type	Customer Collected

**Suspended Solids T0160-01(ADEL)**

29/06/2023

Suspended Solids	1.0	7 mg/L
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**Analytical Results**

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	28/06/2023 8:14:00AM
Sample Received Date	28/06/2023 2:36:22PM
Sample Analysis Completed	14/08/2023 12:29:04PM
Sample ID	*2023-003-7634
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.2°C**

**Algal Identification T0393(ADEL)**

<b>GREEN ALGAE</b>	
Unicellular green algae	203000 cells/mL
Chlorella	1110000 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

**Sample temperature at time of receipt 4.2°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>GREEN ALGAE</b>	
Chlorella	50.0 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 4.2°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	1310000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1310000 cells/mL
Toxin producing BGA - Total	0 cells/mL





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## Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	28/06/2023 8:14:00AM
Sample Received Date	28/06/2023 2:36:22PM
Sample Analysis Completed	14/08/2023 12:29:04PM
Sample ID	*2023-003-7634
Status	Endorsed
Collection Type	Customer Collected

### Sample temperature at time of receipt 4.2°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	86.2 µg/L
Phaeophytin a	0.1	24.7 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	5 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	29800 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	6.5 µg/L	
# Nitrate + Nitrite as NO <sub>3</sub>	2.3	28.8 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		4.26 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO <sub>4</sub>	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.076 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	5.76 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	4.25 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			



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### Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	28/06/2023 8:14:00AM
Sample Received Date	28/06/2023 2:36:22PM
Sample Analysis Completed	14/08/2023 12:29:04PM
Sample ID	*2023-003-7634
Status	Endorsed
Collection Type	Customer Collected

<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	20.2 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	26.5 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		213 mg/L	
Bicarbonate		260 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	76900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	60200 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	12 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	27 mg/L	



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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	28/06/2023 8:15:00AM
Sample Received Date	28/06/2023 2:50:28PM
Sample Analysis Completed	14/08/2023 10:48:54AM
Sample ID	*2023-003-7633
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.1°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Nitzschia		10 cells/mL	
Navicula		10 cells/mL	
<b>GREEN ALGAE</b>			
Unicellular green algae		211000 cells/mL	
Chlorella		924000 cells/mL	
Phytoflagellates		7800 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 4.1°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>DIATOMS</b>			
Nitzschia		0.01 mm3/L	
Navicula		0.01 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		41.6 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated mm3/L	
# Total Blue_Green Algae Biovolume		0.00 mm3/L	
# Total Diatom Biovolume		0.02 mm3/L	
# Total Green Algae Biovolume		Not Calculated mm3/L	
Total Toxic BGA Biovolume		0.00 mm3/L	

**Sample temperature at time of receipt 4.1°C**





Internet: [www.awqc.com.au](http://www.awqc.com.au)

Email: [awqc@sawater.com.au](mailto:awqc@sawater.com.au)

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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	28/06/2023 8:15:00AM
Sample Received Date	28/06/2023 2:50:28PM
Sample Analysis Completed	14/08/2023 10:48:54AM
Sample ID	*2023-003-7633
Status	Endorsed
Collection Type	Customer Collected

**Algal Count - Total T0393(ADEL)** 28/06/2023

Algae - Total	1140000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	20 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1140000 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 4.1°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)** 28/06/2023

Chlorophyll a	0.1	82.7 µg/L
Phaeophytin a	0.1	24.2 µg/L

**Inorganic Chemistry - Nutrients**      **LOR**      **Result**      **Test Start Date**

**Sample temperature at time of receipt 4.1°C**

**Ammonia as N (ADEL)** 11/07/2023

# Ammonia as N	1	2 µg/L
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**Chloride T0104-02(ADEL)** 10/07/2023

Chloride	4.0	29900 mg/L
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**Nitrate + Nitrite as N (ADEL)** 11/07/2023

# Nitrate + Nitrite as N	0.5	9.8 µg/L
# Nitrate + Nitrite as NO3	2.3	43.4 µg/L
# Nitrate as Nitrogen		false µg/L

**Nitrogen - Total TMZ-M06(ADEL)** 28/06/2023

Nitrogen - Total		4.13 mg/L
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**Phosphorus - Filterable Reactive as P (ADEL)** 11/07/2023

# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L
Phosphorus-Filterable Reactive as P	0.5	0.5 µg/L

**Phosphorus - Total T0109-44(ADEL)** 04/07/2023

Phosphorus - Total	0.005	0.085 mg/L
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**Silica - Reactive T0111-01(ADEL)**

Silica - Reactive	0.05	5.87 mg/L
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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	28/06/2023 8:15:00AM
Sample Received Date	28/06/2023 2:50:28PM
Sample Analysis Completed	14/08/2023 10:48:54AM
Sample ID	*2023-003-7633
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	4.12 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	20.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	26.5 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		216 mg/L	
Bicarbonate		263 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	75900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	59200 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	12 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			





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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	28/06/2023 8:15:00AM
Sample Received Date	28/06/2023 2:50:28PM
Sample Analysis Completed	14/08/2023 10:48:54AM
Sample ID	*2023-003-7633
Status	Endorsed
Collection Type	Customer Collected

**Suspended Solids T0160-01(ADEL)**

29/06/2023

Suspended Solids	1.0	<1 mg/L
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**Analytical Results**

Sampling Point	31515-EPA - Snipe Point
Sampled Date	28/06/2023 8:28:00AM
Sample Received Date	28/06/2023 2:36:09PM
Sample Analysis Completed	14/08/2023 10:50:29AM
Sample ID	*2023-003-7631
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.2°C**

**Algal Identification T0393(ADEL)**

<b>DINOFLAGELLATES</b>	
Heterocapsa	10 cells/mL
<b>GREEN ALGAE</b>	
Unicellular green algae	242000 cells/mL
Phytoflagellates	9170 cells/mL
Chlorella	1140000 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

**Sample temperature at time of receipt 4.2°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>GREEN ALGAE</b>	
Chlorella	51.3 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 4.2°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	1390000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL





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**Analytical Results**

Sampling Point	31515-EPA - Snipe Point
Sampled Date	28/06/2023 8:28:00AM
Sample Received Date	28/06/2023 2:36:09PM
Sample Analysis Completed	14/08/2023 10:50:29AM
Sample ID	*2023-003-7631
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Count - Total T0393(ADEL)</b>	28/06/2023
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1390000 cells/mL
Toxin producing BGA - Total	0 cells/mL

<b>Sample temperature at time of receipt 4.2°C</b>	
<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/06/2023
Chlorophyll a	0.1 126 µg/L
Phaeophytin a	0.1 34.6 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.2°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	3 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	30500 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	8.6 µg/L	
# Nitrate + Nitrite as NO3	2.3	38.1 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		4.90 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.241 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	5.32 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	4.89 mg/L	





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## Analytical Results

Sampling Point	31515-EPA - Snipe Point
Sampled Date	28/06/2023 8:28:00AM
Sample Received Date	28/06/2023 2:36:09PM
Sample Analysis Completed	14/08/2023 10:50:29AM
Sample ID	*2023-003-7631
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.2°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Dissolved Organic Carbon	1	20.5 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			05/07/2023
Total Organic Carbon	1	27.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.2°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		207 mg/L	
Bicarbonate		252 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	77800 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	61100 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	12 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.2°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	13 mg/L	



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## Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	28/06/2023 8:35:00AM
Sample Received Date	28/06/2023 2:50:55PM
Sample Analysis Completed	14/08/2023 11:03:43AM
Sample ID	*2023-003-7638
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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### *Sample temperature at time of receipt 4.1°C*

#### Algal Identification T0393(ADEL)

##### BLUE GREEN ALGAE

Merismopedia 60 cells/mL

##### DIATOMS

Skeletonema 80 cells/mL

Pennate diatoms 10 cells/mL

Cyclotella 40 cells/mL

##### GREEN ALGAE

Unicellular green algae 200 cells/mL

Monoraphidium sp\_2\_(short) 340 cells/mL

Phytoflagellates 60 cells/mL

Chlorella 160 cells/mL

Oocystis 460 cells/mL

Organism - Comment Skeletonema - The identification for this organism is tentative only.

### *Sample temperature at time of receipt 4.1°C*

#### Algal Biovolume T0393(ADEL)

28/06/2023

##### BLUE GREEN ALGAE

Merismopedia <0.01 mm3/L

##### DIATOMS

Cyclotella 0.02 mm3/L

##### GREEN ALGAE

Monoraphidium sp\_2\_(short) 0.02 mm3/L

Chlorella <0.01 mm3/L

Oocystis 0.14 mm3/L



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## Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	28/06/2023 8:35:00AM
Sample Received Date	28/06/2023 2:50:55PM
Sample Analysis Completed	14/08/2023 11:03:43AM
Sample ID	*2023-003-7638
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

28/06/2023

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	<0.01 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 4.1°C

#### Algal Count - Total T0393(ADEL)

28/06/2023

Algae - Total	1410 cells/mL
Blue Green Algae - Total	60 cells/mL
Diatoms - Total	130 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1220 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 4.1°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	2.37 µg/L
Phaeophytin a	0.1	0.71 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 4.1°C

#### Ammonia as N (ADEL)

11/07/2023

# Ammonia as N	1	32 µg/L
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#### Chloride T0104-02(ADEL)

10/07/2023

Chloride	4.0	4490 mg/L
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## Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	28/06/2023 8:35:00AM
Sample Received Date	28/06/2023 2:50:55PM
Sample Analysis Completed	14/08/2023 11:03:43AM
Sample ID	*2023-003-7638
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	24.2 µg/L	
# Nitrate + Nitrite as NO3	2.3	107 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		1.01 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	3.887 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.3 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	<0.005 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	11.0 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	0.99 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	7.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	8.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		297 mg/L	
Bicarbonate		317 mg/L	
Carbonate		22 mg/L	
Hydroxide		0 mg/L	



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**Analytical Results**

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	28/06/2023 8:35:00AM
Sample Received Date	28/06/2023 2:50:55PM
Sample Analysis Completed	14/08/2023 11:03:43AM
Sample ID	*2023-003-7638
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	13400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	7930 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.6 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	3.9 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	3 mg/L	





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**Analytical Results**

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	28/06/2023 8:42:00AM
Sample Received Date	28/06/2023 3:01:40PM
Sample Analysis Completed	14/08/2023 12:30:26PM
Sample ID	*2023-003-7648
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.9°C**

**Algal Identification T0393(ADEL)**

<b>GREEN ALGAE</b>	
Unicellular green algae	162000 cells/mL
Chlorella	1000000 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

**Sample temperature at time of receipt 4.9°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>GREEN ALGAE</b>	
Chlorella	45.0 mm3/L
# Algal Biovolume Comment	Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.
# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	0.00 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 4.9°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	1160000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1160000 cells/mL
Toxin producing BGA - Total	0 cells/mL





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## Analytical Results

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	28/06/2023 8:42:00AM
Sample Received Date	28/06/2023 3:01:40PM
Sample Analysis Completed	14/08/2023 12:30:26PM
Sample ID	*2023-003-7648
Status	Endorsed
Collection Type	Customer Collected

### Sample temperature at time of receipt 4.9°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	119 µg/L
Phaeophytin a	0.1	37.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	<1 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	27200 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	7.0 µg/L	
# Nitrate + Nitrite as NO <sub>3</sub>	2.3	31.0 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		4.27 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO <sub>4</sub>	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.087 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	5.22 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	4.26 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			



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### Analytical Results

Sampling Point	531012-EPA - Sth Policeman Point
Sampled Date	28/06/2023 8:42:00AM
Sample Received Date	28/06/2023 3:01:40PM
Sample Analysis Completed	14/08/2023 12:30:26PM
Sample ID	*2023-003-7648
Status	Endorsed
Collection Type	Customer Collected

<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	20.2 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	27.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		202 mg/L	
Bicarbonate		246 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	75800 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	59100 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	13 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	13 mg/L	



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**Analytical Results**

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	28/06/2023 8:55:00AM
Sample Received Date	28/06/2023 2:50:43PM
Sample Analysis Completed	14/08/2023 9:01:45AM
Sample ID	*2023-003-7637
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.1°C**

**Algal Identification T0393(ADEL)**

<b>BLUE GREEN ALGAE</b>			
Tychonema		14 cells/mL	
Merismopedia		12 cells/mL	
<b>DIATOMS</b>			
Cyclotella small_spp		4 cells/mL	
Pennate diatoms		2 cells/mL	
<b>GREEN ALGAE</b>			
Oocystis sp_1_(small_cells)		24 cells/mL	
Monoraphidium sp_2_(short)		850 cells/mL	
Chlorella		400 cells/mL	
Phytoflagellates		50 cells/mL	

**Sample temperature at time of receipt 4.1°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>BLUE GREEN ALGAE</b>			
Tychonema		<0.01 mm3/L	
Merismopedia		<0.01 mm3/L	
<b>DIATOMS</b>			
Cyclotella small_spp		<0.01 mm3/L	
<b>GREEN ALGAE</b>			
Oocystis sp_1_(small_cells)		<0.01 mm3/L	
Monoraphidium sp_2_(short)		0.04 mm3/L	
Chlorella		0.02 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated mm3/L	





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## Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	28/06/2023 8:55:00AM
Sample Received Date	28/06/2023 2:50:43PM
Sample Analysis Completed	14/08/2023 9:01:45AM
Sample ID	*2023-003-7637
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

28/06/2023

# Total Blue_Green Algae Biovolume	<0.02 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 4.1°C

### Algal Count - Total T0393(ADEL)

28/06/2023

Algae - Total	1360 cells/mL
Blue Green Algae - Total	26 cells/mL
Diatoms - Total	6 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1320 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 4.1°C

### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	2.28 µg/L
Phaeophytin a	0.1	0.31 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	52 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	4360 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	25.2 µg/L	
# Nitrate + Nitrite as NO3	2.3	112 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		0.73 mg/L	



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## Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	28/06/2023 8:55:00AM
Sample Received Date	28/06/2023 2:50:43PM
Sample Analysis Completed	14/08/2023 9:01:45AM
Sample ID	*2023-003-7637
Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	2.99 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.0 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	<0.005 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	11.1 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	0.70 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	8.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	8.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		300 mg/L	
Bicarbonate		319 mg/L	
Carbonate		23 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	13500 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	7990 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.6 pH units	



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**Analytical Results**

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	28/06/2023 8:55:00AM
Sample Received Date	28/06/2023 2:50:43PM
Sample Analysis Completed	14/08/2023 9:01:45AM
Sample ID	*2023-003-7637
Status	Endorsed
Collection Type	Customer Collected

<b>pH T0010-01(ADEL)</b>			30/06/2023
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	2.4 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	<1 mg/L	







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**Analytical Results**

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	28/06/2023 9:02:00AM
Sample Received Date	28/06/2023 3:01:28PM
Sample Analysis Completed	11/08/2023 3:31:32PM
Sample ID	*2023-003-7630
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Algal Identification T0393(ADEL)</b>			
<b>CRYPTOPHYTES</b>			
Cryptomonads		48 cells/mL	
<b>DIATOMS</b>			
Nitzschia small_spp		125 cells/mL	
Navicula		12 cells/mL	
Pennate diatoms		8 cells/mL	
Nitzschia		8 cells/mL	
<b>GREEN ALGAE</b>			
Unicellular green algae		115000 cells/mL	
Chlorella		1060000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	
Organism - Comment		Unicellular green algae - The identification for this organism is tentative only.	

<b>Sample temperature at time of receipt 4.9°C</b>		
<b>Algal Biovolume T0393(ADEL)</b>		
		28/06/2023
<b>CRYPTOPHYTES</b>		
Cryptomonads	0.01 mm3/L	
<b>DIATOMS</b>		
Nitzschia small_spp	0.02 mm3/L	
Navicula	0.01 mm3/L	
Nitzschia	0.01 mm3/L	
<b>GREEN ALGAE</b>		
Chlorella	47.7 mm3/L	





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## Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	28/06/2023 9:02:00AM
Sample Received Date	28/06/2023 3:01:28PM
Sample Analysis Completed	11/08/2023 3:31:32PM
Sample ID	*2023-003-7630
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

28/06/2023

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 4.9°C

#### Algal Count - Total T0393(ADEL)

28/06/2023

Algae - Total	1180000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	153 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1180000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 4.9°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	180 µg/L
Phaeophytin a	0.1	57.5 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 4.9°C

#### Ammonia as N (ADEL)

11/07/2023

# Ammonia as N	1	4 µg/L
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#### Chloride T0104-02(ADEL)

10/07/2023

Chloride	4.0	26800 mg/L
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## Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	28/06/2023 9:02:00AM
Sample Received Date	28/06/2023 3:01:28PM
Sample Analysis Completed	11/08/2023 3:31:32PM
Sample ID	*2023-003-7630
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	11.4 µg/L	
# Nitrate + Nitrite as NO3	2.3	50.5 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		4.26 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.121 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	4.62 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	4.25 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	18.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	24.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		191 mg/L	
Bicarbonate		233 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	



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**Analytical Results**

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	28/06/2023 9:02:00AM
Sample Received Date	28/06/2023 3:01:28PM
Sample Analysis Completed	11/08/2023 3:31:32PM
Sample ID	*2023-003-7630
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	68500 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	51900 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	16 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	27 mg/L	





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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	28/06/2023 9:31:00AM
Sample Received Date	28/06/2023 3:01:16PM
Sample Analysis Completed	11/08/2023 3:42:58PM
Sample ID	*2023-003-7635
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.9°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Cryptomonads		52 cells/mL	
<b>DIATOMS</b>			
Pennate diatoms		16 cells/mL	
Nitzschia small_spp		450 cells/mL	
<b>DINOFLAGELLATES</b>			
Heterocapsa		4 cells/mL	
<b>GREEN ALGAE</b>			
Chlorella		876000 cells/mL	
Unicellular green algae		76800 cells/mL	

**Sample temperature at time of receipt 4.9°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>CRYPTOPHYTES</b>			
Cryptomonads		0.01 mm3/L	
<b>DIATOMS</b>			
Nitzschia small_spp		0.07 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		39.4 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated	mm3/L
# Total Blue_Green Algae Biovolume		0.00	mm3/L
# Total Diatom Biovolume		Not Calculated	mm3/L
# Total Green Algae Biovolume		Not Calculated	mm3/L
Total Toxic BGA Biovolume		0.00	mm3/L





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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	28/06/2023 9:31:00AM
Sample Received Date	28/06/2023 3:01:16PM
Sample Analysis Completed	11/08/2023 3:42:58PM
Sample ID	*2023-003-7635
Status	Endorsed
Collection Type	Customer Collected

**Sample temperature at time of receipt 4.9°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	953000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	466 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	953000 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 4.9°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)**

Chlorophyll a	0.1	110 µg/L
Phaeophytin a	0.1	34.4 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.9°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	7 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	23700 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	5.2 µg/L	
# Nitrate + Nitrite as NO3	2.3	23.0 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		3.49 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.106 mg/L	





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## Analytical Results

Sampling Point	31514-EPA - Stoney Well
Sampled Date	28/06/2023 9:31:00AM
Sample Received Date	28/06/2023 3:01:16PM
Sample Analysis Completed	11/08/2023 3:42:58PM
Sample ID	*2023-003-7635
Status	Endorsed
Collection Type	Customer Collected

### Silica - Reactive T0111-01(ADEL)

Silica - Reactive	0.05	3.88 mg/L
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### TKN as N T0112-01(ADEL)

TKN as Nitrogen	0.05	3.48 mg/L
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04/07/2023

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.9°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	18.3 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	22.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.9°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		179 mg/L	
Bicarbonate		218 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	60900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	44700 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.9 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	14 NTU	



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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	28/06/2023 9:31:00AM
Sample Received Date	28/06/2023 3:01:16PM
Sample Analysis Completed	11/08/2023 3:42:58PM
Sample ID	*2023-003-7635
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 4.9°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	13 mg/L	







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Email: [awqc@sawater.com.au](mailto:awqc@sawater.com.au)

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**Analytical Results**

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	28/06/2023 9:40:00AM
Sample Received Date	28/06/2023 2:50:16PM
Sample Analysis Completed	8/08/2023 1:05:15PM
Sample ID	*2023-003-7639
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 4.1°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		40 cells/mL	
<b>DIATOMS</b>			
Cyclotella		50 cells/mL	
Nitzschia		10 cells/mL	
Pennate diatoms small_spp		20 cells/mL	
<b>DINOFLAGELLATES</b>			
Oxyrrhis		70 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		40 cells/mL	
Tetraselmis		20 cells/mL	

**Sample temperature at time of receipt 4.1°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
<b>DIATOMS</b>			
Cyclotella		0.03 mm3/L	
Nitzschia		0.01 mm3/L	
# Algal Biovolume Comment		Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.	
# Total Algae Biovolume		Not Calculated	mm3/L
# Total Blue_Green Algae Biovolume		0.00	mm3/L
# Total Diatom Biovolume		Not Calculated	mm3/L
# Total Green Algae Biovolume		Not Calculated	mm3/L
Total Toxic BGA Biovolume		0.00	mm3/L





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**Analytical Results**

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	28/06/2023 9:40:00AM
Sample Received Date	28/06/2023 2:50:16PM
Sample Analysis Completed	8/08/2023 1:05:15PM
Sample ID	*2023-003-7639
Status	Endorsed
Collection Type	Customer Collected

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**Sample temperature at time of receipt 4.1°C**

**Algal Count - Total T0393(ADEL)**

28/06/2023

Algae - Total	250 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	80 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	60 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 4.1°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)**

28/06/2023

Chlorophyll a	0.1	4.04 µg/L
Phaeophytin a	0.1	1.07 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Ammonia as N (ADEL)</b>			11/07/2023
# Ammonia as N	1	95 µg/L	
<b>Chloride T0104-02(ADEL)</b>			10/07/2023
Chloride	4.0	1830 mg/L	
<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			11/07/2023
Nitrate + Nitrite as N	0.003	1.89 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		2.91 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	9.269 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.1 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	<0.005 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	17.5 mg/L	



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## Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	28/06/2023 9:40:00AM
Sample Received Date	28/06/2023 2:50:16PM
Sample Analysis Completed	8/08/2023 1:05:15PM
Sample ID	*2023-003-7639
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	1.02 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	7.0 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	7.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		364 mg/L	
Bicarbonate		444 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	6310 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	3600 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		8.2 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	6.6 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 4.1°C</b>			



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**Analytical Results**

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	28/06/2023 9:40:00AM
Sample Received Date	28/06/2023 2:50:16PM
Sample Analysis Completed	8/08/2023 1:05:15PM
Sample ID	*2023-003-7639
Status	Endorsed
Collection Type	Customer Collected

**Suspended Solids T0160-01(ADEL)**

29/06/2023

Suspended Solids	1.0	17 mg/L
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**Analytical Results**

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	28/06/2023 9:59:00AM
Sample Received Date	28/06/2023 4:12:15PM
Sample Analysis Completed	8/08/2023 1:11:42PM
Sample ID	*2023-003-7628
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 5.4°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		50 cells/mL	
Cryptomonas		20 cells/mL	
<b>DIATOMS</b>			
Nitzschia		2100 cells/mL	
Pennate diatoms		1550 cells/mL	
Cyclotella		150 cells/mL	
Navicula		10 cells/mL	
<b>DINOFLAGELLATES</b>			
Gymnodinioids		20 cells/mL	
<b>GREEN ALGAE</b>			
Unicellular green algae		96000 cells/mL	
Phytoflagellates		50 cells/mL	
Chlorella		1150000 cells/mL	

**Sample temperature at time of receipt 5.4°C**

**Algal Biovolume T0393(ADEL)**

28/06/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
Cryptomonas		0.02 mm3/L	
<b>DIATOMS</b>			
Nitzschia		2.91 mm3/L	
Cyclotella		0.08 mm3/L	
Navicula		0.01 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		51.8 mm3/L	



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## Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	28/06/2023 9:59:00AM
Sample Received Date	28/06/2023 4:12:15PM
Sample Analysis Completed	8/08/2023 1:11:42PM
Sample ID	*2023-003-7628
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

28/06/2023

# Algal Biovolume Comment

Biovolumes for taxa reported at genus level are approximate values. Reported taxa and calculated biovolume includes only those with taxon cell volume and associated cell count data. Biovolume totals have specific criteria around how they calculate.

# Total Algae Biovolume	Not Calculated mm3/L
# Total Blue_Green Algae Biovolume	0.00 mm3/L
# Total Diatom Biovolume	Not Calculated mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 5.4°C

#### Algal Count - Total T0393(ADEL)

28/06/2023

Algae - Total	1250000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	3810 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1250000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 5.4°C

#### Chlorophyll a & Phaeophytin a T0380-02(ADEL)

28/06/2023

Chlorophyll a	0.1	112 µg/L
Phaeophytin a	0.1	38.4 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 5.4°C

#### Ammonia as N (ADEL)

11/07/2023

# Ammonia as N	1	8 µg/L
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#### Chloride T0104-02(ADEL)

10/07/2023

Chloride	4.0	25700 mg/L
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## Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	28/06/2023 9:59:00AM
Sample Received Date	28/06/2023 4:12:15PM
Sample Analysis Completed	8/08/2023 1:11:42PM
Sample ID	*2023-003-7628
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N (ADEL)</b>			11/07/2023
# Nitrate + Nitrite as N	0.5	7.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	32.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			28/06/2023
Nitrogen - Total		3.74 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			11/07/2023
# Phosphorus -Filterable Reactive as PO4	1.5	<1.5 µg/L	
Phosphorus-Filterable Reactive as P	0.5	<0.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			04/07/2023
Phosphorus - Total	0.005	0.062 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			
Silica - Reactive	0.05	4.22 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			04/07/2023
TKN as Nitrogen	0.05	3.73 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Dissolved Organic Carbon	1	17.7 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			10/07/2023
Total Organic Carbon	1	22.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			30/06/2023
Alkalinity as Calcium Carbonate		183 mg/L	
Bicarbonate		224 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	



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**Analytical Results**

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	28/06/2023 9:59:00AM
Sample Received Date	28/06/2023 4:12:15PM
Sample Analysis Completed	8/08/2023 1:11:42PM
Sample ID	*2023-003-7628
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			30/06/2023
Conductivity	2	63800 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	47400 mg/L	
<b>pH T0010-01(ADEL)</b>			30/06/2023
pH		7.8 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			03/07/2023
Turbidity	0.1	14 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 5.4°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			29/06/2023
Suspended Solids	1.0	13 mg/L	







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### AWQC Signatories

Dzung Bui - Supervisor Metals and Physical

Ivana Cech - Technical Officer Chemistry

Thuy Diep - Technical Officer Chemistry

Andrew Ford - Acting Method Development Specialist

Sharon Helgeson - Technical Officer Life Sciences

Kerrie Jooste - Manager Chemistry Services

John Martini - Method Development Specialist

Dean Newman - Senior Technical Officer Biology

Melissa Phillips - Technical Officer Chemistry

Gayle Polley - Supervisor Nutrients and Waste



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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-003-7628	31525	EPA - Villa de Yumpa	28/06/2023	pH	Test not processed within holding time
2023-003-7628	31525	EPA - Villa de Yumpa	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7628	31525	EPA - Villa de Yumpa	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7628	31525	EPA - Villa de Yumpa	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7628	31525	EPA - Villa de Yumpa	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7629	31523	EPA - Long Point	27/06/2023	pH	Test not processed within holding time
2023-003-7629	31523	EPA - Long Point	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7629	31523	EPA - Long Point	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7630	31526	EPA - Nth Jack Point	28/06/2023	pH	Test not processed within holding time
2023-003-7630	31526	EPA - Nth Jack Point	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7630	31526	EPA - Nth Jack Point	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7630	31526	EPA - Nth Jack Point	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7630	31526	EPA - Nth Jack Point	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7631	31515	EPA - Snipe Point	28/06/2023	pH	Test not processed within holding time
2023-003-7631	31515	EPA - Snipe Point	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7631	31515	EPA - Snipe Point	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7632	31513	EPA - Parnka Point Boat Ramp	27/06/2023	pH	Test not processed within holding time
2023-003-7632	31513	EPA - Parnka Point Boat Ramp	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7632	31513	EPA - Parnka Point Boat Ramp	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7633	31511	EPA - 3.2km South Salt Creek	28/06/2023	pH	Test not processed within holding time



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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-003-7633	31511	EPA - 3.2km South Salt Creek	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7633	31511	EPA - 3.2km South Salt Creek	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7634	31517	EPA - 1.8km West Salt Creek	28/06/2023	pH	Test not processed within holding time
2023-003-7634	31517	EPA - 1.8km West Salt Creek	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7634	31517	EPA - 1.8km West Salt Creek	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7635	31514	EPA - Stoney Well	28/06/2023	pH	Test not processed within holding time
2023-003-7635	31514	EPA - Stoney Well	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7635	31514	EPA - Stoney Well	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7635	31514	EPA - Stoney Well	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7635	31514	EPA - Stoney Well	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7636	31512	EPA - McGrath Flat North	27/06/2023	pH	Test not processed within holding time
2023-003-7636	31512	EPA - McGrath Flat North	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7636	31512	EPA - McGrath Flat North	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	pH	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7637	31519	EPA - Morella Basin at Outlet Regulator	28/06/2023	Dissolved Organic Carbon	DOC > TOC but within method uncertainty
2023-003-7638	315191	EPA - Morella Creek @ guage	28/06/2023	pH	Test not processed within holding time



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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-003-7638	315191	EPA - Morella Creek @ guage	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7638	315191	EPA - Morella Creek @ guage	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7638	315191	EPA - Morella Creek @ guage	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7638	315191	EPA - Morella Creek @ guage	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7639	300713	Tilley Swamp Drain D/S Northern Outlet	28/06/2023	pH	Test not processed within holding time
2023-003-7639	300713	Tilley Swamp Drain D/S Northern Outlet	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7639	300713	Tilley Swamp Drain D/S Northern Outlet	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7639	300713	Tilley Swamp Drain D/S Northern Outlet	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7639	300713	Tilley Swamp Drain D/S Northern Outlet	28/06/2023	Total Organic Carbon	Test not processed within holding time
2023-003-7640	11504	DEW - Mundoo Upstream	27/06/2023	Chlorophyll a & Phaeophytin a	Test not processed within holding time
2023-003-7640	11504	DEW - Mundoo Upstream	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7640	11504	DEW - Mundoo Upstream	27/06/2023	pH	Test not processed within holding time
2023-003-7640	11504	DEW - Mundoo Upstream	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7641	11505	DEW - Mundoo Downstream	27/06/2023	Chlorophyll a & Phaeophytin a	Test not processed within holding time
2023-003-7641	11505	DEW - Mundoo Downstream	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7641	11505	DEW - Mundoo Downstream	27/06/2023	pH	Test not processed within holding time
2023-003-7641	11505	DEW - Mundoo Downstream	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7642	31522	EPA - Mark Point	27/06/2023	pH	Test not processed within holding time
2023-003-7642	31522	EPA - Mark Point	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7642	31522	EPA - Mark Point	27/06/2023	Silica - Reactive	Test not processed within holding time



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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-003-7643	351213	EPA - Murray Mouth	27/06/2023	pH	Test not processed within holding time
2023-003-7643	351213	EPA - Murray Mouth	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7643	351213	EPA - Murray Mouth	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7644	31524	EPA - Bonneys	27/06/2023	pH	Test not processed within holding time
2023-003-7644	31524	EPA - Bonneys	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7644	31524	EPA - Bonneys	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7645	31528	EPA - Salt Creek Outlet	28/06/2023	pH	Test not processed within holding time
2023-003-7645	31528	EPA - Salt Creek Outlet	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7645	31528	EPA - Salt Creek Outlet	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7646	353179	EPA - Tauwichee Barrage Upstream	27/06/2023	pH	Test not processed within holding time
2023-003-7646	353179	EPA - Tauwichee Barrage Upstream	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7646	353179	EPA - Tauwichee Barrage Upstream	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7647	353177	EPA - Tauwichee Barrage DS	27/06/2023	pH	Test not processed within holding time
2023-003-7647	353177	EPA - Tauwichee Barrage DS	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7647	353177	EPA - Tauwichee Barrage DS	27/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7648	531012	EPA - Sth Policeman Point	28/06/2023	pH	Test not processed within holding time
2023-003-7648	531012	EPA - Sth Policeman Point	28/06/2023	Turbidity	Test not processed within holding time
2023-003-7648	531012	EPA - Sth Policeman Point	28/06/2023	Silica - Reactive	Test not processed within holding time
2023-003-7648	531012	EPA - Sth Policeman Point	28/06/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-003-7648	531012	EPA - Sth Policeman Point	28/06/2023	Total Organic Carbon	Test not processed within holding time



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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-003-7649	53032	EPA - Nooameena	27/06/2023	pH	Test not processed within holding time
2023-003-7649	53032	EPA - Nooameena	27/06/2023	Turbidity	Test not processed within holding time
2023-003-7649	53032	EPA - Nooameena	27/06/2023	Silica - Reactive	Test not processed within holding time

### Analytical Method

Analytical Method Code	Description	Reference Method
T0010-01	Determination of pH	AP4500HB
T0016-01	Determination of Conductivity - Corrected to 25C	AP2510B
T0018-01	Turbidity - Nephelometric Measurement	APAWWA-WEF
T0100-01	Ammonia/Ammonium - Automated Flow Colorimetry	AP4500NH3G
T0101-01	Alkalinity - Automated Acidimetric Titration	AP2320B
T0104-02	Chloride - Discrete Analyser	AP4500CLE
T0109-44	Phosphorous -total Kjeldahl for seawater by automated flow colorimetry	AP4500PF
T0111-01	Silica by automated flow colorimetry	AP4500SI02
T0112-01	Nitrogen- Total Kjeldahl by discrete analyser	AP4500NORGA
T0158-07	Total and Dissolved Organic Carbon (OI Analytical)	SM5310C
T0160-01	Suspended Solids 103C to 105C	AP4500
T0161-01	Nitrate + Nitrate (NOx) - Automated Flow Colorimetry	AP4500NO3I
T0380-02	Chlorophyll a & b and phaeophytin	ISO10260
T0393	Microalgae & Cyanobacteria - Scan & Identification	
T0393	Microalgae & Cyanobacteria - Scan & Identification	Hotzel1999
TMZ-M06	Derived Results and Data Checks	AP4500NORGA

### Sampling Method

Sampling Method Code	Description
W09-023	Sampling Method for Chemical Analyses
W09-024	Sampling Method for Biological Analyses

**Sampling point and date sampled are provided when collected by customers. Validity of results are based on information and samples supplied by customers. Unless it is reported that sampling has been performed by AWQC, the samples have been analysed as received.**

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### Laboratory Information

Laboratory	NATA accreditation ID
Inorganic Chemistry - Physical	1115
Inorganic Chemistry - Waste Water	1115
Inorganic Chemistry - Nutrients	1115
Organic Chemistry	1115
Biology Operations	1115



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- Notes
1. The last figure of the result value is a significant figure.
  2. # determination of the component is not covered by NATA Accreditation.
  3. ^ indicates result is out of specification according to the reference guideline. Refer to report footer.
  4. \* indicates an incident has been recorded against the sample. Refer to report footer.
  5. & Indicates the results have changed since the last issued report.
  6. Where a result is required to meet compliance limits the associated measurement uncertainty must be considered. Measurement uncertainty is available at <https://www.awqc.com.au/our-services/Water-quality-testing-and-analysis/measurement-uncertainty>
  7. Uncertainty of Measurement is reported with a coverage factor of 2 providing approximately 95% confidence interval
  8. The Limit of Reporting (LOR) is the lowest concentration of analyte which is reported at the AWQC and is based on the LOQ rounded up to a more readily used value. The Limit of Quantitation (LOQ) is the lowest concentration of analyte for which quantitative results may be obtained within a specified degree of confidence.
  9. Where collection type is AWQC Collect, NATA has confirmed that due to a robust system in place for maintaining the temperature integrity for samples collected by AWQC's Field Laboratory Services, the recording of temperature when samples arrive at the AWQC is out of scope.
  10. If pH has been tested then the pH will be outside of its holding time unless measured in the field.
  11. (ADEL) indicates analysed in Adelaide, (MELB) indicates analysed in Melbourne.
  12. AWQC Melbourne Laboratory are only NATA accredited for sampling of potable waters by inhouse method W 09-023.