



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

SA 5000 AUSTRALIA

18/08/2023

Dear Claire

Please find attached the Final Analytical Report for

**Customer Service Request:** 143419-2022-CSR-12  
**Account:** 143419  
**Project:** AWQC-183487 DEW - Healthy Coorong Healthy Basin - Non Routine Event  
10- 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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Internet: [www.awqc.com.au](http://www.awqc.com.au)

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

**FINAL REPORT: 368275**

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**Report Information**

Project Name	AWQC-183487
Customer	DEW - Department of Environment and Water
CSR_ID	143419-2022-CSR-12

**Analytical Results**

Sampling Point	351213-EPA - Murray Mouth
Sampled Date	26/07/2023 12:40:00PM
Sample Received Date	27/07/2023 4:26:09PM
Sample Analysis Completed	16/08/2023 4:12:21PM
Sample ID	*2023-004-3070
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Algal Identification T0393(ADEL)</b>			
Other Organisms		4400 cells/mL	
<b>BLUE GREEN ALGAE</b>			
Romeria		150 cells/mL	
Cyanodictyon		513000 cells/mL	
Cyanogranis		70300 cells/mL	
Phormidium narrow spp		506 cells/mL	
Anabaena		60 cells/mL	
Planktolyngbya		25800 cells/mL	
Pseudanabaena		10000 cells/mL	
Limnothrix		280 cells/mL	
<b>DIATOMS</b>			
Cyclotella		30 cells/mL	
Aulacoseira		12 cells/mL	
<b>GREEN ALGAE</b>			
Monoraphidium		1800 cells/mL	
Scenedesmus		1550 cells/mL	
Kirchneriella		1550 cells/mL	
Actinastrum		3150 cells/mL	
Planctonema		14900 cells/mL	
Crucigenia		4680 cells/mL	
Organism - Comment		Limnothrix - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**  
**Algal Biovolume T0393(ADEL)**

26/07/2023





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**Analytical Results**

Sampling Point	351213-EPA - Murray Mouth
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Status	Endorsed
Collection Type	Customer Collected

**Algal Biovolume T0393(ADEL)**

26/07/2023

**BLUE GREEN ALGAE**

Phormidium narrow spp	0.01 mm3/L
Anabaena	<0.01 mm3/L
Planktolyngbya	0.13 mm3/L
Pseudanabaena	0.13 mm3/L
Limnothrix	<0.01 mm3/L
Romeria	<0.01 mm3/L
Cyanodictyon	0.26 mm3/L
Cyanogranis	0.04 mm3/L

**DIATOMS**

Aulacoseira	0.03 mm3/L
Cyclotella	0.02 mm3/L

**GREEN ALGAE**

Monoraphidium	1.62 mm3/L
Scenedesmus	0.39 mm3/L
Kirchneriella	0.04 mm3/L
Actinastrum	0.23 mm3/L
Crucigenia	0.14 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	0.57 mm3/L
# Total Diatom Biovolume	0.05 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 8.1°C**

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

26/07/2023

Algae - Total	648000 cells/mL
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## Analytical Results

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Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

26/07/2023

Blue Green Algae - Total	620000 cells/mL
Diatoms - Total	42 cells/mL
Geosmin-MIB producing BGA - Total	10500 cells/mL
Green Algae - Total	27600 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	38.1 µg/L
Phaeophytin a	0.1	18.8 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	43 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	395 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	19.6 µg/L	
# Nitrate + Nitrite as NO3	2.3	86.8 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.74 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	14.651 µg/L	
Phosphorus-Filterable Reactive as P	0.5	4.9 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.114 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	0.74 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

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Sample ID	*2023-004-3070
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	1.72 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	10.6 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	15.3 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		133 mg/L	
Bicarbonate		163 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	1630 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	907 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.1 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	31 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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Sample ID	*2023-004-3070
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Collection Type	Customer Collected

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

01/08/2023

Suspended Solids	1.0	38 mg/L
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## Analytical Results

Sampling Point	11504-DEW - Mundoo Upstream
Sampled Date	26/07/2023 1:35:00PM
Sample Received Date	27/07/2023 4:22:34PM
Sample Analysis Completed	15/08/2023 2:51:37PM
Sample ID	*2023-004-3067
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

### Algal Identification T0393(ADEL)

Other Organisms	3700 cells/mL
<b>BLUE GREEN ALGAE</b>	
Phormidium narrow spp	650 cells/mL
Cyanobacterial Filaments (Narrow)	84 cells/mL
Planktolyngbya	18900 cells/mL
Cyanodictyon	347000 cells/mL
Cyanogranis	127000 cells/mL
Pseudanabaena	8620 cells/mL
Limnothrix	1090 cells/mL
Anabaena	186 cells/mL
<b>CRYPTOPHYTES</b>	
Chroomonas	75 cells/mL
<b>DIATOMS</b>	
Cyclotella	75 cells/mL
Fragilaria	125 cells/mL
Nitzschia	100 cells/mL
Aulacoseira	98 cells/mL
<b>GREEN ALGAE</b>	
Monoraphidium	400 cells/mL
Actinastrum	7620 cells/mL
Crucigenia	4880 cells/mL
Closterium	2 cells/mL
Planctonema	32000 cells/mL
Organism - Comment	Limnothrix - The identification for this organism is tentative only.

**Sample temperature at time of receipt 8.1°C**

### Algal Biovolume T0393(ADEL)

26/07/2023

#### BLUE GREEN ALGAE



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## Analytical Results

Sampling Point	11504-DEW - Mundoo Upstream
Sampled Date	26/07/2023 1:35:00PM
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Sample Analysis Completed	15/08/2023 2:51:37PM
Sample ID	*2023-004-3067
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

Anabaena	0.01 mm3/L
Phormidium narrow spp	0.02 mm3/L
Cyanobacterial Filaments (Narrow)	<0.01 mm3/L
Planktolyngbya	0.09 mm3/L
Cyanodictyon	0.17 mm3/L
Cyanogranis	0.06 mm3/L
Pseudanabaena	0.11 mm3/L
Limnothrix	0.01 mm3/L

#### CRYPTOPHYTES

Chroomonas	<0.01 mm3/L
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#### DIATOMS

Aulacoseira	0.28 mm3/L
Cyclotella	0.04 mm3/L
Fragilaria	0.08 mm3/L
Nitzschia	0.14 mm3/L

#### GREEN ALGAE

Closterium	0.01 mm3/L
Monoraphidium	0.36 mm3/L
Actinastrum	0.56 mm3/L
Crucigenia	0.15 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	0.47 mm3/L
# Total Diatom Biovolume	0.54 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 8.1°C**



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Sample ID	*2023-004-3067
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**Algal Count - Total T0393(ADEL)** 26/07/2023

Algae - Total	549000 cells/mL
Blue Green Algae - Total	504000 cells/mL
Diatoms - Total	398 cells/mL
Geosmin-MIB producing BGA - Total	9270 cells/mL
Green Algae - Total	44900 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 8.1°C**

**Chlorophyll a & Phaeophytin a T0380-02(ADEL)** 28/07/2023

Chlorophyll a	0.1	38.4 µg/L
Phaeophytin a	0.1	18.7 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Ammonia as N (ADEL)** 07/08/2023

# Ammonia as N	1	15 µg/L
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**Chloride T0104-02(ADEL)** 04/08/2023

Chloride	4.0	98 mg/L
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**Nitrate + Nitrite as N (ADEL)** 08/08/2023

# Nitrate + Nitrite as N	0.5	5.0 µg/L
# Nitrate + Nitrite as NO3	2.3	22.2 µg/L
# Nitrate as Nitrogen		false µg/L

**Nitrogen - Total TMZ-M06(ADEL)** 27/07/2023

Nitrogen - Total		1.63 mg/L
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**Phosphorus - Filterable Reactive as P (ADEL)** 07/08/2023

# Phosphorus -Filterable Reactive as PO4	1.5	5.083 µg/L
Phosphorus-Filterable Reactive as P	0.5	1.7 µg/L

**Phosphorus - Total T0109-44(ADEL)** 01/08/2023

Phosphorus - Total	0.005	0.114 mg/L
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**Silica - Reactive T0111-01(ADEL)** 04/08/2023

Silica - Reactive	0.05	0.36 mg/L
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**Analytical Results**

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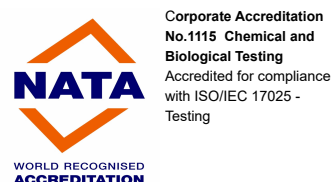
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<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	1.62 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	10.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	13.6 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		132 mg/L	
Bicarbonate		161 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	614 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	340 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.2 pH units	
Temperature at which pH is measured		21.9 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	25 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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Sample Analysis Completed	15/08/2023 2:51:37PM
Sample ID	*2023-004-3067
Status	Endorsed
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**Suspended Solids T0160-01(ADEL)**

01/08/2023

Suspended Solids	1.0	29 mg/L
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**Analytical Results**

Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	26/07/2023 1:35:00PM
Sample Received Date	27/07/2023 4:22:46PM
Sample Analysis Completed	15/08/2023 3:03:40PM
Sample ID	*2023-004-3068
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

Other Organisms	3050 cells/mL
<b>BLUE GREEN ALGAE</b>	
Cyanodictyon	375000 cells/mL
Cyanogranis	69000 cells/mL
Merismopedia	240 cells/mL
Microcystis wesenbergii	112 cells/mL
Snowella	44 cells/mL
Cylindrospermopsis raciborskii	38 cells/mL
Planktolyngbya	12300 cells/mL
Pseudanabaena	8230 cells/mL
Limnothrix	880 cells/mL
Phormidium narrow spp	994 cells/mL
Anabaena	250 cells/mL
<b>DIATOMS</b>	
Nitzschia	75 cells/mL
Fragilaria	62 cells/mL
Aulacoseira	34 cells/mL
<b>GREEN ALGAE</b>	
Actinastrum	7200 cells/mL
Crucigenia	3300 cells/mL
Monoraphidium	475 cells/mL
Kirchneriella	200 cells/mL
Planctonema	16900 cells/mL
Organism - Comment	Limnothrix - The identification for this organism is tentative only.

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

26/07/2023

**BLUE GREEN ALGAE**





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## Analytical Results

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Sample Analysis Completed	15/08/2023 3:03:40PM
Sample ID	*2023-004-3068
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

Phormidium narrow spp	0.02 mm3/L
Anabaena	0.02 mm3/L
Microcystis wesenbergii	0.01 mm3/L
Snowella	<0.01 mm3/L
Cylindrospermopsis raciborskii	<0.01 mm3/L
Planktolyngbya	0.06 mm3/L
Pseudanabaena	0.11 mm3/L
Limnithrix	0.01 mm3/L
Cyanodictyon	0.19 mm3/L
Cyanogranis	0.03 mm3/L
Merismopedia	<0.01 mm3/L

#### DIATOMS

Fragilaria	0.04 mm3/L
Aulacoseira	0.10 mm3/L
Nitzschia	0.10 mm3/L

#### GREEN ALGAE

Actinastrum	0.53 mm3/L
Crucigenia	0.10 mm3/L
Monoraphidium	0.43 mm3/L
Kirchneriella	<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	0.45 mm3/L
# Total Diatom Biovolume	0.24 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	<0.01 mm3/L

**Sample temperature at time of receipt 8.1°C**



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Sample Analysis Completed	15/08/2023 3:03:40PM
Sample ID	*2023-004-3068
Status	Endorsed
Collection Type	Customer Collected

**Algal Count - Total T0393(ADEL)** 26/07/2023

Algae - Total	495000 cells/mL
Blue Green Algae - Total	467000 cells/mL
Diatoms - Total	171 cells/mL
Geosmin-MIB producing BGA - Total	9220 cells/mL
Green Algae - Total	28100 cells/mL
Toxin producing BGA - Total	38 cells/mL

**Sample temperature at time of receipt 8.1°C**  
**Chlorophyll a & Phaeophytin a T0380-02(ADEL)** 28/07/2023

Chlorophyll a	0.1	40.7 µg/L
Phaeophytin a	0.1	20.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	2 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	98 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	0.8 µg/L	
# Nitrate + Nitrite as NO3	2.3	3.54 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.71 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	4.485 µg/L	
Phosphorus-Filterable Reactive as P	0.5	1.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.126 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	0.50 mg/L	





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## Analytical Results

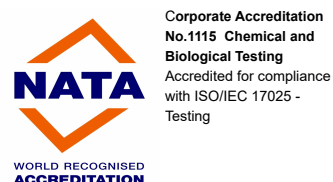
Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	26/07/2023 1:35:00PM
Sample Received Date	27/07/2023 4:22:46PM
Sample Analysis Completed	15/08/2023 3:03:40PM
Sample ID	*2023-004-3068
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	1.71 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	9.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	12.9 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		130 mg/L	
Bicarbonate		159 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	613 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	339 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.1 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	30 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			





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**Analytical Results**

Sampling Point	11505-DEW - Mundoo Downstream
Sampled Date	26/07/2023 1:35:00PM
Sample Received Date	27/07/2023 4:22:46PM
Sample Analysis Completed	15/08/2023 3:03:40PM
Sample ID	*2023-004-3068
Status	Endorsed
Collection Type	Customer Collected

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

01/08/2023

Suspended Solids	1.0	45 mg/L
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## Analytical Results

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:34PM
Sample Analysis Completed	16/08/2023 2:15:07PM
Sample ID	*2023-004-3073
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 8.1°C*

### Algal Identification T0393(ADEL)

Other Organisms	1020 cells/mL
<b>BLUE GREEN ALGAE</b>	
Limnothrix	170 cells/mL
Planktolynghya	31900 cells/mL
Phormidium narrow spp	88 cells/mL
Cyanodictyon	521000 cells/mL
Cyanogranis	74000 cells/mL
Cuspidothrix	24 cells/mL
Anabaena	38 cells/mL
Pseudanabaena	8290 cells/mL
<b>DIATOMS</b>	
Aulacoseira	62 cells/mL
Nitzschia	50 cells/mL
Cyclotella	20 cells/mL
<b>GREEN ALGAE</b>	
Closterium	4 cells/mL
Scenedesmus	400 cells/mL
Actinastrum	2500 cells/mL
Crucigenia	4500 cells/mL
Monoraphidium	700 cells/mL
Planctonema	24300 cells/mL
Organism - Comment	Limnothrix - The identification for this organism is tentative only.

*Sample temperature at time of receipt 8.1°C*

### Algal Biovolume T0393(ADEL)

26/07/2023

<b>BLUE GREEN ALGAE</b>	
Anabaena	<0.01 mm <sup>3</sup> /L
Phormidium narrow spp	<0.01 mm <sup>3</sup> /L



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## Analytical Results

Sampling Point	353179-EPA - Tauwichee Barrage Upstream
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:34PM
Sample Analysis Completed	16/08/2023 2:15:07PM
Sample ID	*2023-004-3073
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

Cuspidothrix	<0.01 mm3/L
Planktolyngbya	0.16 mm3/L
Limnithrix	<0.01 mm3/L
Pseudanabaena	0.11 mm3/L
Cyanogranis	0.04 mm3/L
Cyanodictyon	0.26 mm3/L

#### DIATOMS

Aulacoseira	0.18 mm3/L
Nitzschia	0.07 mm3/L
Cyclotella	0.01 mm3/L

#### GREEN ALGAE

Closterium	0.02 mm3/L
Monoraphidium	0.63 mm3/L
Crucigenia	0.14 mm3/L
Actinastrum	0.18 mm3/L
Scenedesmus	0.10 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	0.57 mm3/L
# Total Diatom Biovolume	0.26 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 8.1°C

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

26/07/2023

Algae - Total	668000 cells/mL
Blue Green Algae - Total	636000 cells/mL
Diatoms - Total	132 cells/mL



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## Analytical Results

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:34PM
Sample Analysis Completed	16/08/2023 2:15:07PM
Sample ID	*2023-004-3073
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

26/07/2023

Geosmin-MIB producing BGA - Total	8380 cells/mL
Green Algae - Total	32400 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	49.1 µg/L
Phaeophytin a	0.1	24.3 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
Sample temperature at time of receipt 8.1°C			
Ammonia as N (ADEL)			07/08/2023
# Ammonia as N	1	2 µg/L	
Chloride T0104-02(ADEL)			04/08/2023
Chloride	4.0	105 mg/L	
Nitrate + Nitrite as N (ADEL)			07/08/2023
# Nitrate + Nitrite as N	0.5	8.7 µg/L	
# Nitrate + Nitrite as NO3	2.3	38.5 µg/L	
# Nitrate as Nitrogen		false µg/L	
Nitrogen - Total TMZ-M06(ADEL)			27/07/2023
Nitrogen - Total		1.98 mg/L	
Phosphorus - Filterable Reactive as P (ADEL)			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	11.661 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.9 µg/L	
Phosphorus - Total T0109-44(ADEL)			01/08/2023
Phosphorus - Total	0.005	0.174 mg/L	
Silica - Reactive T0111-01(ADEL)			04/08/2023
Silica - Reactive	0.05	0.38 mg/L	
TKN as N T0112-01(ADEL)			01/08/2023
TKN as Nitrogen	0.05	1.97 mg/L	



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## Analytical Results

Sampling Point	353179-EPA - Tauwitschere Barrage Upstream
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:34PM
Sample Analysis Completed	16/08/2023 2:15:07PM
Sample ID	*2023-004-3073
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	10.8 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	16.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		137 mg/L	
Bicarbonate		168 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	655 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	363 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.2 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	48 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			01/08/2023
Suspended Solids	1.0	72 mg/L	



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**Analytical Results**

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:22PM
Sample Analysis Completed	18/08/2023 2:39:29PM
Sample ID	*2023-004-3074
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

Other Organisms	700 cells/mL
<b>BLUE GREEN ALGAE</b>	
Snowella	60 cells/mL
Phormidium narrow spp	488 cells/mL
Anabaena	138 cells/mL
Pseudanabaena	8110 cells/mL
Limnothrix	1870 cells/mL
Cyanogranis	50300 cells/mL
Merismopedia	1710 cells/mL
Cyanodictyon	459000 cells/mL
Romeria	50 cells/mL
Planktolynbya	26600 cells/mL
<b>DIATOMS</b>	
Staurosira	10 cells/mL
Nitzschia	20 cells/mL
Aulacoseira	140 cells/mL
<b>GREEN ALGAE</b>	
Monoraphidium	900 cells/mL
Actinastrum	2380 cells/mL
Scenedesmus	775 cells/mL
Planctonema	15600 cells/mL
Crucigenia	4780 cells/mL
Organism - Comment	Limnothrix - The identification for this organism is tentative only.

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

26/07/2023

<b>BLUE GREEN ALGAE</b>	
Phormidium narrow spp	0.01 mm3/L





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## Analytical Results

Sampling Point	353177-EPA - Tauwichee Barrage DS
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:22PM
Sample Analysis Completed	18/08/2023 2:39:29PM
Sample ID	*2023-004-3074
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

Anabaena	0.01 mm3/L
Planktolyngbya	0.13 mm3/L
Pseudanabaena	0.11 mm3/L
Limnithrix	0.02 mm3/L
Snowella	<0.01 mm3/L
Romeria	<0.01 mm3/L
Cyanodictyon	0.23 mm3/L
Merismopedia	<0.01 mm3/L
Cyanogranis	0.03 mm3/L

#### DIATOMS

Aulacoseira	0.40 mm3/L
Staurosira	<0.01 mm3/L
Nitzschia	0.03 mm3/L

#### GREEN ALGAE

Monoraphidium	0.81 mm3/L
Actinastrum	0.18 mm3/L
Scenedesmus	0.19 mm3/L
Crucigenia	0.14 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	0.43 mm3/L
# Total Green Algae Biovolume	Not Calculated mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 8.1°C

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

26/07/2023

Algae - Total	573000 cells/mL
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## Analytical Results

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:22PM
Sample Analysis Completed	18/08/2023 2:39:29PM
Sample ID	*2023-004-3074
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

26/07/2023

Blue Green Algae - Total	548000 cells/mL
Diatoms - Total	170 cells/mL
Geosmin-MIB producing BGA - Total	8600 cells/mL
Green Algae - Total	24400 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	36.0 µg/L
Phaeophytin a	0.1	15.9 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	3 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	1420 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	2.9 µg/L	
# Nitrate + Nitrite as NO3	2.3	12.8 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		0.23 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	16.146 µg/L	
Phosphorus-Filterable Reactive as P	0.5	5.4 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.055 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	0.47 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

Sampling Point	353177-EPA - Tauwitschere Barrage DS
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:22PM
Sample Analysis Completed	18/08/2023 2:39:29PM
Sample ID	*2023-004-3074
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	0.23 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	10.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	15.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		138 mg/L	
Bicarbonate		163 mg/L	
Carbonate		2 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	5030 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	2850 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.3 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	35 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			







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**Analytical Results**

Sampling Point	353177-EPA - Tauwitchere Barrage DS
Sampled Date	26/07/2023 2:10:00PM
Sample Received Date	27/07/2023 4:26:22PM
Sample Analysis Completed	18/08/2023 2:39:29PM
Sample ID	*2023-004-3074
Status	Endorsed
Collection Type	Customer Collected

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

01/08/2023

Suspended Solids	1.0	66 mg/L
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**Analytical Results**

Sampling Point	31522-EPA - Mark Point
Sampled Date	26/07/2023 2:40:00PM
Sample Received Date	27/07/2023 4:24:56PM
Sample Analysis Completed	14/08/2023 2:11:26PM
Sample ID	*2023-004-3069
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

Pseudodidymocystis		75 cells/mL	
Other Organisms		675 cells/mL	
<b>BLUE GREEN ALGAE</b>			
Cyanodictyon		3700 cells/mL	
Sphaerospermopsis		30 cells/mL	
<b>CRYPTOPHYTES</b>			
Cryptomonads		750 cells/mL	
Chroomonas		150 cells/mL	
<b>DIATOMS</b>			
Guinardia		206 cells/mL	
Leptocylindrus		44 cells/mL	
<b>GREEN ALGAE</b>			
Monoraphidium		275 cells/mL	
Phytoflagellates small_spp		675 cells/mL	
Schroederia		225 cells/mL	
Chodatella_(Lagerheimia)		50 cells/mL	
Tetrastrum		100 cells/mL	
Crucigenia		1500 cells/mL	
Planctonema		690 cells/mL	
Organism - Comment		Guinardia - This organism appeared to be in poor condition or unhealthy.	
Organism - Comment		Leptocylindrus - This organism appeared to be in poor condition or unhealthy.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

26/07/2023

Pseudodidymocystis	<0.01 mm3/L
<b>BLUE GREEN ALGAE</b>	
Sphaerospermopsis	<0.01 mm3/L





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## Analytical Results

Sampling Point	31522-EPA - Mark Point
Sampled Date	26/07/2023 2:40:00PM
Sample Received Date	27/07/2023 4:24:56PM
Sample Analysis Completed	14/08/2023 2:11:26PM
Sample ID	*2023-004-3069
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

Cyanodictyon <0.01 mm<sup>3</sup>/L

#### CRYPTOPHYTES

Cryptomonads 0.16 mm<sup>3</sup>/L

Chroomonas <0.01 mm<sup>3</sup>/L

#### GREEN ALGAE

Monoraphidium 0.25 mm<sup>3</sup>/L

Phytoflagellates small\_spp 0.05 mm<sup>3</sup>/L

Schroederia 0.01 mm<sup>3</sup>/L

Crucigenia 0.04 mm<sup>3</sup>/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 mm<sup>3</sup>/L

# Total Blue\_Green Algae Biovolume <0.02 mm<sup>3</sup>/L

# Total Diatom Biovolume Not Calculated mm<sup>3</sup>/L

# Total Green Algae Biovolume Not Calculated mm<sup>3</sup>/L

Total Toxic BGA Biovolume 0.00 mm<sup>3</sup>/L

### Sample temperature at time of receipt 8.1°C

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

26/07/2023

Algae - Total 8400 cells/mL

Blue Green Algae - Total 3730 cells/mL

Diatoms - Total 250 cells/mL

Geosmin-MIB producing BGA - Total 0 cells/mL

Green Algae - Total 3520 cells/mL

Toxin producing BGA - Total 0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a 0.1 5.99 µg/L



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**Analytical Results**

Sampling Point	31522-EPA - Mark Point
Sampled Date	26/07/2023 2:40:00PM
Sample Received Date	27/07/2023 4:24:56PM
Sample Analysis Completed	14/08/2023 2:11:26PM
Sample ID	*2023-004-3069
Status	Endorsed
Collection Type	Customer Collected

<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/07/2023
Phaeophytin a	0.1      2.90 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	17 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	8200 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	3.7 µg/L	
# Nitrate + Nitrite as NO3	2.3	16.4 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.08 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	5.98 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.0 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.064 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	0.23 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	1.08 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	11.8 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023





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**Analytical Results**

Sampling Point	31522-EPA - Mark Point
Sampled Date	26/07/2023 2:40:00PM
Sample Received Date	27/07/2023 4:24:56PM
Sample Analysis Completed	14/08/2023 2:11:26PM
Sample ID	*2023-004-3069
Status	Endorsed
Collection Type	Customer Collected

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<b>Total Organic Carbon T0158-07(ADEL)</b>		01/08/2023
Total Organic Carbon	1	12.2 mg/L

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Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		145 mg/L	
Bicarbonate		177 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	24900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	15600 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.3 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	3.6 NTU	

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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			01/08/2023
Suspended Solids	1.0	49 mg/L	



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**Analytical Results**

Sampling Point	31523-EPA - Long Point
Sampled Date	26/07/2023 4:15:00PM
Sample Received Date	27/07/2023 4:25:07PM
Sample Analysis Completed	14/08/2023 3:44:25PM
Sample ID	*2023-004-3056
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Algal Identification T0393(ADEL)</b>			
Other Organisms		750 cells/mL	
<b>BLUE GREEN ALGAE</b>			
Planktolynngbya		1150 cells/mL	
<b>CILIOPHORA</b>			
CILIOPHORA		375 cells/mL	
<b>CRYPTOPHYTES</b>			
Cryptomonads		1220 cells/mL	
Chroomonas		375 cells/mL	
Cryptomonas		25 cells/mL	
<b>DIATOMS</b>			
Leptocylindrus		25 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates small_spp		400 cells/mL	
Crucigenia		75 cells/mL	

<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Algal Biovolume T0393(ADEL)</b>			26/07/2023
<b>BLUE GREEN ALGAE</b>			
Planktolynngbya		<0.01 mm3/L	
<b>CRYPTOPHYTES</b>			
Cryptomonads		0.26 mm3/L	
Chroomonas		0.02 mm3/L	
Cryptomonas		0.03 mm3/L	
<b>GREEN ALGAE</b>			
Phytoflagellates small_spp		0.03 mm3/L	
Crucigenia		<0.01 mm3/L	





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## Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	26/07/2023 4:15:00PM
Sample Received Date	27/07/2023 4:25:07PM
Sample Analysis Completed	14/08/2023 3:44:25PM
Sample ID	*2023-004-3056
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

# 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	0.03 mm3/L
Total Toxic BGA Biovolume	0.00 mm3/L

### Sample temperature at time of receipt 8.1°C

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

26/07/2023

Algae - Total	3270 cells/mL
Blue Green Algae - Total	1150 cells/mL
Diatoms - Total	25 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	475 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	8.03 µg/L
Phaeophytin a	0.1	8.05 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 8.1°C

#### Ammonia as N (ADEL)

07/08/2023

# Ammonia as N	1	13 µg/L
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#### Chloride T0104-02(ADEL)

31/07/2023

Chloride	4.0	13000 mg/L
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## Analytical Results

Sampling Point	31523-EPA - Long Point
Sampled Date	26/07/2023 4:15:00PM
Sample Received Date	27/07/2023 4:25:07PM
Sample Analysis Completed	14/08/2023 3:44:25PM
Sample ID	*2023-004-3056
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	8.1 µg/L	
# Nitrate + Nitrite as NO3	2.3	35.9 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.86 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	7.475 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.5 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.111 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	0.76 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	1.85 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	13.2 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	13.7 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		151 mg/L	
Bicarbonate		184 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	



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**Analytical Results**

Sampling Point	31523-EPA - Long Point
Sampled Date	26/07/2023 4:15:00PM
Sample Received Date	27/07/2023 4:25:07PM
Sample Analysis Completed	14/08/2023 3:44:25PM
Sample ID	*2023-004-3056
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	37900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	25200 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		7.7 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	4.0 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			01/08/2023
Suspended Solids	1.0	5 mg/L	





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**Analytical Results**

Sampling Point	31524-EPA - Bonneys
Sampled Date	26/07/2023 5:10:00PM
Sample Received Date	27/07/2023 4:25:21PM
Sample Analysis Completed	17/08/2023 3:54:55PM
Sample ID	*2023-004-3071
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		100 cells/mL	
Cryptomonads		390 cells/mL	
<b>DIATOMS</b>			
Amphiprora_(= _Entomoneis)		2 cells/mL	
Guinardia		675 cells/mL	
Leptocylindrus		4 cells/mL	
Nitzschia		2 cells/mL	
<b>GREEN ALGAE</b>			
Unicellular green algae		1880 cells/mL	
Chlorella		12900 cells/mL	
Organism - Comment		Leptocylindrus - This organism appeared to be in poor condition or unhealthy.	
Organism - Comment		Guinardia - This organism appeared to be in poor condition or unhealthy.	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

26/07/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
Cryptomonads		0.08 mm3/L	
<b>DIATOMS</b>			
Nitzschia		<0.01 mm3/L	
Amphiprora_(= _Entomoneis)		0.03 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		0.58 mm3/L	





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## Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	26/07/2023 5:10:00PM
Sample Received Date	27/07/2023 4:25:21PM
Sample Analysis Completed	17/08/2023 3:54:55PM
Sample ID	*2023-004-3071
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

26/07/2023

# 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 8.1°C

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

26/07/2023

Algae - Total	16000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	683 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	14800 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	13.0 µg/L
Phaeophytin a	0.1	4.11 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 8.1°C

#### Ammonia as N (ADEL)

07/08/2023

# Ammonia as N	1	60 µg/L
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#### Chloride T0104-02(ADEL)

04/08/2023

Chloride	4.0	19300 mg/L
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## Analytical Results

Sampling Point	31524-EPA - Bonneys
Sampled Date	26/07/2023 5:10:00PM
Sample Received Date	27/07/2023 4:25:21PM
Sample Analysis Completed	17/08/2023 3:54:55PM
Sample ID	*2023-004-3071
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			08/08/2023
Nitrate + Nitrite as N	0.003	0.123 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			
Nitrogen - Total		2.13 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.092 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	2.76 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	2.01 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Dissolved Organic Carbon	1	15.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			01/08/2023
Total Organic Carbon	1	16.9 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		172 mg/L	
Bicarbonate		210 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	54600 µS/cm	



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**Analytical Results**

Sampling Point	31524-EPA - Bonneys
Sampled Date	26/07/2023 5:10:00PM
Sample Received Date	27/07/2023 4:25:21PM
Sample Analysis Completed	17/08/2023 3:54:55PM
Sample ID	*2023-004-3071
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	39100 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		7.8 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	4.7 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			01/08/2023
Suspended Solids	1.0	10 mg/L	





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**Analytical Results**

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	26/07/2023 5:38:00PM
Sample Received Date	27/07/2023 4:23:25PM
Sample Analysis Completed	14/08/2023 4:10:45PM
Sample ID	*2023-004-3063
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Naviculoids		2 cells/mL	
Thalassionema		26 cells/mL	
Pennate diatoms		8 cells/mL	
<b>GREEN ALGAE</b>			
Chlorella		354000 cells/mL	
Unicellular green algae		53000 cells/mL	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

26/07/2023

<b>GREEN ALGAE</b>			
Chlorella		15.9 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 8.1°C**

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

26/07/2023

Algae - Total	407000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	36 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL





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**Analytical Results**

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	26/07/2023 5:38:00PM
Sample Received Date	27/07/2023 4:23:25PM
Sample Analysis Completed	14/08/2023 4:10:45PM
Sample ID	*2023-004-3063
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Count - Total T0393(ADEL)</b>	26/07/2023
Green Algae - Total	407000 cells/mL
Toxin producing BGA - Total	0 cells/mL

<b>Sample temperature at time of receipt 8.1°C</b>	
<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/07/2023
Chlorophyll a	0.1 29.4 µg/L
Phaeophytin a	0.1 11.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	30 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	23900 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	10.8 µg/L	
# Nitrate + Nitrite as NO3	2.3	47.8 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		2.68 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.096 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	3.38 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	2.67 mg/L	





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## Analytical Results

Sampling Point	31512-EPA - McGrath Flat North
Sampled Date	26/07/2023 5:38:00PM
Sample Received Date	27/07/2023 4:23:25PM
Sample Analysis Completed	14/08/2023 4:10:45PM
Sample ID	*2023-004-3063
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 8.1°C*

**Dissolved Organic Carbon T0158-07(ADEL)** 01/08/2023

Dissolved Organic Carbon	1	17.9 mg/L
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**Total Organic Carbon T0158-07(ADEL)** 01/08/2023

Total Organic Carbon	1	19.8 mg/L
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Inorganic Chemistry - Physical	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 8.1°C*

**Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)** 28/07/2023

Alkalinity as Calcium Carbonate		189 mg/L
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Bicarbonate		231 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)** 28/07/2023

Conductivity	2	66400 µS/cm
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Note		Conductivity measurement is corrected to 25°C
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Total Dissolved Solids (by EC)	1	49900 mg/L
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**pH T0010-01(ADEL)** 28/07/2023

pH		8.1 pH units
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Temperature at which pH is measured		22.2 °C
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**Turbidity T0018-01(ADEL)** 28/07/2023

Turbidity	0.1	5.6 NTU
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Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
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*Sample temperature at time of receipt 8.1°C*

**Suspended Solids T0160-01(ADEL)** 01/08/2023

Suspended Solids	1.0	48 mg/L
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**Analytical Results**

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	27/07/2023 8:10:00AM
Sample Received Date	27/07/2023 4:25:57PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3072
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 8.1°C**

**Algal Identification T0393(ADEL)**

**CRYPTOPHYTES**

Chroomonas	20 cells/mL
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**DIATOMS**

Nitzschia	20 cells/mL
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Cyclotella	20 cells/mL
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**DINOFLAGELLATES**

Heterocapsa	20 cells/mL
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**GREEN ALGAE**

Monoraphidium	30 cells/mL
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Chlorella	657000 cells/mL
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Phytoflagellates	90 cells/mL
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Oocystis sp_1_(small_cells)	80 cells/mL
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Unicellular green algae	71000 cells/mL
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Organism - Comment	Chlorella - The identification for this organism is tentative only.
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**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

**CRYPTOPHYTES**

Chroomonas	<0.01 mm3/L
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**DIATOMS**

Nitzschia	0.03 mm3/L
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Cyclotella	0.01 mm3/L
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**GREEN ALGAE**

Chlorella	29.6 mm3/L
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Monoraphidium	0.03 mm3/L
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Oocystis sp_1_(small_cells)	0.01 mm3/L
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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	31528-EPA - Salt Creek Outlet
Sampled Date	27/07/2023 8:10:00AM
Sample Received Date	27/07/2023 4:25:57PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3072
Status	Endorsed
Collection Type	Customer Collected

**Algal Biovolume T0393(ADEL)**

27/07/2023

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

**Sample temperature at time of receipt 8.1°C**

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

27/07/2023

Algae - Total	728000 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	728000 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 8.1°C**

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

28/07/2023

Chlorophyll a	0.1	59.9 µg/L
Phaeophytin a	0.1	20.7 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			
# Ammonia as N	1	100 µg/L	07/08/2023
<b>Chloride T0104-02(ADEL)</b>			
Chloride	4.0	15000 mg/L	04/08/2023





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## Analytical Results

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	27/07/2023 8:10:00AM
Sample Received Date	27/07/2023 4:25:57PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3072
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			08/08/2023
Nitrate + Nitrite as N	0.003	0.145 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		2.65 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus - Filterable Reactive as PO4	1.5	12.259 µg/L	
Phosphorus-Filterable Reactive as P	0.5	4.1 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.081 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	10.4 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	2.50 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	15.8 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	19.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		291 mg/L	
Bicarbonate		355 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	45400 µS/cm	



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**Analytical Results**

Sampling Point	31528-EPA - Salt Creek Outlet
Sampled Date	27/07/2023 8:10:00AM
Sample Received Date	27/07/2023 4:25:57PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3072
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	31200 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.2 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	6.9 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	23 mg/L	





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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	27/07/2023 8:15:00AM
Sample Received Date	27/07/2023 4:23:12PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3060
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DINOFLAGELLATES</b>			
Heterocapsa		250 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		1480 cells/mL	
Chlorella		907000 cells/mL	
Unicellular green algae		148000 cells/mL	
Oocystis sp_1_(small_cells)		125 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>GREEN ALGAE</b>			
Oocystis sp_1_(small_cells)		0.02 mm3/L	
Chlorella		40.8 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 8.1°C**

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

27/07/2023

Algae - Total	1060000 cells/mL
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## Analytical Results

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	27/07/2023 8:15:00AM
Sample Received Date	27/07/2023 4:23:12PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3060
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

27/07/2023

Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1060000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	67.8 µg/L
Phaeophytin a	0.1	25.0 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	18 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	23600 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	4.2 µg/L	
# Nitrate + Nitrite as NO3	2.3	18.6 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		2.96 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	5.98 µg/L	
Phosphorus-Filterable Reactive as P	0.5	2.0 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.109 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	7.44 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	27/07/2023 8:15:00AM
Sample Received Date	27/07/2023 4:23:12PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3060
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	2.96 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	19.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	24.1 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		249 mg/L	
Bicarbonate		304 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	63700 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	47300 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.3 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	10 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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**Analytical Results**

Sampling Point	31511-EPA - 3.2km South Salt Creek
Sampled Date	27/07/2023 8:15:00AM
Sample Received Date	27/07/2023 4:23:12PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3060
Status	Endorsed
Collection Type	Customer Collected

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

02/08/2023

Suspended Solids	1.0	20 mg/L
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**Analytical Results**

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	27/07/2023 8:30:00AM
Sample Received Date	27/07/2023 4:24:18PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3061
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Pseudo-nitzschia		2 cells/mL	
<b>DINOFLAGELLATES</b>			
Heterocapsa		150 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		450 cells/mL	
Unicellular green algae		110000 cells/mL	
Chlorella		1050000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>GREEN ALGAE</b>			
Chlorella		47.2 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 8.1°C**

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

27/07/2023

Algae - Total	1160000 cells/mL
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## Analytical Results

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	27/07/2023 8:30:00AM
Sample Received Date	27/07/2023 4:24:18PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3061
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

27/07/2023

Blue Green Algae - Total	0 cells/mL
Diatoms - Total	2 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1160000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	85.0 µg/L
Phaeophytin a	0.1	28.2 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	14 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	23500 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	4.7 µg/L	
# Nitrate + Nitrite as NO3	2.3	20.8 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		2.71 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.107 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	7.65 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	27/07/2023 8:30:00AM
Sample Received Date	27/07/2023 4:24:18PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3061
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	2.71 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	19.8 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	25.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		242 mg/L	
Bicarbonate		295 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	62800 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	46500 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	9.8 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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**Analytical Results**

Sampling Point	31517-EPA - 1.8km West Salt Creek
Sampled Date	27/07/2023 8:30:00AM
Sample Received Date	27/07/2023 4:24:18PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3061
Status	Endorsed
Collection Type	Customer Collected

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

02/08/2023

Suspended Solids	1.0	16 mg/L
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**Analytical Results**

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	27/07/2023 8:45:00AM
Sample Received Date	27/07/2023 4:24:44PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3065
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

Other Organisms	50 cells/mL
<b>DIATOMS</b>	
Skeletonema	175 cells/mL
Pennate diatoms	2 cells/mL
Nitzschia	4 cells/mL
Synedra	10 cells/mL
Navicula	25 cells/mL
Naviculoids	2 cells/mL
Amphiprora_(= Entomoneis)	2 cells/mL
Thalassiosira	25 cells/mL
<b>DINOFLAGELLATES</b>	
Heterocapsa	75 cells/mL
<b>GREEN ALGAE</b>	
Colonial green algae	1080 cells/mL
Oocystis sp_1_(small_cells)	1220 cells/mL
Chodatella_(Lagerheimia)	25 cells/mL
Phytoflagellates small_spp	1230 cells/mL
Chlorella	7200 cells/mL
Monoraphidium sp_2_(short)	1050 cells/mL
Organism - Comment	Thalassiosira - The identification for this organism is tentative only.
Organism - Comment	Chlorella - The identification for this organism is tentative only.
Organism - Comment	Skeletonema - The identification for this organism is tentative only.

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>DIATOMS</b>	
Synedra	<0.01 mm3/L





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## Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	27/07/2023 8:45:00AM
Sample Received Date	27/07/2023 4:24:44PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3065
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/07/2023

Amphiprora_(= _Entomoneis)	0.03 mm3/L
Nitzschia	<0.01 mm3/L
Navicula	0.03 mm3/L

#### GREEN ALGAE

Colonial green algae	0.13 mm3/L
Oocystis sp_1_(small_cells)	0.21 mm3/L
Phytoflagellates small_spp	0.10 mm3/L
Chlorella	0.32 mm3/L
Monoraphidium sp_2_(short)	0.06 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 8.1°C

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

27/07/2023

Algae - Total	12100 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	245 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	11800 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	3.01 µg/L
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## Analytical Results

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	27/07/2023 8:45:00AM
Sample Received Date	27/07/2023 4:24:44PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3065
Status	Endorsed
Collection Type	Customer Collected

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

28/07/2023

Phaeophytin a	0.1	1.44 µg/L
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Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	24 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	3600 mg/L	
<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			08/08/2023
Nitrate + Nitrite as N	0.003	0.395 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.32 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.028 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	16.6 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	0.92 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	10.0 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	9.5 mg/L	



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**Analytical Results**

Sampling Point	315191-EPA - Morella Creek @ guage
Sampled Date	27/07/2023 8:45:00AM
Sample Received Date	27/07/2023 4:24:44PM
Sample Analysis Completed	16/08/2023 12:44:39PM
Sample ID	*2023-004-3065
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 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		375 mg/L	
Bicarbonate		417 mg/L	
Carbonate		20 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	11900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	6990 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.5 pH units	
Temperature at which pH is measured		22.4 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	3.3 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	2 mg/L	



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**Analytical Results**

Sampling Point	31515-EPA - Snipe Point
Sampled Date	27/07/2023 8:50:00AM
Sample Received Date	27/07/2023 4:24:05PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3058
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DINOFLAGELLATES</b>	
Heterocapsa	125 cells/mL
<b>GREEN ALGAE</b>	
Phytoflagellates	875 cells/mL
Oocystis sp_1_(small_cells)	100 cells/mL
Chlorella	1060000 cells/mL
Unicellular green algae	126000 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>GREEN ALGAE</b>	
Chlorella	47.7 mm3/L
Oocystis sp_1_(small_cells)	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	0.00 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 8.1°C**

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

27/07/2023

Algae - Total	1190000 cells/mL
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## Analytical Results

Sampling Point	31515-EPA - Snipe Point
Sampled Date	27/07/2023 8:50:00AM
Sample Received Date	27/07/2023 4:24:05PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3058
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

27/07/2023

Blue Green Algae - Total	0 cells/mL
Diatoms - Total	0 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1190000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	90.2 µg/L
Phaeophytin a	0.1	35.9 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	15 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	24700 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	2.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	10.2 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		3.21 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.098 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	7.17 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

Sampling Point	31515-EPA - Snipe Point
Sampled Date	27/07/2023 8:50:00AM
Sample Received Date	27/07/2023 4:24:05PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3058
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	3.21 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	20.3 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	26.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		233 mg/L	
Bicarbonate		284 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	65500 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	49000 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	10 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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**Analytical Results**

Sampling Point	31515-EPA - Snipe Point
Sampled Date	27/07/2023 8:50:00AM
Sample Received Date	27/07/2023 4:24:05PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3058
Status	Endorsed
Collection Type	Customer Collected

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

02/08/2023

Suspended Solids	1.0	20 mg/L
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**Analytical Results**

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	27/07/2023 9:00:00AM
Sample Received Date	27/07/2023 4:24:31PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3064
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Algal Identification T0393(ADEL)</b>			
<b>BLUE GREEN ALGAE</b>			
Cyanogranis		1750 cells/mL	
<b>CRYPTOPHYTES</b>			
Cryptomonads		50 cells/mL	
<b>DIATOMS</b>			
Skeletonema		50 cells/mL	
Synedra		16 cells/mL	
Nitzschia		6 cells/mL	
Pennate diatoms		4 cells/mL	
Chaetoceros		100 cells/mL	
Cyclotella		125 cells/mL	
<b>DINOFLAGELLATES</b>			
Heterocapsa		150 cells/mL	
Gymnodinioids		125 cells/mL	
<b>GREEN ALGAE</b>			
Chodatella_(Lagerheimia)		50 cells/mL	
Phytoflagellates small_spp		1850 cells/mL	
Colonial green algae		1000 cells/mL	
Carteria		75 cells/mL	
Oocystis sp_1_(small_cells)		1080 cells/mL	
Monoraphidium sp_2_(short)		1350 cells/mL	
Chlorella		21000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	
Organism - Comment		Skeletonema - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**  
**Algal Biovolume T0393(ADEL)**

27/07/2023





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## Analytical Results

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	27/07/2023 9:00:00AM
Sample Received Date	27/07/2023 4:24:31PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3064
Status	Endorsed
Collection Type	Customer Collected

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### Algal Biovolume T0393(ADEL)

27/07/2023

#### BLUE GREEN ALGAE

Cyanogranis <0.01 mm3/L

#### CRYPTOPHYTES

Cryptomonads 0.01 mm3/L

#### DIATOMS

Synedra 0.01 mm3/L

Nitzschia <0.01 mm3/L

Cyclotella 0.06 mm3/L

#### GREEN ALGAE

Phytoflagellates small\_spp 0.14 mm3/L

Colonial green algae 0.12 mm3/L

Oocystis sp\_1\_(small\_cells) 0.19 mm3/L

Monoraphidium sp\_2\_(short) 0.07 mm3/L

Chlorella 0.94 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 <0.01 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 8.1°C

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

27/07/2023

Algae - Total 28800 cells/mL

Blue Green Algae - Total 1750 cells/mL

Diatoms - Total 301 cells/mL

Geosmin-MIB producing BGA - Total 0 cells/mL

Green Algae - Total 26400 cells/mL



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**Analytical Results**

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	27/07/2023 9:00:00AM
Sample Received Date	27/07/2023 4:24:31PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3064
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Count - Total T0393(ADEL)</b>	27/07/2023
Toxin producing BGA - Total	0 cells/mL

<b>Sample temperature at time of receipt 8.1°C</b>	
<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/07/2023
Chlorophyll a	0.1 2.67 µg/L
Phaeophytin a	0.1 1.04 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	83 µg/L	
<b>Chloride T0104-02(ADEL)</b>			04/08/2023
Chloride	4.0	3600 mg/L	
<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			08/08/2023
Nitrate + Nitrite as N	0.003	0.368 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.32 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	1.5	9.867 µg/L	
Phosphorus-Filterable Reactive as P	0.5	3.3 µg/L	
<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.016 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	16.5 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	0.95 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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**Analytical Results**

Sampling Point	31519-EPA - Morella Basin at Outlet Regulator
Sampled Date	27/07/2023 9:00:00AM
Sample Received Date	27/07/2023 4:24:31PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3064
Status	Endorsed
Collection Type	Customer Collected

<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	9.3 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	9.4 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		376 mg/L	
Bicarbonate		411 mg/L	
Carbonate		24 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	11900 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	6990 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.6 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	2.1 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	22 mg/L	







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**Analytical Results**

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:25:45PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3057
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Naviculoids		20 cells/mL	
<b>DINOFLAGELLATES</b>			
Heterocapsa		20 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		390 cells/mL	
Unicellular green algae		125000 cells/mL	
Chlorella		1110000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<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		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 8.1°C**

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

27/07/2023

Algae - Total	1240000 cells/mL
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## Analytical Results

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:25:45PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3057
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

27/07/2023

Blue Green Algae - Total	0 cells/mL
Diatoms - Total	20 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1240000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	109 µg/L
Phaeophytin a	0.1	39.3 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	13 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	27000 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	3.9 µg/L	
# Nitrate + Nitrite as NO3	2.3	17.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		3.22 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.129 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	6.20 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023



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**Analytical Results**

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:25:45PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3057
Status	Endorsed
Collection Type	Customer Collected

<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	3.22 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	20.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	27.7 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			28/07/2023
Alkalinity as Calcium Carbonate		217 mg/L	
Bicarbonate		264 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			28/07/2023
Conductivity	2	69400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	52700 mg/L	
<b>pH T0010-01(ADEL)</b>			28/07/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.2 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	13 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			





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**Analytical Results**

Sampling Point	31526-EPA - Nth Jack Point
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:25:45PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3057
Status	Endorsed
Collection Type	Customer Collected

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

02/08/2023

Suspended Solids	1.0	32 mg/L
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**Analytical Results**

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:22:59PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3066
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 8.1°C**

**Algal Identification T0393(ADEL)**

**CRYPTOPHYTES**

Cryptomonads	1150 cells/mL
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**DIATOMS**

Cyclotella	250 cells/mL
Amphiprora_(= _Entomoneis)	2 cells/mL
Pennate diatoms	42 cells/mL
Nitzschia	22 cells/mL
Naviculoids	78 cells/mL

**EUGLENOPHYTES**

EUGLENACEAE	10 cells/mL
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**GREEN ALGAE**

Tetraselmis	725 cells/mL
Phytoflagellates	325 cells/mL
Monoraphidium	100 cells/mL
Chlamydomonas	20 cells/mL

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

**CRYPTOPHYTES**

Cryptomonads	0.24 mm3/L
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**DIATOMS**

Nitzschia	0.03 mm3/L
Amphiprora_(= _Entomoneis)	0.03 mm3/L
Cyclotella	0.13 mm3/L

**GREEN ALGAE**

Chlamydomonas	<0.01 mm3/L
Monoraphidium	0.09 mm3/L



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## Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:22:59PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3066
Status	Endorsed
Collection Type	Customer Collected

### Algal Biovolume T0393(ADEL)

27/07/2023

# 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 8.1°C

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

27/07/2023

Algae - Total	2720 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	394 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1170 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	10.8 µg/L
Phaeophytin a	0.1	2.66 µg/L

### Inorganic Chemistry - Nutrients

LOR

Result

Test Start Date

### Sample temperature at time of receipt 8.1°C

#### Ammonia as N (ADEL)

07/08/2023

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

04/08/2023

Chloride	4.0	2480 mg/L
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## Analytical Results

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:22:59PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3066
Status	Endorsed
Collection Type	Customer Collected

<b>Nitrate + Nitrite as N T0161-01(ADEL)</b>			08/08/2023
Nitrate + Nitrite as N	0.003	0.616 mg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		1.57 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.050 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			04/08/2023
Silica - Reactive	0.05	6.34 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	0.95 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Dissolved Organic Carbon	1	8.5 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			14/08/2023
Total Organic Carbon	1	8.7 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		439 mg/L	
Bicarbonate		535 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	8580 µS/cm	



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**Analytical Results**

Sampling Point	300713-Tilley Swamp Drain D/S Northern Outlet
Sampled Date	27/07/2023 9:40:00AM
Sample Received Date	27/07/2023 4:22:59PM
Sample Analysis Completed	16/08/2023 12:48:06PM
Sample ID	*2023-004-3066
Status	Endorsed
Collection Type	Customer Collected

<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	4950 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.2 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	1.4 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	17 mg/L	







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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	27/07/2023 10:15:00AM
Sample Received Date	27/07/2023 4:23:51PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3062
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>DIATOMS</b>			
Amphiprora_(= _Entomoneis)		4 cells/mL	
Pennate diatoms		10 cells/mL	
Nitzschia		12 cells/mL	
<b>DINOFLAGELLATES</b>			
Oxyrrhis		10 cells/mL	
<b>GREEN ALGAE</b>			
Chlorella		1240000 cells/mL	
Phytoflagellates		140 cells/mL	
Unicellular green algae		100000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>DIATOMS</b>			
Amphiprora_(= _Entomoneis)		0.06 mm3/L	
Nitzschia		0.02 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		55.8 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





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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	27/07/2023 10:15:00AM
Sample Received Date	27/07/2023 4:23:51PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3062
Status	Endorsed
Collection Type	Customer Collected

<b>Algal Biovolume T0393(ADEL)</b>	27/07/2023
Total Toxic BGA Biovolume	0.00 mm3/L

**Sample temperature at time of receipt 8.1°C**

<b>Algal Count - Total T0393(ADEL)</b>	27/07/2023
Algae - Total	1340000 cells/mL
Blue Green Algae - Total	0 cells/mL
Diatoms - Total	26 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1340000 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 8.1°C**

<b>Chlorophyll a &amp; Phaeophytin a T0380-02(ADEL)</b>	28/07/2023
Chlorophyll a	0.1 152 µg/L
Phaeophytin a	0.1 54.0 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	16 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	26700 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	3.9 µg/L	
# Nitrate + Nitrite as NO3	2.3	17.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		3.76 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# Phosphorus -Filterable Reactive as PO4	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	31514-EPA - Stoney Well
Sampled Date	27/07/2023 10:15:00AM
Sample Received Date	27/07/2023 4:23:51PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3062
Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Total T0109-44(ADEL)</b>			01/08/2023
Phosphorus - Total	0.005	0.161 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	5.25 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	3.76 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Dissolved Organic Carbon	1	19.9 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Total Organic Carbon	1	28.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		200 mg/L	
Bicarbonate		244 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	68200 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	51600 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.1 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	14 NTU	



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**Analytical Results**

Sampling Point	31514-EPA - Stoney Well
Sampled Date	27/07/2023 10:15:00AM
Sample Received Date	27/07/2023 4:23:51PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3062
Status	Endorsed
Collection Type	Customer Collected

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	32 mg/L	





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**Analytical Results**

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	27/07/2023 10:45:00AM
Sample Received Date	27/07/2023 4:25:33PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3055
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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**Sample temperature at time of receipt 8.1°C**

**Algal Identification T0393(ADEL)**

<b>CRYPTOPHYTES</b>			
Chroomonas		10 cells/mL	
<b>DIATOMS</b>			
Naviculoids		10 cells/mL	
Pennate diatoms		20 cells/mL	
Nitzschia		10 cells/mL	
<b>DINOFLAGELLATES</b>			
Heterocapsa		20 cells/mL	
<b>GREEN ALGAE</b>			
Phytoflagellates		130 cells/mL	
Chlorella		1420000 cells/mL	
Unicellular green algae		125000 cells/mL	
Organism - Comment		Chlorella - The identification for this organism is tentative only.	

**Sample temperature at time of receipt 8.1°C**

**Algal Biovolume T0393(ADEL)**

27/07/2023

<b>CRYPTOPHYTES</b>			
Chroomonas		<0.01 mm3/L	
<b>DIATOMS</b>			
Nitzschia		0.01 mm3/L	
<b>GREEN ALGAE</b>			
Chlorella		63.9 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	





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**Analytical Results**

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	27/07/2023 10:45:00AM
Sample Received Date	27/07/2023 4:25:33PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3055
Status	Endorsed
Collection Type	Customer Collected

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**Algal Biovolume T0393(ADEL)**

27/07/2023

# 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 8.1°C**

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

27/07/2023

Algae - Total	1550000 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	1550000 cells/mL
Toxin producing BGA - Total	0 cells/mL

**Sample temperature at time of receipt 8.1°C**

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

28/07/2023

Chlorophyll a	0.1	121 µg/L
Phaeophytin a	0.1	45.1 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	17 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	25600 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	3.0 µg/L	
# Nitrate + Nitrite as NO3	2.3	13.3 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		3.25 mg/L	



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## Analytical Results

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	27/07/2023 10:45:00AM
Sample Received Date	27/07/2023 4:25:33PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3055
Status	Endorsed
Collection Type	Customer Collected

<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.134 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	5.55 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	3.25 mg/L	

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Dissolved Organic Carbon	1	21.0 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Total Organic Carbon	1	26.8 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		199 mg/L	
Bicarbonate		242 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	67400 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	50800 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.0 pH units	



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**Analytical Results**

Sampling Point	31525-EPA - Villa de Yumpa
Sampled Date	27/07/2023 10:45:00AM
Sample Received Date	27/07/2023 4:25:33PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3055
Status	Endorsed
Collection Type	Customer Collected

<b>pH T0010-01(ADEL)</b>			01/08/2023
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	14 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	16 mg/L	







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## Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/07/2023 11:25:00AM
Sample Received Date	27/07/2023 4:23:37PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3059
Status	Endorsed
Collection Type	Customer Collected

Biology Operations	LOR	Result	Test Start Date
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### *Sample temperature at time of receipt 8.1°C*

#### Algal Identification T0393(ADEL)

##### DIATOMS

Naviculoids	2 cells/mL
Pennate diatoms	2 cells/mL

##### GREEN ALGAE

Phytoflagellates	30 cells/mL
Unicellular green algae	98300 cells/mL
Chlorella	1220000 cells/mL
Organism - Comment	Chlorella - The identification for this organism is tentative only.

### *Sample temperature at time of receipt 8.1°C*

#### Algal Biovolume T0393(ADEL)

27/07/2023

##### GREEN ALGAE

Chlorella	54.9 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 8.1°C*

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

27/07/2023

Algae - Total	1320000 cells/mL
Blue Green Algae - Total	0 cells/mL



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## Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/07/2023 11:25:00AM
Sample Received Date	27/07/2023 4:23:37PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3059
Status	Endorsed
Collection Type	Customer Collected

### Algal Count - Total T0393(ADEL)

27/07/2023

Diatoms - Total	4 cells/mL
Geosmin-MIB producing BGA - Total	0 cells/mL
Green Algae - Total	1320000 cells/mL
Toxin producing BGA - Total	0 cells/mL

### Sample temperature at time of receipt 8.1°C

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

28/07/2023

Chlorophyll a	0.1	97.5 µg/L
Phaeophytin a	0.1	38.4 µg/L

Inorganic Chemistry - Nutrients	LOR	Result	Test Start Date
<b>Sample temperature at time of receipt 8.1°C</b>			
<b>Ammonia as N (ADEL)</b>			07/08/2023
# Ammonia as N	1	18 µg/L	
<b>Chloride T0104-02(ADEL)</b>			31/07/2023
Chloride	4.0	25200 mg/L	
<b>Nitrate + Nitrite as N (ADEL)</b>			07/08/2023
# Nitrate + Nitrite as N	0.5	3.3 µg/L	
# Nitrate + Nitrite as NO3	2.3	14.6 µg/L	
# Nitrate as Nitrogen		false µg/L	
<b>Nitrogen - Total TMZ-M06(ADEL)</b>			27/07/2023
Nitrogen - Total		3.32 mg/L	
<b>Phosphorus - Filterable Reactive as P (ADEL)</b>			07/08/2023
# 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>			01/08/2023
Phosphorus - Total	0.005	0.121 mg/L	
<b>Silica - Reactive T0111-01(ADEL)</b>			31/07/2023
Silica - Reactive	0.05	5.31 mg/L	
<b>TKN as N T0112-01(ADEL)</b>			01/08/2023
TKN as Nitrogen	0.05	3.32 mg/L	



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## Analytical Results

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/07/2023 11:25:00AM
Sample Received Date	27/07/2023 4:23:37PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3059
Status	Endorsed
Collection Type	Customer Collected

Organic Chemistry	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Dissolved Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Dissolved Organic Carbon	1	21.4 mg/L	
<b>Total Organic Carbon T0158-07(ADEL)</b>			16/08/2023
Total Organic Carbon	1	25.0 mg/L	

Inorganic Chemistry - Physical	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Alkalinity Carbonate Bicarbonate and Hydroxide T0101-01(ADEL)</b>			01/08/2023
Alkalinity as Calcium Carbonate		193 mg/L	
Bicarbonate		236 mg/L	
Carbonate		0 mg/L	
Hydroxide		0 mg/L	
<b>Conductivity &amp; Total Dissolved Solids T0016-01(ADEL)</b>			01/08/2023
Conductivity	2	66600 µS/cm	
Note		Conductivity measurement is corrected to 25°C	
Total Dissolved Solids (by EC)	1	50000 mg/L	
<b>pH T0010-01(ADEL)</b>			01/08/2023
pH		8.0 pH units	
Temperature at which pH is measured		22.0 °C	
<b>Turbidity T0018-01(ADEL)</b>			28/07/2023
Turbidity	0.1	8.9 NTU	

Inorganic Chemistry - Waste Water	LOR	Result	Test Start Date
<i>Sample temperature at time of receipt 8.1°C</i>			
<b>Suspended Solids T0160-01(ADEL)</b>			02/08/2023
Suspended Solids	1.0	181 mg/L	



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**Analytical Results**

Sampling Point	31513-EPA - Parnka Point Boat Ramp
Sampled Date	27/07/2023 11:25:00AM
Sample Received Date	27/07/2023 4:23:37PM
Sample Analysis Completed	17/08/2023 3:55:49PM
Sample ID	*2023-004-3059
Status	Endorsed
Collection Type	Customer Collected

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**AWQC Signatories**

Dzung Bui - Supervisor Metals and Physical

Ivana Cech - Technical Officer Chemistry

Thuy Diep - Technical Officer Chemistry

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
2023-004-3055	31525	EPA - Villa de Yumpa	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3055	31525	EPA - Villa de Yumpa	27/07/2023	pH	Test not processed within holding time
2023-004-3055	31525	EPA - Villa de Yumpa	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3055	31525	EPA - Villa de Yumpa	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3056	31523	EPA - Long Point	26/07/2023	pH	Test not processed within holding time
2023-004-3056	31523	EPA - Long Point	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	pH	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3057	31526	EPA - Nth Jack Point	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3058	31515	EPA - Snipe Point	27/07/2023	pH	Test not processed within holding time
2023-004-3058	31515	EPA - Snipe Point	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3058	31515	EPA - Snipe Point	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3058	31515	EPA - Snipe Point	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3059	31513	EPA - Parnka Point Boat Ramp	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3059	31513	EPA - Parnka Point Boat Ramp	27/07/2023	pH	Test not processed within holding time
2023-004-3059	31513	EPA - Parnka Point Boat Ramp	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3059	31513	EPA - Parnka Point Boat Ramp	27/07/2023	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
2023-004-3060	31511	EPA - 3.2km South Salt Creek	27/07/2023	pH	Test not processed within holding time
2023-004-3060	31511	EPA - 3.2km South Salt Creek	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3060	31511	EPA - 3.2km South Salt Creek	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3060	31511	EPA - 3.2km South Salt Creek	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3061	31517	EPA - 1.8km West Salt Creek	27/07/2023	pH	Test not processed within holding time
2023-004-3061	31517	EPA - 1.8km West Salt Creek	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3061	31517	EPA - 1.8km West Salt Creek	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3061	31517	EPA - 1.8km West Salt Creek	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	pH	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3062	31514	EPA - Stoney Well	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3063	31512	EPA - McGrath Flat North	26/07/2023	pH	Test not processed within holding time
2023-004-3063	31512	EPA - McGrath Flat North	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	pH	Test not processed within holding time
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	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
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3064	31519	EPA - Morella Basin at Outlet Regulator	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3065	315191	EPA - Morella Creek @ guage	27/07/2023	pH	Test not processed within holding time
2023-004-3065	315191	EPA - Morella Creek @ guage	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3065	315191	EPA - Morella Creek @ guage	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3065	315191	EPA - Morella Creek @ guage	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3065	315191	EPA - Morella Creek @ guage	27/07/2023	Dissolved Organic Carbon	DOC > TOC but within method uncertainty
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	pH	Test not processed within holding time
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3066	300713	Tilley Swamp Drain D/S Northern Outlet	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3067	11504	DEW - Mundoo Upstream	26/07/2023	Turbidity	Test not processed within holding time
2023-004-3067	11504	DEW - Mundoo Upstream	26/07/2023	pH	Test not processed within holding time
2023-004-3067	11504	DEW - Mundoo Upstream	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3068	11505	DEW - Mundoo Downstream	26/07/2023	Turbidity	Test not processed within holding time
2023-004-3068	11505	DEW - Mundoo Downstream	26/07/2023	pH	Test not processed within holding time
2023-004-3068	11505	DEW - Mundoo Downstream	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3069	31522	EPA - Mark Point	26/07/2023	pH	Test not processed within holding time





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### Incidents

Sample ID	S.Point	Description	Sampled Date	Analysis (where Applicable)	Incident Description
2023-004-3069	31522	EPA - Mark Point	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3070	351213	EPA - Murray Mouth	26/07/2023	pH	Test not processed within holding time
2023-004-3070	351213	EPA - Murray Mouth	26/07/2023	Turbidity	Test not processed within holding time
2023-004-3070	351213	EPA - Murray Mouth	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3071	31524	EPA - Bonneys	26/07/2023	pH	Test not processed within holding time
2023-004-3071	31524	EPA - Bonneys	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3072	31528	EPA - Salt Creek Outlet	27/07/2023	pH	Test not processed within holding time
2023-004-3072	31528	EPA - Salt Creek Outlet	27/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3072	31528	EPA - Salt Creek Outlet	27/07/2023	Dissolved Organic Carbon	Test not processed within holding time
2023-004-3072	31528	EPA - Salt Creek Outlet	27/07/2023	Total Organic Carbon	Test not processed within holding time
2023-004-3073	353179	EPA - Tauwichee Barrage Upstream	26/07/2023	pH	Test not processed within holding time
2023-004-3073	353179	EPA - Tauwichee Barrage Upstream	26/07/2023	Turbidity	Test not processed within holding time
2023-004-3073	353179	EPA - Tauwichee Barrage Upstream	26/07/2023	Silica - Reactive	Test not processed within holding time
2023-004-3074	353177	EPA - Tauwichee Barrage DS	26/07/2023	pH	Test not processed within holding time
2023-004-3074	353177	EPA - Tauwichee Barrage DS	26/07/2023	Turbidity	Test not processed within holding time
2023-004-3074	353177	EPA - Tauwichee Barrage DS	26/07/2023	Silica - Reactive	Test not processed within holding time



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### Analytical Method

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

### Sampling Method

Sampling Method Code	Description
W09-023	Sampling Method for Chemical Analyses
W09-024	Sampling Method for Biological Analyses
	<b>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.</b>

### 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.