





Telephone: (03) 6230 7000 Fax: (03) 6230 7001 Email: astproduction@environment.tas.gov.au

Date: 12-Aug-08

Pages: 12 (including this one)

To: Aquatic Environment From: Amanda Freeman

Hydro Tasmania

Phone: (03) 6230 7000

Order No 40751

Mobile:

Following is a reissue of report number 36480. The new report, issue number 2, contains Changes/Corrections.

Please destroy issue number 1.

Address GPO Box 355 HOBART TAS 7001

The original was sent to:

Accounts Payable Hydro Tasmania, Hydro Tasmania, GPO Box 355 HOBART TAS 7001.

This document and any following pages is intended solely for the named addressee and may contain information that is confidential and privileged. If you are not the intended recipient, you are hereby notified that any dissemination, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and destroy the original message.

Thank you.

New Town Laboratory

18 St Johns Avenue, New Town, Tasmania, Australia, 7008 New Town, Tasmania, 7008

Telephone: (03) 6230 7000 Fax: (03) 6230 7001 Email: astproduction@environment.tas.gov.au



Laboratory Report

Status: Full Report with Changes/Corrections

Site Description: Arthurs Low Lake

Received: 31-Jul-08

Submitted to: New Town Laboratory

Submitted By: Kevin Macfarlane (Inland Fisheries Service)

Client Order No: 40751

Report To: Kevin Macfarlane

Client: Inland Fisheries Service

Address: 17 Back River Road New Norfolk TAS 7140



Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

		Lab.No.:	132476	132477	132478	132479
		Sample Id.:	MORASS@LON E TREE	BRAZENDALE- W SHOR	OPPOSITE PUMPHSE	BRAZENDALE- WHMP
Method	Analyte	Units / Sampled On:	30/07/08	30/07/08	30/07/08	30/07/08
1206-Water	Nitrogen, Total	mg-N/L	0.23	0.25	0.29	0.28
	Phosphorus, Total	mg-P/L	0.010	0.008	0.012	0.014

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Lab. No. AnalyteMethod Used:Client Sample ID.132472Algal CountAlgal Count in Fresh Water by Optical MicroscopyMORASS@LONE TR

Date/Time Sampled 30-Jul-2008 00:00 Date/Time Received 31-Jul-2008 00:00

Site MORASS@LONE TREE Estimate Collection Method N/A

Count Collection MethodGrabSamplerK MacFarlanePreservativeLugolsDate of Analysis'04/08/08

<u>Species</u> <u>Density</u>

Group: Cyanobacteria (Blue-green)

Order: Chroococcales

Aphanothece spcells/mL160000Aphanothece sp. 1cells/mL16000Rhabdogloea sp.0,PSnowella sp.0,P

Order: Nostocales

Anabaena sp. cells/mL 25
Anabaena sp. filaments/mL 2

Order: Oscillatoriales

Pseudanabaena sp. 0,P

Group: Dinophyta (Dinoflagellates)

Order: Gymnodiniales

Gymnodinium sp. cells/mL 4

Order: Peridiniales

Peridinium sp. 0,P

Group: Bacillariophyta (Diatoms)

Order: Centrales

Cyclotella sp. cells/mL 32

Order: Fragilariales

Fragilaria sp. cells/mL 26

Group: Chlorophyta (Green)

Order: Chlorococcales

56 Ankistrodesmus sp. cells/mL Botryococcus sp. 0,P Crucigenia sp. cells/mL 140 Dictyosphaerium sp. cells/mL 8 cells/mL 22 Elaktothrix sp. Kirchneriella sp. cells/mL 16 Lagerheimia sp. cells/mL 2 Oocystis sp. cells/mL 170 Scenedesmus sp. 0,P

0,P = not detected in count, present in scan

P = present in scan

Report No: 36480	Issue No: 2	Report Date: 12-Aug-2008 15:38			
Sphaerocystis sp.	cells/mL	210			
Order: Tetrasporales					
Paulschulzia sp.		0,P			
Order: Zygnematales					
Cosmarium sp.	cells/mL	2			
Staurastrum sp.		0,P			
Group: Cryptophyta					
Order: Cryptomonadale:	s				
Cryptomonas sp.	cells/mL	6			
Group: Euglenophyta (E	uglenoids)				
Order: Euglenales					
Euglena sp.		0,P			
Group: Chrysophyta (Golden-Brown)					
Order: Chromulinales					
Chrysostephanosphaera (globulifera cells/mL	32			
Order: Ochromonadales	;				
Dinobryon sp.	cells/mL	4			
Synura sp.		0,P			

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Lab. No. AnalyteMethod Used:Client Sample ID.132473Algal CountAlgal Count in Fresh Water by Optical MicroscopyBRAZENDALE-W SH

Date/Time Sampled 30-Jul-2008 00:00 Date/Time Received 31-Jul-2008 00:00

Site BRAZENDALE-W SHOR Estimate Collection Method N/A

Count Collection MethodGrabSamplerK MacFarlanePreservativeLugolsDate of Analysis'05/08/08

<u>Species</u> <u>Density</u>

Group: Cyanobacteria (Blue-green)

Order: Chroococcales

 Aphanothece sp
 cells/mL
 130000

 Aphanothece sp. 1
 cells/mL
 22000

 Rhabdogloea sp.
 cells/mL
 48

 Snowella sp.
 cells/mL
 2000

Order: Nostocales

Anabaena sp. cells/mL 3
Anabaena sp. filaments/mL 0

Group: Dinophyta (Dinoflagellates)

Order: Gymnodiniales

Gymnodinium sp. cells/mL 24

Group: Bacillariophyta (Diatoms)

Order: Centrales

Cyclotella sp. cells/mL 16

Order: Fragilariales

Fragilaria sp. cells/mL 20

Order: Naviculales

Navicula sp cells/mL 4

Group: Chlorophyta (Green)

Order: Chlorococcales

Ankistrodesmus sp. cells/mL 64 Crucigenia sp. cells/mL 160 Dictyosphaerium sp. cells/mL 88 Elaktothrix sp. cells/mL 8 Kirchneriella sp. 0,P Lagerheimia sp. cells/mL 12 Oocystis sp. cells/mL 240 Sphaerocystis sp. cells/mL 380

Order: Tetrasporales

Paulschulzia sp. 0,P

Report Date: 12-Aug-2008 15:38	
•	
24	
0,P	
4	
12	
0,P	
20	
	0,P 24 0,P 4

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Lab. No. AnalyteMethod Used:Client Sample ID.132474Algal CountAlgal Count in Fresh Water by Optical MicroscopyOPPOSITE PUMPHS

Date/Time Sampled 30-Jul-2008 00:00 Date/Time Received 31-Jul-2008 00:00

Site OPPOSITE PUMPHSE Estimate Collection Method N/A
Count Collection Method Grab Preservative Lugols

Date of Analysis '05/08/08

<u>Species</u> <u>Density</u>

Group: Cyanobacteria (Blue-green)

Order: Chroococcales

 Aphanothece sp
 cells/mL
 140000

 Aphanothece sp. 1
 cells/mL
 18000

 Snowella sp.
 cells/mL
 1000

Order: Nostocales

Anabaena sp. cells/mL 5
Anabaena sp. filaments/mL 0

Group: Dinophyta (Dinoflagellates)

Order: Gymnodiniales

Gymnodinium sp. cells/mL 96

Group: Bacillariophyta (Diatoms)

Order: Centrales

Cyclotella sp. cells/mL 52

Order: Fragilariales

Fragilaria sp. cells/mL 20

Group: Chlorophyta (Green)

Order: Chlorococcales

Ankistrodesmus sp. cells/mL 32 Crucigenia sp. cells/mL 240 Dictyosphaerium sp. cells/mL 32 Elaktothrix sp. cells/mL 16 Oocystis sp. cells/mL 240 Sphaerocystis sp. cells/mL 300

Order: Zygnematales

 Cosmarium sp.
 cells/mL
 4

 Mougeotia sp.
 cells/mL
 12

 Staurastrum sp.
 cells/mL
 4

Group: Cryptophyta

Order: Cryptomonadales

Chroomonas sp. cells/mL 20

0,P = not detected in count, present in scan

P = present in scan

Report No: 36480	Issue No: 2	Report Date: 12-Aug-2008 15:38
Cryptomonas sp.	cells/mL	52
Group: Chrysophyta (Ge	olden-Brown)	
Order: Chromulinales Chrysostephanosphaera	globulifera	0,P
Order: Ochromonadales	•	,
Dinobryon sp.	cells/mL	88
Synura sp.	cells/mL	28

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Lab. No. AnalyteMethod Used:Client Sample ID.132475Algal CountAlgal Count in Fresh Water by Optical MicroscopyBRAZENDALE-WHM

Date/Time Sampled 30-Jul-2008 00:00 Date/Time Received 31-Jul-2008 00:00

Site BRAZENDALE-WHMP Estimate Collection Method N/A
Count Collection Method Grab Preservative Lugols

Date of Analysis '05/08/08

<u>Species</u> <u>Density</u>

Group: Cyanobacteria (Blue-green)

Order: Chroococcales

 Aphanothece sp
 cells/mL
 130000

 Aphanothece sp. 1
 cells/mL
 8700

 Rhabdogloea sp.
 cells/mL
 56

 Snowella sp.
 cells/mL
 490

Order: Nostocales

Anabaena sp. cells/mL 20
Anabaena sp. filaments/mL 2

Group: Dinophyta (Dinoflagellates)

Order: Gymnodiniales

Gymnodinium sp. cells/mL 48

Group: Bacillariophyta (Diatoms)

Order: Bacillariales

Diatom species (unidentified) cells/mL 20

Order: Centrales

Cyclotella sp. cells/mL 36

Order: Fragilariales

Fragilaria sp. cells/mL 64

Group: Chlorophyta (Green)

Order: Chlamydomonadales

Chlamydomonas sp. cells/mL 4

Order: Chlorococcales

 Ankistrodesmus sp.
 cells/mL
 76

 Crucigenia sp.
 cells/mL
 80

 Elaktothrix sp.
 cells/mL
 36

 Oocystis sp.
 cells/mL
 120

 Sphaerocystis sp.
 cells/mL
 92

Order: Tetrasporales

Paulschulzia sp. cells/mL 16

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Order: Zygnematales

Closterium sp. cells/mL 4

Group: Chrysophyta (Golden-Brown)

Order: Ochromonadales

Dinobryon sp. cells/mL 12 Synura sp. cells/mL 220

Report No: 36480 **Issue No:** 2 **Report Date:** 12-Aug-2008 15:38

Test Method(s):

Biological Testing

1612-Water: Algal Count in Fresh Water by Optical Microscopy

04-Aug-2008

Work Conducted at: New Town

Work Conducted at: New Town

Authorised By:

Stephanie Fulton Section Head - Biological

Organic and Nutrient Testing

1206-Water: Total Nutrients by APHA Method 4500

05-Aug-2008

Authorised By:

Damien Norman Section Head - Inorganic