

Laboratory Services Branch

Direction des services de laboratoire

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## Certificate of Analysis

**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

**Workorder Description:**

**Client:** Eastern Region - Belleville Area Office

**Profile:** BAEC - Blue Green Algae

**Line Item:** Complaints & Notifications

**Report To:** Cathy Chisholm  
DWECD-ER-Belleville Area Off  
345 College St E  
Belleville, ON K8N 5S7  
Canada

**Date Reported:** 10/24/2023 3:23:17 PM

**Date Approved:** 10/24/2023 3:12:41 PM

The results relate only to the items tested as received.

Customer service feedback for this test report and/or other services by LaSB may be provided by calling the HelpDesk at 416-235-6030, the Customer Service Manager at 416-235-5831, or through LabOnline.

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Laboratory Services Branch is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific tests listed on the scope of accreditation. Accreditation is matrix- and parameter-specific. A complete listing of accredited test methods, matrices, and parameters is available from [www.cala.ca](http://www.cala.ca). The tests on this report may not necessarily be included in the scope of accreditation.

Calculated results for IBC3196 (Ion Balance) and DTKN3424 (Total Kjeldahl Nitrogen) are provided in the test report only if all required parameters were requested/measured.

**Approved for release by:**



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Dr. Ralph Ruffolo

# Certificate of Analysis

**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

## Sample Summary

Lab ID	Field ID	Matrix	Method	Tests Ordered	Container Condition	Sampling Date & Time	Received Date & Time	Sampled By
13052001	Stoco Lake - Hughes Lane	WO	E3450, E3469, E3568, E3573	ALGAEID, ANAA3568, MCYST3450, MCYST3469		10/19/2023 13:00	10/20/2023 10:20	Jon Morrish

## Sample Description

Suspected BGA in surface water

# Certificate of Analysis



Workorder: Stoco - Hughes Lane (13052)

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## Analytical Results

Lab ID: 13052001 Date Collected: 10/19/2023 1:00:00 PM  
 Field ID: Stoco Lake - Hughes Lane Matrix: Water

Parameter	Result	Units	RDL	Rmk	Analyzed
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### E3469

Total Microcystins	1.96	µg/L	0.10		10/23/2023
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### E3568

Anatoxin-A	<0.20	µg/L	0.20		10/23/2023
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## ORGANIC CHEMISTRY

### E3450

3-Desmethyl-microcystin-LR	<0.050	µg/L	0.050		10/23/2023
3-Desmethyl-microcystin-RR	<0.050	µg/L	0.050		10/23/2023
Anatoxin-a	<0.050	µg/L	0.050		10/23/2023
Microcystin-HiIR	<0.050	µg/L	0.050		10/23/2023
Microcystin-HtYR	<0.050	µg/L	0.050		10/23/2023
Microcystin-LA	0.670	µg/L	0.050		10/23/2023
Microcystin-LF	<0.050	µg/L	0.050		10/23/2023
Microcystin-LR	0.696	µg/L	0.050		10/23/2023
Microcystin-LW	<0.050	µg/L	0.050		10/23/2023
Microcystin-LY	<0.050	µg/L	0.050		10/23/2023
Microcystin-RR	<0.050	µg/L	0.050		10/23/2023
Microcystin-WR	<0.050	µg/L	0.050		10/23/2023
Microcystin-YR	<0.050	µg/L	0.050		10/23/2023

# Certificate of Analysis



Workorder: Stoco - Hughes Lane (13052)

Chain: L12753

## Analytical Results

Lab ID: 13052001	Field ID: Stoco Lake - Hughes Lane	Matrix: Water	Date Collected: 10/19/2023 1:00:00 PM
Parameter	Result	Analyzed	
<b>E3573</b>			
Algal mat	No	10/20/2023	
Cyano bloom	Yes	10/20/2023	
Algae bloom	No	10/20/2023	
1	Aphanizomenon	10/20/2023	

# Certificate of Analysis



**Workorder:** Stoco - Hughes Lane (13052)

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## Legend

Code	Definition
RDL	RDL refers to the Reported Detection Limit for each analyte being measured. The RDL listed on the Certificate of Analysis has been adjusted where required based on variations in the final volume and/or initial sample weight/volume analysed.

# Certificate of Analysis

**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

## Workorder Summary

### Sample Comments

#### 13052001 (Stoco Lake - Hughes Lane) - Production sample

50 mg ascorbic acid and 600 ml sodium bisulfate

Microscopic analysis of the sample was indicative of a blue-green algal bloom (specifically Aphanizomenon). Many species of blue-green algae (also called cyanobacteria) have the potential to produce toxins that are harmful to the health of humans and other animals. This determination was based on the amount of algal material present in the submitted sample.

SEMI-QUANTITATIVE RESULTS FOR TOTAL MICROCYSTINS

### Method Summary

#### E3450

THE DETERMINATION OF MICROCYSTINS AND ANATOXINS IN WATER BY ON-LINE SPE LIQUID CHROMATOGRAPHY-(ELECTROSPRAY IONIZATION)-HIGH RESOLUTION QUADRUPOLE TIME OF FLIGHT MASS SPECTROMETRY [On-Line SPE-LC-(ESI)-HRQToFMS]

#### E3469

THE SCREENING AND SEMI-QUANTITATIVE ANALYSIS OF WATER SAMPLES FOR MICROCYSTINS BY ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA)

#### E3568

QUANTITATIVE ANALYSIS OF WATER SAMPLES FOR ANATOXIN-a BY ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA)

#### E3573

SCREENING OF ALGAE BLOOM OCCURRENCE BY IDENTIFICATION OF ALGAE CELLS WITH MICROSCOPIC METHODS

### Additional Information

#### Sample 13052001 - Algae ID Additional Info.

Municipality	Tweed
Preserved Duplicate	N
Region	EAST
Water body	Stoco Lake

# Certificate of Analysis

**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

## QC Results

**QC Batch:** MIC/6660  
**Preparation Method:** E3469  
**Associated Lab IDs:** 13052001

**Analysis Method:** E3469

### Method Blank(161965)

Parameter	Result	Units	RDL
Total Microcystins	<0.10	µg/L	0.10

# Certificate of Analysis

**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

## QC Results

**QC Batch:** MICI/6661  
**Preparation Method:** E3568  
**Associated Lab IDs:** 13052001

**Analysis Method:** E3568

### Method Blank(161979)

Parameter	Result	Units	RDL
Anatoxin-A	<0.20	µg/L	0.20



# Certificate of Analysis

Workorder: Stoco - Hughes Lane (13052)

Chain: L12753

## QC Results

QC Batch: TOXI/3440  
Preparation Method: E3450  
Associated Lab IDs: 13052001

Analysis Method: E3450

### Method Blank(162233)

Parameter	Result	Units	RDL
Anatoxin-a	<0.050	µg/L	0.050
3-Desmethyl-microcystin-RR	<0.050	µg/L	0.050
Microcystin-RR	<0.050	µg/L	0.050
Microcystin-YR	<0.050	µg/L	0.050
Microcystin-HtYR	<0.050	µg/L	0.050
3-Desmethyl-microcystin-LR	<0.050	µg/L	0.050
Microcystin-LR	<0.050	µg/L	0.050
Microcystin-HilR	<0.050	µg/L	0.050
Microcystin-WR	<0.050	µg/L	0.050
Microcystin-LA	<0.050	µg/L	0.050
Microcystin-LY	<0.050	µg/L	0.050
Microcystin-LW	<0.050	µg/L	0.050
Microcystin-LF	<0.050	µg/L	0.050

# Certificate of Analysis



**Workorder:** Stoco - Hughes Lane (13052)

**Chain:** L12753

## Chain of Custody



L12753

**Workorder ID:** Stoco - Hughes Lane  
**Submitter:** Jon Morrish  
**Phone:** (613) 848-0853  
**Lab Site:** LaSB

**Client:** Eastern Region - Belleville Area Office  
**Contact:** Cathy Chisholm  
**Phone:** 613-962-9459  
**Email:** cathy.chisholm@ontario.ca

Laboratory Services Branch  
 Ministry of the Environment, Conservation  
 and Parks  
 125 Resources Road  
 Toronto ON M9P 3V6  
 Phone 416 235-5743  
 Fax 416 235-5744

Pos	Field ID	Collection Site	Matrix	Collector	Collected		Containers										
					Date	Time	Total Number of Containers	B-149	B-222	B-224							
1	Stoco Lake - Hughes Lane		WO	Jon Morrish	10/19/2023	13:00	3	1	1	1							

Transfers	Released By	Date/Time	Received By	Date/Time
1				
2				
3				
4				
5				

Delivery Method: \_\_\_\_\_

Airbill No: \_\_\_\_\_

# Certificate of Analysis

Workorder: Stoco - Hughes Lane (13052)

Chain: L12753

## Chain of Custody



L12753

Workorder ID: Stoco - Hughes Lane

Client: Eastern Region - Belleville Area Office

### Stoco Lake - Hughes Lane

#### Special Instructions

50 mg ascorbic acid and 600 ml sodium bisulfate

#### Containers

**Container ID:** 674196  
**Container Type:** B-149 - BOTTLE: Clear round PET, 500mL wide mouth, 63mm unlined PP cap, w/label (cs120) **Preservative:** NONE - None

#### Tests Requested:

ALGAEID - Algal bloom scan

**Container ID:** 674197  
**Container Type:** B-224 - BOTTLE: 500mL ,AMBER GLASS, FOR MCYST3469 .....EACH..... (12/case) **Preservative:** NONE - None

#### Tests Requested:

MCYST3450 - Microcystin/Anatoxin in water  
MCYST3469 - Total Microcystins by ELISA

**Container ID:** 674198  
**Container Type:** B-222 - BOTTLE: 500mL AMBER, ANATOXIN (400mg SOD. BISULFATE, 50mg ASCORBIC ACID) .....EACH.....(12/case) **Preservative:** PRE-CHAR - Pre-Charged

#### Tests Requested:

ANAA3568 - Anatoxin-a by ELISA

### Additional Data

Algae condition:

# Certificate of Analysis

Workorder: Stoco - Hughes Lane (13052)

Chain: L12753

## Chain of Custody



L12753

Workorder ID: Stoco - Hughes Lane

Client: Eastern Region - Belleville Area Office

### Stoco Lake - Hughes Lane

#### Additional Data

Preserved Duplicate:

Preservative type:

Wet mount used only:

Water body: Stoco Lake

Municipality: Tweed

Region: EAST

Zone:

Northing:

Easting:

NAD:

Location Description: