

Potentially Toxicogenic (PTOX) Cyanobacteria Screen

Project: Client/Project Name

Received: Date
Prepared: Date
Analyst: Analyst

<u>Sample ID</u>	<u>Site</u>	<u>Collected</u>
#1	A	1/1/11
#2	B	1/1/11

Method

One mL aliquots of non-preserved samples were prepared using Sedgewick Rafter cells. The samples were scanned at 100X for the presence of potentially toxicogenic (PTOX) cyanobacteria using a Nikon Eclipse TS100 inverted microscope equipped with phase contrast optics. Higher magnification was used as necessary for identification and micrographs.

Results

#1 - A

The sample was dominated by significant levels of potentially toxicogenic (PTOX) cyanobacteria. Observed cyanobacteria included *Aphanizomenon* sp., *Dolichospermum* sp., *Microcystis* spp., *Planktothrix* sp., and *Woronichinia naegeliana*.

#2 – B

The sample was dominated by flagellate green algae (Chlorophyta). PTOX cyanobacteria were not observed.

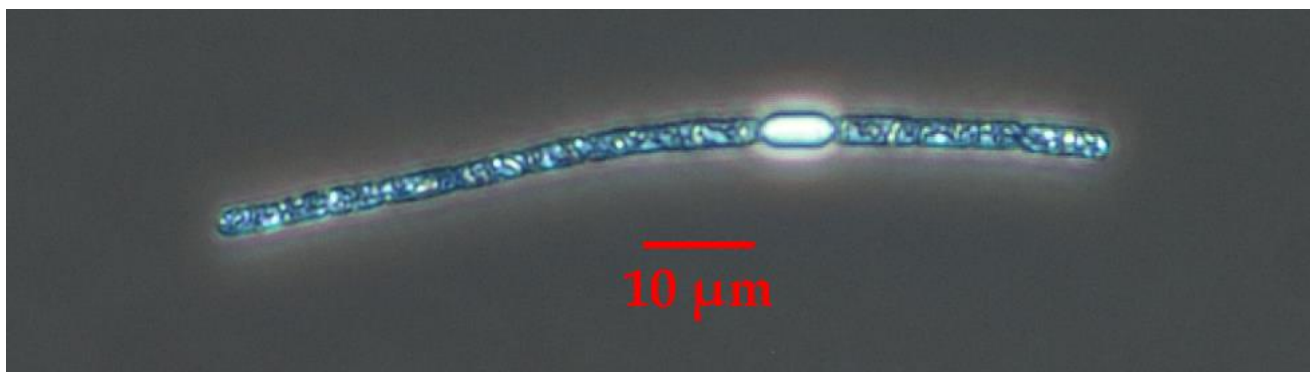
Potential toxin producing genera observed include:

<u>Microcystins</u>	<u>Saxitoxins</u>	<u>Anatoxin-a</u>	<u>Cylindrospermopsin</u>
<i>Microcystis</i>	<i>Aphanizomenon</i>	<i>Aphanizomenon</i>	<i>Aphanizomenon</i>
<i>Woronichinia</i>	<i>Dolichospermum</i>	<i>Dolichospermum</i>	<i>Dolichospermum</i>
<i>Dolichospermum</i>		<i>Planktothrix</i>	
<i>Planktothrix</i>			

Recommendations

Based on the significant PTOX cyanobacteria presence in #1 – A, toxin analyses for microcystins, anatoxin-a, saxitoxin and cylindrospermopsin are recommended. Toxin analyses are not recommended for sample #2 – B due to an absence of PTOX cyanobacteria.

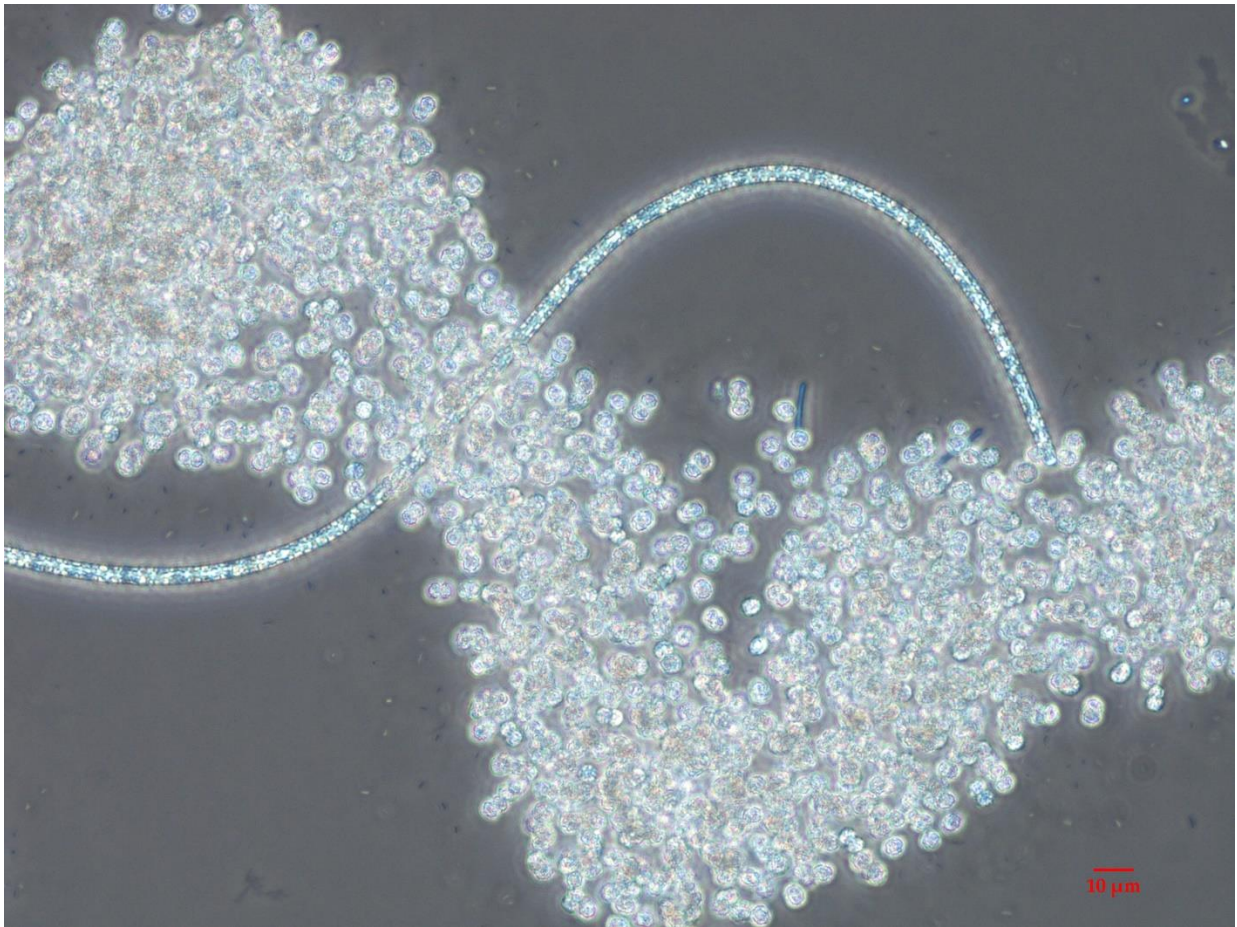
Micrographs



Aphanizomenon sp. at 400X (#1 - A)



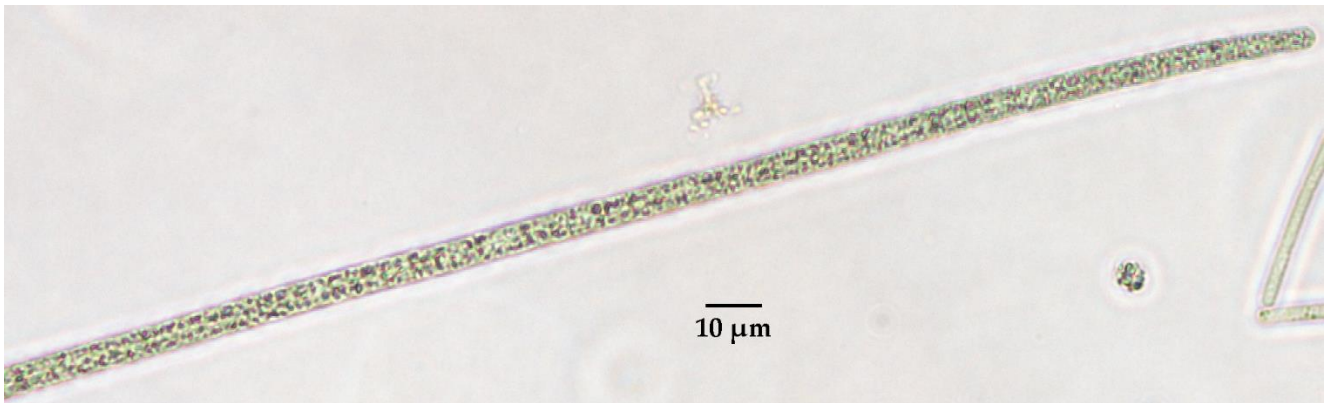
Dolichospermum sp. at 400x



Microcystis sp. with *Planktothrix* sp. filament at 400X (#1 - A)



Microcystis wesenbergii at 400X (#1 - A)



Planktothrix sp. at 400X (#1 - A)



Woronichinia naegeliana at 400X (#1 - A)

Submitted by:

Analyst

Date:

1/1/1

This report shall not be reproduced except in full without written approval of the laboratory