

Results Interpretation

Thank you for using Beagle Bioproducts to assist you with your cyanotoxin analysis needs. The assay we use to assess toxin concentration employs a series of standards to establish a test range. Your sample is compared to those standards and the results will be presented in one of three ways:

- **A whole number** - *ex. 123 ppb* – the toxin concentration of your sample fell within the standard range of the test. This produced a specific value for your toxin concentration.
- **Below the limit of quantification** – *ex. < 1.5 ppb* – the toxin concentration of your sample was too low for the standard range of the test. This is typically viewed as a good thing!
- **Above the limit of quantification** – *ex. > 50 ppb* - the toxin concentration of your sample was too high for the standard range of the test. Your sample contained a significant amount of toxin. If you wish to identify a specific value for your toxin concentration, please contact Beagle to discuss further testing.

The World Health Organization (WHO) has released guidelines for thresholds at which microcystin (MC) levels in drinking and recreational waters should be a concern; such guidelines have not been released for other cyanotoxins. The probability of acute health effects is low when MC concentration is below 10 ppb, moderate from 10-20 ppb, and high above 20 ppb. These guidelines and much more information regarding cyanotoxins can be viewed at the US EPA’s website for Cyanobacterial Harmful Algal Blooms. (www2.epa.gov/nutrient-policy-data/cyanobacterial-harmful-algal-blooms-cyanohabs#tab-7)

For guidance for the other major cyanotoxins, we recommend the threshold advisories (below) published by the Ohio EPA (wwwapp.epa.ohio.gov/gis/mapportal/hab.html). This website is also useful for identifying where harmful algal blooms have been confirmed in Ohio state-managed waters.

Type of Advisory	Anatoxin-a	Cylindrospermopsin	Saxitoxin
Recreational: Public Health Advisory	80	5	0.8
Recreational: No Contact	300	20	3
Drinking Water: Do Not Drink	20	1	0.2
Drinking Water: Do Not Use	300	20	3

**All values reported in ppb.*