

Laboratories that will accept samples for Harmful Algal Bloom (HAB) toxin analysis**:

US EPA Region 8 Laboratory

Contacts: Jeff McPherson (lab), Bob Clement (Region 8 office)

Phone: (Jeff) 303-312-7752, (Bob) 303-312-6653

Email: (Jeff) mcpherson.jeffery@epa.gov (Bob) clement.robert@epa.gov

Type of analysis: Cylindrospermopsin by ELISA and LC-MS/MS, Microcystin free or total by ELISA and field test strip kits, Microcystin -LR, -YR and -RR by LC-MS/MS, Anatoxin-a by RBA and LC-MS/MS, Phycocyanin by HPLC and YSI EXO2 and microscopic ID by taxonomy.

Cost of samples: For 2016 limited number of samples at no cost.

Days of the week samples are accepted: Samples accepted Monday through Friday 8 AM to 4 PM. Samples received on Friday will not be analyzed until the following week.

Sample bottle: Minimum of 100 mL. The best bottle to use is an amber glass container. Sample should be protected from sunlight and cooled immediately after collection and maintained at 0-4° until analysis.

Shipping address: US EPA Region 8 laboratory, Laboratory Biology Team 8 TMS-L, 16194 West 45th Drive, Golden, CO 80403

Lake Superior State University

Contacts: Dr. Ben Southwell

Phone: (906) 635-2076

Email: bsouthwell@lssu.edu

Type of analysis: Cylindrospermopsin, Microcystin, and Saxitoxin by ELISA, Anatoxin-a by RBA and LC-MS/MS we use EPA Methods 544 and 545 as a conformation method (only).

Cost of samples: ELISA for \$100 per sample, RBA anatoxin-a \$100/\$150, LC-MS/MS \$100 per sample.

Days of the week samples are accepted: We prefer if samples arrive Tuesday through Thursday. We can accept samples on Friday if pre-arrangements are made.

Sample bottle: Minimum of 100 mL. The best bottle to use is an amber glass container. We do accept plastic since sometimes shipping glass can be difficult. Sample should be protected from sunlight and cooled immediately after collection and maintained at 0-4° until analysis.

Shipping address: School of Physical Sciences, CRW 353, 650 West Easterday Avenue, Sault Ste. Marie, MI 49783

** This list is not meant to be all-inclusive nor to endorse any labs. All cost figures are estimates only.

Laboratories that will accept samples for Harmful Algal Bloom (HAB) toxin analysis**:

GreenWater Labs/CyanoLab

Contacts: Amanda Foss, M.S. Environmental Chemist

Phone: Phone- (386) 328-0882 Fax- (386) 328-9646

Email: amandafoss@greenwaterlab.com

Type of analysis: Full suite of toxins and methods

<http://greenwaterlab.com/algalt toxinanalysis.html>

Cost of samples: Microcystins/Nodularin ELISA-ADDA (\$100), LC-MS/MS (\$250).

Cylindrospermopsin ELISA (\$125), LC-MS/MS (\$150). Saxitoxins ELISA (\$125), LC-MS/MS (\$250). Anatoxin-a LC-MS/MS (\$200). Four toxin bundle Microcystins (ELISA-ADDA), Cylindrospermopsin (LC-MS/MS), Saxitoxins (ELISA), Anatoxin-a (LC-MS/MS) \$500

Days of the week samples are accepted: We receive samples at the lab Tuesday through Friday. If samples are collected on a Friday, we ask them to be sent on a Monday for Tuesday delivery.

Sample bottle: Plastic bottles (250-500 mL) are recommended for all toxins/analyses, with exception to finished drinking water samples, where glass (amber) is recommended. Sample should be protected from sunlight and cooled immediately after collection and maintained at 0-4° until analysis. More information on sampling and shipping can be found here:

<http://greenwaterlab.com/samplinginstructions.pdf>

Shipping address: GreenWater Labs/CyanoLab, 205 Zeagler Drive, Suite 302 Palatka, FL 32177

Wayne State University

Contacts: Judy Westrick, PhD

Phone: 313-577-2579

Email: westrick@chem.wayne.edu

Type of analysis: We do ELISAs and LC-MS/MS (USEPA methods) We have in-house methods also.

Cost of samples: ELISAs (\$100), LC-MS/MS (Microcystins \$250 per analyses; Anatoxin-a and Cylindrospermopsin \$125). We have bulk pricing. For example, if you set up a monitoring program and we will be getting 10 samples per week for 10 weeks; we will set up a special rate.

Days of the week samples are accepted: Although our laboratory is open M-F, special arrangements can be made for emergency shipping and analyses on weekends.

Sample bottle: We will ship out containers with preservatives, chain of custody sheets, and directions. The customer pays for shipping to the lab.

We strive for a 48 hour turnaround from the time we get the sample(s).

Shipping address: Lumigen Instrumentation Center, Chem 79, 5101 Cass Avenue, Detroit, MI 48202

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Laboratories that will accept samples for Harmful Algal Bloom (HAB) toxin analysis**:

EnviroScience

Contacts: Jennifer Vydra, Manager of Laboratory Services

Phone: Office: (330) 688-0111 / Toll-Free: (800) 940-4025 / Cell: (330) 414-6552 / 24h

Emergency: (888) 866-8540

Email: <http://www.enviroscienceinc.com>

Type of analysis: ELISA method for Microcystin LR, Anatoxin-a, Cylindrospermopsin and Saxitoxin.

Cost of samples: Microcystins \$120, Anatoxin-a \$150, Cylindrospermopsin \$130), Saxitoxin \$130

Days of the week samples are accepted: Our lab operates seven days per week, so we can receive samples anytime.

Sample bottle: For ELISA methods glass or polyethylene terephthalate (PETG) bottles are acceptable.

Shipping address: EnviroScience 5070 Stow Road, Stow, OH 44224

BSA Environmental Services Inc.

Contacts: John R. Beaver, PhD, Pres.

Phone: Office: P 216-765-0582, Fax 216-765-0583, mobile 216-526-3981

Email: <http://www.bsaenv.com>

Type of analysis: ELISA method for Microcystins, Anatoxin-a, Cylindrospermopsin and Saxitoxin. LC-MS/MS for the same list plus euglenophycin.

Cost of samples: Costs have not been set for 2016 at this time but can provide that information as we get closer to the spring.

Days of the week samples are accepted: Samples should be shipped to arrive on a weekday

Sample bottles: Glass or PETG bottles, especially for a PWS sample. Prefer 1-L bottles.

Shipping address: BSA Environmental Services, Inc. 23400 Mercantile Rd, Suite 8, Beachwood OH 44122

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Laboratories that will accept samples for Harmful Algal Bloom (HAB) toxin analysis**:

Northeast Ohio Regional Sewer District

Contacts: Mark Citriglia.

Phone: Office: P 216-641-6000 ext. 2514, direct 432-7293, mobile 216-256-4563, fax 216-641-8118

Email: citrigliam@neorsd.org

Type of analysis and cost: Microcystins ELISA ADDA (\$100) & LC/MS/MS EPA method 544 (\$300) and modified EPA method 544 (\$100). Anatoxin-a and cylindrospermopsin LC/MS/MS method 545 (\$125 each or \$225 for both). Saxitoxin and cylindrospermopsin by ELISA (\$75). qPCR 16S rDNA (\$75-\$150).

Days of the week samples are accepted: Monday through Friday however, an exception could be made to make arrangements for delivery on Saturday if there is an emergency.

Sample bottles: ELISA 100 mL or larger amber glass bottle or PETG. 10 mg of sodium thiosulfate per 100 mls for finished water sample. Allow cold water tap to run for 5 minutes, place bottle under flowing stream fill to where the bottle begins to constrict (headspace is OK). Method 544 (100 mL) Method 545 (40 to 100ml) amber glass bottle or PETG fitted with teflon-lined screw caps with preservations (see sampling instructions). Allow cold water tap to run for 5 minutes, place bottle under flowing stream fill to where the bottle begins to constrict (headspace is OK).

Shipping address: Northeast Ohio Regional Sewer District, Mark Citriglia, 4747 East 49th Street, Cuyahoga Heights, OH 44125

Celina Utilities Water Department

Contacts: Mike Sudman Jr.

Phone: Office: P 419-586-2270, cell 419-733-4112, fax 419-586-3598

Email: cwtpsupt@bright.net

Type of analysis: Microcystin LR using ELISA

Cost of samples: \$125 per sample

Days of the week samples are accepted: You can ship any day of the week, but samples must be received by noon on Tuesdays for Thursday analysis. We only test on Thursday.

Sample bottles: We can overnight a cooler and bottles for collection along with sampling instructions.

Shipping address: T. Mike Sudman J. Superintendent of Water and Wastewater Celina Utilities Water Department 714 South Sugar Street Celina, Ohio 45822

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Laboratories that will accept samples for Harmful Algal Bloom (HAB) toxin analysis**:

Beagle Bioproducts Inc.

Contacts: Stephanie A. Smith, Ph.D. Co-Founder and CSO/COO

Phone: Office: 614-682-6588

Email: info@beaglebioproducts.com or stephanie.smith@beaglebioproducts.com

Type of analysis: ELISA method for Microcystins, Anatoxin-a, Cylindrospermopsin and Saxitoxin. LC-MS/MS for the same list for clients that have a contract with us.

Cost of samples: ELISA \$125 for each toxin, with significant discounts available for regular monitoring customers. Geosmin and MIB \$150, Algae ID \$75

Days of the week samples are accepted: Samples can be shipped to us any day of the week, and emergency situations that might require receipt or testing over weekends or holidays are handled on a case-by-case basis, but do generally entail additional costs.

Sample bottles: We suggest using of our sampling kits to ensure the proper vessels, procedures, and forms are used.

Shipping address: Beagle Bioproducts, Inc., 959 Schrock Road, Columbus, OH 43229

City of Elyria

Contacts: Sam Jacob or Eric Coven

Phone: (440) 244-4310 x 201

Email: swjacob@cityofelyria.org

Type of analysis: Microcystins using ELISA ADDA

Cost of samples: [working on prices]

Days of the week samples are accepted: Mon-Thursday, but in an emergency or if pre-arranged with notice we could always run outside that time Sample bottle: Minimum of 100 mL should be collected in a glass or polyethylene terephthalate glycol (PETG) container protected from sunlight and cooled immediately after collection and maintained at 0-4° until analysis.

Shipping address: Elyria Water Works, 3628 West Erie Avenue, Lorain, Ohio 44053

We are also looking into testing for anatoxin-a, cylindrospermopsin, and saxitoxins and will update you if any analytical methods are added.

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