

Buckeye Lake Microcystin Toxin Sampling Data

Sample Collection Date	Sample Process Date	Collected By	Evaluated By	Brooks Beach (ppb)	Fairfield Beach (ppb)	Crystal Beach (ppb)
6/15/09	6/16/09	ODNR	Celina-PWS	1.4	10.0	0.7
6/22/09	6/24/09	ODNR	Celina-PWS	Non-Detect	4.4	1.1
6/29/09	7/1/09	ODNR	Celina-PWS	3.0	1.1	1.1
7/6/09	7/8/09	ODNR	Celina-PWS	0.4	0.6	0.4
7/7/09	7/8/09	ODNR	Celina-PWS	0.6	0.6	0.6
7/13/09	7/15/09	ODNR	Celina-PWS	1.1	0.9	1.3
7/20/09	7/22/09	ODNR	Celina-PWS	1.0-1.4	1.0-1.1	0.7
7/27/09	7/29/09	ODNR	Celina-PWS	1.3	1.5	1.0
8/3/09	8/5/09	ODNR	Celina-PWS	3.0	1.4	1.2
8/10/09	8/13/09 See Note	ODNR	Celina-PWS	Non-Detect	Non-Detect	Non-Detect
8/17/09	8/19/09	ODNR	Celina-PWS	0.5	1.1	0.9
8/24/09	8/26/09	ODNR	Celina-PWS	1.4	2.1	2.6
8/31/09	9/2/09	ODNR	Celina-PWS	1.4	1.7	1.5

Ohio DNR is sampling Buckeye Lake weekly after microcystin levels were reported at 10 ppb on June 15, 2009. This is to be more vigilant in case the toxin levels rise with warmer weather this summer.

There is no national standardized procedure for analyzing microcystin toxin. The water samples from Buckeye Lake are being evaluated by the Celina Public Water Supply (PWS). The procedure used by the Celina PWS prior to August 13, 2009 is acceptable for determining if there is any microcystin toxin in finished drinking water. But it did not calculate total microcystin concentration in raw water which is an important consideration for determining risk in recreational waters. Their process did not release all the toxin from all the algal cells. So the levels of microcystin toxin in raw water reported before August 13, 2009 may be higher than is reported in the above table.

***Note: As of August 13, 2009, the City of Celina PWS is also using an ultrasonicator to ensure all microcystin toxin is released from algal cells to represent total microcystin toxin. The highest result from either of the analytical procedures is reported in the above table.**

World Health Organization Provisional Guidelines for Microcystin Toxin:

Recreational Contact = 20 ppb (moderate risk)

Public Drinking Water = 1 ppb

ppb = parts per billion
