



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ppb)</b>
AC39721	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/13/2024	5/16/2024	< 0.30
AC39722	Cagles Mill Lake - Lieber SRA Beach	5/13/2024	5/16/2024	< 0.30
AC39723	Monroe Lake - Fairfax SRA Beach	5/13/2024	5/16/2024	< 0.30
AC39724	Monroe Lake - Paynetown SRA Beach	5/13/2024	5/16/2024	< 0.30
AC39725	Starve Hollow SRA - Starve Hollow Lake Beach	5/13/2024	5/16/2024	< 0.30
AC39726	Whitewater Memorial SP - Whitewater Lake Beach	5/14/2024	5/16/2024	< 0.30
AC39727	Brookville Lake - Quakertown SRA Beach	5/14/2024	5/16/2024	< 0.30
AC39728	Brookville Lake - Mounds SRA Beach	5/14/2024	5/16/2024	< 0.30
AC39729	Hardy Lake SRA - Hardy Lake SRA Beach	5/14/2024	5/16/2024	< 0.30
AC39730	Deam Lake SRA - Deam Lake Beach	5/14/2024	5/16/2024	< 0.30
AC39731	Ft. Ben Harrison SP Dog Lake	5/13/2024	5/16/2024	< 0.30
AC39732	Monroe Lake - Fairfax SRA Beach (Field Duplicate)	5/13/2024	5/16/2024	< 0.30
AC39733	Field Blank	5/13/2024	5/16/2024	< 0.30

# Test Report (by Request)

**Test Information**

Request: 5/16/2024 3:19:12 PM  
 Date: 5/16/2024 - 5/16/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	0.949 Abs	0.034 µg/L	R^2=0.99756, 98.85		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	0.971 Abs [0.9600] {1.6 C	0.000 µg/L [0.017]	R^2=0.99756, 101.1		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.881 Abs	0.115 µg/L	R^2=0.99756, 91.77		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.849 Abs [0.8650] {2.6 C	0.150 µg/L [0.133]	R^2=0.99756, 88.43		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.645 Abs	0.406 µg/L	R^2=0.99756, 67.18		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.625 Abs [0.6350] {2.2 C	0.437 µg/L [0.422]	R^2=0.99756, 65.10		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.406 Abs	1.023 µg/L	R^2=0.99756, 42.25		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.407 Abs [0.4065] {0.2 C	1.018 µg/L [1.021]	R^2=0.99756, 42.35		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.322 Abs	1.578 µg/L	R^2=0.99756, 33.54		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.296 Abs [0.3090] {5.9 C	1.874 µg/L [1.726]	R^2=0.99756, 30.83		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.202 Abs	> 5.000 µg/L	21.042 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.193 Abs [0.1975] {3.2 C	> 5.000 µg/L	20.104 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	0.949 Abs	0.034 µg/L	98.854 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	0.929 Abs [0.9390] {1.5 C	0.060 µg/L [0.047]	96.771 %Abs [97.8			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.684 Abs	0.348 µg/L	71.250 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.698 Abs [0.6910] {1.4 C	0.329 µg/L [0.339]	72.708 %Abs [71.9			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.595 Abs	0.489 µg/L	61.979 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.556 Abs [0.5755] {4.8 C	0.565 µg/L [0.527]	57.917 %Abs [59.9			Kit:P23C0

**Note**

Signature

Charles Hostetter 5/16/2024

\* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

\* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/16/2024 3:42:43 PM

# Test Report (by Request)

**Test Information**

Request: 5/16/2024 3:20:28 PM  
Date: 5/16/2024 - 5/16/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC39721	MICROCYSTINS ADDA 54	0.873 Abs	0.124 µg/L	Low, 90.938 %Abs		0.300 - 5.000	Kit:P23C0
AC39721	MICROCYSTINS ADDA 54	0.852 Abs [0.8625] {1.7 C	0.147 µg/L [0.136]			0.300 - 5.000	Kit:P23C0
AC39722	MICROCYSTINS ADDA 54	0.872 Abs	0.125 µg/L	Low, 90.833 %Abs		0.300 - 5.000	Kit:P23C0
AC39722	MICROCYSTINS ADDA 54	0.860 Abs [0.8660] {1.0 C	0.138 µg/L [0.132]			0.300 - 5.000	Kit:P23C0
AC39723	MICROCYSTINS ADDA 54	0.865 Abs	0.132 µg/L	Low, 90.104 %Abs		0.300 - 5.000	Kit:P23C0
AC39723	MICROCYSTINS ADDA 54	0.977 Abs [0.9210] {8.6 C	0.000 µg/L [0.066]			0.300 - 5.000	Kit:P23C0
AC39724	MICROCYSTINS ADDA 54	1.031 Abs	0.000 µg/L	Low, 107.396 %Abs		0.300 - 5.000	Kit:P23C0
AC39724	MICROCYSTINS ADDA 54	1.010 Abs [1.0205] {1.5 C	0.000 µg/L [0.000]			0.300 - 5.000	Kit:P23C0
AC39725	MICROCYSTINS ADDA 54	0.977 Abs	0.000 µg/L	Low, 101.771 %Abs		0.300 - 5.000	Kit:P23C0
AC39725	MICROCYSTINS ADDA 54	0.952 Abs [0.9645] {1.8 C	0.030 µg/L [0.015]			0.300 - 5.000	Kit:P23C0
AC39726	MICROCYSTINS ADDA 54	0.887 Abs	0.108 µg/L	Low, 92.396 %Abs		0.300 - 5.000	Kit:P23C0
AC39726	MICROCYSTINS ADDA 54	0.850 Abs [0.8685] {3.0 C	0.149 µg/L [0.129]			0.300 - 5.000	Kit:P23C0
AC39727	MICROCYSTINS ADDA 54	0.894 Abs	0.101 µg/L	Low, 93.125 %Abs		0.300 - 5.000	Kit:P23C0
AC39727	MICROCYSTINS ADDA 54	0.869 Abs [0.8815] {2.0 C	0.128 µg/L [0.115]			0.300 - 5.000	Kit:P23C0
AC39727MS	MICROCYSTINS ADDA 54	0.433 Abs	0.910 µg/L	45.104 %Abs		0.300 - 5.000	Kit:P23C0
AC39727MS	MICROCYSTINS ADDA 54	0.450 Abs [0.4415] {2.7 C	0.848 µg/L [0.879]	46.875 %Abs [45.9		0.300 - 5.000	Kit:P23C0
AC39727MSD	MICROCYSTINS ADDA 54	0.419 Abs	0.966 µg/L	43.646 %Abs		0.300 - 5.000	Kit:P23C0
AC39727MSD	MICROCYSTINS ADDA 54	0.294 Abs [0.3565] {24.8	1.902 µg/L [1.434]	30.625 %Abs [37.1		0.300 - 5.000	Kit:P23C0
AC39728	MICROCYSTINS ADDA 54	0.931 Abs	0.058 µg/L	Low, 96.979 %Abs		0.300 - 5.000	Kit:P23C0
AC39728	MICROCYSTINS ADDA 54	0.922 Abs [0.9265] {0.7 C	0.069 µg/L [0.064]			0.300 - 5.000	Kit:P23C0
AC39729	MICROCYSTINS ADDA 54	0.869 Abs	0.128 µg/L	Low, 90.521 %Abs		0.300 - 5.000	Kit:P23C0
AC39729	MICROCYSTINS ADDA 54	0.889 Abs [0.8790] {1.6 C	0.106 µg/L [0.117]			0.300 - 5.000	Kit:P23C0
AC39730	MICROCYSTINS ADDA 54	0.937 Abs	0.050 µg/L	Low, 97.604 %Abs		0.300 - 5.000	Kit:P23C0
AC39730	MICROCYSTINS ADDA 54	0.974 Abs [0.9555] {2.7 C	0.000 µg/L [0.025]			0.300 - 5.000	Kit:P23C0
AC39731	MICROCYSTINS ADDA 54	0.958 Abs	0.020 µg/L	Low, 99.792 %Abs		0.300 - 5.000	Kit:P23C0
AC39731	MICROCYSTINS ADDA 54	0.934 Abs [0.9460] {1.8 C	0.054 µg/L [0.037]			0.300 - 5.000	Kit:P23C0
AC39732	MICROCYSTINS ADDA 54	0.914 Abs	0.078 µg/L	Low, 95.208 %Abs		0.300 - 5.000	Kit:P23C0
AC39732	MICROCYSTINS ADDA 54	0.943 Abs [0.9285] {2.2 C	0.043 µg/L [0.061]			0.300 - 5.000	Kit:P23C0
AC39733	MICROCYSTINS ADDA 54	0.959 Abs	0.019 µg/L	Low, 99.896 %Abs		0.300 - 5.000	Kit:P23C0
AC39733	MICROCYSTINS ADDA 54	0.956 Abs [0.9575] {0.2 C	0.024 µg/L [0.022]			0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.531 Abs	0.620 µg/L	55.313 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.525 Abs [0.5280] {0.8 C	0.634 µg/L [0.627]	54.688 %Abs [55.0		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	0.953 Abs	0.028 µg/L	Low, 99.271 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	0.880 Abs [0.9165] {5.6 C	0.116 µg/L [0.072]			0.300 - 5.000	Kit:P23C0

**Note**

Signature

Charles Hostetter 5/16/2024

\* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

\* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/16/2024 3:42:43 PM

**Assay Information**

Assay Name: MICROCYSTINS ADDA 546\_

Version: 2

Temperature: Room Temperature

Last Modified By: Security disabled

Units: µg/L

Assay Description:

Assay Substances:

Controls:

MCT 546 LRB 1

MCT 546 Low-CV

MCT 546 LFB 1

Standards:

MCT Std 0, Concentration = 0.000, Minimum number to use: 2

MCT Std 1, Concentration = 0.150, Minimum number to use: 2

MCT Std 2, Concentration = 0.400, Minimum number to use: 2

MCT Std 3, Concentration = 1.000, Minimum number to use: 2

MCT Std 4, Concentration = 2.000, Minimum number to use: 2

MCT Std 5, Concentration = 5.000, Minimum number to use: 2

Curve valid interval: 1 days 0 hours

Axis Mode: Y = Abs, X = Log(Conc)

Assay Mode: 4-Parameter Logistic Weight by:None

Well Type: Flat bottom

Last Modified On: 9/30/2020 10:02:13 AM

Normal: 0.300 - 5.000

# of decimals: 3

Kit Lot Number: Kit:P23C0589

**Assay Calibration**

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
<b>5/16/2024 3:19:12 PM</b>				
MCT Std 0	0.949 Abs	0.034 µg/L	R <sup>2</sup> =0.99756, 98.854 %Abs	RK1:23->A01@2
MCT Std 0	0.971 Abs [0.9600] {1.6 CV}	0.000 µg/L [0.017] {141.4 CV}	R <sup>2</sup> =0.99756, 101.146 %Abs	RK1:23->B01@2
MCT Std 1	0.881 Abs	0.115 µg/L	R <sup>2</sup> =0.99756, 91.771 %Abs	RK1:24->C01@2
MCT Std 1	0.849 Abs [0.8650] {2.6 CV}	0.150 µg/L [0.133] {18.7 CV}	R <sup>2</sup> =0.99756, 88.438 %Abs	RK1:24->D01@2
MCT Std 2	0.645 Abs	0.406 µg/L	R <sup>2</sup> =0.99756, 67.188 %Abs	RK1:25->E01@2
MCT Std 2	0.625 Abs [0.6350] {2.2 CV}	0.437 µg/L [0.422] {5.2 CV}	R <sup>2</sup> =0.99756, 65.104 %Abs	RK1:25->F01@3
MCT Std 3	0.406 Abs	1.023 µg/L	R <sup>2</sup> =0.99756, 42.292 %Abs	RK1:26->G01@3
MCT Std 3	0.407 Abs [0.4065] {0.2 CV}	1.018 µg/L [1.021] {0.3 CV}	R <sup>2</sup> =0.99756, 42.396 %Abs	RK1:26->H01@3
MCT Std 4	0.322 Abs	1.578 µg/L	R <sup>2</sup> =0.99756, 33.542 %Abs	RK1:27->A02@2
MCT Std 4	0.296 Abs [0.3090] {5.9 CV}	1.874 µg/L [1.726] {12.1 CV}	R <sup>2</sup> =0.99756, 30.833 %Abs	RK1:27->B02@2
MCT Std 5	0.202 Abs	> 5.000 µg/L	21.042 %Abs	RK1:28->C02@2
MCT Std 5	0.193 Abs [0.1975] {3.2 CV}	> 5.000 µg/L	20.104 %Abs	RK1:28->D02@2
*****				
<b>5/16/2024 3:19:12 PM</b>				
MCT 546 LRB 1	0.949 Abs	0.034 µg/L	98.854 %Abs	RK1:29->E02@2
MCT 546 LRB 1	0.929 Abs [0.9390] {1.5 CV}	0.060 µg/L [0.047] {39.1 CV}	96.771 %Abs [97.813 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.684 Abs	0.348 µg/L	71.250 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.698 Abs [0.6910] {1.4 CV}	0.329 µg/L [0.339] {4.0 CV}	72.708 %Abs [71.979 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.595 Abs	0.489 µg/L	61.979 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.556 Abs [0.5755] {4.8 CV}	0.565 µg/L [0.527] {10.2 CV}	57.917 %Abs [59.948 %Abs]	RK1:31->B03@2
*****				
<b>Statistic</b>				
MCT Std 0 [MEAN]	0.9600	0.0170		
MCT Std 0 [SD]	0.0156	0.0240		
MCT Std 0 [%CV]	1.6205	141.4214		
MCT Std 1 [MEAN]	0.8650	0.1325		
MCT Std 1 [SD]	0.0226	0.0247		
MCT Std 1 [%CV]	2.6159	18.6783		
MCT Std 1 [%DIFF]		-11.6667		
MCT Std 2 [MEAN]	0.6350	0.4215		
MCT Std 2 [SD]	0.0141	0.0219		
MCT Std 2 [%CV]	2.2271	5.2006		
MCT Std 2 [%DIFF]		5.3750		
MCT Std 3 [MEAN]	0.4065	1.0205		
MCT Std 3 [SD]	0.0007	0.0035		
MCT Std 3 [%CV]	0.1740	0.3465		
MCT Std 3 [%DIFF]		2.0500		
MCT Std 4 [MEAN]	0.3090	1.7260		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0184	0.2093		
MCT Std 4 [%CV]	5.9498	12.1265		
MCT Std 4 [%DIFF]		-13.7000		
MCT Std 5 [MEAN]	0.1975			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	3.2223			
MCT 546 LRB 1 [MEAN]	0.9390	0.0470		
MCT 546 LRB 1 [SD]	0.0141	0.0184		
MCT 546 LRB 1 [%CV]	1.5061	39.1165		
MCT 546 Low-CV [MEAN]	0.6910	0.3385		
MCT 546 Low-CV [SD]	0.0099	0.0134		
MCT 546 Low-CV [%CV]	1.4326	3.9690		
MCT 546 LFB 1 [MEAN]	0.5755	0.5270		
MCT 546 LFB 1 [SD]	0.0276	0.0537		
MCT 546 LFB 1 [%CV]	4.7919	10.1974		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 0.96690  
 B = 1.3715  
 C = 0.53332  
 D = 0.17632  
 R2 coef = 0.99756  
 50% = 0.752

