



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC00569	Summit Lake - State Park	5/23/2023	5/25/2023	< 0.30
AC00572	Kunkel Beach @ Oubache State Park	5/22/2023	5/25/2023	< 0.30
AC00573	Pokagon State Park	5/22/2023	5/25/2023	< 0.30
AC00574	Potawatomi Inn's Beach	5/22/2023	5/25/2023	< 0.30
AC00575	Chain O'Lakes SP	5/22/2023	5/25/2023	< 0.30
AC00576	Potato Creek State Park	5/23/2023	5/25/2023	< 0.30
AC00577	Lost Bridge West SRA	5/23/2023	5/25/2023	< 0.30
AC00578	Mississinewa Lake Miami SRA	5/23/2023	5/25/2023	< 0.30
AC00579	Lincoln State Park	5/22/2023	5/25/2023	< 0.30
AC00570	Ferdinand State Forest Lake	5/22/2023	5/25/2023	< 0.30
AC00571	Patoka SRA Beach	5/22/2023	5/25/2023	< 0.30
AC00582	Potato Creek State Park (Field Dup)	5/23/2023	5/25/2023	< 0.30
AC00583	Field Blank	5/23/2023	5/25/2023	< 0.30
AC02941	Ft. Ben Harrison SP Dog Lake	5/23/2023	5/25/2023	< 0.30

Test Report (by Request)

Test Information

Request: 5/25/2023 3:47:22 PM
Date: 5/25/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.260 Abs	0.010 µg/L	R^2=0.99908, 99.60			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.269 Abs [1.2645] {0.5 C	0.000 µg/L [0.005]	R^2=0.99908, 100.3			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	1.080 Abs	0.137 µg/L	R^2=0.99908, 85.37			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	1.062 Abs [1.0710] {1.2 C	0.150 µg/L [0.144]	R^2=0.99908, 83.95			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.794 Abs	0.388 µg/L	R^2=0.99908, 62.76			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.758 Abs [0.7760] {3.3 C	0.432 µg/L [0.410]	R^2=0.99908, 59.92			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.493 Abs	0.996 µg/L	R^2=0.99908, 38.97			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.477 Abs [0.4850] {2.3 C	1.057 µg/L [1.026]	R^2=0.99908, 37.70			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.364 Abs	1.768 µg/L	R^2=0.99908, 28.77			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.365 Abs [0.3645] {0.2 C	1.758 µg/L [1.763]	R^2=0.99908, 28.85			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.240 Abs	> 5.000 µg/L	18.972 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.231 Abs [0.2355] {2.7 C	> 5.000 µg/L	18.261 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.261 Abs	0.009 µg/L	99.684 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.236 Abs [1.2485] {1.4 C	0.030 µg/L [0.019]	97.708 %Abs [98.6			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.848 Abs	0.329 µg/L	67.036 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.813 Abs [0.8305] {3.0 C	0.367 µg/L [0.348]	64.269 %Abs [65.6			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.689 Abs	0.529 µg/L	54.466 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.683 Abs [0.6860] {0.6 C	0.539 µg/L [0.534]	53.992 %Abs [54.2			P23C0589

Note

Signature *David Jordan*

David Jordan 5/25/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 5/25/2023 4:19:11 PM

Test Report (by Request)

Test Information

Request: 5/25/2023 3:48:33 PM
Date: 5/25/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC00569	MICROCYSTINS ADDA 54	1.252 Abs	0.017 µg/L	Low, 98.972 %Abs		0.300 - 5.000	P23C058E
AC00569	MICROCYSTINS ADDA 54	1.238 Abs [1.2450] {0.8 C	0.029 µg/L [0.023]	Low, 97.866 %Abs		0.300 - 5.000	P23C058E
AC00572	MICROCYSTINS ADDA 54	1.225 Abs	0.038 µg/L	Low, 96.838 %Abs		0.300 - 5.000	P23C058E
AC00572	MICROCYSTINS ADDA 54	1.209 Abs [1.2170] {0.9 C	0.050 µg/L [0.044]	Low, 95.573 %Abs		0.300 - 5.000	P23C058E
AC00573	MICROCYSTINS ADDA 54	0.983 Abs	0.209 µg/L	Low, 77.708 %Abs		0.300 - 5.000	P23C058E
AC00573	MICROCYSTINS ADDA 54	1.106 Abs [1.0445] {8.3 C	0.119 µg/L [0.164]	Low, 87.431 %Abs		0.300 - 5.000	P23C058E
AC00574	MICROCYSTINS ADDA 54	1.179 Abs	0.070 µg/L	Low, 93.202 %Abs		0.300 - 5.000	P23C058E
AC00574	MICROCYSTINS ADDA 54	1.231 Abs [1.2050] {3.1 C	0.034 µg/L [0.052]	Low, 97.312 %Abs		0.300 - 5.000	P23C058E
AC00575	MICROCYSTINS ADDA 54	1.254 Abs	0.016 µg/L	Low, 99.130 %Abs		0.300 - 5.000	P23C058E
AC00575	MICROCYSTINS ADDA 54	1.213 Abs [1.2335] {2.4 C	0.047 µg/L [0.032]	Low, 95.889 %Abs		0.300 - 5.000	P23C058E
AC00575MS	MICROCYSTINS ADDA 54	0.675 Abs	0.552 µg/L	53.360 %Abs		0.300 - 5.000	P23C058E
AC00575MS	MICROCYSTINS ADDA 54	0.668 Abs [0.6715] {0.7 C	0.564 µg/L [0.558]	52.806 %Abs [53.0		0.300 - 5.000	P23C058E
AC00575MSD	MICROCYSTINS ADDA 54	0.657 Abs	0.583 µg/L	51.937 %Abs		0.300 - 5.000	P23C058E
AC00575MSD	MICROCYSTINS ADDA 54	0.592 Abs [0.6245] {7.4 C	0.712 µg/L [0.648]	46.798 %Abs [49.3		0.300 - 5.000	P23C058E
AC00576	MICROCYSTINS ADDA 54	1.133 Abs	0.101 µg/L	Low, 89.565 %Abs		0.300 - 5.000	P23C058E
AC00576	MICROCYSTINS ADDA 54	1.173 Abs [1.1530] {2.5 C	0.074 µg/L [0.088]	Low, 92.727 %Abs		0.300 - 5.000	P23C058E
AC00577	MICROCYSTINS ADDA 54	1.158 Abs	0.084 µg/L	Low, 91.542 %Abs		0.300 - 5.000	P23C058E
AC00577	MICROCYSTINS ADDA 54	1.141 Abs [1.1495] {1.0 C	0.096 µg/L [0.090]	Low, 90.198 %Abs		0.300 - 5.000	P23C058E
AC00578	MICROCYSTINS ADDA 54	1.233 Abs	0.032 µg/L	Low, 97.470 %Abs		0.300 - 5.000	P23C058E
AC00578	MICROCYSTINS ADDA 54	1.230 Abs [1.2315] {0.2 C	0.035 µg/L [0.034]	Low, 97.233 %Abs		0.300 - 5.000	P23C058E
AC00579	MICROCYSTINS ADDA 54	1.222 Abs	0.040 µg/L	Low, 96.601 %Abs		0.300 - 5.000	P23C058E
AC00579	MICROCYSTINS ADDA 54	1.159 Abs [1.1905] {3.7 C	0.084 µg/L [0.062]	Low, 91.621 %Abs		0.300 - 5.000	P23C058E
AC00570	MICROCYSTINS ADDA 54	1.220 Abs	0.042 µg/L	Low, 96.443 %Abs		0.300 - 5.000	P23C058E
AC00570	MICROCYSTINS ADDA 54	1.241 Abs [1.2305] {1.2 C	0.026 µg/L [0.034]	Low, 98.103 %Abs		0.300 - 5.000	P23C058E
AC00571	MICROCYSTINS ADDA 54	1.261 Abs	0.009 µg/L	Low, 99.684 %Abs		0.300 - 5.000	P23C058E
AC00571	MICROCYSTINS ADDA 54	1.240 Abs [1.2505] {1.2 C	0.027 µg/L [0.018]	Low, 98.024 %Abs		0.300 - 5.000	P23C058E
AC00582	MICROCYSTINS ADDA 54	1.163 Abs	0.081 µg/L	Low, 91.937 %Abs		0.300 - 5.000	P23C058E
AC00582	MICROCYSTINS ADDA 54	1.154 Abs [1.1585] {0.5 C	0.087 µg/L [0.084]	Low, 91.225 %Abs		0.300 - 5.000	P23C058E
AC00583	MICROCYSTINS ADDA 54	1.221 Abs	0.041 µg/L	Low, 96.522 %Abs		0.300 - 5.000	P23C058E
AC00583	MICROCYSTINS ADDA 54	1.170 Abs [1.1955] {3.0 C	0.076 µg/L [0.058]	Low, 92.490 %Abs		0.300 - 5.000	P23C058E
AC02941	MICROCYSTINS ADDA 54	1.254 Abs	0.016 µg/L	Low, 99.130 %Abs		0.300 - 5.000	P23C058E
AC02941	MICROCYSTINS ADDA 54	1.254 Abs [1.2540] {0.0 C	0.016 µg/L [0.016]	Low, 99.130 %Abs		0.300 - 5.000	P23C058E
LFB 2	MICROCYSTINS ADDA 54	0.702 Abs	0.509 µg/L	55.494 %Abs		0.300 - 5.000	P23C058E
LFB 2	MICROCYSTINS ADDA 54	0.680 Abs [0.6910] {2.3 C	0.544 µg/L [0.526]	53.755 %Abs [54.6		0.300 - 5.000	P23C058E
LRB 2	MICROCYSTINS ADDA 54	1.269 Abs	0.000 µg/L	Low, 100.316 %Abs		0.300 - 5.000	P23C058E
LRB 2	MICROCYSTINS ADDA 54	1.239 Abs [1.2540] {1.7 C	0.028 µg/L [0.014]	Low, 97.945 %Abs		0.300 - 5.000	P23C058E

Note

Signature *David Jordan*

David Jordan 5/25/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 5/25/2023 4:19:11 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: P23C0589

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
5/25/2023 3:47:22 PM				
MCT Std 0	1.260 Abs	0.010 µg/L	R ² =0.99908, 99.605 %Abs	RK1:23->A01@2
MCT Std 0	1.269 Abs [1.2645] {0.5 CV}	0.000 µg/L [0.005] {141.4 CV}	R ² =0.99908, 100.316 %Abs	RK1:23->B01@2
MCT Std 1	1.080 Abs	0.137 µg/L	R ² =0.99908, 85.375 %Abs	RK1:24->C01@2
MCT Std 1	1.062 Abs [1.0710] {1.2 CV}	0.150 µg/L [0.144] {6.4 CV}	R ² =0.99908, 83.953 %Abs	RK1:24->D01@2
MCT Std 2	0.794 Abs	0.388 µg/L	R ² =0.99908, 62.767 %Abs	RK1:25->E01@2
MCT Std 2	0.758 Abs [0.7760] {3.3 CV}	0.432 µg/L [0.410] {7.6 CV}	R ² =0.99908, 59.921 %Abs	RK1:25->F01@3
MCT Std 3	0.493 Abs	0.996 µg/L	R ² =0.99908, 38.972 %Abs	RK1:26->G01@3
MCT Std 3	0.477 Abs [0.4850] {2.3 CV}	1.057 µg/L [1.026] {4.2 CV}	R ² =0.99908, 37.708 %Abs	RK1:26->H01@3
MCT Std 4	0.364 Abs	1.768 µg/L	R ² =0.99908, 28.775 %Abs	RK1:27->A02@2
MCT Std 4	0.365 Abs [0.3645] {0.2 CV}	1.758 µg/L [1.763] {0.4 CV}	R ² =0.99908, 28.854 %Abs	RK1:27->B02@2
MCT Std 5	0.240 Abs	> 5.000 µg/L	18.972 %Abs	RK1:28->C02@2
MCT Std 5	0.231 Abs [0.2355] {2.7 CV}	> 5.000 µg/L	18.261 %Abs	RK1:28->D02@2

5/25/2023 3:47:22 PM				
MCT 546 LRB 1	1.261 Abs	0.009 µg/L	99.684 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.236 Abs [1.2485] {1.4 CV}	0.030 µg/L [0.019] {76.1 CV}	97.708 %Abs [98.696 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.848 Abs	0.329 µg/L	67.036 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.813 Abs [0.8305] {3.0 CV}	0.367 µg/L [0.348] {7.7 CV}	64.269 %Abs [65.652 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.689 Abs	0.529 µg/L	54.466 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.683 Abs [0.6860] {0.6 CV}	0.539 µg/L [0.534] {1.3 CV}	53.992 %Abs [54.229 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.2645	0.0050		
MCT Std 0 [SD]	0.0064	0.0071		
MCT Std 0 [%CV]	0.5033	141.4214		
MCT Std 1 [MEAN]	1.0710	0.1435		
MCT Std 1 [SD]	0.0127	0.0092		
MCT Std 1 [%CV]	1.1884	6.4059		
MCT Std 1 [%DIFF]		-4.3333		
MCT Std 2 [MEAN]	0.7760	0.4100		
MCT Std 2 [SD]	0.0255	0.0311		
MCT Std 2 [%CV]	3.2804	7.5885		
MCT Std 2 [%DIFF]		2.5000		
MCT Std 3 [MEAN]	0.4850	1.0265		
MCT Std 3 [SD]	0.0113	0.0431		
MCT Std 3 [%CV]	2.3327	4.2020		
MCT Std 3 [%DIFF]		2.6500		
MCT Std 4 [MEAN]	0.3645	1.7630		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0007	0.0071		
MCT Std 4 [%CV]	0.1940	0.4011		
MCT Std 4 [%DIFF]		-11.8500		
MCT Std 5 [MEAN]	0.2355			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	2.7023			
MCT 546 LRB 1 [MEAN]	1.2485	0.0195		
MCT 546 LRB 1 [SD]	0.0177	0.0148		
MCT 546 LRB 1 [%CV]	1.4159	76.1500		
MCT 546 Low-CV [MEAN]	0.8305	0.3480		
MCT 546 Low-CV [SD]	0.0247	0.0269		
MCT 546 Low-CV [%CV]	2.9800	7.7213		
MCT 546 LFB 1 [MEAN]	0.6860	0.5340		
MCT 546 LFB 1 [SD]	0.0042	0.0071		
MCT 546 LFB 1 [%CV]	0.6185	1.3242		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2683
 B = 1.2666
 C = 0.46517
 D = 0.19732
 R2 coef = 0.99908
 50% = 0.628

