



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40789	Pokagon SP - Main Beach	7/15/2024	7/18/2024	< 0.30
AC40790	Pokagon SP - Potawatomi Inn Beach	7/15/2024	7/18/2024	< 0.30
AC40791	Chain O'Lakes SP - Sand Lake Beach	7/15/2024	7/18/2024	< 0.30
AC40792	Ouabache SP - Kunkel Lake Beach	7/15/2024	7/18/2024	< 0.30
AC40793	Potato Creek SP - Worster Lake Beach	7/16/2024	7/18/2024	< 0.30
AC40794	Mississinewa Lake - Miami SRA Beach	7/16/2024	7/18/2024	< 0.30
AC40795	Salamonie Lake - Lost Bridge West SRA Beach	7/16/2024	7/18/2024	< 0.30
AC40796	Summit Lake SP - Summit Lake Beach	7/16/2024	7/18/2024	< 0.30
AC40797	Potato Creek SP - Worster Lake Beach (Field Duplicate)	7/16/2024	7/18/2024	< 0.30
AC40798	Field Blank	7/16/2024	7/18/2024	< 0.30
AC40799	Ferdinand State Forest - Ferdinand Lake Beach	7/15/2024	7/18/2024	< 0.30
AC40800	Lincoln SP - Lake Lincoln Beach	7/15/2024	7/18/2024	< 0.30
AC40801	Patoka Lake - Newton Stewart SRA	7/15/2024	7/18/2024	< 0.30

Test Report (by Request)

Test Information

Request: 7/18/2024 12:31:32 PM
 Date: 7/18/2024 - 7/18/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.161 Abs	0.018 µg/L	R^2=0.99946, 98.3%		0.000	Kit:240440
MCT Std 0	MICROCYSTINS ADDA 54	1.198 Abs [1.1795] {2.2 C	0.000 µg/L [0.009]	R^2=0.99946, 101.5%		0.000	Kit:240440
MCT Std 1	MICROCYSTINS ADDA 54	1.005 Abs	0.134 µg/L	R^2=0.99946, 85.1%		0.150	Kit:240440
MCT Std 1	MICROCYSTINS ADDA 54	0.984 Abs [0.9945] {1.5 C	0.151 µg/L [0.143]	R^2=0.99946, 83.3%		0.150	Kit:240440
MCT Std 2	MICROCYSTINS ADDA 54	0.753 Abs	0.401 µg/L	R^2=0.99946, 63.8%		0.400	Kit:240440
MCT Std 2	MICROCYSTINS ADDA 54	0.732 Abs [0.7425] {2.0 C	0.432 µg/L [0.417]	R^2=0.99946, 62.0%		0.400	Kit:240440
MCT Std 3	MICROCYSTINS ADDA 54	0.475 Abs	1.107 µg/L	R^2=0.99946, 40.2%		1.000	Kit:240440
MCT Std 3	MICROCYSTINS ADDA 54	0.525 Abs [0.5000] {7.1 C	0.906 µg/L [1.007]	R^2=0.99946, 44.4%		1.000	Kit:240440
MCT Std 4	MICROCYSTINS ADDA 54	0.358 Abs	1.957 µg/L	R^2=0.99946, 30.3%		2.000	Kit:240440
MCT Std 4	MICROCYSTINS ADDA 54	0.371 Abs [0.3645] {2.5 C	1.817 µg/L [1.887]	R^2=0.99946, 31.4%		2.000	Kit:240440
MCT Std 5	MICROCYSTINS ADDA 54	0.241 Abs	> 5.000 µg/L	20.424 %Abs		5.000	Kit:240440
MCT Std 5	MICROCYSTINS ADDA 54	0.239 Abs [0.2400] {0.6 C	> 5.000 µg/L	20.254 %Abs		5.000	Kit:240440
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.154 Abs	0.023 µg/L	97.797 %Abs			Kit:240440
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.159 Abs [1.1565] {0.3 C	0.020 µg/L [0.022]	98.220 %Abs [98.0			Kit:240440
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.817 Abs	0.317 µg/L	69.237 %Abs			Kit:240440
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.822 Abs [0.8195] {0.4 C	0.311 µg/L [0.314]	69.661 %Abs [69.4			Kit:240440
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.679 Abs	0.520 µg/L	57.542 %Abs			Kit:240440
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.704 Abs [0.6915] {2.6 C	0.477 µg/L [0.499]	59.661 %Abs [58.6			Kit:240440

Note

Signature _____

* 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) 7/18/2024 4:46:19 PM

Test Report (by Request)

Test Information

Request: 7/18/2024 12:32:49 PM
Date: 7/18/2024 - 7/18/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC40789	MICROCYSTINS ADDA 54	1.121 Abs	0.047 µg/L	Low, 95.000 %Abs		0.300 - 5.000	Kit:24044C
AC40789	MICROCYSTINS ADDA 54	1.119 Abs [1.1200] {0.1 C	0.049 µg/L [0.048]			0.300 - 5.000	Kit:24044C
AC40790	MICROCYSTINS ADDA 54	1.062 Abs	0.090 µg/L	Low, 90.000 %Abs		0.300 - 5.000	Kit:24044C
AC40790	MICROCYSTINS ADDA 54	1.057 Abs [1.0595] {0.3 C	0.094 µg/L [0.092]			0.300 - 5.000	Kit:24044C
AC40791	MICROCYSTINS ADDA 54	1.105 Abs	0.059 µg/L	Low, 93.644 %Abs		0.300 - 5.000	Kit:24044C
AC40791	MICROCYSTINS ADDA 54	1.074 Abs [1.0895] {2.0 C	0.081 µg/L [0.070]			0.300 - 5.000	Kit:24044C
AC40792	MICROCYSTINS ADDA 54	1.110 Abs	0.055 µg/L	Low, 94.068 %Abs		0.300 - 5.000	Kit:24044C
AC40792	MICROCYSTINS ADDA 54	1.134 Abs [1.1220] {1.5 C	0.038 µg/L [0.047]			0.300 - 5.000	Kit:24044C
AC40793	MICROCYSTINS ADDA 54	1.130 Abs	0.041 µg/L	Low, 95.763 %Abs		0.300 - 5.000	Kit:24044C
AC40793	MICROCYSTINS ADDA 54	1.118 Abs [1.1240] {0.8 C	0.049 µg/L [0.045]			0.300 - 5.000	Kit:24044C
AC40794	MICROCYSTINS ADDA 54	1.042 Abs	0.105 µg/L	Low, 88.305 %Abs		0.300 - 5.000	Kit:24044C
AC40794	MICROCYSTINS ADDA 54	1.026 Abs [1.0340] {1.1 C	0.118 µg/L [0.112]			0.300 - 5.000	Kit:24044C
AC40794MS	MICROCYSTINS ADDA 54	0.603 Abs	0.680 µg/L	51.102 %Abs		0.300 - 5.000	Kit:24044C
AC40794MS	MICROCYSTINS ADDA 54	0.609 Abs [0.6060] {0.7 C	0.665 µg/L [0.673]	51.610 %Abs [51.3		0.300 - 5.000	Kit:24044C
AC40794MSD	MICROCYSTINS ADDA 54	0.605 Abs	0.675 µg/L	51.271 %Abs		0.300 - 5.000	Kit:24044C
AC40794MSD	MICROCYSTINS ADDA 54	0.630 Abs [0.6175] {2.9 C	0.618 µg/L [0.647]	53.390 %Abs [52.3		0.300 - 5.000	Kit:24044C
AC40795	MICROCYSTINS ADDA 54	1.046 Abs	0.102 µg/L	Low, 88.644 %Abs		0.300 - 5.000	Kit:24044C
AC40795	MICROCYSTINS ADDA 54	1.032 Abs [1.0390] {1.0 C	0.113 µg/L [0.108]			0.300 - 5.000	Kit:24044C
AC40796	MICROCYSTINS ADDA 54	1.104 Abs	0.059 µg/L	Low, 93.559 %Abs		0.300 - 5.000	Kit:24044C
AC40796	MICROCYSTINS ADDA 54	1.136 Abs [1.1200] {2.0 C	0.037 µg/L [0.048]			0.300 - 5.000	Kit:24044C
AC40797	MICROCYSTINS ADDA 54	1.051 Abs	0.098 µg/L	Low, 89.068 %Abs		0.300 - 5.000	Kit:24044C
AC40797	MICROCYSTINS ADDA 54	1.017 Abs [1.0340] {2.3 C	0.125 µg/L [0.112]			0.300 - 5.000	Kit:24044C
AC40798	MICROCYSTINS ADDA 54	1.178 Abs	0.005 µg/L	Low, 99.831 %Abs		0.300 - 5.000	Kit:24044C
AC40798	MICROCYSTINS ADDA 54	1.193 Abs [1.1855] {0.9 C	0.000 µg/L [0.003]			0.300 - 5.000	Kit:24044C
AC40799	MICROCYSTINS ADDA 54	1.091 Abs	0.069 µg/L	Low, 92.458 %Abs		0.300 - 5.000	Kit:24044C
AC40799	MICROCYSTINS ADDA 54	1.118 Abs [1.1045] {1.7 C	0.049 µg/L [0.059]			0.300 - 5.000	Kit:24044C
AC40800	MICROCYSTINS ADDA 54	1.075 Abs	0.081 µg/L	Low, 91.102 %Abs		0.300 - 5.000	Kit:24044C
AC40800	MICROCYSTINS ADDA 54	1.044 Abs [1.0595] {2.1 C	0.104 µg/L [0.093]			0.300 - 5.000	Kit:24044C
AC40801	MICROCYSTINS ADDA 54	0.977 Abs	0.157 µg/L	Low, 82.797 %Abs		0.300 - 5.000	Kit:24044C
AC40801	MICROCYSTINS ADDA 54	0.991 Abs [0.9840] {1.0 C	0.146 µg/L [0.152]			0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.684 Abs	0.511 µg/L	57.966 %Abs		0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.691 Abs [0.6875] {0.7 C	0.499 µg/L [0.505]	58.559 %Abs [58.2		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.185 Abs	0.000 µg/L	Low, 100.424 %Abs		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.189 Abs [1.1870] {0.2 C	0.000 µg/L [0.000]			0.300 - 5.000	Kit:24044C

Note

Signature _____

Charles Hostetter 7/19/2024

* 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) 7/18/2024 4:46:19 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:2404401378

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
7/18/2024 12:31:32 PM				
MCT Std 0	1.161 Abs	0.018 µg/L	R ² =0.99946, 98.390 %Abs	RK1:23->A01@2
MCT Std 0	1.198 Abs [1.1795] {2.2 CV}	0.000 µg/L [0.009] {141.4 CV}	R ² =0.99946, 101.525 %Abs	RK1:23->B01@2
MCT Std 1	1.005 Abs	0.134 µg/L	R ² =0.99946, 85.169 %Abs	RK1:24->C01@2
MCT Std 1	0.984 Abs [0.9945] {1.5 CV}	0.151 µg/L [0.143] {8.4 CV}	R ² =0.99946, 83.390 %Abs	RK1:24->D01@2
MCT Std 2	0.753 Abs	0.401 µg/L	R ² =0.99946, 63.814 %Abs	RK1:25->E01@2
MCT Std 2	0.732 Abs [0.7425] {2.0 CV}	0.432 µg/L [0.417] {5.3 CV}	R ² =0.99946, 62.034 %Abs	RK1:25->F01@3
MCT Std 3	0.475 Abs	1.107 µg/L	R ² =0.99946, 40.254 %Abs	RK1:26->G01@3
MCT Std 3	0.525 Abs [0.5000] {7.1 CV}	0.906 µg/L [1.007] {14.1 CV}	R ² =0.99946, 44.492 %Abs	RK1:26->H01@3
MCT Std 4	0.358 Abs	1.957 µg/L	R ² =0.99946, 30.339 %Abs	RK1:27->A02@2
MCT Std 4	0.371 Abs [0.3645] {2.5 CV}	1.817 µg/L [1.887] {5.2 CV}	R ² =0.99946, 31.441 %Abs	RK1:27->B02@2
MCT Std 5	0.241 Abs	> 5.000 µg/L	20.424 %Abs	RK1:28->C02@2
MCT Std 5	0.239 Abs [0.2400] {0.6 CV}	> 5.000 µg/L	20.254 %Abs	RK1:28->D02@2

7/18/2024 12:31:32 PM				
MCT 546 LRB 1	1.154 Abs	0.023 µg/L	97.797 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.159 Abs [1.1565] {0.3 CV}	0.020 µg/L [0.022] {9.9 CV}	98.220 %Abs [98.008 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.817 Abs	0.317 µg/L	69.237 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.822 Abs [0.8195] {0.4 CV}	0.311 µg/L [0.314] {1.4 CV}	69.661 %Abs [69.449 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.679 Abs	0.520 µg/L	57.542 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.704 Abs [0.6915] {2.6 CV}	0.477 µg/L [0.499] {6.1 CV}	59.661 %Abs [58.602 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1795	0.0090		
MCT Std 0 [SD]	0.0262	0.0127		
MCT Std 0 [%CV]	2.2181	141.4214		
MCT Std 1 [MEAN]	0.9945	0.1425		
MCT Std 1 [SD]	0.0148	0.0120		
MCT Std 1 [%CV]	1.4931	8.4357		
MCT Std 1 [%DIFF]		-5.0000		
MCT Std 2 [MEAN]	0.7425	0.4165		
MCT Std 2 [SD]	0.0148	0.0219		
MCT Std 2 [%CV]	1.9999	5.2630		
MCT Std 2 [%DIFF]		4.1250		
MCT Std 3 [MEAN]	0.5000	1.0065		
MCT Std 3 [SD]	0.0354	0.1421		
MCT Std 3 [%CV]	7.0711	14.1211		
MCT Std 3 [%DIFF]		0.6500		
MCT Std 4 [MEAN]	0.3645	1.8870		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0092	0.0990		
MCT Std 4 [%CV]	2.5219	5.2462		
MCT Std 4 [%DIFF]		-5.6500		
MCT Std 5 [MEAN]	0.2400			
MCT Std 5 [SD]	0.0014			
MCT Std 5 [%CV]	0.5893			
MCT 546 LRB 1 [MEAN]	1.1565	0.0215		
MCT 546 LRB 1 [SD]	0.0035	0.0021		
MCT 546 LRB 1 [%CV]	0.3057	9.8666		
MCT 546 Low-CV [MEAN]	0.8195	0.3140		
MCT 546 Low-CV [SD]	0.0035	0.0042		
MCT 546 Low-CV [%CV]	0.4314	1.3512		
MCT 546 LFB 1 [MEAN]	0.6915	0.4985		
MCT 546 LFB 1 [SD]	0.0177	0.0304		
MCT 546 LFB 1 [%CV]	2.5564	6.0994		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1828
 B = 1.1371
 C = 0.52015
 D = 0.17516
 R2 coef = 0.99946
 50% = 0.712

