



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40371	Cecil M. Harden Lake - Raccoon Lake SRA Beach	6/10/2024	6/13/2024	< 0.30
AC40372	Cagles Mill Lake - Lieber SRA Beach	6/10/2024	6/13/2024	< 0.30
AC40373	Monroe Lake - Fairfax SRA Beach	6/10/2024	6/13/2024	< 0.30
AC40374	Monroe Lake - Paynetown SRA Beach	6/10/2024	6/13/2024	< 0.30
AC40375	Starve Hollow SRA - Starve Hollow Lake Beach	6/10/2024	6/13/2024	< 0.30
AC40376	Whitewater Memorial SP - Whitewater Lake Beach	6/11/2024	6/13/2024	< 0.30
AC40377	Brookville Lake - Quakertown SRA Beach	6/11/2024	6/13/2024	< 0.30
AC40378	Brookville Lake - Mounds SRA Beach	6/11/2024	6/13/2024	< 0.30
AC40379	Hardy Lake SRA - Hardy Lake SRA Beach	6/11/2024	6/13/2024	< 0.30
AC40380	Deam Lake SRA - Deam Lake Beach	6/11/2024	6/13/2024	< 0.30
AC40381	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	6/11/2024	6/13/2024	< 0.30
AC40382	Field Blank	6/10/2024	6/13/2024	< 0.30
AC40383	Ft. Ben Harrison SP Dog Lake	6/10/2024	6/13/2024	< 0.30

Test Report (by Request)

Test Information

Request: 6/13/2024 3:35:09 PM
Date: 6/13/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.381 Abs	0.019 µg/L	R^2=0.99863, 98.78		0.000	Kit:24044
MCT Std 0	MICROCYSTINS ADDA 54	1.414 Abs [1.3975] {1.7 C	0.000 µg/L [0.010]	R^2=0.99863, 101.1		0.000	Kit:24044
MCT Std 1	MICROCYSTINS ADDA 54	1.223 Abs	0.121 µg/L	R^2=0.99863, 87.48		0.150	Kit:24044
MCT Std 1	MICROCYSTINS ADDA 54	1.174 Abs [1.1985] {2.9 C	0.154 µg/L [0.138]	R^2=0.99863, 83.97		0.150	Kit:24044
MCT Std 2	MICROCYSTINS ADDA 54	0.891 Abs	0.409 µg/L	R^2=0.99863, 63.73		0.400	Kit:24044
MCT Std 2	MICROCYSTINS ADDA 54	0.860 Abs [0.8755] {2.5 C	0.448 µg/L [0.429]	R^2=0.99863, 61.51		0.400	Kit:24044
MCT Std 3	MICROCYSTINS ADDA 54	0.589 Abs	1.003 µg/L	R^2=0.99863, 42.13		1.000	Kit:24044
MCT Std 3	MICROCYSTINS ADDA 54	0.600 Abs [0.5945] {1.3 C	0.967 µg/L [0.985]	R^2=0.99863, 42.91		1.000	Kit:24044
MCT Std 4	MICROCYSTINS ADDA 54	0.413 Abs	2.043 µg/L	R^2=0.99863, 29.54		2.000	Kit:24044
MCT Std 4	MICROCYSTINS ADDA 54	0.452 Abs [0.4325] {6.4 C	1.691 µg/L [1.867]	R^2=0.99863, 32.33		2.000	Kit:24044
MCT Std 5	MICROCYSTINS ADDA 54	0.278 Abs	> 5.000 µg/L	19.886 %Abs		5.000	Kit:24044
MCT Std 5	MICROCYSTINS ADDA 54	0.287 Abs [0.2825] {2.3 C	> 5.000 µg/L	20.529 %Abs		5.000	Kit:24044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.339 Abs	0.046 µg/L	95.780 %Abs			Kit:24044
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.374 Abs [1.3565] {1.8 C	0.023 µg/L [0.035]	98.283 %Abs [97.0			Kit:24044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.959 Abs	0.334 µg/L	68.598 %Abs			Kit:24044
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.971 Abs [0.9650] {0.9 C	0.322 µg/L [0.328]	69.456 %Abs [69.0			Kit:24044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.794 Abs	0.541 µg/L	56.795 %Abs			Kit:24044
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.827 Abs [0.8105] {2.9 C	0.492 µg/L [0.517]	59.156 %Abs [57.9			Kit:24044

Note

Signature

Charles Hostetter 6/13/2024

* 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) 6/13/2024 4:00:24 PM

Test Report (by Request)

Test Information

Request: 6/13/2024 3:36:23 PM
Date: 6/13/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
QCS 546	MICROCYSTINS ADDA 54	0.789 Abs	0.548 µg/L	56.438 %Abs		0.300 - 5.000	Kit:24044C
QCS 546	MICROCYSTINS ADDA 54	0.779 Abs [0.7840] {0.9 C	0.564 µg/L [0.556]	55.722 %Abs [56.0		0.300 - 5.000	Kit:24044C
AC40371	MICROCYSTINS ADDA 54	1.264 Abs	0.094 µg/L	Low, 90.415 %Abs		0.300 - 5.000	Kit:24044C
AC40371	MICROCYSTINS ADDA 54	1.237 Abs [1.2505] {1.5 C	0.111 µg/L [0.103]	Low, 88.484 %Abs		0.300 - 5.000	Kit:24044C
AC40372	MICROCYSTINS ADDA 54	1.297 Abs	0.073 µg/L	Low, 92.775 %Abs		0.300 - 5.000	Kit:24044C
AC40372	MICROCYSTINS ADDA 54	1.245 Abs [1.2710] {2.9 C	0.106 µg/L [0.090]	Low, 89.056 %Abs		0.300 - 5.000	Kit:24044C
AC40373	MICROCYSTINS ADDA 54	1.298 Abs	0.072 µg/L	Low, 92.847 %Abs		0.300 - 5.000	Kit:24044C
AC40373	MICROCYSTINS ADDA 54	1.404 Abs [1.3510] {5.5 C	0.000 µg/L [0.036]	Low, 100.429 %Abs		0.300 - 5.000	Kit:24044C
AC40374	MICROCYSTINS ADDA 54	1.362 Abs	0.031 µg/L	Low, 97.425 %Abs		0.300 - 5.000	Kit:24044C
AC40374	MICROCYSTINS ADDA 54	1.330 Abs [1.3460] {1.7 C	0.052 µg/L [0.042]	Low, 95.136 %Abs		0.300 - 5.000	Kit:24044C
AC40375	MICROCYSTINS ADDA 54	1.330 Abs	0.052 µg/L	Low, 95.136 %Abs		0.300 - 5.000	Kit:24044C
AC40375	MICROCYSTINS ADDA 54	1.325 Abs [1.3275] {0.3 C	0.055 µg/L [0.054]	Low, 94.778 %Abs		0.300 - 5.000	Kit:24044C
AC40376	MICROCYSTINS ADDA 54	1.229 Abs	0.117 µg/L	Low, 87.911 %Abs		0.300 - 5.000	Kit:24044C
AC40376	MICROCYSTINS ADDA 54	1.231 Abs [1.2300] {0.1 C	0.115 µg/L [0.116]	Low, 88.054 %Abs		0.300 - 5.000	Kit:24044C
AC40377	MICROCYSTINS ADDA 54	1.244 Abs	0.107 µg/L	Low, 88.984 %Abs		0.300 - 5.000	Kit:24044C
AC40377	MICROCYSTINS ADDA 54	1.337 Abs [1.2905] {5.1 C	0.048 µg/L [0.078]	Low, 95.637 %Abs		0.300 - 5.000	Kit:24044C
AC40377MS	MICROCYSTINS ADDA 54	0.723 Abs	0.663 µg/L	51.717 %Abs		0.300 - 5.000	Kit:24044C
AC40377MS	MICROCYSTINS ADDA 54	0.721 Abs [0.7220] {0.2 C	0.667 µg/L [0.665]	51.574 %Abs [51.6		0.300 - 5.000	Kit:24044C
AC40377MSD	MICROCYSTINS ADDA 54	0.669 Abs	0.779 µg/L	47.854 %Abs		0.300 - 5.000	Kit:24044C
AC40377MSD	MICROCYSTINS ADDA 54	0.715 Abs [0.6920] {4.7 C	0.679 µg/L [0.729]	51.144 %Abs [49.4		0.300 - 5.000	Kit:24044C
AC40378	MICROCYSTINS ADDA 54	1.302 Abs	0.070 µg/L	Low, 93.133 %Abs		0.300 - 5.000	Kit:24044C
AC40378	MICROCYSTINS ADDA 54	1.265 Abs [1.2835] {2.0 C	0.093 µg/L [0.082]	Low, 90.486 %Abs		0.300 - 5.000	Kit:24044C
AC40379	MICROCYSTINS ADDA 54	1.276 Abs	0.086 µg/L	Low, 91.273 %Abs		0.300 - 5.000	Kit:24044C
AC40379	MICROCYSTINS ADDA 54	1.340 Abs [1.3080] {3.5 C	0.046 µg/L [0.066]	Low, 95.851 %Abs		0.300 - 5.000	Kit:24044C
AC40380	MICROCYSTINS ADDA 54	1.344 Abs	0.043 µg/L	Low, 96.137 %Abs		0.300 - 5.000	Kit:24044C
AC40380	MICROCYSTINS ADDA 54	1.331 Abs [1.3375] {0.7 C	0.051 µg/L [0.047]	Low, 95.207 %Abs		0.300 - 5.000	Kit:24044C
AC40381	MICROCYSTINS ADDA 54	1.163 Abs	0.162 µg/L	Low, 83.190 %Abs		0.300 - 5.000	Kit:24044C
AC40381	MICROCYSTINS ADDA 54	1.168 Abs [1.1655] {0.3 C	0.158 µg/L [0.160]	Low, 83.548 %Abs		0.300 - 5.000	Kit:24044C
AC40382	MICROCYSTINS ADDA 54	1.341 Abs	0.045 µg/L	Low, 95.923 %Abs		0.300 - 5.000	Kit:24044C
AC40382	MICROCYSTINS ADDA 54	1.330 Abs [1.3355] {0.6 C	0.052 µg/L [0.049]	Low, 95.136 %Abs		0.300 - 5.000	Kit:24044C
AC40383	MICROCYSTINS ADDA 54	1.334 Abs	0.049 µg/L	Low, 95.422 %Abs		0.300 - 5.000	Kit:24044C
AC40383	MICROCYSTINS ADDA 54	1.375 Abs [1.3545] {2.1 C	0.023 µg/L [0.036]	Low, 98.355 %Abs		0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.784 Abs	0.556 µg/L	56.080 %Abs		0.300 - 5.000	Kit:24044C
LFB 2	MICROCYSTINS ADDA 54	0.802 Abs [0.7930] {1.6 C	0.528 µg/L [0.542]	57.368 %Abs [56.7		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.327 Abs	0.054 µg/L	Low, 94.921 %Abs		0.300 - 5.000	Kit:24044C
LRB 2	MICROCYSTINS ADDA 54	1.311 Abs [1.3190] {0.9 C	0.064 µg/L [0.059]	Low, 93.777 %Abs		0.300 - 5.000	Kit:24044C

Note

Signature 
Charles Hostetter 6/13/2024

* 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) 6/13/2024 4:00:24 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
6/13/2024 3:35:09 PM				
MCT Std 0	1.381 Abs	0.019 µg/L	R ² =0.99863, 98.784 %Abs	RK1:23->A01@2
MCT Std 0	1.414 Abs [1.3975] {1.7 CV}	0.000 µg/L [0.010] {141.4 CV}	R ² =0.99863, 101.144 %Abs	RK1:23->B01@2
MCT Std 1	1.223 Abs	0.121 µg/L	R ² =0.99863, 87.482 %Abs	RK1:24->C01@2
MCT Std 1	1.174 Abs [1.1985] {2.9 CV}	0.154 µg/L [0.138] {17.0 CV}	R ² =0.99863, 83.977 %Abs	RK1:24->D01@2
MCT Std 2	0.891 Abs	0.409 µg/L	R ² =0.99863, 63.734 %Abs	RK1:25->E01@2
MCT Std 2	0.860 Abs [0.8755] {2.5 CV}	0.448 µg/L [0.429] {6.4 CV}	R ² =0.99863, 61.516 %Abs	RK1:25->F01@3
MCT Std 3	0.589 Abs	1.003 µg/L	R ² =0.99863, 42.132 %Abs	RK1:26->G01@3
MCT Std 3	0.600 Abs [0.5945] {1.3 CV}	0.967 µg/L [0.985] {2.6 CV}	R ² =0.99863, 42.918 %Abs	RK1:26->H01@3
MCT Std 4	0.413 Abs	2.043 µg/L	R ² =0.99863, 29.542 %Abs	RK1:27->A02@2
MCT Std 4	0.452 Abs [0.4325] {6.4 CV}	1.691 µg/L [1.867] {13.3 CV}	R ² =0.99863, 32.332 %Abs	RK1:27->B02@2
MCT Std 5	0.278 Abs	> 5.000 µg/L	19.886 %Abs	RK1:28->C02@2
MCT Std 5	0.287 Abs [0.2825] {2.3 CV}	> 5.000 µg/L	20.529 %Abs	RK1:28->D02@2

6/13/2024 3:35:09 PM				
MCT 546 LRB 1	1.339 Abs	0.046 µg/L	95.780 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.374 Abs [1.3565] {1.8 CV}	0.023 µg/L [0.035] {47.1 CV}	98.283 %Abs [97.031 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.959 Abs	0.334 µg/L	68.598 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.971 Abs [0.9650] {0.9 CV}	0.322 µg/L [0.328] {2.6 CV}	69.456 %Abs [69.027 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.794 Abs	0.541 µg/L	56.795 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.827 Abs [0.8105] {2.9 CV}	0.492 µg/L [0.517] {6.7 CV}	59.156 %Abs [57.976 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.3975	0.0095		
MCT Std 0 [SD]	0.0233	0.0134		
MCT Std 0 [%CV]	1.6697	141.4214		
MCT Std 1 [MEAN]	1.1985	0.1375		
MCT Std 1 [SD]	0.0346	0.0233		
MCT Std 1 [%CV]	2.8910	16.9706		
MCT Std 1 [%DIFF]		-8.3333		
MCT Std 2 [MEAN]	0.8755	0.4285		
MCT Std 2 [SD]	0.0219	0.0276		
MCT Std 2 [%CV]	2.5037	6.4357		
MCT Std 2 [%DIFF]		7.1250		
MCT Std 3 [MEAN]	0.5945	0.9850		
MCT Std 3 [SD]	0.0078	0.0255		
MCT Std 3 [%CV]	1.3084	2.5844		
MCT Std 3 [%DIFF]		-1.5000		
MCT Std 4 [MEAN]	0.4325	1.8670		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0276	0.2489		
MCT Std 4 [%CV]	6.3762	13.3316		
MCT Std 4 [%DIFF]		-6.6500		
MCT Std 5 [MEAN]	0.2825			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	2.2527			
MCT 546 LRB 1 [MEAN]	1.3565	0.0345		
MCT 546 LRB 1 [SD]	0.0247	0.0163		
MCT 546 LRB 1 [%CV]	1.8245	47.1404		
MCT 546 Low-CV [MEAN]	0.9650	0.3280		
MCT 546 Low-CV [SD]	0.0085	0.0085		
MCT 546 Low-CV [%CV]	0.8793	2.5870		
MCT 546 LFB 1 [MEAN]	0.8105	0.5165		
MCT 546 LFB 1 [SD]	0.0233	0.0346		
MCT 546 LFB 1 [%CV]	2.8790	6.7083		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4039
 B = 1.1822
 C = 0.51412
 D = 0.21905
 R2 coef = 0.99863
 50% = 0.712

