



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03317	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/10/2023	7/12/2023	< 0.30
AC03318	Cagles Mill Lake - Lieber SRA Beach	7/10/2023	7/12/2023	< 0.30
AC03319	Monroe Lake - Paynetown SRA Beach	7/10/2023	7/12/2023	< 0.30
AC03320	Monroe Lake - Fairfax SRA Beach	7/10/2023	7/12/2023	< 0.30
AC03321	Starve Hollow SRA - Starve Hollow Lake Beach	7/10/2023	7/12/2023	< 0.30
AC03322	Whitewater Memorial SP - Whitewater Lake Beach	7/11/2023	7/12/2023	< 0.30
AC03323	Brookville Lake - Quakertown SRA Beach	7/11/2023	7/12/2023	< 0.30
AC03324	Brookville Lake - Mounds SRA Beach	7/11/2023	7/12/2023	< 0.30
AC03325	Hardy Lake SRA - Hardy Lake SRA Beach	7/11/2023	7/12/2023	< 0.30
AC03326	Deam Lake SRA - Deam Lake Beach	7/11/2023	7/12/2023	< 0.30
AC03327	Whitewater Memorial SP - Whitewater Lake Beach (Field Duplicate)	7/11/2023	7/12/2023	< 0.30
AC03328	Field Blank	7/11/2023	7/12/2023	< 0.30
AC03342	Ft. Ben Harrison SP Dog Lake	7/10/2023	7/12/2023	< 0.30

Test Report (by Request)

Test Information

Request: 7/12/2023 3:29:01 PM
 Date: 7/12/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.097 Abs	0.000 µg/L	R^2=0.99789, 100.4			P23C0589
MCT Std 0	MICROCYSTINS ADDA 54	1.087 Abs [1.0920] {0.6 C	0.009 µg/L [0.004]	R^2=0.99789, 99.54			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.924 Abs	0.128 µg/L	R^2=0.99789, 84.61			P23C0589
MCT Std 1	MICROCYSTINS ADDA 54	0.882 Abs [0.9030] {3.3 C	0.160 µg/L [0.144]	R^2=0.99789, 80.76			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.664 Abs	0.379 µg/L	R^2=0.99789, 60.80			P23C0589
MCT Std 2	MICROCYSTINS ADDA 54	0.620 Abs [0.6420] {4.8 C	0.442 µg/L [0.410]	R^2=0.99789, 56.77			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.402 Abs	1.028 µg/L	R^2=0.99789, 36.81			P23C0589
MCT Std 3	MICROCYSTINS ADDA 54	0.390 Abs [0.3960] {2.1 C	1.088 µg/L [1.058]	R^2=0.99789, 35.71			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.318 Abs	1.636 µg/L	R^2=0.99789, 29.12			P23C0589
MCT Std 4	MICROCYSTINS ADDA 54	0.320 Abs [0.3190] {0.4 C	1.615 µg/L [1.625]	R^2=0.99789, 29.30			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.207 Abs	> 5.000 µg/L	18.956 %Abs			P23C0589
MCT Std 5	MICROCYSTINS ADDA 54	0.195 Abs [0.2010] {4.2 C	> 5.000 µg/L	17.857 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.043 Abs	0.044 µg/L	95.513 %Abs			P23C0589
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.013 Abs [1.0280] {2.1 C	0.065 µg/L [0.054]	92.766 %Abs [94.1			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.690 Abs	0.346 µg/L	63.187 %Abs			P23C0589
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.658 Abs [0.6740] {3.4 C	0.387 µg/L [0.366]	60.256 %Abs [61.7			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.595 Abs	0.482 µg/L	54.487 %Abs			P23C0589
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.599 Abs [0.5970] {0.5 C	0.475 µg/L [0.479]	54.853 %Abs [54.6			P23C0589

Note

Signature David Jordan

David Jordan 7/12/2023

* 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) 7/12/2023 5:32:47 PM

Test Report (by Request)

Test Information

 Request: 7/12/2023 3:30:08 PM
 Date: 7/12/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03317	MICROCYSTINS ADDA 54	0.972 Abs	0.094 µg/L	Low, 89.011 %Abs		0.300 - 5.000	P23C058€
AC03317	MICROCYSTINS ADDA 54	0.939 Abs [0.9555] {2.4 C	0.117 µg/L [0.105]	Low, 85.989 %Abs		0.300 - 5.000	P23C058€
AC03318	MICROCYSTINS ADDA 54	0.890 Abs	0.154 µg/L	Low, 81.502 %Abs		0.300 - 5.000	P23C058€
AC03318	MICROCYSTINS ADDA 54	0.880 Abs [0.8850] {0.8 C	0.162 µg/L [0.158]	Low, 80.586 %Abs		0.300 - 5.000	P23C058€
AC03319	MICROCYSTINS ADDA 54	0.998 Abs	0.075 µg/L	Low, 91.392 %Abs		0.300 - 5.000	P23C058€
AC03319	MICROCYSTINS ADDA 54	0.886 Abs [0.9420] {8.4 C	0.157 µg/L [0.116]	Low, 81.136 %Abs		0.300 - 5.000	P23C058€
AC03320	MICROCYSTINS ADDA 54	1.036 Abs	0.049 µg/L	Low, 94.872 %Abs		0.300 - 5.000	P23C058€
AC03320	MICROCYSTINS ADDA 54	1.082 Abs [1.0590] {3.1 C	0.014 µg/L [0.032]	Low, 99.084 %Abs		0.300 - 5.000	P23C058€
AC03321	MICROCYSTINS ADDA 54	0.962 Abs	0.101 µg/L	Low, 88.095 %Abs		0.300 - 5.000	P23C058€
AC03321	MICROCYSTINS ADDA 54	0.957 Abs [0.9595] {0.4 C	0.104 µg/L [0.103]	Low, 87.637 %Abs		0.300 - 5.000	P23C058€
AC03322	MICROCYSTINS ADDA 54	0.951 Abs	0.109 µg/L	Low, 87.088 %Abs		0.300 - 5.000	P23C058€
AC03322	MICROCYSTINS ADDA 54	0.906 Abs [0.9285] {3.4 C	0.142 µg/L [0.125]	Low, 82.967 %Abs		0.300 - 5.000	P23C058€
AC03323	MICROCYSTINS ADDA 54	0.914 Abs	0.136 µg/L	Low, 83.700 %Abs		0.300 - 5.000	P23C058€
AC03323	MICROCYSTINS ADDA 54	0.905 Abs [0.9095] {0.7 C	0.142 µg/L [0.139]	Low, 82.875 %Abs		0.300 - 5.000	P23C058€
AC03323MS	MICROCYSTINS ADDA 54	0.540 Abs	0.587 µg/L	49.451 %Abs		0.300 - 5.000	P23C058€
AC03323MS	MICROCYSTINS ADDA 54	0.559 Abs [0.5495] {2.4 C	0.548 µg/L [0.567]	51.190 %Abs [50.3		0.300 - 5.000	P23C058€
AC03323MSD	MICROCYSTINS ADDA 54	0.571 Abs	0.525 µg/L	52.289 %Abs		0.300 - 5.000	P23C058€
AC03323MSD	MICROCYSTINS ADDA 54	0.564 Abs [0.5675] {0.9 C	0.538 µg/L [0.531]	51.648 %Abs [51.9		0.300 - 5.000	P23C058€
AC03324	MICROCYSTINS ADDA 54	1.051 Abs	0.038 µg/L	Low, 96.245 %Abs		0.300 - 5.000	P23C058€
AC03324	MICROCYSTINS ADDA 54	1.024 Abs [1.0375] {1.8 C	0.057 µg/L [0.047]	Low, 93.773 %Abs		0.300 - 5.000	P23C058€
AC03325	MICROCYSTINS ADDA 54	0.884 Abs	0.159 µg/L	Low, 80.952 %Abs		0.300 - 5.000	P23C058€
AC03325	MICROCYSTINS ADDA 54	0.840 Abs [0.8620] {3.6 C	0.194 µg/L [0.176]	Low, 76.923 %Abs		0.300 - 5.000	P23C058€
AC03326	MICROCYSTINS ADDA 54	1.048 Abs	0.040 µg/L	Low, 95.971 %Abs		0.300 - 5.000	P23C058€
AC03326	MICROCYSTINS ADDA 54	1.092 Abs [1.0700] {2.9 C	0.004 µg/L [0.022]	Low, 100.000 %Abs		0.300 - 5.000	P23C058€
AC03327	MICROCYSTINS ADDA 54	0.986 Abs	0.084 µg/L	Low, 90.293 %Abs		0.300 - 5.000	P23C058€
AC03327	MICROCYSTINS ADDA 54	0.963 Abs [0.9745] {1.7 C	0.100 µg/L [0.092]	Low, 88.187 %Abs		0.300 - 5.000	P23C058€
AC03328	MICROCYSTINS ADDA 54	1.107 Abs	0.000 µg/L	Low, 101.374 %Abs		0.300 - 5.000	P23C058€
AC03328	MICROCYSTINS ADDA 54	1.067 Abs [1.0870] {2.6 C	0.026 µg/L [0.013]	Low, 97.711 %Abs		0.300 - 5.000	P23C058€
AC03342	MICROCYSTINS ADDA 54	1.007 Abs	0.069 µg/L	Low, 92.216 %Abs		0.300 - 5.000	P23C058€
AC03342	MICROCYSTINS ADDA 54	0.959 Abs [0.9830] {3.5 C	0.103 µg/L [0.086]	Low, 87.821 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.677 Abs	0.362 µg/L	61.996 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.614 Abs [0.6455] {6.9 C	0.451 µg/L [0.406]	56.227 %Abs [59.1		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.139 Abs	0.000 µg/L	Low, 104.304 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.066 Abs [1.1025] {4.7 C	0.027 µg/L [0.014]	Low, 97.619 %Abs		0.300 - 5.000	P23C058€

Note

Signature

David Jordan 7/12/2023

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
7/12/2023 3:29:01 PM				
MCT Std 0	1.097 Abs	0.000 µg/L	R ² =0.99789, 100.458 %Abs	RK1:23->A01@2
MCT Std 0	1.087 Abs [1.0920] {0.6 CV}	0.009 µg/L [0.004] {141.4 CV}	R ² =0.99789, 99.542 %Abs	RK1:23->B01@2
MCT Std 1	0.924 Abs	0.128 µg/L	R ² =0.99789, 84.615 %Abs	RK1:24->C01@2
MCT Std 1	0.882 Abs [0.9030] {3.3 CV}	0.160 µg/L [0.144] {15.7 CV}	R ² =0.99789, 80.769 %Abs	RK1:24->D01@2
MCT Std 2	0.664 Abs	0.379 µg/L	R ² =0.99789, 60.806 %Abs	RK1:25->E01@2
MCT Std 2	0.620 Abs [0.6420] {4.8 CV}	0.442 µg/L [0.410] {10.9 CV}	R ² =0.99789, 56.777 %Abs	RK1:25->F01@3
MCT Std 3	0.402 Abs	1.028 µg/L	R ² =0.99789, 36.813 %Abs	RK1:26->G01@3
MCT Std 3	0.390 Abs [0.3960] {2.1 CV}	1.088 µg/L [1.058] {4.0 CV}	R ² =0.99789, 35.714 %Abs	RK1:26->H01@3
MCT Std 4	0.318 Abs	1.636 µg/L	R ² =0.99789, 29.121 %Abs	RK1:27->A02@2
MCT Std 4	0.320 Abs [0.3190] {0.4 CV}	1.615 µg/L [1.625] {0.9 CV}	R ² =0.99789, 29.304 %Abs	RK1:27->B02@2
MCT Std 5	0.207 Abs	> 5.000 µg/L	18.956 %Abs	RK1:28->C02@2
MCT Std 5	0.195 Abs [0.2010] {4.2 CV}	> 5.000 µg/L	17.857 %Abs	RK1:28->D02@2

7/12/2023 3:29:01 PM				
MCT 546 LRB 1	1.043 Abs	0.044 µg/L	95.513 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.013 Abs [1.0280] {2.1 CV}	0.065 µg/L [0.054] {27.2 CV}	92.766 %Abs [94.139 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.690 Abs	0.346 µg/L	63.187 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.658 Abs [0.6740] {3.4 CV}	0.387 µg/L [0.366] {7.9 CV}	60.256 %Abs [61.722 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.595 Abs	0.482 µg/L	54.487 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.599 Abs [0.5970] {0.5 CV}	0.475 µg/L [0.479] {1.0 CV}	54.853 %Abs [54.670 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.0920	0.0045		
MCT Std 0 [SD]	0.0071	0.0064		
MCT Std 0 [%CV]	0.6475	141.4214		
MCT Std 1 [MEAN]	0.9030	0.1440		
MCT Std 1 [SD]	0.0297	0.0226		
MCT Std 1 [%CV]	3.2889	15.7135		
MCT Std 1 [%DIFF]		-4.0000		
MCT Std 2 [MEAN]	0.6420	0.4105		
MCT Std 2 [SD]	0.0311	0.0445		
MCT Std 2 [%CV]	4.8462	10.8521		
MCT Std 2 [%DIFF]		2.6250		
MCT Std 3 [MEAN]	0.3960	1.0580		
MCT Std 3 [SD]	0.0085	0.0424		
MCT Std 3 [%CV]	2.1428	4.0101		
MCT Std 3 [%DIFF]		5.8000		
MCT Std 4 [MEAN]	0.3190	1.6255		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0014	0.0148		
MCT Std 4 [%CV]	0.4433	0.9135		
MCT Std 4 [%DIFF]		-18.7250		
MCT Std 5 [MEAN]	0.2010			
MCT Std 5 [SD]	0.0085			
MCT Std 5 [%CV]	4.2215			
MCT 546 LRB 1 [MEAN]	1.0280	0.0545		
MCT 546 LRB 1 [SD]	0.0212	0.0148		
MCT 546 LRB 1 [%CV]	2.0635	27.2463		
MCT 546 Low-CV [MEAN]	0.6740	0.3665		
MCT 546 Low-CV [SD]	0.0226	0.0290		
MCT 546 Low-CV [%CV]	3.3572	7.9103		
MCT 546 LFB 1 [MEAN]	0.5970	0.4785		
MCT 546 LFB 1 [SD]	0.0028	0.0049		
MCT 546 LFB 1 [%CV]	0.4738	1.0344		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0949
 B = 1.2490
 C = 0.41783
 D = 0.17680
 R2 coef = 0.99789
 50% = 0.574

