



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48046	Raccoon Lake SRA	7/26/2021	7/28/2021	< 0.30
AB48047	Cagles Mill Lake Beach	7/26/2021	7/28/2021	< 0.30
AB48048	Paynetown SRA	7/26/2021	7/28/2021	< 0.30
AB48049	Whitewater Memorial SP	7/27/2021	7/28/2021	< 0.30
AB48050	Quakertown SRA	7/27/2021	7/28/2021	< 0.30
AB48051	Mounds SRA	7/27/2021	7/28/2021	< 0.30
AB48052	Hardy Lake SRA	7/26/2021	7/28/2021	0.31
AB48053	Cagles Mill Lake Beach (Field Duplicate)	7/26/2021	7/28/2021	< 0.30
AB48054	Field Blank	7/26/2021	7/28/2021	< 0.30
AB48065	Ft. Ben Harrison SP Dog Lake - East	7/27/2021	7/28/2021	< 0.30

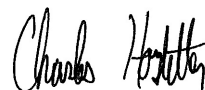
Test Information

Request: 7/28/2021 5:52:47 PM
Date: 7/28/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.482 Abs	0.005 µg/L	R ² =0.99274, 100.3			20F3281
MCT Std 0	MICROCYSTINS ADDA 54	1.473 Abs [1.4775] {0.4 C	0.011 µg/L [0.008]	R ² =0.99274, 99.72			20F3281
MCT Std 1	MICROCYSTINS ADDA 54	1.314 Abs	0.117 µg/L	R ² =0.99274, 88.96			20F3281
MCT Std 1	MICROCYSTINS ADDA 54	1.308 Abs [1.3110] {0.3 C	0.121 µg/L [0.119]	R ² =0.99274, 88.55			20F3281
MCT Std 2	MICROCYSTINS ADDA 54	0.989 Abs	0.441 µg/L	R ² =0.99274, 66.96			20F3281
MCT Std 2	MICROCYSTINS ADDA 54	0.965 Abs [0.9770] {1.7 C	0.476 µg/L [0.459]	R ² =0.99274, 65.33			20F3281
MCT Std 3	MICROCYSTINS ADDA 54	0.709 Abs	1.058 µg/L	R ² =0.99274, 48.00			20F3281
MCT Std 3	MICROCYSTINS ADDA 54	0.726 Abs [0.7175] {1.7 C	1.000 µg/L [1.029]	R ² =0.99274, 49.15			20F3281
MCT Std 4	MICROCYSTINS ADDA 54	0.610 Abs	1.497 µg/L	R ² =0.99274, 41.30			20F3281
MCT Std 4	MICROCYSTINS ADDA 54	0.564 Abs [0.5870] {5.5 C	1.794 µg/L [1.645]	R ² =0.99274, 38.18			20F3281
MCT Std 5	MICROCYSTINS ADDA 54	0.363 Abs	> 5.000 µg/L	24.577 %Abs			20F3281
MCT Std 5	MICROCYSTINS ADDA 54	0.352 Abs [0.3575] {2.2 C	> 5.000 µg/L	23.832 %Abs			20F3281
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.438 Abs	0.033 µg/L	97.360 %Abs			20F3281
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.427 Abs [1.4325] {0.5 C	0.040 µg/L [0.036]	96.615 %Abs [96.9			20F3281
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.057 Abs	0.354 µg/L	71.564 %Abs			20F3281
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.031 Abs [1.0440] {1.8 C	0.386 µg/L [0.370]	69.804 %Abs [70.6			20F3281
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.978 Abs	0.457 µg/L	66.215 %Abs			20F3281
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.906 Abs [0.9420] {5.4 C	0.571 µg/L [0.514]	61.341 %Abs [63.7			20F3281

Note

Signature



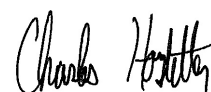
Test Information

Request: 7/28/2021 5:54:24 PM
Date: 7/28/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
QCS 546	MICROCYSTINS ADDA 54	0.931 Abs	0.529 µg/L	63.033 %Abs		0.300 - 5.000	20F3281
QCS 546	MICROCYSTINS ADDA 54	0.894 Abs [0.9125] {2.9 C	0.593 µg/L [0.561]	60.528 %Abs [61.7		0.300 - 5.000	20F3281
AB48046	MICROCYSTINS ADDA 54	1.350 Abs	0.091 µg/L	Low, 91.401 %Abs		0.300 - 5.000	20F3281
AB48046	MICROCYSTINS ADDA 54	1.348 Abs [1.3490] {0.1 C	0.093 µg/L [0.092]	Low, 91.266 %Abs		0.300 - 5.000	20F3281
AB48047	MICROCYSTINS ADDA 54	1.122 Abs	0.282 µg/L	Low, 75.965 %Abs		0.300 - 5.000	20F3281
AB48047	MICROCYSTINS ADDA 54	1.137 Abs [1.1295] {0.9 C	0.267 µg/L [0.275]	Low, 76.980 %Abs		0.300 - 5.000	20F3281
AB48048	MICROCYSTINS ADDA 54	1.477 Abs	0.008 µg/L	Low, 100.000 %Abs		0.300 - 5.000	20F3281
AB48048	MICROCYSTINS ADDA 54	1.446 Abs [1.4615] {1.5 C	0.028 µg/L [0.018]	Low, 97.901 %Abs		0.300 - 5.000	20F3281
AB48048MS	MICROCYSTINS ADDA 54	0.840 Abs	0.699 µg/L	56.872 %Abs		0.300 - 5.000	20F3281
AB48048MS	MICROCYSTINS ADDA 54	0.827 Abs [0.8335] {1.1 C	0.728 µg/L [0.714]	55.992 %Abs [56.4		0.300 - 5.000	20F3281
AB48048MSD	MICROCYSTINS ADDA 54	0.833 Abs	0.714 µg/L	56.398 %Abs		0.300 - 5.000	20F3281
AB48048MSD	MICROCYSTINS ADDA 54	0.793 Abs [0.8130] {3.5 C	0.809 µg/L [0.762]	53.690 %Abs [55.0		0.300 - 5.000	20F3281
AB48049	MICROCYSTINS ADDA 54	1.312 Abs	0.118 µg/L	Low, 88.829 %Abs		0.300 - 5.000	20F3281
AB48049	MICROCYSTINS ADDA 54	1.300 Abs [1.3060] {0.6 C	0.127 µg/L [0.123]	Low, 88.016 %Abs		0.300 - 5.000	20F3281
AB48050	MICROCYSTINS ADDA 54	1.353 Abs	0.089 µg/L	Low, 91.605 %Abs		0.300 - 5.000	20F3281
AB48050	MICROCYSTINS ADDA 54	1.325 Abs [1.3390] {1.5 C	0.109 µg/L [0.099]	Low, 89.709 %Abs		0.300 - 5.000	20F3281
AB48051	MICROCYSTINS ADDA 54	1.278 Abs	0.144 µg/L	Low, 86.527 %Abs		0.300 - 5.000	20F3281
AB48051	MICROCYSTINS ADDA 54	1.265 Abs [1.2715] {0.7 C	0.154 µg/L [0.149]	Low, 85.647 %Abs		0.300 - 5.000	20F3281
AB48052	MICROCYSTINS ADDA 54	1.106 Abs	0.299 µg/L	Low, 74.882 %Abs		0.300 - 5.000	20F3281
AB48052	MICROCYSTINS ADDA 54	1.084 Abs [1.0950] {1.4 C	0.323 µg/L [0.311]	73.392 %Abs [74.1		0.300 - 5.000	20F3281
AB48053	MICROCYSTINS ADDA 54	1.146 Abs	0.258 µg/L	Low, 77.590 %Abs		0.300 - 5.000	20F3281
AB48053	MICROCYSTINS ADDA 54	1.179 Abs [1.1625] {2.0 C	0.227 µg/L [0.242]	Low, 79.824 %Abs		0.300 - 5.000	20F3281
AB48054	MICROCYSTINS ADDA 54	1.567 Abs	0.000 µg/L	Low, 106.093 %Abs		0.300 - 5.000	20F3281
AB48054	MICROCYSTINS ADDA 54	1.520 Abs [1.5435] {2.2 C	0.000 µg/L [0.000]	Low, 102.911 %Abs		0.300 - 5.000	20F3281
AB48065	MICROCYSTINS ADDA 54	1.474 Abs	0.010 µg/L	Low, 99.797 %Abs		0.300 - 5.000	20F3281
AB48065	MICROCYSTINS ADDA 54	1.454 Abs [1.4640] {1.0 C	0.023 µg/L [0.017]	Low, 98.443 %Abs		0.300 - 5.000	20F3281
LFB 2	MICROCYSTINS ADDA 54	0.865 Abs	0.648 µg/L	58.565 %Abs		0.300 - 5.000	20F3281
LFB 2	MICROCYSTINS ADDA 54	0.885 Abs [0.8750] {1.6 C	0.609 µg/L [0.628]	59.919 %Abs [59.2		0.300 - 5.000	20F3281
LRB 2	MICROCYSTINS ADDA 54	1.562 Abs	0.000 µg/L	Low, 105.755 %Abs		0.300 - 5.000	20F3281
LRB 2	MICROCYSTINS ADDA 54	1.522 Abs [1.5420] {1.8 C	0.000 µg/L [0.000]	Low, 103.047 %Abs		0.300 - 5.000	20F3281

Note

Signature



Charles Hostetter 7/29/2021

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: 20F3281

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/28/2021 5:52:47 PM					
MCT Std 0	1.482 Abs	0.005 µg/L	R ² =0.99274, 100.339 %Abs	RK1:23->A01@2	
MCT Std 0	1.473 Abs [1.4775] {0.4 CV}	0.011 µg/L [0.008] {53.0 CV}	R ² =0.99274, 99.729 %Abs	RK1:23->B01@2	
MCT Std 1	1.314 Abs	0.117 µg/L	R ² =0.99274, 88.964 %Abs	RK1:24->C01@2	
MCT Std 1	1.308 Abs [1.3110] {0.3 CV}	0.121 µg/L [0.119] {2.4 CV}	R ² =0.99274, 88.558 %Abs	RK1:24->D01@2	
MCT Std 2	0.989 Abs	0.441 µg/L	R ² =0.99274, 66.960 %Abs	RK1:25->E01@2	
MCT Std 2	0.965 Abs [0.9770] {1.7 CV}	0.476 µg/L [0.459] {5.4 CV}	R ² =0.99274, 65.335 %Abs	RK1:25->F01@3	
MCT Std 3	0.709 Abs	1.058 µg/L	R ² =0.99274, 48.003 %Abs	RK1:26->G01@3	
MCT Std 3	0.726 Abs [0.7175] {1.7 CV}	1.000 µg/L [1.029] {4.0 CV}	R ² =0.99274, 49.154 %Abs	RK1:26->H01@3	
MCT Std 4	0.610 Abs	1.497 µg/L	R ² =0.99274, 41.300 %Abs	RK1:27->A02@2	
MCT Std 4	0.564 Abs [0.5870] {5.5 CV}	1.794 µg/L [1.645] {12.8 CV}	R ² =0.99274, 38.186 %Abs	RK1:27->B02@2	
MCT Std 5	0.363 Abs	> 5.000 µg/L	24.577 %Abs	RK1:28->C02@2	
MCT Std 5	0.352 Abs [0.3575] {2.2 CV}	> 5.000 µg/L	23.832 %Abs	RK1:28->D02@2	

7/28/2021 5:52:47 PM					
MCT 546 LRB 1	1.438 Abs	0.033 µg/L	97.360 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.427 Abs [1.4325] {0.5 CV}	0.040 µg/L [0.036] {13.6 CV}	96.615 %Abs [96.987 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.057 Abs	0.354 µg/L	71.564 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.031 Abs [1.0440] {1.8 CV}	0.386 µg/L [0.370] {6.1 CV}	69.804 %Abs [70.684 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.978 Abs	0.457 µg/L	66.215 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.906 Abs [0.9420] {5.4 CV}	0.571 µg/L [0.514] {15.7 CV}	61.341 %Abs [63.778 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.4775	0.0080			
MCT Std 0 [SD]	0.0064	0.0042			
MCT Std 0 [%CV]	0.4307	53.0330			
MCT Std 1 [MEAN]	1.3110	0.1190			
MCT Std 1 [SD]	0.0042	0.0028			
MCT Std 1 [%CV]	0.3236	2.3768			
MCT Std 1 [%DIFF]		-20.6667			
MCT Std 2 [MEAN]	0.9770	0.4585			
MCT Std 2 [SD]	0.0170	0.0247			
MCT Std 2 [%CV]	1.7370	5.3978			
MCT Std 2 [%DIFF]		14.6250			
MCT Std 3 [MEAN]	0.7175	1.0290			
MCT Std 3 [SD]	0.0120	0.0410			
MCT Std 3 [%CV]	1.6754	3.9856			
MCT Std 3 [%DIFF]		2.9000			
MCT Std 4 [MEAN]	0.5870	1.6455			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0325	0.2100		
MCT Std 4 [%CV]	5.5412	12.7627		
MCT Std 4 [%DIFF]		-17.7250		
MCT Std 5 [MEAN]	0.3575			
MCT Std 5 [SD]	0.0078			
MCT Std 5 [%CV]	2.1757			
MCT 546 LRB 1 [MEAN]	1.4325	0.0365		
MCT 546 LRB 1 [SD]	0.0078	0.0049		
MCT 546 LRB 1 [%CV]	0.5430	13.5610		
MCT 546 Low-CV [MEAN]	1.0440	0.3700		
MCT 546 Low-CV [SD]	0.0184	0.0226		
MCT 546 Low-CV [%CV]	1.7610	6.1155		
MCT 546 LFB 1 [MEAN]	0.9420	0.5140		
MCT 546 LFB 1 [SD]	0.0509	0.0806		
MCT 546 LFB 1 [%CV]	5.4046	15.6829		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4894
 B = 1.0657
 C = 0.62630
 D = 0.26258
 R2 coef = 0.99274
 50% = 0.961

