



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48106	Raccoon Lake SRA	8/9/2021	8/12/2021	< 0.30
AB48108	Cagles Mill Lake Beach	8/9/2021	8/12/2021	< 0.30
AB48109	Paynetown SRA	8/9/2021	8/12/2021	< 0.30
AB48110	Fairfax SRA	8/9/2021	8/12/2021	< 0.30
AB48111	Starve Hollow SRA	8/9/2021	8/12/2021	< 0.30
AB48112	Whitewater Memorial SP	8/10/2021	8/12/2021	< 0.30
AB48113	Quakertown SRA	8/10/2021	8/12/2021	< 0.30
AB48114	Mounds SRA	8/10/2021	8/12/2021	< 0.30
AB48115	Hardy Lake SRA	8/10/2021	8/12/2021	0.40
AB48107	Deam Lake SRA	8/10/2021	8/12/2021	< 0.30
AB48116	Cagles Mill Lake Beach (Field Duplicate)	8/9/2021	8/12/2021	< 0.30
AB48117	Field Blank	8/9/2021	8/12/2021	< 0.30

Test Information

Request: 8/12/2021 12:29:12 PM
Date: 8/12/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.510 Abs	0.000 µg/L	R ² =0.99409, 102.4			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.437 Abs [1.4735] {3.5 C	0.028 µg/L [0.014]	R ² =0.99409, 97.4			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.306 Abs	0.106 µg/L	R ² =0.99409, 88.6			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.253 Abs [1.2795] {2.9 C	0.141 µg/L [0.124]	R ² =0.99409, 85.0			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	0.925 Abs	0.457 µg/L	R ² =0.99409, 62.7			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	0.915 Abs [0.9200] {0.8 C	0.471 µg/L [0.464]	R ² =0.99409, 62.0			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.692 Abs	0.925 µg/L	R ² =0.99409, 46.9			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.661 Abs [0.6765] {3.2 C	1.023 µg/L [0.974]	R ² =0.99409, 44.8			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.537 Abs	1.605 µg/L	R ² =0.99409, 36.4			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.506 Abs [0.5215] {4.2 C	1.830 µg/L [1.717]	R ² =0.99409, 34.3			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.330 Abs	> 5.000 µg/L	22.388 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.311 Abs [0.3205] {4.2 C	> 5.000 µg/L	21.099 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.501 Abs	0.000 µg/L	101.832 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.486 Abs [1.4935] {0.7 C	0.000 µg/L [0.000]	100.814 %Abs [10			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.029 Abs	0.332 µg/L	69.810 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.038 Abs [1.0335] {0.6 C	0.322 µg/L [0.327]	70.421 %Abs [70.1			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.875 Abs	0.530 µg/L	59.362 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.846 Abs [0.8605] {2.4 C	0.578 µg/L [0.554]	57.395 %Abs [58.3			20J4209

Note

Signature

David Jordan

David Jordan 8/12/2021

Test Report (by Request)

Test Information

Request: 8/12/2021 12:30:48 PM
Date: 8/12/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB48106	MICROCYSTINS ADDA 54	1.425 Abs	0.035 µg/L	Low, 96.676 %Abs		0.300 - 5.000	20J4209
AB48106	MICROCYSTINS ADDA 54	1.358 Abs [1.3915] {3.4 C	0.074 µg/L [0.054]	Low, 92.130 %Abs		0.300 - 5.000	20J4209
AB48108	MICROCYSTINS ADDA 54	1.202 Abs	0.178 µg/L	Low, 81.547 %Abs		0.300 - 5.000	20J4209
AB48108	MICROCYSTINS ADDA 54	1.153 Abs [1.1775] {2.9 C	0.216 µg/L [0.197]	Low, 78.223 %Abs		0.300 - 5.000	20J4209
AB48109	MICROCYSTINS ADDA 54	1.314 Abs	0.101 µg/L	Low, 89.145 %Abs		0.300 - 5.000	20J4209
AB48109	MICROCYSTINS ADDA 54	1.324 Abs [1.3190] {0.5 C	0.094 µg/L [0.097]	Low, 89.824 %Abs		0.300 - 5.000	20J4209
AB48109MS	MICROCYSTINS ADDA 54	0.740 Abs	0.796 µg/L	50.204 %Abs		0.300 - 5.000	20J4209
AB48109MS	MICROCYSTINS ADDA 54	0.742 Abs [0.7410] {0.2 C	0.791 µg/L [0.794]	50.339 %Abs [50.2		0.300 - 5.000	20J4209
AB48109MSD	MICROCYSTINS ADDA 54	0.740 Abs	0.796 µg/L	50.204 %Abs		0.300 - 5.000	20J4209
AB48109MSD	MICROCYSTINS ADDA 54	0.711 Abs [0.7255] {2.8 C	0.871 µg/L [0.834]	48.236 %Abs [49.2		0.300 - 5.000	20J4209
AB48110	MICROCYSTINS ADDA 54	1.278 Abs	0.124 µg/L	Low, 86.703 %Abs		0.300 - 5.000	20J4209
AB48110	MICROCYSTINS ADDA 54	1.266 Abs [1.2720] {0.7 C	0.132 µg/L [0.128]	Low, 85.889 %Abs		0.300 - 5.000	20J4209
AB48111	MICROCYSTINS ADDA 54	1.302 Abs	0.108 µg/L	Low, 88.331 %Abs		0.300 - 5.000	20J4209
AB48111	MICROCYSTINS ADDA 54	1.327 Abs [1.3145] {1.3 C	0.093 µg/L [0.101]	Low, 90.027 %Abs		0.300 - 5.000	20J4209
AB48112	MICROCYSTINS ADDA 54	1.405 Abs	0.046 µg/L	Low, 95.319 %Abs		0.300 - 5.000	20J4209
AB48112	MICROCYSTINS ADDA 54	1.370 Abs [1.3875] {1.8 C	0.067 µg/L [0.057]	Low, 92.944 %Abs		0.300 - 5.000	20J4209
AB48113	MICROCYSTINS ADDA 54	1.136 Abs	0.230 µg/L	Low, 77.069 %Abs		0.300 - 5.000	20J4209
AB48113	MICROCYSTINS ADDA 54	1.162 Abs [1.1490] {1.6 C	0.209 µg/L [0.220]	Low, 78.833 %Abs		0.300 - 5.000	20J4209
AB48114	MICROCYSTINS ADDA 54	1.148 Abs	0.220 µg/L	Low, 77.883 %Abs		0.300 - 5.000	20J4209
AB48114	MICROCYSTINS ADDA 54	1.134 Abs [1.1410] {0.9 C	0.232 µg/L [0.226]	Low, 76.934 %Abs		0.300 - 5.000	20J4209
AB48115	MICROCYSTINS ADDA 54	0.982 Abs	0.384 µg/L	66.621 %Abs		0.300 - 5.000	20J4209
AB48115	MICROCYSTINS ADDA 54	0.951 Abs [0.9665] {2.3 C	0.423 µg/L [0.404]	64.518 %Abs [65.5		0.300 - 5.000	20J4209
AB48107	MICROCYSTINS ADDA 54	1.407 Abs	0.045 µg/L	Low, 95.455 %Abs		0.300 - 5.000	20J4209
AB48107	MICROCYSTINS ADDA 54	1.332 Abs [1.3695] {3.9 C	0.090 µg/L [0.068]	Low, 90.366 %Abs		0.300 - 5.000	20J4209
AB48116	MICROCYSTINS ADDA 54	1.156 Abs	0.214 µg/L	Low, 78.426 %Abs		0.300 - 5.000	20J4209
AB48116	MICROCYSTINS ADDA 54	1.129 Abs [1.1425] {1.7 C	0.236 µg/L [0.225]	Low, 76.594 %Abs		0.300 - 5.000	20J4209
AB48117	MICROCYSTINS ADDA 54	1.403 Abs	0.047 µg/L	Low, 95.183 %Abs		0.300 - 5.000	20J4209
AB48117	MICROCYSTINS ADDA 54	1.401 Abs [1.4020] {0.1 C	0.049 µg/L [0.048]	Low, 95.047 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.826 Abs	0.614 µg/L	56.038 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.775 Abs [0.8005] {4.5 C	0.715 µg/L [0.664]	52.578 %Abs [54.3		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.430 Abs	0.032 µg/L	Low, 97.015 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.355 Abs [1.3925] {3.8 C	0.076 µg/L [0.054]	Low, 91.927 %Abs		0.300 - 5.000	20J4209

Note

Signature 

David Jordan 8/12/2021

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: 20J4209

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
8/12/2021 12:29:12 PM					
MCT Std 0	1.510 Abs	0.000 µg/L	R ² =0.99409, 102.442 %Abs	RK1:23->A01@2	
MCT Std 0	1.437 Abs [1.4735] {3.5 CV}	0.028 µg/L [0.014] {141.4 CV}	R ² =0.99409, 97.490 %Abs	RK1:23->B01@2	
MCT Std 1	1.306 Abs	0.106 µg/L	R ² =0.99409, 88.602 %Abs	RK1:24->C01@2	
MCT Std 1	1.253 Abs [1.2795] {2.9 CV}	0.141 µg/L [0.124] {20.0 CV}	R ² =0.99409, 85.007 %Abs	RK1:24->D01@2	
MCT Std 2	0.925 Abs	0.457 µg/L	R ² =0.99409, 62.754 %Abs	RK1:25->E01@2	
MCT Std 2	0.915 Abs [0.9200] {0.8 CV}	0.471 µg/L [0.464] {2.1 CV}	R ² =0.99409, 62.076 %Abs	RK1:25->F01@3	
MCT Std 3	0.692 Abs	0.925 µg/L	R ² =0.99409, 46.947 %Abs	RK1:26->G01@3	
MCT Std 3	0.661 Abs [0.6765] {3.2 CV}	1.023 µg/L [0.974] {7.1 CV}	R ² =0.99409, 44.844 %Abs	RK1:26->H01@3	
MCT Std 4	0.537 Abs	1.605 µg/L	R ² =0.99409, 36.431 %Abs	RK1:27->A02@2	
MCT Std 4	0.506 Abs [0.5215] {4.2 CV}	1.830 µg/L [1.717] {9.3 CV}	R ² =0.99409, 34.328 %Abs	RK1:27->B02@2	
MCT Std 5	0.330 Abs	> 5.000 µg/L	22.388 %Abs	RK1:28->C02@2	
MCT Std 5	0.311 Abs [0.3205] {4.2 CV}	> 5.000 µg/L	21.099 %Abs	RK1:28->D02@2	

8/12/2021 12:29:12 PM					
MCT 546 LRB 1	1.501 Abs	0.000 µg/L	101.832 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.486 Abs [1.4935] {0.7 CV}	0.000 µg/L [0.000]	100.814 %Abs [101.323 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.029 Abs	0.332 µg/L	69.810 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.038 Abs [1.0335] {0.6 CV}	0.322 µg/L [0.327] {2.2 CV}	70.421 %Abs [70.115 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.875 Abs	0.530 µg/L	59.362 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.846 Abs [0.8605] {2.4 CV}	0.578 µg/L [0.554] {6.1 CV}	57.395 %Abs [58.379 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.4735	0.0140			
MCT Std 0 [SD]	0.0516	0.0198			
MCT Std 0 [%CV]	3.5031	141.4214			
MCT Std 1 [MEAN]	1.2795	0.1235			
MCT Std 1 [SD]	0.0375	0.0247			
MCT Std 1 [%CV]	2.9290	20.0395			
MCT Std 1 [%DIFF]		-17.6667			
MCT Std 2 [MEAN]	0.9200	0.4640			
MCT Std 2 [SD]	0.0071	0.0099			
MCT Std 2 [%CV]	0.7686	2.1335			
MCT Std 2 [%DIFF]		16.0000			
MCT Std 3 [MEAN]	0.6765	0.9740			
MCT Std 3 [SD]	0.0219	0.0693			
MCT Std 3 [%CV]	3.2402	7.1146			
MCT Std 3 [%DIFF]		-2.6000			
MCT Std 4 [MEAN]	0.5215	1.7175			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0219	0.1591		
MCT Std 4 [%CV]	4.2033	9.2634		
MCT Std 4 [%DIFF]		-14.1250		
MCT Std 5 [MEAN]	0.3205			
MCT Std 5 [SD]	0.0134			
MCT Std 5 [%CV]	4.1919			
MCT 546 LRB 1 [MEAN]	1.4935	0.0000		
MCT 546 LRB 1 [SD]	0.0106	0.0000		
MCT 546 LRB 1 [%CV]	0.7102	0.0000		
MCT 546 Low-CV [MEAN]	1.0335	0.3270		
MCT 546 Low-CV [SD]	0.0064	0.0071		
MCT 546 Low-CV [%CV]	0.6158	2.1624		
MCT 546 LFB 1 [MEAN]	0.8605	0.5540		
MCT 546 LFB 1 [SD]	0.0205	0.0339		
MCT 546 LFB 1 [%CV]	2.3830	6.1266		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4851
 B = 1.0812
 C = 0.55207
 D = 0.23806
 R2 coef = 0.99409
 50% = 0.803

