



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48399	Kunkel Beach @ Ouabache State Park	8/30/2021	8/31/2021	< 0.30
AB48400	Chain O'Lakes SP	8/30/2021	8/31/2021	< 0.30
AB48401	Potato Creek State Park	8/30/2021	8/31/2021	< 0.30
AB48402	Lost Bridge West SRA	8/30/2021	8/31/2021	1.76
AB48403	Mississinewa Lake Miami SRA	8/30/2021	8/31/2021	< 0.30
AB48404	Ferdinand State Forest Lake	8/30/2021	8/31/2021	< 0.30
AB48405	Patoka SRA Beach	8/30/2021	8/31/2021	< 0.30
AB48406	Lost Bridge West SRA (Field Dup)	8/30/2021	8/31/2021	1.52
AB48407	Field Blank	8/30/2021	8/31/2021	< 0.30

Test Information

Request: 8/31/2021 6:23:03 PM
Date: 8/31/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	2.137 Abs	0.000 µg/L	R^2=0.99963, 100.8			M21F5321
MCT Std 0	MICROCYSTINS ADDA 54	2.102 Abs [2.1195] {1.2 C	0.011 µg/L [0.006]	R^2=0.99963, 99.15			M21F5321
MCT Std 1	MICROCYSTINS ADDA 54	1.850 Abs	0.128 µg/L	R^2=0.99963, 87.26			M21F5321
MCT Std 1	MICROCYSTINS ADDA 54	1.780 Abs [1.8150] {2.7 C	0.164 µg/L [0.146]	R^2=0.99963, 83.96			M21F5321
MCT Std 2	MICROCYSTINS ADDA 54	1.455 Abs	0.380 µg/L	R^2=0.99963, 68.63			M21F5321
MCT Std 2	MICROCYSTINS ADDA 54	1.399 Abs [1.4270] {2.8 C	0.429 µg/L [0.405]	R^2=0.99963, 65.95			M21F5321
MCT Std 3	MICROCYSTINS ADDA 54	0.988 Abs	0.998 µg/L	R^2=0.99963, 46.60			M21F5321
MCT Std 3	MICROCYSTINS ADDA 54	0.962 Abs [0.9750] {1.9 C	1.056 µg/L [1.027]	R^2=0.99963, 45.37			M21F5321
MCT Std 4	MICROCYSTINS ADDA 54	0.753 Abs	1.751 µg/L	R^2=0.99963, 35.51			M21F5321
MCT Std 4	MICROCYSTINS ADDA 54	0.701 Abs [0.7270] {5.1 C	2.031 µg/L [1.891]	R^2=0.99963, 33.06			M21F5321
MCT Std 5	MICROCYSTINS ADDA 54	0.479 Abs	> 5.000 µg/L	22.594 %Abs			M21F5321
MCT Std 5	MICROCYSTINS ADDA 54	0.461 Abs [0.4700] {2.7 C	> 5.000 µg/L	21.745 %Abs			M21F5321
MCT 546 LRB 1	MICROCYSTINS ADDA 54	2.059 Abs	0.030 µg/L	97.123 %Abs			M21F5321
MCT 546 LRB 1	MICROCYSTINS ADDA 54	2.025 Abs [2.0420] {1.2 C	0.045 µg/L [0.038]	95.519 %Abs [96.3			M21F5321
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.545 Abs	0.311 µg/L	72.877 %Abs			M21F5321
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.497 Abs [1.5210] {2.2 C	0.347 µg/L [0.329]	70.613 %Abs [71.7			M21F5321
MCT 546 LFB 1	MICROCYSTINS ADDA 54	1.264 Abs	0.566 µg/L	59.623 %Abs			M21F5321
MCT 546 LFB 1	MICROCYSTINS ADDA 54	1.255 Abs [1.2595] {0.5 C	0.576 µg/L [0.571]	59.198 %Abs [59.4			M21F5321

Note

Signature

David Jordan

David Jordan 8/31/2021

Test Information

Request: 8/31/2021 6:34:02 PM
Date: 8/31/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB48399	MICROCYSTINS ADDA 54	2.009 Abs	0.053 µg/L	Low, 94.764 %Abs		0.300 - 5.000	M21F532 ¹
AB48399	MICROCYSTINS ADDA 54	1.962 Abs [1.9855] {1.7 C	0.074 µg/L [0.064]	Low, 92.547 %Abs		0.300 - 5.000	M21F532 ¹
AB48400	MICROCYSTINS ADDA 54	2.021 Abs	0.047 µg/L	Low, 95.330 %Abs		0.300 - 5.000	M21F532 ¹
AB48400	MICROCYSTINS ADDA 54	1.967 Abs [1.9940] {1.9 C	0.072 µg/L [0.059]	Low, 92.783 %Abs		0.300 - 5.000	M21F532 ¹
AB48401	MICROCYSTINS ADDA 54	1.954 Abs	0.078 µg/L	Low, 92.170 %Abs		0.300 - 5.000	M21F532 ¹
AB48401	MICROCYSTINS ADDA 54	1.869 Abs [1.9115] {3.1 C	0.118 µg/L [0.098]	Low, 88.160 %Abs		0.300 - 5.000	M21F532 ¹
AB48401MS	MICROCYSTINS ADDA 54	1.173 Abs	0.680 µg/L	55.330 %Abs		0.300 - 5.000	M21F532 ¹
AB48401MS	MICROCYSTINS ADDA 54	1.135 Abs [1.1540] {2.3 C	0.735 µg/L [0.707]	53.538 %Abs [54.4		0.300 - 5.000	M21F532 ¹
AB48401MSD	MICROCYSTINS ADDA 54	1.150 Abs	0.713 µg/L	54.245 %Abs		0.300 - 5.000	M21F532 ¹
AB48401MSD	MICROCYSTINS ADDA 54	1.134 Abs [1.1420] {1.0 C	0.736 µg/L [0.725]	53.491 %Abs [53.8		0.300 - 5.000	M21F532 ¹
AB48402	MICROCYSTINS ADDA 54	0.776 Abs	1.646 µg/L	36.604 %Abs		0.300 - 5.000	M21F532 ¹
AB48402	MICROCYSTINS ADDA 54	0.728 Abs [0.7520] {4.5 C	1.878 µg/L [1.762]	34.340 %Abs [35.4		0.300 - 5.000	M21F532 ¹
AB48403	MICROCYSTINS ADDA 54	1.779 Abs	0.165 µg/L	Low, 83.915 %Abs		0.300 - 5.000	M21F532 ¹
AB48403	MICROCYSTINS ADDA 54	1.673 Abs [1.7260] {4.3 C	0.226 µg/L [0.196]	Low, 78.915 %Abs		0.300 - 5.000	M21F532 ¹
AB48404	MICROCYSTINS ADDA 54	1.697 Abs	0.211 µg/L	Low, 80.047 %Abs		0.300 - 5.000	M21F532 ¹
AB48404	MICROCYSTINS ADDA 54	1.722 Abs [1.7095] {1.0 C	0.197 µg/L [0.204]	Low, 81.226 %Abs		0.300 - 5.000	M21F532 ¹
AB48405	MICROCYSTINS ADDA 54	2.019 Abs	0.048 µg/L	Low, 95.236 %Abs		0.300 - 5.000	M21F532 ¹
AB48405	MICROCYSTINS ADDA 54	1.989 Abs [2.0040] {1.1 C	0.062 µg/L [0.055]	Low, 93.821 %Abs		0.300 - 5.000	M21F532 ¹
AB48406	MICROCYSTINS ADDA 54	0.827 Abs	1.445 µg/L	39.009 %Abs		0.300 - 5.000	M21F532 ¹
AB48406	MICROCYSTINS ADDA 54	0.789 Abs [0.8080] {3.3 C	1.591 µg/L [1.518]	37.217 %Abs [38.1		0.300 - 5.000	M21F532 ¹
AB48407	MICROCYSTINS ADDA 54	2.056 Abs	0.031 µg/L	Low, 96.981 %Abs		0.300 - 5.000	M21F532 ¹
AB48407	MICROCYSTINS ADDA 54	2.001 Abs [2.0285] {1.9 C	0.056 µg/L [0.043]	Low, 94.387 %Abs		0.300 - 5.000	M21F532 ¹
LFB 2	MICROCYSTINS ADDA 54	1.256 Abs	0.575 µg/L	59.245 %Abs		0.300 - 5.000	M21F532 ¹
LFB 2	MICROCYSTINS ADDA 54	1.243 Abs [1.2495] {0.7 C	0.590 µg/L [0.582]	58.632 %Abs [58.9		0.300 - 5.000	M21F532 ¹
LRB 2	MICROCYSTINS ADDA 54	2.037 Abs	0.040 µg/L	Low, 96.085 %Abs		0.300 - 5.000	M21F532 ¹
LRB 2	MICROCYSTINS ADDA 54	2.012 Abs [2.0245] {0.9 C	0.051 µg/L [0.045]	Low, 94.906 %Abs		0.300 - 5.000	M21F532 ¹
QCS	MICROCYSTINS ADDA 54	1.271 Abs	0.558 µg/L	59.953 %Abs		0.300 - 5.000	M21F532 ¹
QCS	MICROCYSTINS ADDA 54	1.219 Abs [1.2450] {3.0 C	0.620 µg/L [0.589]	57.500 %Abs [58.7		0.300 - 5.000	M21F532 ¹

Note

Signature

David Jordan

David Jordan 8/31/2021

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: M21F5321

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
8/31/2021 6:23:03 PM					
MCT Std 0	2.137 Abs	0.000 µg/L	R ² =0.99963, 100.802 %Abs	RK1:23->A01@2	
MCT Std 0	2.102 Abs [2.1195] {1.2 CV}	0.011 µg/L [0.006] {141.4 CV}	R ² =0.99963, 99.151 %Abs	RK1:23->B01@2	
MCT Std 1	1.850 Abs	0.128 µg/L	R ² =0.99963, 87.264 %Abs	RK1:24->C01@2	
MCT Std 1	1.780 Abs [1.8150] {2.7 CV}	0.164 µg/L [0.146] {17.4 CV}	R ² =0.99963, 83.962 %Abs	RK1:24->D01@2	
MCT Std 2	1.455 Abs	0.380 µg/L	R ² =0.99963, 68.632 %Abs	RK1:25->E01@2	
MCT Std 2	1.399 Abs [1.4270] {2.8 CV}	0.429 µg/L [0.405] {8.6 CV}	R ² =0.99963, 65.991 %Abs	RK1:25->F01@3	
MCT Std 3	0.988 Abs	0.998 µg/L	R ² =0.99963, 46.604 %Abs	RK1:26->G01@3	
MCT Std 3	0.962 Abs [0.9750] {1.9 CV}	1.056 µg/L [1.027] {4.0 CV}	R ² =0.99963, 45.377 %Abs	RK1:26->H01@3	
MCT Std 4	0.753 Abs	1.751 µg/L	R ² =0.99963, 35.519 %Abs	RK1:27->A02@2	
MCT Std 4	0.701 Abs [0.7270] {5.1 CV}	2.031 µg/L [1.891] {10.5 CV}	R ² =0.99963, 33.066 %Abs	RK1:27->B02@2	
MCT Std 5	0.479 Abs	> 5.000 µg/L	22.594 %Abs	RK1:28->C02@2	
MCT Std 5	0.461 Abs [0.4700] {2.7 CV}	> 5.000 µg/L	21.745 %Abs	RK1:28->D02@2	

8/31/2021 6:23:03 PM					
MCT 546 LRB 1	2.059 Abs	0.030 µg/L	97.123 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	2.025 Abs [2.0420] {1.2 CV}	0.045 µg/L [0.038] {28.3 CV}	95.519 %Abs [96.321 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.545 Abs	0.311 µg/L	72.877 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.497 Abs [1.5210] {2.2 CV}	0.347 µg/L [0.329] {7.7 CV}	70.613 %Abs [71.745 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	1.264 Abs	0.566 µg/L	59.623 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	1.255 Abs [1.2595] {0.5 CV}	0.576 µg/L [0.571] {1.2 CV}	59.198 %Abs [59.410 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	2.1195	0.0055			
MCT Std 0 [SD]	0.0247	0.0078			
MCT Std 0 [%CV]	1.1677	141.4214			
MCT Std 1 [MEAN]	1.8150	0.1460			
MCT Std 1 [SD]	0.0495	0.0255			
MCT Std 1 [%CV]	2.7271	17.4355			
MCT Std 1 [%DIFF]		-2.6667			
MCT Std 2 [MEAN]	1.4270	0.4045			
MCT Std 2 [SD]	0.0396	0.0346			
MCT Std 2 [%CV]	2.7749	8.5657			
MCT Std 2 [%DIFF]		1.1250			
MCT Std 3 [MEAN]	0.9750	1.0270			
MCT Std 3 [SD]	0.0184	0.0410			
MCT Std 3 [%CV]	1.8856	3.9934			
MCT Std 3 [%DIFF]		2.7000			
MCT Std 4 [MEAN]	0.7270	1.8910			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0368	0.1980		
MCT Std 4 [%CV]	5.0577	10.4701		
MCT Std 4 [%DIFF]		-5.4500		
MCT Std 5 [MEAN]	0.4700			
MCT Std 5 [SD]	0.0127			
MCT Std 5 [%CV]	2.7081			
MCT 546 LRB 1 [MEAN]	2.0420	0.0375		
MCT 546 LRB 1 [SD]	0.0240	0.0106		
MCT 546 LRB 1 [%CV]	1.1774	28.2843		
MCT 546 Low-CV [MEAN]	1.5210	0.3290		
MCT 546 Low-CV [SD]	0.0339	0.0255		
MCT 546 Low-CV [%CV]	2.2315	7.7373		
MCT 546 LFB 1 [MEAN]	1.2595	0.5710		
MCT 546 LFB 1 [SD]	0.0064	0.0071		
MCT 546 LFB 1 [%CV]	0.5053	1.2384		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 2.1230
 B = 1.0923
 C = 0.62285
 D = 0.31009
 R2 coef = 0.99963
 50% = 0.857

