



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB46769	Summit Lake - State Park	5/25/2021	5/26/2021	< 0.30
AB46770	Kunkel Beach @ Oubache State Park	5/24/2021	5/26/2021	< 0.30
AB46771	Pokagon State Park	5/24/2021	5/26/2021	< 0.30
AB46772	Potawatomi Inn's Beach	5/24/2021	5/26/2021	< 0.30
AB46773	Chain O'Lakes SP	5/24/2021	5/26/2021	< 0.30
AB46774	Potato Creek State Park	5/24/2021	5/26/2021	< 0.30
AB46775	Lost Bridge West SRA	5/24/2021	5/26/2021	< 0.30
AB46776	Mississinewa Lake Miami SRA	5/24/2021	5/26/2021	< 0.30
AB46777	Field Blank	5/25/2021	5/26/2021	< 0.30
AB46778	Kunkel Beach @ Oubache SP (Field Dup)	5/24/2021	5/26/2021	< 0.30
AB47260	Lincoln State Park	5/24/2021	5/26/2021	< 0.30
AB47261	Ferdinand State Forest Lake	5/24/2021	5/26/2021	< 0.30
AB47262	Patoka SRA Beach	5/24/2021	5/26/2021	< 0.30
AB47263	Ft. Ben Harrison SP Dog Lake - East	5/24/2021	5/26/2021	< 0.30

Test Report (by Request)

Test Information

 Request: 5/26/2021 2:14:51 PM
 Date: 5/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.782 Abs	0.000 µg/L	R ² =0.99553, 100.7			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.754 Abs [1.7680] {1.1 C	0.007 µg/L [0.004]	R ² =0.99553, 99.20			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.451 Abs	0.128 µg/L	R ² =0.99553, 82.07			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.439 Abs [1.4450] {0.6 C	0.134 µg/L [0.131]	R ² =0.99553, 81.35			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.048 Abs	0.436 µg/L	R ² =0.99553, 59.27			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.013 Abs [1.0305] {2.4 C	0.479 µg/L [0.457]	R ² =0.99553, 57.25			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.771 Abs	0.937 µg/L	R ² =0.99553, 43.60			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.744 Abs [0.7575] {2.5 C	1.017 µg/L [0.977]	R ² =0.99553, 42.08			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.611 Abs	1.602 µg/L	R ² =0.99553, 34.55			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.582 Abs [0.5965] {3.4 C	1.797 µg/L [1.700]	R ² =0.99553, 32.91			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.381 Abs	> 5.000 µg/L	21.550 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.371 Abs [0.3760] {1.9 C	> 5.000 µg/L	20.984 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.619 Abs	0.054 µg/L	91.572 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.586 Abs [1.6025] {1.5 C	0.067 µg/L [0.061]	89.706 %Abs [90.6			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.179 Abs	0.306 µg/L	66.686 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.162 Abs [1.1705] {1.0 C	0.321 µg/L [0.313]	65.724 %Abs [66.2			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.987 Abs	0.513 µg/L	55.826 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.946 Abs [0.9665] {3.0 C	0.572 µg/L [0.543]	53.507 %Abs [54.6			20J4209

Note

Signature

Charles Hostetter 5/26/2021

Test Report (by Request)

Test Information

 Request: 5/26/2021 2:15:56 PM
 Date: 5/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB46769	MICROCYSTINS ADDA 54	1.670 Abs	0.035 µg/L	Low, 94.457 %Abs		0.300 - 5.000	20J4209
AB46769	MICROCYSTINS ADDA 54	1.639 Abs [1.6545] {1.3 C	0.047 µg/L [0.041]	Low, 92.704 %Abs		0.300 - 5.000	20J4209
AB46770	MICROCYSTINS ADDA 54	1.615 Abs	0.056 µg/L	Low, 91.346 %Abs		0.300 - 5.000	20J4209
AB46770	MICROCYSTINS ADDA 54	1.553 Abs [1.5840] {2.8 C	0.081 µg/L [0.068]	Low, 87.839 %Abs		0.300 - 5.000	20J4209
AB46771	MICROCYSTINS ADDA 54	1.581 Abs	0.069 µg/L	Low, 89.423 %Abs		0.300 - 5.000	20J4209
AB46771	MICROCYSTINS ADDA 54	1.615 Abs [1.5980] {1.5 C	0.056 µg/L [0.063]	Low, 91.346 %Abs		0.300 - 5.000	20J4209
AB46772	MICROCYSTINS ADDA 54	1.625 Abs	0.052 µg/L	Low, 91.912 %Abs		0.300 - 5.000	20J4209
AB46772	MICROCYSTINS ADDA 54	1.620 Abs [1.6225] {0.2 C	0.054 µg/L [0.053]	Low, 91.629 %Abs		0.300 - 5.000	20J4209
AB46772MS	MICROCYSTINS ADDA 54	0.892 Abs	0.663 µg/L	50.452 %Abs		0.300 - 5.000	20J4209
AB46772MS	MICROCYSTINS ADDA 54	0.835 Abs [0.8635] {4.7 C	0.777 µg/L [0.720]	47.229 %Abs [48.8		0.300 - 5.000	20J4209
AB46772MSD	MICROCYSTINS ADDA 54	0.896 Abs	0.656 µg/L	50.679 %Abs		0.300 - 5.000	20J4209
AB46772MSD	MICROCYSTINS ADDA 54	0.864 Abs [0.8800] {2.6 C	0.716 µg/L [0.686]	48.869 %Abs [49.7		0.300 - 5.000	20J4209
AB46773	MICROCYSTINS ADDA 54	1.549 Abs	0.083 µg/L	Low, 87.613 %Abs		0.300 - 5.000	20J4209
AB46773	MICROCYSTINS ADDA 54	1.565 Abs [1.5570] {0.7 C	0.076 µg/L [0.079]	Low, 88.518 %Abs		0.300 - 5.000	20J4209
AB46774	MICROCYSTINS ADDA 54	1.607 Abs	0.059 µg/L	Low, 90.894 %Abs		0.300 - 5.000	20J4209
AB46774	MICROCYSTINS ADDA 54	1.563 Abs [1.5850] {2.0 C	0.077 µg/L [0.068]	Low, 88.405 %Abs		0.300 - 5.000	20J4209
AB46775	MICROCYSTINS ADDA 54	1.573 Abs	0.073 µg/L	Low, 88.971 %Abs		0.300 - 5.000	20J4209
AB46775	MICROCYSTINS ADDA 54	1.512 Abs [1.5425] {2.8 C	0.099 µg/L [0.086]	Low, 85.520 %Abs		0.300 - 5.000	20J4209
AB46776	MICROCYSTINS ADDA 54	1.456 Abs	0.126 µg/L	Low, 82.353 %Abs		0.300 - 5.000	20J4209
AB46776	MICROCYSTINS ADDA 54	1.474 Abs [1.4650] {0.9 C	0.117 µg/L [0.122]	Low, 83.371 %Abs		0.300 - 5.000	20J4209
AB46777	MICROCYSTINS ADDA 54	1.618 Abs	0.055 µg/L	Low, 91.516 %Abs		0.300 - 5.000	20J4209
AB46777	MICROCYSTINS ADDA 54	1.639 Abs [1.6285] {0.9 C	0.047 µg/L [0.051]	Low, 92.704 %Abs		0.300 - 5.000	20J4209
AB46778	MICROCYSTINS ADDA 54	1.699 Abs	0.025 µg/L	Low, 96.097 %Abs		0.300 - 5.000	20J4209
AB46778	MICROCYSTINS ADDA 54	1.664 Abs [1.6815] {1.5 C	0.038 µg/L [0.032]	Low, 94.118 %Abs		0.300 - 5.000	20J4209
AB47260	MICROCYSTINS ADDA 54	1.551 Abs	0.082 µg/L	Low, 87.726 %Abs		0.300 - 5.000	20J4209
AB47260	MICROCYSTINS ADDA 54	1.507 Abs [1.5290] {2.0 C	0.101 µg/L [0.091]	Low, 85.238 %Abs		0.300 - 5.000	20J4209
AB47261	MICROCYSTINS ADDA 54	1.524 Abs	0.094 µg/L	Low, 86.199 %Abs		0.300 - 5.000	20J4209
AB47261	MICROCYSTINS ADDA 54	1.521 Abs [1.5225] {0.1 C	0.095 µg/L [0.094]	Low, 86.029 %Abs		0.300 - 5.000	20J4209
AB47262	MICROCYSTINS ADDA 54	1.627 Abs	0.051 µg/L	Low, 92.025 %Abs		0.300 - 5.000	20J4209
AB47262	MICROCYSTINS ADDA 54	1.650 Abs [1.6385] {1.0 C	0.043 µg/L [0.047]	Low, 93.326 %Abs		0.300 - 5.000	20J4209
AB47263	MICROCYSTINS ADDA 54	1.668 Abs	0.036 µg/L	Low, 94.344 %Abs		0.300 - 5.000	20J4209
AB47263	MICROCYSTINS ADDA 54	1.706 Abs [1.6870] {1.6 C	0.023 µg/L [0.030]	Low, 96.493 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.943 Abs	0.577 µg/L	53.337 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.913 Abs [0.9280] {2.3 C	0.626 µg/L [0.602]	51.640 %Abs [52.4		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.648 Abs	0.043 µg/L	Low, 93.213 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.615 Abs [1.6315] {1.4 C	0.056 µg/L [0.050]	Low, 91.346 %Abs		0.300 - 5.000	20J4209

Note

Signature

Charles Hostetter 5/26/2021

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
5/26/2021 2:14:51 PM				
MCT Std 0	1.782 Abs	0.000 µg/L	R ² =0.99553, 100.792 %Abs	RK1:23->A01@2
MCT Std 0	1.754 Abs [1.7680] {1.1 CV}	0.007 µg/L [0.004] {141.4 CV}	R ² =0.99553, 99.208 %Abs	RK1:23->B01@2
MCT Std 1	1.451 Abs	0.128 µg/L	R ² =0.99553, 82.070 %Abs	RK1:24->C01@2
MCT Std 1	1.439 Abs [1.4450] {0.6 CV}	0.134 µg/L [0.131] {3.2 CV}	R ² =0.99553, 81.391 %Abs	RK1:24->D01@2
MCT Std 2	1.048 Abs	0.436 µg/L	R ² =0.99553, 59.276 %Abs	RK1:25->E01@2
MCT Std 2	1.013 Abs [1.0305] {2.4 CV}	0.479 µg/L [0.457] {6.6 CV}	R ² =0.99553, 57.296 %Abs	RK1:25->F01@3
MCT Std 3	0.771 Abs	0.937 µg/L	R ² =0.99553, 43.609 %Abs	RK1:26->G01@3
MCT Std 3	0.744 Abs [0.7575] {2.5 CV}	1.017 µg/L [0.977] {5.8 CV}	R ² =0.99553, 42.081 %Abs	RK1:26->H01@3
MCT Std 4	0.611 Abs	1.602 µg/L	R ² =0.99553, 34.559 %Abs	RK1:27->A02@2
MCT Std 4	0.582 Abs [0.5965] {3.4 CV}	1.797 µg/L [1.700] {8.1 CV}	R ² =0.99553, 32.919 %Abs	RK1:27->B02@2
MCT Std 5	0.381 Abs	> 5.000 µg/L	21.550 %Abs	RK1:28->C02@2
MCT Std 5	0.371 Abs [0.3760] {1.9 CV}	> 5.000 µg/L	20.984 %Abs	RK1:28->D02@2

5/26/2021 2:14:51 PM				
MCT 546 LRB 1	1.619 Abs	0.054 µg/L	91.572 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.586 Abs [1.6025] {1.5 CV}	0.067 µg/L [0.061] {15.2 CV}	89.706 %Abs [90.639 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.179 Abs	0.306 µg/L	66.686 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.162 Abs [1.1705] {1.0 CV}	0.321 µg/L [0.313] {3.4 CV}	65.724 %Abs [66.205 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.987 Abs	0.513 µg/L	55.826 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.946 Abs [0.9665] {3.0 CV}	0.572 µg/L [0.543] {7.7 CV}	53.507 %Abs [54.666 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.7680	0.0035		
MCT Std 0 [SD]	0.0198	0.0049		
MCT Std 0 [%CV]	1.1199	141.4214		
MCT Std 1 [MEAN]	1.4450	0.1310		
MCT Std 1 [SD]	0.0085	0.0042		
MCT Std 1 [%CV]	0.5872	3.2387		
MCT Std 1 [%DIFF]		-12.6667		
MCT Std 2 [MEAN]	1.0305	0.4575		
MCT Std 2 [SD]	0.0247	0.0304		
MCT Std 2 [%CV]	2.4016	6.6460		
MCT Std 2 [%DIFF]		14.3750		
MCT Std 3 [MEAN]	0.7575	0.9770		
MCT Std 3 [SD]	0.0191	0.0566		
MCT Std 3 [%CV]	2.5204	5.7900		
MCT Std 3 [%DIFF]		-2.3000		
MCT Std 4 [MEAN]	0.5965	1.6995		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0205	0.1379		
MCT Std 4 [%CV]	3.4377	8.1133		
MCT Std 4 [%DIFF]		-15.0250		
MCT Std 5 [MEAN]	0.3760			
MCT Std 5 [SD]	0.0071			
MCT Std 5 [%CV]	1.8806			
MCT 546 LRB 1 [MEAN]	1.6025	0.0605		
MCT 546 LRB 1 [SD]	0.0233	0.0092		
MCT 546 LRB 1 [%CV]	1.4561	15.1940		
MCT 546 Low-CV [MEAN]	1.1705	0.3135		
MCT 546 Low-CV [SD]	0.0120	0.0106		
MCT 546 Low-CV [%CV]	1.0270	3.3833		
MCT 546 LFB 1 [MEAN]	0.9665	0.5425		
MCT 546 LFB 1 [SD]	0.0290	0.0417		
MCT 546 LFB 1 [%CV]	2.9996	7.6902		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7759
 B = 1.0023
 C = 0.46262
 D = 0.27564
 R2 coef = 0.99553
 50% = 0.678

