



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47694	Raccoon Lake SRA	6/28/2021	6/29/2021	< 0.30
AB47693	Cagles Mill Lake Beach	6/28/2021	6/29/2021	< 0.30
AB47697	Whitewater Memorial SP	6/28/2021	6/29/2021	< 0.30
AB47696	Mounds SRA	6/28/2021	6/29/2021	< 0.30
AB47695	Hardy Lake SRA	6/28/2021	6/29/2021	0.63
AB47698	Mounds SRA (Field Duplicate)	6/28/2021	6/29/2021	< 0.30
AB47699	Field Blank	6/28/2021	6/29/2021	< 0.30
AB47700	Ft. Ben Harrison SP Dog Lake - East	6/28/2021	6/29/2021	< 0.30

# Test Report (by Request)

**Test Information**

Request: 6/29/2021 3:04:35 PM

Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.685 Abs	0.001 µg/L	R <sup>2</sup> =0.99709, 100.3			20J4209
MCT Std 0	MICROCYSTINS ADDA 54	1.674 Abs [1.6795] {0.5 C	0.007 µg/L [0.004]	R <sup>2</sup> =0.99709, 99.70			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.408 Abs	0.129 µg/L	R <sup>2</sup> =0.99709, 83.85			20J4209
MCT Std 1	MICROCYSTINS ADDA 54	1.376 Abs [1.3920] {1.6 C	0.146 µg/L [0.137]	R <sup>2</sup> =0.99709, 81.95			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	1.026 Abs	0.400 µg/L	R <sup>2</sup> =0.99709, 61.10			20J4209
MCT Std 2	MICROCYSTINS ADDA 54	0.970 Abs [0.9980] {4.0 C	0.460 µg/L [0.430]	R <sup>2</sup> =0.99709, 57.77			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.699 Abs	0.954 µg/L	R <sup>2</sup> =0.99709, 41.63			20J4209
MCT Std 3	MICROCYSTINS ADDA 54	0.655 Abs [0.6770] {4.6 C	1.095 µg/L [1.025]	R <sup>2</sup> =0.99709, 39.01			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.552 Abs	1.589 µg/L	R <sup>2</sup> =0.99709, 32.87			20J4209
MCT Std 4	MICROCYSTINS ADDA 54	0.533 Abs [0.5425] {2.5 C	1.722 µg/L [1.655]	R <sup>2</sup> =0.99709, 31.74			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.353 Abs	> 5.000 µg/L	21.024 %Abs			20J4209
MCT Std 5	MICROCYSTINS ADDA 54	0.338 Abs [0.3455] {3.1 C	> 5.000 µg/L	20.131 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.550 Abs	0.062 µg/L	92.317 %Abs			20J4209
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.571 Abs [1.5605] {1.0 C	0.053 µg/L [0.057]	93.568 %Abs [92.9			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.126 Abs	0.309 µg/L	67.064 %Abs			20J4209
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.018 Abs [1.0720] {7.1 C	0.408 µg/L [0.359]	60.631 %Abs [63.8			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.954 Abs	0.479 µg/L	56.820 %Abs			20J4209
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.887 Abs [0.9205] {5.1 C	0.569 µg/L [0.524]	52.829 %Abs [54.8			20J4209

**Note**

Signature

David Jordan 6/29/2021

# Test Report (by Request)

**Test Information**

 Request: 6/29/2021 3:05:23 PM  
 Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB47694	MICROCYSTINS ADDA 54	1.443 Abs	0.112 µg/L	Low, 85.944 %Abs		0.300 - 5.000	20J4209
AB47694	MICROCYSTINS ADDA 54	1.476 Abs [1.4595] {1.6 C	0.096 µg/L [0.104]	Low, 87.909 %Abs		0.300 - 5.000	20J4209
AB47694MS	MICROCYSTINS ADDA 54	0.772 Abs	0.772 µg/L	45.980 %Abs		0.300 - 5.000	20J4209
AB47694MS	MICROCYSTINS ADDA 54	0.752 Abs [0.7620] {1.9 C	0.817 µg/L [0.794]	44.789 %Abs [45.3		0.300 - 5.000	20J4209
AB47694MSD	MICROCYSTINS ADDA 54	0.757 Abs	0.805 µg/L	45.086 %Abs		0.300 - 5.000	20J4209
AB47694MSD	MICROCYSTINS ADDA 54	0.749 Abs [0.7530] {0.8 C	0.824 µg/L [0.814]	44.610 %Abs [44.8		0.300 - 5.000	20J4209
AB47693	MICROCYSTINS ADDA 54	1.231 Abs	0.232 µg/L	Low, 73.317 %Abs		0.300 - 5.000	20J4209
AB47693	MICROCYSTINS ADDA 54	1.187 Abs [1.2090] {2.6 C	0.263 µg/L [0.248]	Low, 70.697 %Abs		0.300 - 5.000	20J4209
AB47697	MICROCYSTINS ADDA 54	1.505 Abs	0.082 µg/L	Low, 89.637 %Abs		0.300 - 5.000	20J4209
AB47697	MICROCYSTINS ADDA 54	1.494 Abs [1.4995] {0.5 C	0.087 µg/L [0.084]	Low, 88.982 %Abs		0.300 - 5.000	20J4209
AB47696	MICROCYSTINS ADDA 54	1.534 Abs	0.069 µg/L	Low, 91.364 %Abs		0.300 - 5.000	20J4209
AB47696	MICROCYSTINS ADDA 54	1.484 Abs [1.5090] {2.3 C	0.092 µg/L [0.080]	Low, 88.386 %Abs		0.300 - 5.000	20J4209
AB47695	MICROCYSTINS ADDA 54	0.850 Abs	0.626 µg/L	50.625 %Abs		0.300 - 5.000	20J4209
AB47695	MICROCYSTINS ADDA 54	0.844 Abs [0.8470] {0.5 C	0.636 µg/L [0.631]	50.268 %Abs [50.4		0.300 - 5.000	20J4209
AB47698	MICROCYSTINS ADDA 54	1.550 Abs	0.062 µg/L	Low, 92.317 %Abs		0.300 - 5.000	20J4209
AB47698	MICROCYSTINS ADDA 54	1.553 Abs [1.5515] {0.1 C	0.061 µg/L [0.061]	Low, 92.496 %Abs		0.300 - 5.000	20J4209
AB47699	MICROCYSTINS ADDA 54	1.634 Abs	0.025 µg/L	Low, 97.320 %Abs		0.300 - 5.000	20J4209
AB47699	MICROCYSTINS ADDA 54	1.608 Abs [1.6210] {1.1 C	0.036 µg/L [0.030]	Low, 95.771 %Abs		0.300 - 5.000	20J4209
AB47700	MICROCYSTINS ADDA 54	1.564 Abs	0.056 µg/L	Low, 93.151 %Abs		0.300 - 5.000	20J4209
AB47700	MICROCYSTINS ADDA 54	1.525 Abs [1.5445] {1.8 C	0.073 µg/L [0.065]	Low, 90.828 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.817 Abs	0.683 µg/L	48.660 %Abs		0.300 - 5.000	20J4209
LFB 2	MICROCYSTINS ADDA 54	0.834 Abs [0.8255] {1.5 C	0.653 µg/L [0.668]	49.672 %Abs [49.1		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.643 Abs	0.021 µg/L	Low, 97.856 %Abs		0.300 - 5.000	20J4209
LRB 2	MICROCYSTINS ADDA 54	1.658 Abs [1.6505] {0.6 C	0.014 µg/L [0.018]	Low, 98.749 %Abs		0.300 - 5.000	20J4209

**Note**

Signature

David Jordan 6/29/2021

**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: 20J4209

**Assay Calibration**

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
<b>6/29/2021 3:04:35 PM</b>				
MCT Std 0	1.685 Abs	0.001 µg/L	R <sup>2</sup> =0.99709, 100.357 %Abs	RK1:23->A01@2
MCT Std 0	1.674 Abs [1.6795] {0.5 CV}	0.007 µg/L [0.004] {106.1 CV}	R <sup>2</sup> =0.99709, 99.702 %Abs	RK1:23->B01@2
MCT Std 1	1.408 Abs	0.129 µg/L	R <sup>2</sup> =0.99709, 83.859 %Abs	RK1:24->C01@2
MCT Std 1	1.376 Abs [1.3920] {1.6 CV}	0.146 µg/L [0.137] {8.7 CV}	R <sup>2</sup> =0.99709, 81.954 %Abs	RK1:24->D01@2
MCT Std 2	1.026 Abs	0.400 µg/L	R <sup>2</sup> =0.99709, 61.108 %Abs	RK1:25->E01@2
MCT Std 2	0.970 Abs [0.9980] {4.0 CV}	0.460 µg/L [0.430] {9.9 CV}	R <sup>2</sup> =0.99709, 57.772 %Abs	RK1:25->F01@3
MCT Std 3	0.699 Abs	0.954 µg/L	R <sup>2</sup> =0.99709, 41.632 %Abs	RK1:26->G01@3
MCT Std 3	0.655 Abs [0.6770] {4.6 CV}	1.095 µg/L [1.025] {9.7 CV}	R <sup>2</sup> =0.99709, 39.011 %Abs	RK1:26->H01@3
MCT Std 4	0.552 Abs	1.589 µg/L	R <sup>2</sup> =0.99709, 32.877 %Abs	RK1:27->A02@2
MCT Std 4	0.533 Abs [0.5425] {2.5 CV}	1.722 µg/L [1.655] {5.7 CV}	R <sup>2</sup> =0.99709, 31.745 %Abs	RK1:27->B02@2
MCT Std 5	0.353 Abs	> 5.000 µg/L	21.024 %Abs	RK1:28->C02@2
MCT Std 5	0.338 Abs [0.3455] {3.1 CV}	> 5.000 µg/L	20.131 %Abs	RK1:28->D02@2
*****				
<b>6/29/2021 3:04:35 PM</b>				
MCT 546 LRB 1	1.550 Abs	0.062 µg/L	92.317 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.571 Abs [1.5605] {1.0 CV}	0.053 µg/L [0.057] {11.1 CV}	93.568 %Abs [92.942 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.126 Abs	0.309 µg/L	67.064 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.018 Abs [1.0720] {7.1 CV}	0.408 µg/L [0.359] {19.5 CV}	60.631 %Abs [63.848 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.954 Abs	0.479 µg/L	56.820 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.887 Abs [0.9205] {5.1 CV}	0.569 µg/L [0.524] {12.1 CV}	52.829 %Abs [54.824 %Abs]	RK1:31->B03@2
*****				
<b>Statistic</b>				
MCT Std 0 [MEAN]	1.6795	0.0040		
MCT Std 0 [SD]	0.0078	0.0042		
MCT Std 0 [%CV]	0.4631	106.0660		
MCT Std 1 [MEAN]	1.3920	0.1375		
MCT Std 1 [SD]	0.0226	0.0120		
MCT Std 1 [%CV]	1.6255	8.7424		
MCT Std 1 [%DIFF]		-8.3333		
MCT Std 2 [MEAN]	0.9980	0.4300		
MCT Std 2 [SD]	0.0396	0.0424		
MCT Std 2 [%CV]	3.9677	9.8666		
MCT Std 2 [%DIFF]		7.5000		
MCT Std 3 [MEAN]	0.6770	1.0245		
MCT Std 3 [SD]	0.0311	0.0997		
MCT Std 3 [%CV]	4.5957	9.7318		
MCT Std 3 [%DIFF]		2.4500		
MCT Std 4 [MEAN]	0.5425	1.6555		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0134	0.0940		
MCT Std 4 [%CV]	2.4765	5.6808		
MCT Std 4 [%DIFF]		-17.2250		
MCT Std 5 [MEAN]	0.3455			
MCT Std 5 [SD]	0.0106			
MCT Std 5 [%CV]	3.0699			
MCT 546 LRB 1 [MEAN]	1.5605	0.0575		
MCT 546 LRB 1 [SD]	0.0148	0.0064		
MCT 546 LRB 1 [%CV]	0.9516	11.0678		
MCT 546 Low-CV [MEAN]	1.0720	0.3585		
MCT 546 Low-CV [SD]	0.0764	0.0700		
MCT 546 Low-CV [%CV]	7.1238	19.5268		
MCT 546 LFB 1 [MEAN]	0.9205	0.5240		
MCT 546 LFB 1 [SD]	0.0474	0.0636		
MCT 546 LFB 1 [%CV]	5.1468	12.1450		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.6858  
 B = 1.1339  
 C = 0.44235  
 D = 0.28609  
 R2 coef = 0.99709  
 50% = 0.643

