



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43619	Raccoon Lake SRA	7/27/2020	7/30/2020	< 0.30
AB43620	Cagles Mill Lake Beach	7/27/2020	7/30/2020	< 0.30
AB43621	Paynetown SRA	7/27/2020	7/30/2020	< 0.30
AB43622	Starve Hollow SRA	7/28/2020	7/30/2020	< 0.30
AB43623	Whitewater Memorial SP	7/28/2020	7/30/2020	< 0.30
AB43624	Quakertown SRA	7/28/2020	7/30/2020	< 0.30
AB43625	Mounds SRA	7/28/2020	7/30/2020	< 0.30
AB43626	Hardy Lake SRA	7/28/2020	7/30/2020	0.33
AB43627	Ferdinand State Forest Lake	7/27/2020	7/30/2020	< 0.30
AB43628	Patoka Lake	7/27/2020	7/30/2020	< 0.30
AB43629	Raccoon Lake SRA (Field Duplicate)	7/27/2020	7/30/2020	< 0.30
AB43630	Field Blank	7/27/2020	7/30/2020	< 0.30

Test Information

Request: 7/30/2020 12:11:35 PM
Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.417 Abs	0.000 µg/L	R^2=0.99648, 101.35		19L2093
MCT Std 0	MICROCYSTINS ADDA 546	1.380 Abs [1.3985] {1.9 CV}	0.022 µg/L [0.011] {1.9 CV}	R^2=0.99648, 98.712		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.222 Abs	0.131 µg/L	R^2=0.99648, 87.411		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.210 Abs [1.2160] {0.7 CV}	0.140 µg/L [0.135] {0.7 CV}	R^2=0.99648, 86.552		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.928 Abs	0.397 µg/L	R^2=0.99648, 66.381		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.888 Abs [0.9080] {3.1 CV}	0.447 µg/L [0.422] {3.1 CV}	R^2=0.99648, 63.519		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.611 Abs	1.041 µg/L	R^2=0.99648, 43.705		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.603 Abs [0.6070] {0.9 CV}	1.070 µg/L [1.056] {0.9 CV}	R^2=0.99648, 43.133		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.506 Abs	1.554 µg/L	R^2=0.99648, 36.195		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.483 Abs [0.4945] {3.3 CV}	1.722 µg/L [1.638] {3.3 CV}	R^2=0.99648, 34.549		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.318 Abs	> 5.000 µg/L	22.747 %Abs		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.303 Abs [0.3105] {3.4 CV}	> 5.000 µg/L	21.674 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.305 Abs	0.074 µg/L	93.348 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.273 Abs [1.2890] {1.8 CV}	0.095 µg/L [0.084] {1.8 CV}	91.059 %Abs [92.203]		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.049 Abs	0.270 µg/L	75.036 %Abs		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.038 Abs [1.0435] {0.7 CV}	0.280 µg/L [0.275] {0.7 CV}	74.249 %Abs [74.642]		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.837 Abs	0.519 µg/L	59.871 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.814 Abs [0.8255] {2.0 CV}	0.555 µg/L [0.537] {2.0 CV}	58.226 %Abs [59.045]		19L2093

Note

Signature *David Jordan*

Date: 7/30/2020

Test Report (by Request)

Test Information

Request: 7/30/2020 12:13:15 PM
Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB43619	MICROCYSTINS ADDA 546	1.222 Abs	0.131 µg/L	LOW, 87.411 %ABS	0.300 - 5.000	19L2093
AB43619	MICROCYSTINS ADDA 546	1.215 Abs [1.2185] {0.4 CV}	0.136 µg/L [0.134] {2}	LOW, 86.910 %ABS	0.300 - 5.000	19L2093
AB43620	MICROCYSTINS ADDA 546	1.220 Abs	0.132 µg/L	LOW, 87.268 %ABS	0.300 - 5.000	19L2093
AB43620	MICROCYSTINS ADDA 546	1.186 Abs [1.2030] {2.0 CV}	0.157 µg/L [0.145] {1}	LOW, 84.835 %ABS	0.300 - 5.000	19L2093
AB43621	MICROCYSTINS ADDA 546	1.176 Abs	0.165 µg/L	LOW, 84.120 %ABS	0.300 - 5.000	19L2093
AB43621	MICROCYSTINS ADDA 546	1.247 Abs [1.2115] {4.1 CV}	0.113 µg/L [0.139] {2}	LOW, 89.199 %ABS	0.300 - 5.000	19L2093
AB43622	MICROCYSTINS ADDA 546	1.303 Abs	0.075 µg/L	LOW, 93.205 %ABS	0.300 - 5.000	19L2093
AB43622	MICROCYSTINS ADDA 546	1.256 Abs [1.2795] {2.6 CV}	0.107 µg/L [0.091] {2}	LOW, 89.843 %ABS	0.300 - 5.000	19L2093
AB43622MS	MICROCYSTINS ADDA 546	0.804 Abs	0.571 µg/L	57.511 %Abs	0.300 - 5.000	19L2093
AB43622MS	MICROCYSTINS ADDA 546	0.758 Abs [0.7810] {4.2 CV}	0.655 µg/L [0.613] {9}	54.220 %Abs [55.866]	0.300 - 5.000	19L2093
AB43622MSD	MICROCYSTINS ADDA 546	0.747 Abs	0.676 µg/L	53.433 %Abs	0.300 - 5.000	19L2093
AB43622MSD	MICROCYSTINS ADDA 546	0.710 Abs [0.7285] {3.6 CV}	0.756 µg/L [0.716] {7}	50.787 %Abs [52.110]	0.300 - 5.000	19L2093
AB43623	MICROCYSTINS ADDA 546	1.161 Abs	0.176 µg/L	LOW, 83.047 %ABS	0.300 - 5.000	19L2093
AB43623	MICROCYSTINS ADDA 546	1.150 Abs [1.1555] {0.7 CV}	0.185 µg/L [0.181] {3}	LOW, 82.260 %ABS	0.300 - 5.000	19L2093
AB43624	MICROCYSTINS ADDA 546	1.180 Abs	0.162 µg/L	LOW, 84.406 %ABS	0.300 - 5.000	19L2093
AB43624	MICROCYSTINS ADDA 546	1.130 Abs [1.1550] {3.1 CV}	0.200 µg/L [0.181] {1}	LOW, 80.830 %ABS	0.300 - 5.000	19L2093
AB43625	MICROCYSTINS ADDA 546	1.087 Abs	0.236 µg/L	LOW, 77.754 %ABS	0.300 - 5.000	19L2093
AB43625	MICROCYSTINS ADDA 546	1.051 Abs [1.0690] {2.4 CV}	0.268 µg/L [0.252] {9}	LOW, 75.179 %ABS	0.300 - 5.000	19L2093
AB43626	MICROCYSTINS ADDA 546	0.998 Abs	0.319 µg/L	71.388 %Abs	0.300 - 5.000	19L2093
AB43626	MICROCYSTINS ADDA 546	0.971 Abs [0.9845] {1.9 CV}	0.348 µg/L [0.333] {6}	69.456 %Abs [70.422]	0.300 - 5.000	19L2093
AB43627	MICROCYSTINS ADDA 546	1.044 Abs	0.275 µg/L	LOW, 74.678 %ABS	0.300 - 5.000	19L2093
AB43627	MICROCYSTINS ADDA 546	1.062 Abs [1.0530] {1.2 CV}	0.258 µg/L [0.266] {4}	LOW, 75.966 %ABS	0.300 - 5.000	19L2093
AB43628	MICROCYSTINS ADDA 546	1.301 Abs	0.076 µg/L	LOW, 93.062 %ABS	0.300 - 5.000	19L2093
AB43628	MICROCYSTINS ADDA 546	1.275 Abs [1.2880] {1.4 CV}	0.094 µg/L [0.085] {1}	LOW, 91.202 %ABS	0.300 - 5.000	19L2093
AB43629	MICROCYSTINS ADDA 546	1.219 Abs	0.133 µg/L	LOW, 87.196 %ABS	0.300 - 5.000	19L2093
AB43629	MICROCYSTINS ADDA 546	1.162 Abs [1.1905] {3.4 CV}	0.175 µg/L [0.154] {1}	LOW, 83.119 %ABS	0.300 - 5.000	19L2093
AB43630	MICROCYSTINS ADDA 546	1.298 Abs	0.078 µg/L	LOW, 92.847 %ABS	0.300 - 5.000	19L2093
AB43630	MICROCYSTINS ADDA 546	1.286 Abs [1.2920] {0.7 CV}	0.087 µg/L [0.082] {7}	LOW, 91.989 %ABS	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.828 Abs	0.533 µg/L	59.227 %Abs	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.810 Abs [0.8190] {1.6 CV}	0.562 µg/L [0.548] {3}	57.940 %Abs [58.584]	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.344 Abs	0.047 µg/L	LOW, 96.137 %ABS	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.325 Abs [1.3345] {1.0 CV}	0.060 µg/L [0.053] {1}	LOW, 94.778 %ABS	0.300 - 5.000	19L2093
QCS	MICROCYSTINS ADDA 546	0.819 Abs	0.547 µg/L	58.584 %Abs	0.300 - 5.000	19L2093
QCS	MICROCYSTINS ADDA 546	0.787 Abs [0.8030] {2.8 CV}	0.601 µg/L [0.574] {6}	56.295 %Abs [57.439]	0.300 - 5.000	19L2093

Note

Signature David Jordan

Date: 7/30/2020

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1073/1085/1.00/0.95) 7/30/2020 3:51:34 PM

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: 8/13/2019 2:01:59 PM

Normal: 0.300 - 5.000

of decimals: 3

Kit Lot Number: 19L2093

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/30/2020 12:11:35 PM					
MCT Std 0	1.417 Abs		R ² =0.99648, 101.359 %Abs	RK1:23->A01@2	
MCT Std 0	1.380 Abs [1.3985] {1.9 CV}		R ² =0.99648, 98.712 %Abs	RK1:23->B01@2	
MCT Std 1	1.222 Abs		R ² =0.99648, 87.411 %Abs	RK1:24->C01@2	
MCT Std 1	1.210 Abs [1.2160] {0.7 CV}		R ² =0.99648, 86.552 %Abs	RK1:24->D01@2	
MCT Std 2	0.928 Abs		R ² =0.99648, 66.381 %Abs	RK1:25->E01@2	
MCT Std 2	0.888 Abs [0.9080] {3.1 CV}		R ² =0.99648, 63.519 %Abs	RK1:25->F01@3	
MCT Std 3	0.611 Abs		R ² =0.99648, 43.705 %Abs	RK1:26->G01@3	
MCT Std 3	0.603 Abs [0.6070] {0.9 CV}		R ² =0.99648, 43.133 %Abs	RK1:26->H01@3	
MCT Std 4	0.506 Abs		R ² =0.99648, 36.195 %Abs	RK1:27->A02@2	
MCT Std 4	0.483 Abs [0.4945] {3.3 CV}		R ² =0.99648, 34.549 %Abs	RK1:27->B02@2	
MCT Std 5	0.318 Abs		22.747 %Abs	RK1:28->C02@2	
MCT Std 5	0.303 Abs [0.3105] {3.4 CV}		21.674 %Abs	RK1:28->D02@2	

7/30/2020 12:11:35 PM					
MCT 546 LRB 1	1.305 Abs		93.348 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.273 Abs [1.2890] {1.8 CV}		91.059 %Abs [92.203 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.049 Abs		75.036 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.038 Abs [1.0435] {0.7 CV}		74.249 %Abs [74.642 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.837 Abs		59.871 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.814 Abs [0.8255] {2.0 CV}		58.226 %Abs [59.049 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.3985				
MCT Std 0 [SD]	0.0262				
MCT Std 0 [%CV]	1.8708				
MCT Std 1 [MEAN]	1.2160				
MCT Std 1 [SD]	0.0085				
MCT Std 1 [%CV]	0.6978				
MCT Std 1 [%DIFF]					
MCT Std 2 [MEAN]	0.9080				
MCT Std 2 [SD]	0.0283				
MCT Std 2 [%CV]	3.1150				
MCT Std 2 [%DIFF]					
MCT Std 3 [MEAN]	0.6070				
MCT Std 3 [SD]	0.0057				
MCT Std 3 [%CV]	0.9319				
MCT Std 3 [%DIFF]					
MCT Std 4 [MEAN]	0.4945				

Name	Absorbance	Concentration	Interpretation	Position	
MCT Std 4 [SD]	0.0163				
MCT Std 4 [%CV]	3.2889				
MCT Std 4 [%DIFF]					
MCT Std 5 [MEAN]	0.3105				
MCT Std 5 [SD]	0.0106				
MCT Std 5 [%CV]	3.4160				
MCT 546 LRB 1 [MEAN]	1.2890				
MCT 546 LRB 1 [SD]	0.0226				
MCT 546 LRB 1 [%CV]	1.7554				
MCT 546 Low-CV [MEAN]	1.0435				
MCT 546 Low-CV [SD]	0.0078				
MCT 546 Low-CV [%CV]	0.7454				
MCT 546 LFB 1 [MEAN]	0.8255				
MCT 546 LFB 1 [SD]	0.0163				
MCT 546 LFB 1 [%CV]	1.9701				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4053
 B = 1.1920
 C = 0.52686
 D = 0.25821
 R2 coef = 0.99648
 50% = 0.783

