



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB42867	Raccoon Lake SRA	6/15/2020	6/18/2020	< 0.30
AB42869	Cagles Mill Lake Beach	6/15/2020	6/18/2020	< 0.30
AB42870	Paynetown SRA	6/15/2020	6/18/2020	< 0.30
AB42871	Fairfax SRA	6/15/2020	6/18/2020	< 0.30
AB42872	Starve Hollow SRA	6/15/2020	6/18/2020	< 0.30
AB42873	Whitewater Memorial SP	6/16/2020	6/18/2020	< 0.30
AB42874	Quakertown SRA	6/16/2020	6/18/2020	< 0.30
AB42875	Mounds SRA	6/16/2020	6/18/2020	< 0.30
AB42876	Hardy Lake SRA	6/16/2020	6/18/2020	< 0.30
AB42877	Field Blank	6/15/2020	6/18/2020	< 0.30
AB42868	Deam Lake SRA	6/16/2020	6/18/2020	< 0.30
AB42878	Starve Hollow SRA	6/15/2020	6/18/2020	< 0.30
AB42912	Ferdinand Forest Lake	6/15/2020	6/18/2020	< 0.30
AB42913	Lincoln State Park	6/15/2020	6/18/2020	< 0.30
AB42914	Patoka Lake	6/15/2020	6/18/2020	< 0.30

Test Information

Request: 6/18/2020 11:57:35 AM
Date: 6/18/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.618 Abs	0.004 µg/L	R^2=0.99848, 100.12		19L2093
MCT Std 0	MICROCYSTINS ADDA 546	1.614 Abs [1.6160] {0.2 CV}	0.007 µg/L [0.006] {0.2 CV}	R^2=0.99848, 99.876		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.420 Abs	0.128 µg/L	R^2=0.99848, 87.871		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.403 Abs [1.4115] {0.9 CV}	0.140 µg/L [0.134] {0.9 CV}	R^2=0.99848, 86.819		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	1.079 Abs	0.421 µg/L	R^2=0.99848, 66.770		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	1.062 Abs [1.0705] {1.1 CV}	0.441 µg/L [0.431] {1.1 CV}	R^2=0.99848, 65.718		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.764 Abs	0.983 µg/L	R^2=0.99848, 47.277		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.761 Abs [0.7625] {0.3 CV}	0.992 µg/L [0.987] {0.3 CV}	R^2=0.99848, 47.092		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.567 Abs	1.874 µg/L	R^2=0.99848, 35.087		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.571 Abs [0.5690] {0.5 CV}	1.845 µg/L [1.859] {0.5 CV}	R^2=0.99848, 35.334		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.379 Abs	> 5.000 µg/L	23.453 %Abs		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.377 Abs [0.3780] {0.4 CV}	> 5.000 µg/L	23.329 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.545 Abs	0.050 µg/L	95.606 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.534 Abs [1.5395] {0.5 CV}	0.057 µg/L [0.054] {0.5 CV}	94.926 %Abs [95.266]		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.241 Abs	0.261 µg/L	76.795 %Abs		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.222 Abs [1.2315] {1.1 CV}	0.278 µg/L [0.270] {1.1 CV}	75.619 %Abs [76.207]		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	1.068 Abs	0.434 µg/L	66.089 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	1.068 Abs [1.0680] {0.0 CV}	0.434 µg/L [0.434] {0.0 CV}	66.089 %Abs [66.089]		19L2093

Note

Signature 

Date: 6/18/2020

Test Information

Request: 6/18/2020 11:58:43 AM
Date: 6/18/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB42867	MICROCYSTINS ADDA 546	1.456 Abs	0.105 µg/L	LOW, 90.099 %ABS	0.300 - 5.000	19L2093
AB42867	MICROCYSTINS ADDA 546	1.453 Abs [1.4545] {0.1 CV}	0.107 µg/L [0.106] {1}	LOW, 89.913 %ABS	0.300 - 5.000	19L2093
AB42868	MICROCYSTINS ADDA 546	1.562 Abs	0.040 µg/L	LOW, 96.658 %ABS	0.300 - 5.000	19L2093
AB42868	MICROCYSTINS ADDA 546	1.536 Abs [1.5490] {1.2 CV}	0.056 µg/L [0.048] {2}	LOW, 95.050 %ABS	0.300 - 5.000	19L2093
AB42869	MICROCYSTINS ADDA 546	1.482 Abs	0.089 µg/L	LOW, 91.708 %ABS	0.300 - 5.000	19L2093
AB42869	MICROCYSTINS ADDA 546	1.457 Abs [1.4695] {1.2 CV}	0.104 µg/L [0.097] {1}	LOW, 90.161 %ABS	0.300 - 5.000	19L2093
AB42870	MICROCYSTINS ADDA 546	1.567 Abs	0.037 µg/L	LOW, 96.968 %ABS	0.300 - 5.000	19L2093
AB42870	MICROCYSTINS ADDA 546	1.590 Abs [1.5785] {1.0 CV}	0.023 µg/L [0.030] {3}	LOW, 98.391 %ABS	0.300 - 5.000	19L2093
AB42871	MICROCYSTINS ADDA 546	1.550 Abs	0.047 µg/L	LOW, 95.916 %ABS	0.300 - 5.000	19L2093
AB42871	MICROCYSTINS ADDA 546	1.515 Abs [1.5325] {1.6 CV}	0.068 µg/L [0.058] {2}	LOW, 93.750 %ABS	0.300 - 5.000	19L2093
AB42872	MICROCYSTINS ADDA 546	1.540 Abs	0.053 µg/L	LOW, 95.297 %ABS	0.300 - 5.000	19L2093
AB42872	MICROCYSTINS ADDA 546	1.513 Abs [1.5265] {1.3 CV}	0.070 µg/L [0.061] {1}	LOW, 93.626 %ABS	0.300 - 5.000	19L2093
AB42873	MICROCYSTINS ADDA 546	1.475 Abs	0.093 µg/L	LOW, 91.275 %ABS	0.300 - 5.000	19L2093
AB42873	MICROCYSTINS ADDA 546	1.420 Abs [1.4475] {2.7 CV}	0.128 µg/L [0.111] {2}	LOW, 87.871 %ABS	0.300 - 5.000	19L2093
AB42873MS	MICROCYSTINS ADDA 546	1.011 Abs	0.506 µg/L	62.562 %Abs	0.300 - 5.000	19L2093
AB42873MS	MICROCYSTINS ADDA 546	0.990 Abs [1.0005] {1.5 CV}	0.535 µg/L [0.521] {3}	61.262 %Abs [61.912]	0.300 - 5.000	19L2093
AB42873MSD	MICROCYSTINS ADDA 546	0.988 Abs	0.537 µg/L	61.139 %Abs	0.300 - 5.000	19L2093
AB42873MSD	MICROCYSTINS ADDA 546	0.974 Abs [0.9810] {1.0 CV}	0.558 µg/L [0.548] {2}	60.272 %Abs [60.705]	0.300 - 5.000	19L2093
AB42874	MICROCYSTINS ADDA 546	1.521 Abs	0.065 µg/L	LOW, 94.121 %ABS	0.300 - 5.000	19L2093
AB42874	MICROCYSTINS ADDA 546	1.482 Abs [1.5015] {1.8 CV}	0.089 µg/L [0.077] {2}	LOW, 91.708 %ABS	0.300 - 5.000	19L2093
AB42875	MICROCYSTINS ADDA 546	1.461 Abs	0.102 µg/L	LOW, 90.408 %ABS	0.300 - 5.000	19L2093
AB42875	MICROCYSTINS ADDA 546	1.439 Abs [1.4500] {1.1 CV}	0.116 µg/L [0.109] {9}	LOW, 89.047 %ABS	0.300 - 5.000	19L2093
AB42876	MICROCYSTINS ADDA 546	1.544 Abs	0.051 µg/L	LOW, 95.545 %ABS	0.300 - 5.000	19L2093
AB42876	MICROCYSTINS ADDA 546	1.560 Abs [1.5520] {0.7 CV}	0.041 µg/L [0.046] {1}	LOW, 96.535 %ABS	0.300 - 5.000	19L2093
AB42877	MICROCYSTINS ADDA 546	1.595 Abs	0.020 µg/L	LOW, 98.700 %ABS	0.300 - 5.000	19L2093
AB42877	MICROCYSTINS ADDA 546	1.570 Abs [1.5825] {1.1 CV}	0.035 µg/L [0.027] {3}	LOW, 97.153 %ABS	0.300 - 5.000	19L2093
AB42878	MICROCYSTINS ADDA 546	1.536 Abs	0.056 µg/L	LOW, 95.050 %ABS	0.300 - 5.000	19L2093
AB42878	MICROCYSTINS ADDA 546	1.506 Abs [1.5210] {1.4 CV}	0.074 µg/L [0.065] {1}	LOW, 93.193 %ABS	0.300 - 5.000	19L2093
AB42912	MICROCYSTINS ADDA 546	1.495 Abs	0.081 µg/L	LOW, 92.512 %ABS	0.300 - 5.000	19L2093
AB42912	MICROCYSTINS ADDA 546	1.435 Abs [1.4650] {2.9 CV}	0.118 µg/L [0.100] {2}	LOW, 88.800 %ABS	0.300 - 5.000	19L2093
AB42913	MICROCYSTINS ADDA 546	1.533 Abs	0.057 µg/L	LOW, 94.864 %ABS	0.300 - 5.000	19L2093
AB42913	MICROCYSTINS ADDA 546	1.507 Abs [1.5200] {1.2 CV}	0.073 µg/L [0.065] {1}	LOW, 93.255 %ABS	0.300 - 5.000	19L2093
AB42914	MICROCYSTINS ADDA 546	1.582 Abs	0.028 µg/L	LOW, 97.896 %ABS	0.300 - 5.000	19L2093
AB42914	MICROCYSTINS ADDA 546	1.559 Abs [1.5705] {1.0 CV}	0.042 µg/L [0.035] {2}	LOW, 96.473 %ABS	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	1.029 Abs	0.482 µg/L	63.676 %Abs	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	1.006 Abs [1.0175] {1.6 CV}	0.512 µg/L [0.497] {4}	62.252 %Abs [62.964]	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.544 Abs	0.051 µg/L	LOW, 95.545 %ABS	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.569 Abs [1.5565] {1.1 CV}	0.036 µg/L [0.043] {2}	LOW, 97.092 %ABS	0.300 - 5.000	19L2093

Note

Signature

David Jordan

Date: 6/18/2020

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	
6/18/2020 11:57:35 AM					
MCT Std 0	1.618 Abs		R ² =0.99848, 100.124 %Abs	RK1:23->A01@2	
MCT Std 0	1.614 Abs [1.6160] {0.2 CV}		R ² =0.99848, 99.876 %Abs	RK1:23->B01@2	
MCT Std 1	1.420 Abs		R ² =0.99848, 87.871 %Abs	RK1:24->C01@2	
MCT Std 1	1.403 Abs [1.4115] {0.9 CV}		R ² =0.99848, 86.819 %Abs	RK1:24->D01@2	
MCT Std 2	1.079 Abs		R ² =0.99848, 66.770 %Abs	RK1:25->E01@2	
MCT Std 2	1.062 Abs [1.0705] {1.1 CV}		R ² =0.99848, 65.718 %Abs	RK1:25->F01@3	
MCT Std 3	0.764 Abs		R ² =0.99848, 47.277 %Abs	RK1:26->G01@3	
MCT Std 3	0.761 Abs [0.7625] {0.3 CV}		R ² =0.99848, 47.092 %Abs	RK1:26->H01@3	
MCT Std 4	0.567 Abs		R ² =0.99848, 35.087 %Abs	RK1:27->A02@2	
MCT Std 4	0.571 Abs [0.5690] {0.5 CV}		R ² =0.99848, 35.334 %Abs	RK1:27->B02@2	
MCT Std 5	0.379 Abs		23.453 %Abs	RK1:28->C02@2	
MCT Std 5	0.377 Abs [0.3780] {0.4 CV}		23.329 %Abs	RK1:28->D02@2	

6/18/2020 11:57:35 AM					
MCT 546 LRB 1	1.545 Abs		95.606 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.534 Abs [1.5395] {0.5 CV}		94.926 %Abs [95.266 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.241 Abs		76.795 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.222 Abs [1.2315] {1.1 CV}		75.619 %Abs [76.207 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	1.068 Abs		66.089 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	1.068 Abs [1.0680] {0.0 CV}		66.089 %Abs [66.089 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.6160				
MCT Std 0 [SD]	0.0028				
MCT Std 0 [%CV]	0.1750				
MCT Std 1 [MEAN]	1.4115				
MCT Std 1 [SD]	0.0120				
MCT Std 1 [%CV]	0.8516				
MCT Std 1 [%DIFF]					
MCT Std 2 [MEAN]	1.0705				
MCT Std 2 [SD]	0.0120				
MCT Std 2 [%CV]	1.1229				
MCT Std 2 [%DIFF]					
MCT Std 3 [MEAN]	0.7625				
MCT Std 3 [SD]	0.0021				
MCT Std 3 [%CV]	0.2782				
MCT Std 3 [%DIFF]					
MCT Std 4 [MEAN]	0.5690				

Name	Absorbance	Concentration	Interpretation	Position	
MCT Std 4 [SD]	0.0028				
MCT Std 4 [%CV]	0.4971				
MCT Std 4 [%DIFF]					
MCT Std 5 [MEAN]	0.3780				
MCT Std 5 [SD]	0.0014				
MCT Std 5 [%CV]	0.3741				
MCT 546 LRB 1 [MEAN]	1.5395				
MCT 546 LRB 1 [SD]	0.0078				
MCT 546 LRB 1 [%CV]	0.5052				
MCT 546 Low-CV [MEAN]	1.2315				
MCT 546 Low-CV [SD]	0.0134				
MCT 546 Low-CV [%CV]	1.0910				
MCT 546 LFB 1 [MEAN]	1.0680				
MCT 546 LFB 1 [SD]	0.0000				
MCT 546 LFB 1 [%CV]	0.0000				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6232
 B = 1.1274
 C = 0.59292
 D = 0.27831
 R2 coef = 0.99848
 50% = 0.869

