



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB42518	Cagles Mill Lake Beach (Field Duplicate)	6/1/2020	6/3/2020	< 0.30
AB42519	Field Blank	6/1/2020	6/3/2020	< 0.30
AB42520	Cagles Mill Lake Beach	6/1/2020	6/3/2020	< 0.30
AB42521	Quakertown SRA	6/1/2020	6/3/2020	< 0.30
AB42522	Raccoon Lake SRA	6/1/2020	6/3/2020	< 0.30
AB42523	Mounds SRA	6/1/2020	6/3/2020	< 0.30

Test Information

Request: 6/4/2020 12:38:51 PM

Date: 6/4/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.835 Abs	0.000 µg/L	R^2=0.99899, 104.08		19L1984
MCT Std 0	MICROCYSTINS ADDA 546	1.691 Abs [1.7630] {5.8 CV}	0.088 µg/L [0.044] {1}	R^2=0.99899, 95.916		19L1984
MCT Std 1	MICROCYSTINS ADDA 546	1.613 Abs	0.149 µg/L	R^2=0.99899, 91.492		19L1984
MCT Std 1	MICROCYSTINS ADDA 546	1.613 Abs [1.6130] {0.0 CV}	0.149 µg/L [0.149] {0}	R^2=0.99899, 91.492		19L1984
MCT Std 2	MICROCYSTINS ADDA 546	1.321 Abs	0.371 µg/L	R^2=0.99899, 74.929		19L1984
MCT Std 2	MICROCYSTINS ADDA 546	1.268 Abs [1.2945] {2.9 CV}	0.418 µg/L [0.395] {8}	R^2=0.99899, 71.923		19L1984
MCT Std 3	MICROCYSTINS ADDA 546	0.833 Abs	1.066 µg/L	R^2=0.99899, 47.249		19L1984
MCT Std 3	MICROCYSTINS ADDA 546	0.845 Abs [0.8390] {1.0 CV}	1.035 µg/L [1.050] {2}	R^2=0.99899, 47.930		19L1984
MCT Std 4	MICROCYSTINS ADDA 546	0.680 Abs	1.680 µg/L	R^2=0.99899, 38.571		19L1984
MCT Std 4	MICROCYSTINS ADDA 546	0.649 Abs [0.6645] {3.3 CV}	1.895 µg/L [1.787] {8}	R^2=0.99899, 36.812		19L1984
MCT Std 5	MICROCYSTINS ADDA 546	0.508 Abs	> 5.000 µg/L	28.815 %Abs		19L1984
MCT Std 5	MICROCYSTINS ADDA 546	0.485 Abs [0.4965] {3.3 CV}	> 5.000 µg/L	27.510 %Abs		19L1984
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.690 Abs	0.089 µg/L	95.859 %Abs		19L1984
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.709 Abs [1.6995] {0.8 CV}	0.073 µg/L [0.081] {1}	96.937 %Abs [96.396]		19L1984
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.491 Abs	0.238 µg/L	84.572 %Abs		19L1984
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.472 Abs [1.4815] {0.9 CV}	0.253 µg/L [0.245] {4}	83.494 %Abs [84.033]		19L1984
MCT 546 LFB 1	MICROCYSTINS ADDA 546	1.155 Abs	0.530 µg/L	65.513 %Abs		19L1984
MCT 546 LFB 1	MICROCYSTINS ADDA 546	1.172 Abs [1.1635] {1.0 CV}	0.512 µg/L [0.521] {2}	66.478 %Abs [65.995]		19L1984

Note

Signature David Jordan
Date: 6/04/2020

Test Report (by Request)

Test Information

 Request: 6/4/2020 12:39:23 PM
 Date: 6/4/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB42518	MICROCYSTINS ADDA 546	1.664 Abs	0.110 µg/L	LOW, 94.385 %ABS	0.300 - 5.000	19L1984
AB42518	MICROCYSTINS ADDA 546	1.712 Abs [1.6880] {2.0 CV}	0.070 µg/L [0.090] {3.0 CV}	LOW, 97.107 %ABS	0.300 - 5.000	19L1984
AB42519	MICROCYSTINS ADDA 546	1.742 Abs	0.039 µg/L	LOW, 98.809 %ABS	0.300 - 5.000	19L1984
AB42519	MICROCYSTINS ADDA 546	1.715 Abs [1.7285] {1.1 CV}	0.067 µg/L [0.053] {3.0 CV}	LOW, 97.277 %ABS	0.300 - 5.000	19L1984
AB42520	MICROCYSTINS ADDA 546	1.654 Abs	0.118 µg/L	LOW, 93.817 %ABS	0.300 - 5.000	19L1984
AB42520	MICROCYSTINS ADDA 546	1.740 Abs [1.6970] {3.6 CV}	0.042 µg/L [0.080] {6.0 CV}	LOW, 98.695 %ABS	0.300 - 5.000	19L1984
AB42521	MICROCYSTINS ADDA 546	1.686 Abs	0.092 µg/L	LOW, 95.632 %ABS	0.300 - 5.000	19L1984
AB42521	MICROCYSTINS ADDA 546	1.717 Abs [1.7015] {1.3 CV}	0.065 µg/L [0.079] {2.0 CV}	LOW, 97.391 %ABS	0.300 - 5.000	19L1984
AB42522	MICROCYSTINS ADDA 546	1.531 Abs	0.209 µg/L	LOW, 86.841 %ABS	0.300 - 5.000	19L1984
AB42522	MICROCYSTINS ADDA 546	1.589 Abs [1.5600] {2.6 CV}	0.167 µg/L [0.188] {1.0 CV}	LOW, 90.130 %ABS	0.300 - 5.000	19L1984
AB42522MS	MICROCYSTINS ADDA 546	1.063 Abs	0.640 µg/L	60.295 %Abs	0.300 - 5.000	19L1984
AB42522MS	MICROCYSTINS ADDA 546	1.079 Abs [1.0710] {1.1 CV}	0.619 µg/L [0.630] {2.0 CV}	61.202 %Abs [60.745]	0.300 - 5.000	19L1984
AB42522MSD	MICROCYSTINS ADDA 546	1.050 Abs	0.657 µg/L	59.558 %Abs	0.300 - 5.000	19L1984
AB42522MSD	MICROCYSTINS ADDA 546	1.050 Abs [1.0500] {0.0 CV}	0.657 µg/L [0.657] {0.0 CV}	59.558 %Abs [59.558]	0.300 - 5.000	19L1984
AB42523	MICROCYSTINS ADDA 546	1.781 Abs	0.000 µg/L	LOW, 101.021 %ABS	0.300 - 5.000	19L1984
AB42523	MICROCYSTINS ADDA 546	1.645 Abs [1.7130] {5.6 CV}	0.125 µg/L [0.063] {1.0 CV}	LOW, 93.307 %ABS	0.300 - 5.000	19L1984
LFB 2	MICROCYSTINS ADDA 546	1.209 Abs	0.474 µg/L	68.576 %Abs	0.300 - 5.000	19L1984
LFB 2	MICROCYSTINS ADDA 546	1.202 Abs [1.2055] {0.4 CV}	0.481 µg/L [0.478] {1.0 CV}	68.179 %Abs [68.376]	0.300 - 5.000	19L1984
LRB 2	MICROCYSTINS ADDA 546	1.697 Abs	0.083 µg/L	LOW, 96.256 %ABS	0.300 - 5.000	19L1984
LRB 2	MICROCYSTINS ADDA 546	1.707 Abs [1.7020] {0.4 CV}	0.074 µg/L [0.079] {8.0 CV}	LOW, 96.824 %ABS	0.300 - 5.000	19L1984
OCS	MICROCYSTINS ADDA 546	1.131 Abs	0.557 µg/L	64.152 %Abs	0.300 - 5.000	19L1984
OCS	MICROCYSTINS ADDA 546	1.068 Abs [1.0995] {4.1 CV}	0.634 µg/L [0.595] {3.0 CV}	60.579 %Abs [62.365]	0.300 - 5.000	19L1984

Note

 Signature *David Jordan*

Date: 6/04/2020

Assay Information

Assay Name: MICROCYSTINS ADDA 546
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description:
 Assay Substances:

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: 19L1984

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 Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
6/4/2020 12:38:51 PM				
MCT Std 0	1.835 Abs		R ² =0.99899, 104.084 %Abs	RK1:23->A01@2
MCT Std 0	1.691 Abs [1.7630] {5.8 CV}		R ² =0.99899, 95.916 %Abs	RK1:23->B01@2
MCT Std 1	1.613 Abs		R ² =0.99899, 91.492 %Abs	RK1:24->C01@2
MCT Std 1	1.613 Abs [1.6130] {0.0 CV}		R ² =0.99899, 91.492 %Abs	RK1:24->D01@2
MCT Std 2	1.321 Abs		R ² =0.99899, 74.929 %Abs	RK1:25->E01@2
MCT Std 2	1.268 Abs [1.2945] {2.9 CV}		R ² =0.99899, 71.923 %Abs	RK1:25->F01@3
MCT Std 3	0.833 Abs		R ² =0.99899, 47.249 %Abs	RK1:26->G01@3
MCT Std 3	0.845 Abs [0.8390] {1.0 CV}		R ² =0.99899, 47.930 %Abs	RK1:26->H01@3
MCT Std 4	0.680 Abs		R ² =0.99899, 38.571 %Abs	RK1:27->A02@2
MCT Std 4	0.649 Abs [0.6645] {3.3 CV}		R ² =0.99899, 36.812 %Abs	RK1:27->B02@2
MCT Std 5	0.508 Abs		28.815 %Abs	RK1:28->C02@2
MCT Std 5	0.485 Abs [0.4965] {3.3 CV}		27.510 %Abs	RK1:28->D02@2

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MCT 546 LRB 1	1.690 Abs		95.859 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.709 Abs [1.6995] {0.8 CV}		96.937 %Abs [96.398 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	1.491 Abs		84.572 %Abs	RK1:30->G02@3
MCT 546 Low-CV	1.472 Abs [1.4815] {0.9 CV}		83.494 %Abs [84.033 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	1.155 Abs		65.513 %Abs	RK1:31->A03@2
MCT 546 LFB 1	1.172 Abs [1.1635] {1.0 CV}		66.478 %Abs [65.995 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.7630			
MCT Std 0 [SD]	0.1018			
MCT Std 0 [%CV]	5.7756			
MCT Std 1 [MEAN]	1.6130			
MCT Std 1 [SD]	0.0000			
MCT Std 1 [%CV]	0.0000			
MCT Std 1 [%DIFF]				
MCT Std 2 [MEAN]	1.2945			
MCT Std 2 [SD]	0.0375			
MCT Std 2 [%CV]	2.8951			
MCT Std 2 [%DIFF]				
MCT Std 3 [MEAN]	0.8390			
MCT Std 3 [SD]	0.0085			
MCT Std 3 [%CV]	1.0114			
MCT Std 3 [%DIFF]				
MCT Std 4 [MEAN]	0.6645			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0219			
MCT Std 4 [%CV]	3.2988			
MCT Std 4 [%DIFF]				
MCT Std 5 [MEAN]	0.4965			
MCT Std 5 [SD]	0.0163			
MCT Std 5 [%CV]	3.2756			
MCT 546 LRB 1 [MEAN]	1.6995			
MCT 546 LRB 1 [SD]	0.0134			
MCT 546 LRB 1 [%CV]	0.7905			
MCT 546 Low-CV [MEAN]	1.4815			
MCT 546 Low-CV [SD]	0.0134			
MCT 546 Low-CV [%CV]	0.9069			
MCT 546 LFB 1 [MEAN]	1.1635			
MCT 546 LFB 1 [SD]	0.0120			
MCT 546 LFB 1 [%CV]	1.0332			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.7648
 B = 1.4965
 C = 0.57830
 D = 0.46006
 R2 coef = 0.99899
 50% = 0.948

