



Total Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43914	Kunkel Lake @ Ouabache SP	8/31/2020	9/2/2020	< 0.30
AB43915	Deam Lake SRA	8/31/2020	9/2/2020	< 0.30
AB43916	Chain O'Lakes SP	8/31/2020	9/2/2020	< 0.30
AB43917	Deam Lake SRA (Field Duplicate)	8/31/2020	9/2/2020	< 0.30
AB43918	Field Blank	8/31/2020	9/2/2020	< 0.30
AB44105	Ft. Harrison SP Dog Lake	9/1/2020	9/2/2020	< 0.30

Test Report (by Request)

Test Information

Request: 9/2/2020 6:12:02 PM
 Date: 9/2/2020 - 9/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
MCT Std 0	MICROCYSTINS ADDA 546	1.344 Abs	0.003 µg/L	R^2=0.99912, 99.851		19L2093
MCT Std 0	MICROCYSTINS ADDA 546	1.348 Abs [1.3460] {0.2 CV}	0.000 µg/L [0.002] {1}	R^2=0.99912, 100.14		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.143 Abs	0.135 µg/L	R^2=0.99912, 84.918		19L2093
MCT Std 1	MICROCYSTINS ADDA 546	1.116 Abs [1.1295] {1.7 CV}	0.155 µg/L [0.145] {9}	R^2=0.99912, 82.912		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.889 Abs	0.386 µg/L	R^2=0.99912, 66.048		19L2093
MCT Std 2	MICROCYSTINS ADDA 546	0.859 Abs [0.8740] {2.4 CV}	0.428 µg/L [0.407] {7}	R^2=0.99912, 63.819		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.607 Abs	1.015 µg/L	R^2=0.99912, 45.097		19L2093
MCT Std 3	MICROCYSTINS ADDA 546	0.594 Abs [0.6005] {1.5 CV}	1.065 µg/L [1.040] {3}	R^2=0.99912, 44.131		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.465 Abs	1.850 µg/L	R^2=0.99912, 34.547		19L2093
MCT Std 4	MICROCYSTINS ADDA 546	0.475 Abs [0.4700] {1.5 CV}	1.761 µg/L [1.806] {3}	R^2=0.99912, 35.290		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.320 Abs	> 5.000 µg/L	23.774 %Abs		19L2093
MCT Std 5	MICROCYSTINS ADDA 546	0.307 Abs [0.3135] {2.9 CV}	> 5.000 µg/L	22.808 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.253 Abs	0.059 µg/L	93.091 %Abs		19L2093
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.197 Abs [1.2250] {3.2 CV}	0.096 µg/L [0.078] {3}	88.930 %Abs [91.010]		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.948 Abs	0.314 µg/L	70.431 %Abs		19L2093
MCT 546 Low-CV	MICROCYSTINS ADDA 546	0.961 Abs [0.9545] {1.0 CV}	0.299 µg/L [0.307] {3}	71.397 %Abs [70.914]		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.864 Abs	0.421 µg/L	64.190 %Abs		19L2093
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.849 Abs [0.8565] {1.2 CV}	0.443 µg/L [0.432] {3}	63.076 %Abs [63.633]		19L2093

Note

Signature

Charles Hostetter 9/4/2020

Test Report (by Request)

Test Information

 Request: 9/2/2020 7:26:45 PM
 Date: 9/2/2020 - 9/2/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB43914	MICROCYSTINS ADDA 546	1.031 Abs	0.228 µg/L	LOW, 76.597 %ABS	0.300 - 5.000	19L2093
AB43914	MICROCYSTINS ADDA 546	1.014 Abs [1.0225] {1.2 CV}	0.244 µg/L [0.236] {4}		0.300 - 5.000	19L2093
AB43915	MICROCYSTINS ADDA 546	1.194 Abs	0.098 µg/L	LOW, 88.707 %ABS	0.300 - 5.000	19L2093
AB43915	MICROCYSTINS ADDA 546	1.167 Abs [1.1805] {1.6 CV}	0.117 µg/L [0.108] {1}		0.300 - 5.000	19L2093
AB43915MS	MICROCYSTINS ADDA 546	0.731 Abs	0.657 µg/L	54.309 %Abs	0.300 - 5.000	19L2093
AB43915MS	MICROCYSTINS ADDA 546	0.710 Abs [0.7205] {2.1 CV}	0.705 µg/L [0.681] {5}	52.749 %Abs [53.525]	0.300 - 5.000	19L2093
AB43915MSD	MICROCYSTINS ADDA 546	0.747 Abs	0.623 µg/L	55.498 %Abs	0.300 - 5.000	19L2093
AB43915MSD	MICROCYSTINS ADDA 546	0.745 Abs [0.7460] {0.2 CV}	0.627 µg/L [0.625] {0}	55.349 %Abs [55.423]	0.300 - 5.000	19L2093
AB43916	MICROCYSTINS ADDA 546	1.213 Abs	0.085 µg/L	LOW, 90.119 %ABS	0.300 - 5.000	19L2093
AB43916	MICROCYSTINS ADDA 546	1.189 Abs [1.2010] {1.4 CV}	0.101 µg/L [0.093] {1}		0.300 - 5.000	19L2093
AB43917	MICROCYSTINS ADDA 546	1.174 Abs	0.112 µg/L	LOW, 87.221 %ABS	0.300 - 5.000	19L2093
AB43917	MICROCYSTINS ADDA 546	1.140 Abs [1.1570] {2.1 CV}	0.137 µg/L [0.124] {1}		0.300 - 5.000	19L2093
AB43918	MICROCYSTINS ADDA 546	1.242 Abs	0.066 µg/L	LOW, 92.273 %ABS	0.300 - 5.000	19L2093
AB43918	MICROCYSTINS ADDA 546	1.245 Abs [1.2435] {0.2 CV}	0.064 µg/L [0.065] {2}		0.300 - 5.000	19L2093
AB44105	MICROCYSTINS ADDA 546	1.300 Abs	0.030 µg/L	LOW, 96.582 %ABS	0.300 - 5.000	19L2093
AB44105	MICROCYSTINS ADDA 546	1.261 Abs [1.2805] {2.2 CV}	0.054 µg/L [0.042] {4}		0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.857 Abs	0.431 µg/L	63.670 %Abs	0.300 - 5.000	19L2093
LFB 2	MICROCYSTINS ADDA 546	0.824 Abs [0.8405] {2.8 CV}	0.482 µg/L [0.456] {7}	61.218 %Abs [62.444]	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.289 Abs	0.037 µg/L	LOW, 95.765 %ABS	0.300 - 5.000	19L2093
LRB 2	MICROCYSTINS ADDA 546	1.304 Abs [1.2965] {0.8 CV}	0.028 µg/L [0.032] {1}		0.300 - 5.000	19L2093

Note

Signature

Charles Hostetter 9/4/2020

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: 19L2093

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: "

Expired

"

Name	Absorbance	Concentration	Interpretation	Position
9/2/2020 6:12:02 PM				
MCT Std 0	1.344 Abs		R ² =0.99912, 99.851 %Abs	RK1:23->A01@2
MCT Std 0	1.348 Abs [1.3460] {0.2 CV}		R ² =0.99912, 100.149 %Abs	RK1:23->B01@2
MCT Std 1	1.143 Abs		R ² =0.99912, 84.918 %Abs	RK1:24->C01@2
MCT Std 1	1.116 Abs [1.1295] {1.7 CV}		R ² =0.99912, 82.912 %Abs	RK1:24->D01@2
MCT Std 2	0.889 Abs		R ² =0.99912, 66.048 %Abs	RK1:25->E01@2
MCT Std 2	0.859 Abs [0.8740] {2.4 CV}		R ² =0.99912, 63.819 %Abs	RK1:25->F01@3
MCT Std 3	0.607 Abs		R ² =0.99912, 45.097 %Abs	RK1:26->G01@3
MCT Std 3	0.594 Abs [0.6005] {1.5 CV}		R ² =0.99912, 44.131 %Abs	RK1:26->H01@3
MCT Std 4	0.465 Abs		R ² =0.99912, 34.547 %Abs	RK1:27->A02@2
MCT Std 4	0.475 Abs [0.4700] {1.5 CV}		R ² =0.99912, 35.290 %Abs	RK1:27->B02@2
MCT Std 5	0.320 Abs		23.774 %Abs	RK1:28->C02@2
MCT Std 5	0.307 Abs [0.3135] {2.9 CV}		22.808 %Abs	RK1:28->D02@2

9/2/2020 6:12:02 PM				
MCT 546 LRB 1	1.253 Abs		93.091 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.197 Abs [1.2250] {3.2 CV}		88.930 %Abs [91.010 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.948 Abs		70.431 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.961 Abs [0.9545] {1.0 CV}		71.397 %Abs [70.914 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.864 Abs		64.190 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.849 Abs [0.8565] {1.2 CV}		63.076 %Abs [63.633 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.3460			
MCT Std 0 [SD]	0.0028			
MCT Std 0 [%CV]	0.2101			
MCT Std 1 [MEAN]	1.1295			
MCT Std 1 [SD]	0.0191			
MCT Std 1 [%CV]	1.6903			
MCT Std 1 [%DIFF]				
MCT Std 2 [MEAN]	0.8740			
MCT Std 2 [SD]	0.0212			
MCT Std 2 [%CV]	2.4271			
MCT Std 2 [%DIFF]				
MCT Std 3 [MEAN]	0.6005			
MCT Std 3 [SD]	0.0092			
MCT Std 3 [%CV]	1.5308			
MCT Std 3 [%DIFF]				
MCT Std 4 [MEAN]	0.4700			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0071			
MCT Std 4 [%CV]	1.5045			
MCT Std 4 [%DIFF]				
MCT Std 5 [MEAN]	0.3135			
MCT Std 5 [SD]	0.0092			
MCT Std 5 [%CV]	2.9322			
MCT 546 LRB 1 [MEAN]	1.2250			
MCT 546 LRB 1 [SD]	0.0396			
MCT 546 LRB 1 [%CV]	3.2325			
MCT 546 Low-CV [MEAN]	0.9545			
MCT 546 Low-CV [SD]	0.0092			
MCT 546 Low-CV [%CV]	0.9631			
MCT 546 LFB 1 [MEAN]	0.8565			
MCT 546 LFB 1 [SD]	0.0106			
MCT 546 LFB 1 [%CV]	1.2384			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3484
 B = 1.0709
 C = 0.54372
 D = 0.22692
 R2 coef = 0.99912
 50% = 0.801

