Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40384	Pokagon SP - Main Beach	6/17/2024	6/20/2024	< 0.30
AC40385	Pokagon SP - Potawatomi Inn Beach	6/17/2024	6/20/2024	< 0.30
AC40386	Chain O'Lakes SP - Sand Lake Beach	6/17/2024	6/20/2024	< 0.30
AC40387	Ouabache SP - Kunkel Lake Beach	6/17/2024	6/20/2024	< 0.30
AC40388	Potato Creek SP - Worster Lake Beach	6/18/2024	6/20/2024	< 0.30
AC40389	Mississinewa Lake - Miami SRA Beach	6/18/2024	6/20/2024	0.94
AC40390	Salamonie Lake - Lost Bridge West SRA Beach	6/18/2024	6/20/2024	< 0.30
AC40391	Summit Lake SP - Summit Lake Beach	6/18/2024	6/20/2024	< 0.30
AC40392	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	6/17/2024	6/20/2024	< 0.30
AC40393	Field Blank	6/17/2024	6/20/2024	< 0.30
AC40394	Lincoln SP - Lake Lincoln Beach	6/17/2024	6/20/2024	< 0.30
AC40395	Ferdinand State Forest - Ferdinand Lake Beach	6/17/2024	6/20/2024	< 0.30
AC40396	Patoka Lake - Newton Stewart SRA	6/17/2024	6/20/2024	< 0.30

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Test Report (by Request)

Test Information

Request: 6/20/2024 3:34:23 PM
Date: 6/20/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.197 Abs	0.011 µg/L	R^2=0.99876, 99.66		0.000	Kit:24044(
MCT Std 0	MICROCYSTINS ADDA 54	1.205 Abs [1.2010] {0.5 C	0.001 µg/L [0.006]	R^2=0.99876, 100.3		0.000	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	1.037 Abs	0.140 µg/L	R^2=0.99876, 86.34		0.150	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	1.036 Abs [1.0365] {0.1 C	0.141 µg/L [0.141]	R^2=0.99876, 86.26		0.150	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.774 Abs	0.405 µg/L	R^2=0.99876, 64.44		0.400	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.757 Abs [0.7655] {1.6 C	0.428 µg/L [0.417]	R^2=0.99876, 63.03		0.400	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.505 Abs	1.003 µg/L	R^2=0.99876, 42.04		1.000	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.496 Abs [0.5005] {1.3 C	1.038 µg/L [1.021]	R^2=0.99876, 41.29		1.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.374 Abs	1.835 µg/L	R^2=0.99876, 31.14		2.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.386 Abs [0.3800] {2.2 C	1.715 µg/L [1.775]	R^2=0.99876, 32.14		2.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.245 Abs	> 5.000 µg/L	20.400 %Abs		5.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.254 Abs [0.2495] {2.6 C	> 5.000 µg/L	21.149 %Abs		5.000	Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.176 Abs	0.031 µg/L	97.918 %Abs			Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.155 Abs [1.1655] {1.3 C	0.048 µg/L [0.040]	96.170 %Abs [97.0			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.864 Abs	0.298 µg/L	71.940 %Abs			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.844 Abs [0.8540] {1.7 C	0.320 µg/L [0.309]	70.275 %Abs [71.1			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.678 Abs	0.552 µg/L	56.453 %Abs			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.677 Abs [0.6775] {0.1 C	0.554 µg/L [0.553]	56.370 %Abs [56.4			Kit:24044(

Note

Signature _____

Charles Hostetter 6/21/2024

* 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 (6.4.1.1171/1085/1.00/0.95) 6/20/2024 4:15:49 PM

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Test Report (by Request)

Test Information

Request: 6/20/2024 3:35:40 PM
Date: 6/20/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC40384	MICROCYSTINS ADDA 5	1.076 Abs	0.109 µg/L	Low, 89.592 %Abs		0.300 - 5.000	Kit:24044(
AC40384	MICROCYSTINS ADDA 5	1.202 Abs [1.1390] {7.8 C	0.005 µg/L [0.057]	Low, 100.000 %Abs		0.300 - 5.000	Kit:24044(
AC40385	MICROCYSTINS ADDA 5	1.149 Abs	0.053 µg/L	Low, 95.670 %Abs		0.300 - 5.000	Kit:24044(
AC40385	MICROCYSTINS ADDA 5	1.165 Abs [1.1570] {1.0 C	0.040 µg/L [0.047]	Low, 97.002 %Abs		0.300 - 5.000	Kit:24044(
AC40386	MICROCYSTINS ADDA 5	1.147 Abs	0.054 µg/L	Low, 95.504 %Abs		0.300 - 5.000	Kit:24044(
AC40386	MICROCYSTINS ADDA 5	1.064 Abs [1.1055] {5.3 C	0.119 µg/L [0.087]	Low, 88.593 %Abs		0.300 - 5.000	Kit:24044(
AC40387	MICROCYSTINS ADDA 5	1.096 Abs	0.094 µg/L	Low, 91.257 %Abs		0.300 - 5.000	Kit:24044(
AC40387	MICROCYSTINS ADDA 5	1.166 Abs [1.1310] {4.4 C	0.039 µg/L [0.067]	Low, 97.086 %Abs		0.300 - 5.000	Kit:24044(
AC40388	MICROCYSTINS ADDA 5	1.112 Abs	0.081 µg/L	Low, 92.590 %Abs		0.300 - 5.000	Kit:24044(
AC40388	MICROCYSTINS ADDA 5	1.088 Abs [1.1000] {1.5 C	0.100 µg/L [0.091]	Low, 90.591 %Abs		0.300 - 5.000	Kit:24044(
AC40389	MICROCYSTINS ADDA 5	0.530 Abs	0.913 µg/L	44.130 %Abs		0.300 - 5.000	Kit:24044(
AC40389	MICROCYSTINS ADDA 5	0.512 Abs [0.5210] {2.4 C	0.976 µg/L [0.945]	42.631 %Abs [43.3		0.300 - 5.000	Kit:24044(
AC40389MS	MICROCYSTINS ADDA 5	0.359 Abs	2.008 µg/L	29.892 %Abs		0.300 - 5.000	Kit:24044(
AC40389MS	MICROCYSTINS ADDA 5	0.312 Abs [0.3355] {9.9 C	2.827 µg/L [2.418]	25.978 %Abs [27.9		0.300 - 5.000	Kit:24044(
AC40389MSD	MICROCYSTINS ADDA 5	0.355 Abs	2.060 µg/L	29.559 %Abs		0.300 - 5.000	Kit:24044(
AC40389MSD	MICROCYSTINS ADDA 5	0.368 Abs [0.3615] {2.5 C	1.901 µg/L [1.981]	30.641 %Abs [30.1		0.300 - 5.000	Kit:24044(
AC40390	MICROCYSTINS ADDA 5	1.055 Abs	0.126 µg/L	Low, 87.843 %Abs		0.300 - 5.000	Kit:24044(
AC40390	MICROCYSTINS ADDA 5	1.060 Abs [1.0575] {0.3 C	0.122 µg/L [0.124]	Low, 88.260 %Abs		0.300 - 5.000	Kit:24044(
AC40391	MICROCYSTINS ADDA 5	1.211 Abs	0.000 µg/L	Low, 100.833 %Abs		0.300 - 5.000	Kit:24044(
AC40391	MICROCYSTINS ADDA 5	1.159 Abs [1.1850] {3.1 C	0.045 µg/L [0.023]	Low, 96.503 %Abs		0.300 - 5.000	Kit:24044(
AC40392	MICROCYSTINS ADDA 5	1.170 Abs	0.036 µg/L	Low, 97.419 %Abs		0.300 - 5.000	Kit:24044(
AC40392	MICROCYSTINS ADDA 5	1.025 Abs [1.0975] {9.3 C	0.150 µg/L [0.093]	Low, 85.346 %Abs		0.300 - 5.000	Kit:24044(
AC40393	MICROCYSTINS ADDA 5	1.200 Abs	0.008 µg/L	Low, 100.000 %Abs		0.300 - 5.000	Kit:24044(
AC40393	MICROCYSTINS ADDA 5	1.236 Abs [1.2180] {2.1 C	0.000 µg/L [0.004]	Low, 102.914 %Abs		0.300 - 5.000	Kit:24044(
AC40394	MICROCYSTINS ADDA 5	1.154 Abs	0.049 µg/L	Low, 96.087 %Abs		0.300 - 5.000	Kit:24044(
AC40394	MICROCYSTINS ADDA 5	1.147 Abs [1.1505] {0.4 C	0.054 µg/L [0.052]	Low, 95.504 %Abs		0.300 - 5.000	Kit:24044(
AC40395	MICROCYSTINS ADDA 5	1.130 Abs	0.067 µg/L	Low, 94.088 %Abs		0.300 - 5.000	Kit:24044(
AC40395	MICROCYSTINS ADDA 5	1.112 Abs [1.1210] {1.1 C	0.081 µg/L [0.074]	Low, 92.590 %Abs		0.300 - 5.000	Kit:24044(
AC40396	MICROCYSTINS ADDA 5	1.151 Abs	0.051 µg/L	Low, 95.837 %Abs		0.300 - 5.000	Kit:24044(
AC40396	MICROCYSTINS ADDA 5	1.104 Abs [1.1275] {2.9 C	0.088 µg/L [0.070]	Low, 91.923 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.678 Abs	0.552 µg/L	56.453 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.714 Abs [0.6960] {3.7 C	0.492 µg/L [0.522]	59.450 %Abs [57.9		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.164 Abs	0.041 µg/L	Low, 96.919 %Abs		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.083 Abs [1.1235] {5.1 C	0.104 µg/L [0.073]	Low, 90.175 %Abs		0.300 - 5.000	Kit:24044(

Note

Signature

Charles Hostetter 6/21/2024

* 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 (6.4.1.1171/1085/1.00/0.95) 6/20/2024 4:15:49 PM

MICROCYSTINS ADDA 546_ - Assay Calibration Report

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: Kit:2404401378

Assay Calibration

Current Calibration Status: " **"**

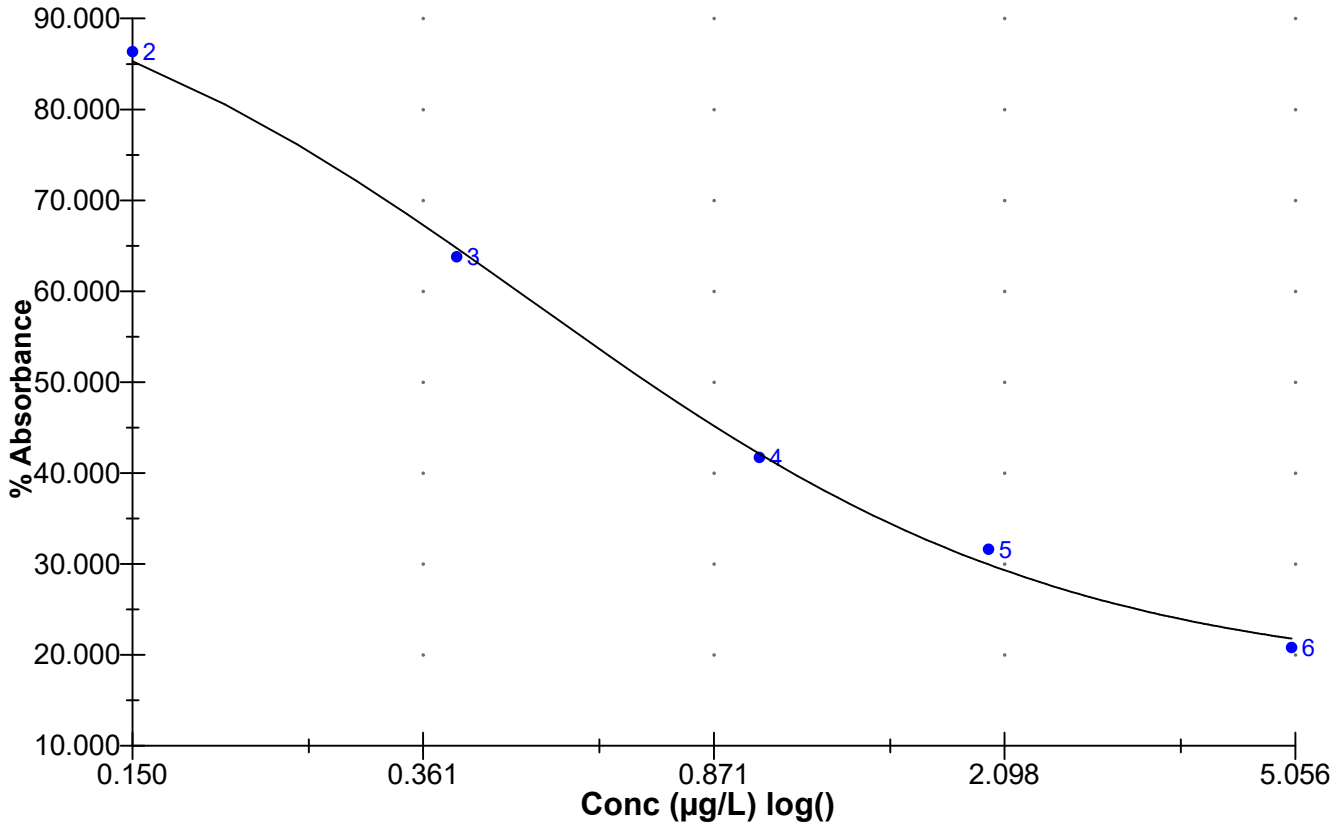
Name	Absorbance	Concentration	Interpretation	Position
6/20/2024 3:34:23 PM				
MCT Std 0	1.197 Abs	0.011 µg/L	R^2=0.99876, 99.667 %Abs	RK1:23->A01@2
MCT Std 0	1.205 Abs [1.2010] {0.5 CV}	0.001 µg/L [0.006] {117.9 CV	R^2=0.99876, 100.333 %Abs	RK1:23->B01@2
MCT Std 1	1.037 Abs	0.140 µg/L	R^2=0.99876, 86.345 %Abs	RK1:24->C01@2
MCT Std 1	1.036 Abs [1.0365] {0.1 CV}	0.141 µg/L [0.141] {0.5 CV}	R^2=0.99876, 86.261 %Abs	RK1:24->D01@2
MCT Std 2	0.774 Abs	0.405 µg/L	R^2=0.99876, 64.446 %Abs	RK1:25->E01@2
MCT Std 2	0.757 Abs [0.7655] {1.6 CV}	0.428 µg/L [0.417] {3.9 CV}	R^2=0.99876, 63.031 %Abs	RK1:25->F01@3
MCT Std 3	0.505 Abs	1.003 µg/L	R^2=0.99876, 42.048 %Abs	RK1:26->G01@3
MCT Std 3	0.496 Abs [0.5005] {1.3 CV}	1.038 µg/L [1.021] {2.4 CV}	R^2=0.99876, 41.299 %Abs	RK1:26->H01@3
MCT Std 4	0.374 Abs	1.835 µg/L	R^2=0.99876, 31.141 %Abs	RK1:27->A02@2
MCT Std 4	0.386 Abs [0.3800] {2.2 CV}	1.715 µg/L [1.775] {4.8 CV}	R^2=0.99876, 32.140 %Abs	RK1:27->B02@2
MCT Std 5	0.245 Abs	> 5.000 µg/L	20.400 %Abs	RK1:28->C02@2
MCT Std 5	0.254 Abs [0.2495] {2.6 CV}	> 5.000 µg/L	21.149 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
6/20/2024 3:34:23 PM				
MCT 546 LRB 1	1.176 Abs	0.031 µg/L	97.918 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.155 Abs [1.1655] {1.3 CV}	0.048 µg/L [0.040] {30.4 CV}	96.170 %Abs [97.044 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.864 Abs	0.298 µg/L	71.940 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.844 Abs [0.8540] {1.7 CV}	0.320 µg/L [0.309] {5.0 CV}	70.275 %Abs [71.107 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.678 Abs	0.552 µg/L	56.453 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.677 Abs [0.6775] {0.1 CV}	0.554 µg/L [0.553] {0.3 CV}	56.370 %Abs [56.411 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.2010	0.0060		
MCT Std 0 [SD]	0.0057	0.0071		
MCT Std 0 [%CV]	0.4710	117.8511		
MCT Std 1 [MEAN]	1.0365	0.1405		
MCT Std 1 [SD]	0.0007	0.0007		
MCT Std 1 [%CV]	0.0682	0.5033		
MCT Std 1 [%DIFF]		-6.3333		
MCT Std 2 [MEAN]	0.7655	0.4165		
MCT Std 2 [SD]	0.0120	0.0163		
MCT Std 2 [%CV]	1.5703	3.9048		
MCT Std 2 [%DIFF]		4.1250		
MCT Std 3 [MEAN]	0.5005	1.0205		
MCT Std 3 [SD]	0.0064	0.0247		
MCT Std 3 [%CV]	1.2715	2.4252		
MCT Std 3 [%DIFF]		2.0500		
MCT Std 4 [MEAN]	0.3800	1.7750		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0085	0.0849		
MCT Std 4 [%CV]	2.2330	4.7804		
MCT Std 4 [%DIFF]		-11.2500		
MCT Std 5 [MEAN]	0.2495			
MCT Std 5 [SD]	0.0064			
MCT Std 5 [%CV]	2.5507			
MCT 546 LRB 1 [MEAN]	1.1655	0.0395		
MCT 546 LRB 1 [SD]	0.0148	0.0120		
MCT 546 LRB 1 [%CV]	1.2741	30.4324		
MCT 546 Low-CV [MEAN]	0.8540	0.3090		
MCT 546 Low-CV [SD]	0.0141	0.0156		
MCT 546 Low-CV [%CV]	1.6560	5.0344		
MCT 546 LFB 1 [MEAN]	0.6775	0.5530		
MCT 546 LFB 1 [SD]	0.0007	0.0014		
MCT 546 LFB 1 [%CV]	0.1044	0.2557		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2055
B = 1.2448
C = 0.50383
D = 0.20761
R2 coef = 0.99876
50% = 0.713



*Generated by software version (6.4.1.1171/1085/1.00/0.95) 6/20/2024 4:18:20 PM