Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41195	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/5/2024	8/8/2024	< 0.30
AC41196	Cagles Mill Lake - Lieber SRA Beach	8/5/2024	8/8/2024	< 0.30
AC41197	Monroe Lake - Fairfax SRA Beach	8/5/2024	8/8/2024	< 0.30
AC41198	Monroe Lake - Paynetown SRA Beach	8/5/2024	8/8/2024	< 0.30
AC41199	Starve Hollow SRA - Starve Hollow Lake Beach	8/5/2024	8/8/2024	< 0.30
AC41200	Whitewater Memorial SP - Whitewater Lake Beach	8/6/2024	8/8/2024	< 0.30
AC41201	Brookville Lake - Quakertown SRA Beach	8/6/2024	8/8/2024	< 0.30
AC41202	Brookville Lake - Mounds SRA Beach	8/6/2024	8/8/2024	< 0.30
AC41203	Hardy Lake SRA - Hardy Lake SRA Beach	8/6/2024	8/8/2024	< 0.30
AC41204	Deam Lake SRA - Deam Lake Beach	8/6/2024	8/8/2024	< 0.30
AC41205	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	8/5/2024	8/8/2024	< 0.30
AC41206	Field Blank	8/5/2024	8/8/2024	< 0.30
AC41207	Ft. Ben Harrison SP Dog Lake	8/6/2024	8/8/2024	< 0.30

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Test Report (by Request)

Test Information

Request: 8/8/2024 12:37:18 PM
Date: 8/8/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.191 Abs	0.013 µg/L	R^2=0.99899, 99.0(		0.000	Kit:24044(
MCT Std 0	MICROCYSTINS ADDA 54	1.215 Abs [1.2030] {1.4 C	0.000 µg/L [0.007]	R^2=0.99899, 100.9		0.000	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	1.013 Abs	0.137 µg/L	R^2=0.99899, 84.2(		0.150	Kit:24044(
MCT Std 1	MICROCYSTINS ADDA 54	0.999 Abs [1.0060] {1.0 C	0.147 µg/L [0.142]	R^2=0.99899, 83.04		0.150	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.745 Abs	0.404 µg/L	R^2=0.99899, 61.92		0.400	Kit:24044(
MCT Std 2	MICROCYSTINS ADDA 54	0.726 Abs [0.7355] {1.8 C	0.430 µg/L [0.417]	R^2=0.99899, 60.34		0.400	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.497 Abs	0.970 µg/L	R^2=0.99899, 41.31		1.000	Kit:24044(
MCT Std 3	MICROCYSTINS ADDA 54	0.475 Abs [0.4860] {3.2 C	1.061 µg/L [1.016]	R^2=0.99899, 39.48		1.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.365 Abs	1.820 µg/L	R^2=0.99899, 30.34		2.000	Kit:24044(
MCT Std 4	MICROCYSTINS ADDA 54	0.371 Abs [0.3680] {1.2 C	1.757 µg/L [1.789]	R^2=0.99899, 30.84		2.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.243 Abs	> 5.000 µg/L	20.200 %Abs		5.000	Kit:24044(
MCT Std 5	MICROCYSTINS ADDA 54	0.238 Abs [0.2405] {1.5 C	> 5.000 µg/L	19.784 %Abs		5.000	Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.162 Abs	0.034 µg/L	96.592 %Abs			Kit:24044(
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.117 Abs [1.1395] {2.8 C	0.064 µg/L [0.049]	92.851 %Abs [94.7			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.832 Abs	0.298 µg/L	69.160 %Abs			Kit:24044(
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.809 Abs [0.8205] {2.0 C	0.323 µg/L [0.311]	67.249 %Abs [68.2			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.658 Abs	0.542 µg/L	54.697 %Abs			Kit:24044(
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.680 Abs [0.6690] {2.3 C	0.503 µg/L [0.523]	56.525 %Abs [55.6			Kit:24044(

Note

Signature

Charles Hostetter 8/8/2024

* 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) 8/8/2024 1:44:11 PM

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Test Report (by Request)

Test Information

Request: 8/8/2024 12:38:34 PM
Date: 8/8/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC41195	MICROCYSTINS ADDA 5	1.067 Abs	0.098 µg/L	Low, 88.695 %Abs		0.300 - 5.000	Kit:24044(
AC41195	MICROCYSTINS ADDA 5	1.057 Abs [1.0620] {0.7 C	0.105 µg/L [0.102]	Low, 87.864 %Abs		0.300 - 5.000	Kit:24044(
AC41196	MICROCYSTINS ADDA 5	1.088 Abs	0.083 µg/L	Low, 90.441 %Abs		0.300 - 5.000	Kit:24044(
AC41196	MICROCYSTINS ADDA 5	1.055 Abs [1.0715] {2.2 C	0.106 µg/L [0.095]	Low, 87.697 %Abs		0.300 - 5.000	Kit:24044(
AC41197	MICROCYSTINS ADDA 5	1.093 Abs	0.080 µg/L	Low, 90.856 %Abs		0.300 - 5.000	Kit:24044(
AC41197	MICROCYSTINS ADDA 5	1.034 Abs [1.0635] {3.9 C	0.121 µg/L [0.101]	Low, 85.952 %Abs		0.300 - 5.000	Kit:24044(
AC41198	MICROCYSTINS ADDA 5	1.098 Abs	0.077 µg/L	Low, 91.272 %Abs		0.300 - 5.000	Kit:24044(
AC41198	MICROCYSTINS ADDA 5	1.137 Abs [1.1175] {2.5 C	0.050 µg/L [0.064]	Low, 94.514 %Abs		0.300 - 5.000	Kit:24044(
AC41199	MICROCYSTINS ADDA 5	1.139 Abs	0.049 µg/L	Low, 94.680 %Abs		0.300 - 5.000	Kit:24044(
AC41199	MICROCYSTINS ADDA 5	1.137 Abs [1.1380] {0.1 C	0.050 µg/L [0.050]	Low, 94.514 %Abs		0.300 - 5.000	Kit:24044(
AC41200	MICROCYSTINS ADDA 5	1.048 Abs	0.111 µg/L	Low, 87.116 %Abs		0.300 - 5.000	Kit:24044(
AC41200	MICROCYSTINS ADDA 5	1.009 Abs [1.0285] {2.7 C	0.140 µg/L [0.126]	Low, 83.874 %Abs		0.300 - 5.000	Kit:24044(
AC41200MS	MICROCYSTINS ADDA 5	0.587 Abs	0.692 µg/L	48.795 %Abs		0.300 - 5.000	Kit:24044(
AC41200MS	MICROCYSTINS ADDA 5	0.515 Abs [0.5510] {9.2 C	0.903 µg/L [0.798]	42.810 %Abs [45.8		0.300 - 5.000	Kit:24044(
AC41200MSD	MICROCYSTINS ADDA 5	0.571 Abs	0.733 µg/L	47.465 %Abs		0.300 - 5.000	Kit:24044(
AC41200MSD	MICROCYSTINS ADDA 5	0.587 Abs [0.5790] {2.0 C	0.692 µg/L [0.713]	48.795 %Abs [48.1		0.300 - 5.000	Kit:24044(
AC41201	MICROCYSTINS ADDA 5	1.110 Abs	0.068 µg/L	Low, 92.269 %Abs		0.300 - 5.000	Kit:24044(
AC41201	MICROCYSTINS ADDA 5	1.095 Abs [1.1025] {1.0 C	0.079 µg/L [0.074]	Low, 91.022 %Abs		0.300 - 5.000	Kit:24044(
AC41202	MICROCYSTINS ADDA 5	1.129 Abs	0.056 µg/L	Low, 93.849 %Abs		0.300 - 5.000	Kit:24044(
AC41202	MICROCYSTINS ADDA 5	1.114 Abs [1.1215] {0.9 C	0.066 µg/L [0.061]	Low, 92.602 %Abs		0.300 - 5.000	Kit:24044(
AC41203	MICROCYSTINS ADDA 5	0.971 Abs	0.169 µg/L	Low, 80.715 %Abs		0.300 - 5.000	Kit:24044(
AC41203	MICROCYSTINS ADDA 5	0.931 Abs [0.9510] {3.0 C	0.202 µg/L [0.186]	Low, 77.390 %Abs		0.300 - 5.000	Kit:24044(
AC41204	MICROCYSTINS ADDA 5	1.118 Abs	0.063 µg/L	Low, 92.934 %Abs		0.300 - 5.000	Kit:24044(
AC41204	MICROCYSTINS ADDA 5	1.144 Abs [1.1310] {1.6 C	0.046 µg/L [0.055]	Low, 95.096 %Abs		0.300 - 5.000	Kit:24044(
AC41205	MICROCYSTINS ADDA 5	1.113 Abs	0.066 µg/L	Low, 92.519 %Abs		0.300 - 5.000	Kit:24044(
AC41205	MICROCYSTINS ADDA 5	1.117 Abs [1.1150] {0.3 C	0.064 µg/L [0.065]	Low, 92.851 %Abs		0.300 - 5.000	Kit:24044(
AC41206	MICROCYSTINS ADDA 5	1.222 Abs	0.000 µg/L	Low, 101.579 %Abs		0.300 - 5.000	Kit:24044(
AC41206	MICROCYSTINS ADDA 5	1.154 Abs [1.1880] {4.0 C	0.039 µg/L [0.020]	Low, 95.927 %Abs		0.300 - 5.000	Kit:24044(
AC41207	MICROCYSTINS ADDA 5	1.218 Abs	0.000 µg/L	Low, 101.247 %Abs		0.300 - 5.000	Kit:24044(
AC41207	MICROCYSTINS ADDA 5	1.127 Abs [1.1725] {5.5 C	0.057 µg/L [0.029]	Low, 93.682 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.681 Abs	0.501 µg/L	56.608 %Abs		0.300 - 5.000	Kit:24044(
LFB 2	MICROCYSTINS ADDA 5	0.689 Abs [0.6850] {0.8 C	0.488 µg/L [0.495]	57.273 %Abs [56.9		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.218 Abs	0.000 µg/L	Low, 101.247 %Abs		0.300 - 5.000	Kit:24044(
LRB 2	MICROCYSTINS ADDA 5	1.186 Abs [1.2020] {1.9 C	0.017 µg/L [0.009]	Low, 98.587 %Abs		0.300 - 5.000	Kit:24044(

Note

Signature _____

Charles Hostetter 8/8/2024

* 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) 8/8/2024 1:44:11 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
8/8/2024 12:37:18 PM				
MCT Std 0	1.191 Abs	0.013 µg/L	R^2=0.99899, 99.002 %Abs	RK1:23->A01@2
MCT Std 0	1.215 Abs [1.2030] {1.4 CV}	0.000 µg/L [0.007] {141.4 C\	R^2=0.99899, 100.998 %Abs	RK1:23->B01@2
MCT Std 1	1.013 Abs	0.137 µg/L	R^2=0.99899, 84.206 %Abs	RK1:24->C01@2
MCT Std 1	0.999 Abs [1.0060] {1.0 CV}	0.147 µg/L [0.142] {5.0 CV}	R^2=0.99899, 83.042 %Abs	RK1:24->D01@2
MCT Std 2	0.745 Abs	0.404 µg/L	R^2=0.99899, 61.929 %Abs	RK1:25->E01@2
MCT Std 2	0.726 Abs [0.7355] {1.8 CV}	0.430 µg/L [0.417] {4.4 CV}	R^2=0.99899, 60.349 %Abs	RK1:25->F01@3
MCT Std 3	0.497 Abs	0.970 µg/L	R^2=0.99899, 41.313 %Abs	RK1:26->G01@3
MCT Std 3	0.475 Abs [0.4860] {3.2 CV}	1.061 µg/L [1.016] {6.3 CV}	R^2=0.99899, 39.485 %Abs	RK1:26->H01@3
MCT Std 4	0.365 Abs	1.820 µg/L	R^2=0.99899, 30.341 %Abs	RK1:27->A02@2
MCT Std 4	0.371 Abs [0.3680] {1.2 CV}	1.757 µg/L [1.789] {2.5 CV}	R^2=0.99899, 30.840 %Abs	RK1:27->B02@2
MCT Std 5	0.243 Abs	> 5.000 µg/L	20.200 %Abs	RK1:28->C02@2
MCT Std 5	0.238 Abs [0.2405] {1.5 CV}	> 5.000 µg/L	19.784 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++	++++++++++++++++++++++
8/8/2024 12:37:18 PM				
MCT 546 LRB 1	1.162 Abs	0.034 µg/L	96.592 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.117 Abs [1.1395] {2.8 CV}	0.064 µg/L [0.049] {43.3 CV}	92.851 %Abs [94.722 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.832 Abs	0.298 µg/L	69.160 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.809 Abs [0.8205] {2.0 CV}	0.323 µg/L [0.311] {5.7 CV}	67.249 %Abs [68.204 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.658 Abs	0.542 µg/L	54.697 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.680 Abs [0.6690] {2.3 CV}	0.503 µg/L [0.523] {5.3 CV}	56.525 %Abs [55.611 %Abs]	RK1:31->B03@2
**********	**********	**********	**********	**********
Statistic				
MCT Std 0 [MEAN]	1.2030	0.0065		
MCT Std 0 [SD]	0.0170	0.0092		
MCT Std 0 [%CV]	1.4107	141.4214		
MCT Std 1 [MEAN]	1.0060	0.1420		
MCT Std 1 [SD]	0.0099	0.0071		
MCT Std 1 [%CV]	0.9840	4.9796		
MCT Std 1 [%DIFF]		-5.3333		
MCT Std 2 [MEAN]	0.7355	0.4170		
MCT Std 2 [SD]	0.0134	0.0184		
MCT Std 2 [%CV]	1.8267	4.4088		
MCT Std 2 [%DIFF]		4.2500		
MCT Std 3 [MEAN]	0.4860	1.0155		
MCT Std 3 [SD]	0.0156	0.0643		
MCT Std 3 [%CV]	3.2009	6.3365		
MCT Std 3 [%DIFF]		1.5500		
MCT Std 4 [MEAN]	0.3680	1.7885		

MICROCYSTINS ADDA 546_ - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0042	0.0445		
MCT Std 4 [%CV]	1.1529	2.4908		
MCT Std 4 [%DIFF]		-10.5750		
MCT Std 5 [MEAN]	0.2405			
MCT Std 5 [SD]	0.0035			
MCT Std 5 [%CV]	1.4701			
MCT 546 LRB 1 [MEAN]	1.1395	0.0490		
MCT 546 LRB 1 [SD]	0.0318	0.0212		
MCT 546 LRB 1 [%CV]	2.7924	43.2923		
MCT 546 Low-CV [MEAN]	0.8205	0.3105		
MCT 546 Low-CV [SD]	0.0163	0.0177		
MCT 546 Low-CV [%CV]	1.9821	5.6933		
MCT 546 LFB 1 [MEAN]	0.6690	0.5225		
MCT 546 LFB 1 [SD]	0.0156	0.0276		
MCT 546 LFB 1 [%CV]	2.3253	5.2779		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2063
B = 1.1673
C = 0.47205
D = 0.19093
R2 coef = 0.99899
50% = 0.658