



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03013	Salamonie Lake - Lost Bridge West SRA Beach	6/5/2023	6/6/2023	< 0.30
AC03014	Salamonie Lake - Lost Bridge West SRA Beach (Field Duplicate)	6/5/2023	6/6/2023	< 0.30
AC03015	Field Blank	6/5/2023	6/6/2023	< 0.30
AC03016	Ferdinand State Forest - Ferdinand Lake Beach	6/5/2023	6/6/2023	< 0.30

Test Report (by Request)

Test Information

Request: 6/6/2023 2:55:33 PM
 Date: 6/6/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.158 Abs	0.008 µg/L	R^2=0.99797, 100.1			P23C058€
MCT Std 0	MICROCYSTINS ADDA 54	1.154 Abs [1.1560] {0.2 C	0.013 µg/L [0.011]	R^2=0.99797, 99.82			P23C058€
MCT Std 1	MICROCYSTINS ADDA 54	1.022 Abs	0.126 µg/L	R^2=0.99797, 88.40			P23C058€
MCT Std 1	MICROCYSTINS ADDA 54	0.991 Abs [1.0065] {2.2 C	0.150 µg/L [0.138]	R^2=0.99797, 85.72			P23C058€
MCT Std 2	MICROCYSTINS ADDA 54	0.733 Abs	0.406 µg/L	R^2=0.99797, 63.40			P23C058€
MCT Std 2	MICROCYSTINS ADDA 54	0.713 Abs [0.7230] {2.0 C	0.433 µg/L [0.419]	R^2=0.99797, 61.67			P23C058€
MCT Std 3	MICROCYSTINS ADDA 54	0.467 Abs	0.989 µg/L	R^2=0.99797, 40.35			P23C058€
MCT Std 3	MICROCYSTINS ADDA 54	0.453 Abs [0.4600] {2.2 C	1.046 µg/L [1.018]	R^2=0.99797, 39.18			P23C058€
MCT Std 4	MICROCYSTINS ADDA 54	0.356 Abs	1.669 µg/L	R^2=0.99797, 30.75			P23C058€
MCT Std 4	MICROCYSTINS ADDA 54	0.350 Abs [0.3530] {1.2 C	1.730 µg/L [1.700]	R^2=0.99797, 30.27			P23C058€
MCT Std 5	MICROCYSTINS ADDA 54	0.228 Abs	> 5.000 µg/L	19.723 %Abs			P23C058€
MCT Std 5	MICROCYSTINS ADDA 54	0.228 Abs [0.2280] {0.0 C	> 5.000 µg/L	19.723 %Abs			P23C058€
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.094 Abs	0.068 µg/L	94.637 %Abs			P23C058€
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.086 Abs [1.0900] {0.5 C	0.075 µg/L [0.072]	93.945 %Abs [94.2			P23C058€
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.785 Abs	0.343 µg/L	67.907 %Abs			P23C058€
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.764 Abs [0.7745] {1.9 C	0.368 µg/L [0.355]	66.090 %Abs [66.9			P23C058€
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.644 Abs	0.538 µg/L	55.709 %Abs			P23C058€
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.644 Abs [0.6440] {0.0 C	0.538 µg/L [0.538]	55.709 %Abs [55.7			P23C058€

Note

Signature *David Jordan*

David Jordan 6/6/2023

* 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 (6.4.1.1139/1085/1.00/0.95) 6/6/2023 3:26:01 PM

Test Report (by Request)

Test Information

Request: 6/6/2023 2:56:06 PM
 Date: 6/6/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03013	MICROCYSTINS ADDA 54	1.067 Abs	0.090 µg/L	Low, 92.301 %Abs		0.300 - 5.000	P23C058€
AC03013	MICROCYSTINS ADDA 54	1.054 Abs [1.0605] {0.9 C	0.100 µg/L [0.095]	Low, 91.176 %Abs		0.300 - 5.000	P23C058€
AC03013MS	MICROCYSTINS ADDA 54	0.562 Abs	0.702 µg/L	48.616 %Abs		0.300 - 5.000	P23C058€
AC03013MS	MICROCYSTINS ADDA 54	0.547 Abs [0.5545] {1.9 C	0.738 µg/L [0.720]	47.318 %Abs [47.9		0.300 - 5.000	P23C058€
AC03013MSD	MICROCYSTINS ADDA 54	0.561 Abs	0.704 µg/L	48.529 %Abs		0.300 - 5.000	P23C058€
AC03013MSD	MICROCYSTINS ADDA 54	0.552 Abs [0.5565] {1.1 C	0.726 µg/L [0.715]	47.751 %Abs [48.1		0.300 - 5.000	P23C058€
AC03014	MICROCYSTINS ADDA 54	1.035 Abs	0.115 µg/L	Low, 89.533 %Abs		0.300 - 5.000	P23C058€
AC03014	MICROCYSTINS ADDA 54	1.036 Abs [1.0355] {0.1 C	0.115 µg/L [0.115]	Low, 89.619 %Abs		0.300 - 5.000	P23C058€
AC03015	MICROCYSTINS ADDA 54	1.158 Abs	0.008 µg/L	Low, 100.173 %Abs		0.300 - 5.000	P23C058€
AC03015	MICROCYSTINS ADDA 54	1.156 Abs [1.1570] {0.1 C	0.010 µg/L [0.009]	Low, 100.000 %Abs		0.300 - 5.000	P23C058€
AC03016	MICROCYSTINS ADDA 54	1.071 Abs	0.087 µg/L	Low, 92.647 %Abs		0.300 - 5.000	P23C058€
AC03016	MICROCYSTINS ADDA 54	1.044 Abs [1.0575] {1.8 C	0.108 µg/L [0.097]	Low, 90.311 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.611 Abs	0.598 µg/L	52.855 %Abs		0.300 - 5.000	P23C058€
LFB 2	MICROCYSTINS ADDA 54	0.585 Abs [0.5980] {3.1 C	0.650 µg/L [0.624]	50.606 %Abs [51.7		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.181 Abs	0.000 µg/L	Low, 102.163 %Abs		0.300 - 5.000	P23C058€
LRB 2	MICROCYSTINS ADDA 54	1.143 Abs [1.1620] {2.3 C	0.025 µg/L [0.013]	Low, 98.875 %Abs		0.300 - 5.000	P23C058€

Note

Signature *David Jordan*

David Jordan 6/6/2023

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: P23C0589

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
6/6/2023 2:55:33 PM				
MCT Std 0	1.158 Abs	0.008 µg/L	R ² =0.99797, 100.173 %Abs	RK1:23->A01@2
MCT Std 0	1.154 Abs [1.1560] {0.2 CV}	0.013 µg/L [0.011] {33.7 CV}	R ² =0.99797, 99.827 %Abs	RK1:23->B01@2
MCT Std 1	1.022 Abs	0.126 µg/L	R ² =0.99797, 88.408 %Abs	RK1:24->C01@2
MCT Std 1	0.991 Abs [1.0065] {2.2 CV}	0.150 µg/L [0.138] {12.3 CV}	R ² =0.99797, 85.727 %Abs	RK1:24->D01@2
MCT Std 2	0.733 Abs	0.406 µg/L	R ² =0.99797, 63.408 %Abs	RK1:25->E01@2
MCT Std 2	0.713 Abs [0.7230] {2.0 CV}	0.433 µg/L [0.419] {4.6 CV}	R ² =0.99797, 61.678 %Abs	RK1:25->F01@3
MCT Std 3	0.467 Abs	0.989 µg/L	R ² =0.99797, 40.398 %Abs	RK1:26->G01@3
MCT Std 3	0.453 Abs [0.4600] {2.2 CV}	1.046 µg/L [1.018] {4.0 CV}	R ² =0.99797, 39.187 %Abs	RK1:26->H01@3
MCT Std 4	0.356 Abs	1.669 µg/L	R ² =0.99797, 30.796 %Abs	RK1:27->A02@2
MCT Std 4	0.350 Abs [0.3530] {1.2 CV}	1.730 µg/L [1.700] {2.5 CV}	R ² =0.99797, 30.277 %Abs	RK1:27->B02@2
MCT Std 5	0.228 Abs	> 5.000 µg/L	19.723 %Abs	RK1:28->C02@2
MCT Std 5	0.228 Abs [0.2280] {0.0 CV}	> 5.000 µg/L	19.723 %Abs	RK1:28->D02@2

6/6/2023 2:55:33 PM				
MCT 546 LRB 1	1.094 Abs	0.068 µg/L	94.637 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.086 Abs [1.0900] {0.5 CV}	0.075 µg/L [0.072] {6.9 CV}	93.945 %Abs [94.291 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.785 Abs	0.343 µg/L	67.907 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.764 Abs [0.7745] {1.9 CV}	0.368 µg/L [0.355] {5.0 CV}	66.090 %Abs [66.998 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.644 Abs	0.538 µg/L	55.709 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.644 Abs [0.6440] {0.0 CV}	0.538 µg/L [0.538] {0.0 CV}	55.709 %Abs [55.709 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1560	0.0105		
MCT Std 0 [SD]	0.0028	0.0035		
MCT Std 0 [%CV]	0.2447	33.6717		
MCT Std 1 [MEAN]	1.0065	0.1380		
MCT Std 1 [SD]	0.0219	0.0170		
MCT Std 1 [%CV]	2.1779	12.2975		
MCT Std 1 [%DIFF]		-8.0000		
MCT Std 2 [MEAN]	0.7230	0.4195		
MCT Std 2 [SD]	0.0141	0.0191		
MCT Std 2 [%CV]	1.9560	4.5511		
MCT Std 2 [%DIFF]		4.8750		
MCT Std 3 [MEAN]	0.4600	1.0175		
MCT Std 3 [SD]	0.0099	0.0403		
MCT Std 3 [%CV]	2.1521	3.9612		
MCT Std 3 [%DIFF]		1.7500		
MCT Std 4 [MEAN]	0.3530	1.6995		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0042	0.0431		
MCT Std 4 [%CV]	1.2019	2.5380		
MCT Std 4 [%DIFF]		-15.0250		
MCT Std 5 [MEAN]	0.2280			
MCT Std 5 [SD]	0.0000			
MCT Std 5 [%CV]	0.0000			
MCT 546 LRB 1 [MEAN]	1.0900	0.0715		
MCT 546 LRB 1 [SD]	0.0057	0.0049		
MCT 546 LRB 1 [%CV]	0.5190	6.9227		
MCT 546 Low-CV [MEAN]	0.7745	0.3555		
MCT 546 Low-CV [SD]	0.0148	0.0177		
MCT 546 Low-CV [%CV]	1.9173	4.9726		
MCT 546 LFB 1 [MEAN]	0.6440	0.5380		
MCT 546 LFB 1 [SD]	0.0000	0.0000		
MCT 546 LFB 1 [%CV]	0.0000	0.0000		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1619
 B = 1.3258
 C = 0.47626
 D = 0.20321
 R2 coef = 0.99797
 50% = 0.665

