



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03737	Potato Creek SP - Worster Lake Beach	7/31/2023	8/1/2023	< 0.30
AC03738	Chain O'Lakes SP - Sand Lake Beach	7/31/2023	8/1/2023	< 0.30
AC03739	Mississinewa Lake - Miami SRA Beach	7/31/2023	8/1/2023	0.35
AC03740	Salamonie Lake - Lost Bridge West SRA Beach	7/31/2023	8/1/2023	< 0.30
AC03741	Mississinewa Lake - Miami SRA Beach (Field Duplicate)	7/31/2023	8/1/2023	< 0.30
AC03742	Field Blank	7/31/2023	8/1/2023	< 0.30
AC03743	Ferdinand State Forest - Ferdinand Lake Beach	7/31/2023	8/1/2023	< 0.30
AC03744	Patoka Lake - Newton Stewart SRA	7/31/2023	8/1/2023	< 0.30

Test Report (by Request)

Test Information

Request: 8/1/2023 4:26:25 PM
 Date: 8/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.196 Abs	0.000 µg/L	R ² =0.99710, 104.8		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.086 Abs [1.1410] {6.8 C	0.065 µg/L [0.033]	R ² =0.99710, 95.18		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	1.019 Abs	0.122 µg/L	R ² =0.99710, 89.30		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.965 Abs [0.9920] {3.8 C	0.168 µg/L [0.145]	R ² =0.99710, 84.57		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.759 Abs	0.378 µg/L	R ² =0.99710, 66.52		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.724 Abs [0.7415] {3.3 C	0.424 µg/L [0.401]	R ² =0.99710, 63.45		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.457 Abs	1.053 µg/L	R ² =0.99710, 40.05		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.441 Abs [0.4490] {2.5 C	1.125 µg/L [1.089]	R ² =0.99710, 38.65		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.374 Abs	1.547 µg/L	R ² =0.99710, 32.77		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.358 Abs [0.3660] {3.1 C	1.693 µg/L [1.620]	R ² =0.99710, 31.37		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.237 Abs	> 5.000 µg/L	20.771 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.222 Abs [0.2295] {4.6 C	> 5.000 µg/L	19.457 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.167 Abs	0.000 µg/L	102.279 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.142 Abs [1.1545] {1.5 C	0.005 µg/L [0.003]	100.000 %Abs [10			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.797 Abs	0.333 µg/L	69.851 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.661 Abs [0.7290] {13.2	0.518 µg/L [0.426]	57.932 %Abs [63.8			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.670 Abs	0.504 µg/L	58.720 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.664 Abs [0.6670] {0.6 C	0.513 µg/L [0.509]	58.195 %Abs [58.4			Kit:P23C0

Note

Signature *David Jordan*

David Jordan 8/1/2023

* 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 (6.4.1.1171/1085/1.00/0.95) 8/2/2023 9:25:48 AM

Test Report (by Request)

Test Information

Request: 8/1/2023 4:27:17 PM
 Date: 8/1/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03737	MICROCYSTINS ADDA 54	1.126 Abs	0.026 µg/L	Low, 98.685 %Abs		0.300 - 5.000	Kit:P23C0
AC03737	MICROCYSTINS ADDA 54	1.087 Abs [1.1065] {2.5 C	0.064 µg/L [0.045]	Low, 95.267 %Abs		0.300 - 5.000	Kit:P23C0
AC03737MS	MICROCYSTINS ADDA 54	0.615 Abs	0.601 µg/L	53.900 %Abs		0.300 - 5.000	Kit:P23C0
AC03737MS	MICROCYSTINS ADDA 54	0.590 Abs [0.6025] {2.9 C	0.652 µg/L [0.627]	51.709 %Abs [52.8		0.300 - 5.000	Kit:P23C0
AC03737MSD	MICROCYSTINS ADDA 54	0.569 Abs	0.699 µg/L	49.869 %Abs		0.300 - 5.000	Kit:P23C0
AC03737MSD	MICROCYSTINS ADDA 54	0.556 Abs [0.5625] {1.6 C	0.731 µg/L [0.715]	48.729 %Abs [49.2		0.300 - 5.000	Kit:P23C0
AC03738	MICROCYSTINS ADDA 54	1.092 Abs	0.059 µg/L	Low, 95.706 %Abs		0.300 - 5.000	Kit:P23C0
AC03738	MICROCYSTINS ADDA 54	1.103 Abs [1.0975] {0.7 C	0.049 µg/L [0.054]	Low, 96.670 %Abs		0.300 - 5.000	Kit:P23C0
AC03739	MICROCYSTINS ADDA 54	0.800 Abs	0.329 µg/L	70.114 %Abs		0.300 - 5.000	Kit:P23C0
AC03739	MICROCYSTINS ADDA 54	0.773 Abs [0.7865] {2.4 C	0.361 µg/L [0.345]	67.748 %Abs [68.9		0.300 - 5.000	Kit:P23C0
AC03740	MICROCYSTINS ADDA 54	0.983 Abs	0.153 µg/L	Low, 86.152 %Abs		0.300 - 5.000	Kit:P23C0
AC03740	MICROCYSTINS ADDA 54	0.969 Abs [0.9760] {1.0 C	0.165 µg/L [0.159]	Low, 84.926 %Abs		0.300 - 5.000	Kit:P23C0
AC03741	MICROCYSTINS ADDA 54	0.845 Abs	0.281 µg/L	Low, 74.058 %Abs		0.300 - 5.000	Kit:P23C0
AC03741	MICROCYSTINS ADDA 54	0.831 Abs [0.8380] {1.2 C	0.295 µg/L [0.288]	Low, 72.831 %Abs		0.300 - 5.000	Kit:P23C0
AC03742	MICROCYSTINS ADDA 54	1.128 Abs	0.024 µg/L	Low, 98.861 %Abs		0.300 - 5.000	Kit:P23C0
AC03742	MICROCYSTINS ADDA 54	1.145 Abs [1.1365] {1.1 C	0.000 µg/L [0.012]	Low, 100.351 %Abs		0.300 - 5.000	Kit:P23C0
AC03743	MICROCYSTINS ADDA 54	0.966 Abs	0.167 µg/L	Low, 84.663 %Abs		0.300 - 5.000	Kit:P23C0
AC03743	MICROCYSTINS ADDA 54	0.941 Abs [0.9535] {1.9 C	0.189 µg/L [0.178]	Low, 82.472 %Abs		0.300 - 5.000	Kit:P23C0
AC03744	MICROCYSTINS ADDA 54	1.096 Abs	0.056 µg/L	Low, 96.056 %Abs		0.300 - 5.000	Kit:P23C0
AC03744	MICROCYSTINS ADDA 54	1.091 Abs [1.0935] {0.3 C	0.060 µg/L [0.058]	Low, 95.618 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.622 Abs	0.587 µg/L	54.514 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.581 Abs [0.6015] {4.8 C	0.672 µg/L [0.630]	50.920 %Abs [52.7		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.204 Abs	0.000 µg/L	Low, 105.521 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.135 Abs [1.1695] {4.2 C	0.016 µg/L [0.008]	Low, 99.474 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature *David Jordan*

David Jordan 8/1/2023

* 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 (6.4.1.1171/1085/1.00/0.95) 8/2/2023 9:25:48 AM

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:P23C0589

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/1/2023 4:26:25 PM				
MCT Std 0	1.196 Abs	0.000 µg/L	R ² =0.99710, 104.820 %Abs	RK1:23->A01@2
MCT Std 0	1.086 Abs [1.1410] {6.8 CV}	0.065 µg/L [0.033] {141.4 CV}	R ² =0.99710, 95.180 %Abs	RK1:23->B01@2
MCT Std 1	1.019 Abs	0.122 µg/L	R ² =0.99710, 89.308 %Abs	RK1:24->C01@2
MCT Std 1	0.965 Abs [0.9920] {3.8 CV}	0.168 µg/L [0.145] {22.4 CV}	R ² =0.99710, 84.575 %Abs	RK1:24->D01@2
MCT Std 2	0.759 Abs	0.378 µg/L	R ² =0.99710, 66.521 %Abs	RK1:25->E01@2
MCT Std 2	0.724 Abs [0.7415] {3.3 CV}	0.424 µg/L [0.401] {8.1 CV}	R ² =0.99710, 63.453 %Abs	RK1:25->F01@3
MCT Std 3	0.457 Abs	1.053 µg/L	R ² =0.99710, 40.053 %Abs	RK1:26->G01@3
MCT Std 3	0.441 Abs [0.4490] {2.5 CV}	1.125 µg/L [1.089] {4.7 CV}	R ² =0.99710, 38.650 %Abs	RK1:26->H01@3
MCT Std 4	0.374 Abs	1.547 µg/L	R ² =0.99710, 32.778 %Abs	RK1:27->A02@2
MCT Std 4	0.358 Abs [0.3660] {3.1 CV}	1.693 µg/L [1.620] {6.4 CV}	R ² =0.99710, 31.376 %Abs	RK1:27->B02@2
MCT Std 5	0.237 Abs	> 5.000 µg/L	20.771 %Abs	RK1:28->C02@2
MCT Std 5	0.222 Abs [0.2295] {4.6 CV}	> 5.000 µg/L	19.457 %Abs	RK1:28->D02@2

8/1/2023 4:26:25 PM				
MCT 546 LRB 1	1.167 Abs	0.000 µg/L	102.279 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.142 Abs [1.1545] {1.5 CV}	0.005 µg/L [0.003] {141.4 CV}	100.000 %Abs [101.183 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.797 Abs	0.333 µg/L	69.851 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.661 Abs [0.7290] {13.2 CV}	0.518 µg/L [0.426] {30.7 CV}	57.932 %Abs [63.891 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.670 Abs	0.504 µg/L	58.720 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.664 Abs [0.6670] {0.6 CV}	0.513 µg/L [0.509] {1.3 CV}	58.195 %Abs [58.457 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1410	0.0325		
MCT Std 0 [SD]	0.0778	0.0460		
MCT Std 0 [%CV]	6.8170	141.4214		
MCT Std 1 [MEAN]	0.9920	0.1450		
MCT Std 1 [SD]	0.0382	0.0325		
MCT Std 1 [%CV]	3.8492	22.4324		
MCT Std 1 [%DIFF]		-3.3333		
MCT Std 2 [MEAN]	0.7415	0.4010		
MCT Std 2 [SD]	0.0247	0.0325		
MCT Std 2 [%CV]	3.3377	8.1115		
MCT Std 2 [%DIFF]		0.2500		
MCT Std 3 [MEAN]	0.4490	1.0890		
MCT Std 3 [SD]	0.0113	0.0509		
MCT Std 3 [%CV]	2.5198	4.6751		
MCT Std 3 [%DIFF]		8.9000		
MCT Std 4 [MEAN]	0.3660	1.6200		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0113	0.1032		
MCT Std 4 [%CV]	3.0912	6.3727		
MCT Std 4 [%DIFF]		-19.0000		
MCT Std 5 [MEAN]	0.2295			
MCT Std 5 [SD]	0.0106			
MCT Std 5 [%CV]	4.6216			
MCT 546 LRB 1 [MEAN]	1.1545	0.0025		
MCT 546 LRB 1 [SD]	0.0177	0.0035		
MCT 546 LRB 1 [%CV]	1.5312	141.4214		
MCT 546 Low-CV [MEAN]	0.7290	0.4255		
MCT 546 Low-CV [SD]	0.0962	0.1308		
MCT 546 Low-CV [%CV]	13.1916	30.7438		
MCT 546 LFB 1 [MEAN]	0.6670	0.5085		
MCT 546 LFB 1 [SD]	0.0042	0.0064		
MCT 546 LFB 1 [%CV]	0.6361	1.2515		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1441
 B = 1.3357
 C = 0.49572
 D = 0.20565
 R2 coef = 0.99710
 50% = 0.696

