



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03329	Pokagon SP - Main Beach	7/17/2023	7/19/2023	< 0.30
AC03330	Pokagon SP - Potawatomi Inn Beach	7/17/2023	7/19/2023	< 0.30
AC03331	Chain O'Lakes SP - Sand Lake Beach	7/17/2023	7/19/2023	< 0.30
AC03332	Ouabache SP - Kunkel Lake Beach	7/17/2023	7/19/2023	< 0.30
AC03333	Potato Creek SP - Worster Lake Beach	7/17/2023	7/19/2023	< 0.30
AC03334	Mississinewa Lake - Miami SRA Beach	7/18/2023	7/19/2023	0.69
AC03335	Salamonie Lake - Lost Bridge West SRA Beach	7/18/2023	7/19/2023	< 0.30
AC03336	Summit Lake SP - Summit Lake Beach	7/18/2023	7/19/2023	< 0.30
AC03337	Pokagon SP - Potawatomi Inn Beach (Field Duplicate)	7/17/2023	7/19/2023	< 0.30
AC03338	Field Blank	7/17/2023	7/19/2023	< 0.30
AC03339	Lincoln SP - Lake Lincoln Beach	7/17/2023	7/19/2023	< 0.30
AC03340	Ferdinand State Forest - Ferdinand Lake Beach	7/17/2023	7/19/2023	< 0.30
AC03341	Patoka Lake - Newton Stewart SRA	7/17/2023	7/19/2023	< 0.30

Test Report (by Request)

Test Information

Request: 7/19/2023 2:57:50 PM
 Date: 7/19/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.147 Abs	0.000 µg/L	R^2=0.99624, 102.3		0.000	Kit:P23C0
MCT Std 0	MICROCYSTINS ADDA 54	1.094 Abs [1.1205] {3.3 C	0.042 µg/L [0.021]	R^2=0.99624, 97.5		0.000	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.976 Abs	0.141 µg/L	R^2=0.99624, 87.0		0.150	Kit:P23C0
MCT Std 1	MICROCYSTINS ADDA 54	0.973 Abs [0.9745] {0.2 C	0.144 µg/L [0.143]	R^2=0.99624, 86.7		0.150	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.717 Abs	0.391 µg/L	R^2=0.99624, 63.9		0.400	Kit:P23C0
MCT Std 2	MICROCYSTINS ADDA 54	0.692 Abs [0.7045] {2.5 C	0.423 µg/L [0.407]	R^2=0.99624, 61.7		0.400	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.443 Abs	0.985 µg/L	R^2=0.99624, 39.5		1.000	Kit:P23C0
MCT Std 3	MICROCYSTINS ADDA 54	0.398 Abs [0.4205] {7.6 C	1.201 µg/L [1.093]	R^2=0.99624, 35.5		1.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.356 Abs	1.494 µg/L	R^2=0.99624, 31.7		2.000	Kit:P23C0
MCT Std 4	MICROCYSTINS ADDA 54	0.345 Abs [0.3505] {2.2 C	1.594 µg/L [1.544]	R^2=0.99624, 30.7		2.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.220 Abs	> 5.000 µg/L	19.625 %Abs		5.000	Kit:P23C0
MCT Std 5	MICROCYSTINS ADDA 54	0.214 Abs [0.2170] {2.0 C	> 5.000 µg/L	19.090 %Abs		5.000	Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.097 Abs	0.039 µg/L	97.859 %Abs			Kit:P23C0
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.086 Abs [1.0915] {0.7 C	0.049 µg/L [0.044]	96.878 %Abs [97.3			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.771 Abs	0.329 µg/L	68.778 %Abs			Kit:P23C0
MCT 546 Low-CV	MICROCYSTINS ADDA 54	0.703 Abs [0.7370] {6.5 C	0.409 µg/L [0.369]	62.712 %Abs [65.7			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.606 Abs	0.555 µg/L	54.059 %Abs			Kit:P23C0
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.627 Abs [0.6165] {2.4 C	0.519 µg/L [0.537]	55.932 %Abs [54.9			Kit:P23C0

Note

Signature *David Jordan*

David Jordan 7/19/2023

* 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) 7/19/2023 4:49:28 PM

Test Report (by Request)

Test Information

Request: 7/19/2023 2:59:01 PM
Date: 7/19/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AC03329	MICROCYSTINS ADDA 54	1.083 Abs	0.052 µg/L	Low, 96.610 %Abs		0.300 - 5.000	Kit:P23C0
AC03329	MICROCYSTINS ADDA 54	1.064 Abs [1.0735] {1.3 C	0.069 µg/L [0.061]	Low, 94.915 %Abs		0.300 - 5.000	Kit:P23C0
AC03330	MICROCYSTINS ADDA 54	1.067 Abs	0.066 µg/L	Low, 95.183 %Abs		0.300 - 5.000	Kit:P23C0
AC03330	MICROCYSTINS ADDA 54	1.054 Abs [1.0605] {0.9 C	0.077 µg/L [0.072]	Low, 94.023 %Abs		0.300 - 5.000	Kit:P23C0
AC03331	MICROCYSTINS ADDA 54	1.035 Abs	0.093 µg/L	Low, 92.328 %Abs		0.300 - 5.000	Kit:P23C0
AC03331	MICROCYSTINS ADDA 54	0.964 Abs [0.9995] {5.0 C	0.151 µg/L [0.122]	Low, 85.995 %Abs		0.300 - 5.000	Kit:P23C0
AC03332	MICROCYSTINS ADDA 54	1.104 Abs	0.031 µg/L	Low, 98.483 %Abs		0.300 - 5.000	Kit:P23C0
AC03332	MICROCYSTINS ADDA 54	1.074 Abs [1.0890] {1.9 C	0.060 µg/L [0.046]	Low, 95.807 %Abs		0.300 - 5.000	Kit:P23C0
AC03333	MICROCYSTINS ADDA 54	1.022 Abs	0.104 µg/L	Low, 91.169 %Abs		0.300 - 5.000	Kit:P23C0
AC03333	MICROCYSTINS ADDA 54	1.049 Abs [1.0355] {1.8 C	0.082 µg/L [0.093]	Low, 93.577 %Abs		0.300 - 5.000	Kit:P23C0
AC03334	MICROCYSTINS ADDA 54	0.551 Abs	0.664 µg/L	49.153 %Abs		0.300 - 5.000	Kit:P23C0
AC03334	MICROCYSTINS ADDA 54	0.530 Abs [0.5405] {2.7 C	0.713 µg/L [0.689]	47.279 %Abs [48.2		0.300 - 5.000	Kit:P23C0
AC03334MS	MICROCYSTINS ADDA 54	0.348 Abs	1.566 µg/L	31.044 %Abs		0.300 - 5.000	Kit:P23C0
AC03334MS	MICROCYSTINS ADDA 54	0.334 Abs [0.3410] {2.9 C	1.709 µg/L [1.638]	29.795 %Abs [30.4		0.300 - 5.000	Kit:P23C0
AC03334MSD	MICROCYSTINS ADDA 54	0.404 Abs	1.168 µg/L	36.039 %Abs		0.300 - 5.000	Kit:P23C0
AC03334MSD	MICROCYSTINS ADDA 54	0.402 Abs [0.4030] {0.4 C	1.178 µg/L [1.173]	35.861 %Abs [35.9		0.300 - 5.000	Kit:P23C0
AC03335	MICROCYSTINS ADDA 54	0.919 Abs	0.188 µg/L	Low, 81.980 %Abs		0.300 - 5.000	Kit:P23C0
AC03335	MICROCYSTINS ADDA 54	0.914 Abs [0.9165] {0.4 C	0.192 µg/L [0.190]	Low, 81.534 %Abs		0.300 - 5.000	Kit:P23C0
AC03336	MICROCYSTINS ADDA 54	1.068 Abs	0.065 µg/L	Low, 95.272 %Abs		0.300 - 5.000	Kit:P23C0
AC03336	MICROCYSTINS ADDA 54	1.067 Abs [1.0675] {0.1 C	0.066 µg/L [0.066]	Low, 95.183 %Abs		0.300 - 5.000	Kit:P23C0
AC03337	MICROCYSTINS ADDA 54	1.054 Abs	0.077 µg/L	Low, 94.023 %Abs		0.300 - 5.000	Kit:P23C0
AC03337	MICROCYSTINS ADDA 54	1.043 Abs [1.0485] {0.7 C	0.087 µg/L [0.082]	Low, 93.042 %Abs		0.300 - 5.000	Kit:P23C0
AC03338	MICROCYSTINS ADDA 54	1.099 Abs	0.037 µg/L	Low, 98.037 %Abs		0.300 - 5.000	Kit:P23C0
AC03338	MICROCYSTINS ADDA 54	1.097 Abs [1.0980] {0.1 C	0.039 µg/L [0.038]	Low, 97.859 %Abs		0.300 - 5.000	Kit:P23C0
AC03339	MICROCYSTINS ADDA 54	1.009 Abs	0.114 µg/L	Low, 90.009 %Abs		0.300 - 5.000	Kit:P23C0
AC03339	MICROCYSTINS ADDA 54	0.989 Abs [0.9990] {1.4 C	0.131 µg/L [0.123]	Low, 88.225 %Abs		0.300 - 5.000	Kit:P23C0
AC03340	MICROCYSTINS ADDA 54	1.078 Abs	0.057 µg/L	Low, 96.164 %Abs		0.300 - 5.000	Kit:P23C0
AC03340	MICROCYSTINS ADDA 54	1.080 Abs [1.0790] {0.1 C	0.055 µg/L [0.056]	Low, 96.343 %Abs		0.300 - 5.000	Kit:P23C0
AC03341	MICROCYSTINS ADDA 54	1.071 Abs	0.063 µg/L	Low, 95.540 %Abs		0.300 - 5.000	Kit:P23C0
AC03341	MICROCYSTINS ADDA 54	1.071 Abs [1.0710] {0.0 C	0.063 µg/L [0.063]	Low, 95.540 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.605 Abs	0.557 µg/L	53.970 %Abs		0.300 - 5.000	Kit:P23C0
LFB 2	MICROCYSTINS ADDA 54	0.593 Abs [0.5990] {1.4 C	0.579 µg/L [0.568]	52.899 %Abs [53.4		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.081 Abs	0.054 µg/L	Low, 96.432 %Abs		0.300 - 5.000	Kit:P23C0
LRB 2	MICROCYSTINS ADDA 54	1.040 Abs [1.0605] {2.7 C	0.089 µg/L [0.072]	Low, 92.774 %Abs		0.300 - 5.000	Kit:P23C0

Note

Signature *David Jordan*

David Jordan 7/19/2023

* 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) 7/19/2023 4:49:28 PM

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
7/19/2023 2:57:50 PM				
MCT Std 0	1.147 Abs	0.000 µg/L	R ² =0.99624, 102.319 %Abs	RK1:23->A01@2
MCT Std 0	1.094 Abs [1.1205] {3.3 CV}	0.042 µg/L [0.021] {141.4 CV}	R ² =0.99624, 97.591 %Abs	RK1:23->B01@2
MCT Std 1	0.976 Abs	0.141 µg/L	R ² =0.99624, 87.065 %Abs	RK1:24->C01@2
MCT Std 1	0.973 Abs [0.9745] {0.2 CV}	0.144 µg/L [0.143] {1.5 CV}	R ² =0.99624, 86.797 %Abs	RK1:24->D01@2
MCT Std 2	0.717 Abs	0.391 µg/L	R ² =0.99624, 63.961 %Abs	RK1:25->E01@2
MCT Std 2	0.692 Abs [0.7045] {2.5 CV}	0.423 µg/L [0.407] {5.6 CV}	R ² =0.99624, 61.731 %Abs	RK1:25->F01@3
MCT Std 3	0.443 Abs	0.985 µg/L	R ² =0.99624, 39.518 %Abs	RK1:26->G01@3
MCT Std 3	0.398 Abs [0.4205] {7.6 CV}	1.201 µg/L [1.093] {14.0 CV}	R ² =0.99624, 35.504 %Abs	RK1:26->H01@3
MCT Std 4	0.356 Abs	1.494 µg/L	R ² =0.99624, 31.757 %Abs	RK1:27->A02@2
MCT Std 4	0.345 Abs [0.3505] {2.2 CV}	1.594 µg/L [1.544] {4.6 CV}	R ² =0.99624, 30.776 %Abs	RK1:27->B02@2
MCT Std 5	0.220 Abs	> 5.000 µg/L	19.625 %Abs	RK1:28->C02@2
MCT Std 5	0.214 Abs [0.2170] {2.0 CV}	> 5.000 µg/L	19.090 %Abs	RK1:28->D02@2

7/19/2023 2:57:50 PM				
MCT 546 LRB 1	1.097 Abs	0.039 µg/L	97.859 %Abs	RK1:29->E02@2
MCT 546 LRB 1	1.086 Abs [1.0915] {0.7 CV}	0.049 µg/L [0.044] {16.1 CV}	96.878 %Abs [97.368 %Abs]	RK1:29->F02@3
MCT 546 Low-CV	0.771 Abs	0.329 µg/L	68.778 %Abs	RK1:30->G02@3
MCT 546 Low-CV	0.703 Abs [0.7370] {6.5 CV}	0.409 µg/L [0.369] {15.3 CV}	62.712 %Abs [65.745 %Abs]	RK1:30->H02@3
MCT 546 LFB 1	0.606 Abs	0.555 µg/L	54.059 %Abs	RK1:31->A03@2
MCT 546 LFB 1	0.627 Abs [0.6165] {2.4 CV}	0.519 µg/L [0.537] {4.7 CV}	55.932 %Abs [54.996 %Abs]	RK1:31->B03@2

Statistic				
MCT Std 0 [MEAN]	1.1205	0.0210		
MCT Std 0 [SD]	0.0375	0.0297		
MCT Std 0 [%CV]	3.3446	141.4214		
MCT Std 1 [MEAN]	0.9745	0.1425		
MCT Std 1 [SD]	0.0021	0.0021		
MCT Std 1 [%CV]	0.2177	1.4886		
MCT Std 1 [%DIFF]		-5.0000		
MCT Std 2 [MEAN]	0.7045	0.4070		
MCT Std 2 [SD]	0.0177	0.0226		
MCT Std 2 [%CV]	2.5093	5.5596		
MCT Std 2 [%DIFF]		1.7500		
MCT Std 3 [MEAN]	0.4205	1.0930		
MCT Std 3 [SD]	0.0318	0.1527		
MCT Std 3 [%CV]	7.5671	13.9739		
MCT Std 3 [%DIFF]		9.3000		
MCT Std 4 [MEAN]	0.3505	1.5440		

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0078	0.0707		
MCT Std 4 [%CV]	2.2192	4.5797		
MCT Std 4 [%DIFF]		-22.8000		
MCT Std 5 [MEAN]	0.2170			
MCT Std 5 [SD]	0.0042			
MCT Std 5 [%CV]	1.9551			
MCT 546 LRB 1 [MEAN]	1.0915	0.0440		
MCT 546 LRB 1 [SD]	0.0078	0.0071		
MCT 546 LRB 1 [%CV]	0.7126	16.0706		
MCT 546 Low-CV [MEAN]	0.7370	0.3690		
MCT 546 Low-CV [SD]	0.0481	0.0566		
MCT 546 Low-CV [%CV]	6.5242	15.3302		
MCT 546 LFB 1 [MEAN]	0.6165	0.5370		
MCT 546 LFB 1 [SD]	0.0148	0.0255		
MCT 546 LFB 1 [%CV]	2.4086	4.7404		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1256
 B = 1.3866
 C = 0.45975
 D = 0.20579
 R2 coef = 0.99624
 50% = 0.643

