



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51522	Ft. Ben Harrison SP Dog Lake	6/6/2022	6/7/2022	< 0.30
AB51520	Ft. Ben Harrison SP Dog Lake (Field Duplicate)	6/6/2022	6/7/2022	< 0.30
AB51521	Field Blank	6/6/2022	6/7/2022	< 0.30
AB51523	Ferdinand State Forest Lake	6/6/2022	6/7/2022	< 0.30

Test Information

Request: 6/7/2022 3:35:08 PM
Date: 6/7/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
MCT Std 0	MICROCYSTINS ADDA 54	1.755 Abs	0.003 µg/L	R^2=0.99853, 99.60			M21F5321
MCT Std 0	MICROCYSTINS ADDA 54	1.768 Abs [1.7615] {0.5 C	0.000 µg/L [0.002]	R^2=0.99853, 100.3			M21F5321
MCT Std 1	MICROCYSTINS ADDA 54	1.496 Abs	0.136 µg/L	R^2=0.99853, 84.90			M21F5321
MCT Std 1	MICROCYSTINS ADDA 54	1.421 Abs [1.4585] {3.6 C	0.180 µg/L [0.158]	R^2=0.99853, 80.64			M21F5321
MCT Std 2	MICROCYSTINS ADDA 54	1.183 Abs	0.357 µg/L	R^2=0.99853, 67.14			M21F5321
MCT Std 2	MICROCYSTINS ADDA 54	1.139 Abs [1.1610] {2.7 C	0.399 µg/L [0.378]	R^2=0.99853, 64.64			M21F5321
MCT Std 3	MICROCYSTINS ADDA 54	0.746 Abs	1.047 µg/L	R^2=0.99853, 42.33			M21F5321
MCT Std 3	MICROCYSTINS ADDA 54	0.717 Abs [0.7315] {2.8 C	1.133 µg/L [1.090]	R^2=0.99853, 40.65			M21F5321
MCT Std 4	MICROCYSTINS ADDA 54	0.562 Abs	1.835 µg/L	R^2=0.99853, 31.85			M21F5321
MCT Std 4	MICROCYSTINS ADDA 54	0.559 Abs [0.5605] {0.4 C	1.854 µg/L [1.845]	R^2=0.99853, 31.72			M21F5321
MCT Std 5	MICROCYSTINS ADDA 54	0.371 Abs	4.754 µg/L	R^2=0.99853, 21.05			M21F5321
MCT Std 5	MICROCYSTINS ADDA 54	0.348 Abs [0.3595] {4.5 C	> 5.000 µg/L [4.75]	19.750 %Abs			M21F5321
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.660 Abs	0.050 µg/L	94.211 %Abs			M21F5321
MCT 546 LRB 1	MICROCYSTINS ADDA 54	1.674 Abs [1.6670] {0.6 C	0.043 µg/L [0.047]	95.006 %Abs [94.6			M21F5321
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.146 Abs	0.392 µg/L	65.040 %Abs			M21F5321
MCT 546 Low-CV	MICROCYSTINS ADDA 54	1.084 Abs [1.1150] {3.9 C	0.456 µg/L [0.424]	61.521 %Abs [63.2			M21F5321
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.961 Abs	0.612 µg/L	54.540 %Abs			M21F5321
MCT 546 LFB 1	MICROCYSTINS ADDA 54	0.941 Abs [0.9510] {1.5 C	0.642 µg/L [0.627]	53.405 %Abs [53.9			M21F5321

Note

Signature

David Jordan

David Jordan 7/7/2021

Test Information

Request: 6/7/2022 3:35:40 PM
Date: 6/7/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
AB51522	MICROCYSTINS ADDA 54	1.641 Abs	0.060 µg/L	Low, 93.133 %Abs		0.300 - 5.000	M21F5321
AB51522	MICROCYSTINS ADDA 54	1.601 Abs [1.6210] {1.7 C	0.080 µg/L [0.070]	Low, 90.863 %Abs		0.300 - 5.000	M21F5321
AB51522MS	MICROCYSTINS ADDA 54	0.994 Abs	0.565 µg/L	56.413 %Abs		0.300 - 5.000	M21F5321
AB51522MS	MICROCYSTINS ADDA 54	0.909 Abs [0.9515] {6.3 C	0.693 µg/L [0.629]	51.589 %Abs [54.0		0.300 - 5.000	M21F5321
AB51522MSD	MICROCYSTINS ADDA 54	0.895 Abs	0.717 µg/L	50.795 %Abs		0.300 - 5.000	M21F5321
AB51522MSD	MICROCYSTINS ADDA 54	0.840 Abs [0.8675] {4.5 C	0.821 µg/L [0.769]	47.673 %Abs [49.2		0.300 - 5.000	M21F5321
AB51520	MICROCYSTINS ADDA 54	1.649 Abs	0.056 µg/L	Low, 93.587 %Abs		0.300 - 5.000	M21F5321
AB51520	MICROCYSTINS ADDA 54	1.646 Abs [1.6475] {0.1 C	0.057 µg/L [0.057]	Low, 93.417 %Abs		0.300 - 5.000	M21F5321
AB51521	MICROCYSTINS ADDA 54	1.665 Abs	0.048 µg/L	Low, 94.495 %Abs		0.300 - 5.000	M21F5321
AB51521	MICROCYSTINS ADDA 54	1.632 Abs [1.6485] {1.4 C	0.064 µg/L [0.056]	Low, 92.622 %Abs		0.300 - 5.000	M21F5321
AB51523	MICROCYSTINS ADDA 54	1.570 Abs	0.095 µg/L	Low, 89.103 %Abs		0.300 - 5.000	M21F5321
AB51523	MICROCYSTINS ADDA 54	1.535 Abs [1.5525] {1.6 C	0.114 µg/L [0.104]	Low, 87.117 %Abs		0.300 - 5.000	M21F5321
LFB 2	MICROCYSTINS ADDA 54	0.894 Abs	0.719 µg/L	50.738 %Abs		0.300 - 5.000	M21F5321
LFB 2	MICROCYSTINS ADDA 54	0.877 Abs [0.8855] {1.4 C	0.749 µg/L [0.734]	49.773 %Abs [50.2		0.300 - 5.000	M21F5321
LRB 2	MICROCYSTINS ADDA 54	1.736 Abs	0.013 µg/L	Low, 98.524 %Abs		0.300 - 5.000	M21F5321
LRB 2	MICROCYSTINS ADDA 54	1.640 Abs [1.6880] {4.0 C	0.060 µg/L [0.036]	Low, 93.076 %Abs		0.300 - 5.000	M21F5321

Note

Signature

David Jordan

David Jordan 7/7/2021

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: M21F5321

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
6/7/2022 3:35:08 PM					
MCT Std 0	1.755 Abs	0.003 µg/L	R ² =0.99853, 99.603 %Abs	RK1:23->A01@2	
MCT Std 0	1.768 Abs [1.7615] {0.5 CV}	0.000 µg/L [0.002] {141.4 CV}	R ² =0.99853, 100.341 %Abs	RK1:23->B01@2	
MCT Std 1	1.496 Abs	0.136 µg/L	R ² =0.99853, 84.904 %Abs	RK1:24->C01@2	
MCT Std 1	1.421 Abs [1.4585] {3.6 CV}	0.180 µg/L [0.158] {19.7 CV}	R ² =0.99853, 80.647 %Abs	RK1:24->D01@2	
MCT Std 2	1.183 Abs	0.357 µg/L	R ² =0.99853, 67.140 %Abs	RK1:25->E01@2	
MCT Std 2	1.139 Abs [1.1610] {2.7 CV}	0.399 µg/L [0.378] {7.9 CV}	R ² =0.99853, 64.642 %Abs	RK1:25->F01@3	
MCT Std 3	0.746 Abs	1.047 µg/L	R ² =0.99853, 42.338 %Abs	RK1:26->G01@3	
MCT Std 3	0.717 Abs [0.7315] {2.8 CV}	1.133 µg/L [1.090] {5.6 CV}	R ² =0.99853, 40.692 %Abs	RK1:26->H01@3	
MCT Std 4	0.562 Abs	1.835 µg/L	R ² =0.99853, 31.896 %Abs	RK1:27->A02@2	
MCT Std 4	0.559 Abs [0.5605] {0.4 CV}	1.854 µg/L [1.845] {0.7 CV}	R ² =0.99853, 31.725 %Abs	RK1:27->B02@2	
MCT Std 5	0.371 Abs	4.754 µg/L	R ² =0.99853, 21.056 %Abs	RK1:28->C02@2	
MCT Std 5	0.348 Abs [0.3595] {4.5 CV}	> 5.000 µg/L [4.754]	19.750 %Abs	RK1:28->D02@2	

6/7/2022 3:35:08 PM					
MCT 546 LRB 1	1.660 Abs	0.050 µg/L	94.211 %Abs	RK1:29->E02@2	
MCT 546 LRB 1	1.674 Abs [1.6670] {0.6 CV}	0.043 µg/L [0.047] {10.6 CV}	95.006 %Abs [94.608 %Abs]	RK1:29->F02@3	
MCT 546 Low-CV	1.146 Abs	0.392 µg/L	65.040 %Abs	RK1:30->G02@3	
MCT 546 Low-CV	1.084 Abs [1.1150] {3.9 CV}	0.456 µg/L [0.424] {10.7 CV}	61.521 %Abs [63.280 %Abs]	RK1:30->H02@3	
MCT 546 LFB 1	0.961 Abs	0.612 µg/L	54.540 %Abs	RK1:31->A03@2	
MCT 546 LFB 1	0.941 Abs [0.9510] {1.5 CV}	0.642 µg/L [0.627] {3.4 CV}	53.405 %Abs [53.973 %Abs]	RK1:31->B03@2	

Statistic					
MCT Std 0 [MEAN]	1.7615	0.0015			
MCT Std 0 [SD]	0.0092	0.0021			
MCT Std 0 [%CV]	0.5219	141.4214			
MCT Std 1 [MEAN]	1.4585	0.1580			
MCT Std 1 [SD]	0.0530	0.0311			
MCT Std 1 [%CV]	3.6361	19.6916			
MCT Std 1 [%DIFF]		5.3333			
MCT Std 2 [MEAN]	1.1610	0.3780			
MCT Std 2 [SD]	0.0311	0.0297			
MCT Std 2 [%CV]	2.6798	7.8567			
MCT Std 2 [%DIFF]		-5.5000			
MCT Std 3 [MEAN]	0.7315	1.0900			
MCT Std 3 [SD]	0.0205	0.0608			
MCT Std 3 [%CV]	2.8033	5.5790			
MCT Std 3 [%DIFF]		9.0000			
MCT Std 4 [MEAN]	0.5605	1.8445			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0021	0.0134		
MCT Std 4 [%CV]	0.3785	0.7284		
MCT Std 4 [%DIFF]		-7.7750		
MCT Std 5 [MEAN]	0.3595			
MCT Std 5 [SD]	0.0163			
MCT Std 5 [%CV]	4.5239			
MCT 546 LRB 1 [MEAN]	1.6670	0.0465		
MCT 546 LRB 1 [SD]	0.0099	0.0049		
MCT 546 LRB 1 [%CV]	0.5939	10.6446		
MCT 546 Low-CV [MEAN]	1.1150	0.4240		
MCT 546 Low-CV [SD]	0.0438	0.0453		
MCT 546 Low-CV [%CV]	3.9319	10.6733		
MCT 546 LFB 1 [MEAN]	0.9510	0.6270		
MCT 546 LFB 1 [SD]	0.0141	0.0212		
MCT 546 LFB 1 [%CV]	1.4871	3.3833		

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 1.7597

B = 1.1041

C = 0.55688

D = 0.24090

R2 coef = 0.99853

50% = 0.742

