



## Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
MCT 546 LRB 1	Lab Reagent Blank	7/24/2019	7/24/2019	<0.30	
MCT 546 LFB 1	Lab Fortified Blank (True value = 0.600)	7/24/2019	7/24/2019	0.55	92
AB39883	Whitewater Memorial S P	7/22/2019	7/24/2019	< 0.30	
AB39883MS	Whitewater (Matrix Spike, True Value = 0.60)	7/24/2019	7/24/2019	0.50	70
AB39883MS D	Whitewater (Matrix Spike Duplicate, True Value = 0.60)	7/24/2019	7/24/2019	0.63	93
AB39879	Hardy Lake S R A	7/22/2019	7/24/2019	<0.30	
AB39880	Quakertown S R A	7/22/2019	7/24/2019	<0.30	
AB39881	Raccoon Lake S R A	7/22/2019	7/24/2019	<0.30	
AB39884	Hardy Lake S R A Field Dup.	7/22/2019	7/24/2019	<0.30	
AB39885	Field Blank	7/22/2019	7/24/2019	<0.30	
AB39886	Mounds S R A	7/22/2019	7/24/2019	<0.30	
AB39899	Lost Bridge West S R A @ Salamonie Lake	7/23/2019	7/24/2019	<0.30	
AB39900	Lost Bridge West S R A Field Dup.	7/23/2019	7/24/2019	0.39	
AB39901	Field Blank	7/23/2019	7/24/2019	<0.30	
MCT 546 LFB 2	Lab Fortified Blank (True value = 0.600)	7/24/2019	7/24/2019	0.47	77.5
MCT 546 LRB 2	Lab Reagent Blank	7/24/2019	7/24/2019	<0.30	

## Test Information

Request: 7/24/2019 12:17:04 PM  
Date: 7/24/2019 - 7/24/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
MCT Std 0	MICROCYSTINS ADDA 546	1.535 Abs	0.026 µg/L	R^2=0.99578	0.000
MCT Std 0	MICROCYSTINS ADDA 546	1.588 Abs [1.5615] {2.4 CV}	0.000 µg/L [0.013] {141.1}	R^2=0.99578	0.000
MCT Std 1	MICROCYSTINS ADDA 546	1.363 Abs	0.127 µg/L	R^2=0.99578	0.150
MCT Std 1	MICROCYSTINS ADDA 546	1.355 Abs [1.3590] {0.4 CV}	0.132 µg/L [0.130] {2.7}	R^2=0.99578	0.150
MCT Std 2	MICROCYSTINS ADDA 546	1.001 Abs	0.425 µg/L	R^2=0.99578	0.400
MCT Std 2	MICROCYSTINS ADDA 546	0.972 Abs [0.9865] {2.1 CV}	0.460 µg/L [0.442] {5.6}	R^2=0.99578	0.400
MCT Std 3	MICROCYSTINS ADDA 546	0.708 Abs	0.959 µg/L	R^2=0.99578	1.000
MCT Std 3	MICROCYSTINS ADDA 546	0.681 Abs [0.6945] {2.7 CV}	1.044 µg/L [1.002] {6.0}	R^2=0.99578	1.000
MCT Std 4	MICROCYSTINS ADDA 546	0.555 Abs	1.645 µg/L	R^2=0.99578	2.000
MCT Std 4	MICROCYSTINS ADDA 546	0.547 Abs [0.5510] {1.0 CV}	1.701 µg/L [1.673] {2.4}	R^2=0.99578	2.000
MCT Std 5	MICROCYSTINS ADDA 546	0.362 Abs	> 5.000 µg/L		5.000
MCT Std 5	MICROCYSTINS ADDA 546	0.350 Abs [0.3560] {2.4 CV}	> 5.000 µg/L		5.000
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.598 Abs	0.000 µg/L		
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.544 Abs [1.5710] {2.4 CV}	0.020 µg/L [0.010] {141.1}		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.183 Abs	0.252 µg/L		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.195 Abs [1.1890] {0.7 CV}	0.243 µg/L [0.248] {2.6}		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.886 Abs	0.579 µg/L		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.922 Abs [0.9040] {2.8 CV}	0.526 µg/L [0.553] {6.8}		
AB39883	MICROCYSTINS ADDA 546	1.455 Abs	0.072 µg/L	LOW	0.300 - 5
AB39883	MICROCYSTINS ADDA 546	1.441 Abs [1.4480] {0.7 CV}	0.080 µg/L [0.076] {7.4}	LOW [LOW]	0.300 - 5
AB39883MS	MICROCYSTINS ADDA 546	0.936 Abs	0.507 µg/L		0.300 - 5
AB39883MS	MICROCYSTINS ADDA 546	0.954 Abs [0.9450] {1.3 CV}	0.483 µg/L [0.495] {3.4}		0.300 - 5
AB39883MSD	MICROCYSTINS ADDA 546	0.852 Abs	0.635 µg/L		0.300 - 5
AB39883MSD	MICROCYSTINS ADDA 546	0.854 Abs [0.8530] {0.2 CV}	0.632 µg/L [0.633] {0.3}		0.300 - 5
AB39879	MICROCYSTINS ADDA 546	1.276 Abs	0.183 µg/L	LOW	0.300 - 5
AB39879	MICROCYSTINS ADDA 546	1.336 Abs [1.3060] {3.2 CV}	0.144 µg/L [0.163] {16.9}	LOW [LOW]	0.300 - 5
AB39880	MICROCYSTINS ADDA 546	1.434 Abs	0.084 µg/L	LOW	0.300 - 5
AB39880	MICROCYSTINS ADDA 546	1.409 Abs [1.4215] {1.2 CV}	0.099 µg/L [0.091] {11.6}	LOW [LOW]	0.300 - 5
AB39881	MICROCYSTINS ADDA 546	1.326 Abs	0.150 µg/L	LOW	0.300 - 5
AB39881	MICROCYSTINS ADDA 546	1.282 Abs [1.3040] {2.4 CV}	0.179 µg/L [0.164] {12.5}	LOW [LOW]	0.300 - 5
AB39884	MICROCYSTINS ADDA 546	1.268 Abs	0.189 µg/L	LOW	0.300 - 5
AB39884	MICROCYSTINS ADDA 546	1.244 Abs [1.2560] {1.4 CV}	0.206 µg/L [0.197] {6.1}	LOW [LOW]	0.300 - 5
AB39885	MICROCYSTINS ADDA 546	1.612 Abs	0.000 µg/L	LOW	0.300 - 5
AB39885	MICROCYSTINS ADDA 546	1.538 Abs [1.5750] {3.3 CV}	0.024 µg/L [0.012] {141.1}	LOW [LOW]	0.300 - 5
AB39886	MICROCYSTINS ADDA 546	1.472 Abs	0.062 µg/L	LOW	0.300 - 5
AB39886	MICROCYSTINS ADDA 546	1.459 Abs [1.4655] {0.6 CV}	0.070 µg/L [0.066] {8.6}	LOW [LOW]	0.300 - 5
AB39899	MICROCYSTINS ADDA 546	1.267 Abs	0.190 µg/L	LOW	0.300 - 5
AB39899	MICROCYSTINS ADDA 546	1.276 Abs [1.2715] {0.5 CV}	0.183 µg/L [0.186] {2.7}	LOW [LOW]	0.300 - 5
AB39900	MICROCYSTINS ADDA 546	1.089 Abs	0.334 µg/L		0.300 - 5
AB39900	MICROCYSTINS ADDA 546	0.989 Abs [1.0390] {6.8 CV}	0.439 µg/L [0.387] {19.2}		0.300 - 5
AB39901	MICROCYSTINS ADDA 546	1.586 Abs	0.000 µg/L	LOW	0.300 - 5
AB39901	MICROCYSTINS ADDA 546	1.481 Abs [1.5335] {4.8 CV}	0.057 µg/L [0.029] {141.1}	LOW [LOW]	0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	1.000 Abs	0.427 µg/L		0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.938 Abs [0.9690] {4.5 CV}	0.504 µg/L [0.465] {11.7}		0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.590 Abs	0.000 µg/L	LOW	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.621 Abs [1.6055] {1.4 CV}	0.000 µg/L [0.000]	LOW [LOW]	0.300 - 5

## Note

Signature David Jordan  
Date: 7/24/2019



# MICROCYSTINS ADDA 546 - Assay Calibration Report

## Assay Information

Assay Name: MICROCYSTINS ADDA 546

Version: 1

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: 7 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: 5/9/2019 11:43:40 AM

Normal: 0.300 - 5.000

# of decimals: 3

## Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/24/2019 12:17:04 PM					
MCT Std 0	1.535 Abs	0.026 µg/L	R^2=0.99578	RK1:23->A01@2	
MCT Std 0	1.588 Abs [1.5615] {2.4 CV}	0.000 µg/L [0.013] {141.4 CV}	R^2=0.99578	RK1:23->B01@2	
MCT Std 1	1.363 Abs	0.127 µg/L	R^2=0.99578	RK1:24->C01@2	
MCT Std 1	1.355 Abs [1.3590] {0.4 CV}	0.132 µg/L [0.130] {2.7 CV}	R^2=0.99578	RK1:24->D01@2	
MCT Std 2	1.001 Abs	0.425 µg/L	R^2=0.99578	RK1:25->E01@2	
MCT Std 2	0.972 Abs [0.9865] {2.1 CV}	0.460 µg/L [0.442] {5.6 CV}	R^2=0.99578	RK1:25->F01@3	
MCT Std 3	0.708 Abs	0.959 µg/L	R^2=0.99578	RK1:26->G01@3	
MCT Std 3	0.681 Abs [0.6945] {2.7 CV}	1.044 µg/L [1.002] {6.0 CV}	R^2=0.99578	RK1:26->H01@3	
MCT Std 4	0.555 Abs	1.645 µg/L	R^2=0.99578	RK1:27->A02@2	
MCT Std 4	0.547 Abs [0.5510] {1.0 CV}	1.701 µg/L [1.673] {2.4 CV}	R^2=0.99578	RK1:27->B02@2	
MCT Std 5	0.362 Abs	> 5.000 µg/L		RK1:28->C02@2	
MCT Std 5	0.350 Abs [0.3560] {2.4 CV}	> 5.000 µg/L		RK1:28->D02@2	
*****					
7/24/2019 12:17:04 PM					
MCT 546 LRB 1	1.598 Abs	0.000 µg/L		RK1:29->E02@2	
MCT 546 LRB 1	1.544 Abs [1.5710] {2.4 CV}	0.020 µg/L [0.010] {141.4 CV}		RK1:29->F02@3	
MCT 546 Low-CV	1.183 Abs	0.252 µg/L		RK1:30->G02@3	
MCT 546 Low-CV	1.195 Abs [1.1890] {0.7 CV}	0.243 µg/L [0.248] {2.6 CV}		RK1:30->H02@3	
MCT 546 LFB 1	0.886 Abs	0.579 µg/L		RK1:31->A03@2	
MCT 546 LFB 1	0.922 Abs [0.9040] {2.8 CV}	0.526 µg/L [0.553] {6.8 CV}		RK1:31->B03@2	
*****					
Statistic					
MCT Std 0 [MEAN]	1.5615	0.0130			
MCT Std 0 [SD]	0.0375	0.0184			
MCT Std 0 [%CV]	2.4000	141.4214			
MCT Std 1 [MEAN]	1.3590	0.1295			
MCT Std 1 [SD]	0.0057	0.0035			
MCT Std 1 [%CV]	0.4163	2.7301			
MCT Std 1 [%DIFF]		-13.6667			
MCT Std 2 [MEAN]	0.9865	0.4425			
MCT Std 2 [SD]	0.0205	0.0247			
MCT Std 2 [%CV]	2.0787	5.5929			
MCT Std 2 [%DIFF]		10.6250			
MCT Std 3 [MEAN]	0.6945	1.0015			
MCT Std 3 [SD]	0.0191	0.0601			
MCT Std 3 [%CV]	2.7490	6.0014			
MCT Std 3 [%DIFF]		0.1500			
MCT Std 4 [MEAN]	0.5510	1.6730			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0057	0.0396		
MCT Std 4 [%CV]	1.0267	2.3669		
MCT Std 4 [%DIFF]		-16.3500		
MCT Std 5 [MEAN]	0.3560			
MCT Std 5 [SD]	0.0085			
MCT Std 5 [%CV]	2.3835			
MCT 546 LRB 1 [MEAN]	1.5710	0.0100		
MCT 546 LRB 1 [SD]	0.0382	0.0141		
MCT 546 LRB 1 [%CV]	2.4305	141.4214		
MCT 546 Low-CV [MEAN]	1.1890	0.2475		
MCT 546 Low-CV [SD]	0.0085	0.0064		
MCT 546 Low-CV [%CV]	0.7137	2.5713		
MCT 546 LFB 1 [MEAN]	0.9040	0.5525		
MCT 546 LFB 1 [SD]	0.0255	0.0375		
MCT 546 LFB 1 [%CV]	2.8159	6.7831		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D  
Weight: NONE  
A = 1.5724  
B = 1.1715  
C = 0.50772  
D = 0.29882  
R2 coef = 0.99578

