



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	7/31/2019	7/31/2019	<0.30	
MCT 546 LFB 1	Lab Fortified Blank (True value = 0.600)	7/31/2019	7/31/2019	0.55	94
AB39924	Kunkel Beach at Ouabache S P	7/29/2019	7/31/2019	< 0.30	
AB39925	Lost Bridge West S R A	7/29/2019	7/31/2019	< 0.30	
AB39926	Mississinewa Lake Miami S R A	7/29/2019	7/31/2019	0.69	
AB39926MS	Mississinewa (Matrix Spike, True Value = 0.60)	7/31/2019	7/31/2019	1.30	101
AB39926MSD	Mississinewa (Matrix Spike Duplicate, True Value = 0.60)	7/31/2019	7/31/2019	1.11	70
AB39927	Potato Creek S P	7/29/2019	7/31/2019	<0.30	
AB39928	Lost Bridge West S R A Field Dup.	7/29/2019	7/31/2019	<0.30	
AB39929	Field Blank	7/29/2019	7/31/2019	<0.30	
MCT 546 LFB 2	Lab Fortified Blank (True value = 0.600)	7/31/2019	7/31/2019	0.55	91.3
MCT 546 LRB 2	Lab Reagent Blank	7/31/2019	7/31/2019	<0.30	

Test Information

Request: 7/31/2019 4:47:21 PM
Date: 7/31/2019 - 8/1/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
MCT Std 0	MICROCYSTINS ADDA 546	1.418 Abs	0.028 µg/L	R^2=0.99816	0.000
MCT Std 0	MICROCYSTINS ADDA 546	1.474 Abs [1.4460] {2.7 CV}	0.000 µg/L [0.014] {141.1}	R^2=0.99816	0.000
MCT Std 1	MICROCYSTINS ADDA 546	1.280 Abs	0.127 µg/L	R^2=0.99816	0.150
MCT Std 1	MICROCYSTINS ADDA 546	1.257 Abs [1.2685] {1.3 CV}	0.145 µg/L [0.136] {9.4}	R^2=0.99816	0.150
MCT Std 2	MICROCYSTINS ADDA 546	0.984 Abs	0.414 µg/L	R^2=0.99816	0.400
MCT Std 2	MICROCYSTINS ADDA 546	0.974 Abs [0.9790] {0.7 CV}	0.427 µg/L [0.420] {2.2}	R^2=0.99816	0.400
MCT Std 3	MICROCYSTINS ADDA 546	0.692 Abs	1.014 µg/L	R^2=0.99816	1.000
MCT Std 3	MICROCYSTINS ADDA 546	0.682 Abs [0.6870] {1.0 CV}	1.048 µg/L [1.031] {2.3}	R^2=0.99816	1.000
MCT Std 4	MICROCYSTINS ADDA 546	0.545 Abs	1.756 µg/L	R^2=0.99816	2.000
MCT Std 4	MICROCYSTINS ADDA 546	0.544 Abs [0.5445] {0.1 CV}	1.763 µg/L [1.760] {0.3}	R^2=0.99816	2.000
MCT Std 5	MICROCYSTINS ADDA 546	0.372 Abs	> 5.000 µg/L		5.000
MCT Std 5	MICROCYSTINS ADDA 546	0.360 Abs [0.3660] {2.3 CV}	> 5.000 µg/L		5.000
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.442 Abs	0.009 µg/L		
MCT 546 LRB 1	MICROCYSTINS ADDA 546	1.406 Abs [1.4240] {1.8 CV}	0.036 µg/L [0.022] {84.9}		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.038 Abs	0.348 µg/L		
MCT 546 Low-CV	MICROCYSTINS ADDA 546	1.071 Abs [1.0545] {2.2 CV}	0.312 µg/L [0.330] {7.7}		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.888 Abs	0.554 µg/L		
MCT 546 LFB 1	MICROCYSTINS ADDA 546	0.878 Abs [0.8830] {0.8 CV}	0.571 µg/L [0.563] {2.1}		
AB39924	MICROCYSTINS ADDA 546	1.400 Abs	0.041 µg/L	LOW	0.300 - 5
AB39924	MICROCYSTINS ADDA 546	1.396 Abs [1.3980] {0.2 CV}	0.044 µg/L [0.043] {5.0}	LOW [LOW]	0.300 - 5
AB39925	MICROCYSTINS ADDA 546	1.332 Abs	0.089 µg/L	LOW	0.300 - 5
AB39925	MICROCYSTINS ADDA 546	1.279 Abs [1.3055] {2.9 CV}	0.128 µg/L [0.109] {25.4}	LOW [LOW]	0.300 - 5
AB39926	MICROCYSTINS ADDA 546	0.820 Abs	0.679 µg/L		0.300 - 5
AB39926	MICROCYSTINS ADDA 546	0.808 Abs [0.8140] {1.0 CV}	0.704 µg/L [0.692] {2.6}		0.300 - 5
AB39926MS	MICROCYSTINS ADDA 546	0.606 Abs	1.372 µg/L		0.300 - 5
AB39926MS	MICROCYSTINS ADDA 546	0.638 Abs [0.6220] {3.6 CV}	1.220 µg/L [1.296] {8.3}		0.300 - 5
AB39926MSD	MICROCYSTINS ADDA 546	0.670 Abs	1.091 µg/L		0.300 - 5
AB39926MSD	MICROCYSTINS ADDA 546	0.660 Abs [0.6650] {1.1 CV}	1.129 µg/L [1.110] {2.4}		0.300 - 5
AB39927	MICROCYSTINS ADDA 546	1.371 Abs	0.061 µg/L	LOW	0.300 - 5
AB39927	MICROCYSTINS ADDA 546	1.323 Abs [1.3470] {2.5 CV}	0.095 µg/L [0.078] {30.8}	LOW [LOW]	0.300 - 5
AB39928	MICROCYSTINS ADDA 546	1.267 Abs	0.137 µg/L	LOW	0.300 - 5
AB39928	MICROCYSTINS ADDA 546	1.247 Abs [1.2570] {1.1 CV}	0.153 µg/L [0.145] {7.8}	LOW [LOW]	0.300 - 5
AB39929	MICROCYSTINS ADDA 546	1.453 Abs	0.000 µg/L	LOW	0.300 - 5
AB39929	MICROCYSTINS ADDA 546	1.449 Abs [1.4510] {0.2 CV}	0.003 µg/L [0.002] {141.1}	LOW [LOW]	0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.896 Abs	0.541 µg/L		0.300 - 5
MCT 546 LFB 2	MICROCYSTINS ADDA 546	0.888 Abs [0.8920] {0.6 CV}	0.554 µg/L [0.548] {1.7}		0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.399 Abs	0.041 µg/L	LOW	0.300 - 5
MCT LRB 2	MICROCYSTINS ADDA 546	1.382 Abs [1.3905] {0.9 CV}	0.053 µg/L [0.047] {18.1}	LOW [LOW]	0.300 - 5
High CV	MICROCYSTINS ADDA 546	0.796 Abs	0.730 µg/L		0.300 - 5
High CV	MICROCYSTINS ADDA 546	0.803 Abs [0.7995] {0.6 CV}	0.715 µg/L [0.722] {1.5}		0.300 - 5

Note

Signature

David Jordan

David Jordan 7/31/2019



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	
7/31/2019 4:47:21 PM					
MCT Std 0	1.418 Abs	0.028 µg/L	R^2=0.99816	RK1:23->A01@2	
MCT Std 0	1.474 Abs [1.4460] {2.7 CV}	0.000 µg/L [0.014] {141.4 CV}	R^2=0.99816	RK1:23->B01@2	
MCT Std 1	1.280 Abs	0.127 µg/L	R^2=0.99816	RK1:24->C01@2	
MCT Std 1	1.257 Abs [1.2685] {1.3 CV}	0.145 µg/L [0.136] {9.4 CV}	R^2=0.99816	RK1:24->D01@2	
MCT Std 2	0.984 Abs	0.414 µg/L	R^2=0.99816	RK1:25->E01@2	
MCT Std 2	0.974 Abs [0.9790] {0.7 CV}	0.427 µg/L [0.420] {2.2 CV}	R^2=0.99816	RK1:25->F01@3	
MCT Std 3	0.692 Abs	1.014 µg/L	R^2=0.99816	RK1:26->G01@3	
MCT Std 3	0.682 Abs [0.6870] {1.0 CV}	1.048 µg/L [1.031] {2.3 CV}	R^2=0.99816	RK1:26->H01@3	
MCT Std 4	0.545 Abs	1.756 µg/L	R^2=0.99816	RK1:27->A02@2	
MCT Std 4	0.544 Abs [0.5445] {0.1 CV}	1.763 µg/L [1.760] {0.3 CV}	R^2=0.99816	RK1:27->B02@2	
MCT Std 5	0.372 Abs	> 5.000 µg/L		RK1:28->C02@2	
MCT Std 5	0.360 Abs [0.3660] {2.3 CV}	> 5.000 µg/L		RK1:28->D02@2	
*****	*****	*****	*****	*****	*****
7/31/2019 4:47:21 PM					
MCT 546 LRB 1	1.442 Abs	0.009 µg/L		RK1:29->E02@2	
MCT 546 LRB 1	1.406 Abs [1.4240] {1.8 CV}	0.036 µg/L [0.022] {84.9 CV}		RK1:29->F02@3	
MCT 546 Low-CV	1.038 Abs	0.348 µg/L		RK1:30->G02@3	
MCT 546 Low-CV	1.071 Abs [1.0545] {2.2 CV}	0.312 µg/L [0.330] {7.7 CV}		RK1:30->H02@3	
MCT 546 LFB 1	0.888 Abs	0.554 µg/L		RK1:31->A03@2	
MCT 546 LFB 1	0.878 Abs [0.8830] {0.8 CV}	0.571 µg/L [0.563] {2.1 CV}		RK1:31->B03@2	
*****	*****	*****	*****	*****	*****
Statistic					
MCT Std 0 [MEAN]	1.4460	0.0140			
MCT Std 0 [SD]	0.0396	0.0198			
MCT Std 0 [%CV]	2.7384	141.4214			
MCT Std 1 [MEAN]	1.2685	0.1360			
MCT Std 1 [SD]	0.0163	0.0127			
MCT Std 1 [%CV]	1.2821	9.3588			
MCT Std 1 [%DIFF]		-9.3333			
MCT Std 2 [MEAN]	0.9790	0.4205			
MCT Std 2 [SD]	0.0071	0.0092			
MCT Std 2 [%CV]	0.7223	2.1861			
MCT Std 2 [%DIFF]		5.1250			
MCT Std 3 [MEAN]	0.6870	1.0310			
MCT Std 3 [SD]	0.0071	0.0240			
MCT Std 3 [%CV]	1.0293	2.3319			
MCT Std 3 [%DIFF]		3.1000			
MCT Std 4 [MEAN]	0.5445	1.7595			

Name	Absorbance	Concentration	Interpretation	Position
MCT Std 4 [SD]	0.0007	0.0049		
MCT Std 4 [%CV]	0.1299	0.2813		
MCT Std 4 [%DIFF]		-12.0250		
MCT Std 5 [MEAN]	0.3660			
MCT Std 5 [SD]	0.0085			
MCT Std 5 [%CV]	2.3184			
MCT 546 LRB 1 [MEAN]	1.4240	0.0225		
MCT 546 LRB 1 [SD]	0.0255	0.0191		
MCT 546 LRB 1 [%CV]	1.7876	84.8528		
MCT 546 Low-CV [MEAN]	1.0545	0.3300		
MCT 546 Low-CV [SD]	0.0233	0.0255		
MCT 546 Low-CV [%CV]	2.2129	7.7139		
MCT 546 LFB 1 [MEAN]	0.8830	0.5625		
MCT 546 LFB 1 [SD]	0.0071	0.0120		
MCT 546 LFB 1 [%CV]	0.8008	2.1370		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.4522
B = 1.1524
C = 0.58237
D = 0.29042
R2 coef = 0.99812

