



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	5/22/2019	5/22/2019	< 0.40	
LFB	Lab Fortified Blank	5/22/2019	5/22/2019	0.44	73
AB38419	Potawatomi Inn's Beach	5/20/2019	5/22/2019	< 0.40	
AB38420	Pokagon State Park	5/20/2019	5/22/2019	< 0.40	
AB38420MS	Pokagon State Park (Matrix Spike)	5/20/2019	5/22/2019	0.56	93
AB38420MSD	Pokagon State Park (Matrix Spike Dup.)	5/20/2019	5/22/2019	0.44	73
AB34821	Chain O'Lakes SP	5/20/2019	5/22/2019	< 0.40	
AB34822	Ouabache State Park	5/20/2019	5/22/2019	< 0.40	
AB34823	Potato Creek State Park	5/21/2019	5/22/2019	< 0.40	
AB34824	Mississinewa Lake Miami SRA	5/21/2019	5/22/2019	< 0.40	
AB34825	Lost Bridge West SRA	5/21/2019	5/22/2019	< 0.40	
AB34826	Mississinewa Lake Miami SRA (Field Dup.)	5/21/2019	5/22/2019	< 0.40	
AB34827	Field Blank	5/21/2019	5/22/2019	< 0.40	

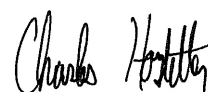
Test Information

Request: 5/22/2019 9:59:26 AM
Date: 5/22/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
ATX Std 0	ANATOXIN	1.087 Abs	0.000 µg/L	R^2=0.99902	0.000
ATX Std 0	ANATOXIN	1.050 Abs [1.0685] {2.4 CV}	0.007 µg/L [0.004] {141.1}	R^2=0.99902	0.000
ATX Std 1	ANATOXIN	0.868 Abs	0.114 µg/L	R^2=0.99902	0.150
ATX Std 1	ANATOXIN	0.803 Abs [0.8355] {5.5 CV}	0.171 µg/L [0.142] {28.3}	R^2=0.99902	0.150
ATX Std 2	ANATOXIN	0.621 Abs	0.411 µg/L	R^2=0.99902	0.400
ATX Std 2	ANATOXIN	0.609 Abs [0.6150] {1.4 CV}	0.433 µg/L [0.422] {3.7}	R^2=0.99902	0.400
ATX Std 3	ANATOXIN	0.413 Abs	0.996 µg/L	R^2=0.99902	1.000
ATX Std 3	ANATOXIN	0.406 Abs [0.4095] {1.2 CV}	1.027 µg/L [1.012] {2.2}	R^2=0.99902	1.000
ATX Std 4	ANATOXIN	0.252 Abs	2.193 µg/L	R^2=0.99902	2.500
ATX Std 4	ANATOXIN	0.240 Abs [0.2460] {3.4 CV}	2.350 µg/L [2.272] {4.9}	R^2=0.99902	2.500
ATX Std 5	ANATOXIN	0.128 Abs	> 5.000 µg/L		5.000
ATX Std 5	ANATOXIN	0.120 Abs [0.1240] {4.6 CV}	> 5.000 µg/L		5.000
ATX Control	ANATOXIN	0.430 Abs	0.924 µg/L		0.75 +- 0.05
ATX Control	ANATOXIN	0.447 Abs [0.4385] {2.7 CV}	0.859 µg/L [0.891] {5.2}		0.75 +- 0.05
LRB	ANATOXIN	0.973 Abs	0.048 µg/L	LOW	0.150 - 5.000
LRB	ANATOXIN	0.967 Abs [0.9700] {0.4 CV}	0.052 µg/L [0.050] {5.7}	LOW	0.150 - 5.000
LFB	ANATOXIN	0.627 Abs	0.401 µg/L		0.150 - 5.000
LFB	ANATOXIN	0.589 Abs [0.6080] {4.4 CV}	0.471 µg/L [0.436] {11.4}		0.150 - 5.000
DK33763	ANATOXIN	1.054 Abs	0.006 µg/L	LOW	0.150 - 5.000
DK33763	ANATOXIN	1.024 Abs [1.0390] {2.0 CV}	0.018 µg/L [0.012] {70.7}	LOW [LOW]	0.150 - 5.000
DK33764	ANATOXIN	1.010 Abs	0.025 µg/L	LOW	0.150 - 5.000
DK33764	ANATOXIN	0.991 Abs [1.0005] {1.3 CV}	0.034 µg/L [0.030] {21.6}	LOW [LOW]	0.150 - 5.000
DK33765	ANATOXIN	0.951 Abs	0.057 µg/L	LOW	0.150 - 5.000
DK33765	ANATOXIN	0.957 Abs [0.9540] {0.4 CV}	0.053 µg/L [0.055] {5.1}	LOW [LOW]	0.150 - 5.000
DK34025	ANATOXIN	1.008 Abs	0.026 µg/L	LOW	0.150 - 5.000
DK34025	ANATOXIN	0.946 Abs [0.9770] {4.5 CV}	0.060 µg/L [0.043] {55.9}	LOW [LOW]	0.150 - 5.000
DK34025MS	ANATOXIN	0.592 Abs	0.465 µg/L		0.150 - 5.000
DK34025MS	ANATOXIN	0.585 Abs [0.5885] {0.8 CV}	0.480 µg/L [0.472] {2.2}		0.150 - 5.000
DK34025MSD	ANATOXIN	0.573 Abs	0.504 µg/L		0.150 - 5.000
DK34025MSD	ANATOXIN	0.557 Abs [0.5650] {2.0 CV}	0.540 µg/L [0.522] {4.9}		0.150 - 5.000
DK34026	ANATOXIN	1.032 Abs	0.014 µg/L	LOW	0.150 - 5.000
DK34026	ANATOXIN	0.973 Abs [1.0025] {4.2 CV}	0.044 µg/L [0.029] {73.1}	LOW [LOW]	0.150 - 5.000
DK34026MS	ANATOXIN	0.562 Abs	0.528 µg/L		0.150 - 5.000
DK34026MS	ANATOXIN	0.532 Abs [0.5470] {3.9 CV}	0.599 µg/L [0.563] {8.9}		0.150 - 5.000
DK34026MSD	ANATOXIN	0.611 Abs	0.429 µg/L		0.150 - 5.000
DK34026MSD	ANATOXIN	0.594 Abs [0.6025] {2.0 CV}	0.462 µg/L [0.446] {5.2}		0.150 - 5.000
DK34082	ANATOXIN	1.010 Abs	0.025 µg/L	LOW	0.150 - 5.000
DK34082	ANATOXIN	0.991 Abs [1.0005] {1.3 CV}	0.034 µg/L [0.030] {21.6}	LOW [LOW]	0.150 - 5.000
DK34083	ANATOXIN	1.027 Abs	0.017 µg/L	LOW	0.150 - 5.000
DK34083	ANATOXIN	0.973 Abs [1.0000] {3.8 CV}	0.044 µg/L [0.031] {62.6}	LOW [LOW]	0.150 - 5.000

Note

Signature



Charles Hostetter 5/23/2019



ANATOXIN - Assay Calibration Report

Assay Information

Assay Name: ANATOXIN
Version: 1
Temperature: Room Temperature
Last Modified By: Security disabled
Units: µg/L
Assay Description: PN 520060
Assay Substances: Controls:

ATX Control

Standards:

ATX Std 0, Concentration = 0.000, Minimum number to use: 2

ATX Std 1, Concentration = 0.150, Minimum number to use: 2

ATX Std 2, Concentration = 0.400, Minimum number to use: 2

ATX Std 3, Concentration = 1.000, Minimum number to use: 2

ATX Std 4, Concentration = 2.500, Minimum number to use: 2

ATX 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: 1/16/2017 8:49:03 AM

Normal: 0.150 - 5.000

of decimals: 3

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
5/22/2019 9:59:26 AM				
ATX Std 0	1.087 Abs	0.000 µg/L	R^2=0.99902	RK1:23->A01@2
ATX Std 0	1.050 Abs [1.0685] {2.4 CV}	0.007 µg/L [0.004] {141.4 CV}	R^2=0.99902	RK1:23->B01@2
ATX Std 1	0.868 Abs	0.114 µg/L	R^2=0.99902	RK1:24->C01@2
ATX Std 1	0.803 Abs [0.8355] {5.5 CV}	0.171 µg/L [0.142] {28.3 CV}	R^2=0.99902	RK1:24->D01@2
ATX Std 2	0.621 Abs	0.411 µg/L	R^2=0.99902	RK1:25->E01@2
ATX Std 2	0.609 Abs [0.6150] {1.4 CV}	0.433 µg/L [0.422] {3.7 CV}	R^2=0.99902	RK1:25->F01@3
ATX Std 3	0.413 Abs	0.996 µg/L	R^2=0.99902	RK1:26->G01@3
ATX Std 3	0.406 Abs [0.4095] {1.2 CV}	1.027 µg/L [1.012] {2.2 CV}	R^2=0.99902	RK1:26->H01@3
ATX Std 4	0.252 Abs	2.193 µg/L	R^2=0.99902	RK1:27->A02@2
ATX Std 4	0.240 Abs [0.2460] {3.4 CV}	2.350 µg/L [2.272] {4.9 CV}	R^2=0.99902	RK1:27->B02@2
ATX Std 5	0.128 Abs	> 5.000 µg/L		RK1:28->C02@2
ATX Std 5	0.120 Abs [0.1240] {4.6 CV}	> 5.000 µg/L		RK1:28->D02@2

5/22/2019 9:59:26 AM				
ATX Control	0.430 Abs	0.924 µg/L		RK1:29->E02@2
ATX Control	0.447 Abs [0.4385] {2.7 CV}	0.859 µg/L [0.891] {5.2 CV}		RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.0685	0.0035		
ATX Std 0 [SD]	0.0262	0.0049		
ATX Std 0 [%CV]	2.4486	141.4214		
ATX Std 1 [MEAN]	0.8355	0.1425		
ATX Std 1 [SD]	0.0460	0.0403		
ATX Std 1 [%CV]	5.5011	28.2843		
ATX Std 1 [%DIFF]		-5.0000		
ATX Std 2 [MEAN]	0.6150	0.4220		
ATX Std 2 [SD]	0.0085	0.0156		
ATX Std 2 [%CV]	1.3797	3.6863		
ATX Std 2 [%DIFF]		5.5000		
ATX Std 3 [MEAN]	0.4095	1.0115		
ATX Std 3 [SD]	0.0049	0.0219		
ATX Std 3 [%CV]	1.2087	2.1671		
ATX Std 3 [%DIFF]		1.1500		
ATX Std 4 [MEAN]	0.2460	2.2715		
ATX Std 4 [SD]	0.0085	0.1110		
ATX Std 4 [%CV]	3.4493	4.8873		
ATX Std 4 [%DIFF]		-9.1400		
ATX Std 5 [MEAN]	0.1240			
ATX Std 5 [SD]	0.0057			
ATX Std 5 [%CV]	4.5620			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.4385	0.8915			
ATX Control [SD]	0.0120	0.0460			
ATX Control [%CV]	2.7413	5.1556			
ATX Control [%DIFF]		18.8667			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 1.0712
B = 0.87948
C = 0.60597
D = -0.012313
R2 coef = 0.99902

