



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ug/L)	% Recovery
LRB	Lab Reagent Blank	6/10/2019	6/12/2019	< 0.40	
LFB	Lab Fortified Blank (True Value = 0.80)	6/10/2019	6/12/2019	0.79	99
AB39109	Paynetown (Field Duplicate)	6/10/2019	6/12/2019	< 0.40	
AB39110	Field Blank	6/10/2019	6/12/2019	< 0.40	
AB39111	Raccoon Lake SRA	6/10/2019	6/12/2019	< 0.40	
AB39112	Paynetown SRA	6/10/2019	6/12/2019	< 0.40	
AB39113	Fairfax SRA	6/10/2019	6/12/2019	< 0.40	
AB39113MS	Fairfax (Matrix Spike, True Value = 0.80)	6/10/2019	6/12/2019	0.96	109
AB39113MS D	Fairfax (Matrix Spike Duplicate, True Value = 0.80)	6/10/2019	6/12/2019	0.92	104
AB39114	Starve Hollow SRA	6/10/2019	6/12/2019	< 0.40	
AB39115	Whitewater Memorial SP	6/11/2019	6/12/2019	< 0.40	
AB39116	Quakertown SRA	6/11/2019	6/12/2019	< 0.40	
AB39117	Mounds SRA	6/11/2019	6/12/2019	< 0.40	
AB39118	Hardy Lake SRA	6/11/2019	6/12/2019	< 0.40	
AB39119	Deam Lake SRA	6/11/2019	6/12/2019	< 0.40	

## Test Information

Request: 6/12/2019 11:14:26 AM  
Date: 6/12/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
ATX Std 0	ANATOXIN	1.158 Abs	0.000 µg/L	R^2=0.99828	0.000
ATX Std 0	ANATOXIN	1.122 Abs [1.1400] {2.2 CV}	0.012 µg/L [0.006] {141.1}	R^2=0.99828	0.000
ATX Std 1	ANATOXIN	0.952 Abs	0.132 µg/L	R^2=0.99828	0.150
ATX Std 1	ANATOXIN	0.948 Abs [0.9500] {0.3 CV}	0.135 µg/L [0.134] {1.6}	R^2=0.99828	0.150
ATX Std 2	ANATOXIN	0.713 Abs	0.415 µg/L	R^2=0.99828	0.400
ATX Std 2	ANATOXIN	0.679 Abs [0.6960] {3.5 CV}	0.473 µg/L [0.444] {9.2}	R^2=0.99828	0.400
ATX Std 3	ANATOXIN	0.492 Abs	0.943 µg/L	R^2=0.99828	1.000
ATX Std 3	ANATOXIN	0.488 Abs [0.4900] {0.6 CV}	0.957 µg/L [0.950] {1.0}	R^2=0.99828	1.000
ATX Std 4	ANATOXIN	0.268 Abs	2.418 µg/L	R^2=0.99828	2.500
ATX Std 4	ANATOXIN	0.261 Abs [0.2645] {1.9 CV}	2.506 µg/L [2.462] {2.5}	R^2=0.99828	2.500
ATX Std 5	ANATOXIN	0.145 Abs	> 5.000 µg/L		5.000
ATX Std 5	ANATOXIN	0.148 Abs [0.1465] {1.4 CV}	> 5.000 µg/L		5.000
ATX Control	ANATOXIN	0.565 Abs	0.721 µg/L		0.75 +- 0.05
ATX Control	ANATOXIN	0.538 Abs [0.5515] {3.5 CV}	0.796 µg/L [0.758] {7.0}		0.75 +- 0.05
LRB	ANATOXIN	1.057 Abs	0.057 µg/L	LOW	0.150 - 5.000
LRB	ANATOXIN	1.029 Abs [1.0430] {1.9 CV}	0.078 µg/L [0.068] {22.0}	LOW	0.150 - 5.000
LFB	ANATOXIN	0.568 Abs	0.784 µg/L		0.150 - 5.000
LFB	ANATOXIN	0.564 Abs [0.5660] {0.5 CV}	0.795 µg/L [0.789] {1.0}		0.150 - 5.000
AB39109	ANATOXIN	1.078 Abs	0.042 µg/L	LOW	0.150 - 5.000
AB39109	ANATOXIN	1.044 Abs [1.0610] {2.3 CV}	0.067 µg/L [0.054] {32.4}	LOW	0.150 - 5.000
AB39110	ANATOXIN	1.020 Abs	0.086 µg/L	LOW	0.150 - 5.000
AB39110	ANATOXIN	1.005 Abs [1.0125] {1.0 CV}	0.098 µg/L [0.092] {9.2}	LOW	0.150 - 5.000
AB39111	ANATOXIN	1.023 Abs	0.084 µg/L	LOW	0.150 - 5.000
AB39111	ANATOXIN	1.012 Abs [1.0175] {0.8 CV}	0.092 µg/L [0.088] {6.4}	LOW	0.150 - 5.000
AB39112	ANATOXIN	1.065 Abs	0.051 µg/L	LOW	0.150 - 5.000
AB39112	ANATOXIN	1.021 Abs [1.0430] {3.0 CV}	0.085 µg/L [0.068] {35.4}	LOW	0.150 - 5.000
AB39113	ANATOXIN	1.029 Abs	0.078 µg/L	LOW	0.150 - 5.000
AB39113	ANATOXIN	1.002 Abs [1.0155] {1.9 CV}	0.100 µg/L [0.089] {17.5}	LOW	0.150 - 5.000
AB39113MS	ANATOXIN	0.510 Abs	0.970 µg/L		0.150 - 5.000
AB39113MS	ANATOXIN	0.516 Abs [0.5130] {0.8 CV}	0.948 µg/L [0.959] {1.6}		0.150 - 5.000
AB39113MSD	ANATOXIN	0.533 Abs	0.891 µg/L		0.150 - 5.000
AB39113MSD	ANATOXIN	0.518 Abs [0.5255] {2.0 CV}	0.942 µg/L [0.916] {3.9}		0.150 - 5.000
AB39114	ANATOXIN	0.894 Abs	0.205 µg/L		0.150 - 5.000
AB39114	ANATOXIN	0.941 Abs [0.9175] {3.6 CV}	0.156 µg/L [0.181] {19.2}		0.150 - 5.000
AB39115	ANATOXIN	1.009 Abs	0.095 µg/L	LOW	0.150 - 5.000
AB39115	ANATOXIN	0.979 Abs [0.9940] {2.1 CV}	0.120 µg/L [0.108] {16.4}	LOW	0.150 - 5.000
AB39116	ANATOXIN	0.973 Abs	0.125 µg/L	LOW	0.150 - 5.000
AB39116	ANATOXIN	0.989 Abs [0.9810] {1.2 CV}	0.111 µg/L [0.118] {8.4}	LOW	0.150 - 5.000
AB39117	ANATOXIN	0.979 Abs	0.120 µg/L	LOW	0.150 - 5.000
AB39117	ANATOXIN	0.965 Abs [0.9720] {1.0 CV}	0.133 µg/L [0.126] {7.3}	LOW	0.150 - 5.000
AB39118	ANATOXIN	1.032 Abs	0.076 µg/L	LOW	0.150 - 5.000
AB39118	ANATOXIN	0.978 Abs [1.0050] {3.8 CV}	0.121 µg/L [0.098] {32.3}	LOW	0.150 - 5.000
AB39119	ANATOXIN	0.972 Abs	0.126 µg/L	LOW	0.150 - 5.000
AB39119	ANATOXIN	0.938 Abs [0.9550] {2.5 CV}	0.158 µg/L [0.142] {15.9}		0.150 - 5.000

## Note

Signature

David Jordan

Date: 6/12/2019



# 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
6/12/2019 11:14:26 AM				
ATX Std 0	1.158 Abs	0.000 µg/L	R <sup>2</sup> =0.99828	RK1:23->A01@2
ATX Std 0	1.122 Abs [1.1400] {2.2 CV}	0.012 µg/L [0.006] {141.4 CV}	R <sup>2</sup> =0.99828	RK1:23->B01@2
ATX Std 1	0.952 Abs	0.132 µg/L	R <sup>2</sup> =0.99828	RK1:24->C01@2
ATX Std 1	0.948 Abs [0.9500] {0.3 CV}	0.135 µg/L [0.134] {1.6 CV}	R <sup>2</sup> =0.99828	RK1:24->D01@2
ATX Std 2	0.713 Abs	0.415 µg/L	R <sup>2</sup> =0.99828	RK1:25->E01@2
ATX Std 2	0.679 Abs [0.6960] {3.5 CV}	0.473 µg/L [0.444] {9.2 CV}	R <sup>2</sup> =0.99828	RK1:25->F01@3
ATX Std 3	0.492 Abs	0.943 µg/L	R <sup>2</sup> =0.99828	RK1:26->G01@3
ATX Std 3	0.488 Abs [0.4900] {0.6 CV}	0.957 µg/L [0.950] {1.0 CV}	R <sup>2</sup> =0.99828	RK1:26->H01@3
ATX Std 4	0.268 Abs	2.418 µg/L	R <sup>2</sup> =0.99828	RK1:27->A02@2
ATX Std 4	0.261 Abs [0.2645] {1.9 CV}	2.506 µg/L [2.462] {2.5 CV}	R <sup>2</sup> =0.99828	RK1:27->B02@2
ATX Std 5	0.145 Abs	> 5.000 µg/L		RK1:28->C02@2
ATX Std 5	0.148 Abs [0.1465] {1.4 CV}	> 5.000 µg/L		RK1:28->D02@2
*****				
6/12/2019 11:14:26 AM				
ATX Control	0.565 Abs	0.721 µg/L		RK1:29->E02@2
ATX Control	0.538 Abs [0.5515] {3.5 CV}	0.796 µg/L [0.758] {7.0 CV}		RK1:29->F02@3
*****				
Statistic				
ATX Std 0 [MEAN]	1.1400	0.0060		
ATX Std 0 [SD]	0.0255	0.0085		
ATX Std 0 [%CV]	2.2330	141.4214		
ATX Std 1 [MEAN]	0.9500	0.1335		
ATX Std 1 [SD]	0.0028	0.0021		
ATX Std 1 [%CV]	0.2977	1.5890		
ATX Std 1 [%DIFF]		-11.0000		
ATX Std 2 [MEAN]	0.6960	0.4440		
ATX Std 2 [SD]	0.0240	0.0410		
ATX Std 2 [%CV]	3.4543	9.2370		
ATX Std 2 [%DIFF]		11.0000		
ATX Std 3 [MEAN]	0.4900	0.9500		
ATX Std 3 [SD]	0.0028	0.0099		
ATX Std 3 [%CV]	0.5772	1.0421		
ATX Std 3 [%DIFF]		-5.0000		
ATX Std 4 [MEAN]	0.2645	2.4620		
ATX Std 4 [SD]	0.0049	0.0622		
ATX Std 4 [%CV]	1.8714	2.5274		
ATX Std 4 [%DIFF]		-1.5200		
ATX Std 5 [MEAN]	0.1465			
ATX Std 5 [SD]	0.0021			
ATX Std 5 [%CV]	1.4480			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.5515	0.7585			
ATX Control [SD]	0.0191	0.0530			
ATX Control [%CV]	3.4618	6.9918			
ATX Control [%DIFF]		1.1333			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
Weight: NONE  
A = 1.1441  
B = 0.95855  
C = 0.70044  
D = 0.0011630  
R2 coef = 0.99829

