



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB 1	Lab Reagent Blank	8/27/2019	8/27/2019	<0.40	
LFB 1	Lab Fortified Blank (Spike = 0.80 ppb)	8/27/2019	8/27/2019	0.64	80
AB40164	Miami SRA at Mississinewa Lake	8/26/2019	8/27/2019	<0.40	
AB40165	Potato Creek SP	8/26/2019	8/27/2019	<0.40	
AB40165MS	Potato Creek SP MS (Spike = 0.80 ppb)	8/26/2019	8/27/2019	0.734	90
AB40165MSD	Potato Creek SP MSD (Spike = 0.80 ppb)	8/26/2019	8/27/2019	0.597	73
AB40166	Miami SRA at Mississinewa Lake	8/26/2019	8/27/2019	<0.40	
AB40167	Field Blank	8/26/2019	8/27/2019	<0.40	

Assay Information

Assay Name: ANATOXIN
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description: PN 520060
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 7/25/2019 3:49:23 PM
 Normal: 0.150 - 5.000
 # of decimals: 3
 Kit Lot Number: 19B8962

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: 1 days 0 hours
 Axis Mode: Y = Abs, X = Log(Conc)

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/27/2019 3:36:10 PM				
ATX Std 0	1.040 Abs		R ² =0.99978, 102.262 %Abs	RK1:30->A05@1
ATX Std 0	0.994 Abs [1.0170] {3.2 CV}		R ² =0.99978, 97.738 %Abs	RK1:30->B05@1
ATX Std 1	0.819 Abs		R ² =0.99978, 80.531 %Abs	RK1:31->C05@1
ATX Std 1	0.812 Abs [0.8155] {0.6 CV}		R ² =0.99978, 79.843 %Abs	RK1:31->D05@1
ATX Std 2	0.639 Abs		R ² =0.99978, 62.832 %Abs	RK1:32->E05@1
ATX Std 2	0.627 Abs [0.6330] {1.3 CV}		R ² =0.99978, 61.652 %Abs	RK1:32->F05@4
ATX Std 3	0.453 Abs		R ² =0.99978, 44.543 %Abs	RK1:33->G05@4
ATX Std 3	0.438 Abs [0.4455] {2.4 CV}		R ² =0.99978, 43.068 %Abs	RK1:33->H05@4
ATX Std 4	0.262 Abs		R ² =0.99978, 25.762 %Abs	RK1:34->A06@1
ATX Std 4	0.250 Abs [0.2560] {3.3 CV}		R ² =0.99978, 24.582 %Abs	RK1:34->B06@1
ATX Std 5	0.147 Abs		R ² =0.99978, 14.454 %Abs	RK1:35->C06@1
ATX Std 5	0.136 Abs [0.1415] {5.5 CV}		13.373 %Abs	RK1:35->D06@1

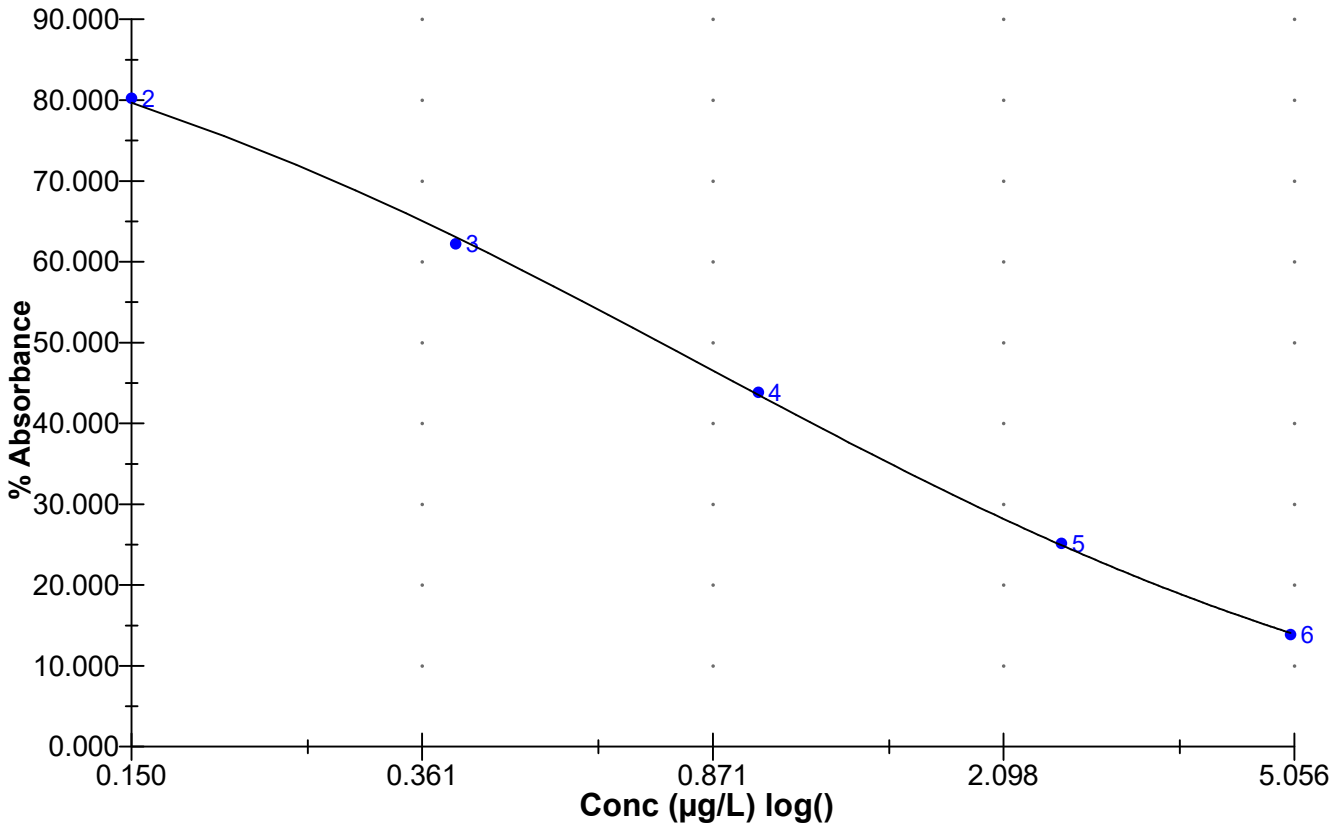
8/27/2019 3:36:10 PM				
ATX Control	0.524 Abs		51.524 %Abs	RK1:36->E06@1
ATX Control	0.511 Abs [0.5175] {1.8 CV}		50.246 %Abs [50.885 %Abs]	RK1:36->F06@4

Statistic				
ATX Std 0 [MEAN]	1.0170			
ATX Std 0 [SD]	0.0325			
ATX Std 0 [%CV]	3.1983			
ATX Std 1 [MEAN]	0.8155			
ATX Std 1 [SD]	0.0049			
ATX Std 1 [%CV]	0.6070			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.6330			
ATX Std 2 [SD]	0.0085			
ATX Std 2 [%CV]	1.3405			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4455			
ATX Std 3 [SD]	0.0106			
ATX Std 3 [%CV]	2.3808			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2560			
ATX Std 4 [SD]	0.0085			
ATX Std 4 [%CV]	3.3146			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1415			
ATX Std 5 [SD]	0.0078			
ATX Std 5 [%CV]	5.4969			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.5175				
ATX Control [SD]	0.0092				
ATX Control [%CV]	1.7763				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0181
 B = 0.82700
 C = 0.84565
 D = -0.058250
 R2 coef = 0.99978
 50% = 0.744



Test Information

Request: 8/27/2019 3:36:10 PM
Date: 8/27/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #	
ATX Std 0	ANATOXIN	1.040 Abs	0.000 µg/L	R^2=0.99978, 102.26		19B8962	
ATX Std 0	ANATOXIN	0.994 Abs [1.0170] {3.2 CV}	0.009 µg/L [0.004] {1.0 CV}	R^2=0.99978, 97.738		19B8962	
ATX Std 1	ANATOXIN	0.819 Abs	0.141 µg/L	R^2=0.99978, 80.531		19B8962	
ATX Std 1	ANATOXIN	0.812 Abs [0.8155] {0.6 CV}	0.148 µg/L [0.145] {0.3 CV}	R^2=0.99978, 79.843		19B8962	
ATX Std 2	ANATOXIN	0.639 Abs	0.405 µg/L	R^2=0.99978, 62.832		19B8962	
ATX Std 2	ANATOXIN	0.627 Abs [0.6330] {1.3 CV}	0.429 µg/L [0.417] {0.4 CV}	R^2=0.99978, 61.652		19B8962	
ATX Std 3	ANATOXIN	0.453 Abs	0.954 µg/L	R^2=0.99978, 44.543		19B8962	
ATX Std 3	ANATOXIN	0.438 Abs [0.4455] {2.4 CV}	1.021 µg/L [0.988] {0.4 CV}	R^2=0.99978, 43.068		19B8962	
ATX Std 4	ANATOXIN	0.262 Abs	2.389 µg/L	R^2=0.99978, 25.762		19B8962	
ATX Std 4	ANATOXIN	0.250 Abs [0.2560] {3.3 CV}	2.550 µg/L [2.470] {0.4 CV}	R^2=0.99978, 24.582		19B8962	
ATX Std 5	ANATOXIN	0.147 Abs	4.856 µg/L	R^2=0.99978, 14.454		19B8962	
ATX Std 5	ANATOXIN	0.136 Abs [0.1415] {5.5 CV}	> 5.000 µg/L [4.856]	13.373 %Abs		19B8962	
ATX Control	ANATOXIN	0.524 Abs	0.693 µg/L	51.524 %Abs		19B8962	
ATX Control	ANATOXIN	0.511 Abs [0.5175] {1.8 CV}	0.735 µg/L [0.714] {0.4 CV}	50.246 %Abs [50.885]		19B8962	

Test Information

Request: 8/27/2019 3:39:48 PM
Date: 8/27/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	0.999 Abs	0.007 µg/L	LOW, 98.230 %ABS	0.150 - 5.000	19B8962
LRB	ANATOXIN	0.975 Abs [0.9870] {1.7 CV}	0.018 µg/L [0.012] {6.1}	LOW, 95.870 %ABS	0.150 - 5.000	19B8962
LFB	ANATOXIN	0.556 Abs	0.599 µg/L	54.671 %Abs	0.150 - 5.000	19B8962
LFB	ANATOXIN	0.528 Abs [0.5420] {3.7 CV}	0.681 µg/L [0.640] {5.9}	51.917 %Abs [53.294]	0.150 - 5.000	19B8962
AB40164	ANATOXIN	0.970 Abs	0.023 µg/L	LOW, 95.379 %ABS	0.150 - 5.000	19B8962
AB40164	ANATOXIN	0.973 Abs [0.9715] {0.2 CV}	0.021 µg/L [0.022] {6.1}	LOW, 95.674 %ABS	0.150 - 5.000	19B8962
AB40165	ANATOXIN	0.984 Abs	0.015 µg/L	LOW, 96.755 %ABS	0.150 - 5.000	19B8962
AB40165	ANATOXIN	0.979 Abs [0.9815] {0.4 CV}	0.018 µg/L [0.017] {1.1}	LOW, 96.264 %ABS	0.150 - 5.000	19B8962
AB40165MS	ANATOXIN	0.517 Abs	0.716 µg/L	50.836 %Abs	0.150 - 5.000	19B8962
AB40165MS	ANATOXIN	0.506 Abs [0.5115] {1.5 CV}	0.752 µg/L [0.734] {3.4}	49.754 %Abs [50.295]	0.150 - 5.000	19B8962
AB40165MSD	ANATOXIN	0.564 Abs	0.578 µg/L	55.457 %Abs	0.150 - 5.000	19B8962
AB40165MSD	ANATOXIN	0.550 Abs [0.5570] {1.8 CV}	0.616 µg/L [0.597] {4.4}	54.081 %Abs [54.765]	0.150 - 5.000	19B8962
AB40166	ANATOXIN	1.001 Abs	0.007 µg/L	LOW, 98.427 %ABS	0.150 - 5.000	19B8962
AB40166	ANATOXIN	1.009 Abs [1.0050] {0.6 CV}	0.003 µg/L [0.005] {5.1}	LOW, 99.213 %ABS	0.150 - 5.000	19B8962
AB40167	ANATOXIN	1.024 Abs	0.000 µg/L	LOW, 100.688 %ABS	0.150 - 5.000	19B8962
AB40167	ANATOXIN	0.987 Abs [1.0055] {2.6 CV}	0.012 µg/L [0.006] {1.1}	LOW, 97.050 %ABS	0.150 - 5.000	19B8962

David Jordan
David Jordan 8/27/2019