



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03013	Salamonie Lake - Lost Bridge West SRA Beach	6/5/2023	6/7/2023	< 0.40
AC03014	Salamonie Lake - Lost Bridge West SRA Beach (Field Duplicate)	6/5/2023	6/7/2023	< 0.40
AC03015	Field Blank	6/5/2023	6/7/2023	< 0.40
AC03016	Ferdinand State Forest - Ferdinand Lake Beach	6/5/2023	6/7/2023	< 0.40

Test Report (by Request)

Test Information

Request: 6/7/2023 1:51:05 PM
 Date: 6/7/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.367 Abs	0.000 µg/L	R^2=0.99993, 102.6			P23B0244
ATX Std 0	ANATOXIN	1.297 Abs [1.3320] {3.7 C	0.016 µg/L [0.008]	R^2=0.99993, 97.37			P23B0244
ATX Std 1	ANATOXIN	1.099 Abs	0.143 µg/L	R^2=0.99993, 82.50			P23B0244
ATX Std 1	ANATOXIN	1.082 Abs [1.0905] {1.1 C	0.157 µg/L [0.150]	R^2=0.99993, 81.23			P23B0244
ATX Std 2	ANATOXIN	0.866 Abs	0.388 µg/L	R^2=0.99993, 65.01			P23B0244
ATX Std 2	ANATOXIN	0.854 Abs [0.8600] {1.0 C	0.404 µg/L [0.396]	R^2=0.99993, 64.11			P23B0244
ATX Std 3	ANATOXIN	0.577 Abs	0.985 µg/L	R^2=0.99993, 43.31			P23B0244
ATX Std 3	ANATOXIN	0.558 Abs [0.5675] {2.4 C	1.047 µg/L [1.016]	R^2=0.99993, 41.85			P23B0244
ATX Std 4	ANATOXIN	0.321 Abs	2.387 µg/L	R^2=0.99993, 24.05			P23B0244
ATX Std 4	ANATOXIN	0.308 Abs [0.3145] {2.9 C	2.516 µg/L [2.451]	R^2=0.99993, 23.12			P23B0244
ATX Std 5	ANATOXIN	0.169 Abs	4.923 µg/L	R^2=0.99993, 12.68			P23B0244
ATX Std 5	ANATOXIN	0.160 Abs [0.1645] {3.9 C	> 5.000 µg/L [4.92]	12.012 %Abs			P23B0244
ATX Control	ANATOXIN	0.695 Abs	0.680 µg/L	52.177 %Abs			P23B0244
ATX Control	ANATOXIN	0.673 Abs [0.6840] {2.3 C	0.729 µg/L [0.704]	50.526 %Abs [51.3			P23B0244

Note

Signature _____

Test Report (by Request)

Test Information

Request: 6/7/2023 1:51:37 PM

Date: 6/7/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.293 Abs	0.018 µg/L	Low, 97.072 %Abs		0.150 - 5.000	P23B0244
LRB	ANATOXIN	1.286 Abs [1.2895] {0.4 C	0.021 µg/L [0.019]	Low, 96.547 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.730 Abs	0.609 µg/L	54.805 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.691 Abs [0.7105] {3.9 C	0.689 µg/L [0.649]	51.877 %Abs [53.3		0.150 - 5.000	P23B0244
AC03013	ANATOXIN	1.278 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03013	ANATOXIN	1.276 Abs [1.2770] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03013MS	ANATOXIN	0.666 Abs	0.745 µg/L	50.000 %Abs		0.150 - 5.000	P23B0244
AC03013MS	ANATOXIN	0.648 Abs [0.6570] {1.9 C	0.788 µg/L [0.766]	48.649 %Abs [49.3		0.150 - 5.000	P23B0244
AC03013MSD	ANATOXIN	0.654 Abs	0.774 µg/L	49.099 %Abs		0.150 - 5.000	P23B0244
AC03013MSD	ANATOXIN	0.641 Abs [0.6475] {1.4 C	0.806 µg/L [0.790]	48.123 %Abs [48.6		0.150 - 5.000	P23B0244
AC03014	ANATOXIN	1.317 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03014	ANATOXIN	1.320 Abs [1.3185] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03015	ANATOXIN	1.333 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03015	ANATOXIN	1.310 Abs [1.3215] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03016	ANATOXIN	1.288 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03016	ANATOXIN	1.224 Abs [1.2560] {3.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244

Note

Signature _____

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: P23B0244

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
6/7/2023 1:51:05 PM				
ATX Std 0	1.367 Abs	0.000 µg/L	R ² =0.99993, 102.628 %Abs	RK1:30->A05@1
ATX Std 0	1.297 Abs [1.3320] {3.7 CV}	0.016 µg/L [0.008] {141.4 CV}	R ² =0.99993, 97.372 %Abs	RK1:30->B05@1
ATX Std 1	1.099 Abs	0.143 µg/L	R ² =0.99993, 82.508 %Abs	RK1:31->C05@1
ATX Std 1	1.082 Abs [1.0905] {1.1 CV}	0.157 µg/L [0.150] {6.6 CV}	R ² =0.99993, 81.231 %Abs	RK1:31->D05@1
ATX Std 2	0.866 Abs	0.388 µg/L	R ² =0.99993, 65.015 %Abs	RK1:32->E05@1
ATX Std 2	0.854 Abs [0.8600] {1.0 CV}	0.404 µg/L [0.396] {2.9 CV}	R ² =0.99993, 64.114 %Abs	RK1:32->F05@4
ATX Std 3	0.577 Abs	0.985 µg/L	R ² =0.99993, 43.318 %Abs	RK1:33->G05@4
ATX Std 3	0.558 Abs [0.5675] {2.4 CV}	1.047 µg/L [1.016] {4.3 CV}	R ² =0.99993, 41.892 %Abs	RK1:33->H05@4
ATX Std 4	0.321 Abs	2.387 µg/L	R ² =0.99993, 24.099 %Abs	RK1:34->A06@1
ATX Std 4	0.308 Abs [0.3145] {2.9 CV}	2.516 µg/L [2.451] {3.7 CV}	R ² =0.99993, 23.123 %Abs	RK1:34->B06@1
ATX Std 5	0.169 Abs	4.923 µg/L	R ² =0.99993, 12.688 %Abs	RK1:35->C06@1
ATX Std 5	0.160 Abs [0.1645] {3.9 CV}	> 5.000 µg/L [4.923]	12.012 %Abs	RK1:35->D06@1

6/7/2023 1:51:05 PM				
ATX Control	0.695 Abs	0.680 µg/L	52.177 %Abs	RK1:36->E06@1
ATX Control	0.673 Abs [0.6840] {2.3 CV}	0.729 µg/L [0.704] {4.9 CV}	50.526 %Abs [51.351 %Abs]	RK1:36->F06@4

Statistic				
ATX Std 0 [MEAN]	1.3320	0.0080		
ATX Std 0 [SD]	0.0495	0.0113		
ATX Std 0 [%CV]	3.7160	141.4214		
ATX Std 1 [MEAN]	1.0905	0.1500		
ATX Std 1 [SD]	0.0120	0.0099		
ATX Std 1 [%CV]	1.1023	6.5997		
ATX Std 1 [%DIFF]		-0.0000		
ATX Std 2 [MEAN]	0.8600	0.3960		
ATX Std 2 [SD]	0.0085	0.0113		
ATX Std 2 [%CV]	0.9867	2.8570		
ATX Std 2 [%DIFF]		-1.0000		
ATX Std 3 [MEAN]	0.5675	1.0160		
ATX Std 3 [SD]	0.0134	0.0438		
ATX Std 3 [%CV]	2.3674	4.3150		
ATX Std 3 [%DIFF]		1.6000		
ATX Std 4 [MEAN]	0.3145	2.4515		
ATX Std 4 [SD]	0.0092	0.0912		
ATX Std 4 [%CV]	2.9229	3.7209		
ATX Std 4 [%DIFF]		-1.9400		
ATX Std 5 [MEAN]	0.1645			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	3.8687			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6840	0.7045		
ATX Control [SD]	0.0156	0.0346		
ATX Control [%CV]	2.2743	4.9181		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3321
 B = 0.92390
 C = 0.80458
 D = -0.049166
 R2 coef = 0.99993
 50% = 0.745

