



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40223	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/28/2024	5/29/2024	< 0.40
AC40224	Whitewater Memorial SP - Whitewater Lake Beach	5/28/2024	5/29/2024	< 0.40
AC40225	Brookville Lake - Quakertown SRA Beach	5/28/2024	5/29/2024	< 0.40
AC40226	Whitewater Memorial SP - Whitewater Lake Beach (Field Duplicate)	5/28/2024	5/29/2024	< 0.40
AC40227	Field Blank	5/28/2024	5/29/2024	< 0.40
AC40228	Ferdinand State Forest - Ferdinand Lake Beach	5/28/2024	5/29/2024	< 0.40

Test Report (by Request)

Test Information

Request: 5/29/2024 12:59:45 PM
 Date: 5/29/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.312 Abs	0.000 µg/L	R^2=0.99945, 101.0		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.285 Abs [1.2985] {1.5 C	0.007 µg/L [0.004]	R^2=0.99945, 98.92		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.080 Abs	0.132 µg/L	R^2=0.99945, 83.14		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.051 Abs [1.0655] {1.9 C	0.155 µg/L [0.144]	R^2=0.99945, 80.90		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.817 Abs	0.405 µg/L	R^2=0.99945, 62.85		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.807 Abs [0.8120] {0.9 C	0.420 µg/L [0.413]	R^2=0.99945, 62.12		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.549 Abs	0.983 µg/L	R^2=0.99945, 42.26		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.529 Abs [0.5390] {2.6 C	1.050 µg/L [1.017]	R^2=0.99945, 40.72		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.330 Abs	2.201 µg/L	R^2=0.99945, 25.40		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.304 Abs [0.3170] {5.8 C	2.467 µg/L [2.334]	R^2=0.99945, 23.40		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.165 Abs	> 5.000 µg/L	12.702 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.167 Abs [0.1660] {0.9 C	> 5.000 µg/L	12.856 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.647 Abs	0.713 µg/L	49.808 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.639 Abs [0.6430] {0.9 C	0.732 µg/L [0.723]	49.192 %Abs [49.5			Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/29/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/29/2024 1:55:01 PM

Test Report (by Request)

Test Information

Request: 5/29/2024 1:53:04 PM
 Date: 5/29/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.160 Abs	0.076 µg/L	Low, 89.299 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.150 Abs [1.1550] {0.6 C	0.083 µg/L [0.080]	Low, 88.530 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.711 Abs	0.579 µg/L	54.734 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.695 Abs [0.7030] {1.6 C	0.610 µg/L [0.595]	53.503 %Abs [54.1		0.150 - 5.000	Kit:P23B0
AC40223	ANATOXIN	1.175 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40223	ANATOXIN	1.193 Abs [1.1840] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40223MS	ANATOXIN	0.664 Abs	0.674 µg/L	51.116 %Abs		0.150 - 5.000	Kit:P23B0
AC40223MS	ANATOXIN	0.655 Abs [0.6595] {1.0 C	0.694 µg/L [0.684]	50.423 %Abs [50.7		0.150 - 5.000	Kit:P23B0
AC40223MSD	ANATOXIN	0.645 Abs	0.717 µg/L	49.654 %Abs		0.150 - 5.000	Kit:P23B0
AC40223MSD	ANATOXIN	0.637 Abs [0.6410] {0.9 C	0.736 µg/L [0.727]	49.038 %Abs [49.3		0.150 - 5.000	Kit:P23B0
AC40224	ANATOXIN	1.265 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40224	ANATOXIN	1.236 Abs [1.2505] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40225	ANATOXIN	1.222 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40225	ANATOXIN	1.217 Abs [1.2195] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40226	ANATOXIN	1.199 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40226	ANATOXIN	1.180 Abs [1.1895] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40227	ANATOXIN	1.185 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40227	ANATOXIN	1.163 Abs [1.1740] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40228	ANATOXIN	1.265 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40228	ANATOXIN	1.219 Abs [1.2420] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/29/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 5/29/2024 1:55:01 PM

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: Kit: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
5/29/2024 12:59:45 PM				
ATX Std 0	1.312 Abs	0.000 µg/L	R ² =0.99945, 101.001 %Abs	RK1:23->A01@2
ATX Std 0	1.285 Abs [1.2985] {1.5 CV}	0.007 µg/L [0.004] {141.4 CV}	R ² =0.99945, 98.922 %Abs	RK1:23->B01@2
ATX Std 1	1.080 Abs	0.132 µg/L	R ² =0.99945, 83.141 %Abs	RK1:24->C01@2
ATX Std 1	1.051 Abs [1.0655] {1.9 CV}	0.155 µg/L [0.144] {11.3 CV}	R ² =0.99945, 80.908 %Abs	RK1:24->D01@2
ATX Std 2	0.817 Abs	0.405 µg/L	R ² =0.99945, 62.895 %Abs	RK1:25->E01@2
ATX Std 2	0.807 Abs [0.8120] {0.9 CV}	0.420 µg/L [0.413] {2.6 CV}	R ² =0.99945, 62.125 %Abs	RK1:25->F01@3
ATX Std 3	0.549 Abs	0.983 µg/L	R ² =0.99945, 42.263 %Abs	RK1:26->G01@3
ATX Std 3	0.529 Abs [0.5390] {2.6 CV}	1.050 µg/L [1.017] {4.7 CV}	R ² =0.99945, 40.724 %Abs	RK1:26->H01@3
ATX Std 4	0.330 Abs	2.201 µg/L	R ² =0.99945, 25.404 %Abs	RK1:27->A02@2
ATX Std 4	0.304 Abs [0.3170] {5.8 CV}	2.467 µg/L [2.334] {8.1 CV}	R ² =0.99945, 23.403 %Abs	RK1:27->B02@2
ATX Std 5	0.165 Abs	> 5.000 µg/L	12.702 %Abs	RK1:28->C02@2
ATX Std 5	0.167 Abs [0.1660] {0.9 CV}	> 5.000 µg/L	12.856 %Abs	RK1:28->D02@2

5/29/2024 12:59:45 PM				
ATX Control	0.647 Abs	0.713 µg/L	49.808 %Abs	RK1:29->E02@2
ATX Control	0.639 Abs [0.6430] {0.9 CV}	0.732 µg/L [0.723] {1.9 CV}	49.192 %Abs [49.500 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.2985	0.0035		
ATX Std 0 [SD]	0.0191	0.0049		
ATX Std 0 [%CV]	1.4703	141.4214		
ATX Std 1 [MEAN]	1.0655	0.1435		
ATX Std 1 [SD]	0.0205	0.0163		
ATX Std 1 [%CV]	1.9246	11.3334		
ATX Std 1 [%DIFF]		-4.3333		
ATX Std 2 [MEAN]	0.8120	0.4125		
ATX Std 2 [SD]	0.0071	0.0106		
ATX Std 2 [%CV]	0.8708	2.5713		
ATX Std 2 [%DIFF]		3.1250		
ATX Std 3 [MEAN]	0.5390	1.0165		
ATX Std 3 [SD]	0.0141	0.0474		
ATX Std 3 [%CV]	2.6238	4.6607		
ATX Std 3 [%DIFF]		1.6500		
ATX Std 4 [MEAN]	0.3170	2.3340		
ATX Std 4 [SD]	0.0184	0.1881		
ATX Std 4 [%CV]	5.7996	8.0587		
ATX Std 4 [%DIFF]		-6.6400		
ATX Std 5 [MEAN]	0.1660			
ATX Std 5 [SD]	0.0014			
ATX Std 5 [%CV]	0.8519			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6430	0.7225		
ATX Control [SD]	0.0057	0.0134		
ATX Control [%CV]	0.8798	1.8595		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3016
 B = 0.94469
 C = 0.70636
 D = -0.0020361
 R2 coef = 0.99945
 50% = 0.707

