



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41502	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/19/2024	8/21/2024	< 0.40
AC41503	Cagles Mill Lake - Lieber SRA Beach	8/19/2024	8/21/2024	< 0.40
AC41504	Monroe Lake - Fairfax SRA Beach	8/19/2024	8/21/2024	< 0.40
AC41505	Monroe Lake - Paynetown SRA Beach	8/19/2024	8/21/2024	< 0.40
AC41506	Starve Hollow SRA - Starve Hollow Lake Beach	8/19/2024	8/21/2024	< 0.40
AC41507	Hardy Lake SRA - Hardy Lake SRA Beach	8/20/2024	8/21/2024	< 0.40
AC41508	Whitewater Memorial SP - Whitewater Lake Beach	8/20/2024	8/21/2024	< 0.40
AC41509	Brookville Lake - Quakertown SRA Beach	8/20/2024	8/21/2024	< 0.40
AC41510	Brookville Lake - Mounds SRA Beach	8/20/2024	8/21/2024	< 0.40
AC41511	Hardy Lake SRA - Hardy Lake SRA Beach (Field Duplicate)	8/20/2024	8/21/2024	< 0.40
AC41512	Field Blank	8/20/2024	8/21/2024	< 0.40
AC41513	Ft. Ben Harrison SP Dog Lake	8/20/2024	8/21/2024	< 0.40

Test Report (by Request)

Test Information

Request: 8/21/2024 1:43:25 PM
 Date: 8/21/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.115 Abs	0.000 µg/L	R^2=0.99990, 100.5		0.000	Kit:P23L3t
ATX Std 0	ANATOXIN	1.102 Abs [1.1085] {0.8 C	0.003 µg/L [0.002]	R^2=0.99990, 99.36		0.000	Kit:P23L3t
ATX Std 1	ANATOXIN	0.910 Abs	0.132 µg/L	R^2=0.99990, 82.05		0.150	Kit:P23L3t
ATX Std 1	ANATOXIN	0.867 Abs [0.8885] {3.4 C	0.171 µg/L [0.152]	R^2=0.99990, 78.17		0.150	Kit:P23L3t
ATX Std 2	ANATOXIN	0.688 Abs	0.393 µg/L	R^2=0.99990, 62.03		0.400	Kit:P23L3t
ATX Std 2	ANATOXIN	0.686 Abs [0.6870] {0.2 C	0.397 µg/L [0.395]	R^2=0.99990, 61.85		0.400	Kit:P23L3t
ATX Std 3	ANATOXIN	0.447 Abs	1.004 µg/L	R^2=0.99990, 40.30		1.000	Kit:P23L3t
ATX Std 3	ANATOXIN	0.439 Abs [0.4430] {1.3 C	1.037 µg/L [1.021]	R^2=0.99990, 39.58		1.000	Kit:P23L3t
ATX Std 4	ANATOXIN	0.254 Abs	2.403 µg/L	R^2=0.99990, 22.90		2.500	Kit:P23L3t
ATX Std 4	ANATOXIN	0.250 Abs [0.2520] {1.1 C	2.457 µg/L [2.430]	R^2=0.99990, 22.54		2.500	Kit:P23L3t
ATX Std 5	ANATOXIN	0.148 Abs	4.846 µg/L	R^2=0.99990, 13.34		5.000	Kit:P23L3t
ATX Std 5	ANATOXIN	0.136 Abs [0.1420] {6.0 C	> 5.000 µg/L [4.84	12.263 %Abs		5.000	Kit:P23L3t
ATX Control	ANATOXIN	0.542 Abs	0.695 µg/L	48.873 %Abs			Kit:P23L3t
ATX Control	ANATOXIN	0.530 Abs [0.5360] {1.6 C	0.727 µg/L [0.711]	47.791 %Abs [48.3			Kit:P23L3t

Note

Signature *David Jordan*
 David Jordan 8/21/2024

Test Report (by Request)

Test Information

Request: 8/21/2024 2:07:15 PM
Date: 8/21/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	0.966 Abs	0.088 µg/L	Low, 87.106 %Abs		0.150 - 5.000	Kit:P23L3i
LRB	ANATOXIN	0.961 Abs [0.9635] {0.4 C	0.091 µg/L [0.090]	Low, 86.655 %Abs		0.150 - 5.000	Kit:P23L3i
LFB (ANA)	ANATOXIN	0.560 Abs	0.648 µg/L	50.496 %Abs		0.150 - 5.000	Kit:P23L3i
LFB (ANA)	ANATOXIN	0.544 Abs [0.5520] {2.0 C	0.689 µg/L [0.669]	49.053 %Abs [49.7		0.150 - 5.000	Kit:P23L3i
AC41502	ANATOXIN	0.918 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41502	ANATOXIN	0.917 Abs [0.9175] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41503	ANATOXIN	0.957 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41503	ANATOXIN	0.975 Abs [0.9660] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41504	ANATOXIN	0.875 Abs	0.180 µg/L	78.900 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41504	ANATOXIN	0.828 Abs [0.8515] {3.9 C	0.232 µg/L [0.206]	74.662 %Abs [76.7	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41505	ANATOXIN	1.016 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41505	ANATOXIN	0.994 Abs [1.0050] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41506	ANATOXIN	1.006 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41506	ANATOXIN	0.966 Abs [0.9860] {2.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41507	ANATOXIN	0.889 Abs	0.166 µg/L	80.162 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41507	ANATOXIN	0.886 Abs [0.8875] {0.2 C	0.169 µg/L [0.168]	79.892 %Abs [80.0	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41508	ANATOXIN	0.930 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41508	ANATOXIN	0.883 Abs [0.9065] {3.7 C	0.172 µg/L [< LOD]	79.621 %Abs [Low,	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41508MS	ANATOXIN	0.578 Abs	0.605 µg/L	52.119 %Abs		0.150 - 5.000	Kit:P23L3i
AC41508MS	ANATOXIN	0.545 Abs [0.5615] {4.2 C	0.687 µg/L [0.646]	49.143 %Abs [50.6		0.150 - 5.000	Kit:P23L3i
AC41508MSD	ANATOXIN	0.525 Abs	0.741 µg/L	47.340 %Abs		0.150 - 5.000	Kit:P23L3i
AC41508MSD	ANATOXIN	0.523 Abs [0.5240] {0.3 C	0.747 µg/L [0.744]	47.160 %Abs [47.2		0.150 - 5.000	Kit:P23L3i
AC41509	ANATOXIN	0.981 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41509	ANATOXIN	0.971 Abs [0.9760] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41510	ANATOXIN	0.965 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41510	ANATOXIN	0.921 Abs [0.9430] {3.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41511	ANATOXIN	0.981 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41511	ANATOXIN	0.940 Abs [0.9605] {3.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41512	ANATOXIN	1.026 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41512	ANATOXIN	1.026 Abs [1.0260] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41513	ANATOXIN	1.021 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i
AC41513	ANATOXIN	0.964 Abs [0.9925] {4.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23L3i

Note

Signature *David Jordan*

David Jordan 8/21/2024

* 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) 8/21/2024 3:01:48 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:P23L3054

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
8/21/2024 1:43:25 PM				
ATX Std 0	1.115 Abs	0.000 µg/L	R ² =0.99990, 100.541 %Abs	RK1:23->A01@2
ATX Std 0	1.102 Abs [1.1085] {0.8 CV}	0.003 µg/L [0.002] {141.4 CV}	R ² =0.99990, 99.369 %Abs	RK1:23->B01@2
ATX Std 1	0.910 Abs	0.132 µg/L	R ² =0.99990, 82.056 %Abs	RK1:24->C01@2
ATX Std 1	0.867 Abs [0.8885] {3.4 CV}	0.171 µg/L [0.152] {18.2 CV}	R ² =0.99990, 78.179 %Abs	RK1:24->D01@2
ATX Std 2	0.688 Abs	0.393 µg/L	R ² =0.99990, 62.038 %Abs	RK1:25->E01@2
ATX Std 2	0.686 Abs [0.6870] {0.2 CV}	0.397 µg/L [0.395] {0.7 CV}	R ² =0.99990, 61.858 %Abs	RK1:25->F01@3
ATX Std 3	0.447 Abs	1.004 µg/L	R ² =0.99990, 40.307 %Abs	RK1:26->G01@3
ATX Std 3	0.439 Abs [0.4430] {1.3 CV}	1.037 µg/L [1.021] {2.3 CV}	R ² =0.99990, 39.585 %Abs	RK1:26->H01@3
ATX Std 4	0.254 Abs	2.403 µg/L	R ² =0.99990, 22.904 %Abs	RK1:27->A02@2
ATX Std 4	0.250 Abs [0.2520] {1.1 CV}	2.457 µg/L [2.430] {1.6 CV}	R ² =0.99990, 22.543 %Abs	RK1:27->B02@2
ATX Std 5	0.148 Abs	4.846 µg/L	R ² =0.99990, 13.345 %Abs	RK1:28->C02@2
ATX Std 5	0.136 Abs [0.1420] {6.0 CV}	> 5.000 µg/L [4.846]	12.263 %Abs	RK1:28->D02@2

8/21/2024 1:43:25 PM				
ATX Control	0.542 Abs	0.695 µg/L	48.873 %Abs	RK1:29->E02@2
ATX Control	0.530 Abs [0.5360] {1.6 CV}	0.727 µg/L [0.711] {3.2 CV}	47.791 %Abs [48.332 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.1085	0.0015		
ATX Std 0 [SD]	0.0092	0.0021		
ATX Std 0 [%CV]	0.8293	141.4214		
ATX Std 1 [MEAN]	0.8885	0.1515		
ATX Std 1 [SD]	0.0304	0.0276		
ATX Std 1 [%CV]	3.4221	18.2028		
ATX Std 1 [%DIFF]		1.0000		
ATX Std 2 [MEAN]	0.6870	0.3950		
ATX Std 2 [SD]	0.0014	0.0028		
ATX Std 2 [%CV]	0.2059	0.7161		
ATX Std 2 [%DIFF]		-1.2500		
ATX Std 3 [MEAN]	0.4430	1.0205		
ATX Std 3 [SD]	0.0057	0.0233		
ATX Std 3 [%CV]	1.2769	2.2866		
ATX Std 3 [%DIFF]		2.0500		
ATX Std 4 [MEAN]	0.2520	2.4300		
ATX Std 4 [SD]	0.0028	0.0382		
ATX Std 4 [%CV]	1.1224	1.5713		
ATX Std 4 [%DIFF]		-2.8000		
ATX Std 5 [MEAN]	0.1420			
ATX Std 5 [SD]	0.0085			
ATX Std 5 [%CV]	5.9755			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5360	0.7110		
ATX Control [SD]	0.0085	0.0226		
ATX Control [%CV]	1.5831	3.1825		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1090
 B = 0.94479
 C = 0.65969
 D = 0.0019613
 R2 coef = 0.99990
 50% = 0.662

