



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC39721	Cecil M. Harden Lake - Raccoon Lake SRA Beach	5/13/2024	5/15/2024	< 0.40
AC39722	Cagles Mill Lake - Lieber SRA Beach	5/13/2024	5/15/2024	< 0.40
AC39723	Monroe Lake - Fairfax SRA Beach	5/13/2024	5/15/2024	< 0.40
AC39724	Monroe Lake - Paynetown SRA Beach	5/13/2024	5/15/2024	< 0.40
AC39725	Starve Hollow SRA - Starve Hollow Lake Beach	5/13/2024	5/15/2024	< 0.40
AC39726	Whitewater Memorial SP - Whitewater Lake Beach	5/14/2024	5/15/2024	< 0.40
AC39727	Brookville Lake - Quakertown SRA Beach	5/14/2024	5/15/2024	< 0.40
AC39728	Brookville Lake - Mounds SRA Beach	5/14/2024	5/15/2024	< 0.40
AC39729	Hardy Lake SRA - Hardy Lake SRA Beach	5/14/2024	5/15/2024	< 0.40
AC39730	Deam Lake SRA - Deam Lake Beach	5/14/2024	5/15/2024	< 0.40
AC39731	Ft. Ben Harrison SP Dog Lake	5/13/2024	5/15/2024	< 0.40
AC39732	Monroe Lake - Fairfax SRA Beach (Field Duplicate)	5/13/2024	5/15/2024	< 0.40
AC39733	Field Blank	5/13/2024	5/15/2024	< 0.40

Test Report (by Request)

Test Information

Request: 5/15/2024 2:56:58 PM
 Date: 5/15/2024 - 5/15/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	0.830 Abs	0.000 µg/L	R^2=0.99836, 107.3		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	0.716 Abs [0.7730] {10.4	0.094 µg/L [0.047]	R^2=0.99836, 92.62		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	0.716 Abs	0.094 µg/L	R^2=0.99836, 92.62		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	0.662 Abs [0.6890] {5.5 C	0.168 µg/L [0.131]	R^2=0.99836, 85.64		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.508 Abs	0.424 µg/L	R^2=0.99836, 65.71		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.502 Abs [0.5050] {0.8 C	0.437 µg/L [0.431]	R^2=0.99836, 64.94		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.329 Abs	0.980 µg/L	R^2=0.99836, 42.56		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.330 Abs [0.3295] {0.2 C	0.976 µg/L [0.978]	R^2=0.99836, 42.65		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.183 Abs	2.401 µg/L	R^2=0.99836, 23.67		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.189 Abs [0.1860] {2.3 C	2.285 µg/L [2.343]	R^2=0.99836, 24.45		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.118 Abs	> 5.000 µg/L	15.265 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.108 Abs [0.1130] {6.3 C	> 5.000 µg/L	13.972 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.391 Abs	0.731 µg/L	50.582 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.384 Abs [0.3875] {1.3 C	0.755 µg/L [0.743]	49.677 %Abs [50.1			Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/15/2024

* 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) 5/15/2024 3:33:03 PM

Test Report (by Request)

Test Information

Request: 5/15/2024 3:21:01 PM
 Date: 5/15/2024 - 5/15/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	0.729 Abs	0.076 µg/L	Low, 94.308 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	0.713 Abs [0.7210] {1.6 C	0.098 µg/L [0.087]			0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.425 Abs	0.625 µg/L	54.981 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.431 Abs [0.4280] {1.0 C	0.608 µg/L [0.617]	55.757 %Abs [55.3		0.150 - 5.000	Kit:P23B0
AC39721	ANATOXIN	0.771 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39721	ANATOXIN	0.743 Abs [0.7570] {2.6 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39722	ANATOXIN	0.736 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39722	ANATOXIN	0.734 Abs [0.7350] {0.2 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39723	ANATOXIN	0.717 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39723	ANATOXIN	0.737 Abs [0.7270] {1.9 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39724	ANATOXIN	0.792 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39724	ANATOXIN	0.788 Abs [0.7900] {0.4 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39725	ANATOXIN	0.754 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39725	ANATOXIN	0.744 Abs [0.7490] {0.9 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39726	ANATOXIN	0.737 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39726	ANATOXIN	0.735 Abs [0.7360] {0.2 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39727	ANATOXIN	0.720 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39727	ANATOXIN	0.693 Abs [0.7065] {2.7 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39727MS	ANATOXIN	0.420 Abs	0.640 µg/L	54.334 %Abs		0.150 - 5.000	Kit:P23B0
AC39727MS	ANATOXIN	0.417 Abs [0.4185] {0.5 C	0.649 µg/L [0.645]	53.946 %Abs [54.1		0.150 - 5.000	Kit:P23B0
AC39727MSD	ANATOXIN	0.417 Abs	0.649 µg/L	53.946 %Abs		0.150 - 5.000	Kit:P23B0
AC39727MSD	ANATOXIN	0.397 Abs [0.4070] {3.5 C	0.711 µg/L [0.680]	51.358 %Abs [52.6		0.150 - 5.000	Kit:P23B0
AC39728	ANATOXIN	0.712 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39728	ANATOXIN	0.708 Abs [0.7100] {0.4 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39729	ANATOXIN	0.709 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39729	ANATOXIN	0.706 Abs [0.7075] {0.3 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39730	ANATOXIN	0.772 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39730	ANATOXIN	0.776 Abs [0.7740] {0.4 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39731	ANATOXIN	0.771 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39731	ANATOXIN	0.767 Abs [0.7690] {0.4 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39732	ANATOXIN	0.743 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39732	ANATOXIN	0.737 Abs [0.7400] {0.6 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39733	ANATOXIN	0.748 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39733	ANATOXIN	0.734 Abs [0.7410] {1.3 C	< LOD [< LOD]		MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/15/2024

* 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) 5/15/2024 3:33:03 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
5/15/2024 2:56:58 PM				
ATX Std 0	0.830 Abs	0.000 µg/L	R ² =0.99836, 107.374 %Abs	RK1:23->A01@2
ATX Std 0	0.716 Abs [0.7730] {10.4 CV}	0.094 µg/L [0.047] {141.4 CV}	R ² =0.99836, 92.626 %Abs	RK1:23->B01@2
ATX Std 1	0.716 Abs	0.094 µg/L	R ² =0.99836, 92.626 %Abs	RK1:24->C01@2
ATX Std 1	0.662 Abs [0.6890] {5.5 CV}	0.168 µg/L [0.131] {39.9 CV}	R ² =0.99836, 85.640 %Abs	RK1:24->D01@2
ATX Std 2	0.508 Abs	0.424 µg/L	R ² =0.99836, 65.718 %Abs	RK1:25->E01@2
ATX Std 2	0.502 Abs [0.5050] {0.8 CV}	0.437 µg/L [0.431] {2.1 CV}	R ² =0.99836, 64.942 %Abs	RK1:25->F01@3
ATX Std 3	0.329 Abs	0.980 µg/L	R ² =0.99836, 42.561 %Abs	RK1:26->G01@3
ATX Std 3	0.330 Abs [0.3295] {0.2 CV}	0.976 µg/L [0.978] {0.3 CV}	R ² =0.99836, 42.691 %Abs	RK1:26->H01@3
ATX Std 4	0.183 Abs	2.401 µg/L	R ² =0.99836, 23.674 %Abs	RK1:27->A02@2
ATX Std 4	0.189 Abs [0.1860] {2.3 CV}	2.285 µg/L [2.343] {3.5 CV}	R ² =0.99836, 24.450 %Abs	RK1:27->B02@2
ATX Std 5	0.118 Abs	> 5.000 µg/L	15.265 %Abs	RK1:28->C02@2
ATX Std 5	0.108 Abs [0.1130] {6.3 CV}	> 5.000 µg/L	13.972 %Abs	RK1:28->D02@2

5/15/2024 2:56:58 PM				
ATX Control	0.391 Abs	0.731 µg/L	50.582 %Abs	RK1:29->E02@2
ATX Control	0.384 Abs [0.3875] {1.3 CV}	0.755 µg/L [0.743] {2.3 CV}	49.677 %Abs [50.129 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	0.7730	0.0470		
ATX Std 0 [SD]	0.0806	0.0665		
ATX Std 0 [%CV]	10.4282	141.4214		
ATX Std 1 [MEAN]	0.6890	0.1310		
ATX Std 1 [SD]	0.0382	0.0523		
ATX Std 1 [%CV]	5.5419	39.9434		
ATX Std 1 [%DIFF]		-12.6667		
ATX Std 2 [MEAN]	0.5050	0.4305		
ATX Std 2 [SD]	0.0042	0.0092		
ATX Std 2 [%CV]	0.8401	2.1353		
ATX Std 2 [%DIFF]		7.6250		
ATX Std 3 [MEAN]	0.3295	0.9780		
ATX Std 3 [SD]	0.0007	0.0028		
ATX Std 3 [%CV]	0.2146	0.2892		
ATX Std 3 [%DIFF]		-2.2000		
ATX Std 4 [MEAN]	0.1860	2.3430		
ATX Std 4 [SD]	0.0042	0.0820		
ATX Std 4 [%CV]	2.2810	3.5008		
ATX Std 4 [%DIFF]		-6.2800		
ATX Std 5 [MEAN]	0.1130			
ATX Std 5 [SD]	0.0071			
ATX Std 5 [%CV]	6.2576			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.3875	0.7430		
ATX Control [SD]	0.0049	0.0170		
ATX Control [%CV]	1.2774	2.2841		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 0.77815
 B = 1.2317
 C = 0.63007
 D = 0.068457
 R2 coef = 0.99836
 50% = 0.746

