



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40384	Pokagon SP - Main Beach	6/17/2024	6/19/2024	< 0.40
AC40385	Pokagon SP - Potawatomi Inn Beach	6/17/2024	6/19/2024	< 0.40
AC40386	Chain O'Lakes SP - Sand Lake Beach	6/17/2024	6/19/2024	< 0.40
AC40387	Ouabache SP - Kunkel Lake Beach	6/17/2024	6/19/2024	< 0.40
AC40388	Potato Creek SP - Worster Lake Beach	6/18/2024	6/19/2024	< 0.40
AC40389	Mississinewa Lake - Miami SRA Beach	6/18/2024	6/19/2024	< 0.40
AC40390	Salamonie Lake - Lost Bridge West SRA Beach	6/18/2024	6/19/2024	< 0.40
AC40391	Summit Lake SP - Summit Lake Beach	6/18/2024	6/19/2024	< 0.40
AC40392	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	6/17/2024	6/19/2024	< 0.40
AC40393	Field Blank	6/17/2024	6/19/2024	< 0.40
AC40394	Lincoln SP - Lake Lincoln Beach	6/17/2024	6/19/2024	< 0.40
AC40395	Ferdinand State Forest - Ferdinand Lake Beach	6/17/2024	6/19/2024	< 0.40
AC40396	Patoka Lake - Newton Stewart SRA	6/17/2024	6/19/2024	< 0.40

Test Report (by Request)

Test Information

Request: 6/19/2024 2:04:13 PM
Date: 6/19/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.290 Abs	0.000 µg/L	R^2=0.99956, 101.6		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.248 Abs [1.2690] {2.3 C	0.013 µg/L [0.007]	R^2=0.99956, 98.34		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.070 Abs	0.132 µg/L	R^2=0.99956, 84.31		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.044 Abs [1.0570] {1.7 C	0.153 µg/L [0.143]	R^2=0.99956, 82.27		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.802 Abs	0.414 µg/L	R^2=0.99956, 63.15		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.800 Abs [0.8010] {0.2 C	0.417 µg/L [0.416]	R^2=0.99956, 63.04		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.542 Abs	0.971 µg/L	R^2=0.99956, 42.71		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.523 Abs [0.5325] {2.5 C	1.035 µg/L [1.003]	R^2=0.99956, 41.21		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.316 Abs	2.285 µg/L	R^2=0.99956, 24.90		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.299 Abs [0.3075] {3.9 C	2.474 µg/L [2.380]	R^2=0.99956, 23.56		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.172 Abs	> 5.000 µg/L	13.554 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.173 Abs [0.1725] {0.4 C	> 5.000 µg/L	13.633 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.634 Abs	0.719 µg/L	49.961 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.618 Abs [0.6260] {1.8 C	0.757 µg/L [0.738]	48.700 %Abs [49.3			Kit:P23B0

Note

Signature *David Jordan*

David Jordan 6/19/2024

* 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) 6/19/2024 2:34:52 PM

Test Report (by Request)

Test Information

Request: 6/19/2024 2:28:56 PM
Date: 6/19/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.139 Abs	0.081 µg/L	Low, 89.756 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.126 Abs [1.1325] {0.8 C	0.090 µg/L [0.086]	Low, 88.731 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.685 Abs	0.610 µg/L	53.980 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.669 Abs [0.6770] {1.7 C	0.642 µg/L [0.626]	52.719 %Abs [53.3		0.150 - 5.000	Kit:P23B0
AC40384	ANATOXIN	1.190 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40384	ANATOXIN	1.161 Abs [1.1755] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40385	ANATOXIN	1.130 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40385	ANATOXIN	1.135 Abs [1.1325] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40386	ANATOXIN	1.105 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40386	ANATOXIN	1.098 Abs [1.1015] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40387	ANATOXIN	1.236 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40387	ANATOXIN	1.212 Abs [1.2240] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40388	ANATOXIN	1.158 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40388	ANATOXIN	1.141 Abs [1.1495] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40389	ANATOXIN	1.110 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40389	ANATOXIN	1.122 Abs [1.1160] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40389MS	ANATOXIN	0.599 Abs	0.805 µg/L	47.203 %Abs		0.150 - 5.000	Kit:P23B0
AC40389MS	ANATOXIN	0.595 Abs [0.5970] {0.5 C	0.816 µg/L [0.811]	46.887 %Abs [47.0		0.150 - 5.000	Kit:P23B0
AC40389MSD	ANATOXIN	0.661 Abs	0.659 µg/L	52.088 %Abs		0.150 - 5.000	Kit:P23B0
AC40389MSD	ANATOXIN	0.650 Abs [0.6555] {1.2 C	0.683 µg/L [0.671]	51.221 %Abs [51.6		0.150 - 5.000	Kit:P23B0
AC40390	ANATOXIN	1.162 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40390	ANATOXIN	1.153 Abs [1.1575] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40391	ANATOXIN	1.121 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40391	ANATOXIN	1.124 Abs [1.1225] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40392	ANATOXIN	1.114 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40392	ANATOXIN	1.102 Abs [1.1080] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40393	ANATOXIN	1.213 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40393	ANATOXIN	1.208 Abs [1.2105] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40394	ANATOXIN	1.185 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40394	ANATOXIN	1.178 Abs [1.1815] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40395	ANATOXIN	1.129 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40395	ANATOXIN	1.146 Abs [1.1375] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40396	ANATOXIN	1.129 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40396	ANATOXIN	1.117 Abs [1.1230] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature *David Jordan*

David Jordan 6/19/2024

* 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) 6/19/2024 2:34:52 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
6/19/2024 2:04:13 PM				
ATX Std 0	1.290 Abs	0.000 µg/L	R ² =0.99956, 101.655 %Abs	RK1:23->A01@2
ATX Std 0	1.248 Abs [1.2690] {2.3 CV}	0.013 µg/L [0.007] {141.4 CV}	R ² =0.99956, 98.345 %Abs	RK1:23->B01@2
ATX Std 1	1.070 Abs	0.132 µg/L	R ² =0.99956, 84.318 %Abs	RK1:24->C01@2
ATX Std 1	1.044 Abs [1.0570] {1.7 CV}	0.153 µg/L [0.143] {10.4 CV}	R ² =0.99956, 82.270 %Abs	RK1:24->D01@2
ATX Std 2	0.802 Abs	0.414 µg/L	R ² =0.99956, 63.199 %Abs	RK1:25->E01@2
ATX Std 2	0.800 Abs [0.8010] {0.2 CV}	0.417 µg/L [0.416] {0.5 CV}	R ² =0.99956, 63.042 %Abs	RK1:25->F01@3
ATX Std 3	0.542 Abs	0.971 µg/L	R ² =0.99956, 42.711 %Abs	RK1:26->G01@3
ATX Std 3	0.523 Abs [0.5325] {2.5 CV}	1.035 µg/L [1.003] {4.5 CV}	R ² =0.99956, 41.214 %Abs	RK1:26->H01@3
ATX Std 4	0.316 Abs	2.285 µg/L	R ² =0.99956, 24.901 %Abs	RK1:27->A02@2
ATX Std 4	0.299 Abs [0.3075] {3.9 CV}	2.474 µg/L [2.380] {5.6 CV}	R ² =0.99956, 23.562 %Abs	RK1:27->B02@2
ATX Std 5	0.172 Abs	> 5.000 µg/L	13.554 %Abs	RK1:28->C02@2
ATX Std 5	0.173 Abs [0.1725] {0.4 CV}	> 5.000 µg/L	13.633 %Abs	RK1:28->D02@2

6/19/2024 2:04:13 PM				
ATX Control	0.634 Abs	0.719 µg/L	49.961 %Abs	RK1:29->E02@2
ATX Control	0.618 Abs [0.6260] {1.8 CV}	0.757 µg/L [0.738] {3.6 CV}	48.700 %Abs [49.330 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.2690	0.0065		
ATX Std 0 [SD]	0.0297	0.0092		
ATX Std 0 [%CV]	2.3403	141.4214		
ATX Std 1 [MEAN]	1.0570	0.1425		
ATX Std 1 [SD]	0.0184	0.0148		
ATX Std 1 [%CV]	1.7393	10.4205		
ATX Std 1 [%DIFF]		-5.0000		
ATX Std 2 [MEAN]	0.8010	0.4155		
ATX Std 2 [SD]	0.0014	0.0021		
ATX Std 2 [%CV]	0.1766	0.5105		
ATX Std 2 [%DIFF]		3.8750		
ATX Std 3 [MEAN]	0.5325	1.0030		
ATX Std 3 [SD]	0.0134	0.0453		
ATX Std 3 [%CV]	2.5230	4.5119		
ATX Std 3 [%DIFF]		0.3000		
ATX Std 4 [MEAN]	0.3075	2.3795		
ATX Std 4 [SD]	0.0120	0.1336		
ATX Std 4 [%CV]	3.9092	5.6164		
ATX Std 4 [%DIFF]		-4.8200		
ATX Std 5 [MEAN]	0.1725			
ATX Std 5 [SD]	0.0007			
ATX Std 5 [%CV]	0.4099			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6260	0.7380		
ATX Control [SD]	0.0113	0.0269		
ATX Control [%CV]	1.8073	3.6409		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2717
 B = 0.99922
 C = 0.67854
 D = 0.031957
 R2 coef = 0.99956
 50% = 0.718

