



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC39734	Pokagon SP - Main Beach	5/20/2024	5/22/2024	< 0.40
AC39735	Pokagon SP - Potawatomi Inn Beach	5/20/2024	5/22/2024	< 0.40
AC39736	Chain O'Lakes SP - Sand Lake Beach	5/20/2024	5/22/2024	< 0.40
AC39737	Ouabache SP - Kunkel Lake Beach	5/20/2024	5/22/2024	< 0.40
AC39738	Potato Creek SP - Worster Lake Beach	5/21/2024	5/22/2024	< 0.40
AC39739	Mississinewa Lake - Miami SRA Beach	5/21/2024	5/22/2024	< 0.40
AC39740	Salamonie Lake - Lost Bridge West SRA Beach	5/21/2024	5/22/2024	< 0.40
AC39741	Summit Lake SP - Summit Lake Beach	5/21/2024	5/22/2024	< 0.40
AC39742	Chain O'Lakes SP - Sand Lake Beach (Field Duplicate)	5/20/2024	5/22/2024	< 0.40
AC39743	Field Blank	5/20/2024	5/22/2024	< 0.40
AC39744	Lincoln SP - Lake Lincoln Beach	5/20/2024	5/22/2024	< 0.40
AC39745	Ferdinand State Forest - Ferdinand Lake Beach	5/20/2024	5/22/2024	< 0.40
AC39746	Patoka Lake - Newton Stewart SRA	5/20/2024	5/22/2024	< 0.40

Test Report (by Request)

Test Information

Request: 5/22/2024 1:33:52 PM
 Date: 5/22/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.400 Abs	0.000 µg/L	R^2=0.99922, 101.8		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.347 Abs [1.3735] {2.7 C	0.015 µg/L [0.008]	R^2=0.99922, 98.03		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.162 Abs	0.128 µg/L	R^2=0.99922, 84.57		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	1.126 Abs [1.1440] {2.2 C	0.155 µg/L [0.142]	R^2=0.99922, 81.95		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.874 Abs	0.407 µg/L	R^2=0.99922, 63.61		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.863 Abs [0.8685] {0.9 C	0.421 µg/L [0.414]	R^2=0.99922, 62.80		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.579 Abs	1.003 µg/L	R^2=0.99922, 42.14		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.568 Abs [0.5735] {1.4 C	1.039 µg/L [1.021]	R^2=0.99922, 41.33		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.352 Abs	2.233 µg/L	R^2=0.99922, 25.61		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.340 Abs [0.3460] {2.5 C	2.350 µg/L [2.292]	R^2=0.99922, 24.74		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.191 Abs	> 5.000 µg/L	13.901 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.184 Abs [0.1875] {2.6 C	> 5.000 µg/L	13.392 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.693 Abs	0.709 µg/L	50.437 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.691 Abs [0.6920] {0.2 C	0.713 µg/L [0.711]	50.291 %Abs [50.3			Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/22/2024

* 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) 5/22/2024 1:58:14 PM

Test Report (by Request)

Test Information

Request: 5/22/2024 1:56:44 PM
Date: 5/22/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.227 Abs	0.085 µg/L	Low, 89.301 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.241 Abs [1.2340] {0.8 C	0.076 µg/L [0.081]	Low, 90.320 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.750 Abs	0.597 µg/L	54.585 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.731 Abs [0.7405] {1.8 C	0.632 µg/L [0.615]	53.202 %Abs [53.8		0.150 - 5.000	Kit:P23B0
AC39734	ANATOXIN	1.287 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39734	ANATOXIN	1.285 Abs [1.2860] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39734MS	ANATOXIN	0.686 Abs	0.724 µg/L	49.927 %Abs		0.150 - 5.000	Kit:P23B0
AC39734MS	ANATOXIN	0.684 Abs [0.6850] {0.2 C	0.728 µg/L [0.726]	49.782 %Abs [49.8		0.150 - 5.000	Kit:P23B0
AC39734MSD	ANATOXIN	0.685 Abs	0.726 µg/L	49.854 %Abs		0.150 - 5.000	Kit:P23B0
AC39734MSD	ANATOXIN	0.661 Abs [0.6730] {2.5 C	0.780 µg/L [0.753]	48.108 %Abs [48.9		0.150 - 5.000	Kit:P23B0
AC39735	ANATOXIN	1.348 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39735	ANATOXIN	1.323 Abs [1.3355] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39736	ANATOXIN	1.280 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39736	ANATOXIN	1.273 Abs [1.2765] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39737	ANATOXIN	1.236 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39737	ANATOXIN	1.220 Abs [1.2280] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39738	ANATOXIN	1.190 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39738	ANATOXIN	1.156 Abs [1.1730] {2.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39739	ANATOXIN	1.344 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39739	ANATOXIN	1.314 Abs [1.3290] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39740	ANATOXIN	1.272 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39740	ANATOXIN	1.262 Abs [1.2670] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39741	ANATOXIN	1.239 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39741	ANATOXIN	1.228 Abs [1.2335] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39742	ANATOXIN	1.212 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39742	ANATOXIN	1.162 Abs [1.1870] {3.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39743	ANATOXIN	1.331 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39743	ANATOXIN	1.310 Abs [1.3205] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39744	ANATOXIN	1.245 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39744	ANATOXIN	1.241 Abs [1.2430] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39745	ANATOXIN	1.231 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39745	ANATOXIN	1.233 Abs [1.2320] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39746	ANATOXIN	1.226 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC39746	ANATOXIN	1.223 Abs [1.2245] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature *David Jordan*

David Jordan 5/22/2024

* 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) 5/22/2024 1:58:14 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
5/22/2024 1:33:52 PM				
ATX Std 0	1.400 Abs	0.000 µg/L	R ² =0.99922, 101.892 %Abs	RK1:23->A01@2
ATX Std 0	1.347 Abs [1.3735] {2.7 CV}	0.015 µg/L [0.008] {141.4 CV}	R ² =0.99922, 98.035 %Abs	RK1:23->B01@2
ATX Std 1	1.162 Abs	0.128 µg/L	R ² =0.99922, 84.571 %Abs	RK1:24->C01@2
ATX Std 1	1.126 Abs [1.1440] {2.2 CV}	0.155 µg/L [0.142] {13.5 CV}	R ² =0.99922, 81.951 %Abs	RK1:24->D01@2
ATX Std 2	0.874 Abs	0.407 µg/L	R ² =0.99922, 63.610 %Abs	RK1:25->E01@2
ATX Std 2	0.863 Abs [0.8685] {0.9 CV}	0.421 µg/L [0.414] {2.4 CV}	R ² =0.99922, 62.809 %Abs	RK1:25->F01@3
ATX Std 3	0.579 Abs	1.003 µg/L	R ² =0.99922, 42.140 %Abs	RK1:26->G01@3
ATX Std 3	0.568 Abs [0.5735] {1.4 CV}	1.039 µg/L [1.021] {2.5 CV}	R ² =0.99922, 41.339 %Abs	RK1:26->H01@3
ATX Std 4	0.352 Abs	2.233 µg/L	R ² =0.99922, 25.619 %Abs	RK1:27->A02@2
ATX Std 4	0.340 Abs [0.3460] {2.5 CV}	2.350 µg/L [2.292] {3.6 CV}	R ² =0.99922, 24.745 %Abs	RK1:27->B02@2
ATX Std 5	0.191 Abs	> 5.000 µg/L	13.901 %Abs	RK1:28->C02@2
ATX Std 5	0.184 Abs [0.1875] {2.6 CV}	> 5.000 µg/L	13.392 %Abs	RK1:28->D02@2

5/22/2024 1:33:52 PM				
ATX Control	0.693 Abs	0.709 µg/L	50.437 %Abs	RK1:29->E02@2
ATX Control	0.691 Abs [0.6920] {0.2 CV}	0.713 µg/L [0.711] {0.4 CV}	50.291 %Abs [50.364 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.3735	0.0075		
ATX Std 0 [SD]	0.0375	0.0106		
ATX Std 0 [%CV]	2.7286	141.4214		
ATX Std 1 [MEAN]	1.1440	0.1415		
ATX Std 1 [SD]	0.0255	0.0191		
ATX Std 1 [%CV]	2.2252	13.4925		
ATX Std 1 [%DIFF]		-5.6667		
ATX Std 2 [MEAN]	0.8685	0.4140		
ATX Std 2 [SD]	0.0078	0.0099		
ATX Std 2 [%CV]	0.8956	2.3912		
ATX Std 2 [%DIFF]		3.5000		
ATX Std 3 [MEAN]	0.5735	1.0210		
ATX Std 3 [SD]	0.0078	0.0255		
ATX Std 3 [%CV]	1.3563	2.4932		
ATX Std 3 [%DIFF]		2.1000		
ATX Std 4 [MEAN]	0.3460	2.2915		
ATX Std 4 [SD]	0.0085	0.0827		
ATX Std 4 [%CV]	2.4524	3.6104		
ATX Std 4 [%DIFF]		-8.3400		
ATX Std 5 [MEAN]	0.1875			
ATX Std 5 [SD]	0.0049			
ATX Std 5 [%CV]	2.6399			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6920	0.7110		
ATX Control [SD]	0.0014	0.0028		
ATX Control [%CV]	0.2044	0.3978		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3774
 B = 0.99269
 C = 0.67799
 D = 0.037950
 R2 coef = 0.99922
 50% = 0.722

