



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47837	Potato Creek State Park	7/6/2021	7/7/2021	< 0.40
AB47838	Lost Bridge West SRA	7/6/2021	7/7/2021	< 0.40
AB47839	Mississinewa Lake Miami SRA	7/6/2021	7/7/2021	< 0.40
AB47840	Potato Creek State Park (Field Dup)	7/6/2021	7/7/2021	< 0.40
AB47841	Field Blank	7/6/2021	7/7/2021	< 0.40
AB47842	Ft. Ben Harrison SP Dog Lake - East	7/6/2021	7/7/2021	< 0.40

Test Information

Request: 7/7/2021 2:36:42 PM

Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.505 Abs	0.005 µg/L	R^2=0.99985, 99.27			20L4352
ATX Std 0	ANATOXIN	1.528 Abs [1.5165] {1.1 C	0.000 µg/L [0.003]	R^2=0.99985, 100.7			20L4352
ATX Std 1	ANATOXIN	1.267 Abs	0.140 µg/L	R^2=0.99985, 83.57			20L4352
ATX Std 1	ANATOXIN	1.237 Abs [1.2520] {1.7 C	0.161 µg/L [0.150]	R^2=0.99985, 81.55			20L4352
ATX Std 2	ANATOXIN	0.999 Abs	0.382 µg/L	R^2=0.99985, 65.85			20L4352
ATX Std 2	ANATOXIN	0.978 Abs [0.9885] {1.5 C	0.407 µg/L [0.395]	R^2=0.99985, 64.51			20L4352
ATX Std 3	ANATOXIN	0.668 Abs	0.966 µg/L	R^2=0.99985, 44.06			20L4352
ATX Std 3	ANATOXIN	0.626 Abs [0.6470] {4.6 C	1.085 µg/L [1.026]	R^2=0.99985, 41.25			20L4352
ATX Std 4	ANATOXIN	0.375 Abs	2.356 µg/L	R^2=0.99985, 24.73			20L4352
ATX Std 4	ANATOXIN	0.362 Abs [0.3685] {2.5 C	2.470 µg/L [2.413]	R^2=0.99985, 23.87			20L4352
ATX Std 5	ANATOXIN	0.206 Abs	4.899 µg/L	R^2=0.99985, 13.58			20L4352
ATX Std 5	ANATOXIN	0.190 Abs [0.1980] {5.7 C	> 5.000 µg/L [4.89	12.533 %Abs			20L4352
ATX Control	ANATOXIN	0.751 Abs	0.770 µg/L	49.538 %Abs			20L4352
ATX Control	ANATOXIN	0.735 Abs [0.7430] {1.5 C	0.804 µg/L [0.787]	48.483 %Abs [49.0			20L4352

Note

Signature

David Jordan

David Jordan 7/7/2021

Test Report (by Request)

Test Information

Request: 7/7/2021 2:59:08 PM

Date: 7/7/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.236 Abs	0.162 µg/L	81.530 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.153 Abs [1.1945] {4.9 C	0.228 µg/L [0.195]	76.055 %Abs [78.7		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.806 Abs	0.663 µg/L	53.166 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.789 Abs [0.7975] {1.5 C	0.694 µg/L [0.678]	52.045 %Abs [52.6		0.150 - 5.000	20L4352
AB47837	ANATOXIN	1.332 Abs	0.097 µg/L	Low, 87.863 %Abs		0.150 - 5.000	20L4352
AB47837	ANATOXIN	1.319 Abs [1.3255] {0.7 C	0.105 µg/L [0.101]	Low, 87.005 %Abs		0.150 - 5.000	20L4352
AB47838	ANATOXIN	1.313 Abs	0.109 µg/L	Low, 86.609 %Abs		0.150 - 5.000	20L4352
AB47838	ANATOXIN	1.359 Abs [1.3360] {2.4 C	0.080 µg/L [0.094]	Low, 89.644 %Abs		0.150 - 5.000	20L4352
AB47838MS	ANATOXIN	0.753 Abs	0.766 µg/L	49.670 %Abs		0.150 - 5.000	20L4352
AB47838MS	ANATOXIN	0.745 Abs [0.7490] {0.8 C	0.783 µg/L [0.775]	49.142 %Abs [49.4		0.150 - 5.000	20L4352
AB47838MSD	ANATOXIN	0.789 Abs	0.694 µg/L	52.045 %Abs		0.150 - 5.000	20L4352
AB47838MSD	ANATOXIN	0.775 Abs [0.7820] {1.3 C	0.721 µg/L [0.707]	51.121 %Abs [51.5		0.150 - 5.000	20L4352
AB47839	ANATOXIN	1.366 Abs	0.076 µg/L	Low, 90.106 %Abs		0.150 - 5.000	20L4352
AB47839	ANATOXIN	1.362 Abs [1.3640] {0.2 C	0.079 µg/L [0.078]	Low, 89.842 %Abs		0.150 - 5.000	20L4352
AB47840	ANATOXIN	1.292 Abs	0.123 µg/L	Low, 85.224 %Abs		0.150 - 5.000	20L4352
AB47840	ANATOXIN	1.290 Abs [1.2910] {0.1 C	0.124 µg/L [0.124]	Low, 85.092 %Abs		0.150 - 5.000	20L4352
AB47841	ANATOXIN	1.319 Abs	0.105 µg/L	Low, 87.005 %Abs		0.150 - 5.000	20L4352
AB47841	ANATOXIN	1.184 Abs [1.2515] {7.6 C	0.202 µg/L [0.154]	78.100 %Abs [82.5		0.150 - 5.000	20L4352
AB47842	ANATOXIN	1.419 Abs	0.047 µg/L	Low, 93.602 %Abs		0.150 - 5.000	20L4352
AB47842	ANATOXIN	1.331 Abs [1.3750] {4.5 C	0.097 µg/L [0.072]	Low, 87.797 %Abs		0.150 - 5.000	20L4352

Note

Signature

David Jordan 7/7/2021

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: 20L4352

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
7/7/2021 2:36:42 PM				
ATX Std 0	1.505 Abs	0.005 µg/L	R ² =0.99985, 99.274 %Abs	RK1:23->A01@2
ATX Std 0	1.528 Abs [1.5165] {1.1 CV}	0.000 µg/L [0.003] {141.4 CV}	R ² =0.99985, 100.792 %Abs	RK1:23->B01@2
ATX Std 1	1.267 Abs	0.140 µg/L	R ² =0.99985, 83.575 %Abs	RK1:24->C01@2
ATX Std 1	1.237 Abs [1.2520] {1.7 CV}	0.161 µg/L [0.150] {9.9 CV}	R ² =0.99985, 81.596 %Abs	RK1:24->D01@2
ATX Std 2	0.999 Abs	0.382 µg/L	R ² =0.99985, 65.897 %Abs	RK1:25->E01@2
ATX Std 2	0.978 Abs [0.9885] {1.5 CV}	0.407 µg/L [0.395] {4.5 CV}	R ² =0.99985, 64.512 %Abs	RK1:25->F01@3
ATX Std 3	0.668 Abs	0.966 µg/L	R ² =0.99985, 44.063 %Abs	RK1:26->G01@3
ATX Std 3	0.626 Abs [0.6470] {4.6 CV}	1.085 µg/L [1.026] {8.2 CV}	R ² =0.99985, 41.293 %Abs	RK1:26->H01@3
ATX Std 4	0.375 Abs	2.356 µg/L	R ² =0.99985, 24.736 %Abs	RK1:27->A02@2
ATX Std 4	0.362 Abs [0.3685] {2.5 CV}	2.470 µg/L [2.413] {3.3 CV}	R ² =0.99985, 23.879 %Abs	RK1:27->B02@2
ATX Std 5	0.206 Abs	4.899 µg/L	R ² =0.99985, 13.588 %Abs	RK1:28->C02@2
ATX Std 5	0.190 Abs [0.1980] {5.7 CV}	> 5.000 µg/L [4.899]	12.533 %Abs	RK1:28->D02@2

7/7/2021 2:36:42 PM				
ATX Control	0.751 Abs	0.770 µg/L	49.538 %Abs	RK1:29->E02@2
ATX Control	0.735 Abs [0.7430] {1.5 CV}	0.804 µg/L [0.787] {3.1 CV}	48.483 %Abs [49.011 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.5165	0.0025		
ATX Std 0 [SD]	0.0163	0.0035		
ATX Std 0 [%CV]	1.0724	141.4214		
ATX Std 1 [MEAN]	1.2520	0.1505		
ATX Std 1 [SD]	0.0212	0.0148		
ATX Std 1 [%CV]	1.6943	9.8666		
ATX Std 1 [%DIFF]		0.3333		
ATX Std 2 [MEAN]	0.9885	0.3945		
ATX Std 2 [SD]	0.0148	0.0177		
ATX Std 2 [%CV]	1.5022	4.4810		
ATX Std 2 [%DIFF]		-1.3750		
ATX Std 3 [MEAN]	0.6470	1.0255		
ATX Std 3 [SD]	0.0297	0.0841		
ATX Std 3 [%CV]	4.5902	8.2053		
ATX Std 3 [%DIFF]		2.5500		
ATX Std 4 [MEAN]	0.3685	2.4130		
ATX Std 4 [SD]	0.0092	0.0806		
ATX Std 4 [%CV]	2.4945	3.3407		
ATX Std 4 [%DIFF]		-3.4800		
ATX Std 5 [MEAN]	0.1980			
ATX Std 5 [SD]	0.0113			
ATX Std 5 [%CV]	5.7140			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7430	0.7870		
ATX Control [SD]	0.0113	0.0240		
ATX Control [%CV]	1.5227	3.0548		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5163
 B = 0.95817
 C = 0.77322
 D = -0.017404
 R2 coef = 0.99985
 50% = 0.755

