



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43437	Summit Lake - State Park	7/21/2020	7/23/2020	<0.40
AB43439	Pokagon State Park	7/20/2020	7/23/2020	<0.40
AB43440	Potawatomi Inn's Beach	7/20/2020	7/23/2020	<0.40
AB43441	Chain O'Lakes SP	7/20/2020	7/23/2020	<0.40
AB43442	Potato Creek State Park	7/20/2020	7/23/2020	<0.40
AB43443	Lost Bridge West SRA	7/20/2020	7/23/2020	<0.40
AB43444	Mississinewa Lake Miami SRA	7/20/2020	7/23/2020	<0.40
AB43445	Pokagon State Park (Field Duplicate)	7/20/2020	7/23/2020	<0.40
AB43446	Field Blank	7/20/2020	7/23/2020	<0.40

Test Report (by Request)

Test Information

Request: 7/23/2020 3:13:03 PM
 Date: 7/23/2020 - 7/23/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.084 Abs	0.004 µg/L	R^2=0.99966, 100.00		20A2174
ATX Std 0	ANATOXIN	1.085 Abs [1.0845] {0.1 CV}	0.003 µg/L [0.004] {2}	R^2=0.99966, 100.00		20A2174
ATX Std 1	ANATOXIN	0.956 Abs	0.144 µg/L	R^2=0.99966, 88.111		20A2174
ATX Std 1	ANATOXIN	0.957 Abs [0.9565] {0.1 CV}	0.143 µg/L [0.144] {0}	R^2=0.99966, 88.203		20A2174
ATX Std 2	ANATOXIN	0.765 Abs	0.402 µg/L	R^2=0.99966, 70.507		20A2174
ATX Std 2	ANATOXIN	0.765 Abs [0.7650] {0.0 CV}	0.402 µg/L [0.402] {0}	R^2=0.99966, 70.507		20A2174
ATX Std 3	ANATOXIN	0.506 Abs	1.013 µg/L	R^2=0.99966, 46.636		20A2174
ATX Std 3	ANATOXIN	0.500 Abs [0.5030] {0.8 CV}	1.034 µg/L [1.023] {1}	R^2=0.99966, 46.083		20A2174
ATX Std 4	ANATOXIN	0.282 Abs	2.374 µg/L	R^2=0.99966, 25.991		20A2174
ATX Std 4	ANATOXIN	0.282 Abs [0.2820] {0.0 CV}	2.374 µg/L [2.374] {0}	R^2=0.99966, 25.991		20A2174
ATX Std 5	ANATOXIN	0.149 Abs	> 5.000 µg/L	13.733 %Abs		20A2174
ATX Std 5	ANATOXIN	0.144 Abs [0.1465] {2.4 CV}	> 5.000 µg/L	13.272 %Abs		20A2174
ATX Control	ANATOXIN	0.578 Abs	0.792 µg/L	53.272 %Abs		20A2174
ATX Control	ANATOXIN	0.563 Abs [0.5705] {1.9 CV}	0.834 µg/L [0.813] {3}	51.889 %Abs [52.58]		20A2174

Note

Signature

Charles Hostetter 7/24/2020

* 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 (6.4.1.1073/1085/1.00/0.95) 7/23/2020 3:52:33 PM

Test Report (by Request)

Test Information

 Request: 7/23/2020 3:34:11 PM
 Date: 7/23/2020 - 7/23/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	1.025 Abs	0.069 µg/L	LOW, 94.470 %ABS	0.150 - 5.000	20A2174
LRB	ANATOXIN	1.049 Abs [1.0370] {1.6 CV}	0.043 µg/L [0.056] {3}		0.150 - 5.000	20A2174
LFB	ANATOXIN	0.728 Abs	0.465 µg/L	67.097 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.711 Abs [0.7195] {1.7 CV}	0.496 µg/L [0.480] {4}	65.530 %Abs [66.31]	0.150 - 5.000	20A2174
AB43437	ANATOXIN	1.040 Abs	0.053 µg/L	LOW, 95.853 %ABS	0.150 - 5.000	20A2174
AB43437	ANATOXIN	1.043 Abs [1.0415] {0.2 CV}	0.049 µg/L [0.051] {5}		0.150 - 5.000	20A2174
AB43439	ANATOXIN	1.055 Abs	0.037 µg/L	LOW, 97.235 %ABS	0.150 - 5.000	20A2174
AB43439	ANATOXIN	1.013 Abs [1.0340] {2.9 CV}	0.081 µg/L [0.059] {5}		0.150 - 5.000	20A2174
AB43440	ANATOXIN	1.031 Abs	0.062 µg/L	LOW, 95.023 %ABS	0.150 - 5.000	20A2174
AB43440	ANATOXIN	1.033 Abs [1.0320] {0.1 CV}	0.060 µg/L [0.061] {2}		0.150 - 5.000	20A2174
AB43440MS	ANATOXIN	0.661 Abs	0.594 µg/L	60.922 %Abs	0.150 - 5.000	20A2174
AB43440MS	ANATOXIN	0.661 Abs [0.6610] {0.0 CV}	0.594 µg/L [0.594] {0}	60.922 %Abs [60.922]	0.150 - 5.000	20A2174
AB43440MSD	ANATOXIN	0.715 Abs	0.488 µg/L	65.899 %Abs	0.150 - 5.000	20A2174
AB43440MSD	ANATOXIN	0.717 Abs [0.7160] {0.2 CV}	0.485 µg/L [0.487] {0}	66.083 %Abs [65.99]	0.150 - 5.000	20A2174
AB43441	ANATOXIN	1.002 Abs	0.093 µg/L	LOW, 92.350 %ABS	0.150 - 5.000	20A2174
AB43441	ANATOXIN	0.984 Abs [0.9930] {1.3 CV}	0.113 µg/L [0.103] {1}		0.150 - 5.000	20A2174
AB43442	ANATOXIN	0.931 Abs	0.173 µg/L	85.806 %Abs	0.150 - 5.000	20A2174
AB43442	ANATOXIN	0.943 Abs [0.9370] {0.9 CV}	0.159 µg/L [0.166] {6}	86.912 %Abs [86.35]	0.150 - 5.000	20A2174
AB43443	ANATOXIN	1.004 Abs	0.091 µg/L	LOW, 92.535 %ABS	0.150 - 5.000	20A2174
AB43443	ANATOXIN	1.019 Abs [1.0115] {1.0 CV}	0.075 µg/L [0.083] {1}		0.150 - 5.000	20A2174
AB43444	ANATOXIN	1.024 Abs	0.070 µg/L	LOW, 94.378 %ABS	0.150 - 5.000	20A2174
AB43444	ANATOXIN	1.023 Abs [1.0235] {0.1 CV}	0.071 µg/L [0.071] {1}		0.150 - 5.000	20A2174
AB43445	ANATOXIN	1.015 Abs	0.079 µg/L	LOW, 93.548 %ABS	0.150 - 5.000	20A2174
AB43445	ANATOXIN	1.011 Abs [1.0130] {0.3 CV}	0.084 µg/L [0.082] {4}		0.150 - 5.000	20A2174
AB43446	ANATOXIN	1.029 Abs	0.064 µg/L	LOW, 94.839 %ABS	0.150 - 5.000	20A2174
AB43446	ANATOXIN	1.018 Abs [1.0235] {0.8 CV}	0.076 µg/L [0.070] {1}		0.150 - 5.000	20A2174

Note

Signature

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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: 20A2174

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
7/23/2020 3:13:03 PM				
ATX Std 0	1.084 Abs		R ² =0.99966, 100.000 %Abs	RK1:23->A01@2
ATX Std 0	1.085 Abs [1.0845] {0.1 CV}		R ² =0.99966, 100.000 %Abs	RK1:23->B01@2
ATX Std 1	0.956 Abs		R ² =0.99966, 88.111 %Abs	RK1:24->C01@2
ATX Std 1	0.957 Abs [0.9565] {0.1 CV}		R ² =0.99966, 88.203 %Abs	RK1:24->D01@2
ATX Std 2	0.765 Abs		R ² =0.99966, 70.507 %Abs	RK1:25->E01@2
ATX Std 2	0.765 Abs [0.7650] {0.0 CV}		R ² =0.99966, 70.507 %Abs	RK1:25->F01@3
ATX Std 3	0.506 Abs		R ² =0.99966, 46.636 %Abs	RK1:26->G01@3
ATX Std 3	0.500 Abs [0.5030] {0.8 CV}		R ² =0.99966, 46.083 %Abs	RK1:26->H01@3
ATX Std 4	0.282 Abs		R ² =0.99966, 25.991 %Abs	RK1:27->A02@2
ATX Std 4	0.282 Abs [0.2820] {0.0 CV}		R ² =0.99966, 25.991 %Abs	RK1:27->B02@2
ATX Std 5	0.149 Abs		13.733 %Abs	RK1:28->C02@2
ATX Std 5	0.144 Abs [0.1465] {2.4 CV}		13.272 %Abs	RK1:28->D02@2

7/23/2020 3:13:03 PM				
ATX Control	0.578 Abs		53.272 %Abs	RK1:29->E02@2
ATX Control	0.563 Abs [0.5705] {1.9 CV}		51.889 %Abs [52.581 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.0845			
ATX Std 0 [SD]	0.0007			
ATX Std 0 [%CV]	0.0652			
ATX Std 1 [MEAN]	0.9565			
ATX Std 1 [SD]	0.0007			
ATX Std 1 [%CV]	0.0739			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.7650			
ATX Std 2 [SD]	0.0000			
ATX Std 2 [%CV]	0.0000			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.5030			
ATX Std 3 [SD]	0.0042			
ATX Std 3 [%CV]	0.8435			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2820			
ATX Std 4 [SD]	0.0000			
ATX Std 4 [%CV]	0.0000			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1465			
ATX Std 5 [SD]	0.0035			
ATX Std 5 [%CV]	2.4133			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5705			
ATX Control [SD]	0.0106			
ATX Control [%CV]	1.8592			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.0873
 B = 1.0976
 C = 0.86807
 D = 0.015076
 R2 coef = 0.99966
 50% = 0.894

