



## Anatoxin-a Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ppb)</b>
AB43405	Summit Lake - State Park	7/6/2020	7/8/2020	<0.40
AB43406	Kunkel Beach @ Ouabache State Park	7/6/2020	7/8/2020	<0.40
AB43407	Pokagon State Park	7/6/2020	7/8/2020	<0.40
AB43408	Potawatomi Inn's Beach	7/6/2020	7/8/2020	<0.40
AB43409	Chain O'Lakes SP	7/6/2020	7/8/2020	<0.40
AB43410	Potato Creek State Park	7/7/2020	7/8/2020	<0.40
AB43411	Lost Bridge West SRA	7/7/2020	7/8/2020	<0.40
AB43412	Mississinewa Lake Miami SRA	7/7/2020	7/8/2020	<0.40
AB43413	Field Blank	7/6/2020	7/8/2020	<0.40
AB43414	Kunkel Beach @ Ouabache State Park (Field Duplicate)	7/6/2020	7/8/2020	<0.40

# Test Report (by Request)

**Test Information**

 Request: 7/8/2020 2:15:53 PM  
 Date: 7/8/2020 - 7/8/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.403 Abs	0.000 µg/L	R^2=0.99961, 100.42		20A2174
ATX Std 0	ANATOXIN	1.391 Abs [1.3970] {0.6 CV}	0.004 µg/L [0.002] {1.0 CV}	R^2=0.99961, 99.571		20A2174
ATX Std 1	ANATOXIN	1.204 Abs	0.140 µg/L	R^2=0.99961, 86.185		20A2174
ATX Std 1	ANATOXIN	1.197 Abs [1.2005] {0.4 CV}	0.146 µg/L [0.143] {0.3 CV}	R^2=0.99961, 85.684		20A2174
ATX Std 2	ANATOXIN	0.967 Abs	0.407 µg/L	R^2=0.99961, 69.220		20A2174
ATX Std 2	ANATOXIN	0.967 Abs [0.9670] {0.0 CV}	0.407 µg/L [0.407] {0.0 CV}	R^2=0.99961, 69.220		20A2174
ATX Std 3	ANATOXIN	0.672 Abs	1.020 µg/L	R^2=0.99961, 48.103		20A2174
ATX Std 3	ANATOXIN	0.671 Abs [0.6715] {0.1 CV}	1.023 µg/L [1.021] {0.1 CV}	R^2=0.99961, 48.031		20A2174
ATX Std 4	ANATOXIN	0.407 Abs	2.328 µg/L	R^2=0.99961, 29.134		20A2174
ATX Std 4	ANATOXIN	0.396 Abs [0.4015] {1.9 CV}	2.418 µg/L [2.373] {2.0 CV}	R^2=0.99961, 28.346		20A2174
ATX Std 5	ANATOXIN	0.214 Abs	> 5.000 µg/L	15.319 %Abs		20A2174
ATX Std 5	ANATOXIN	0.209 Abs [0.2115] {1.7 CV}	> 5.000 µg/L	14.961 %Abs		20A2174
ATX Control	ANATOXIN	0.764 Abs	0.777 µg/L	54.689 %Abs		20A2174
ATX Control	ANATOXIN	0.743 Abs [0.7535] {2.0 CV}	0.827 µg/L [0.802] {2.0 CV}	53.185 %Abs [53.931]		20A2174

**Note**

Signature

Charles Hostetter 7/9/2020

**Test Information**

Request: 7/8/2020 3:18:05 PM  
Date: 7/8/2020 - 7/8/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	1.323 Abs	0.047 µg/L	<b>LOW, 94.703 %ABS</b>	0.150 - 5.000	20A2174
LRB	ANATOXIN	1.325 Abs [1.3240] {0.1 CV}	0.046 µg/L [0.046] {1}		0.150 - 5.000	20A2174
LFB	ANATOXIN	0.860 Abs	0.579 µg/L	61.560 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.853 Abs [0.8565] {0.6 CV}	0.592 µg/L [0.586] {1}	61.059 %Abs [61.310]	0.150 - 5.000	20A2174
AB43405	ANATOXIN	1.317 Abs	0.051 µg/L	<b>LOW, 94.273 %ABS</b>	0.150 - 5.000	20A2174
AB43405	ANATOXIN	1.329 Abs [1.3230] {0.6 CV}	0.043 µg/L [0.047] {1}		0.150 - 5.000	20A2174
AB43405MS	ANATOXIN	0.851 Abs	0.596 µg/L	60.916 %Abs	0.150 - 5.000	20A2174
AB43405MS	ANATOXIN	0.821 Abs [0.8360] {2.5 CV}	0.654 µg/L [0.625] {5}	58.769 %Abs [59.843]	0.150 - 5.000	20A2174
AB43405MSD	ANATOXIN	0.820 Abs	0.656 µg/L	58.697 %Abs	0.150 - 5.000	20A2174
AB43405MSD	ANATOXIN	0.819 Abs [0.8195] {0.1 CV}	0.658 µg/L [0.657] {0}	58.626 %Abs [58.660]	0.150 - 5.000	20A2174
AB43406	ANATOXIN	1.338 Abs	0.037 µg/L	<b>LOW, 95.777 %ABS</b>	0.150 - 5.000	20A2174
AB43406	ANATOXIN	1.330 Abs [1.3340] {0.4 CV}	0.042 µg/L [0.039] {5}		0.150 - 5.000	20A2174
AB43407	ANATOXIN	1.320 Abs	0.049 µg/L	<b>LOW, 94.488 %ABS</b>	0.150 - 5.000	20A2174
AB43407	ANATOXIN	1.318 Abs [1.3190] {0.1 CV}	0.051 µg/L [0.050] {2}		0.150 - 5.000	20A2174
AB43408	ANATOXIN	1.322 Abs	0.048 µg/L	<b>LOW, 94.631 %ABS</b>	0.150 - 5.000	20A2174
AB43408	ANATOXIN	1.329 Abs [1.3255] {0.4 CV}	0.043 µg/L [0.046] {7}		0.150 - 5.000	20A2174
AB43409	ANATOXIN	1.297 Abs	0.066 µg/L	<b>LOW, 92.842 %ABS</b>	0.150 - 5.000	20A2174
AB43409	ANATOXIN	1.325 Abs [1.3110] {1.5 CV}	0.046 µg/L [0.056] {2}		0.150 - 5.000	20A2174
AB43410	ANATOXIN	1.308 Abs	0.058 µg/L	<b>LOW, 93.629 %ABS</b>	0.150 - 5.000	20A2174
AB43410	ANATOXIN	1.323 Abs [1.3155] {0.8 CV}	0.047 µg/L [0.052] {1}		0.150 - 5.000	20A2174
AB43411	ANATOXIN	1.262 Abs	0.092 µg/L	<b>LOW, 90.336 %ABS</b>	0.150 - 5.000	20A2174
AB43411	ANATOXIN	1.302 Abs [1.2820] {2.2 CV}	0.062 µg/L [0.077] {2}		0.150 - 5.000	20A2174
AB43412	ANATOXIN	1.338 Abs	0.037 µg/L	<b>LOW, 95.777 %ABS</b>	0.150 - 5.000	20A2174
AB43412	ANATOXIN	1.312 Abs [1.3250] {1.4 CV}	0.055 µg/L [0.046] {2}		0.150 - 5.000	20A2174
AB43413	ANATOXIN	1.355 Abs	0.026 µg/L	<b>LOW, 96.994 %ABS</b>	0.150 - 5.000	20A2174
AB43413	ANATOXIN	1.301 Abs [1.3280] {2.9 CV}	0.063 µg/L [0.045] {5}		0.150 - 5.000	20A2174
AB43414	ANATOXIN	1.258 Abs	0.095 µg/L	<b>LOW, 90.050 %ABS</b>	0.150 - 5.000	20A2174
AB43414	ANATOXIN	1.273 Abs [1.2655] {0.8 CV}	0.083 µg/L [0.089] {5}		0.150 - 5.000	20A2174

**Note**

Signature \_\_\_\_\_

**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
<b>7/8/2020 2:15:53 PM</b>				
ATX Std 0	1.403 Abs		R <sup>2</sup> =0.99961, 100.429 %Abs	RK1:23->A01@2
ATX Std 0	1.391 Abs [1.3970] {0.6 CV}		R <sup>2</sup> =0.99961, 99.571 %Abs	RK1:23->B01@2
ATX Std 1	1.204 Abs		R <sup>2</sup> =0.99961, 86.185 %Abs	RK1:24->C01@2
ATX Std 1	1.197 Abs [1.2005] {0.4 CV}		R <sup>2</sup> =0.99961, 85.684 %Abs	RK1:24->D01@2
ATX Std 2	0.967 Abs		R <sup>2</sup> =0.99961, 69.220 %Abs	RK1:25->E01@2
ATX Std 2	0.967 Abs [0.9670] {0.0 CV}		R <sup>2</sup> =0.99961, 69.220 %Abs	RK1:25->F01@3
ATX Std 3	0.672 Abs		R <sup>2</sup> =0.99961, 48.103 %Abs	RK1:26->G01@3
ATX Std 3	0.671 Abs [0.6715] {0.1 CV}		R <sup>2</sup> =0.99961, 48.031 %Abs	RK1:26->H01@3
ATX Std 4	0.407 Abs		R <sup>2</sup> =0.99961, 29.134 %Abs	RK1:27->A02@2
ATX Std 4	0.396 Abs [0.4015] {1.9 CV}		R <sup>2</sup> =0.99961, 28.346 %Abs	RK1:27->B02@2
ATX Std 5	0.214 Abs		15.319 %Abs	RK1:28->C02@2
ATX Std 5	0.209 Abs [0.2115] {1.7 CV}		14.961 %Abs	RK1:28->D02@2
*****				
<b>7/8/2020 2:15:53 PM</b>				
ATX Control	0.764 Abs		54.689 %Abs	RK1:29->E02@2
ATX Control	0.743 Abs [0.7535] {2.0 CV}		53.185 %Abs [53.937 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.3970			
ATX Std 0 [SD]	0.0085			
ATX Std 0 [%CV]	0.6074			
ATX Std 1 [MEAN]	1.2005			
ATX Std 1 [SD]	0.0049			
ATX Std 1 [%CV]	0.4123			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.9670			
ATX Std 2 [SD]	0.0000			
ATX Std 2 [%CV]	0.0000			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.6715			
ATX Std 3 [SD]	0.0007			
ATX Std 3 [%CV]	0.1053			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.4015			
ATX Std 4 [SD]	0.0078			
ATX Std 4 [%CV]	1.9373			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.2115			
ATX Std 5 [SD]	0.0035			
ATX Std 5 [%CV]	1.6716			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.7535			
ATX Control [SD]	0.0148			
ATX Control [%CV]	1.9707			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.3998  
 B = 0.94300  
 C = 0.99358  
 D = -0.037841  
 R2 coef = 0.99961  
 50% = 0.943

