



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48073	Summit Lake - State Park	8/3/2021	8/4/2021	< 0.40
AB48074	Potawatomi Inn's Beach	8/2/2021	8/4/2021	< 0.40
AB48075	Chain O'Lakes SP	8/2/2021	8/4/2021	< 0.40
AB48076	Potato Creek State Park	8/2/2021	8/4/2021	< 0.40
AB48077	Lost Bridge West SRA	8/3/2021	8/4/2021	< 0.40
AB48078	Mississinewa Lake Miami SRA	8/3/2021	8/4/2021	< 0.40
AB48079	Chain O'Lakes (Field Dup)	8/3/2021	8/4/2021	< 0.40
AB48080	Field Blank	8/2/2021	8/4/2021	< 0.40
AB48128	Patoka SRA Beach	8/2/2021	8/4/2021	< 0.40
AB48129	Ft. Ben Harrison SP Dog Lake - East	8/3/2021	8/4/2021	< 0.40

# Test Report (by Request)

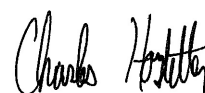
## Test Information

Request: 8/4/2021 1:23:47 PM  
Date: 8/4/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.740 Abs	0.000 µg/L	R^2=0.99979, 101.4			20L4352
ATX Std 0	ANATOXIN	1.691 Abs [1.7155] {2.0 C	0.007 µg/L [0.004]	R^2=0.99979, 98.6			20L4352
ATX Std 1	ANATOXIN	1.401 Abs	0.143 µg/L	R^2=0.99979, 81.6			20L4352
ATX Std 1	ANATOXIN	1.386 Abs [1.3935] {0.8 C	0.152 µg/L [0.148]	R^2=0.99979, 80.8			20L4352
ATX Std 2	ANATOXIN	1.099 Abs	0.397 µg/L	R^2=0.99979, 64.0			20L4352
ATX Std 2	ANATOXIN	1.089 Abs [1.0940] {0.6 C	0.408 µg/L [0.403]	R^2=0.99979, 63.4			20L4352
ATX Std 3	ANATOXIN	0.764 Abs	0.955 µg/L	R^2=0.99979, 44.5			20L4352
ATX Std 3	ANATOXIN	0.711 Abs [0.7375] {5.1 C	1.095 µg/L [1.025]	R^2=0.99979, 41.4			20L4352
ATX Std 4	ANATOXIN	0.447 Abs	2.300 µg/L	R^2=0.99979, 26.0			20L4352
ATX Std 4	ANATOXIN	0.423 Abs [0.4350] {3.9 C	2.484 µg/L [2.392]	R^2=0.99979, 24.6			20L4352
ATX Std 5	ANATOXIN	0.240 Abs	4.980 µg/L	R^2=0.99979, 13.9			20L4352
ATX Std 5	ANATOXIN	0.225 Abs [0.2325] {4.6 C	> 5.000 µg/L [4.98]	13.120 %Abs			20L4352
ATX Control	ANATOXIN	0.850 Abs	0.766 µg/L	49.563 %Abs			20L4352
ATX Control	ANATOXIN	0.827 Abs [0.8385] {1.9 C	0.813 µg/L [0.789]	48.222 %Abs [48.8			20L4352

## Note

Signature



# Test Report (by Request)

## Test Information

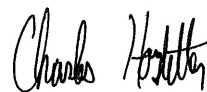
Request: 8/4/2021 1:47:53 PM  
Date: 8/4/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.184 Abs	0.310 µg/L	69.038 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.178 Abs [1.1810] {0.4 C	0.315 µg/L [0.313]	68.688 %Abs [68.8		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.907 Abs	0.662 µg/L	52.886 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.858 Abs [0.8825] {3.9 C	0.751 µg/L [0.706]	50.029 %Abs [51.4		0.150 - 5.000	20L4352
AB48073	ANATOXIN	1.574 Abs	0.051 µg/L	Low, 91.778 %Abs		0.150 - 5.000	20L4352
AB48073	ANATOXIN	1.540 Abs [1.5570] {1.5 C	0.067 µg/L [0.059]	Low, 89.796 %Abs		0.150 - 5.000	20L4352
AB48074	ANATOXIN	1.513 Abs	0.080 µg/L	Low, 88.222 %Abs		0.150 - 5.000	20L4352
AB48074	ANATOXIN	1.498 Abs [1.5055] {0.7 C	0.087 µg/L [0.083]	Low, 87.347 %Abs		0.150 - 5.000	20L4352
AB48074MS	ANATOXIN	0.818 Abs	0.832 µg/L	47.697 %Abs		0.150 - 5.000	20L4352
AB48074MS	ANATOXIN	0.810 Abs [0.8140] {0.7 C	0.849 µg/L [0.840]	47.230 %Abs [47.4		0.150 - 5.000	20L4352
AB48074MSD	ANATOXIN	0.926 Abs	0.631 µg/L	53.994 %Abs		0.150 - 5.000	20L4352
AB48074MSD	ANATOXIN	0.866 Abs [0.8960] {4.7 C	0.736 µg/L [0.683]	50.496 %Abs [52.2		0.150 - 5.000	20L4352
AB48075	ANATOXIN	1.309 Abs	0.205 µg/L	76.327 %Abs		0.150 - 5.000	20L4352
AB48075	ANATOXIN	1.283 Abs [1.2960] {1.4 C	0.225 µg/L [0.215]	74.810 %Abs [75.5		0.150 - 5.000	20L4352
AB48076	ANATOXIN	1.353 Abs	0.174 µg/L	78.892 %Abs		0.150 - 5.000	20L4352
AB48076	ANATOXIN	1.332 Abs [1.3425] {1.1 C	0.188 µg/L [0.181]	77.668 %Abs [78.2		0.150 - 5.000	20L4352
AB48077	ANATOXIN	1.419 Abs	0.132 µg/L	Low, 82.741 %Abs		0.150 - 5.000	20L4352
AB48077	ANATOXIN	1.420 Abs [1.4195] {0.0 C	0.131 µg/L [0.132]	Low, 82.799 %Abs		0.150 - 5.000	20L4352
AB48078	ANATOXIN	1.626 Abs	0.029 µg/L	Low, 94.810 %Abs		0.150 - 5.000	20L4352
AB48078	ANATOXIN	1.612 Abs [1.6190] {0.6 C	0.035 µg/L [0.032]	Low, 93.994 %Abs		0.150 - 5.000	20L4352
AB48079	ANATOXIN	1.270 Abs	0.235 µg/L	74.052 %Abs		0.150 - 5.000	20L4352
AB48079	ANATOXIN	1.245 Abs [1.2575] {1.4 C	0.255 µg/L [0.245]	72.595 %Abs [73.3		0.150 - 5.000	20L4352
AB48080	ANATOXIN	1.586 Abs	0.046 µg/L	Low, 92.478 %Abs		0.150 - 5.000	20L4352
AB48080	ANATOXIN	1.564 Abs [1.5750] {1.0 C	0.056 µg/L [0.051]	Low, 91.195 %Abs		0.150 - 5.000	20L4352
AB48128	ANATOXIN	1.534 Abs	0.070 µg/L	Low, 89.446 %Abs		0.150 - 5.000	20L4352
AB48128	ANATOXIN	1.485 Abs [1.5095] {2.3 C	0.094 µg/L [0.082]	Low, 86.589 %Abs		0.150 - 5.000	20L4352
AB48129	ANATOXIN	1.683 Abs	0.009 µg/L	Low, 98.134 %Abs		0.150 - 5.000	20L4352
AB48129	ANATOXIN	1.596 Abs [1.6395] {3.8 C	0.042 µg/L [0.025]	Low, 93.061 %Abs		0.150 - 5.000	20L4352

## Note

Field samples were analyzed with a 1.1X dilution factor. Concentrations are multiplied by 1.1 to get the final result.

Signature



Charles Hostetter 8/5/2021

## 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
<b>8/4/2021 1:23:47 PM</b>				
ATX Std 0	1.740 Abs	0.000 µg/L	R <sup>2</sup> =0.99979, 101.458 %Abs	RK1:23->A01@2
ATX Std 0	1.691 Abs [1.7155] {2.0 CV}	0.007 µg/L [0.004] {141.4 CV}	R <sup>2</sup> =0.99979, 98.601 %Abs	RK1:23->B01@2
ATX Std 1	1.401 Abs	0.143 µg/L	R <sup>2</sup> =0.99979, 81.691 %Abs	RK1:24->C01@2
ATX Std 1	1.386 Abs [1.3935] {0.8 CV}	0.152 µg/L [0.148] {4.3 CV}	R <sup>2</sup> =0.99979, 80.816 %Abs	RK1:24->D01@2
ATX Std 2	1.099 Abs	0.397 µg/L	R <sup>2</sup> =0.99979, 64.082 %Abs	RK1:25->E01@2
ATX Std 2	1.089 Abs [1.0940] {0.6 CV}	0.408 µg/L [0.403] {1.9 CV}	R <sup>2</sup> =0.99979, 63.499 %Abs	RK1:25->F01@3
ATX Std 3	0.764 Abs	0.955 µg/L	R <sup>2</sup> =0.99979, 44.548 %Abs	RK1:26->G01@3
ATX Std 3	0.711 Abs [0.7375] {5.1 CV}	1.095 µg/L [1.025] {9.7 CV}	R <sup>2</sup> =0.99979, 41.458 %Abs	RK1:26->H01@3
ATX Std 4	0.447 Abs	2.300 µg/L	R <sup>2</sup> =0.99979, 26.064 %Abs	RK1:27->A02@2
ATX Std 4	0.423 Abs [0.4350] {3.9 CV}	2.484 µg/L [2.392] {5.4 CV}	R <sup>2</sup> =0.99979, 24.665 %Abs	RK1:27->B02@2
ATX Std 5	0.240 Abs	4.980 µg/L	R <sup>2</sup> =0.99979, 13.994 %Abs	RK1:28->C02@2
ATX Std 5	0.225 Abs [0.2325] {4.6 CV}	> 5.000 µg/L [4.980]	13.120 %Abs	RK1:28->D02@2
*****				
<b>8/4/2021 1:23:47 PM</b>				
ATX Control	0.850 Abs	0.766 µg/L	49.563 %Abs	RK1:29->E02@2
ATX Control	0.827 Abs [0.8385] {1.9 CV}	0.813 µg/L [0.789] {4.2 CV}	48.222 %Abs [48.892 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.7155	0.0035		
ATX Std 0 [SD]	0.0346	0.0049		
ATX Std 0 [%CV]	2.0197	141.4214		
ATX Std 1 [MEAN]	1.3935	0.1475		
ATX Std 1 [SD]	0.0106	0.0064		
ATX Std 1 [%CV]	0.7611	4.3145		
ATX Std 1 [%DIFF]		-1.6667		
ATX Std 2 [MEAN]	1.0940	0.4025		
ATX Std 2 [SD]	0.0071	0.0078		
ATX Std 2 [%CV]	0.6463	1.9325		
ATX Std 2 [%DIFF]		0.6250		
ATX Std 3 [MEAN]	0.7375	1.0250		
ATX Std 3 [SD]	0.0375	0.0990		
ATX Std 3 [%CV]	5.0816	9.6580		
ATX Std 3 [%DIFF]		2.5000		
ATX Std 4 [MEAN]	0.4350	2.3920		
ATX Std 4 [SD]	0.0170	0.1301		
ATX Std 4 [%CV]	3.9013	5.4393		
ATX Std 4 [%DIFF]		-4.3200		
ATX Std 5 [MEAN]	0.2325			
ATX Std 5 [SD]	0.0106			
ATX Std 5 [%CV]	4.5620			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.8385	0.7895			
ATX Control [SD]	0.0163	0.0332			
ATX Control [%CV]	1.9396	4.2095			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.7165  
 B = 0.88356  
 C = 0.80523  
 D = -0.055132  
 R2 coef = 0.99979  
 50% = 0.752

