



## Anatoxin-a ELISA 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>
AC03279	Mississinewa Lake - Miami SRA Beach	7/3/2023	7/5/2023	< 0.40
AC03280	Salamonie Lake - Lost Bridge West SRA Beach	7/3/2023	7/5/2023	< 0.40
AC03281	Mississinewa Lake - Miami SRA Beach (Field Duplicate)	7/3/2023	7/5/2023	< 0.40
AC03282	Field Blank	7/3/2023	7/5/2023	< 0.40
AC03283	Patoka Lake - Newton Stewart SRA	7/5/2023	7/5/2023	< 0.40

# Test Report (by Request)

**Test Information**

Request: 7/5/2023 3:06:43 PM

Date: 7/5/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.240 Abs	0.000 µg/L	R <sup>2</sup> =0.99962, 101.7			P23B0244
ATX Std 0	ANATOXIN	1.198 Abs [1.2190] {2.4 C	0.013 µg/L [0.007]	R <sup>2</sup> =0.99962, 98.27			P23B0244
ATX Std 1	ANATOXIN	1.021 Abs	0.132 µg/L	R <sup>2</sup> =0.99962, 83.75			P23B0244
ATX Std 1	ANATOXIN	0.991 Abs [1.0060] {2.1 C	0.157 µg/L [0.145]	R <sup>2</sup> =0.99962, 81.25			P23B0244
ATX Std 2	ANATOXIN	0.776 Abs	0.389 µg/L	R <sup>2</sup> =0.99962, 63.65			P23B0244
ATX Std 2	ANATOXIN	0.751 Abs [0.7635] {2.3 C	0.425 µg/L [0.407]	R <sup>2</sup> =0.99962, 61.60			P23B0244
ATX Std 3	ANATOXIN	0.499 Abs	0.992 µg/L	R <sup>2</sup> =0.99962, 40.93			P23B0244
ATX Std 3	ANATOXIN	0.484 Abs [0.4915] {2.2 C	1.045 µg/L [1.018]	R <sup>2</sup> =0.99962, 39.70			P23B0244
ATX Std 4	ANATOXIN	0.288 Abs	2.267 µg/L	R <sup>2</sup> =0.99962, 23.62			P23B0244
ATX Std 4	ANATOXIN	0.275 Abs [0.2815] {3.3 C	2.413 µg/L [2.340]	R <sup>2</sup> =0.99962, 22.55			P23B0244
ATX Std 5	ANATOXIN	0.152 Abs	> 5.000 µg/L	12.469 %Abs			P23B0244
ATX Std 5	ANATOXIN	0.143 Abs [0.1475] {4.3 C	> 5.000 µg/L	11.731 %Abs			P23B0244
ATX Control	ANATOXIN	0.612 Abs	0.679 µg/L	50.205 %Abs			P23B0244
ATX Control	ANATOXIN	0.603 Abs [0.6075] {1.0 C	0.699 µg/L [0.689]	49.467 %Abs [49.8			P23B0244

**Note**

Signature \_\_\_\_\_

# Test Report (by Request)

**Test Information**

 Request: 7/5/2023 3:26:16 PM  
 Date: 7/5/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.128 Abs	0.056 µg/L	Low, 92.535 %Abs		0.150 - 5.000	P23B0244
LRB	ANATOXIN	1.102 Abs [1.1150] {1.6 C	0.073 µg/L [0.065]	Low, 90.402 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.632 Abs	0.635 µg/L	51.846 %Abs		0.150 - 5.000	P23B0244
LFB (ANA)	ANATOXIN	0.615 Abs [0.6235] {1.9 C	0.672 µg/L [0.653]	50.451 %Abs [51.1		0.150 - 5.000	P23B0244
AC03279	ANATOXIN	1.168 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03279	ANATOXIN	1.142 Abs [1.1550] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03280	ANATOXIN	1.004 Abs	0.161 µg/L	82.363 %Abs	MDF=1.100	0.150 - 5.000	P23B0244
AC03280	ANATOXIN	0.983 Abs [0.9935] {1.5 C	0.180 µg/L [0.171]	80.640 %Abs [81.5	MDF=1.100	0.150 - 5.000	P23B0244
AC03280MS	ANATOXIN	0.524 Abs	0.911 µg/L	42.986 %Abs		0.150 - 5.000	P23B0244
AC03280MS	ANATOXIN	0.509 Abs [0.5165] {2.1 C	0.958 µg/L [0.934]	41.756 %Abs [42.3		0.150 - 5.000	P23B0244
AC03280MSD	ANATOXIN	0.604 Abs	0.697 µg/L	49.549 %Abs		0.150 - 5.000	P23B0244
AC03280MSD	ANATOXIN	0.586 Abs [0.5950] {2.1 C	0.740 µg/L [0.719]	48.072 %Abs [48.8		0.150 - 5.000	P23B0244
AC03281	ANATOXIN	1.195 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03281	ANATOXIN	1.169 Abs [1.1820] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03282	ANATOXIN	1.170 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03282	ANATOXIN	1.150 Abs [1.1600] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03283	ANATOXIN	1.147 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		P23B0244
AC03283	ANATOXIN	1.100 Abs [1.1235] {3.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		P23B0244

**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: 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
<b>7/5/2023 3:06:43 PM</b>				
ATX Std 0	1.240 Abs	0.000 µg/L	R <sup>2</sup> =0.99962, 101.723 %Abs	RK1:23->A01@2
ATX Std 0	1.198 Abs [1.2190] {2.4 CV}	0.013 µg/L [0.007] {141.4 CV}	R <sup>2</sup> =0.99962, 98.277 %Abs	RK1:23->B01@2
ATX Std 1	1.021 Abs	0.132 µg/L	R <sup>2</sup> =0.99962, 83.757 %Abs	RK1:24->C01@2
ATX Std 1	0.991 Abs [1.0060] {2.1 CV}	0.157 µg/L [0.145] {12.2 CV}	R <sup>2</sup> =0.99962, 81.296 %Abs	RK1:24->D01@2
ATX Std 2	0.776 Abs	0.389 µg/L	R <sup>2</sup> =0.99962, 63.659 %Abs	RK1:25->E01@2
ATX Std 2	0.751 Abs [0.7635] {2.3 CV}	0.425 µg/L [0.407] {6.3 CV}	R <sup>2</sup> =0.99962, 61.608 %Abs	RK1:25->F01@3
ATX Std 3	0.499 Abs	0.992 µg/L	R <sup>2</sup> =0.99962, 40.935 %Abs	RK1:26->G01@3
ATX Std 3	0.484 Abs [0.4915] {2.2 CV}	1.045 µg/L [1.018] {3.7 CV}	R <sup>2</sup> =0.99962, 39.705 %Abs	RK1:26->H01@3
ATX Std 4	0.288 Abs	2.267 µg/L	R <sup>2</sup> =0.99962, 23.626 %Abs	RK1:27->A02@2
ATX Std 4	0.275 Abs [0.2815] {3.3 CV}	2.413 µg/L [2.340] {4.4 CV}	R <sup>2</sup> =0.99962, 22.559 %Abs	RK1:27->B02@2
ATX Std 5	0.152 Abs	> 5.000 µg/L	12.469 %Abs	RK1:28->C02@2
ATX Std 5	0.143 Abs [0.1475] {4.3 CV}	> 5.000 µg/L	11.731 %Abs	RK1:28->D02@2
*****				
<b>7/5/2023 3:06:43 PM</b>				
ATX Control	0.612 Abs	0.679 µg/L	50.205 %Abs	RK1:29->E02@2
ATX Control	0.603 Abs [0.6075] {1.0 CV}	0.699 µg/L [0.689] {2.1 CV}	49.467 %Abs [49.836 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.2190	0.0065		
ATX Std 0 [SD]	0.0297	0.0092		
ATX Std 0 [%CV]	2.4363	141.4214		
ATX Std 1 [MEAN]	1.0060	0.1445		
ATX Std 1 [SD]	0.0212	0.0177		
ATX Std 1 [%CV]	2.1087	12.2337		
ATX Std 1 [%DIFF]		-3.6667		
ATX Std 2 [MEAN]	0.7635	0.4070		
ATX Std 2 [SD]	0.0177	0.0255		
ATX Std 2 [%CV]	2.3153	6.2545		
ATX Std 2 [%DIFF]		1.7500		
ATX Std 3 [MEAN]	0.4915	1.0185		
ATX Std 3 [SD]	0.0106	0.0375		
ATX Std 3 [%CV]	2.1580	3.6796		
ATX Std 3 [%DIFF]		1.8500		
ATX Std 4 [MEAN]	0.2815	2.3400		
ATX Std 4 [SD]	0.0092	0.1032		
ATX Std 4 [%CV]	3.2655	4.4119		
ATX Std 4 [%DIFF]		-6.4000		
ATX Std 5 [MEAN]	0.1475			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	4.3145			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6075	0.6890		
ATX Control [SD]	0.0064	0.0141		
ATX Control [%CV]	1.0476	2.0526		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.2210  
 B = 1.0004  
 C = 0.66670  
 D = 0.013783  
 R2 coef = 0.99962  
 50% = 0.684

