



## 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>
AB47937	Raccoon Lake SRA	7/12/2021	7/15/2021	< 0.40
AB47939	Cagles Mill Lake Beach	7/12/2021	7/15/2021	< 0.40
AB47940	Paynetown SRA	7/12/2021	7/15/2021	< 0.40
AB47941	Fairfax SRA	7/12/2021	7/15/2021	< 0.40
AB47942	Starve Hollow SRA	7/12/2021	7/15/2021	< 0.40
AB47943	Whitewater Memorial SP	7/13/2021	7/15/2021	< 0.40
AB47944	Quakertown SRA	7/13/2021	7/15/2021	< 0.40
AB47945	Mounds SRA	7/13/2021	7/15/2021	< 0.40
AB47946	Hardy Lake SRA	7/13/2021	7/15/2021	< 0.40
AB47938	Deam Lake SRA	7/13/2021	7/15/2021	< 0.40
AB47947	Hardy Lake SRA (Field Duplicate)	7/13/2021	7/15/2021	< 0.40
AB47948	Field Blank	7/12/2021	7/15/2021	< 0.40
AB47959	Ft. Ben Harrison SP Dog Lake - East	7/13/2021	7/15/2021	< 0.40

## Test Information

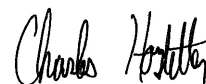
Request: 7/15/2021 11:45:36 AM

Date: 7/15/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.902 Abs	0.000 µg/L	R <sup>2</sup> =0.99993, 100.4			20L4352
ATX Std 0	ANATOXIN	1.884 Abs [1.8930] {0.7 C	0.002 µg/L [0.001]	R <sup>2</sup> =0.99993, 99.52			20L4352
ATX Std 1	ANATOXIN	1.571 Abs	0.142 µg/L	R <sup>2</sup> =0.99993, 82.95			20L4352
ATX Std 1	ANATOXIN	1.543 Abs [1.5570] {1.3 C	0.159 µg/L [0.150]	R <sup>2</sup> =0.99993, 81.51			20L4352
ATX Std 2	ANATOXIN	1.263 Abs	0.385 µg/L	R <sup>2</sup> =0.99993, 66.71			20L4352
ATX Std 2	ANATOXIN	1.243 Abs [1.2530] {1.1 C	0.406 µg/L [0.396]	R <sup>2</sup> =0.99993, 65.66			20L4352
ATX Std 3	ANATOXIN	0.878 Abs	0.969 µg/L	R <sup>2</sup> =0.99993, 46.38			20L4352
ATX Std 3	ANATOXIN	0.835 Abs [0.8565] {3.5 C	1.069 µg/L [1.019]	R <sup>2</sup> =0.99993, 44.11			20L4352
ATX Std 4	ANATOXIN	0.503 Abs	2.400 µg/L	R <sup>2</sup> =0.99993, 26.57			20L4352
ATX Std 4	ANATOXIN	0.486 Abs [0.4945] {2.4 C	2.513 µg/L [2.457]	R <sup>2</sup> =0.99993, 25.67			20L4352
ATX Std 5	ANATOXIN	0.273 Abs	4.908 µg/L	R <sup>2</sup> =0.99993, 14.42			20L4352
ATX Std 5	ANATOXIN	0.257 Abs [0.2650] {4.3 C	> 5.000 µg/L [4.90	13.576 %Abs			20L4352
ATX Control	ANATOXIN	0.978 Abs	0.771 µg/L	51.664 %Abs			20L4352
ATX Control	ANATOXIN	0.945 Abs [0.9615] {2.4 C	0.831 µg/L [0.801]	49.921 %Abs [50.7			20L4352

## Note

Signature



Charles Hostetter 7/15/21

# Test Report (by Request)

**Test Information**

Request: 7/15/2021 12:20:39 PM

Date: 7/15/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.717 Abs	0.065 µg/L	Low, 90.703 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.675 Abs [1.6960] {1.8 C	0.085 µg/L [0.075]	Low, 88.484 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	1.028 Abs	0.687 µg/L	54.305 %Abs		0.150 - 5.000	20L4352
LFB (ANA)	ANATOXIN	0.994 Abs [1.0110] {2.4 C	0.743 µg/L [0.715]	52.509 %Abs [53.4		0.150 - 5.000	20L4352
AB47937	ANATOXIN	1.666 Abs	0.089 µg/L	Low, 88.008 %Abs		0.150 - 5.000	20L4352
AB47937	ANATOXIN	1.635 Abs [1.6505] {1.3 C	0.106 µg/L [0.097]	Low, 86.371 %Abs		0.150 - 5.000	20L4352
AB47939	ANATOXIN	1.536 Abs	0.164 µg/L	81.141 %Abs		0.150 - 5.000	20L4352
AB47939	ANATOXIN	1.523 Abs [1.5295] {0.6 C	0.172 µg/L [0.168]	80.454 %Abs [80.7		0.150 - 5.000	20L4352
AB47940	ANATOXIN	1.679 Abs	0.083 µg/L	Low, 88.695 %Abs		0.150 - 5.000	20L4352
AB47940	ANATOXIN	1.653 Abs [1.6660] {1.1 C	0.096 µg/L [0.089]	Low, 87.322 %Abs		0.150 - 5.000	20L4352
AB47941	ANATOXIN	1.757 Abs	0.047 µg/L	Low, 92.816 %Abs		0.150 - 5.000	20L4352
AB47941	ANATOXIN	1.711 Abs [1.7340] {1.9 C	0.068 µg/L [0.058]	Low, 90.386 %Abs		0.150 - 5.000	20L4352
AB47941MS	ANATOXIN	0.947 Abs	0.828 µg/L	50.026 %Abs		0.150 - 5.000	20L4352
AB47941MS	ANATOXIN	0.920 Abs [0.9335] {2.0 C	0.880 µg/L [0.854]	48.600 %Abs [49.3		0.150 - 5.000	20L4352
AB47941MSD	ANATOXIN	0.930 Abs	0.860 µg/L	49.128 %Abs		0.150 - 5.000	20L4352
AB47941MSD	ANATOXIN	0.908 Abs [0.9190] {1.7 C	0.905 µg/L [0.882]	47.966 %Abs [48.5		0.150 - 5.000	20L4352
AB47942	ANATOXIN	1.498 Abs	0.189 µg/L	79.134 %Abs		0.150 - 5.000	20L4352
AB47942	ANATOXIN	1.511 Abs [1.5045] {0.6 C	0.180 µg/L [0.185]	79.820 %Abs [79.4		0.150 - 5.000	20L4352
AB47943	ANATOXIN	1.798 Abs	0.030 µg/L	Low, 94.982 %Abs		0.150 - 5.000	20L4352
AB47943	ANATOXIN	1.770 Abs [1.7840] {1.1 C	0.042 µg/L [0.036]	Low, 93.502 %Abs		0.150 - 5.000	20L4352
AB47944	ANATOXIN	1.738 Abs	0.055 µg/L	Low, 91.812 %Abs		0.150 - 5.000	20L4352
AB47944	ANATOXIN	1.735 Abs [1.7365] {0.1 C	0.057 µg/L [0.056]	Low, 91.653 %Abs		0.150 - 5.000	20L4352
AB47945	ANATOXIN	1.714 Abs	0.066 µg/L	Low, 90.544 %Abs		0.150 - 5.000	20L4352
AB47945	ANATOXIN	1.702 Abs [1.7080] {0.5 C	0.072 µg/L [0.069]	Low, 89.910 %Abs		0.150 - 5.000	20L4352
AB47946	ANATOXIN	1.550 Abs	0.155 µg/L	81.881 %Abs		0.150 - 5.000	20L4352
AB47946	ANATOXIN	1.527 Abs [1.5385] {1.1 C	0.169 µg/L [0.162]	80.666 %Abs [81.2		0.150 - 5.000	20L4352
AB47938	ANATOXIN	1.816 Abs	0.024 µg/L	Low, 95.932 %Abs		0.150 - 5.000	20L4352
AB47938	ANATOXIN	1.768 Abs [1.7920] {1.9 C	0.042 µg/L [0.033]	Low, 93.397 %Abs		0.150 - 5.000	20L4352
AB47947	ANATOXIN	1.682 Abs	0.081 µg/L	Low, 88.854 %Abs		0.150 - 5.000	20L4352
AB47947	ANATOXIN	1.657 Abs [1.6695] {1.1 C	0.094 µg/L [0.087]	Low, 87.533 %Abs		0.150 - 5.000	20L4352
AB47948	ANATOXIN	1.762 Abs	0.045 µg/L	Low, 93.080 %Abs		0.150 - 5.000	20L4352
AB47948	ANATOXIN	1.728 Abs [1.7450] {1.4 C	0.060 µg/L [0.053]	Low, 91.284 %Abs		0.150 - 5.000	20L4352
AB47959	ANATOXIN	1.692 Abs	0.077 µg/L	Low, 89.382 %Abs		0.150 - 5.000	20L4352
AB47959	ANATOXIN	1.650 Abs [1.6710] {1.8 C	0.098 µg/L [0.087]	Low, 87.163 %Abs		0.150 - 5.000	20L4352

**Note**

Signature

Charles Hostetter 7/15/21

**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>7/15/2021 11:45:36 AM</b>				
ATX Std 0	1.902 Abs	0.000 µg/L	R <sup>2</sup> =0.99993, 100.475 %Abs	RK1:23->A01@2
ATX Std 0	1.884 Abs [1.8930] {0.7 CV}	0.002 µg/L [0.001] {141.4 CV}	R <sup>2</sup> =0.99993, 99.525 %Abs	RK1:23->B01@2
ATX Std 1	1.571 Abs	0.142 µg/L	R <sup>2</sup> =0.99993, 82.990 %Abs	RK1:24->C01@2
ATX Std 1	1.543 Abs [1.5570] {1.3 CV}	0.159 µg/L [0.150] {8.0 CV}	R <sup>2</sup> =0.99993, 81.511 %Abs	RK1:24->D01@2
ATX Std 2	1.263 Abs	0.385 µg/L	R <sup>2</sup> =0.99993, 66.719 %Abs	RK1:25->E01@2
ATX Std 2	1.243 Abs [1.2530] {1.1 CV}	0.406 µg/L [0.396] {3.8 CV}	R <sup>2</sup> =0.99993, 65.663 %Abs	RK1:25->F01@3
ATX Std 3	0.878 Abs	0.969 µg/L	R <sup>2</sup> =0.99993, 46.381 %Abs	RK1:26->G01@3
ATX Std 3	0.835 Abs [0.8565] {3.5 CV}	1.069 µg/L [1.019] {6.9 CV}	R <sup>2</sup> =0.99993, 44.110 %Abs	RK1:26->H01@3
ATX Std 4	0.503 Abs	2.400 µg/L	R <sup>2</sup> =0.99993, 26.572 %Abs	RK1:27->A02@2
ATX Std 4	0.486 Abs [0.4945] {2.4 CV}	2.513 µg/L [2.457] {3.3 CV}	R <sup>2</sup> =0.99993, 25.674 %Abs	RK1:27->B02@2
ATX Std 5	0.273 Abs	4.908 µg/L	R <sup>2</sup> =0.99993, 14.422 %Abs	RK1:28->C02@2
ATX Std 5	0.257 Abs [0.2650] {4.3 CV}	> 5.000 µg/L [4.908]	13.576 %Abs	RK1:28->D02@2
*****				
<b>7/15/2021 11:45:36 AM</b>				
ATX Control	0.978 Abs	0.771 µg/L	51.664 %Abs	RK1:29->E02@2
ATX Control	0.945 Abs [0.9615] {2.4 CV}	0.831 µg/L [0.801] {5.3 CV}	49.921 %Abs [50.792 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.8930	0.0010		
ATX Std 0 [SD]	0.0127	0.0014		
ATX Std 0 [%CV]	0.6724	141.4214		
ATX Std 1 [MEAN]	1.5570	0.1505		
ATX Std 1 [SD]	0.0198	0.0120		
ATX Std 1 [%CV]	1.2716	7.9872		
ATX Std 1 [%DIFF]		0.3333		
ATX Std 2 [MEAN]	1.2530	0.3955		
ATX Std 2 [SD]	0.0141	0.0148		
ATX Std 2 [%CV]	1.1287	3.7545		
ATX Std 2 [%DIFF]		-1.1250		
ATX Std 3 [MEAN]	0.8565	1.0190		
ATX Std 3 [SD]	0.0304	0.0707		
ATX Std 3 [%CV]	3.5500	6.9392		
ATX Std 3 [%DIFF]		1.9000		
ATX Std 4 [MEAN]	0.4945	2.4565		
ATX Std 4 [SD]	0.0120	0.0799		
ATX Std 4 [%CV]	2.4309	3.2527		
ATX Std 4 [%DIFF]		-1.7400		
ATX Std 5 [MEAN]	0.2650			
ATX Std 5 [SD]	0.0113			
ATX Std 5 [%CV]	4.2693			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.9615	0.8010		
ATX Control [SD]	0.0233	0.0424		
ATX Control [%CV]	2.4269	5.2967		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.8932  
 B = 0.87474  
 C = 0.93689  
 D = -0.10760  
 R2 coef = 0.99993  
 50% = 0.829

