



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48046	Raccoon Lake SRA	7/26/2021	7/29/2021	< 0.40
AB48047	Cagles Mill Lake Beach	7/26/2021	7/29/2021	< 0.40
AB48048	Paynetown SRA	7/26/2021	7/29/2021	< 0.40
AB48049	Whitewater Memorial SP	7/27/2021	7/29/2021	< 0.40
AB48050	Quakertown SRA	7/27/2021	7/29/2021	< 0.40
AB48051	Mounds SRA	7/27/2021	7/29/2021	< 0.40
AB48052	Hardy Lake SRA	7/26/2021	7/29/2021	< 0.40
AB48053	Cagles Mill Lake Beach (Field Duplicate)	7/26/2021	7/29/2021	0.42
AB48054	Field Blank	7/26/2021	7/29/2021	< 0.40
AB48065	Ft. Ben Harrison SP Dog Lake - East	7/27/2021	7/29/2021	< 0.40

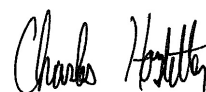
## Test Information

Request: 7/29/2021 1:11:58 PM  
Date: 7/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.666 Abs	0.000 µg/L	R^2=0.99793, 107.6			20L4352
ATX Std 0	ANATOXIN	1.430 Abs [1.5480] {10.8	0.097 µg/L [0.049]	R^2=0.99793, 92.37			20L4352
ATX Std 1	ANATOXIN	1.457 Abs	0.078 µg/L	R^2=0.99793, 94.12			20L4352
ATX Std 1	ANATOXIN	1.321 Abs [1.3890] {6.9 C	0.178 µg/L [0.128]	R^2=0.99793, 85.33			20L4352
ATX Std 2	ANATOXIN	1.083 Abs	0.393 µg/L	R^2=0.99793, 69.96			20L4352
ATX Std 2	ANATOXIN	1.012 Abs [1.0475] {4.8 C	0.474 µg/L [0.433]	R^2=0.99793, 65.37			20L4352
ATX Std 3	ANATOXIN	0.704 Abs	1.003 µg/L	R^2=0.99793, 45.47			20L4352
ATX Std 3	ANATOXIN	0.711 Abs [0.7075] {0.7 C	0.986 µg/L [0.995]	R^2=0.99793, 45.93			20L4352
ATX Std 4	ANATOXIN	0.433 Abs	2.147 µg/L	R^2=0.99793, 27.97			20L4352
ATX Std 4	ANATOXIN	0.397 Abs [0.4150] {6.1 C	2.439 µg/L [2.293]	R^2=0.99793, 25.64			20L4352
ATX Std 5	ANATOXIN	0.237 Abs	> 5.000 µg/L	15.310 %Abs			20L4352
ATX Std 5	ANATOXIN	0.224 Abs [0.2305] {4.0 C	> 5.000 µg/L	14.470 %Abs			20L4352
ATX Control	ANATOXIN	0.820 Abs	0.757 µg/L	52.972 %Abs			20L4352
ATX Control	ANATOXIN	0.810 Abs [0.8150] {0.9 C	0.776 µg/L [0.766]	52.326 %Abs [52.6			20L4352

## Note

Signature



Charles Hostetter 7/29/2021

# Test Report (by Request)

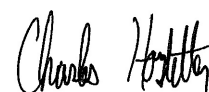
## Test Information

Request: 7/29/2021 1:13:35 PM  
Date: 7/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.480 Abs	0.061 µg/L	Low, 95.607 %Abs		0.150 - 5.000	20L4352
LRB	ANATOXIN	1.432 Abs [1.4560] {2.3 C	0.095 µg/L [0.078]	Low, 92.506 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.939 Abs	0.569 µg/L	60.659 %Abs		0.150 - 5.000	20L4352
LFB	ANATOXIN	0.875 Abs [0.9070] {5.0 C	0.664 µg/L [0.617]	56.525 %Abs [58.5		0.150 - 5.000	20L4352
AB48046	ANATOXIN	1.431 Abs	0.096 µg/L	Low, 92.442 %Abs		0.150 - 5.000	20L4352
AB48046	ANATOXIN	1.366 Abs [1.3985] {3.3 C	0.144 µg/L [0.120]	Low, 88.243 %Abs		0.150 - 5.000	20L4352
AB48047	ANATOXIN	1.351 Abs	0.155 µg/L	87.274 %Abs		0.150 - 5.000	20L4352
AB48047	ANATOXIN	1.366 Abs [1.3585] {0.8 C	0.144 µg/L [0.149]	Low, 88.243 %Abs		0.150 - 5.000	20L4352
AB48048	ANATOXIN	1.405 Abs	0.115 µg/L	Low, 90.762 %Abs		0.150 - 5.000	20L4352
AB48048	ANATOXIN	1.459 Abs [1.4320] {2.7 C	0.076 µg/L [0.095]	Low, 94.251 %Abs		0.150 - 5.000	20L4352
AB48048MS	ANATOXIN	0.931 Abs	0.580 µg/L	60.142 %Abs		0.150 - 5.000	20L4352
AB48048MS	ANATOXIN	0.872 Abs [0.9015] {4.6 C	0.669 µg/L [0.625]	56.331 %Abs [58.2		0.150 - 5.000	20L4352
AB48048MSD	ANATOXIN	0.908 Abs	0.613 µg/L	58.656 %Abs		0.150 - 5.000	20L4352
AB48048MSD	ANATOXIN	0.850 Abs [0.8790] {4.7 C	0.705 µg/L [0.659]	54.910 %Abs [56.7		0.150 - 5.000	20L4352
AB48049	ANATOXIN	1.457 Abs	0.078 µg/L	Low, 94.121 %Abs		0.150 - 5.000	20L4352
AB48049	ANATOXIN	1.454 Abs [1.4555] {0.1 C	0.080 µg/L [0.079]	Low, 93.928 %Abs		0.150 - 5.000	20L4352
AB48050	ANATOXIN	1.464 Abs	0.073 µg/L	Low, 94.574 %Abs		0.150 - 5.000	20L4352
AB48050	ANATOXIN	1.413 Abs [1.4385] {2.5 C	0.109 µg/L [0.091]	Low, 91.279 %Abs		0.150 - 5.000	20L4352
AB48051	ANATOXIN	1.245 Abs	0.240 µg/L	80.426 %Abs		0.150 - 5.000	20L4352
AB48051	ANATOXIN	1.169 Abs [1.2070] {4.5 C	0.307 µg/L [0.273]	75.517 %Abs [77.9		0.150 - 5.000	20L4352
AB48052	ANATOXIN	1.221 Abs	0.260 µg/L	78.876 %Abs		0.150 - 5.000	20L4352
AB48052	ANATOXIN	1.146 Abs [1.1835] {4.5 C	0.329 µg/L [0.294]	74.031 %Abs [76.4		0.150 - 5.000	20L4352
AB48053	ANATOXIN	1.052 Abs	0.427 µg/L	67.959 %Abs		0.150 - 5.000	20L4352
AB48053	ANATOXIN	1.056 Abs [1.0540] {0.3 C	0.423 µg/L [0.425]	68.217 %Abs [68.0		0.150 - 5.000	20L4352
AB48054	ANATOXIN	1.525 Abs	0.029 µg/L	Low, 98.514 %Abs		0.150 - 5.000	20L4352
AB48054	ANATOXIN	1.550 Abs [1.5375] {1.1 C	0.009 µg/L [0.019]	Low, 100.129 %Abs		0.150 - 5.000	20L4352
AB48065	ANATOXIN	1.690 Abs	0.000 µg/L	Low, 109.173 %Abs		0.150 - 5.000	20L4352
AB48065	ANATOXIN	1.632 Abs [1.6610] {2.5 C	0.000 µg/L [0.000]	Low, 105.426 %Abs		0.150 - 5.000	20L4352

## Note

Signature



Charles Hostetter 7/29/2021

## 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
7/29/2021 1:11:58 PM				
ATX Std 0	1.666 Abs	0.000 µg/L	R <sup>2</sup> =0.99793, 107.623 %Abs	RK1:23->A01@2
ATX Std 0	1.430 Abs [1.5480] {10.8 CV}	0.097 µg/L [0.049] {141.4 CV}	R <sup>2</sup> =0.99793, 92.377 %Abs	RK1:23->B01@2
ATX Std 1	1.457 Abs	0.078 µg/L	R <sup>2</sup> =0.99793, 94.121 %Abs	RK1:24->C01@2
ATX Std 1	1.321 Abs [1.3890] {6.9 CV}	0.178 µg/L [0.128] {55.2 CV}	R <sup>2</sup> =0.99793, 85.336 %Abs	RK1:24->D01@2
ATX Std 2	1.083 Abs	0.393 µg/L	R <sup>2</sup> =0.99793, 69.961 %Abs	RK1:25->E01@2
ATX Std 2	1.012 Abs [1.0475] {4.8 CV}	0.474 µg/L [0.433] {13.2 CV}	R <sup>2</sup> =0.99793, 65.375 %Abs	RK1:25->F01@3
ATX Std 3	0.704 Abs	1.003 µg/L	R <sup>2</sup> =0.99793, 45.478 %Abs	RK1:26->G01@3
ATX Std 3	0.711 Abs [0.7075] {0.7 CV}	0.986 µg/L [0.995] {1.2 CV}	R <sup>2</sup> =0.99793, 45.930 %Abs	RK1:26->H01@3
ATX Std 4	0.433 Abs	2.147 µg/L	R <sup>2</sup> =0.99793, 27.972 %Abs	RK1:27->A02@2
ATX Std 4	0.397 Abs [0.4150] {6.1 CV}	2.439 µg/L [2.293] {9.0 CV}	R <sup>2</sup> =0.99793, 25.646 %Abs	RK1:27->B02@2
ATX Std 5	0.237 Abs	> 5.000 µg/L	15.310 %Abs	RK1:28->C02@2
ATX Std 5	0.224 Abs [0.2305] {4.0 CV}	> 5.000 µg/L	14.470 %Abs	RK1:28->D02@2
*****				
7/29/2021 1:11:58 PM				
ATX Control	0.820 Abs	0.757 µg/L	52.972 %Abs	RK1:29->E02@2
ATX Control	0.810 Abs [0.8150] {0.9 CV}	0.776 µg/L [0.766] {1.8 CV}	52.326 %Abs [52.649 %Abs]	RK1:29->F02@3
*****				
Statistic				
ATX Std 0 [MEAN]	1.5480	0.0485		
ATX Std 0 [SD]	0.1669	0.0686		
ATX Std 0 [%CV]	10.7802	141.4214		
ATX Std 1 [MEAN]	1.3890	0.1280		
ATX Std 1 [SD]	0.0962	0.0707		
ATX Std 1 [%CV]	6.9234	55.2427		
ATX Std 1 [%DIFF]		-14.6667		
ATX Std 2 [MEAN]	1.0475	0.4335		
ATX Std 2 [SD]	0.0502	0.0573		
ATX Std 2 [%CV]	4.7928	13.2124		
ATX Std 2 [%DIFF]		8.3750		
ATX Std 3 [MEAN]	0.7075	0.9945		
ATX Std 3 [SD]	0.0049	0.0120		
ATX Std 3 [%CV]	0.6996	1.2087		
ATX Std 3 [%DIFF]		-0.5500		
ATX Std 4 [MEAN]	0.4150	2.2930		
ATX Std 4 [SD]	0.0255	0.2065		
ATX Std 4 [%CV]	6.1339	9.0046		
ATX Std 4 [%DIFF]		-8.2800		
ATX Std 5 [MEAN]	0.2305			
ATX Std 5 [SD]	0.0092			
ATX Std 5 [%CV]	3.9880			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.8150	0.7665			
ATX Control [SD]	0.0071	0.0134			
ATX Control [%CV]	0.8676	1.7528			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.5592  
 B = 1.1471  
 C = 0.73844  
 D = 0.10191  
 R2 coef = 0.99793  
 50% = 0.846

