



## Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51522	Ft. Ben Harrison SP Dog Lake	6/6/2022	6/8/2022	< 0.40
AB51520	Ft. Ben Harrison SP Dog Lake (Field Duplicate)	6/6/2022	6/8/2022	< 0.40
AB51521	Field Blank	6/6/2022	6/8/2022	< 0.40
AB51523	Ferdinand State Forest Lake	6/6/2022	6/8/2022	< 0.40

# Test Report (by Request)

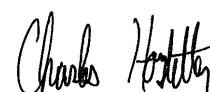
## Test Information

Request: 6/8/2022 5:22:14 PM  
Date: 6/8/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.250 Abs	0.000 µg/L	R <sup>2</sup> =0.99979, 101.2			M21L0919
ATX Std 0	ANATOXIN	1.217 Abs [1.2335] {1.9 C	0.009 µg/L [0.004]	R <sup>2</sup> =0.99979, 98.62			M21L0919
ATX Std 1	ANATOXIN	1.015 Abs	0.144 µg/L	R <sup>2</sup> =0.99979, 82.25			M21L0919
ATX Std 1	ANATOXIN	1.008 Abs [1.0115] {0.5 C	0.149 µg/L [0.146]	R <sup>2</sup> =0.99979, 81.68			M21L0919
ATX Std 2	ANATOXIN	0.798 Abs	0.379 µg/L	R <sup>2</sup> =0.99979, 64.66			M21L0919
ATX Std 2	ANATOXIN	0.761 Abs [0.7795] {3.4 C	0.434 µg/L [0.406]	R <sup>2</sup> =0.99979, 61.66			M21L0919
ATX Std 3	ANATOXIN	0.529 Abs	0.960 µg/L	R <sup>2</sup> =0.99979, 42.86			M21L0919
ATX Std 3	ANATOXIN	0.498 Abs [0.5135] {4.3 C	1.069 µg/L [1.015]	R <sup>2</sup> =0.99979, 40.35			M21L0919
ATX Std 4	ANATOXIN	0.305 Abs	2.251 µg/L	R <sup>2</sup> =0.99979, 24.71			M21L0919
ATX Std 4	ANATOXIN	0.278 Abs [0.2915] {6.5 C	2.548 µg/L [2.399]	R <sup>2</sup> =0.99979, 22.52			M21L0919
ATX Std 5	ANATOXIN	0.157 Abs	> 5.000 µg/L	12.723 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.151 Abs [0.1540] {2.8 C	> 5.000 µg/L	12.237 %Abs			M21L0919
ATX Control	ANATOXIN	0.651 Abs	0.635 µg/L	52.755 %Abs			M21L0919
ATX Control	ANATOXIN	0.622 Abs [0.6365] {3.2 C	0.700 µg/L [0.668]	50.405 %Abs [51.5			M21L0919

## Note

Signature



Charles Hostetter 6/9/2022

## Test Information

Request: 6/8/2022 5:22:45 PM  
Date: 6/8/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.203 Abs	0.016 µg/L	Low, 97.488 %Abs		0.150 - 5.000	M21L0919
LRB	ANATOXIN	1.176 Abs [1.1895] {1.6 C	0.031 µg/L [0.023]	Low, 95.300 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.643 Abs	0.653 µg/L	52.107 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.614 Abs [0.6285] {3.3 C	0.720 µg/L [0.687]	49.757 %Abs [50.9		0.150 - 5.000	M21L0919
AB51522	ANATOXIN	1.220 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51522	ANATOXIN	1.219 Abs [1.2195] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51522MS	ANATOXIN	0.608 Abs	0.734 µg/L	49.271 %Abs		0.150 - 5.000	M21L0919
AB51522MS	ANATOXIN	0.596 Abs [0.6020] {1.4 C	0.765 µg/L [0.750]	48.298 %Abs [48.7		0.150 - 5.000	M21L0919
AB51522MSD	ANATOXIN	0.592 Abs	0.775 µg/L	47.974 %Abs		0.150 - 5.000	M21L0919
AB51522MSD	ANATOXIN	0.579 Abs [0.5855] {1.6 C	0.810 µg/L [0.793]	46.921 %Abs [47.4		0.150 - 5.000	M21L0919
AB51520	ANATOXIN	1.314 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51520	ANATOXIN	1.267 Abs [1.2905] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51521	ANATOXIN	1.175 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51521	ANATOXIN	1.172 Abs [1.1735] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51523	ANATOXIN	1.229 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB51523	ANATOXIN	1.182 Abs [1.2055] {2.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919

## Note

Signature 

Charles Hostetter 6/9/2022

## 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: M21L0919

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>6/8/2022 5:22:14 PM</b>				
ATX Std 0	1.250 Abs	0.000 µg/L	R <sup>2</sup> =0.99979, 101.297 %Abs	RK1:30->A05@1
ATX Std 0	1.217 Abs [1.2335] {1.9 CV}	0.009 µg/L [0.004] {141.4 CV}	R <sup>2</sup> =0.99979, 98.622 %Abs	RK1:30->B05@1
ATX Std 1	1.015 Abs	0.144 µg/L	R <sup>2</sup> =0.99979, 82.253 %Abs	RK1:31->C05@1
ATX Std 1	1.008 Abs [1.0115] {0.5 CV}	0.149 µg/L [0.146] {2.4 CV}	R <sup>2</sup> =0.99979, 81.686 %Abs	RK1:31->D05@1
ATX Std 2	0.798 Abs	0.379 µg/L	R <sup>2</sup> =0.99979, 64.668 %Abs	RK1:32->E05@1
ATX Std 2	0.761 Abs [0.7795] {3.4 CV}	0.434 µg/L [0.406] {9.6 CV}	R <sup>2</sup> =0.99979, 61.669 %Abs	RK1:32->F05@4
ATX Std 3	0.529 Abs	0.960 µg/L	R <sup>2</sup> =0.99979, 42.869 %Abs	RK1:33->G05@4
ATX Std 3	0.498 Abs [0.5135] {4.3 CV}	1.069 µg/L [1.015] {7.6 CV}	R <sup>2</sup> =0.99979, 40.357 %Abs	RK1:33->H05@4
ATX Std 4	0.305 Abs	2.251 µg/L	R <sup>2</sup> =0.99979, 24.716 %Abs	RK1:34->A06@1
ATX Std 4	0.278 Abs [0.2915] {6.5 CV}	2.548 µg/L [2.399] {8.8 CV}	R <sup>2</sup> =0.99979, 22.528 %Abs	RK1:34->B06@1
ATX Std 5	0.157 Abs	> 5.000 µg/L	12.723 %Abs	RK1:35->C06@1
ATX Std 5	0.151 Abs [0.1540] {2.8 CV}	> 5.000 µg/L	12.237 %Abs	RK1:35->D06@1
*****				
<b>6/8/2022 5:22:14 PM</b>				
ATX Control	0.651 Abs	0.635 µg/L	52.755 %Abs	RK1:36->E06@1
ATX Control	0.622 Abs [0.6365] {3.2 CV}	0.700 µg/L [0.668] {6.9 CV}	50.405 %Abs [51.580 %Abs]	RK1:36->F06@4
*****				
<b>Statistic</b>				
ATX Std 0 [MEAN]	1.2335	0.0045		
ATX Std 0 [SD]	0.0233	0.0064		
ATX Std 0 [%CV]	1.8917	141.4214		
ATX Std 1 [MEAN]	1.0115	0.1465		
ATX Std 1 [SD]	0.0049	0.0035		
ATX Std 1 [%CV]	0.4893	2.4133		
ATX Std 1 [%DIFF]		-2.3333		
ATX Std 2 [MEAN]	0.7795	0.4065		
ATX Std 2 [SD]	0.0262	0.0389		
ATX Std 2 [%CV]	3.3564	9.5672		
ATX Std 2 [%DIFF]		1.6250		
ATX Std 3 [MEAN]	0.5135	1.0145		
ATX Std 3 [SD]	0.0219	0.0771		
ATX Std 3 [%CV]	4.2688	7.5973		
ATX Std 3 [%DIFF]		1.4500		
ATX Std 4 [MEAN]	0.2915	2.3995		
ATX Std 4 [SD]	0.0191	0.2100		
ATX Std 4 [%CV]	6.5495	8.7523		
ATX Std 4 [%DIFF]		-4.0200		
ATX Std 5 [MEAN]	0.1540			
ATX Std 5 [SD]	0.0042			
ATX Std 5 [%CV]	2.7550			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.6365	0.6675			
ATX Control [SD]	0.0205	0.0460			
ATX Control [%CV]	3.2217	6.8857			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.2354  
 B = 0.94989  
 C = 0.72589  
 D = -0.012500  
 R2 coef = 0.99979  
 50% = 0.712

