



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52048	Raccoon Lake SRA	7/11/2022	7/14/2022	< 0.40
AB52050	Cagles Mill Lake Beach	7/11/2022	7/14/2022	< 0.40
AB52051	Paynetown SRA	7/11/2022	7/14/2022	< 0.40
AB52052	Fairfax SRA	7/11/2022	7/14/2022	< 0.40
AB52053	Starve Hollow SRA	7/11/2022	7/14/2022	< 0.40
AB52054	Whitewater Memorial SP	7/12/2022	7/14/2022	< 0.40
AB52055	Quakertown SRA	7/12/2022	7/14/2022	< 0.40
AB52056	Mounds SRA	7/12/2022	7/14/2022	< 0.40
AB52057	Hardy Lake SRA	7/12/2022	7/14/2022	< 0.40
AB52049	Deam Lake SRA	7/12/2022	7/14/2022	< 0.40
AB52069	Fairfax SRA (Field Duplicate)	7/11/2022	7/14/2022	< 0.40
AB52070	Field Blank	7/11/2022	7/14/2022	< 0.40
AB52071	Ft. Ben Harrison SP Dog Lake	7/12/2022	7/14/2022	< 0.40

Test Report (by Request)

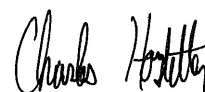
Test Information

Request: 7/14/2022 3:07:05 PM
Date: 7/14/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.344 Abs	0.000 µg/L	R^2=0.99938, 101.1			M21L0919
ATX Std 0	ANATOXIN	1.313 Abs [1.3285] {1.7 C	0.009 µg/L [0.004]	R^2=0.99938, 98.79			M21L0919
ATX Std 1	ANATOXIN	1.097 Abs	0.134 µg/L	R^2=0.99938, 82.54			M21L0919
ATX Std 1	ANATOXIN	1.059 Abs [1.0780] {2.5 C	0.162 µg/L [0.148]	R^2=0.99938, 79.68			M21L0919
ATX Std 2	ANATOXIN	0.832 Abs	0.374 µg/L	R^2=0.99938, 62.60			M21L0919
ATX Std 2	ANATOXIN	0.791 Abs [0.8115] {3.6 C	0.426 µg/L [0.400]	R^2=0.99938, 59.51			M21L0919
ATX Std 3	ANATOXIN	0.511 Abs	1.012 µg/L	R^2=0.99938, 38.45			M21L0919
ATX Std 3	ANATOXIN	0.496 Abs [0.5035] {2.1 C	1.064 µg/L [1.038]	R^2=0.99938, 37.32			M21L0919
ATX Std 4	ANATOXIN	0.309 Abs	2.178 µg/L	R^2=0.99938, 23.25			M21L0919
ATX Std 4	ANATOXIN	0.291 Abs [0.3000] {4.2 C	2.372 µg/L [2.275]	R^2=0.99938, 21.85			M21L0919
ATX Std 5	ANATOXIN	0.165 Abs	> 5.000 µg/L	12.415 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.156 Abs [0.1605] {4.0 C	> 5.000 µg/L	11.738 %Abs			M21L0919
ATX Control	ANATOXIN	0.646 Abs	0.663 µg/L	48.608 %Abs			M21L0919
ATX Control	ANATOXIN	0.617 Abs [0.6315] {3.2 C	0.725 µg/L [0.694]	46.426 %Abs [47.5			M21L0919

Note

Signature



Test Report (by Request)

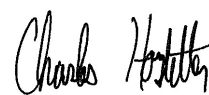
Test Information

Request: 7/14/2022 3:31:47 PM
Date: 7/14/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.198 Abs	0.071 µg/L	Low, 90.143 %Abs		0.150 - 5.000	M21L0919
LRB	ANATOXIN	1.162 Abs [1.1800] {2.2 C	0.092 µg/L [0.082]	Low, 87.434 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.672 Abs	0.613 µg/L	50.564 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.643 Abs [0.6575] {3.1 C	0.669 µg/L [0.641]	48.382 %Abs [49.4		0.150 - 5.000	M21L0919
AB52048	ANATOXIN	1.160 Abs	0.093 µg/L	Low, 87.284 %Abs		0.150 - 5.000	M21L0919
AB52048	ANATOXIN	1.138 Abs [1.1490] {1.4 C	0.107 µg/L [0.100]	Low, 85.628 %Abs		0.150 - 5.000	M21L0919
AB52050	ANATOXIN	1.163 Abs	0.092 µg/L	Low, 87.509 %Abs		0.150 - 5.000	M21L0919
AB52050	ANATOXIN	1.142 Abs [1.1525] {1.3 C	0.105 µg/L [0.098]	Low, 85.929 %Abs		0.150 - 5.000	M21L0919
AB52051	ANATOXIN	1.123 Abs	0.117 µg/L	Low, 84.500 %Abs		0.150 - 5.000	M21L0919
AB52051	ANATOXIN	1.112 Abs [1.1175] {0.7 C	0.124 µg/L [0.120]	Low, 83.672 %Abs		0.150 - 5.000	M21L0919
AB52052	ANATOXIN	1.243 Abs	0.045 µg/L	Low, 93.529 %Abs		0.150 - 5.000	M21L0919
AB52052	ANATOXIN	1.223 Abs [1.2330] {1.1 C	0.056 µg/L [0.051]	Low, 92.024 %Abs		0.150 - 5.000	M21L0919
AB52053	ANATOXIN	1.229 Abs	0.053 µg/L	Low, 92.476 %Abs		0.150 - 5.000	M21L0919
AB52053	ANATOXIN	1.197 Abs [1.2130] {1.9 C	0.071 µg/L [0.062]	Low, 90.068 %Abs		0.150 - 5.000	M21L0919
AB52054	ANATOXIN	1.067 Abs	0.156 µg/L	80.286 %Abs		0.150 - 5.000	M21L0919
AB52054	ANATOXIN	1.039 Abs [1.0530] {1.9 C	0.177 µg/L [0.167]	78.179 %Abs [79.2		0.150 - 5.000	M21L0919
AB52054MS	ANATOXIN	0.541 Abs	0.919 µg/L	40.707 %Abs		0.150 - 5.000	M21L0919
AB52054MS	ANATOXIN	0.533 Abs [0.5370] {1.1 C	0.943 µg/L [0.931]	40.105 %Abs [40.4		0.150 - 5.000	M21L0919
AB52054MSD	ANATOXIN	0.627 Abs	0.703 µg/L	47.178 %Abs		0.150 - 5.000	M21L0919
AB52054MSD	ANATOXIN	0.601 Abs [0.6140] {3.0 C	0.761 µg/L [0.732]	45.222 %Abs [46.2		0.150 - 5.000	M21L0919
AB52055	ANATOXIN	1.237 Abs	0.049 µg/L	Low, 93.078 %Abs		0.150 - 5.000	M21L0919
AB52055	ANATOXIN	1.230 Abs [1.2335] {0.4 C	0.053 µg/L [0.051]	Low, 92.551 %Abs		0.150 - 5.000	M21L0919
AB52056	ANATOXIN	0.842 Abs	0.362 µg/L	63.356 %Abs		0.150 - 5.000	M21L0919
AB52056	ANATOXIN	0.804 Abs [0.8230] {3.3 C	0.409 µg/L [0.386]	60.497 %Abs [61.9		0.150 - 5.000	M21L0919
AB52057	ANATOXIN	1.113 Abs	0.124 µg/L	Low, 83.747 %Abs		0.150 - 5.000	M21L0919
AB52057	ANATOXIN	1.102 Abs [1.1075] {0.7 C	0.131 µg/L [0.127]	Low, 82.919 %Abs		0.150 - 5.000	M21L0919
AB52049	ANATOXIN	1.278 Abs	0.027 µg/L	Low, 96.163 %Abs		0.150 - 5.000	M21L0919
AB52049	ANATOXIN	1.247 Abs [1.2625] {1.7 C	0.043 µg/L [0.035]	Low, 93.830 %Abs		0.150 - 5.000	M21L0919
AB52069	ANATOXIN	1.201 Abs	0.069 µg/L	Low, 90.369 %Abs		0.150 - 5.000	M21L0919
AB52069	ANATOXIN	1.186 Abs [1.1935] {0.9 C	0.078 µg/L [0.074]	Low, 89.240 %Abs		0.150 - 5.000	M21L0919
AB52070	ANATOXIN	1.201 Abs	0.069 µg/L	Low, 90.369 %Abs		0.150 - 5.000	M21L0919
AB52070	ANATOXIN	1.165 Abs [1.1830] {2.2 C	0.090 µg/L [0.080]	Low, 87.660 %Abs		0.150 - 5.000	M21L0919
AB52071	ANATOXIN	1.162 Abs	0.092 µg/L	Low, 87.434 %Abs		0.150 - 5.000	M21L0919
AB52071	ANATOXIN	1.137 Abs [1.1495] {1.5 C	0.108 µg/L [0.100]	Low, 85.553 %Abs		0.150 - 5.000	M21L0919

Note

Signature



Charles Hostetter 7/14/2022

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
7/14/2022 3:07:05 PM				
ATX Std 0	1.344 Abs	0.000 µg/L	R ² =0.99938, 101.129 %Abs	RK1:23->A01@2
ATX Std 0	1.313 Abs [1.3285] {1.7 CV}	0.009 µg/L [0.004] {141.4 CV}	R ² =0.99938, 98.796 %Abs	RK1:23->B01@2
ATX Std 1	1.097 Abs	0.134 µg/L	R ² =0.99938, 82.543 %Abs	RK1:24->C01@2
ATX Std 1	1.059 Abs [1.0780] {2.5 CV}	0.162 µg/L [0.148] {13.4 CV}	R ² =0.99938, 79.684 %Abs	RK1:24->D01@2
ATX Std 2	0.832 Abs	0.374 µg/L	R ² =0.99938, 62.603 %Abs	RK1:25->E01@2
ATX Std 2	0.791 Abs [0.8115] {3.6 CV}	0.426 µg/L [0.400] {9.2 CV}	R ² =0.99938, 59.518 %Abs	RK1:25->F01@3
ATX Std 3	0.511 Abs	1.012 µg/L	R ² =0.99938, 38.450 %Abs	RK1:26->G01@3
ATX Std 3	0.496 Abs [0.5035] {2.1 CV}	1.064 µg/L [1.038] {3.5 CV}	R ² =0.99938, 37.321 %Abs	RK1:26->H01@3
ATX Std 4	0.309 Abs	2.178 µg/L	R ² =0.99938, 23.251 %Abs	RK1:27->A02@2
ATX Std 4	0.291 Abs [0.3000] {4.2 CV}	2.372 µg/L [2.275] {6.0 CV}	R ² =0.99938, 21.896 %Abs	RK1:27->B02@2
ATX Std 5	0.165 Abs	> 5.000 µg/L	12.415 %Abs	RK1:28->C02@2
ATX Std 5	0.156 Abs [0.1605] {4.0 CV}	> 5.000 µg/L	11.738 %Abs	RK1:28->D02@2

7/14/2022 3:07:05 PM				
ATX Control	0.646 Abs	0.663 µg/L	48.608 %Abs	RK1:29->E02@2
ATX Control	0.617 Abs [0.6315] {3.2 CV}	0.725 µg/L [0.694] {6.3 CV}	46.426 %Abs [47.517 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.3285	0.0045		
ATX Std 0 [SD]	0.0219	0.0064		
ATX Std 0 [%CV]	1.6500	141.4214		
ATX Std 1 [MEAN]	1.0780	0.1480		
ATX Std 1 [SD]	0.0269	0.0198		
ATX Std 1 [%CV]	2.4926	13.3777		
ATX Std 1 [%DIFF]		-1.3333		
ATX Std 2 [MEAN]	0.8115	0.4000		
ATX Std 2 [SD]	0.0290	0.0368		
ATX Std 2 [%CV]	3.5726	9.1924		
ATX Std 2 [%DIFF]		-0.0000		
ATX Std 3 [MEAN]	0.5035	1.0380		
ATX Std 3 [SD]	0.0106	0.0368		
ATX Std 3 [%CV]	2.1066	3.5423		
ATX Std 3 [%DIFF]		3.8000		
ATX Std 4 [MEAN]	0.3000	2.2750		
ATX Std 4 [SD]	0.0127	0.1372		
ATX Std 4 [%CV]	4.2426	6.0298		
ATX Std 4 [%DIFF]		-9.0000		
ATX Std 5 [MEAN]	0.1605			
ATX Std 5 [SD]	0.0064			
ATX Std 5 [%CV]	3.9651			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.6315	0.6940			
ATX Control [SD]	0.0205	0.0438			
ATX Control [%CV]	3.2472	6.3171			

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$
 Weight: NONE
 A = 1.3303
 B = 1.0241
 C = 0.58644
 D = 0.042574
 R2 coef = 0.99938
 50% = 0.627

