



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB49895	Raccoon Lake SRA	5/16/2022	5/19/2022	< 0.40
AB49897	Cagles Mill Lake Beach	5/16/2022	5/19/2022	< 0.40
AB49898	Paynetown SRA	5/16/2022	5/19/2022	< 0.40
AB49899	Fairfax SRA	5/16/2022	5/19/2022	< 0.40
AB49900	Starve Hollow SRA	5/16/2022	5/19/2022	< 0.40
AB49901	Whitewater Memorial SP	5/17/2022	5/19/2022	< 0.40
AB49902	Quakertown SRA	5/17/2022	5/19/2022	< 0.40
AB49903	Mounds SRA	5/17/2022	5/19/2022	< 0.40
AB49904	Hardy Lake SRA	5/17/2022	5/19/2022	< 0.40
AB49896	Deam Lake SRA	5/17/2022	5/19/2022	< 0.40
AB49905	Field Blank	5/16/2022	5/19/2022	< 0.40
AB49906	Raccoon Lake SRA (Field Duplicate)	5/16/2022	5/19/2022	< 0.40
AB51245	Ft. Ben Harrison SP Dog Lake	5/16/2022	5/19/2022	< 0.40

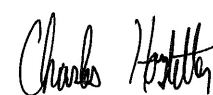
Test Information

Request: 5/19/2022 2:11:59 PM
Date: 5/19/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.217 Abs	0.000 µg/L	R ² =0.99950, 101.5			M21F5258
ATX Std 0	ANATOXIN	1.181 Abs [1.1990] {2.1 C	0.009 µg/L [0.004]	R ² =0.99950, 98.45			M21F5258
ATX Std 1	ANATOXIN	0.982 Abs	0.143 µg/L	R ² =0.99950, 81.90			M21F5258
ATX Std 1	ANATOXIN	0.956 Abs [0.9690] {1.9 C	0.166 µg/L [0.155]	R ² =0.99950, 79.73			M21F5258
ATX Std 2	ANATOXIN	0.775 Abs	0.367 µg/L	R ² =0.99950, 64.63			M21F5258
ATX Std 2	ANATOXIN	0.752 Abs [0.7635] {2.1 C	0.400 µg/L [0.384]	R ² =0.99950, 62.71			M21F5258
ATX Std 3	ANATOXIN	0.491 Abs	1.013 µg/L	R ² =0.99950, 40.95			M21F5258
ATX Std 3	ANATOXIN	0.473 Abs [0.4820] {2.6 C	1.082 µg/L [1.048]	R ² =0.99950, 39.45			M21F5258
ATX Std 4	ANATOXIN	0.295 Abs	2.264 µg/L	R ² =0.99950, 24.60			M21F5258
ATX Std 4	ANATOXIN	0.275 Abs [0.2850] {5.0 C	2.501 µg/L [2.382]	R ² =0.99950, 22.93			M21F5258
ATX Std 5	ANATOXIN	0.167 Abs	4.914 µg/L	R ² =0.99950, 13.92			M21F5258
ATX Std 5	ANATOXIN	0.155 Abs [0.1610] {5.3 C	> 5.000 µg/L [4.91	12.927 %Abs			M21F5258
ATX Control	ANATOXIN	0.603 Abs	0.681 µg/L	50.292 %Abs			M21F5258
ATX Control	ANATOXIN	0.585 Abs [0.5940] {2.1 C	0.725 µg/L [0.703]	48.791 %Abs [49.5			M21F5258

Note

Signature



Charles Hostetter 5/19/22

Test Report (by Request)

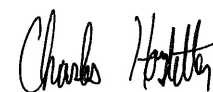
Test Information

Request: 5/19/2022 2:43:34 PM
Date: 5/19/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.020 Abs	0.113 µg/L	Low, 85.071 %Abs		0.150 - 5.000	M21F525f
LRB	ANATOXIN	1.015 Abs [1.0175] {0.3 C	0.117 µg/L [0.115]	Low, 84.654 %Abs		0.150 - 5.000	M21F525f
LFB (ANA)	ANATOXIN	0.593 Abs	0.705 µg/L	49.458 %Abs		0.150 - 5.000	M21F525f
LFB (ANA)	ANATOXIN	0.563 Abs [0.5780] {3.7 C	0.784 µg/L [0.744]	46.956 %Abs [48.2		0.150 - 5.000	M21F525f
AB49895	ANATOXIN	1.093 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49895	ANATOXIN	1.077 Abs [1.0850] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49897	ANATOXIN	1.051 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49897	ANATOXIN	1.012 Abs [1.0315] {2.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49898	ANATOXIN	1.024 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49898	ANATOXIN	0.970 Abs [0.9970] {3.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49899	ANATOXIN	1.128 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49899	ANATOXIN	1.087 Abs [1.1075] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49900	ANATOXIN	1.081 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49900	ANATOXIN	1.061 Abs [1.0710] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49901	ANATOXIN	1.044 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49901	ANATOXIN	1.027 Abs [1.0355] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49902	ANATOXIN	1.008 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49902	ANATOXIN	0.919 Abs [0.9635] {6.5 C	0.220 µg/L	76.647 %Abs	MDF=1.100	0.150 - 5.000	M21F525f
AB49902MS	ANATOXIN	0.597 Abs	0.696 µg/L	49.791 %Abs		0.150 - 5.000	M21F525f
AB49902MS	ANATOXIN	0.569 Abs [0.5830] {3.4 C	0.767 µg/L [0.732]	47.456 %Abs [48.6		0.150 - 5.000	M21F525f
AB49902MSD	ANATOXIN	0.569 Abs	0.767 µg/L	47.456 %Abs		0.150 - 5.000	M21F525f
AB49902MSD	ANATOXIN	0.557 Abs [0.5630] {1.5 C	0.800 µg/L [0.784]	46.455 %Abs [46.9		0.150 - 5.000	M21F525f
AB49903	ANATOXIN	1.074 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49903	ANATOXIN	1.059 Abs [1.0665] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49904	ANATOXIN	0.967 Abs	0.172 µg/L	80.651 %Abs	MDF=1.100	0.150 - 5.000	M21F525f
AB49904	ANATOXIN	0.970 Abs [0.9685] {0.2 C	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49896	ANATOXIN	1.148 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49896	ANATOXIN	1.114 Abs [1.1310] {2.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49905	ANATOXIN	1.119 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49905	ANATOXIN	1.096 Abs [1.1075] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49906	ANATOXIN	1.083 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB49906	ANATOXIN	1.066 Abs [1.0745] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB51245	ANATOXIN	1.070 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F525f
AB51245	ANATOXIN	1.023 Abs [1.0465] {3.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F525f

Note

Signature



Charles Hostetter 5/19/22

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: M21F5258

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
5/19/2022 2:11:59 PM				
ATX Std 0	1.217 Abs	0.000 µg/L	R ² =0.99950, 101.501 %Abs	RK1:23->A01@2
ATX Std 0	1.181 Abs [1.1990] {2.1 CV}	0.009 µg/L [0.004] {141.4 CV}	R ² =0.99950, 98.499 %Abs	RK1:23->B01@2
ATX Std 1	0.982 Abs	0.143 µg/L	R ² =0.99950, 81.902 %Abs	RK1:24->C01@2
ATX Std 1	0.956 Abs [0.9690] {1.9 CV}	0.166 µg/L [0.155] {10.5 CV}	R ² =0.99950, 79.733 %Abs	RK1:24->D01@2
ATX Std 2	0.775 Abs	0.367 µg/L	R ² =0.99950, 64.637 %Abs	RK1:25->E01@2
ATX Std 2	0.752 Abs [0.7635] {2.1 CV}	0.400 µg/L [0.384] {6.1 CV}	R ² =0.99950, 62.719 %Abs	RK1:25->F01@3
ATX Std 3	0.491 Abs	1.013 µg/L	R ² =0.99950, 40.951 %Abs	RK1:26->G01@3
ATX Std 3	0.473 Abs [0.4820] {2.6 CV}	1.082 µg/L [1.048] {4.7 CV}	R ² =0.99950, 39.450 %Abs	RK1:26->H01@3
ATX Std 4	0.295 Abs	2.264 µg/L	R ² =0.99950, 24.604 %Abs	RK1:27->A02@2
ATX Std 4	0.275 Abs [0.2850] {5.0 CV}	2.501 µg/L [2.382] {7.0 CV}	R ² =0.99950, 22.936 %Abs	RK1:27->B02@2
ATX Std 5	0.167 Abs	4.914 µg/L	R ² =0.99950, 13.928 %Abs	RK1:28->C02@2
ATX Std 5	0.155 Abs [0.1610] {5.3 CV}	> 5.000 µg/L [4.914]	12.927 %Abs	RK1:28->D02@2

5/19/2022 2:11:59 PM				
ATX Control	0.603 Abs	0.681 µg/L	50.292 %Abs	RK1:29->E02@2
ATX Control	0.585 Abs [0.5940] {2.1 CV}	0.725 µg/L [0.703] {4.4 CV}	48.791 %Abs [49.541 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.1990	0.0045		
ATX Std 0 [SD]	0.0255	0.0064		
ATX Std 0 [%CV]	2.1231	141.4214		
ATX Std 1 [MEAN]	0.9690	0.1545		
ATX Std 1 [SD]	0.0184	0.0163		
ATX Std 1 [%CV]	1.8973	10.5265		
ATX Std 1 [%DIFF]		3.0000		
ATX Std 2 [MEAN]	0.7635	0.3835		
ATX Std 2 [SD]	0.0163	0.0233		
ATX Std 2 [%CV]	2.1301	6.0846		
ATX Std 2 [%DIFF]		-4.1250		
ATX Std 3 [MEAN]	0.4820	1.0475		
ATX Std 3 [SD]	0.0127	0.0488		
ATX Std 3 [%CV]	2.6406	4.6578		
ATX Std 3 [%DIFF]		4.7500		
ATX Std 4 [MEAN]	0.2850	2.3825		
ATX Std 4 [SD]	0.0141	0.1676		
ATX Std 4 [%CV]	4.9621	7.0340		
ATX Std 4 [%DIFF]		-4.7000		
ATX Std 5 [MEAN]	0.1610			
ATX Std 5 [SD]	0.0085			
ATX Std 5 [%CV]	5.2704			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.5940	0.7030			
ATX Control [SD]	0.0127	0.0311			
ATX Control [%CV]	2.1427	4.4257			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1983
 B = 0.96906
 C = 0.66957
 D = 0.017548
 R2 coef = 0.99950
 50% = 0.690

