



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB49907	Summit Lake - State Park	5/24/2022	5/26/2022	< 0.40
AB49908	Kunkel Beach @ Oubache State Park	5/24/2022	5/26/2022	< 0.40
AB49909	Pokagon State Park	5/23/2022	5/26/2022	< 0.40
AB49910	Potawatomi Inn's Beach	5/23/2022	5/26/2022	< 0.40
AB49911	Chain O'Lakes SP	5/23/2022	5/26/2022	< 0.40
AB49912	Potato Creek State Park	5/23/2022	5/26/2022	< 0.40
AB49913	Lost Bridge West SRA	5/24/2022	5/26/2022	< 0.40
AB49914	Mississinewa Lake Miami SRA	5/24/2022	5/26/2022	< 0.40
AB49915	Field Blank	5/24/2022	5/26/2022	< 0.40
AB49916	Lost Bridge West SRA (Field Dup)	5/24/2022	5/26/2022	< 0.40
AB51248	Lincoln State Park	5/23/2022	5/26/2022	< 0.40
AB51249	Ferdinand State Forest Lake	5/23/2022	5/26/2022	< 0.40
AB51250	Patoka SRA Beach	5/23/2022	5/26/2022	< 0.40

Test Report (by Request)

Test Information

Request: 5/26/2022 2:35:09 PM
Date: 5/26/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.456 Abs	0.000 µg/L	R ² =0.99967, 101.2			M21F5258
ATX Std 0	ANATOXIN	1.420 Abs [1.4380] {1.8 C	0.009 µg/L [0.004]	R ² =0.99967, 98.74			M21F5258
ATX Std 1	ANATOXIN	1.221 Abs	0.135 µg/L	R ² =0.99967, 84.91			M21F5258
ATX Std 1	ANATOXIN	1.174 Abs [1.1975] {2.8 C	0.172 µg/L [0.154]	R ² =0.99967, 81.64			M21F5258
ATX Std 2	ANATOXIN	0.969 Abs	0.373 µg/L	R ² =0.99967, 67.38			M21F5258
ATX Std 2	ANATOXIN	0.946 Abs [0.9575] {1.7 C	0.401 µg/L [0.387]	R ² =0.99967, 65.78			M21F5258
ATX Std 3	ANATOXIN	0.642 Abs	0.972 µg/L	R ² =0.99967, 44.64			M21F5258
ATX Std 3	ANATOXIN	0.599 Abs [0.6205] {4.9 C	1.102 µg/L [1.037]	R ² =0.99967, 41.65			M21F5258
ATX Std 4	ANATOXIN	0.370 Abs	2.340 µg/L	R ² =0.99967, 25.73			M21F5258
ATX Std 4	ANATOXIN	0.357 Abs [0.3635] {2.5 C	2.461 µg/L [2.400]	R ² =0.99967, 24.82			M21F5258
ATX Std 5	ANATOXIN	0.212 Abs	4.968 µg/L	R ² =0.99967, 14.74			M21F5258
ATX Std 5	ANATOXIN	0.202 Abs [0.2070] {3.4 C	> 5.000 µg/L [4.96]	14.047 %Abs			M21F5258
ATX Control	ANATOXIN	0.750 Abs	0.714 µg/L	52.156 %Abs			M21F5258
ATX Control	ANATOXIN	0.733 Abs [0.7415] {1.6 C	0.749 µg/L [0.732]	50.974 %Abs [51.5			M21F5258

Note

Signature



Charles Hostetter 5/26/2022

Test Report (by Request)

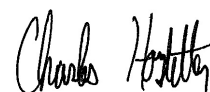
Test Information

Request: 5/26/2022 3:02:04 PM
Date: 5/26/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.262 Abs	0.106 µg/L	Low, 87.761 %Abs		0.150 - 5.000	M21F5258
LRB	ANATOXIN	1.266 Abs [1.2640] {0.2 C	0.103 µg/L [0.104]	Low, 88.039 %Abs		0.150 - 5.000	M21F5258
LFB (ANA)	ANATOXIN	0.734 Abs	0.747 µg/L	51.043 %Abs		0.150 - 5.000	M21F5258
LFB (ANA)	ANATOXIN	0.685 Abs [0.7095] {4.9 C	0.859 µg/L [0.803]	47.636 %Abs [49.3		0.150 - 5.000	M21F5258
AB49907	ANATOXIN	1.299 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49907	ANATOXIN	1.314 Abs [1.3065] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49908	ANATOXIN	1.285 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49908	ANATOXIN	1.258 Abs [1.2715] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49909	ANATOXIN	1.243 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49909	ANATOXIN	1.224 Abs [1.2335] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49910	ANATOXIN	1.389 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49910	ANATOXIN	1.373 Abs [1.3810] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49910MS	ANATOXIN	0.725 Abs	0.767 µg/L	50.417 %Abs		0.150 - 5.000	M21F5258
AB49910MS	ANATOXIN	0.682 Abs [0.7035] {4.3 C	0.867 µg/L [0.817]	47.427 %Abs [48.9		0.150 - 5.000	M21F5258
AB49910MSD	ANATOXIN	0.661 Abs	0.920 µg/L	45.967 %Abs		0.150 - 5.000	M21F5258
AB49910MSD	ANATOXIN	0.633 Abs [0.6470] {3.1 C	0.998 µg/L [0.959]	44.019 %Abs [44.9		0.150 - 5.000	M21F5258
AB49911	ANATOXIN	1.258 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49911	ANATOXIN	1.234 Abs [1.2460] {1.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49912	ANATOXIN	1.408 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49912	ANATOXIN	1.357 Abs [1.3825] {2.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49913	ANATOXIN	1.352 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49913	ANATOXIN	1.337 Abs [1.3445] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49914	ANATOXIN	1.304 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49914	ANATOXIN	1.293 Abs [1.2985] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49915	ANATOXIN	1.263 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49915	ANATOXIN	1.269 Abs [1.2660] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49916	ANATOXIN	1.411 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB49916	ANATOXIN	1.394 Abs [1.4025] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51248	ANATOXIN	1.346 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51248	ANATOXIN	1.325 Abs [1.3355] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51249	ANATOXIN	1.313 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51249	ANATOXIN	1.285 Abs [1.2990] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51250	ANATOXIN	1.279 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51250	ANATOXIN	1.275 Abs [1.2770] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258

Note

Signature



Charles Hostetter 5/26/2022

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: 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
5/26/2022 2:35:09 PM				
ATX Std 0	1.456 Abs	0.000 µg/L	R ² =0.99967, 101.252 %Abs	RK1:23->A01@2
ATX Std 0	1.420 Abs [1.4380] {1.8 CV}	0.009 µg/L [0.004] {141.4 CV}	R ² =0.99967, 98.748 %Abs	RK1:23->B01@2
ATX Std 1	1.221 Abs	0.135 µg/L	R ² =0.99967, 84.910 %Abs	RK1:24->C01@2
ATX Std 1	1.174 Abs [1.1975] {2.8 CV}	0.172 µg/L [0.154] {17.0 CV}	R ² =0.99967, 81.641 %Abs	RK1:24->D01@2
ATX Std 2	0.969 Abs	0.373 µg/L	R ² =0.99967, 67.385 %Abs	RK1:25->E01@2
ATX Std 2	0.946 Abs [0.9575] {1.7 CV}	0.401 µg/L [0.387] {5.1 CV}	R ² =0.99967, 65.786 %Abs	RK1:25->F01@3
ATX Std 3	0.642 Abs	0.972 µg/L	R ² =0.99967, 44.645 %Abs	RK1:26->G01@3
ATX Std 3	0.599 Abs [0.6205] {4.9 CV}	1.102 µg/L [1.037] {8.9 CV}	R ² =0.99967, 41.655 %Abs	RK1:26->H01@3
ATX Std 4	0.370 Abs	2.340 µg/L	R ² =0.99967, 25.730 %Abs	RK1:27->A02@2
ATX Std 4	0.357 Abs [0.3635] {2.5 CV}	2.461 µg/L [2.400] {3.6 CV}	R ² =0.99967, 24.826 %Abs	RK1:27->B02@2
ATX Std 5	0.212 Abs	4.968 µg/L	R ² =0.99967, 14.743 %Abs	RK1:28->C02@2
ATX Std 5	0.202 Abs [0.2070] {3.4 CV}	> 5.000 µg/L [4.968]	14.047 %Abs	RK1:28->D02@2

5/26/2022 2:35:09 PM				
ATX Control	0.750 Abs	0.714 µg/L	52.156 %Abs	RK1:29->E02@2
ATX Control	0.733 Abs [0.7415] {1.6 CV}	0.749 µg/L [0.732] {3.4 CV}	50.974 %Abs [51.565 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.4380	0.0045		
ATX Std 0 [SD]	0.0255	0.0064		
ATX Std 0 [%CV]	1.7702	141.4214		
ATX Std 1 [MEAN]	1.1975	0.1535		
ATX Std 1 [SD]	0.0332	0.0262		
ATX Std 1 [%CV]	2.7753	17.0443		
ATX Std 1 [%DIFF]		2.3333		
ATX Std 2 [MEAN]	0.9575	0.3870		
ATX Std 2 [SD]	0.0163	0.0198		
ATX Std 2 [%CV]	1.6985	5.1160		
ATX Std 2 [%DIFF]		-3.2500		
ATX Std 3 [MEAN]	0.6205	1.0370		
ATX Std 3 [SD]	0.0304	0.0919		
ATX Std 3 [%CV]	4.9002	8.8644		
ATX Std 3 [%DIFF]		3.7000		
ATX Std 4 [MEAN]	0.3635	2.4005		
ATX Std 4 [SD]	0.0092	0.0856		
ATX Std 4 [%CV]	2.5289	3.5643		
ATX Std 4 [%DIFF]		-3.9800		
ATX Std 5 [MEAN]	0.2070			
ATX Std 5 [SD]	0.0071			
ATX Std 5 [%CV]	3.4160			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.7415	0.7315			
ATX Control [SD]	0.0120	0.0247			
ATX Control [%CV]	1.6212	3.3833			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4373
 B = 0.99639
 C = 0.75343
 D = 0.024908
 R2 coef = 0.99967
 50% = 0.780

