



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB51329	Raccoon Lake SRA	5/31/2022	6/2/2022	< 0.40
AB51330	Whitewater Memorial SP	5/31/2022	6/2/2022	< 0.40
AB51331	Field Blank	5/31/2022	6/2/2022	< 0.40
AB51332	Raccoon Lake SRA (Field Duplicate)	5/31/2022	6/2/2022	< 0.40

Test Information

Request: 6/2/2022 1:27:48 PM
Date: 6/2/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.274 Abs	0.000 µg/L	R ² =0.99954, 102.5			M21F5258
ATX Std 0	ANATOXIN	1.209 Abs [1.2415] {3.7 C	0.017 µg/L [0.009]	R ² =0.99954, 97.34			M21F5258
ATX Std 1	ANATOXIN	1.025 Abs	0.152 µg/L	R ² =0.99954, 82.52			M21F5258
ATX Std 1	ANATOXIN	1.013 Abs [1.0190] {0.8 C	0.163 µg/L [0.157]	R ² =0.99954, 81.56			M21F5258
ATX Std 2	ANATOXIN	0.839 Abs	0.362 µg/L	R ² =0.99954, 67.55			M21F5258
ATX Std 2	ANATOXIN	0.815 Abs [0.8270] {2.1 C	0.397 µg/L [0.380]	R ² =0.99954, 65.62			M21F5258
ATX Std 3	ANATOXIN	0.550 Abs	0.996 µg/L	R ² =0.99954, 44.28			M21F5258
ATX Std 3	ANATOXIN	0.526 Abs [0.5380] {3.2 C	1.081 µg/L [1.038]	R ² =0.99954, 42.35			M21F5258
ATX Std 4	ANATOXIN	0.322 Abs	2.318 µg/L	R ² =0.99954, 25.92			M21F5258
ATX Std 4	ANATOXIN	0.296 Abs [0.3090] {5.9 C	2.597 µg/L [2.457]	R ² =0.99954, 23.83			M21F5258
ATX Std 5	ANATOXIN	0.177 Abs	4.865 µg/L	R ² =0.99954, 14.25			M21F5258
ATX Std 5	ANATOXIN	0.167 Abs [0.1720] {4.1 C	> 5.000 µg/L [4.86	13.446 %Abs			M21F5258
ATX Control	ANATOXIN	0.665 Abs	0.675 µg/L	53.543 %Abs			M21F5258
ATX Control	ANATOXIN	0.645 Abs [0.6550] {2.2 C	0.723 µg/L [0.699]	51.932 %Abs [52.7			M21F5258

Note

Signature 

David Jordan 6/2/2022

Test Information

Request: 6/2/2022 1:28:19 PM
Date: 6/2/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.117 Abs	0.077 µg/L	Low, 89.936 %Abs		0.150 - 5.000	M21F5258
LRB	ANATOXIN	1.089 Abs [1.1030] {1.8 C	0.098 µg/L [0.087]	Low, 87.681 %Abs		0.150 - 5.000	M21F5258
LFB (ANA)	ANATOXIN	0.693 Abs	0.614 µg/L	55.797 %Abs		0.150 - 5.000	M21F5258
LFB (ANA)	ANATOXIN	0.670 Abs [0.6815] {2.4 C	0.664 µg/L [0.639]	53.945 %Abs [54.8		0.150 - 5.000	M21F5258
AB51329	ANATOXIN	1.181 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51329	ANATOXIN	1.186 Abs [1.1835] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51330	ANATOXIN	1.161 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51330	ANATOXIN	1.150 Abs [1.1555] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51330MS	ANATOXIN	0.626 Abs	0.771 µg/L	50.403 %Abs		0.150 - 5.000	M21F5258
AB51330MS	ANATOXIN	0.610 Abs [0.6180] {1.8 C	0.813 µg/L [0.792]	49.114 %Abs [49.7		0.150 - 5.000	M21F5258
AB51330MSD	ANATOXIN	0.718 Abs	0.563 µg/L	57.810 %Abs		0.150 - 5.000	M21F5258
AB51330MSD	ANATOXIN	0.679 Abs [0.6985] {3.9 C	0.644 µg/L [0.604]	54.670 %Abs [56.2		0.150 - 5.000	M21F5258
AB51331	ANATOXIN	1.203 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51331	ANATOXIN	1.161 Abs [1.1820] {2.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51332	ANATOXIN	1.172 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21F5258
AB51332	ANATOXIN	1.142 Abs [1.1570] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21F5258

Note

Signature

David Jordan

David Jordan 6/2/2022

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
6/2/2022 1:27:48 PM				
ATX Std 0	1.274 Abs	0.000 µg/L	R ² =0.99954, 102.576 %Abs	RK1:30->A05@1
ATX Std 0	1.209 Abs [1.2415] {3.7 CV}	0.017 µg/L [0.009] {141.4 CV}	R ² =0.99954, 97.343 %Abs	RK1:30->B05@1
ATX Std 1	1.025 Abs	0.152 µg/L	R ² =0.99954, 82.528 %Abs	RK1:31->C05@1
ATX Std 1	1.013 Abs [1.0190] {0.8 CV}	0.163 µg/L [0.157] {4.9 CV}	R ² =0.99954, 81.562 %Abs	RK1:31->D05@1
ATX Std 2	0.839 Abs	0.362 µg/L	R ² =0.99954, 67.552 %Abs	RK1:32->E05@1
ATX Std 2	0.815 Abs [0.8270] {2.1 CV}	0.397 µg/L [0.380] {6.5 CV}	R ² =0.99954, 65.620 %Abs	RK1:32->F05@4
ATX Std 3	0.550 Abs	0.996 µg/L	R ² =0.99954, 44.283 %Abs	RK1:33->G05@4
ATX Std 3	0.526 Abs [0.5380] {3.2 CV}	1.081 µg/L [1.038] {5.8 CV}	R ² =0.99954, 42.351 %Abs	RK1:33->H05@4
ATX Std 4	0.322 Abs	2.318 µg/L	R ² =0.99954, 25.926 %Abs	RK1:34->A06@1
ATX Std 4	0.296 Abs [0.3090] {5.9 CV}	2.597 µg/L [2.457] {8.0 CV}	R ² =0.99954, 23.833 %Abs	RK1:34->B06@1
ATX Std 5	0.177 Abs	4.865 µg/L	R ² =0.99954, 14.251 %Abs	RK1:35->C06@1
ATX Std 5	0.167 Abs [0.1720] {4.1 CV}	> 5.000 µg/L [4.865]	13.446 %Abs	RK1:35->D06@1

6/2/2022 1:27:48 PM				
ATX Control	0.665 Abs	0.675 µg/L	53.543 %Abs	RK1:36->E06@1
ATX Control	0.645 Abs [0.6550] {2.2 CV}	0.723 µg/L [0.699] {4.9 CV}	51.932 %Abs [52.738 %Abs]	RK1:36->F06@4

Statistic				
ATX Std 0 [MEAN]	1.2415	0.0085		
ATX Std 0 [SD]	0.0460	0.0120		
ATX Std 0 [%CV]	3.7021	141.4214		
ATX Std 1 [MEAN]	1.0190	0.1575		
ATX Std 1 [SD]	0.0085	0.0078		
ATX Std 1 [%CV]	0.8327	4.9385		
ATX Std 1 [%DIFF]		5.0000		
ATX Std 2 [MEAN]	0.8270	0.3795		
ATX Std 2 [SD]	0.0170	0.0247		
ATX Std 2 [%CV]	2.0521	6.5214		
ATX Std 2 [%DIFF]		-5.1250		
ATX Std 3 [MEAN]	0.5380	1.0385		
ATX Std 3 [SD]	0.0170	0.0601		
ATX Std 3 [%CV]	3.1544	5.7876		
ATX Std 3 [%DIFF]		3.8500		
ATX Std 4 [MEAN]	0.3090	2.4575		
ATX Std 4 [SD]	0.0184	0.1973		
ATX Std 4 [%CV]	5.9498	8.0278		
ATX Std 4 [%DIFF]		-1.7000		
ATX Std 5 [MEAN]	0.1720			
ATX Std 5 [SD]	0.0071			
ATX Std 5 [%CV]	4.1111			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.6550	0.6990			
ATX Control [SD]	0.0141	0.0339			
ATX Control [%CV]	2.1591	4.8557			

Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$
 Weight: NONE
 A = 1.2404
 B = 0.94246
 C = 0.81254
 D = -0.019878
 R2 coef = 0.99954
 50% = 0.784

