



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52589	Raccoon Lake SRA	8/22/2022	8/25/2022	< 0.40
AB52590	Cagles Mill Lake Beach	8/22/2022	8/25/2022	< 0.40
AB52591	Paynetown SRA	8/22/2022	8/25/2022	< 0.40
AB52592	Fairfax SRA	8/22/2022	8/25/2022	< 0.40
AB52593	Starve Hollow SRA	8/22/2022	8/25/2022	< 0.40
AB52594	Whitewater Memorial SP	8/23/2022	8/25/2022	< 0.40
AB52595	Quakertown SRA	8/23/2022	8/25/2022	< 0.40
AB52596	Mounds SRA	8/23/2022	8/25/2022	< 0.40
AB52597	Hardy Lake SRA	8/23/2022	8/25/2022	< 0.40
AB52598	Cagles Mill Lake Beach (Field Duplicate)	8/22/2022	8/25/2022	< 0.40
AB52599	Field Blank	8/22/2022	8/25/2022	< 0.40
AB52600	Ft. Ben Harrison SP Dog Lake	8/23/2022	8/25/2022	< 0.40
AB52629	Kunkel Lake @ Oubache SP	8/23/2022	8/25/2022	2.70
AB52630	Lincoln State Park	8/22/2022	8/25/2022	< 0.40

Test Information

Request: 8/25/2022 2:20:42 PM
Date: 8/25/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.471 Abs	0.006 µg/L	R ² =0.99966, 99.2%			M21L0919
ATX Std 0	ANATOXIN	1.493 Abs [1.4820] {1.0 C	0.000 µg/L [0.003]	R ² =0.99966, 100.7%			M21L0919
ATX Std 1	ANATOXIN	1.226 Abs	0.145 µg/L	R ² =0.99966, 82.7%			M21L0919
ATX Std 1	ANATOXIN	1.208 Abs [1.2170] {1.0 C	0.157 µg/L [0.151]	R ² =0.99966, 81.5%			M21L0919
ATX Std 2	ANATOXIN	0.953 Abs	0.375 µg/L	R ² =0.99966, 64.3%			M21L0919
ATX Std 2	ANATOXIN	0.920 Abs [0.9365] {2.5 C	0.412 µg/L [0.394]	R ² =0.99966, 62.0%			M21L0919
ATX Std 3	ANATOXIN	0.593 Abs	1.004 µg/L	R ² =0.99966, 40.0%			M21L0919
ATX Std 3	ANATOXIN	0.571 Abs [0.5820] {2.7 C	1.069 µg/L [1.036]	R ² =0.99966, 38.5%			M21L0919
ATX Std 4	ANATOXIN	0.334 Abs	2.385 µg/L	R ² =0.99966, 22.5%			M21L0919
ATX Std 4	ANATOXIN	0.341 Abs [0.3375] {1.5 C	2.317 µg/L [2.351]	R ² =0.99966, 23.0%			M21L0919
ATX Std 5	ANATOXIN	0.193 Abs	> 5.000 µg/L	13.023 %Abs			M21L0919
ATX Std 5	ANATOXIN	0.186 Abs [0.1895] {2.6 C	> 5.000 µg/L	12.551 %Abs			M21L0919
ATX Control	ANATOXIN	0.739 Abs	0.673 µg/L	49.865 %Abs			M21L0919
ATX Control	ANATOXIN	0.725 Abs [0.7320] {1.4 C	0.698 µg/L [0.686]	48.920 %Abs [49.3			M21L0919

Note

Signature *David Jordan*

David Jordan 8/25/2022

Test Report (by Request)

Test Information

Request: 8/25/2022 2:22:01 PM
Date: 8/25/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (ANA)	ANATOXIN	1.325 Abs	0.084 µg/L	Low, 89.406 %Abs		0.150 - 5.000	M21L0919
LRB (ANA)	ANATOXIN	1.268 Abs [1.2965] {3.1 C	0.118 µg/L [0.101]	Low, 85.560 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.756 Abs	0.643 µg/L	51.012 %Abs		0.150 - 5.000	M21L0919
LFB (ANA)	ANATOXIN	0.736 Abs [0.7460] {1.9 C	0.678 µg/L [0.660]	49.663 %Abs [50.3		0.150 - 5.000	M21L0919
AB52589	ANATOXIN	1.345 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52589	ANATOXIN	1.330 Abs [1.3375] {0.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52590	ANATOXIN	1.335 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52590	ANATOXIN	1.317 Abs [1.3260] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52591	ANATOXIN	1.269 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52591	ANATOXIN	1.260 Abs [1.2645] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52592	ANATOXIN	1.365 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52592	ANATOXIN	1.328 Abs [1.3465] {1.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52593	ANATOXIN	1.337 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52593	ANATOXIN	1.312 Abs [1.3245] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52594	ANATOXIN	1.270 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52594	ANATOXIN	1.242 Abs [1.2560] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52594MS	ANATOXIN	0.625 Abs	0.917 µg/L	42.173 %Abs		0.150 - 5.000	M21L0919
AB52594MS	ANATOXIN	0.623 Abs [0.6240] {0.2 C	0.922 µg/L [0.919]	42.038 %Abs [42.1		0.150 - 5.000	M21L0919
AB52594MSD	ANATOXIN	0.728 Abs	0.693 µg/L	49.123 %Abs		0.150 - 5.000	M21L0919
AB52594MSD	ANATOXIN	0.700 Abs [0.7140] {2.8 C	0.747 µg/L [0.720]	47.233 %Abs [48.1		0.150 - 5.000	M21L0919
AB52595	ANATOXIN	1.268 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52595	ANATOXIN	1.260 Abs [1.2640] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52596	ANATOXIN	1.299 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52596	ANATOXIN	1.233 Abs [1.2660] {3.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52597	ANATOXIN	1.099 Abs	0.262 µg/L	74.157 %Abs	MDF=1.100	0.150 - 5.000	M21L0919
AB52597	ANATOXIN	1.104 Abs [1.1015] {0.3 C	0.257 µg/L [0.259]	74.494 %Abs [74.3	MDF=1.100	0.150 - 5.000	M21L0919
AB52598	ANATOXIN	1.352 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52598	ANATOXIN	1.329 Abs [1.3405] {1.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52599	ANATOXIN	1.337 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52599	ANATOXIN	1.324 Abs [1.3305] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52600	ANATOXIN	1.331 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52600	ANATOXIN	1.293 Abs [1.3120] {2.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52629	ANATOXIN	0.342 Abs	2.538 µg/L	23.077 %Abs	MDF=1.100	0.150 - 5.000	M21L0919
AB52629	ANATOXIN	0.314 Abs [0.3280] {6.0 C	2.861 µg/L [2.700]	21.188 %Abs [22.1	MDF=1.100	0.150 - 5.000	M21L0919
AB52630	ANATOXIN	1.372 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21L0919
AB52630	ANATOXIN	1.268 Abs [1.3200] {5.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21L0919

Note

Signature 

David Jordan 8/25/2022

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
8/25/2022 2:20:42 PM				
ATX Std 0	1.471 Abs	0.006 µg/L	R^2=0.99966, 99.258 %Abs	RK1:23->A01@2
ATX Std 0	1.493 Abs [1.4820] {1.0 CV}	0.000 µg/L [0.003] {141.4 CV}	R^2=0.99966, 100.742 %Abs	RK1:23->B01@2
ATX Std 1	1.226 Abs	0.145 µg/L	R^2=0.99966, 82.726 %Abs	RK1:24->C01@2
ATX Std 1	1.208 Abs [1.2170] {1.0 CV}	0.157 µg/L [0.151] {5.6 CV}	R^2=0.99966, 81.511 %Abs	RK1:24->D01@2
ATX Std 2	0.953 Abs	0.375 µg/L	R^2=0.99966, 64.305 %Abs	RK1:25->E01@2
ATX Std 2	0.920 Abs [0.9365] {2.5 CV}	0.412 µg/L [0.394] {6.6 CV}	R^2=0.99966, 62.078 %Abs	RK1:25->F01@3
ATX Std 3	0.593 Abs	1.004 µg/L	R^2=0.99966, 40.013 %Abs	RK1:26->G01@3
ATX Std 3	0.571 Abs [0.5820] {2.7 CV}	1.069 µg/L [1.036] {4.4 CV}	R^2=0.99966, 38.529 %Abs	RK1:26->H01@3
ATX Std 4	0.334 Abs	2.385 µg/L	R^2=0.99966, 22.537 %Abs	RK1:27->A02@2
ATX Std 4	0.341 Abs [0.3375] {1.5 CV}	2.317 µg/L [2.351] {2.0 CV}	R^2=0.99966, 23.009 %Abs	RK1:27->B02@2
ATX Std 5	0.193 Abs	> 5.000 µg/L	13.023 %Abs	RK1:28->C02@2
ATX Std 5	0.186 Abs [0.1895] {2.6 CV}	> 5.000 µg/L	12.551 %Abs	RK1:28->D02@2

8/25/2022 2:20:42 PM				
ATX Control	0.739 Abs	0.673 µg/L	49.865 %Abs	RK1:29->E02@2
ATX Control	0.725 Abs [0.7320] {1.4 CV}	0.698 µg/L [0.686] {2.6 CV}	48.920 %Abs [49.393 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.4820	0.0030		
ATX Std 0 [SD]	0.0156	0.0042		
ATX Std 0 [%CV]	1.0497	141.4214		
ATX Std 1 [MEAN]	1.2170	0.1510		
ATX Std 1 [SD]	0.0127	0.0085		
ATX Std 1 [%CV]	1.0458	5.6194		
ATX Std 1 [%DIFF]		0.6667		
ATX Std 2 [MEAN]	0.9365	0.3935		
ATX Std 2 [SD]	0.0233	0.0262		
ATX Std 2 [%CV]	2.4917	6.6488		
ATX Std 2 [%DIFF]		-1.6250		
ATX Std 3 [MEAN]	0.5820	1.0365		
ATX Std 3 [SD]	0.0156	0.0460		
ATX Std 3 [%CV]	2.6729	4.4343		
ATX Std 3 [%DIFF]		3.6500		
ATX Std 4 [MEAN]	0.3375	2.3510		
ATX Std 4 [SD]	0.0049	0.0481		
ATX Std 4 [%CV]	1.4666	2.0452		
ATX Std 4 [%DIFF]		-5.9600		
ATX Std 5 [MEAN]	0.1895			
ATX Std 5 [SD]	0.0049			
ATX Std 5 [%CV]	2.6120			

Name	Absorbance	Concentration	Interpretation	Position	
ATX Control [MEAN]	0.7320	0.6855			
ATX Control [SD]	0.0099	0.0177			
ATX Control [%CV]	1.3524	2.5788			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.4821
 B = 1.0431
 C = 0.62612
 D = 0.049517
 R2 coef = 0.99966
 50% = 0.669

