Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC40677	Cecil M. Harden Lake - Raccoon Lake SRA Beach	6/24/2024	6/26/2024	< 0.40
AC40678	Cagles Mill Lake - Lieber SRA Beach	6/24/2024	6/26/2024	< 0.40
AC40679	Starve Hollow SRA - Starve Hollow Lake Beach	6/24/2024	6/26/2024	< 0.40
AC40680	Hardy Lake SRA - Hardy Lake SRA Beach	6/24/2024	6/26/2024	< 0.40
AC40681	Whitewater Memorial SP - Whitewater Lake Beach	6/25/2024	6/26/2024	< 0.40
AC40682	Salamonie Lake - Lost Bridge West SRA Beach	6/25/2024	6/26/2024	< 0.40
AC40687	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	6/24/2024	6/26/2024	< 0.40
AC40688	Field Blank	6/24/2024	6/26/2024	< 0.40

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Test Report (by Request)

Test Information

Request: 6/26/2024 1:35:19 PM
Date: 6/26/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
ATX Std 0	ANATOXIN	1.260 Abs	0.000 µg/L	R^2=0.99934, 101.3		0.000	Kit:P23B0
ATX Std 0	ANATOXIN	1.226 Abs [1.2430] {1.9 C	0.009 µg/L [0.005]	R^2=0.99934, 98.63		0.000	Kit:P23B0
ATX Std 1	ANATOXIN	1.031 Abs	0.131 µg/L	R^2=0.99934, 82.94		0.150	Kit:P23B0
ATX Std 1	ANATOXIN	0.996 Abs [1.0135] {2.4 C	0.159 µg/L [0.145]	R^2=0.99934, 80.12		0.150	Kit:P23B0
ATX Std 2	ANATOXIN	0.768 Abs	0.405 µg/L	R^2=0.99934, 61.78		0.400	Kit:P23B0
ATX Std 2	ANATOXIN	0.766 Abs [0.7670] {0.2 C	0.408 µg/L [0.407]	R^2=0.99934, 61.62		0.400	Kit:P23B0
ATX Std 3	ANATOXIN	0.502 Abs	1.000 µg/L	R^2=0.99934, 40.38		1.000	Kit:P23B0
ATX Std 3	ANATOXIN	0.486 Abs [0.4940] {2.3 C	1.058 µg/L [1.029]	R^2=0.99934, 39.09		1.000	Kit:P23B0
ATX Std 4	ANATOXIN	0.300 Abs	2.230 µg/L	R^2=0.99934, 24.13		2.500	Kit:P23B0
ATX Std 4	ANATOXIN	0.290 Abs [0.2950] {2.4 C	2.340 µg/L [2.285]	R^2=0.99934, 23.33		2.500	Kit:P23B0
ATX Std 5	ANATOXIN	0.157 Abs	> 5.000 µg/L	12.631 %Abs		5.000	Kit:P23B0
ATX Std 5	ANATOXIN	0.153 Abs [0.1550] {1.8 C	> 5.000 µg/L	12.309 %Abs		5.000	Kit:P23B0
ATX Control	ANATOXIN	0.601 Abs	0.714 µg/L	48.351 %Abs			Kit:P23B0
ATX Control	ANATOXIN	0.599 Abs [0.6000] {0.2 C	0.718 µg/L [0.716]	48.190 %Abs [48.2			Kit:P23B0

Note

Signature David Jordan

David Jordan 6/26/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1171/1085/1.00/0.95) 6/26/2024 1:58:15 PM

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Test Report (by Request)

Test Information

Request: 6/26/2024 1:57:06 PM
Date: 6/26/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	ANATOXIN	1.090 Abs	0.089 µg/L	Low, 87.691 %Abs		0.150 - 5.000	Kit:P23B0
LRB	ANATOXIN	1.069 Abs [1.0795] {1.4 C	0.104 µg/L [0.097]	Low, 86.002 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.664 Abs	0.578 µg/L	53.419 %Abs		0.150 - 5.000	Kit:P23B0
LFB (ANA)	ANATOXIN	0.641 Abs [0.6525] {2.5 C	0.624 µg/L [0.601]	51.569 %Abs [52.4		0.150 - 5.000	Kit:P23B0
AC40677	ANATOXIN	1.118 Abs	0.071 µg/L	Low, 89.944 %Abs		0.150 - 5.000	Kit:P23B0
AC40677	ANATOXIN	1.112 Abs [1.1150] {0.4 C	0.075 µg/L [0.073]	Low, 89.461 %Abs		0.150 - 5.000	Kit:P23B0
AC40678	ANATOXIN	1.057 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40678	ANATOXIN	1.094 Abs [1.0755] {2.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40679	ANATOXIN	0.991 Abs	0.179 µg/L	79.726 %Abs	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40679	ANATOXIN	1.000 Abs [0.9955] {0.6 C	0.172 µg/L [0.176]	80.451 %Abs [80.0	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40680	ANATOXIN	1.165 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40680	ANATOXIN	1.139 Abs [1.1520] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40680MS	ANATOXIN	0.631 Abs	0.646 µg/L	50.764 %Abs		0.150 - 5.000	Kit:P23B0
AC40680MS	ANATOXIN	0.607 Abs [0.6190] {2.7 C	0.699 µg/L [0.673]	48.833 %Abs [49.7		0.150 - 5.000	Kit:P23B0
AC40680MSD	ANATOXIN	0.600 Abs	0.716 µg/L	48.270 %Abs		0.150 - 5.000	Kit:P23B0
AC40680MSD	ANATOXIN	0.594 Abs [0.5970] {0.7 C	0.731 µg/L [0.724]	47.788 %Abs [48.0		0.150 - 5.000	Kit:P23B0
AC40681	ANATOXIN	1.061 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40681	ANATOXIN	1.053 Abs [1.0570] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40682	ANATOXIN	1.216 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40682	ANATOXIN	1.189 Abs [1.2025] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40687	ANATOXIN	1.113 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40687	ANATOXIN	1.107 Abs [1.1100] {0.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40688	ANATOXIN	1.124 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0
AC40688	ANATOXIN	1.095 Abs [1.1095] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.150 - 5.000	Kit:P23B0

Note

Signature David Jordan

David Jordan 6/26/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests
* Generated by software version (6.4.1.1171/1085/1.00/0.95) 6/26/2024 1:58:15 PM

ANATOXIN - Assay Calibration Report

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:
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 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: Kit:P23B0244

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
6/26/2024 1:35:19 PM				
ATX Std 0	1.260 Abs	0.000 µg/L	R^2=0.99934, 101.368 %Abs	RK1:23->A01@2
ATX Std 0	1.226 Abs [1.2430] {1.9 CV}	0.009 µg/L [0.005] {141.4 C\	R^2=0.99934, 98.632 %Abs	RK1:23->B01@2
ATX Std 1	1.031 Abs	0.131 µg/L	R^2=0.99934, 82.944 %Abs	RK1:24->C01@2
ATX Std 1	0.996 Abs [1.0135] {2.4 CV}	0.159 µg/L [0.145] {13.7 CV}	R^2=0.99934, 80.129 %Abs	RK1:24->D01@2
ATX Std 2	0.768 Abs	0.405 µg/L	R^2=0.99934, 61.786 %Abs	RK1:25->E01@2
ATX Std 2	0.766 Abs [0.7670] {0.2 CV}	0.408 µg/L [0.407] {0.5 CV}	R^2=0.99934, 61.625 %Abs	RK1:25->F01@3
ATX Std 3	0.502 Abs	1.000 µg/L	R^2=0.99934, 40.386 %Abs	RK1:26->G01@3
ATX Std 3	0.486 Abs [0.4940] {2.3 CV}	1.058 µg/L [1.029] {4.0 CV}	R^2=0.99934, 39.099 %Abs	RK1:26->H01@3
ATX Std 4	0.300 Abs	2.230 µg/L	R^2=0.99934, 24.135 %Abs	RK1:27->A02@2
ATX Std 4	0.290 Abs [0.2950] {2.4 CV}	2.340 µg/L [2.285] {3.4 CV}	R^2=0.99934, 23.331 %Abs	RK1:27->B02@2
ATX Std 5	0.157 Abs	> 5.000 µg/L	12.631 %Abs	RK1:28->C02@2
ATX Std 5	0.153 Abs [0.1550] {1.8 CV}	> 5.000 µg/L	12.309 %Abs	RK1:28->D02@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
6/26/2024 1:35:19 PM				
ATX Control	0.601 Abs	0.714 µg/L	48.351 %Abs	RK1:29->E02@2
ATX Control	0.599 Abs [0.6000] {0.2 CV}	0.718 µg/L [0.716] {0.4 CV}	48.190 %Abs [48.270 %Abs]	RK1:29->F02@3
**********	**********	**********	**********	**********
Statistic				
ATX Std 0 [MEAN]	1.2430	0.0045		
ATX Std 0 [SD]	0.0240	0.0064		
ATX Std 0 [%CV]	1.9342	141.4214		
ATX Std 1 [MEAN]	1.0135	0.1450		
ATX Std 1 [SD]	0.0247	0.0198		
ATX Std 1 [%CV]	2.4419	13.6545		
ATX Std 1 [%DIFF]		-3.3333		
ATX Std 2 [MEAN]	0.7670	0.4065		
ATX Std 2 [SD]	0.0014	0.0021		
ATX Std 2 [%CV]	0.1844	0.5218		
ATX Std 2 [%DIFF]		1.6250		
ATX Std 3 [MEAN]	0.4940	1.0290		
ATX Std 3 [SD]	0.0113	0.0410		
ATX Std 3 [%CV]	2.2902	3.9856		
ATX Std 3 [%DIFF]		2.9000		
ATX Std 4 [MEAN]	0.2950	2.2850		
ATX Std 4 [SD]	0.0071	0.0778		
ATX Std 4 [%CV]	2.3970	3.4040		
ATX Std 4 [%DIFF]		-8.6000		
ATX Std 5 [MEAN]	0.1550			
ATX Std 5 [SD]	0.0028			
ATX Std 5 [%CV]	1.8248			

ANATOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.6000	0.7160		
ATX Control [SD]	0.0014	0.0028		
ATX Control [%CV]	0.2357	0.3950		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.2452
B = 0.97780
C = 0.64173
D = 0.020376
R2 coef = 0.99934
50% = 0.666