



Anatoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43914	Kunkel Lake @ Ouabache SP	8/31/2020	9/3/2020	< 0.40
AB43915	Deam Lake SRA	8/31/2020	9/3/2020	< 0.40
AB43916	Chain O'Lakes SP	8/31/2020	9/3/2020	< 0.40
AB43917	Deam Lake SRA (Field Duplicate)	8/31/2020	9/3/2020	< 0.40
AB43918	Field Blank	8/31/2020	9/3/2020	< 0.40
AB44105	Ft. Harrison SP Dog Lake	9/1/2020	9/3/2020	< 0.40

Test Report (by Request)

Test Information

Request: 9/3/2020 3:03:53 PM

Date: 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
ATX Std 0	ANATOXIN	1.149 Abs	0.004 µg/L	R ² =0.99814, 99.826		20A2174
ATX Std 0	ANATOXIN	1.153 Abs [1.1510] {0.2 CV}	0.001 µg/L [0.003] {8}	R ² =0.99814, 100.17		20A2174
ATX Std 1	ANATOXIN	0.973 Abs	0.130 µg/L	R ² =0.99814, 84.535		20A2174
ATX Std 1	ANATOXIN	0.942 Abs [0.9575] {2.3 CV}	0.156 µg/L [0.143] {1}	R ² =0.99814, 81.842		20A2174
ATX Std 2	ANATOXIN	0.737 Abs	0.379 µg/L	R ² =0.99814, 64.031		20A2174
ATX Std 2	ANATOXIN	0.704 Abs [0.7205] {3.2 CV}	0.427 µg/L [0.403] {8}	R ² =0.99814, 61.164		20A2174
ATX Std 3	ANATOXIN	0.452 Abs	1.034 µg/L	R ² =0.99814, 39.270		20A2174
ATX Std 3	ANATOXIN	0.439 Abs [0.4455] {2.1 CV}	1.086 µg/L [1.060] {3}	R ² =0.99814, 38.141		20A2174
ATX Std 4	ANATOXIN	0.287 Abs	2.095 µg/L	R ² =0.99814, 24.935		20A2174
ATX Std 4	ANATOXIN	0.281 Abs [0.2840] {1.5 CV}	2.162 µg/L [2.128] {2}	R ² =0.99814, 24.414		20A2174
ATX Std 5	ANATOXIN	0.147 Abs	> 5.000 µg/L	12.772 %Abs		20A2174
ATX Std 5	ANATOXIN	0.140 Abs [0.1435] {3.4 CV}	> 5.000 µg/L	12.163 %Abs		20A2174
ATX Control	ANATOXIN	0.544 Abs	0.744 µg/L	47.263 %Abs		20A2174
ATX Control	ANATOXIN	0.508 Abs [0.5260] {4.8 CV}	0.844 µg/L [0.794] {8}	44.136 %Abs [45.695]		20A2174

Note

 Signature *David Jordan*

Date: 9/04/2020

Test Report (by Request)

Test Information

Request: 9/3/2020 3:08:27 PM

Date: 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	ANATOXIN	0.968 Abs	0.134 µg/L	LOW, 84.101 %ABS	0.150 - 5.000	20A2174
LRB	ANATOXIN	0.988 Abs [0.9780] {1.4 CV}	0.118 µg/L [0.126] {9	LOW, 85.838 %ABS	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.599 Abs	0.615 µg/L	52.042 %Abs	0.150 - 5.000	20A2174
LFB	ANATOXIN	0.602 Abs [0.6005] {0.4 CV}	0.609 µg/L [0.612] {6	52.302 %Abs [52.17	0.150 - 5.000	20A2174
AB43914	ANATOXIN	1.050 Abs	0.079 µg/L	LOW, 91.225 %ABS	0.150 - 5.000	20A2174
AB43914	ANATOXIN	0.988 Abs [1.0190] {4.3 CV}	0.130 µg/L [0.104] {3	LOW, 85.838 %ABS	0.150 - 5.000	20A2174
AB43915	ANATOXIN	0.971 Abs	0.145 µg/L	LOW, 84.361 %ABS	0.150 - 5.000	20A2174
AB43915	ANATOXIN	0.985 Abs [0.9780] {1.0 CV}	0.133 µg/L [0.139] {6	LOW, 85.578 %ABS	0.150 - 5.000	20A2174
AB43915MS	ANATOXIN	0.587 Abs	0.641 µg/L	50.999 %Abs	0.150 - 5.000	20A2174
AB43915MS	ANATOXIN	0.565 Abs [0.5760] {2.7 CV}	0.692 µg/L [0.666] {5	49.088 %Abs [50.04	0.150 - 5.000	20A2174
AB43915MSD	ANATOXIN	0.553 Abs	0.721 µg/L	48.045 %Abs	0.150 - 5.000	20A2174
AB43915MSD	ANATOXIN	0.528 Abs [0.5405] {3.3 CV}	0.787 µg/L [0.754] {6	45.873 %Abs [46.95	0.150 - 5.000	20A2174
AB43916	ANATOXIN	1.011 Abs	0.110 µg/L	LOW, 87.837 %ABS	0.150 - 5.000	20A2174
AB43916	ANATOXIN	0.981 Abs [0.9960] {2.1 CV}	0.136 µg/L [0.123] {1	LOW, 85.230 %ABS	0.150 - 5.000	20A2174
AB43917	ANATOXIN	0.997 Abs	0.122 µg/L	LOW, 86.620 %ABS	0.150 - 5.000	20A2174
AB43917	ANATOXIN	1.014 Abs [1.0055] {1.2 CV}	0.108 µg/L [0.115] {8	LOW, 88.097 %ABS	0.150 - 5.000	20A2174
AB43918	ANATOXIN	1.097 Abs	0.043 µg/L	LOW, 95.308 %ABS	0.150 - 5.000	20A2174
AB43918	ANATOXIN	1.107 Abs [1.1020] {0.6 CV}	0.035 µg/L [0.039] {1	LOW, 96.177 %ABS	0.150 - 5.000	20A2174
AB44105	ANATOXIN	1.039 Abs	0.088 µg/L	LOW, 90.269 %ABS	0.150 - 5.000	20A2174
AB44105	ANATOXIN	1.030 Abs [1.0345] {0.6 CV}	0.095 µg/L [0.091] {5	LOW, 89.487 %ABS	0.150 - 5.000	20A2174

Note

 Signature *David Jordan*

Date: 9/04/2020

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: 20A2174

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
9/3/2020 3:03:53 PM				
ATX Std 0	1.149 Abs		R ² =0.99814, 99.826 %Abs	RK1:23->A01@2
ATX Std 0	1.153 Abs [1.1510] {0.2 CV}		R ² =0.99814, 100.174 %Abs	RK1:23->B01@2
ATX Std 1	0.973 Abs		R ² =0.99814, 84.535 %Abs	RK1:24->C01@2
ATX Std 1	0.942 Abs [0.9575] {2.3 CV}		R ² =0.99814, 81.842 %Abs	RK1:24->D01@2
ATX Std 2	0.737 Abs		R ² =0.99814, 64.031 %Abs	RK1:25->E01@2
ATX Std 2	0.704 Abs [0.7205] {3.2 CV}		R ² =0.99814, 61.164 %Abs	RK1:25->F01@3
ATX Std 3	0.452 Abs		R ² =0.99814, 39.270 %Abs	RK1:26->G01@3
ATX Std 3	0.439 Abs [0.4455] {2.1 CV}		R ² =0.99814, 38.141 %Abs	RK1:26->H01@3
ATX Std 4	0.287 Abs		R ² =0.99814, 24.935 %Abs	RK1:27->A02@2
ATX Std 4	0.281 Abs [0.2840] {1.5 CV}		R ² =0.99814, 24.414 %Abs	RK1:27->B02@2
ATX Std 5	0.147 Abs		12.772 %Abs	RK1:28->C02@2
ATX Std 5	0.140 Abs [0.1435] {3.4 CV}		12.163 %Abs	RK1:28->D02@2

9/3/2020 3:03:53 PM				
ATX Control	0.544 Abs		47.263 %Abs	RK1:29->E02@2
ATX Control	0.508 Abs [0.5260] {4.8 CV}		44.136 %Abs [45.699 %Abs]	RK1:29->F02@3

Statistic				
ATX Std 0 [MEAN]	1.1510			
ATX Std 0 [SD]	0.0028			
ATX Std 0 [%CV]	0.2457			
ATX Std 1 [MEAN]	0.9575			
ATX Std 1 [SD]	0.0219			
ATX Std 1 [%CV]	2.2893			
ATX Std 1 [%DIFF]				
ATX Std 2 [MEAN]	0.7205			
ATX Std 2 [SD]	0.0233			
ATX Std 2 [%CV]	3.2387			
ATX Std 2 [%DIFF]				
ATX Std 3 [MEAN]	0.4455			
ATX Std 3 [SD]	0.0092			
ATX Std 3 [%CV]	2.0634			
ATX Std 3 [%DIFF]				
ATX Std 4 [MEAN]	0.2840			
ATX Std 4 [SD]	0.0042			
ATX Std 4 [%CV]	1.4939			
ATX Std 4 [%DIFF]				
ATX Std 5 [MEAN]	0.1435			
ATX Std 5 [SD]	0.0049			
ATX Std 5 [%CV]	3.4493			

Name	Absorbance	Concentration	Interpretation	Position
ATX Control [MEAN]	0.5260			
ATX Control [SD]	0.0255			
ATX Control [%CV]	4.8395			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1539
 B = 1.0589
 C = 0.60415
 D = 0.054677
 R2 coef = 0.99814
 50% = 0.667

