



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43631	Summit Lake - State Park	8/3/2020	8/6/2020	< 0.05
AB43632	Kunkel Beach @ Ouabache SP	8/3/2020	8/6/2020	< 0.05
AB43633	Pokagon State Park	8/3/2020	8/6/2020	< 0.05
AB43634	Potawatomi Inn's Beach	8/3/2020	8/6/2020	< 0.05
AB43635	Chain O'Lakes SP	8/3/2020	8/6/2020	< 0.05
AB43636	Potato Creek State Park	8/3/2020	8/6/2020	< 0.05
AB43637	Lost Bridge West SRA	8/3/2020	8/6/2020	< 0.05
AB43638	Mississinewa Lake Miami SRA	8/3/2020	8/6/2020	< 0.05
AB43639	Chain O'Lakes SP (Field Duplicate)	8/3/2020	8/6/2020	< 0.05
AB43640	Field Blank	8/3/2020	8/6/2020	< 0.05
AB43641	Ft. Harrison SP Dog Lake	8/5/2020	8/6/2020	< 0.05

Test Information

Request: 8/6/2020 11:16:08 AM

Date: 8/6/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.531 Abs	0.001 µg/L	R ² =0.99979, 99.222		19J1672
STX Std 0	SAXITOXIN	1.555 Abs [1.5430] {1.1 CV}	0.000 µg/L [0.001] {1}	R ² =0.99979, 100.77		19J1672
STX Std 1	SAXITOXIN	1.237 Abs	0.020 µg/L	R ² =0.99979, 80.169		19J1672
STX Std 1	SAXITOXIN	1.232 Abs [1.2345] {0.3 CV}	0.020 µg/L [0.020] {0}	R ² =0.99979, 79.844		19J1672
STX Std 2	SAXITOXIN	0.878 Abs	0.049 µg/L	R ² =0.99979, 56.902		19J1672
STX Std 2	SAXITOXIN	0.857 Abs [0.8675] {1.7 CV}	0.051 µg/L [0.050] {2}	R ² =0.99979, 55.541		19J1672
STX Std 3	SAXITOXIN	0.561 Abs	0.101 µg/L	R ² =0.99979, 36.358		19J1672
STX Std 3	SAXITOXIN	0.553 Abs [0.5570] {1.0 CV}	0.103 µg/L [0.102] {1}	R ² =0.99979, 35.839		19J1672
STX Std 4	SAXITOXIN	0.356 Abs	0.188 µg/L	R ² =0.99979, 23.072		19J1672
STX Std 4	SAXITOXIN	0.349 Abs [0.3525] {1.4 CV}	0.193 µg/L [0.190] {1}	R ² =0.99979, 22.618		19J1672
STX Std 5	SAXITOXIN	0.209 Abs	> 0.400 µg/L	13.545 %Abs		19J1672
STX Std 5	SAXITOXIN	0.202 Abs [0.2055] {2.4 CV}	> 0.400 µg/L	13.091 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.698 Abs	0.073 µg/L	45.237 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.667 Abs [0.6825] {3.2 CV}	0.078 µg/L [0.075] {4}	43.227 %Abs [44.232]		19J1672

Note

Signature David Jordan

Date: 8/6/2020

Test Report (by Request)

Test Information

 Request: 8/6/2020 11:48:46 AM
 Date: 8/6/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.457 Abs	0.006 µg/L	LOW, 94.426 %ABS	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.470 Abs [1.4635] {0.6 CV}	0.006 µg/L [0.006] {0.6 CV}	LOW, 95.269 %ABS	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.732 Abs	0.068 µg/L	47.440 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.710 Abs [0.7210] {2.2 CV}	0.071 µg/L [0.069] {2.2 CV}	46.014 %Abs [46.72]	0.020 - 0.400	19J1672
AB43631	SAXITOXIN	1.471 Abs	0.005 µg/L	LOW, 95.334 %ABS	0.020 - 0.400	19J1672
AB43631	SAXITOXIN	1.449 Abs [1.4600] {1.1 CV}	0.008 µg/L [0.007] {1.1 CV}	LOW, 93.908 %ABS	0.020 - 0.400	19J1672
AB43632	SAXITOXIN	1.040 Abs	0.037 µg/L	67.401 %Abs	0.020 - 0.400	19J1672
AB43632	SAXITOXIN	1.017 Abs [1.0285] {1.6 CV}	0.040 µg/L [0.038] {1.6 CV}	65.911 %Abs [66.656]	0.020 - 0.400	19J1672
AB43633	SAXITOXIN	1.397 Abs	0.011 µg/L	LOW, 90.538 %ABS	0.020 - 0.400	19J1672
AB43633	SAXITOXIN	1.401 Abs [1.3990] {0.2 CV}	0.011 µg/L [0.011] {0.2 CV}	LOW, 90.797 %ABS	0.020 - 0.400	19J1672
AB43634	SAXITOXIN	1.368 Abs	0.013 µg/L	LOW, 88.658 %ABS	0.020 - 0.400	19J1672
AB43634	SAXITOXIN	1.447 Abs [1.4075] {4.0 CV}	0.008 µg/L [0.011] {3.0 CV}	LOW, 93.778 %ABS	0.020 - 0.400	19J1672
AB43635	SAXITOXIN	1.300 Abs	0.018 µg/L	LOW, 84.251 %ABS	0.020 - 0.400	19J1672
AB43635	SAXITOXIN	1.309 Abs [1.3045] {0.5 CV}	0.016 µg/L [0.017] {0.5 CV}	LOW, 84.835 %ABS	0.020 - 0.400	19J1672
AB43635MS	SAXITOXIN	0.639 Abs	0.083 µg/L	41.413 %Abs	0.020 - 0.400	19J1672
AB43635MS	SAXITOXIN	0.619 Abs [0.6290] {2.2 CV}	0.088 µg/L [0.086] {2.2 CV}	40.117 %Abs [40.765]	0.020 - 0.400	19J1672
AB43635MSD	SAXITOXIN	0.619 Abs	0.088 µg/L	40.117 %Abs	0.020 - 0.400	19J1672
AB43635MSD	SAXITOXIN	0.618 Abs [0.6185] {0.1 CV}	0.088 µg/L [0.088] {0.1 CV}	40.052 %Abs [40.084]	0.020 - 0.400	19J1672
AB43636	SAXITOXIN	0.999 Abs	0.041 µg/L	64.744 %Abs	0.020 - 0.400	19J1672
AB43636	SAXITOXIN	0.986 Abs [0.9925] {0.9 CV}	0.042 µg/L [0.042] {0.9 CV}	63.901 %Abs [64.323]	0.020 - 0.400	19J1672
AB43637	SAXITOXIN	1.234 Abs	0.022 µg/L	79.974 %Abs	0.020 - 0.400	19J1672
AB43637	SAXITOXIN	1.212 Abs [1.2230] {1.3 CV}	0.023 µg/L [0.023] {1.3 CV}	78.548 %Abs [79.264]	0.020 - 0.400	19J1672
AB43638	SAXITOXIN	1.360 Abs	0.013 µg/L	LOW, 88.140 %ABS	0.020 - 0.400	19J1672
AB43638	SAXITOXIN	1.347 Abs [1.3535] {0.7 CV}	0.014 µg/L [0.014] {0.7 CV}	LOW, 87.297 %ABS	0.020 - 0.400	19J1672
AB43639	SAXITOXIN	1.287 Abs	0.019 µg/L	LOW, 83.409 %ABS	0.020 - 0.400	19J1672
AB43639	SAXITOXIN	1.276 Abs [1.2815] {0.6 CV}	0.019 µg/L [0.019] {0.6 CV}	LOW, 82.696 %ABS	0.020 - 0.400	19J1672
AB43640	SAXITOXIN	1.569 Abs	0.000 µg/L	LOW, 101.685 %ABS	0.020 - 0.400	19J1672
AB43640	SAXITOXIN	1.513 Abs [1.5410] {2.6 CV}	0.003 µg/L [0.002] {1.0 CV}	LOW, 98.056 %ABS	0.020 - 0.400	19J1672
AB43641	SAXITOXIN	1.410 Abs	0.010 µg/L	LOW, 91.380 %ABS	0.020 - 0.400	19J1672
AB43641	SAXITOXIN	1.373 Abs [1.3915] {1.9 CV}	0.012 µg/L [0.011] {1.0 CV}	LOW, 88.983 %ABS	0.020 - 0.400	19J1672
LFB 2	SAXITOXIN	0.713 Abs	0.070 µg/L	46.209 %Abs	0.020 - 0.400	19J1672
LFB 2	SAXITOXIN	0.674 Abs [0.6935] {4.0 CV}	0.077 µg/L [0.074] {0.6 CV}	43.681 %Abs [44.945]	0.020 - 0.400	19J1672
LRB 2	SAXITOXIN	1.491 Abs	0.004 µg/L	LOW, 96.630 %ABS	0.020 - 0.400	19J1672
LRB 2	SAXITOXIN	1.474 Abs [1.4825] {0.8 CV}	0.005 µg/L [0.004] {1.0 CV}	LOW, 95.528 %ABS	0.020 - 0.400	19J1672

Note

 Signature David Jordan

Date: 8/6/2020

Assay Information

Assay Name: SAXITOXIN
 Version: 2
 Temperature: Room Temperature
 Last Modified By: Security disabled
 Units: µg/L
 Assay Description: PN. 52255B
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None
 Well Type: Flat bottom
 Last Modified On: 7/25/2019 3:55:28 PM
 Normal: 0.020 - 0.400
 # of decimals: 3
 Kit Lot Number: 19J1672

STX Control (0.060-0.090)
 Standards:
 STX Std 0, Concentration = 0.000, Minimum number to use: 2
 STX Std 1, Concentration = 0.020, Minimum number to use: 2
 STX Std 2, Concentration = 0.050, Minimum number to use: 2
 STX Std 3, Concentration = 0.100, Minimum number to use: 2
 STX Std 4, Concentration = 0.200, Minimum number to use: 2
 STX Std 5, Concentration = 0.400, 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
8/6/2020 11:16:08 AM				
STX Std 0	1.531 Abs		R ² =0.99979, 99.222 %Abs	RK1:23->A01@2
STX Std 0	1.555 Abs [1.5430] {1.1 CV}		R ² =0.99979, 100.778 %Abs	RK1:23->B01@2
STX Std 1	1.237 Abs		R ² =0.99979, 80.169 %Abs	RK1:24->C01@2
STX Std 1	1.232 Abs [1.2345] {0.3 CV}		R ² =0.99979, 79.844 %Abs	RK1:24->D01@2
STX Std 2	0.878 Abs		R ² =0.99979, 56.902 %Abs	RK1:25->E01@2
STX Std 2	0.857 Abs [0.8675] {1.7 CV}		R ² =0.99979, 55.541 %Abs	RK1:25->F01@3
STX Std 3	0.561 Abs		R ² =0.99979, 36.358 %Abs	RK1:26->G01@3
STX Std 3	0.553 Abs [0.5570] {1.0 CV}		R ² =0.99979, 35.839 %Abs	RK1:26->H01@3
STX Std 4	0.356 Abs		R ² =0.99979, 23.072 %Abs	RK1:27->A02@2
STX Std 4	0.349 Abs [0.3525] {1.4 CV}		R ² =0.99979, 22.618 %Abs	RK1:27->B02@2
STX Std 5	0.209 Abs		13.545 %Abs	RK1:28->C02@2
STX Std 5	0.202 Abs [0.2055] {2.4 CV}		13.091 %Abs	RK1:28->D02@2

8/6/2020 11:16:08 AM				
STX Control (0.060-0.090)	0.698 Abs		45.237 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.667 Abs [0.6825] {3.2 CV}		43.227 %Abs [44.232 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.5430			
STX Std 0 [SD]	0.0170			
STX Std 0 [%CV]	1.0998			
STX Std 1 [MEAN]	1.2345			
STX Std 1 [SD]	0.0035			
STX Std 1 [%CV]	0.2864			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.8675			
STX Std 2 [SD]	0.0148			
STX Std 2 [%CV]	1.7117			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.5570			
STX Std 3 [SD]	0.0057			
STX Std 3 [%CV]	1.0156			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3525			
STX Std 4 [SD]	0.0049			
STX Std 4 [%CV]	1.4042			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2055			
STX Std 5 [SD]	0.0049			
STX Std 5 [%CV]	2.4086			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6825			
STX Control (0.060-0.090) [SD]	0.0219			
STX Control (0.060-0.090) [%CV]	3.2118			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.5439
 B = 1.2667
 C = 0.055077
 D = 0.10468
 R2 coef = 0.99979
 50% = 0.062

