



Saxitoxin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43405	Summit Lake - State Park	7/6/2020	7/8/2020	<0.05
AB43406	Kunkel Beach @ Ouabache State Park	7/6/2020	7/8/2020	0.10
AB43407	Pokagon State Park	7/6/2020	7/8/2020	<0.05
AB43408	Potawatomi Inn's Beach	7/6/2020	7/8/2020	<0.05
AB43409	Chain O'Lakes SP	7/6/2020	7/8/2020	<0.05
AB43410	Potato Creek State Park	7/7/2020	7/8/2020	<0.05
AB43411	Lost Bridge West SRA	7/7/2020	7/8/2020	<0.05
AB43412	Mississinewa Lake Miami SRA	7/7/2020	7/8/2020	<0.05
AB43413	Field Blank	7/6/2020	7/8/2020	<0.05
AB43414	Kunkel Beach @ Ouabache State Park (Field Duplicate)	7/6/2020	7/8/2020	0.10

Test Report (by Request)

Test Information

 Request: 7/8/2020 4:39:27 PM
 Date: 7/8/2020 - 7/8/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.684 Abs	0.000 µg/L	R^2=0.99990, 100.00		19J1672
STX Std 0	SAXITOXIN	1.682 Abs [1.6830] {0.1 CV}	0.000 µg/L [0.000]	R^2=0.99990, 100.00		19J1672
STX Std 1	SAXITOXIN	1.342 Abs	0.020 µg/L	R^2=0.99990, 79.739		19J1672
STX Std 1	SAXITOXIN	1.342 Abs [1.3420] {0.0 CV}	0.020 µg/L [0.020] {0.0 CV}	R^2=0.99990, 79.739		19J1672
STX Std 2	SAXITOXIN	0.970 Abs	0.048 µg/L	R^2=0.99990, 57.635		19J1672
STX Std 2	SAXITOXIN	0.941 Abs [0.9555] {2.1 CV}	0.051 µg/L [0.049] {4.0 CV}	R^2=0.99990, 55.912		19J1672
STX Std 3	SAXITOXIN	0.609 Abs	0.102 µg/L	R^2=0.99990, 36.185		19J1672
STX Std 3	SAXITOXIN	0.610 Abs [0.6095] {0.1 CV}	0.102 µg/L [0.102] {0.1 CV}	R^2=0.99990, 36.245		19J1672
STX Std 4	SAXITOXIN	0.384 Abs	0.193 µg/L	R^2=0.99990, 22.816		19J1672
STX Std 4	SAXITOXIN	0.376 Abs [0.3800] {1.5 CV}	0.199 µg/L [0.196] {2.0 CV}	R^2=0.99990, 22.341		19J1672
STX Std 5	SAXITOXIN	0.241 Abs	0.390 µg/L	R^2=0.99990, 14.320		19J1672
STX Std 5	SAXITOXIN	0.230 Abs [0.2355] {3.3 CV}	> 0.400 µg/L [0.390]	13.666 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.777 Abs	0.071 µg/L	46.168 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.746 Abs [0.7615] {2.9 CV}	0.076 µg/L [0.074] {4.0 CV}	44.326 %Abs [45.241]		19J1672

Note

Signature

Charles Hostetter 7/9/2020

Test Information

Request: 7/8/2020 4:40:31 PM
Date: 7/8/2020 - 7/8/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.626 Abs	0.004 µg/L	LOW, 96.613 %ABS	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.637 Abs [1.6315] {0.5 CV}	0.003 µg/L [0.004] {2}		0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.734 Abs	0.078 µg/L	43.613 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.725 Abs [0.7295] {0.9 CV}	0.079 µg/L [0.079] {0}	43.078 %Abs [43.345]	0.020 - 0.400	19J1672
AB43405	SAXITOXIN	1.606 Abs	0.005 µg/L	LOW, 95.425 %ABS	0.020 - 0.400	19J1672
AB43405	SAXITOXIN	1.621 Abs [1.6135] {0.7 CV}	0.004 µg/L [0.004] {1}		0.020 - 0.400	19J1672
AB43405MS	SAXITOXIN	0.713 Abs	0.081 µg/L	42.365 %Abs	0.020 - 0.400	19J1672
AB43405MS	SAXITOXIN	0.692 Abs [0.7025] {2.1 CV}	0.085 µg/L [0.083] {3}	41.117 %Abs [41.741]	0.020 - 0.400	19J1672
AB43405MSD	SAXITOXIN	0.697 Abs	0.084 µg/L	41.414 %Abs	0.020 - 0.400	19J1672
AB43405MSD	SAXITOXIN	0.699 Abs [0.6980] {0.2 CV}	0.084 µg/L [0.084] {0}	41.533 %Abs [41.474]	0.020 - 0.400	19J1672
AB43406	SAXITOXIN	0.618 Abs	0.100 µg/L	36.720 %Abs	0.020 - 0.400	19J1672
AB43406	SAXITOXIN	0.621 Abs [0.6195] {0.3 CV}	0.099 µg/L [0.100] {0}	36.898 %Abs [36.805]	0.020 - 0.400	19J1672
AB43407	SAXITOXIN	1.596 Abs	0.006 µg/L	LOW, 94.831 %ABS	0.020 - 0.400	19J1672
AB43407	SAXITOXIN	1.591 Abs [1.5935] {0.2 CV}	0.006 µg/L [0.006] {0}		0.020 - 0.400	19J1672
AB43408	SAXITOXIN	1.597 Abs	0.006 µg/L	LOW, 94.890 %ABS	0.020 - 0.400	19J1672
AB43408	SAXITOXIN	1.566 Abs [1.5815] {1.4 CV}	0.008 µg/L [0.007] {2}		0.020 - 0.400	19J1672
AB43409	SAXITOXIN	1.236 Abs	0.027 µg/L	73.440 %Abs	0.020 - 0.400	19J1672
AB43409	SAXITOXIN	1.274 Abs [1.2550] {2.1 CV}	0.024 µg/L [0.025] {8}	75.698 %Abs [74.565]	0.020 - 0.400	19J1672
AB43410	SAXITOXIN	1.542 Abs	0.009 µg/L	LOW, 91.622 %ABS	0.020 - 0.400	19J1672
AB43410	SAXITOXIN	1.548 Abs [1.5450] {0.3 CV}	0.009 µg/L [0.009] {0}		0.020 - 0.400	19J1672
AB43411	SAXITOXIN	1.564 Abs	0.008 µg/L	LOW, 92.929 %ABS	0.020 - 0.400	19J1672
AB43411	SAXITOXIN	1.598 Abs [1.5810] {1.5 CV}	0.006 µg/L [0.007] {2}		0.020 - 0.400	19J1672
AB43412	SAXITOXIN	1.337 Abs	0.020 µg/L	79.441 %Abs	0.020 - 0.400	19J1672
AB43412	SAXITOXIN	1.292 Abs [1.3145] {2.4 CV}	0.023 µg/L [0.021] {9}	76.768 %Abs [78.105]	0.020 - 0.400	19J1672
AB43413	SAXITOXIN	1.638 Abs	0.003 µg/L	LOW, 97.326 %ABS	0.020 - 0.400	19J1672
AB43413	SAXITOXIN	1.656 Abs [1.6470] {0.8 CV}	0.002 µg/L [0.003] {2}		0.020 - 0.400	19J1672
AB43414	SAXITOXIN	0.611 Abs	0.102 µg/L	36.304 %Abs	0.020 - 0.400	19J1672
AB43414	SAXITOXIN	0.597 Abs [0.6040] {1.6 CV}	0.105 µg/L [0.103] {2}	35.472 %Abs [35.885]	0.020 - 0.400	19J1672

Note

Signature _____

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
7/8/2020 4:39:27 PM				
STX Std 0	1.684 Abs		R ² =0.99990, 100.000 %Abs	RK1:23->A01@2
STX Std 0	1.682 Abs [1.6830] {0.1 CV}		R ² =0.99990, 100.000 %Abs	RK1:23->B01@2
STX Std 1	1.342 Abs		R ² =0.99990, 79.739 %Abs	RK1:24->C01@2
STX Std 1	1.342 Abs [1.3420] {0.0 CV}		R ² =0.99990, 79.739 %Abs	RK1:24->D01@2
STX Std 2	0.970 Abs		R ² =0.99990, 57.635 %Abs	RK1:25->E01@2
STX Std 2	0.941 Abs [0.9555] {2.1 CV}		R ² =0.99990, 55.912 %Abs	RK1:25->F01@3
STX Std 3	0.609 Abs		R ² =0.99990, 36.185 %Abs	RK1:26->G01@3
STX Std 3	0.610 Abs [0.6095] {0.1 CV}		R ² =0.99990, 36.245 %Abs	RK1:26->H01@3
STX Std 4	0.384 Abs		R ² =0.99990, 22.816 %Abs	RK1:27->A02@2
STX Std 4	0.376 Abs [0.3800] {1.5 CV}		R ² =0.99990, 22.341 %Abs	RK1:27->B02@2
STX Std 5	0.241 Abs		R ² =0.99990, 14.320 %Abs	RK1:28->C02@2
STX Std 5	0.230 Abs [0.2355] {3.3 CV}		13.666 %Abs	RK1:28->D02@2

7/8/2020 4:39:27 PM				
STX Control (0.060-0.090)	0.777 Abs		46.168 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.746 Abs [0.7615] {2.9 CV}		44.326 %Abs [45.247 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.6830			
STX Std 0 [SD]	0.0014			
STX Std 0 [%CV]	0.0840			
STX Std 1 [MEAN]	1.3420			
STX Std 1 [SD]	0.0000			
STX Std 1 [%CV]	0.0000			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9555			
STX Std 2 [SD]	0.0205			
STX Std 2 [%CV]	2.1461			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6095			
STX Std 3 [SD]	0.0007			
STX Std 3 [%CV]	0.1160			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3800			
STX Std 4 [SD]	0.0057			
STX Std 4 [%CV]	1.4886			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2355			
STX Std 5 [SD]	0.0078			
STX Std 5 [%CV]	3.3028			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7615			
STX Control (0.060-0.090) [SD]	0.0219			
STX Control (0.060-0.090) [%CV]	2.8786			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6824
 B = 1.2737
 C = 0.054956
 D = 0.12218
 R2 coef = 0.99990
 50% = 0.062

