



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC19241	Pokagon SP - Main Beach	8/14/2023	8/17/2023	< 0.05
AC19242	Pokagon SP - Potawatomi Inn Beach	8/14/2023	8/17/2023	< 0.05
AC19243	Chain O'Lakes SP - Sand Lake Beach	8/14/2023	8/17/2023	< 0.05
AC19244	Ouabache SP - Kunkel Lake Beach	8/14/2023	8/17/2023	< 0.05
AC19245	Potato Creek SP - Worster Lake Beach	8/15/2023	8/17/2023	< 0.05
AC19246	Mississinewa Lake - Miami SRA Beach	8/15/2023	8/17/2023	< 0.05
AC19247	Salamonie Lake - Lost Bridge West SRA Beach	8/15/2023	8/17/2023	< 0.05
AC19248	Summit Lake SP - Summit Lake Beach	8/15/2023	8/17/2023	< 0.05
AC19249	Ouabache SP - Kunkel Lake Beach (Field Duplicate)	8/14/2023	8/17/2023	< 0.05
AC19250	Field Blank	8/14/2023	8/17/2023	< 0.05
AC19251	Ferdinand State Forest - Ferdinand Lake Beach	8/14/2023	8/17/2023	< 0.05
AC19252	Lincoln SP - Lake Lincoln Beach	8/14/2023	8/17/2023	< 0.05
AC19253	Patoka Lake - Newton Stewart SRA	8/14/2023	8/17/2023	< 0.05

Test Report (by Request)

Test Information

Request: 8/17/2023 4:56:20 PM
 Date: 8/17/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.285 Abs	0.001 µg/L	R^2=0.99976, 99.61		0.000	Kit:P23B0
STX Std 0	SAXITOXIN	1.295 Abs [1.2900] {0.5 C	0.000 µg/L [0.001]	R^2=0.99976, 100.3		0.000	Kit:P23B0
STX Std 1	SAXITOXIN	1.062 Abs	0.020 µg/L	R^2=0.99976, 82.32		0.020	Kit:P23B0
STX Std 1	SAXITOXIN	1.054 Abs [1.0580] {0.5 C	0.020 µg/L [0.020]	R^2=0.99976, 81.70		0.020	Kit:P23B0
STX Std 2	SAXITOXIN	0.780 Abs	0.049 µg/L	R^2=0.99976, 60.46		0.050	Kit:P23B0
STX Std 2	SAXITOXIN	0.768 Abs [0.7740] {1.1 C	0.051 µg/L [0.050]	R^2=0.99976, 59.53		0.050	Kit:P23B0
STX Std 3	SAXITOXIN	0.523 Abs	0.101 µg/L	R^2=0.99976, 40.54		0.100	Kit:P23B0
STX Std 3	SAXITOXIN	0.513 Abs [0.5180] {1.4 C	0.104 µg/L [0.103]	R^2=0.99976, 39.76		0.100	Kit:P23B0
STX Std 4	SAXITOXIN	0.346 Abs	0.188 µg/L	R^2=0.99976, 26.82		0.200	Kit:P23B0
STX Std 4	SAXITOXIN	0.340 Abs [0.3430] {1.2 C	0.193 µg/L [0.191]	R^2=0.99976, 26.35		0.200	Kit:P23B0
STX Std 5	SAXITOXIN	0.214 Abs	> 0.400 µg/L	16.589 %Abs		0.400	Kit:P23B0
STX Std 5	SAXITOXIN	0.211 Abs [0.2125] {1.0 C	> 0.400 µg/L	16.357 %Abs		0.400	Kit:P23B0
STX Control (0.060-0.090)	SAXITOXIN	0.681 Abs	0.064 µg/L	52.791 %Abs			Kit:P23B0
STX Control (0.060-0.090)	SAXITOXIN	0.665 Abs [0.6730] {1.7 C	0.067 µg/L [0.066]	51.550 %Abs [52.1			Kit:P23B0

Note

Signature _____

Charles Hostetter 8/18/2023

Test Report (by Request)

Test Information

Request: 8/17/2023 4:57:28 PM
Date: 8/17/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.253 Abs	0.004 µg/L	Low, 97.132 %Abs		0.020 - 0.400	Kit:P23B0
LRB	SAXITOXIN	1.260 Abs [1.2565] {0.4 C	0.003 µg/L [0.004]	Low, 97.674 %Abs		0.020 - 0.400	Kit:P23B0
LFB (SAX)	SAXITOXIN	0.560 Abs	0.090 µg/L	43.411 %Abs		0.020 - 0.400	Kit:P23B0
LFB (SAX)	SAXITOXIN	0.546 Abs [0.5530] {1.8 C	0.094 µg/L [0.092]	42.326 %Abs [42.8		0.020 - 0.400	Kit:P23B0
AC19241	SAXITOXIN	1.206 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19241	SAXITOXIN	1.195 Abs [1.2005] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19242	SAXITOXIN	1.190 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19242	SAXITOXIN	1.191 Abs [1.1905] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19242MS	SAXITOXIN	0.578 Abs	0.086 µg/L	44.806 %Abs		0.020 - 0.400	Kit:P23B0
AC19242MS	SAXITOXIN	0.570 Abs [0.5740] {1.0 C	0.088 µg/L [0.087]	44.186 %Abs [44.4		0.020 - 0.400	Kit:P23B0
AC19242MSD	SAXITOXIN	0.592 Abs	0.082 µg/L	45.891 %Abs		0.020 - 0.400	Kit:P23B0
AC19242MSD	SAXITOXIN	0.571 Abs [0.5815] {2.6 C	0.087 µg/L [0.085]	44.264 %Abs [45.0		0.020 - 0.400	Kit:P23B0
AC19243	SAXITOXIN	1.147 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19243	SAXITOXIN	1.115 Abs [1.1310] {2.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19244	SAXITOXIN	0.937 Abs	0.034 µg/L	72.636 %Abs	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19244	SAXITOXIN	0.925 Abs [0.9310] {0.9 C	0.035 µg/L [0.035]	71.705 %Abs [72.1	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19245	SAXITOXIN	1.127 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19245	SAXITOXIN	1.132 Abs [1.1295] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19246	SAXITOXIN	1.237 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19246	SAXITOXIN	1.198 Abs [1.2175] {2.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19247	SAXITOXIN	1.088 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19247	SAXITOXIN	1.077 Abs [1.0825] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19248	SAXITOXIN	1.182 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19248	SAXITOXIN	1.181 Abs [1.1815] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19249	SAXITOXIN	0.926 Abs	0.035 µg/L	71.783 %Abs	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19249	SAXITOXIN	0.921 Abs [0.9235] {0.4 C	0.036 µg/L [0.036]	71.395 %Abs [71.5	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19250	SAXITOXIN	1.297 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19250	SAXITOXIN	1.264 Abs [1.2805] {1.8 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19251	SAXITOXIN	0.900 Abs	0.038 µg/L	69.767 %Abs	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19251	SAXITOXIN	0.885 Abs [0.8925] {1.2 C	0.040 µg/L [0.039]	68.605 %Abs [69.1	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19252	SAXITOXIN	1.032 Abs	0.024 µg/L	80.000 %Abs	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19252	SAXITOXIN	1.028 Abs [1.0300] {0.3 C	0.024 µg/L [0.024]	79.690 %Abs [79.8	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19253	SAXITOXIN	1.246 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0
AC19253	SAXITOXIN	1.238 Abs [1.2420] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P23B0

Note

Signature _____

Charles Hostetter 8/18/2023

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: Kit:P23B0244

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
8/17/2023 4:56:20 PM				
STX Std 0	1.285 Abs	0.001 µg/L	R ² =0.99976, 99.612 %Abs	RK1:23->A01@2
STX Std 0	1.295 Abs [1.2900] {0.5 CV}	0.000 µg/L [0.001] {141.4 CV}	R ² =0.99976, 100.388 %Abs	RK1:23->B01@2
STX Std 1	1.062 Abs	0.020 µg/L	R ² =0.99976, 82.326 %Abs	RK1:24->C01@2
STX Std 1	1.054 Abs [1.0580] {0.5 CV}	0.020 µg/L [0.020] {0.0 CV}	R ² =0.99976, 81.705 %Abs	RK1:24->D01@2
STX Std 2	0.780 Abs	0.049 µg/L	R ² =0.99976, 60.465 %Abs	RK1:25->E01@2
STX Std 2	0.768 Abs [0.7740] {1.1 CV}	0.051 µg/L [0.050] {2.8 CV}	R ² =0.99976, 59.535 %Abs	RK1:25->F01@3
STX Std 3	0.523 Abs	0.101 µg/L	R ² =0.99976, 40.543 %Abs	RK1:26->G01@3
STX Std 3	0.513 Abs [0.5180] {1.4 CV}	0.104 µg/L [0.103] {2.1 CV}	R ² =0.99976, 39.767 %Abs	RK1:26->H01@3
STX Std 4	0.346 Abs	0.188 µg/L	R ² =0.99976, 26.822 %Abs	RK1:27->A02@2
STX Std 4	0.340 Abs [0.3430] {1.2 CV}	0.193 µg/L [0.191] {1.9 CV}	R ² =0.99976, 26.357 %Abs	RK1:27->B02@2
STX Std 5	0.214 Abs	> 0.400 µg/L	16.589 %Abs	RK1:28->C02@2
STX Std 5	0.211 Abs [0.2125] {1.0 CV}	> 0.400 µg/L	16.357 %Abs	RK1:28->D02@2

8/17/2023 4:56:20 PM				
STX Control (0.060-0.090)	0.681 Abs	0.064 µg/L	52.791 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.665 Abs [0.6730] {1.7 CV}	0.067 µg/L [0.066] {3.2 CV}	51.550 %Abs [52.171 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.2900	0.0005		
STX Std 0 [SD]	0.0071	0.0007		
STX Std 0 [%CV]	0.5481	141.4214		
STX Std 1 [MEAN]	1.0580	0.0200		
STX Std 1 [SD]	0.0057	0.0000		
STX Std 1 [%CV]	0.5347	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.7740	0.0500		
STX Std 2 [SD]	0.0085	0.0014		
STX Std 2 [%CV]	1.0963	2.8284		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.5180	0.1025		
STX Std 3 [SD]	0.0071	0.0021		
STX Std 3 [%CV]	1.3651	2.0696		
STX Std 3 [%DIFF]		2.5000		
STX Std 4 [MEAN]	0.3430	0.1905		
STX Std 4 [SD]	0.0042	0.0035		
STX Std 4 [%CV]	1.2369	1.8559		
STX Std 4 [%DIFF]		-4.7500		
STX Std 5 [MEAN]	0.2125			
STX Std 5 [SD]	0.0021			
STX Std 5 [%CV]	0.9983			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6730	0.0655		
STX Control (0.060-0.090) [SD]	0.0113	0.0021		
STX Control (0.060-0.090) [%CV]	1.6811	3.2387		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2908
 B = 1.2529
 C = 0.060429
 D = 0.11789
 R2 coef = 0.99976
 50% = 0.071

