



## Saxitoxins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ppb)</b>
AB47550	Ft. Ben Harrison SP Dog Lake - East	6/7/2021	6/8/2021	< 0.05
AB47551	Ferdinand State Forest Lake	6/7/2021	6/8/2021	< 0.05
AB47552	Patoka SRA Beach	6/7/2021	6/8/2021	< 0.05
AB47578	Ft. Ben Harrison SP Dog Lake - East (Field Dup)	6/7/2021	6/8/2021	< 0.05
AB47579	Field Blank	6/7/2021	6/8/2021	< 0.05

# Test Report (by Request)

**Test Information**

 Request: 6/8/2021 3:04:11 PM  
 Date: 6/8/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.179 Abs	0.001 µg/L	R^2=0.99807, 99.32			20G3584
STX Std 0	SAXITOXIN	1.194 Abs [1.1865] {0.9 C	0.000 µg/L [0.001]	R^2=0.99807, 100.5			20G3584
STX Std 1	SAXITOXIN	0.995 Abs	0.021 µg/L	R^2=0.99807, 83.82			20G3584
STX Std 1	SAXITOXIN	0.986 Abs [0.9905] {0.6 C	0.021 µg/L [0.021]	R^2=0.99807, 83.06			20G3584
STX Std 2	SAXITOXIN	0.768 Abs	0.046 µg/L	R^2=0.99807, 64.70			20G3584
STX Std 2	SAXITOXIN	0.747 Abs [0.7575] {2.0 C	0.048 µg/L [0.047]	R^2=0.99807, 62.93			20G3584
STX Std 3	SAXITOXIN	0.471 Abs	0.105 µg/L	R^2=0.99807, 39.68			20G3584
STX Std 3	SAXITOXIN	0.455 Abs [0.4630] {2.4 C	0.111 µg/L [0.108]	R^2=0.99807, 38.33			20G3584
STX Std 4	SAXITOXIN	0.321 Abs	0.179 µg/L	R^2=0.99807, 27.04			20G3584
STX Std 4	SAXITOXIN	0.306 Abs [0.3135] {3.4 C	0.191 µg/L [0.185]	R^2=0.99807, 25.77			20G3584
STX Std 5	SAXITOXIN	0.186 Abs	> 0.400 µg/L	15.670 %Abs			20G3584
STX Std 5	SAXITOXIN	0.179 Abs [0.1825] {2.7 C	> 0.400 µg/L	15.080 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.662 Abs	0.061 µg/L	55.771 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.641 Abs [0.6515] {2.3 C	0.065 µg/L [0.063]	54.002 %Abs [54.8			20G3584

**Note**

Signature

David Jordan 6/8/2021

# Test Report (by Request)

**Test Information**

Request: 6/8/2021 3:04:40 PM

Date: 6/8/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (SAX)	SAXITOXIN	1.229 Abs	0.000 µg/L	Low, 103.538 %Abs		0.020 - 0.400	20G3584
LRB (SAX)	SAXITOXIN	1.232 Abs [1.2305] {0.2 C	0.000 µg/L [0.000]	Low, 103.791 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.539 Abs	0.086 µg/L	45.409 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.514 Abs [0.5265] {3.4 C	0.093 µg/L [0.090]	43.302 %Abs [44.3		0.020 - 0.400	20G3584
AB47550	SAXITOXIN	1.074 Abs	0.013 µg/L	Low, 90.480 %Abs		0.020 - 0.400	20G3584
AB47550	SAXITOXIN	1.069 Abs [1.0715] {0.3 C	0.013 µg/L [0.013]	Low, 90.059 %Abs		0.020 - 0.400	20G3584
AB47551	SAXITOXIN	1.051 Abs	0.015 µg/L	Low, 88.543 %Abs		0.020 - 0.400	20G3584
AB47551	SAXITOXIN	1.036 Abs [1.0435] {1.0 C	0.017 µg/L [0.016]	Low, 87.279 %Abs		0.020 - 0.400	20G3584
AB47551MS	SAXITOXIN	0.577 Abs	0.078 µg/L	48.610 %Abs		0.020 - 0.400	20G3584
AB47551MS	SAXITOXIN	0.557 Abs [0.5670] {2.5 C	0.082 µg/L [0.080]	46.925 %Abs [47.7		0.020 - 0.400	20G3584
AB47551MSD	SAXITOXIN	0.594 Abs	0.074 µg/L	50.042 %Abs		0.020 - 0.400	20G3584
AB47551MSD	SAXITOXIN	0.579 Abs [0.5865] {1.8 C	0.077 µg/L [0.075]	48.778 %Abs [49.4		0.020 - 0.400	20G3584
AB47552	SAXITOXIN	1.211 Abs	0.000 µg/L	Low, 102.022 %Abs		0.020 - 0.400	20G3584
AB47552	SAXITOXIN	1.231 Abs [1.2210] {1.2 C	0.000 µg/L [0.000]	Low, 103.707 %Abs		0.020 - 0.400	20G3584
AB47578	SAXITOXIN	1.146 Abs	0.006 µg/L	Low, 96.546 %Abs		0.020 - 0.400	20G3584
AB47578	SAXITOXIN	1.130 Abs [1.1380] {1.0 C	0.007 µg/L [0.007]	Low, 95.198 %Abs		0.020 - 0.400	20G3584
AB47579	SAXITOXIN	1.202 Abs	0.000 µg/L	Low, 101.264 %Abs		0.020 - 0.400	20G3584
AB47579	SAXITOXIN	1.229 Abs [1.2155] {1.6 C	0.000 µg/L [0.000]	Low, 103.538 %Abs		0.020 - 0.400	20G3584

**Note**

 Signature *David Jordan*

David Jordan 6/8/2021

**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: 20G3584

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
<b>6/8/2021 3:04:11 PM</b>				
STX Std 0	1.179 Abs	0.001 µg/L	R <sup>2</sup> =0.99807, 99.326 %Abs	RK1:23->A01@2
STX Std 0	1.194 Abs [1.1865] {0.9 CV}	0.000 µg/L [0.001] {141.4 CV}	R <sup>2</sup> =0.99807, 100.590 %Abs	RK1:23->B01@2
STX Std 1	0.995 Abs	0.021 µg/L	R <sup>2</sup> =0.99807, 83.825 %Abs	RK1:24->C01@2
STX Std 1	0.986 Abs [0.9905] {0.6 CV}	0.021 µg/L [0.021] {0.0 CV}	R <sup>2</sup> =0.99807, 83.067 %Abs	RK1:24->D01@2
STX Std 2	0.768 Abs	0.046 µg/L	R <sup>2</sup> =0.99807, 64.701 %Abs	RK1:25->E01@2
STX Std 2	0.747 Abs [0.7575] {2.0 CV}	0.048 µg/L [0.047] {3.0 CV}	R <sup>2</sup> =0.99807, 62.932 %Abs	RK1:25->F01@3
STX Std 3	0.471 Abs	0.105 µg/L	R <sup>2</sup> =0.99807, 39.680 %Abs	RK1:26->G01@3
STX Std 3	0.455 Abs [0.4630] {2.4 CV}	0.111 µg/L [0.108] {3.9 CV}	R <sup>2</sup> =0.99807, 38.332 %Abs	RK1:26->H01@3
STX Std 4	0.321 Abs	0.179 µg/L	R <sup>2</sup> =0.99807, 27.043 %Abs	RK1:27->A02@2
STX Std 4	0.306 Abs [0.3135] {3.4 CV}	0.191 µg/L [0.185] {4.6 CV}	R <sup>2</sup> =0.99807, 25.779 %Abs	RK1:27->B02@2
STX Std 5	0.186 Abs	> 0.400 µg/L	15.670 %Abs	RK1:28->C02@2
STX Std 5	0.179 Abs [0.1825] {2.7 CV}	> 0.400 µg/L	15.080 %Abs	RK1:28->D02@2
*****				
<b>6/8/2021 3:04:11 PM</b>				
STX Control (0.060-0.090)	0.662 Abs	0.061 µg/L	55.771 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.641 Abs [0.6515] {2.3 CV}	0.065 µg/L [0.063] {4.5 CV}	54.002 %Abs [54.886 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.1865	0.0005		
STX Std 0 [SD]	0.0106	0.0007		
STX Std 0 [%CV]	0.8939	141.4214		
STX Std 1 [MEAN]	0.9905	0.0210		
STX Std 1 [SD]	0.0064	0.0000		
STX Std 1 [%CV]	0.6425	0.0000		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.7575	0.0470		
STX Std 2 [SD]	0.0148	0.0014		
STX Std 2 [%CV]	1.9603	3.0090		
STX Std 2 [%DIFF]		-6.0000		
STX Std 3 [MEAN]	0.4630	0.1080		
STX Std 3 [SD]	0.0113	0.0042		
STX Std 3 [%CV]	2.4436	3.9284		
STX Std 3 [%DIFF]		8.0000		
STX Std 4 [MEAN]	0.3135	0.1850		
STX Std 4 [SD]	0.0106	0.0085		
STX Std 4 [%CV]	3.3833	4.5866		
STX Std 4 [%DIFF]		-7.5000		
STX Std 5 [MEAN]	0.1825			
STX Std 5 [SD]	0.0049			
STX Std 5 [%CV]	2.7122			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6515	0.0630		
STX Control (0.060-0.090) [SD]	0.0148	0.0028		
STX Control (0.060-0.090) [%CV]	2.2792	4.4896		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.1845  
 B = 1.3519  
 C = 0.064460  
 D = 0.10369  
 R2 coef = 0.99807  
 50% = 0.074

