



## 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>
AB47312	Raccoon Lake SRA	6/1/2021	6/2/2021	< 0.05
AB47313	Whitewater Memorial SP	6/1/2021	6/2/2021	< 0.05
AB47314	Quakertown SRA	6/1/2021	6/2/2021	< 0.05
AB47315	Mounds SRA	6/1/2021	6/2/2021	< 0.05
AB47316	Whitewater Memorial SP (Field Dup.)	6/1/2021	6/2/2021	< 0.05
AB47317	Field Blank	6/1/2021	6/2/2021	< 0.05

# Test Report (by Request)

**Test Information**

Request: 6/2/2021 4:30:17 PM  
Date: 6/2/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.250 Abs	0.000 µg/L	R^2=0.99929, 99.76			20G3584
STX Std 0	SAXITOXIN	1.255 Abs [1.2525] {0.3 C	0.000 µg/L [0.000]	R^2=0.99929, 100.1			20G3584
STX Std 1	SAXITOXIN	1.075 Abs	0.020 µg/L	R^2=0.99929, 85.79			20G3584
STX Std 1	SAXITOXIN	1.058 Abs [1.0665] {1.1 C	0.022 µg/L [0.021]	R^2=0.99929, 84.43			20G3584
STX Std 2	SAXITOXIN	0.810 Abs	0.047 µg/L	R^2=0.99929, 64.64			20G3584
STX Std 2	SAXITOXIN	0.796 Abs [0.8030] {1.2 C	0.049 µg/L [0.048]	R^2=0.99929, 63.52			20G3584
STX Std 3	SAXITOXIN	0.507 Abs	0.101 µg/L	R^2=0.99929, 40.46			20G3584
STX Std 3	SAXITOXIN	0.482 Abs [0.4945] {3.6 C	0.108 µg/L [0.105]	R^2=0.99929, 38.46			20G3584
STX Std 4	SAXITOXIN	0.315 Abs	0.188 µg/L	R^2=0.99929, 25.14			20G3584
STX Std 4	SAXITOXIN	0.306 Abs [0.3105] {2.0 C	0.195 µg/L [0.191]	R^2=0.99929, 24.42			20G3584
STX Std 5	SAXITOXIN	0.189 Abs	0.398 µg/L	R^2=0.99929, 15.08			20G3584
STX Std 5	SAXITOXIN	0.184 Abs [0.1865] {1.9 C	> 0.400 µg/L [0.39	14.685 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.654 Abs	0.070 µg/L	52.195 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.635 Abs [0.6445] {2.1 C	0.073 µg/L [0.072]	50.678 %Abs [51.4			20G3584

**Note**

Signature David Jordan

David Jordan 6/2/2021

\* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

\* Generated by software version (6.4.1.1139/1085/1.00/0.95) 6/2/2021 4:33:45 PM

# Test Report (by Request)

**Test Information**

 Request: 6/2/2021 4:31:03 PM  
 Date: 6/2/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (SAX)	SAXITOXIN	1.240 Abs	0.003 µg/L	Low, 98.962 %Abs		0.020 - 0.400	20G3584
LRB (SAX)	SAXITOXIN	1.227 Abs [1.2335] {0.7 C	0.004 µg/L [0.004]	Low, 97.925 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.513 Abs	0.099 µg/L	40.942 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.498 Abs [0.5055] {2.1 C	0.104 µg/L [0.102]	39.745 %Abs [40.3		0.020 - 0.400	20G3584
AB47312	SAXITOXIN	1.158 Abs	0.012 µg/L	Low, 92.418 %Abs		0.020 - 0.400	20G3584
AB47312	SAXITOXIN	1.174 Abs [1.1660] {1.0 C	0.010 µg/L [0.011]	Low, 93.695 %Abs		0.020 - 0.400	20G3584
AB47312MS	SAXITOXIN	0.432 Abs	0.125 µg/L	34.477 %Abs		0.020 - 0.400	20G3584
AB47312MS	SAXITOXIN	0.419 Abs [0.4255] {2.2 C	0.130 µg/L [0.127]	33.440 %Abs [33.9		0.020 - 0.400	20G3584
AB47312MSD	SAXITOXIN	0.501 Abs	0.103 µg/L	39.984 %Abs		0.020 - 0.400	20G3584
AB47312MSD	SAXITOXIN	0.485 Abs [0.4930] {2.3 C	0.107 µg/L [0.105]	38.707 %Abs [39.3		0.020 - 0.400	20G3584
AB47313	SAXITOXIN	1.196 Abs	0.008 µg/L	Low, 95.451 %Abs		0.020 - 0.400	20G3584
AB47313	SAXITOXIN	1.168 Abs [1.1820] {1.7 C	0.011 µg/L [0.010]	Low, 93.216 %Abs		0.020 - 0.400	20G3584
AB47314	SAXITOXIN	1.180 Abs	0.010 µg/L	Low, 94.174 %Abs		0.020 - 0.400	20G3584
AB47314	SAXITOXIN	1.189 Abs [1.1845] {0.5 C	0.009 µg/L [0.009]	Low, 94.892 %Abs		0.020 - 0.400	20G3584
AB47315	SAXITOXIN	1.196 Abs	0.008 µg/L	Low, 95.451 %Abs		0.020 - 0.400	20G3584
AB47315	SAXITOXIN	1.185 Abs [1.1905] {0.7 C	0.009 µg/L [0.009]	Low, 94.573 %Abs		0.020 - 0.400	20G3584
AB47316	SAXITOXIN	1.182 Abs	0.010 µg/L	Low, 94.334 %Abs		0.020 - 0.400	20G3584
AB47316	SAXITOXIN	1.172 Abs [1.1770] {0.6 C	0.011 µg/L [0.010]	Low, 93.536 %Abs		0.020 - 0.400	20G3584
AB47317	SAXITOXIN	1.328 Abs	0.000 µg/L	Low, 105.986 %Abs		0.020 - 0.400	20G3584
AB47317	SAXITOXIN	1.312 Abs [1.3200] {0.9 C	0.000 µg/L [0.000]	Low, 104.709 %Abs		0.020 - 0.400	20G3584

**Note**

 Signature *David Jordan*

David Jordan 6/2/2021

**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>6/2/2021 4:30:17 PM</b>				
STX Std 0	1.250 Abs	0.000 µg/L	R <sup>2</sup> =0.99929, 99.761 %Abs	RK1:23->A01@2
STX Std 0	1.255 Abs [1.2525] {0.3 CV}	0.000 µg/L [0.000]	R <sup>2</sup> =0.99929, 100.160 %Abs	RK1:23->B01@2
STX Std 1	1.075 Abs	0.020 µg/L	R <sup>2</sup> =0.99929, 85.794 %Abs	RK1:24->C01@2
STX Std 1	1.058 Abs [1.0665] {1.1 CV}	0.022 µg/L [0.021] {6.7 CV}	R <sup>2</sup> =0.99929, 84.437 %Abs	RK1:24->D01@2
STX Std 2	0.810 Abs	0.047 µg/L	R <sup>2</sup> =0.99929, 64.645 %Abs	RK1:25->E01@2
STX Std 2	0.796 Abs [0.8030] {1.2 CV}	0.049 µg/L [0.048] {2.9 CV}	R <sup>2</sup> =0.99929, 63.528 %Abs	RK1:25->F01@3
STX Std 3	0.507 Abs	0.101 µg/L	R <sup>2</sup> =0.99929, 40.463 %Abs	RK1:26->G01@3
STX Std 3	0.482 Abs [0.4945] {3.6 CV}	0.108 µg/L [0.105] {4.7 CV}	R <sup>2</sup> =0.99929, 38.468 %Abs	RK1:26->H01@3
STX Std 4	0.315 Abs	0.188 µg/L	R <sup>2</sup> =0.99929, 25.140 %Abs	RK1:27->A02@2
STX Std 4	0.306 Abs [0.3105] {2.0 CV}	0.195 µg/L [0.191] {2.6 CV}	R <sup>2</sup> =0.99929, 24.421 %Abs	RK1:27->B02@2
STX Std 5	0.189 Abs	0.398 µg/L	R <sup>2</sup> =0.99929, 15.084 %Abs	RK1:28->C02@2
STX Std 5	0.184 Abs [0.1865] {1.9 CV}	> 0.400 µg/L [0.398]	14.685 %Abs	RK1:28->D02@2
*****				
<b>6/2/2021 4:30:17 PM</b>				
STX Control (0.060-0.090)	0.654 Abs	0.070 µg/L	52.195 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.635 Abs [0.6445] {2.1 CV}	0.073 µg/L [0.072] {3.0 CV}	50.678 %Abs [51.437 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.2525	0.0000		
STX Std 0 [SD]	0.0035	0.0000		
STX Std 0 [%CV]	0.2823	0.0000		
STX Std 1 [MEAN]	1.0665	0.0210		
STX Std 1 [SD]	0.0120	0.0014		
STX Std 1 [%CV]	1.1271	6.7344		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.8030	0.0480		
STX Std 2 [SD]	0.0099	0.0014		
STX Std 2 [%CV]	1.2328	2.9463		
STX Std 2 [%DIFF]		-4.0000		
STX Std 3 [MEAN]	0.4945	0.1045		
STX Std 3 [SD]	0.0177	0.0049		
STX Std 3 [%CV]	3.5749	4.7366		
STX Std 3 [%DIFF]		4.5000		
STX Std 4 [MEAN]	0.3105	0.1915		
STX Std 4 [SD]	0.0064	0.0049		
STX Std 4 [%CV]	2.0496	2.5847		
STX Std 4 [%DIFF]		-4.2500		
STX Std 5 [MEAN]	0.1865			
STX Std 5 [SD]	0.0035			
STX Std 5 [%CV]	1.8957			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6445	0.0715		
STX Control (0.060-0.090) [SD]	0.0134	0.0021		
STX Control (0.060-0.090) [%CV]	2.0846	2.9669		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.2505  
 B = 1.4366  
 C = 0.065301  
 D = 0.10999  
 R2 coef = 0.99929  
 50% = 0.074

