



## Saxitoxin 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>
AB47694	Raccoon Lake SRA	6/28/2021	6/29/2021	< 0.05
AB47693	Cagles Mill Lake Beach	6/28/2021	6/29/2021	< 0.05
AB47697	Whitewater Memorial SP	6/28/2021	6/29/2021	< 0.05
AB47696	Mounds SRA	6/28/2021	6/29/2021	< 0.05
AB47695	Hardy Lake SRA	6/28/2021	6/29/2021	< 0.05
AB47698	Mounds SRA (Field Duplicate)	6/28/2021	6/29/2021	< 0.05
AB47699	Field Blank	6/28/2021	6/29/2021	< 0.05
AB47700	Ft. Ben Harrison SP Dog Lake - East	6/28/2021	6/29/2021	< 0.05

# Test Report (by Request)

**Test Information**

 Request: 6/29/2021 5:35:19 PM  
 Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.274 Abs	0.000 µg/L	R^2=0.99895, 100.0			20G3584
STX Std 0	SAXITOXIN	1.272 Abs [1.2730] {0.1 C	0.000 µg/L [0.000]	R^2=0.99895, 100.0			20G3584
STX Std 1	SAXITOXIN	1.074 Abs	0.021 µg/L	R^2=0.99895, 84.36			20G3584
STX Std 1	SAXITOXIN	1.069 Abs [1.0715] {0.3 C	0.021 µg/L [0.021]	R^2=0.99895, 83.97			20G3584
STX Std 2	SAXITOXIN	0.822 Abs	0.047 µg/L	R^2=0.99895, 64.57			20G3584
STX Std 2	SAXITOXIN	0.814 Abs [0.8180] {0.7 C	0.048 µg/L [0.047]	R^2=0.99895, 63.94			20G3584
STX Std 3	SAXITOXIN	0.513 Abs	0.104 µg/L	R^2=0.99895, 40.25			20G3584
STX Std 3	SAXITOXIN	0.504 Abs [0.5085] {1.3 C	0.107 µg/L [0.105]	R^2=0.99895, 39.55			20G3584
STX Std 4	SAXITOXIN	0.331 Abs	0.188 µg/L	R^2=0.99895, 26.00			20G3584
STX Std 4	SAXITOXIN	0.320 Abs [0.3255] {2.4 C	0.197 µg/L [0.192]	R^2=0.99895, 25.13			20G3584
STX Std 5	SAXITOXIN	0.201 Abs	0.393 µg/L	R^2=0.99895, 15.78			20G3584
STX Std 5	SAXITOXIN	0.193 Abs [0.1970] {2.9 C	> 0.400 µg/L [0.39	15.161 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.682 Abs	0.067 µg/L	53.574 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.665 Abs [0.6735] {1.8 C	0.070 µg/L [0.068]	52.239 %Abs [52.9			20G3584

**Note**

Signature

Charles Hostetter 6/30/2021

# Test Report (by Request)

**Test Information**

Request: 6/29/2021 5:36:07 PM

Date: 6/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.257 Abs	0.003 µg/L	Low, 98.743 %Abs		0.020 - 0.400	20G3584
LRB	SAXITOXIN	1.247 Abs [1.2520] {0.6 C	0.004 µg/L [0.004]	Low, 97.958 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.548 Abs	0.095 µg/L	43.048 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.524 Abs [0.5360] {3.2 C	0.101 µg/L [0.098]	41.163 %Abs [42.1		0.020 - 0.400	20G3584
AB47694	SAXITOXIN	1.215 Abs	0.008 µg/L	Low, 95.444 %Abs		0.020 - 0.400	20G3584
AB47694	SAXITOXIN	1.206 Abs [1.2105] {0.5 C	0.008 µg/L [0.008]	Low, 94.737 %Abs		0.020 - 0.400	20G3584
AB47694MS	SAXITOXIN	0.516 Abs	0.103 µg/L	40.534 %Abs		0.020 - 0.400	20G3584
AB47694MS	SAXITOXIN	0.501 Abs [0.5085] {2.1 C	0.107 µg/L [0.105]	39.356 %Abs [39.9		0.020 - 0.400	20G3584
AB47694MSD	SAXITOXIN	0.513 Abs	0.104 µg/L	40.299 %Abs		0.020 - 0.400	20G3584
AB47694MSD	SAXITOXIN	0.507 Abs [0.5100] {0.8 C	0.106 µg/L [0.105]	39.827 %Abs [40.0		0.020 - 0.400	20G3584
AB47693	SAXITOXIN	0.905 Abs	0.038 µg/L	71.092 %Abs		0.020 - 0.400	20G3584
AB47693	SAXITOXIN	0.879 Abs [0.8920] {2.1 C	0.040 µg/L [0.039]	69.049 %Abs [70.0		0.020 - 0.400	20G3584
AB47697	SAXITOXIN	1.195 Abs	0.010 µg/L	Low, 93.873 %Abs		0.020 - 0.400	20G3584
AB47697	SAXITOXIN	1.189 Abs [1.1920] {0.4 C	0.010 µg/L [0.010]	Low, 93.401 %Abs		0.020 - 0.400	20G3584
AB47696	SAXITOXIN	1.191 Abs	0.010 µg/L	Low, 93.559 %Abs		0.020 - 0.400	20G3584
AB47696	SAXITOXIN	1.203 Abs [1.1970] {0.7 C	0.009 µg/L [0.009]	Low, 94.501 %Abs		0.020 - 0.400	20G3584
AB47695	SAXITOXIN	1.086 Abs	0.020 µg/L	85.310 %Abs		0.020 - 0.400	20G3584
AB47695	SAXITOXIN	1.075 Abs [1.0805] {0.7 C	0.021 µg/L [0.021]	84.446 %Abs [84.8		0.020 - 0.400	20G3584
AB47698	SAXITOXIN	1.234 Abs	0.005 µg/L	Low, 96.936 %Abs		0.020 - 0.400	20G3584
AB47698	SAXITOXIN	1.207 Abs [1.2205] {1.6 C	0.008 µg/L [0.007]	Low, 94.815 %Abs		0.020 - 0.400	20G3584
AB47699	SAXITOXIN	1.268 Abs	0.001 µg/L	Low, 99.607 %Abs		0.020 - 0.400	20G3584
AB47699	SAXITOXIN	1.254 Abs [1.2610] {0.8 C	0.003 µg/L [0.002]	Low, 98.507 %Abs		0.020 - 0.400	20G3584
AB47700	SAXITOXIN	1.156 Abs	0.013 µg/L	Low, 90.809 %Abs		0.020 - 0.400	20G3584
AB47700	SAXITOXIN	1.115 Abs [1.1355] {2.6 C	0.017 µg/L [0.015]	Low, 87.588 %Abs		0.020 - 0.400	20G3584

**Note**

Signature

Charles Hostetter 6/30/2021

**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>6/29/2021 5:35:19 PM</b>				
STX Std 0	1.274 Abs	0.000 µg/L	R <sup>2</sup> =0.99895, 100.000 %Abs	RK1:30->A06@1
STX Std 0	1.272 Abs [1.2730] {0.1 CV}	0.000 µg/L [0.000]	R <sup>2</sup> =0.99895, 100.000 %Abs	RK1:30->B06@1
STX Std 1	1.074 Abs	0.021 µg/L	R <sup>2</sup> =0.99895, 84.368 %Abs	RK1:31->C06@1
STX Std 1	1.069 Abs [1.0715] {0.3 CV}	0.021 µg/L [0.021] {0.0 CV}	R <sup>2</sup> =0.99895, 83.975 %Abs	RK1:31->D06@1
STX Std 2	0.822 Abs	0.047 µg/L	R <sup>2</sup> =0.99895, 64.572 %Abs	RK1:32->E06@1
STX Std 2	0.814 Abs [0.8180] {0.7 CV}	0.048 µg/L [0.047] {1.5 CV}	R <sup>2</sup> =0.99895, 63.943 %Abs	RK1:32->F06@4
STX Std 3	0.513 Abs	0.104 µg/L	R <sup>2</sup> =0.99895, 40.299 %Abs	RK1:33->G06@4
STX Std 3	0.504 Abs [0.5085] {1.3 CV}	0.107 µg/L [0.105] {2.0 CV}	R <sup>2</sup> =0.99895, 39.592 %Abs	RK1:33->H06@4
STX Std 4	0.331 Abs	0.188 µg/L	R <sup>2</sup> =0.99895, 26.002 %Abs	RK1:34->A07@2
STX Std 4	0.320 Abs [0.3255] {2.4 CV}	0.197 µg/L [0.192] {3.3 CV}	R <sup>2</sup> =0.99895, 25.137 %Abs	RK1:34->B07@2
STX Std 5	0.201 Abs	0.393 µg/L	R <sup>2</sup> =0.99895, 15.789 %Abs	RK1:35->C07@2
STX Std 5	0.193 Abs [0.1970] {2.9 CV}	> 0.400 µg/L [0.393]	15.161 %Abs	RK1:35->D07@2
*****				
<b>6/29/2021 5:35:19 PM</b>				
STX Control (0.060-0.090)	0.682 Abs	0.067 µg/L	53.574 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.665 Abs [0.6735] {1.8 CV}	0.070 µg/L [0.068] {3.1 CV}	52.239 %Abs [52.907 %Abs]	RK1:36->F07@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.2730	0.0000		
STX Std 0 [SD]	0.0014	0.0000		
STX Std 0 [%CV]	0.1111	0.0000		
STX Std 1 [MEAN]	1.0715	0.0210		
STX Std 1 [SD]	0.0035	0.0000		
STX Std 1 [%CV]	0.3300	0.0000		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.8180	0.0475		
STX Std 2 [SD]	0.0057	0.0007		
STX Std 2 [%CV]	0.6915	1.4886		
STX Std 2 [%DIFF]		-5.0000		
STX Std 3 [MEAN]	0.5085	0.1055		
STX Std 3 [SD]	0.0064	0.0021		
STX Std 3 [%CV]	1.2515	2.0107		
STX Std 3 [%DIFF]		5.5000		
STX Std 4 [MEAN]	0.3255	0.1925		
STX Std 4 [SD]	0.0078	0.0064		
STX Std 4 [%CV]	2.3896	3.3060		
STX Std 4 [%DIFF]		-3.7500		
STX Std 5 [MEAN]	0.1970			
STX Std 5 [SD]	0.0057			
STX Std 5 [%CV]	2.8715			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6735	0.0685		
STX Control (0.060-0.090) [SD]	0.0120	0.0021		
STX Control (0.060-0.090) [%CV]	1.7848	3.0968		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.2699  
 B = 1.3830  
 C = 0.065801  
 D = 0.11085  
 R2 coef = 0.99895  
 50% = 0.075

