



## 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>
AC37262	Cecil M. Harden Lake - Raccoon Lake SRA Beach	8/21/2023	8/24/2023	< 0.050
AC37263	Cagles Mill Lake - Lieber SRA Beach	8/21/2023	8/24/2023	< 0.050
AC37269	Monroe Lake - Fairfax SRA Beach	8/21/2023	8/24/2023	< 0.050
AC37268	Monroe Lake - Paynetown SRA Beach	8/21/2023	8/24/2023	< 0.050
<b>AC37267</b>	<b>Starve Hollow SRA - Starve Hollow Lake Beach</b>	<b>8/21/2023</b>	<b>8/24/2023</b>	<b>0.087</b>
AC37266	Whitewater Memorial SP - Whitewater Lake Beach	8/22/2023	8/24/2023	< 0.050
AC37264	Brookville Lake - Quakertown SRA Beach	8/22/2023	8/24/2023	< 0.050
AC37265	Brookville Lake - Mounds SRA Beach	8/22/2023	8/24/2023	< 0.050
AC37270	Hardy Lake SRA - Hardy Lake SRA Beach	8/22/2023	8/24/2023	< 0.050
AC37260	Monroe Lake - Paynetown SRA Beach (Field Duplicate)	8/21/2023	8/24/2023	< 0.050
AC37261	Field Blank	8/21/2023	8/24/2023	< 0.050
AC37271	Ft. Ben Harrison SP Dog Lake	8/21/2023	8/24/2023	< 0.050

**Test Information**

 Request: 8/24/2023 2:38:11 PM  
 Date: 8/24/2023 - 8/24/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.254 Abs	0.004 µg/L	R <sup>2</sup> =0.99933, 99.13		0.000	Kit:M22L2
STX Std 0	SAXITOXIN	1.275 Abs [1.2645] {1.2 C	0.000 µg/L [0.002]	R <sup>2</sup> =0.99933, 100.7		0.000	Kit:M22L2
STX Std 1	SAXITOXIN	1.123 Abs	0.018 µg/L	R <sup>2</sup> =0.99933, 88.77		0.020	Kit:M22L2
STX Std 1	SAXITOXIN	1.105 Abs [1.1140] {1.1 C	0.020 µg/L [0.019]	R <sup>2</sup> =0.99933, 87.35		0.020	Kit:M22L2
STX Std 2	SAXITOXIN	0.829 Abs	0.050 µg/L	R <sup>2</sup> =0.99933, 65.53		0.050	Kit:M22L2
STX Std 2	SAXITOXIN	0.801 Abs [0.8150] {2.4 C	0.054 µg/L [0.052]	R <sup>2</sup> =0.99933, 63.32		0.050	Kit:M22L2
STX Std 3	SAXITOXIN	0.560 Abs	0.099 µg/L	R <sup>2</sup> =0.99933, 44.26		0.100	Kit:M22L2
STX Std 3	SAXITOXIN	0.549 Abs [0.5545] {1.4 C	0.102 µg/L [0.101]	R <sup>2</sup> =0.99933, 43.35		0.100	Kit:M22L2
STX Std 4	SAXITOXIN	0.361 Abs	0.187 µg/L	R <sup>2</sup> =0.99933, 28.53		0.200	Kit:M22L2
STX Std 4	SAXITOXIN	0.357 Abs [0.3590] {0.8 C	0.190 µg/L [0.189]	R <sup>2</sup> =0.99933, 28.22		0.200	Kit:M22L2
STX Std 5	SAXITOXIN	0.224 Abs	> 0.400 µg/L	17.708 %Abs		0.400	Kit:M22L2
STX Std 5	SAXITOXIN	0.222 Abs [0.2230] {0.6 C	> 0.400 µg/L	17.549 %Abs		0.400	Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.733 Abs	0.064 µg/L	57.945 %Abs			Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.698 Abs [0.7155] {3.5 C	0.069 µg/L [0.067]	55.178 %Abs [56.5			Kit:M22L2

**Note**

Signature \_\_\_\_\_

# Test Report (by Request)

**Test Information**

 Request: 8/24/2023 2:39:22 PM  
 Date: 8/24/2023 - 8/24/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.332 Abs	0.000 µg/L	Low, 105.296 %Abs		0.020 - 0.400	Kit:M22L2
LRB	SAXITOXIN	1.326 Abs [1.3290] {0.3 C	0.000 µg/L [0.000]			0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.605 Abs	0.088 µg/L	47.826 %Abs		0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.598 Abs [0.6015] {0.8 C	0.089 µg/L [0.089]	47.273 %Abs [47.5		0.020 - 0.400	Kit:M22L2
AC37262	SAXITOXIN	1.321 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37262	SAXITOXIN	1.313 Abs [1.3170] {0.4 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37263	SAXITOXIN	1.171 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37263	SAXITOXIN	1.156 Abs [1.1635] {0.9 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37269	SAXITOXIN	1.275 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37269	SAXITOXIN	1.267 Abs [1.2710] {0.4 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37268	SAXITOXIN	1.265 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37268	SAXITOXIN	1.258 Abs [1.2615] {0.4 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37267	SAXITOXIN	0.656 Abs	0.085 µg/L	51.858 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37267	SAXITOXIN	0.638 Abs [0.6470] {2.0 C	0.089 µg/L [0.087]	50.435 %Abs [51.1	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37266	SAXITOXIN	1.275 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37266	SAXITOXIN	1.265 Abs [1.2700] {0.6 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37266MS	SAXITOXIN	0.579 Abs	0.094 µg/L	45.771 %Abs		0.020 - 0.400	Kit:M22L2
AC37266MS	SAXITOXIN	0.574 Abs [0.5765] {0.6 C	0.095 µg/L [0.095]	45.375 %Abs [45.5		0.020 - 0.400	Kit:M22L2
AC37266MSD	SAXITOXIN	0.568 Abs	0.097 µg/L	44.901 %Abs		0.020 - 0.400	Kit:M22L2
AC37266MSD	SAXITOXIN	0.570 Abs [0.5690] {0.2 C	0.096 µg/L [0.097]	45.059 %Abs [44.9		0.020 - 0.400	Kit:M22L2
AC37264	SAXITOXIN	1.062 Abs	0.026 µg/L	83.953 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37264	SAXITOXIN	1.044 Abs [1.0530] {1.2 C	0.029 µg/L [0.028]	82.530 %Abs [83.2	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37265	SAXITOXIN	0.971 Abs	0.036 µg/L	76.759 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37265	SAXITOXIN	0.963 Abs [0.9670] {0.6 C	0.037 µg/L [0.037]	76.126 %Abs [76.4	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37270	SAXITOXIN	1.175 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37270	SAXITOXIN	1.164 Abs [1.1695] {0.7 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37260	SAXITOXIN	1.264 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37260	SAXITOXIN	1.249 Abs [1.2565] {0.8 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37261	SAXITOXIN	1.356 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37261	SAXITOXIN	1.343 Abs [1.3495] {0.7 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37271	SAXITOXIN	1.250 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC37271	SAXITOXIN	1.245 Abs [1.2475] {0.3 C	< LOD [< LOD]		MDF=1.100	0.020 - 0.400	Kit:M22L2

**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: Kit:M22L2865

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: "

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Name	Absorbance	Concentration	Interpretation	Position
<b>8/24/2023 2:38:11 PM</b>				
STX Std 0	1.254 Abs	0.004 µg/L	R <sup>2</sup> =0.99933, 99.130 %Abs	RK1:30->A07@2
STX Std 0	1.275 Abs [1.2645] {1.2 CV}	0.000 µg/L [0.002] {141.4 CV}	R <sup>2</sup> =0.99933, 100.791 %Abs	RK1:30->B07@2
STX Std 1	1.123 Abs	0.018 µg/L	R <sup>2</sup> =0.99933, 88.775 %Abs	RK1:31->C07@2
STX Std 1	1.105 Abs [1.1140] {1.1 CV}	0.020 µg/L [0.019] {7.4 CV}	R <sup>2</sup> =0.99933, 87.352 %Abs	RK1:31->D07@2
STX Std 2	0.829 Abs	0.050 µg/L	R <sup>2</sup> =0.99933, 65.534 %Abs	RK1:32->E07@2
STX Std 2	0.801 Abs [0.8150] {2.4 CV}	0.054 µg/L [0.052] {5.4 CV}	R <sup>2</sup> =0.99933, 63.320 %Abs	RK1:32->F07@3
STX Std 3	0.560 Abs	0.099 µg/L	R <sup>2</sup> =0.99933, 44.269 %Abs	RK1:33->G07@3
STX Std 3	0.549 Abs [0.5545] {1.4 CV}	0.102 µg/L [0.101] {2.1 CV}	R <sup>2</sup> =0.99933, 43.399 %Abs	RK1:33->H07@3
STX Std 4	0.361 Abs	0.187 µg/L	R <sup>2</sup> =0.99933, 28.538 %Abs	RK1:34->A08@2
STX Std 4	0.357 Abs [0.3590] {0.8 CV}	0.190 µg/L [0.189] {1.1 CV}	R <sup>2</sup> =0.99933, 28.221 %Abs	RK1:34->B08@2
STX Std 5	0.224 Abs	> 0.400 µg/L	17.708 %Abs	RK1:35->C08@2
STX Std 5	0.222 Abs [0.2230] {0.6 CV}	> 0.400 µg/L	17.549 %Abs	RK1:35->D08@2
*****				
<b>8/24/2023 2:38:11 PM</b>				
STX Control (0.060-0.090)	0.733 Abs	0.064 µg/L	57.945 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.698 Abs [0.7155] {3.5 CV}	0.069 µg/L [0.067] {5.3 CV}	55.178 %Abs [56.561 %Abs]	RK1:36->F08@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.2645	0.0020		
STX Std 0 [SD]	0.0148	0.0028		
STX Std 0 [%CV]	1.1743	141.4214		
STX Std 1 [MEAN]	1.1140	0.0190		
STX Std 1 [SD]	0.0127	0.0014		
STX Std 1 [%CV]	1.1425	7.4432		
STX Std 1 [%DIFF]		-5.0000		
STX Std 2 [MEAN]	0.8150	0.0520		
STX Std 2 [SD]	0.0198	0.0028		
STX Std 2 [%CV]	2.4293	5.4393		
STX Std 2 [%DIFF]		4.0000		
STX Std 3 [MEAN]	0.5545	0.1005		
STX Std 3 [SD]	0.0078	0.0021		
STX Std 3 [%CV]	1.4027	2.1108		
STX Std 3 [%DIFF]		0.5000		
STX Std 4 [MEAN]	0.3590	0.1885		
STX Std 4 [SD]	0.0028	0.0021		
STX Std 4 [%CV]	0.7879	1.1254		
STX Std 4 [%DIFF]		-5.7500		
STX Std 5 [MEAN]	0.2230			
STX Std 5 [SD]	0.0014			
STX Std 5 [%CV]	0.6342			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7155	0.0665		
STX Control (0.060-0.090) [SD]	0.0247	0.0035		
STX Control (0.060-0.090) [%CV]	3.4589	5.3166		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.2698  
 B = 1.4303  
 C = 0.067189  
 D = 0.15096  
 R2 coef = 0.99933  
 50% = 0.082

