



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47626	Raccoon Lake SRA	6/14/2021	6/16/2021	< 0.05
AB47628	Cagles Mill Lake Beach	6/14/2021	6/16/2021	< 0.05
AB47629	Paynetown SRA	6/14/2021	6/16/2021	< 0.05
AB47630	Fairfax SRA	6/14/2021	6/16/2021	< 0.05
AB47631	Starve Hollow SRA	6/14/2021	6/16/2021	< 0.05
AB47632	Whitewater Memorial SP	6/15/2021	6/16/2021	< 0.05
AB47633	Quakertown SRA	6/15/2021	6/16/2021	< 0.05
AB47634	Mounds SRA	6/15/2021	6/16/2021	< 0.05
AB47635	Hardy Lake SRA	6/15/2021	6/16/2021	< 0.05
AB47627	Deam Lake SRA	6/15/2021	6/16/2021	< 0.05
AB47636	Paynetown SRA (Field Duplicate)	6/14/2021	6/16/2021	< 0.05
AB47637	Field Blank	6/14/2021	6/16/2021	< 0.05
AB47651	Ft. Ben Harrison SP Dog Lake - East	6/14/2021	6/16/2021	< 0.05

Test Report (by Request)

Test Information

 Request: 6/16/2021 2:14:51 PM
 Date: 6/16/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.316 Abs	0.001 µg/L	R^2=0.99795, 99.77			20G3584
STX Std 0	SAXITOXIN	1.323 Abs [1.3195] {0.4 C	0.000 µg/L [0.001]	R^2=0.99795, 100.3			20G3584
STX Std 1	SAXITOXIN	1.117 Abs	0.021 µg/L	R^2=0.99795, 84.68			20G3584
STX Std 1	SAXITOXIN	1.120 Abs [1.1185] {0.2 C	0.021 µg/L [0.021]	R^2=0.99795, 84.91			20G3584
STX Std 2	SAXITOXIN	0.866 Abs	0.046 µg/L	R^2=0.99795, 65.65			20G3584
STX Std 2	SAXITOXIN	0.839 Abs [0.8525] {2.2 C	0.049 µg/L [0.047]	R^2=0.99795, 63.60			20G3584
STX Std 3	SAXITOXIN	0.528 Abs	0.105 µg/L	R^2=0.99795, 40.03			20G3584
STX Std 3	SAXITOXIN	0.509 Abs [0.5185] {2.6 C	0.111 µg/L [0.108]	R^2=0.99795, 38.55			20G3584
STX Std 4	SAXITOXIN	0.354 Abs	0.179 µg/L	R^2=0.99795, 26.83			20G3584
STX Std 4	SAXITOXIN	0.346 Abs [0.3500] {1.6 C	0.184 µg/L [0.182]	R^2=0.99795, 26.23			20G3584
STX Std 5	SAXITOXIN	0.196 Abs	> 0.400 µg/L	14.860 %Abs			20G3584
STX Std 5	SAXITOXIN	0.191 Abs [0.1935] {1.8 C	> 0.400 µg/L	14.481 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.692 Abs	0.070 µg/L	52.464 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.670 Abs [0.6810] {2.3 C	0.074 µg/L [0.072]	50.796 %Abs [51.6			20G3584

Note

Signature

David Jordan 6/16/2021

Test Report (by Request)

Test Information

 Request: 6/16/2021 2:15:54 PM
 Date: 6/16/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (SAX)	SAXITOXIN	1.284 Abs	0.005 µg/L	Low, 97.346 %Abs		0.020 - 0.400	20G3584
LRB (SAX)	SAXITOXIN	1.287 Abs [1.2855] {0.2 C	0.005 µg/L [0.005]	Low, 97.574 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.606 Abs	0.086 µg/L	45.944 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.572 Abs [0.5890] {4.1 C	0.094 µg/L [0.090]	43.366 %Abs [44.6		0.020 - 0.400	20G3584
AB47626	SAXITOXIN	1.224 Abs	0.011 µg/L	Low, 92.798 %Abs		0.020 - 0.400	20G3584
AB47626	SAXITOXIN	1.242 Abs [1.2330] {1.0 C	0.009 µg/L [0.010]	Low, 94.162 %Abs		0.020 - 0.400	20G3584
AB47628	SAXITOXIN	1.023 Abs	0.029 µg/L	77.559 %Abs		0.020 - 0.400	20G3584
AB47628	SAXITOXIN	1.008 Abs [1.0155] {1.0 C	0.031 µg/L [0.030]	76.422 %Abs [76.9		0.020 - 0.400	20G3584
AB47629	SAXITOXIN	1.254 Abs	0.008 µg/L	Low, 95.072 %Abs		0.020 - 0.400	20G3584
AB47629	SAXITOXIN	1.257 Abs [1.2555] {0.2 C	0.008 µg/L [0.008]	Low, 95.299 %Abs		0.020 - 0.400	20G3584
AB47630	SAXITOXIN	1.310 Abs	0.002 µg/L	Low, 99.318 %Abs		0.020 - 0.400	20G3584
AB47630	SAXITOXIN	1.264 Abs [1.2870] {2.5 C	0.007 µg/L [0.005]	Low, 95.830 %Abs		0.020 - 0.400	20G3584
AB47631	SAXITOXIN	1.042 Abs	0.028 µg/L	78.999 %Abs		0.020 - 0.400	20G3584
AB47631	SAXITOXIN	1.037 Abs [1.0395] {0.3 C	0.028 µg/L [0.028]	78.620 %Abs [78.8		0.020 - 0.400	20G3584
AB47632	SAXITOXIN	1.238 Abs	0.010 µg/L	Low, 93.859 %Abs		0.020 - 0.400	20G3584
AB47632	SAXITOXIN	1.212 Abs [1.2250] {1.5 C	0.012 µg/L [0.011]	Low, 91.888 %Abs		0.020 - 0.400	20G3584
AB47633	SAXITOXIN	1.186 Abs	0.015 µg/L	Low, 89.917 %Abs		0.020 - 0.400	20G3584
AB47633	SAXITOXIN	1.192 Abs [1.1890] {0.4 C	0.014 µg/L [0.014]	Low, 90.371 %Abs		0.020 - 0.400	20G3584
AB47634	SAXITOXIN	1.260 Abs	0.008 µg/L	Low, 95.527 %Abs		0.020 - 0.400	20G3584
AB47634	SAXITOXIN	1.236 Abs [1.2480] {1.4 C	0.010 µg/L [0.009]	Low, 93.707 %Abs		0.020 - 0.400	20G3584
AB47634MS	SAXITOXIN	0.737 Abs	0.063 µg/L	55.876 %Abs		0.020 - 0.400	20G3584
AB47634MS	SAXITOXIN	0.717 Abs [0.7270] {1.9 C	0.066 µg/L [0.065]	54.359 %Abs [55.1		0.020 - 0.400	20G3584
AB47634MSD	SAXITOXIN	0.515 Abs	0.109 µg/L	39.045 %Abs		0.020 - 0.400	20G3584
AB47634MSD	SAXITOXIN	0.491 Abs [0.5030] {3.4 C	0.116 µg/L [0.112]	37.225 %Abs [38.1		0.020 - 0.400	20G3584
AB47635	SAXITOXIN	1.181 Abs	0.015 µg/L	Low, 89.538 %Abs		0.020 - 0.400	20G3584
AB47635	SAXITOXIN	1.181 Abs [1.1810] {0.0 C	0.015 µg/L [0.015]	Low, 89.538 %Abs		0.020 - 0.400	20G3584
AB47627	SAXITOXIN	1.280 Abs	0.006 µg/L	Low, 97.043 %Abs		0.020 - 0.400	20G3584
AB47627	SAXITOXIN	1.280 Abs [1.2800] {0.0 C	0.006 µg/L [0.006]	Low, 97.043 %Abs		0.020 - 0.400	20G3584
AB47636	SAXITOXIN	1.257 Abs	0.008 µg/L	Low, 95.299 %Abs		0.020 - 0.400	20G3584
AB47636	SAXITOXIN	1.243 Abs [1.2500] {0.8 C	0.009 µg/L [0.009]	Low, 94.238 %Abs		0.020 - 0.400	20G3584
AB47637	SAXITOXIN	1.284 Abs	0.005 µg/L	Low, 97.346 %Abs		0.020 - 0.400	20G3584
AB47637	SAXITOXIN	1.279 Abs [1.2815] {0.3 C	0.006 µg/L [0.006]	Low, 96.967 %Abs		0.020 - 0.400	20G3584
AB47651	SAXITOXIN	1.115 Abs	0.021 µg/L	84.534 %Abs		0.020 - 0.400	20G3584
AB47651	SAXITOXIN	1.110 Abs [1.1125] {0.3 C	0.021 µg/L [0.021]	84.155 %Abs [84.3		0.020 - 0.400	20G3584

Note

Signature

David Jordan 6/16/2021

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
6/16/2021 2:14:51 PM				
STX Std 0	1.316 Abs	0.001 µg/L	R ² =0.99795, 99.773 %Abs	RK1:23->A01@2
STX Std 0	1.323 Abs [1.3195] {0.4 CV}	0.000 µg/L [0.001] {141.4 CV}	R ² =0.99795, 100.303 %Abs	RK1:23->B01@2
STX Std 1	1.117 Abs	0.021 µg/L	R ² =0.99795, 84.685 %Abs	RK1:24->C01@2
STX Std 1	1.120 Abs [1.1185] {0.2 CV}	0.021 µg/L [0.021] {0.0 CV}	R ² =0.99795, 84.913 %Abs	RK1:24->D01@2
STX Std 2	0.866 Abs	0.046 µg/L	R ² =0.99795, 65.656 %Abs	RK1:25->E01@2
STX Std 2	0.839 Abs [0.8525] {2.2 CV}	0.049 µg/L [0.047] {4.5 CV}	R ² =0.99795, 63.609 %Abs	RK1:25->F01@3
STX Std 3	0.528 Abs	0.105 µg/L	R ² =0.99795, 40.030 %Abs	RK1:26->G01@3
STX Std 3	0.509 Abs [0.5185] {2.6 CV}	0.111 µg/L [0.108] {3.9 CV}	R ² =0.99795, 38.590 %Abs	RK1:26->H01@3
STX Std 4	0.354 Abs	0.179 µg/L	R ² =0.99795, 26.839 %Abs	RK1:27->A02@2
STX Std 4	0.346 Abs [0.3500] {1.6 CV}	0.184 µg/L [0.182] {1.9 CV}	R ² =0.99795, 26.232 %Abs	RK1:27->B02@2
STX Std 5	0.196 Abs	> 0.400 µg/L	14.860 %Abs	RK1:28->C02@2
STX Std 5	0.191 Abs [0.1935] {1.8 CV}	> 0.400 µg/L	14.481 %Abs	RK1:28->D02@2

6/16/2021 2:14:51 PM				
STX Control (0.060-0.090)	0.692 Abs	0.070 µg/L	52.464 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.670 Abs [0.6810] {2.3 CV}	0.074 µg/L [0.072] {3.9 CV}	50.796 %Abs [51.630 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.3195	0.0005		
STX Std 0 [SD]	0.0049	0.0007		
STX Std 0 [%CV]	0.3751	141.4214		
STX Std 1 [MEAN]	1.1185	0.0210		
STX Std 1 [SD]	0.0021	0.0000		
STX Std 1 [%CV]	0.1897	0.0000		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.8525	0.0475		
STX Std 2 [SD]	0.0191	0.0021		
STX Std 2 [%CV]	2.2395	4.4659		
STX Std 2 [%DIFF]		-5.0000		
STX Std 3 [MEAN]	0.5185	0.1080		
STX Std 3 [SD]	0.0134	0.0042		
STX Std 3 [%CV]	2.5911	3.9284		
STX Std 3 [%DIFF]		8.0000		
STX Std 4 [MEAN]	0.3500	0.1815		
STX Std 4 [SD]	0.0057	0.0035		
STX Std 4 [%CV]	1.6162	1.9480		
STX Std 4 [%DIFF]		-9.2500		
STX Std 5 [MEAN]	0.1935			
STX Std 5 [SD]	0.0035			
STX Std 5 [%CV]	1.8271			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.6810	0.0720		
STX Control (0.060-0.090) [SD]	0.0156	0.0028		
STX Control (0.060-0.090) [%CV]	2.2843	3.9284		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3174
 B = 1.3899
 C = 0.066500
 D = 0.11031
 R2 coef = 0.99795
 50% = 0.076

