



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48046	Raccoon Lake SRA	7/26/2021	7/29/2021	< 0.05
AB48047	Cagles Mill Lake Beach	7/26/2021	7/29/2021	< 0.05
AB48048	Paynetown SRA	7/26/2021	7/29/2021	< 0.05
AB48049	Whitewater Memorial SP	7/27/2021	7/29/2021	< 0.05
AB48050	Quakertown SRA	7/27/2021	7/29/2021	< 0.05
AB48051	Mounds SRA	7/27/2021	7/29/2021	< 0.05
AB48052	Hardy Lake SRA	7/26/2021	7/29/2021	0.053
AB48053	Cagles Mill Lake Beach (Field Duplicate)	7/26/2021	7/29/2021	< 0.05
AB48054	Field Blank	7/26/2021	7/29/2021	< 0.05
AB48065	Ft. Ben Harrison SP Dog Lake - East	7/27/2021	7/29/2021	< 0.05

Test Information

Request: 7/29/2021 10:49:34 AM
Date: 7/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.231 Abs	0.000 µg/L	R ² =0.99870, 101.1			20G3584
STX Std 0	SAXITOXIN	1.203 Abs [1.2170] {1.6 C	0.002 µg/L [0.001]	R ² =0.99870, 98.85			20G3584
STX Std 1	SAXITOXIN	1.020 Abs	0.020 µg/L	R ² =0.99870, 83.81			20G3584
STX Std 1	SAXITOXIN	1.002 Abs [1.0110] {1.3 C	0.022 µg/L [0.021]	R ² =0.99870, 82.33			20G3584
STX Std 2	SAXITOXIN	0.776 Abs	0.046 µg/L	R ² =0.99870, 63.76			20G3584
STX Std 2	SAXITOXIN	0.750 Abs [0.7630] {2.4 C	0.049 µg/L [0.047]	R ² =0.99870, 61.62			20G3584
STX Std 3	SAXITOXIN	0.481 Abs	0.103 µg/L	R ² =0.99870, 39.52			20G3584
STX Std 3	SAXITOXIN	0.454 Abs [0.4675] {4.1 C	0.111 µg/L [0.107]	R ² =0.99870, 37.30			20G3584
STX Std 4	SAXITOXIN	0.315 Abs	0.181 µg/L	R ² =0.99870, 25.88			20G3584
STX Std 4	SAXITOXIN	0.296 Abs [0.3055] {4.4 C	0.196 µg/L [0.188]	R ² =0.99870, 24.32			20G3584
STX Std 5	SAXITOXIN	0.181 Abs	0.397 µg/L	R ² =0.99870, 14.87			20G3584
STX Std 5	SAXITOXIN	0.171 Abs [0.1760] {4.0 C	> 0.400 µg/L [0.39	14.051 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.620 Abs	0.070 µg/L	50.945 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.606 Abs [0.6130] {1.6 C	0.072 µg/L [0.071]	49.795 %Abs [50.3			20G3584

Note

Signature



Charles Hostetter 7/29/2021

Test Report (by Request)

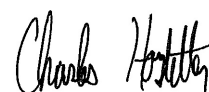
Test Information

Request: 7/29/2021 10:51:12 AM
Date: 7/29/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.155 Abs	0.007 µg/L	Low, 94.906 %Abs		0.020 - 0.400	20G3584
LRB	SAXITOXIN	1.156 Abs [1.1555] {0.1 C	0.007 µg/L [0.007]	Low, 94.988 %Abs		0.020 - 0.400	20G3584
LFB	SAXITOXIN	0.549 Abs	0.085 µg/L	45.111 %Abs		0.020 - 0.400	20G3584
LFB	SAXITOXIN	0.526 Abs [0.5375] {3.0 C	0.090 µg/L [0.088]	43.221 %Abs [44.1		0.020 - 0.400	20G3584
AB48046	SAXITOXIN	1.123 Abs	0.011 µg/L	Low, 92.276 %Abs		0.020 - 0.400	20G3584
AB48046	SAXITOXIN	1.091 Abs [1.1070] {2.0 C	0.013 µg/L [0.012]	Low, 89.647 %Abs		0.020 - 0.400	20G3584
AB48047	SAXITOXIN	0.911 Abs	0.031 µg/L	74.856 %Abs		0.020 - 0.400	20G3584
AB48047	SAXITOXIN	0.896 Abs [0.9035] {1.2 C	0.032 µg/L [0.032]	73.624 %Abs [74.2		0.020 - 0.400	20G3584
AB48048	SAXITOXIN	1.081 Abs	0.014 µg/L	Low, 88.825 %Abs		0.020 - 0.400	20G3584
AB48048	SAXITOXIN	1.067 Abs [1.0740] {0.9 C	0.016 µg/L [0.015]	Low, 87.675 %Abs		0.020 - 0.400	20G3584
AB48048MS	SAXITOXIN	0.496 Abs	0.098 µg/L	40.756 %Abs		0.020 - 0.400	20G3584
AB48048MS	SAXITOXIN	0.476 Abs [0.4860] {2.9 C	0.104 µg/L [0.101]	39.113 %Abs [39.9		0.020 - 0.400	20G3584
AB48048MSD	SAXITOXIN	0.515 Abs	0.093 µg/L	42.317 %Abs		0.020 - 0.400	20G3584
AB48048MSD	SAXITOXIN	0.492 Abs [0.5035] {3.2 C	0.099 µg/L [0.096]	40.427 %Abs [41.3		0.020 - 0.400	20G3584
AB48049	SAXITOXIN	1.089 Abs	0.014 µg/L	Low, 89.482 %Abs		0.020 - 0.400	20G3584
AB48049	SAXITOXIN	1.078 Abs [1.0835] {0.7 C	0.015 µg/L [0.014]	Low, 88.578 %Abs		0.020 - 0.400	20G3584
AB48050	SAXITOXIN	1.055 Abs	0.017 µg/L	Low, 86.689 %Abs		0.020 - 0.400	20G3584
AB48050	SAXITOXIN	1.053 Abs [1.0540] {0.1 C	0.017 µg/L [0.017]	Low, 86.524 %Abs		0.020 - 0.400	20G3584
AB48051	SAXITOXIN	1.072 Abs	0.015 µg/L	Low, 88.085 %Abs		0.020 - 0.400	20G3584
AB48051	SAXITOXIN	1.028 Abs [1.0500] {3.0 C	0.019 µg/L [0.017]	Low, 84.470 %Abs		0.020 - 0.400	20G3584
AB48052	SAXITOXIN	0.728 Abs	0.052 µg/L	59.819 %Abs		0.020 - 0.400	20G3584
AB48052	SAXITOXIN	0.714 Abs [0.7210] {1.4 C	0.054 µg/L [0.053]	58.669 %Abs [59.2		0.020 - 0.400	20G3584
AB48053	SAXITOXIN	0.904 Abs	0.031 µg/L	74.281 %Abs		0.020 - 0.400	20G3584
AB48053	SAXITOXIN	0.891 Abs [0.8975] {1.0 C	0.033 µg/L [0.032]	73.213 %Abs [73.7		0.020 - 0.400	20G3584
AB48054	SAXITOXIN	1.142 Abs	0.009 µg/L	Low, 93.837 %Abs		0.020 - 0.400	20G3584
AB48054	SAXITOXIN	1.145 Abs [1.1435] {0.2 C	0.008 µg/L [0.009]	Low, 94.084 %Abs		0.020 - 0.400	20G3584
AB48065	SAXITOXIN	1.076 Abs	0.015 µg/L	Low, 88.414 %Abs		0.020 - 0.400	20G3584
AB48065	SAXITOXIN	1.030 Abs [1.0530] {3.1 C	0.019 µg/L [0.017]	Low, 84.634 %Abs		0.020 - 0.400	20G3584

Note

Signature



Charles Hostetter 7/29/2021

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
7/29/2021 10:49:34 AM				
STX Std 0	1.231 Abs	0.000 µg/L	R ² =0.99870, 101.150 %Abs	RK1:23->A01@2
STX Std 0	1.203 Abs [1.2170] {1.6 CV}	0.002 µg/L [0.001] {141.4 CV}	R ² =0.99870, 98.850 %Abs	RK1:23->B01@2
STX Std 1	1.020 Abs	0.020 µg/L	R ² =0.99870, 83.813 %Abs	RK1:24->C01@2
STX Std 1	1.002 Abs [1.0110] {1.3 CV}	0.022 µg/L [0.021] {6.7 CV}	R ² =0.99870, 82.334 %Abs	RK1:24->D01@2
STX Std 2	0.776 Abs	0.046 µg/L	R ² =0.99870, 63.763 %Abs	RK1:25->E01@2
STX Std 2	0.750 Abs [0.7630] {2.4 CV}	0.049 µg/L [0.047] {4.5 CV}	R ² =0.99870, 61.627 %Abs	RK1:25->F01@3
STX Std 3	0.481 Abs	0.103 µg/L	R ² =0.99870, 39.523 %Abs	RK1:26->G01@3
STX Std 3	0.454 Abs [0.4675] {4.1 CV}	0.111 µg/L [0.107] {5.3 CV}	R ² =0.99870, 37.305 %Abs	RK1:26->H01@3
STX Std 4	0.315 Abs	0.181 µg/L	R ² =0.99870, 25.883 %Abs	RK1:27->A02@2
STX Std 4	0.296 Abs [0.3055] {4.4 CV}	0.196 µg/L [0.188] {5.6 CV}	R ² =0.99870, 24.322 %Abs	RK1:27->B02@2
STX Std 5	0.181 Abs	0.397 µg/L	R ² =0.99870, 14.873 %Abs	RK1:28->C02@2
STX Std 5	0.171 Abs [0.1760] {4.0 CV}	> 0.400 µg/L [0.397]	14.051 %Abs	RK1:28->D02@2

7/29/2021 10:49:34 AM				
STX Control (0.060-0.090)	0.620 Abs	0.070 µg/L	50.945 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.606 Abs [0.6130] {1.6 CV}	0.072 µg/L [0.071] {2.0 CV}	49.795 %Abs [50.370 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.2170	0.0010		
STX Std 0 [SD]	0.0198	0.0014		
STX Std 0 [%CV]	1.6269	141.4214		
STX Std 1 [MEAN]	1.0110	0.0210		
STX Std 1 [SD]	0.0127	0.0014		
STX Std 1 [%CV]	1.2589	6.7344		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.7630	0.0475		
STX Std 2 [SD]	0.0184	0.0021		
STX Std 2 [%CV]	2.4095	4.4659		
STX Std 2 [%DIFF]		-5.0000		
STX Std 3 [MEAN]	0.4675	0.1070		
STX Std 3 [SD]	0.0191	0.0057		
STX Std 3 [%CV]	4.0838	5.2868		
STX Std 3 [%DIFF]		7.0000		
STX Std 4 [MEAN]	0.3055	0.1885		
STX Std 4 [SD]	0.0134	0.0106		
STX Std 4 [%CV]	4.3977	5.6268		
STX Std 4 [%DIFF]		-5.7500		
STX Std 5 [MEAN]	0.1760			
STX Std 5 [SD]	0.0071			
STX Std 5 [%CV]	4.0176			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.6130	0.0710			
STX Control (0.060-0.090) [SD]	0.0099	0.0014			
STX Control (0.060-0.090) [%CV]	1.6149	1.9918			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.2149
 B = 1.3422
 C = 0.063884
 D = 0.092062
 R2 coef = 0.99870
 50% = 0.072

