



Saxitoxins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB46757	Raccoon Lake SRA	5/17/2021	5/19/2021	< 0.05
AB46758	Deam Lake SRA	5/18/2021	5/19/2021	< 0.05
AB46759	Cagles Mill Lake Beach	5/17/2021	5/19/2021	< 0.05
AB46760	Paynetown SRA	5/17/2021	5/19/2021	< 0.05
AB46761	Fairfax SRA	5/17/2021	5/19/2021	< 0.05
AB46762	Starve Hollow SRA	5/17/2021	5/19/2021	< 0.05
AB46763	Whitewater Memorial SP	5/18/2021	5/19/2021	< 0.05
AB46764	Quakertown SRA	5/18/2021	5/19/2021	< 0.05
AB46765	Mounds SRA	5/18/2021	5/19/2021	< 0.05
AB46766	Hardy Lake SRA	5/18/2021	5/19/2021	< 0.05
AB46767	Field Blank	5/17/2021	5/19/2021	< 0.05
AB46768	Deam Lake SRA (Field Duplicate)	5/18/2021	5/19/2021	< 0.05
AB47247	Ft. Ben Harrison SP Dog Lake - East	5/17/2021	5/19/2021	< 0.05
AB47248	Ft. Ben Harrison SP Dog Lake - West	5/17/2021	5/19/2021	< 0.05

Test Information

Request: 5/19/2021 6:32:35 PM

Date: 5/19/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.338 Abs	0.000 µg/L	R^2=0.99879, 100.0			20G3584
STX Std 0	SAXITOXIN	1.339 Abs [1.3385] {0.1 C	0.000 µg/L [0.000]	R^2=0.99879, 100.0			20G3584
STX Std 1	SAXITOXIN	1.130 Abs	0.020 µg/L	R^2=0.99879, 84.35			20G3584
STX Std 1	SAXITOXIN	1.109 Abs [1.1195] {1.3 C	0.022 µg/L [0.021]	R^2=0.99879, 82.82			20G3584
STX Std 2	SAXITOXIN	0.855 Abs	0.046 µg/L	R^2=0.99879, 63.85			20G3584
STX Std 2	SAXITOXIN	0.830 Abs [0.8425] {2.1 C	0.049 µg/L [0.047]	R^2=0.99879, 61.98			20G3584
STX Std 3	SAXITOXIN	0.528 Abs	0.104 µg/L	R^2=0.99879, 39.43			20G3584
STX Std 3	SAXITOXIN	0.510 Abs [0.5190] {2.5 C	0.109 µg/L [0.106]	R^2=0.99879, 38.08			20G3584
STX Std 4	SAXITOXIN	0.346 Abs	0.184 µg/L	R^2=0.99879, 25.84			20G3584
STX Std 4	SAXITOXIN	0.338 Abs [0.3420] {1.7 C	0.190 µg/L [0.187]	R^2=0.99879, 25.24			20G3584
STX Std 5	SAXITOXIN	0.203 Abs	> 0.400 µg/L	15.161 %Abs			20G3584
STX Std 5	SAXITOXIN	0.198 Abs [0.2005] {1.8 C	> 0.400 µg/L	14.787 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.711 Abs	0.066 µg/L	53.099 %Abs			20G3584
STX Control (0.060-0.090)	SAXITOXIN	0.692 Abs [0.7015] {1.9 C	0.069 µg/L [0.067]	51.680 %Abs [52.3			20G3584

Test Report (by Request)

Test Information

 Request: 5/19/2021 6:33:55 PM
 Date: 5/19/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (SAX)	SAXITOXIN	1.300 Abs	0.005 µg/L	Low, 97.087 %Abs		0.020 - 0.400	20G3584
LRB (SAX)	SAXITOXIN	1.288 Abs [1.2940] {0.7 C	0.006 µg/L [0.006]	Low, 96.191 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.641 Abs	0.078 µg/L	47.872 %Abs		0.020 - 0.400	20G3584
LFB (SAX)	SAXITOXIN	0.617 Abs [0.6290] {2.7 C	0.083 µg/L [0.080]	46.079 %Abs [46.9		0.020 - 0.400	20G3584
AB46757	SAXITOXIN	1.245 Abs	0.010 µg/L	Low, 92.980 %Abs		0.020 - 0.400	20G3584
AB46757	SAXITOXIN	1.221 Abs [1.2330] {1.4 C	0.012 µg/L [0.011]	Low, 91.187 %Abs		0.020 - 0.400	20G3584
AB46758	SAXITOXIN	1.275 Abs	0.007 µg/L	Low, 95.220 %Abs		0.020 - 0.400	20G3584
AB46758	SAXITOXIN	1.262 Abs [1.2685] {0.7 C	0.009 µg/L [0.008]	Low, 94.249 %Abs		0.020 - 0.400	20G3584
AB46759	SAXITOXIN	1.216 Abs	0.013 µg/L	Low, 90.814 %Abs		0.020 - 0.400	20G3584
AB46759	SAXITOXIN	1.230 Abs [1.2230] {0.8 C	0.011 µg/L [0.012]	Low, 91.860 %Abs		0.020 - 0.400	20G3584
AB46760	SAXITOXIN	1.318 Abs	0.003 µg/L	Low, 98.432 %Abs		0.020 - 0.400	20G3584
AB46760	SAXITOXIN	1.285 Abs [1.3015] {1.8 C	0.006 µg/L [0.004]	Low, 95.967 %Abs		0.020 - 0.400	20G3584
AB46760MS	SAXITOXIN	0.607 Abs	0.085 µg/L	45.332 %Abs		0.020 - 0.400	20G3584
AB46760MS	SAXITOXIN	0.591 Abs [0.5990] {1.9 C	0.088 µg/L [0.087]	44.137 %Abs [44.7		0.020 - 0.400	20G3584
AB46760MSD	SAXITOXIN	0.600 Abs	0.086 µg/L	44.810 %Abs		0.020 - 0.400	20G3584
AB46760MSD	SAXITOXIN	0.586 Abs [0.5930] {1.7 C	0.089 µg/L [0.088]	43.764 %Abs [44.2		0.020 - 0.400	20G3584
AB46761	SAXITOXIN	1.262 Abs	0.009 µg/L	Low, 94.249 %Abs		0.020 - 0.400	20G3584
AB46761	SAXITOXIN	1.272 Abs [1.2670] {0.6 C	0.008 µg/L [0.009]	Low, 94.996 %Abs		0.020 - 0.400	20G3584
AB46762	SAXITOXIN	1.290 Abs	0.006 µg/L	Low, 96.341 %Abs		0.020 - 0.400	20G3584
AB46762	SAXITOXIN	1.266 Abs [1.2780] {1.3 C	0.008 µg/L [0.007]	Low, 94.548 %Abs		0.020 - 0.400	20G3584
AB46763	SAXITOXIN	1.245 Abs	0.010 µg/L	Low, 92.980 %Abs		0.020 - 0.400	20G3584
AB46763	SAXITOXIN	1.228 Abs [1.2365] {1.0 C	0.012 µg/L [0.011]	Low, 91.710 %Abs		0.020 - 0.400	20G3584
AB46764	SAXITOXIN	1.244 Abs	0.010 µg/L	Low, 92.905 %Abs		0.020 - 0.400	20G3584
AB46764	SAXITOXIN	1.216 Abs [1.2300] {1.6 C	0.013 µg/L [0.012]	Low, 90.814 %Abs		0.020 - 0.400	20G3584
AB46765	SAXITOXIN	1.228 Abs	0.012 µg/L	Low, 91.710 %Abs		0.020 - 0.400	20G3584
AB46765	SAXITOXIN	1.223 Abs [1.2255] {0.3 C	0.012 µg/L [0.012]	Low, 91.337 %Abs		0.020 - 0.400	20G3584
AB46766	SAXITOXIN	1.296 Abs	0.005 µg/L	Low, 96.789 %Abs		0.020 - 0.400	20G3584
AB46766	SAXITOXIN	1.263 Abs [1.2795] {1.8 C	0.008 µg/L [0.007]	Low, 94.324 %Abs		0.020 - 0.400	20G3584
AB46767	SAXITOXIN	1.322 Abs	0.003 µg/L	Low, 98.730 %Abs		0.020 - 0.400	20G3584
AB46767	SAXITOXIN	1.304 Abs [1.3130] {1.0 C	0.005 µg/L [0.004]	Low, 97.386 %Abs		0.020 - 0.400	20G3584
AB46768	SAXITOXIN	1.303 Abs	0.005 µg/L	Low, 97.311 %Abs		0.020 - 0.400	20G3584
AB46768	SAXITOXIN	1.288 Abs [1.2955] {0.8 C	0.006 µg/L [0.006]	Low, 96.191 %Abs		0.020 - 0.400	20G3584
AB47247	SAXITOXIN	1.238 Abs	0.011 µg/L	Low, 92.457 %Abs		0.020 - 0.400	20G3584
AB47247	SAXITOXIN	1.223 Abs [1.2305] {0.9 C	0.012 µg/L [0.012]	Low, 91.337 %Abs		0.020 - 0.400	20G3584
AB47248	SAXITOXIN	1.241 Abs	0.010 µg/L	Low, 92.681 %Abs		0.020 - 0.400	20G3584
AB47248	SAXITOXIN	1.208 Abs [1.2245] {1.9 C	0.013 µg/L [0.012]	Low, 90.217 %Abs		0.020 - 0.400	20G3584

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: "

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Name	Absorbance	Concentration	Interpretation	Position
5/19/2021 6:32:35 PM				
STX Std 0	1.338 Abs	0.000 µg/L	R ² =0.99879, 100.000 %Abs	RK1:23->A01@2
STX Std 0	1.339 Abs [1.3385] {0.1 CV}	0.000 µg/L [0.000]	R ² =0.99879, 100.000 %Abs	RK1:23->B01@2
STX Std 1	1.130 Abs	0.020 µg/L	R ² =0.99879, 84.391 %Abs	RK1:24->C01@2
STX Std 1	1.109 Abs [1.1195] {1.3 CV}	0.022 µg/L [0.021] {6.7 CV}	R ² =0.99879, 82.823 %Abs	RK1:24->D01@2
STX Std 2	0.855 Abs	0.046 µg/L	R ² =0.99879, 63.854 %Abs	RK1:25->E01@2
STX Std 2	0.830 Abs [0.8425] {2.1 CV}	0.049 µg/L [0.047] {4.5 CV}	R ² =0.99879, 61.987 %Abs	RK1:25->F01@3
STX Std 3	0.528 Abs	0.104 µg/L	R ² =0.99879, 39.432 %Abs	RK1:26->G01@3
STX Std 3	0.510 Abs [0.5190] {2.5 CV}	0.109 µg/L [0.106] {3.3 CV}	R ² =0.99879, 38.088 %Abs	RK1:26->H01@3
STX Std 4	0.346 Abs	0.184 µg/L	R ² =0.99879, 25.840 %Abs	RK1:27->A02@2
STX Std 4	0.338 Abs [0.3420] {1.7 CV}	0.190 µg/L [0.187] {2.3 CV}	R ² =0.99879, 25.243 %Abs	RK1:27->B02@2
STX Std 5	0.203 Abs	> 0.400 µg/L	15.161 %Abs	RK1:28->C02@2
STX Std 5	0.198 Abs [0.2005] {1.8 CV}	> 0.400 µg/L	14.787 %Abs	RK1:28->D02@2

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STX Control (0.060-0.090)	0.711 Abs	0.066 µg/L	53.099 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.692 Abs [0.7015] {1.9 CV}	0.069 µg/L [0.067] {3.1 CV}	51.680 %Abs [52.390 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.3385	0.0000		
STX Std 0 [SD]	0.0007	0.0000		
STX Std 0 [%CV]	0.0528	0.0000		
STX Std 1 [MEAN]	1.1195	0.0210		
STX Std 1 [SD]	0.0148	0.0014		
STX Std 1 [%CV]	1.3264	6.7344		
STX Std 1 [%DIFF]		5.0000		
STX Std 2 [MEAN]	0.8425	0.0475		
STX Std 2 [SD]	0.0177	0.0021		
STX Std 2 [%CV]	2.0982	4.4659		
STX Std 2 [%DIFF]		-5.0000		
STX Std 3 [MEAN]	0.5190	0.1065		
STX Std 3 [SD]	0.0127	0.0035		
STX Std 3 [%CV]	2.4524	3.3197		
STX Std 3 [%DIFF]		6.5000		
STX Std 4 [MEAN]	0.3420	0.1870		
STX Std 4 [SD]	0.0057	0.0042		
STX Std 4 [%CV]	1.6540	2.2688		
STX Std 4 [%DIFF]		-6.5000		
STX Std 5 [MEAN]	0.2005			
STX Std 5 [SD]	0.0035			
STX Std 5 [%CV]	1.7634			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7015	0.0675		
STX Control (0.060-0.090) [SD]	0.0134	0.0021		
STX Control (0.060-0.090) [%CV]	1.9152	3.1427		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3370
 B = 1.3631
 C = 0.063524
 D = 0.11337
 R2 coef = 0.99879
 50% = 0.073

