



Saxitoxin-a ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch


Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB42867	Raccoon Lake SRA	6/15/2020	6/17/2020	<0.05
AB42869	Cagles Mill Lake Beach	6/15/2020	6/17/2020	<0.05
AB42870	Paynetown SRA	6/15/2020	6/17/2020	<0.05
AB42871	Fairfax SRA	6/15/2020	6/17/2020	<0.05
AB42872	Starve Hollow SRA	6/15/2020	6/17/2020	<0.05
AB42873	Whitewater Memorial SP	6/16/2020	6/17/2020	<0.05
AB42874	Quakertown SRA	6/16/2020	6/17/2020	<0.05
AB42875	Mounds SRA	6/16/2020	6/17/2020	<0.05
AB42876	Hardy Lake SRA	6/16/2020	6/17/2020	<0.05
AB42877	Field Blank	6/15/2020	6/17/2020	<0.05
AB42868	Deam Lake SRA	6/16/2020	6/17/2020	<0.05
AB42878	Starve Hollow SRA	6/15/2020	6/17/2020	<0.05
AB42912	Ferdinand Forest Lake	6/15/2020	6/17/2020	0.064
AB42913	Lincoln State Park	6/15/2020	6/17/2020	<0.05
AB42914	Patoka Lake	6/15/2020	6/17/2020	<0.05

Test Information

 Request: 6/17/2020 2:34:38 PM
 Date: 6/17/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.687 Abs	0.000 µg/L	R ² =0.99812, 101.13		19J1672
STX Std 0	SAXITOXIN	1.650 Abs [1.6685] {1.6 CV}	0.001 µg/L [0.001] {1}	R ² =0.99812, 98.921		19J1672
STX Std 1	SAXITOXIN	1.217 Abs	0.025 µg/L	R ² =0.99812, 72.962		19J1672
STX Std 1	SAXITOXIN	1.306 Abs [1.2615] {5.0 CV}	0.019 µg/L [0.022] {1}	R ² =0.99812, 78.297		19J1672
STX Std 2	SAXITOXIN	0.980 Abs	0.045 µg/L	R ² =0.99812, 58.753		19J1672
STX Std 2	SAXITOXIN	0.965 Abs [0.9725] {1.1 CV}	0.046 µg/L [0.046] {1}	R ² =0.99812, 57.854		19J1672
STX Std 3	SAXITOXIN	0.622 Abs	0.102 µg/L	R ² =0.99812, 37.290		19J1672
STX Std 3	SAXITOXIN	0.604 Abs [0.6130] {2.1 CV}	0.106 µg/L [0.104] {2}	R ² =0.99812, 36.211		19J1672
STX Std 4	SAXITOXIN	0.365 Abs	0.205 µg/L	R ² =0.99812, 21.882		19J1672
STX Std 4	SAXITOXIN	0.343 Abs [0.3540] {4.4 CV}	0.221 µg/L [0.213] {5}	R ² =0.99812, 20.564		19J1672
STX Std 5	SAXITOXIN	0.219 Abs	0.365 µg/L	R ² =0.99812, 13.129		19J1672
STX Std 5	SAXITOXIN	0.212 Abs [0.2155] {2.3 CV}	0.378 µg/L [0.372] {2}	R ² =0.99812, 12.710		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.761 Abs	0.074 µg/L	45.624 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.754 Abs [0.7575] {0.7 CV}	0.075 µg/L [0.075] {0}	45.204 %Abs [45.414]		19J1672

Note

 Signature 
 Date: 6/17/2020

Test Report (by Request)

Test Information

 Request: 6/17/2020 2:35:57 PM
 Date: 6/17/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.605 Abs	0.003 µg/L	LOW, 96.223 %ABS	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.639 Abs [1.6220] {1.5 CV}	0.001 µg/L [0.002] {7}	LOW, 98.261 %ABS	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.760 Abs	0.074 µg/L	45.564 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.766 Abs [0.7630] {0.6 CV}	0.073 µg/L [0.074] {1}	45.923 %Abs [45.743]	0.020 - 0.400	19J1672
AB42867	SAXITOXIN	1.589 Abs	0.004 µg/L	LOW, 95.264 %ABS	0.020 - 0.400	19J1672
AB42867	SAXITOXIN	1.603 Abs [1.5960] {0.6 CV}	0.003 µg/L [0.004] {2}	LOW, 96.103 %ABS	0.020 - 0.400	19J1672
AB42869	SAXITOXIN	1.301 Abs	0.021 µg/L	77.998 %Abs	0.020 - 0.400	19J1672
AB42869	SAXITOXIN	1.284 Abs [1.2925] {0.9 CV}	0.022 µg/L [0.021] {3}	76.978 %Abs [77.488]	0.020 - 0.400	19J1672
AB42870	SAXITOXIN	1.599 Abs	0.003 µg/L	LOW, 95.863 %ABS	0.020 - 0.400	19J1672
AB42870	SAXITOXIN	1.600 Abs [1.5995] {0.0 CV}	0.003 µg/L [0.003] {0}	LOW, 95.923 %ABS	0.020 - 0.400	19J1672
AB42871	SAXITOXIN	1.647 Abs	0.001 µg/L	LOW, 98.741 %ABS	0.020 - 0.400	19J1672
AB42871	SAXITOXIN	1.619 Abs [1.6330] {1.2 CV}	0.002 µg/L [0.002] {4}	LOW, 97.062 %ABS	0.020 - 0.400	19J1672
AB42872	SAXITOXIN	1.544 Abs	0.006 µg/L	LOW, 92.566 %ABS	0.020 - 0.400	19J1672
AB42872	SAXITOXIN	1.560 Abs [1.5520] {0.7 CV}	0.005 µg/L [0.006] {1}	LOW, 93.525 %ABS	0.020 - 0.400	19J1672
AB42873	SAXITOXIN	1.564 Abs	0.005 µg/L	LOW, 93.765 %ABS	0.020 - 0.400	19J1672
AB42873	SAXITOXIN	1.563 Abs [1.5635] {0.0 CV}	0.005 µg/L [0.005] {0}	LOW, 93.705 %ABS	0.020 - 0.400	19J1672
AB42873MS	SAXITOXIN	0.737 Abs	0.078 µg/L	44.185 %Abs	0.020 - 0.400	19J1672
AB42873MS	SAXITOXIN	0.751 Abs [0.7440] {1.3 CV}	0.075 µg/L [0.076] {2}	45.024 %Abs [44.604]	0.020 - 0.400	19J1672
AB42873MSD	SAXITOXIN	0.746 Abs	0.076 µg/L	44.724 %Abs	0.020 - 0.400	19J1672
AB42873MSD	SAXITOXIN	0.745 Abs [0.7455] {0.1 CV}	0.076 µg/L [0.076] {0}	44.664 %Abs [44.694]	0.020 - 0.400	19J1672
AB42874	SAXITOXIN	1.580 Abs	0.004 µg/L	LOW, 94.724 %ABS	0.020 - 0.400	19J1672
AB42874	SAXITOXIN	1.605 Abs [1.5925] {1.1 CV}	0.003 µg/L [0.004] {2}	LOW, 96.223 %ABS	0.020 - 0.400	19J1672
AB42875	SAXITOXIN	1.581 Abs	0.004 µg/L	LOW, 94.784 %ABS	0.020 - 0.400	19J1672
AB42875	SAXITOXIN	1.526 Abs [1.5535] {2.5 CV}	0.008 µg/L [0.006] {4}	LOW, 91.487 %ABS	0.020 - 0.400	19J1672
AB42876	SAXITOXIN	1.589 Abs	0.004 µg/L	LOW, 95.264 %ABS	0.020 - 0.400	19J1672
AB42876	SAXITOXIN	1.593 Abs [1.5910] {0.2 CV}	0.003 µg/L [0.004] {2}	LOW, 95.504 %ABS	0.020 - 0.400	19J1672
AB42877	SAXITOXIN	1.652 Abs	0.001 µg/L	LOW, 99.041 %ABS	0.020 - 0.400	19J1672
AB42877	SAXITOXIN	1.648 Abs [1.6500] {0.2 CV}	0.001 µg/L [0.001] {0}	LOW, 98.801 %ABS	0.020 - 0.400	19J1672
AB42868	SAXITOXIN	1.638 Abs	0.001 µg/L	LOW, 98.201 %ABS	0.020 - 0.400	19J1672
AB42868	SAXITOXIN	1.626 Abs [1.6320] {0.5 CV}	0.002 µg/L [0.002] {4}	LOW, 97.482 %ABS	0.020 - 0.400	19J1672
AB42878	SAXITOXIN	1.539 Abs	0.007 µg/L	LOW, 92.266 %ABS	0.020 - 0.400	19J1672
AB42878	SAXITOXIN	1.523 Abs [1.5310] {0.7 CV}	0.008 µg/L [0.008] {9}	LOW, 91.307 %ABS	0.020 - 0.400	19J1672
AB42912	SAXITOXIN	0.877 Abs	0.063 µg/L	52.578 %Abs	0.020 - 0.400	19J1672
AB42912	SAXITOXIN	0.862 Abs [0.8695] {1.2 CV}	0.065 µg/L [0.064] {2}	51.679 %Abs [52.128]	0.020 - 0.400	19J1672
AB42913	SAXITOXIN	1.564 Abs	0.005 µg/L	LOW, 93.765 %ABS	0.020 - 0.400	19J1672
AB42913	SAXITOXIN	1.580 Abs [1.5720] {0.7 CV}	0.004 µg/L [0.004] {1}	LOW, 94.724 %ABS	0.020 - 0.400	19J1672
AB42914	SAXITOXIN	1.618 Abs	0.002 µg/L	LOW, 97.002 %ABS	0.020 - 0.400	19J1672
AB42914	SAXITOXIN	1.577 Abs [1.5975] {1.8 CV}	0.004 µg/L [0.003] {4}	LOW, 94.544 %ABS	0.020 - 0.400	19J1672

Note

 Signature *David Jordan*
 Date: 6/17/2020

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: 19J1672

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
6/17/2020 2:34:38 PM				
STX Std 0	1.687 Abs		R ² =0.99812, 101.139 %Abs	RK1:23->A01@2
STX Std 0	1.650 Abs [1.6685] {1.6 CV}		R ² =0.99812, 98.921 %Abs	RK1:23->B01@2
STX Std 1	1.217 Abs		R ² =0.99812, 72.962 %Abs	RK1:24->C01@2
STX Std 1	1.306 Abs [1.2615] {5.0 CV}		R ² =0.99812, 78.297 %Abs	RK1:24->D01@2
STX Std 2	0.980 Abs		R ² =0.99812, 58.753 %Abs	RK1:25->E01@2
STX Std 2	0.965 Abs [0.9725] {1.1 CV}		R ² =0.99812, 57.854 %Abs	RK1:25->F01@3
STX Std 3	0.622 Abs		R ² =0.99812, 37.290 %Abs	RK1:26->G01@3
STX Std 3	0.604 Abs [0.6130] {2.1 CV}		R ² =0.99812, 36.211 %Abs	RK1:26->H01@3
STX Std 4	0.365 Abs		R ² =0.99812, 21.882 %Abs	RK1:27->A02@2
STX Std 4	0.343 Abs [0.3540] {4.4 CV}		R ² =0.99812, 20.564 %Abs	RK1:27->B02@2
STX Std 5	0.219 Abs		R ² =0.99812, 13.129 %Abs	RK1:28->C02@2
STX Std 5	0.212 Abs [0.2155] {2.3 CV}		R ² =0.99812, 12.710 %Abs	RK1:28->D02@2

6/17/2020 2:34:38 PM				
STX Control (0.060-0.090)	0.761 Abs		45.624 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.754 Abs [0.7575] {0.7 CV}		45.204 %Abs [45.414 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.6685			
STX Std 0 [SD]	0.0262			
STX Std 0 [%CV]	1.5681			
STX Std 1 [MEAN]	1.2615			
STX Std 1 [SD]	0.0629			
STX Std 1 [%CV]	4.9887			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9725			
STX Std 2 [SD]	0.0106			
STX Std 2 [%CV]	1.0907			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6130			
STX Std 3 [SD]	0.0127			
STX Std 3 [%CV]	2.0763			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3540			
STX Std 4 [SD]	0.0156			
STX Std 4 [%CV]	4.3945			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2155			
STX Std 5 [SD]	0.0049			
STX Std 5 [%CV]	2.2969			

Name	Absorbance	Concentration	Interpretation	Position
STX Std 5 [%DIFF]				
STX Control (0.060-0.090) [MEAN]	0.7575			
STX Control (0.060-0.090) [SD]	0.0049			
STX Control (0.060-0.090) [%CV]	0.6534			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6628
 B = 1.0730
 C = 0.062825
 D = 0.00027522
 R2 coef = 0.99812
 50% = 0.062

