



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43832	Raccoon Lake SRA	8/10/2020	8/13/2020	< 0.050
AB43833	Deam Lake SRA	8/11/2020	8/13/2020	< 0.050
AB43834	Cagles Mill Lake Beach	8/10/2020	8/13/2020	< 0.050
AB43835	Paynetown SRA	8/10/2020	8/13/2020	< 0.050
AB43836	Fairfax SRA	8/10/2020	8/13/2020	< 0.050
AB43837	Starve Hollow SRA	8/10/2020	8/13/2020	< 0.050
AB43838	Whitewater Memorial SP	8/11/2020	8/13/2020	< 0.050
AB43839	Quakertown SRA	8/11/2020	8/13/2020	< 0.050
AB43840	Mounds SRA	8/11/2020	8/13/2020	< 0.050
AB43841	Hardy Lake SRA	8/11/2020	8/13/2020	< 0.050
AB43842	Fairfax SRA (Field Duplicate)	8/10/2020	8/13/2020	< 0.050
AB43843	Field Blank	8/10/2020	8/13/2020	< 0.050
AB43844	Lincoln State Park	8/10/2020	8/13/2020	0.052
AB43845	Ferdinand State Forest Lake	8/10/2020	8/13/2020	< 0.050
AB43846	Patoka Lake	8/10/2020	8/13/2020	< 0.050
AB43847	Ft. Harrison SP Dog Lake	8/11/2020	8/13/2020	< 0.050

Test Report (by Request)

Test Information

Request: 8/13/2020 12:39:28 PM

Date: 8/13/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.686 Abs	0.000 µg/L	R ² =0.99964, 100.11%		20L2082
STX Std 0	SAXITOXIN	1.683 Abs [1.6845] {0.1 CV}	0.000 µg/L [0.000]	R ² =0.99964, 100.00%		20L2082
STX Std 1	SAXITOXIN	1.329 Abs	0.020 µg/L	R ² =0.99964, 78.919%		20L2082
STX Std 1	SAXITOXIN	1.318 Abs [1.3235] {0.6 CV}	0.020 µg/L [0.020] {0.6 CV}	R ² =0.99964, 78.266%		20L2082
STX Std 2	SAXITOXIN	0.948 Abs	0.048 µg/L	R ² =0.99964, 56.295%		20L2082
STX Std 2	SAXITOXIN	0.910 Abs [0.9290] {2.9 CV}	0.052 µg/L [0.050] {2.9 CV}	R ² =0.99964, 54.038%		20L2082
STX Std 3	SAXITOXIN	0.592 Abs	0.102 µg/L	R ² =0.99964, 35.154%		20L2082
STX Std 3	SAXITOXIN	0.584 Abs [0.5880] {1.0 CV}	0.104 µg/L [0.103] {1.0 CV}	R ² =0.99964, 34.679%		20L2082
STX Std 4	SAXITOXIN	0.390 Abs	0.182 µg/L	R ² =0.99964, 23.159%		20L2082
STX Std 4	SAXITOXIN	0.375 Abs [0.3825] {2.8 CV}	0.192 µg/L [0.187] {2.8 CV}	R ² =0.99964, 22.268%		20L2082
STX Std 5	SAXITOXIN	0.227 Abs	> 0.400 µg/L	13.480 %Abs		20L2082
STX Std 5	SAXITOXIN	0.216 Abs [0.2215] {3.5 CV}	> 0.400 µg/L	12.827 %Abs		20L2082
STX Control (0.060-0.090)	SAXITOXIN	0.743 Abs	0.073 µg/L	44.121 %Abs		20L2082
STX Control (0.060-0.090)	SAXITOXIN	0.721 Abs [0.7320] {2.1 CV}	0.076 µg/L [0.074] {2.1 CV}	42.815 %Abs [43.468]		20L2082

Note

Signature

Date: 8/13/2020

Test Report (by Request)

Test Information

Request: 8/13/2020 1:10:38 PM

Date: 8/13/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.540 Abs	0.008 µg/L	LOW, 91.449 %ABS	0.020 - 0.400	20L2082
LRB	SAXITOXIN	1.529 Abs [1.5345] {0.5 CV}	0.009 µg/L [0.009] {0.5 CV}	LOW, 90.796 %ABS	0.020 - 0.400	20L2082
LFB	SAXITOXIN	0.814 Abs	0.063 µg/L	48.337 %Abs	0.020 - 0.400	20L2082
LFB	SAXITOXIN	0.777 Abs [0.7955] {3.3 CV}	0.068 µg/L [0.066] {3.3 CV}	46.140 %Abs [47.239]	0.020 - 0.400	20L2082
AB43832	SAXITOXIN	1.536 Abs	0.010 µg/L	LOW, 91.211 %ABS	0.020 - 0.400	20L2082
AB43832	SAXITOXIN	1.505 Abs [1.5205] {1.4 CV}	0.011 µg/L [0.010] {1.4 CV}	LOW, 89.371 %ABS	0.020 - 0.400	20L2082
AB43833	SAXITOXIN	1.581 Abs	0.007 µg/L	LOW, 93.884 %ABS	0.020 - 0.400	20L2082
AB43833	SAXITOXIN	1.545 Abs [1.5630] {1.6 CV}	0.009 µg/L [0.008] {1.6 CV}	LOW, 91.746 %ABS	0.020 - 0.400	20L2082
AB43834	SAXITOXIN	1.491 Abs	0.012 µg/L	LOW, 88.539 %ABS	0.020 - 0.400	20L2082
AB43834	SAXITOXIN	1.483 Abs [1.4870] {0.4 CV}	0.012 µg/L [0.012] {0.4 CV}	LOW, 88.064 %ABS	0.020 - 0.400	20L2082
AB43835	SAXITOXIN	1.439 Abs	0.015 µg/L	LOW, 85.451 %ABS	0.020 - 0.400	20L2082
AB43835	SAXITOXIN	1.410 Abs [1.4245] {1.4 CV}	0.016 µg/L [0.015] {1.4 CV}	LOW, 83.729 %ABS	0.020 - 0.400	20L2082
AB43836	SAXITOXIN	1.444 Abs	0.014 µg/L	LOW, 85.748 %ABS	0.020 - 0.400	20L2082
AB43836	SAXITOXIN	1.426 Abs [1.4350] {0.9 CV}	0.015 µg/L [0.014] {0.9 CV}	LOW, 84.679 %ABS	0.020 - 0.400	20L2082
AB43837	SAXITOXIN	1.266 Abs	0.025 µg/L	75.178 %Abs	0.020 - 0.400	20L2082
AB43837	SAXITOXIN	1.223 Abs [1.2445] {2.4 CV}	0.029 µg/L [0.027] {2.4 CV}	72.625 %Abs [73.900]	0.020 - 0.400	20L2082
AB43837MS	SAXITOXIN	0.654 Abs	0.089 µg/L	38.836 %Abs	0.020 - 0.400	20L2082
AB43837MS	SAXITOXIN	0.620 Abs [0.6370] {3.8 CV}	0.096 µg/L [0.093] {3.8 CV}	36.817 %Abs [37.820]	0.020 - 0.400	20L2082
AB43837MSD	SAXITOXIN	0.683 Abs	0.083 µg/L	40.558 %Abs	0.020 - 0.400	20L2082
AB43837MSD	SAXITOXIN	0.673 Abs [0.6780] {1.0 CV}	0.085 µg/L [0.084] {1.0 CV}	39.964 %Abs [40.260]	0.020 - 0.400	20L2082
AB43838	SAXITOXIN	1.497 Abs	0.012 µg/L	LOW, 88.895 %ABS	0.020 - 0.400	20L2082
AB43838	SAXITOXIN	1.506 Abs [1.5015] {0.4 CV}	0.011 µg/L [0.012] {0.4 CV}	LOW, 89.430 %ABS	0.020 - 0.400	20L2082
AB43839	SAXITOXIN	1.507 Abs	0.011 µg/L	LOW, 89.489 %ABS	0.020 - 0.400	20L2082
AB43839	SAXITOXIN	1.485 Abs [1.4960] {1.0 CV}	0.012 µg/L [0.012] {1.0 CV}	LOW, 88.183 %ABS	0.020 - 0.400	20L2082
AB43840	SAXITOXIN	1.510 Abs	0.011 µg/L	LOW, 89.667 %ABS	0.020 - 0.400	20L2082
AB43840	SAXITOXIN	1.495 Abs [1.5025] {0.7 CV}	0.012 µg/L [0.012] {0.7 CV}	LOW, 88.777 %ABS	0.020 - 0.400	20L2082
AB43841	SAXITOXIN	1.339 Abs	0.021 µg/L	79.513 %Abs	0.020 - 0.400	20L2082
AB43841	SAXITOXIN	1.294 Abs [1.3165] {2.4 CV}	0.024 µg/L [0.023] {2.4 CV}	76.841 %Abs [78.170]	0.020 - 0.400	20L2082
AB43842	SAXITOXIN	1.455 Abs	0.014 µg/L	LOW, 86.401 %ABS	0.020 - 0.400	20L2082
AB43842	SAXITOXIN	1.418 Abs [1.4365] {1.8 CV}	0.016 µg/L [0.015] {1.8 CV}	LOW, 84.204 %ABS	0.020 - 0.400	20L2082
AB43843	SAXITOXIN	1.587 Abs	0.007 µg/L	LOW, 94.240 %ABS	0.020 - 0.400	20L2082
AB43843	SAXITOXIN	1.544 Abs [1.5655] {1.9 CV}	0.009 µg/L [0.008] {1.9 CV}	LOW, 91.686 %ABS	0.020 - 0.400	20L2082
AB43844	SAXITOXIN	0.966 Abs	0.051 µg/L	57.363 %Abs	0.020 - 0.400	20L2082
AB43844	SAXITOXIN	0.950 Abs [0.9580] {1.2 CV}	0.052 µg/L [0.052] {1.2 CV}	56.413 %Abs [56.880]	0.020 - 0.400	20L2082
AB43845	SAXITOXIN	1.485 Abs	0.012 µg/L	LOW, 88.183 %ABS	0.020 - 0.400	20L2082
AB43845	SAXITOXIN	1.451 Abs [1.4680] {1.6 CV}	0.014 µg/L [0.013] {1.6 CV}	LOW, 86.164 %ABS	0.020 - 0.400	20L2082
AB43846	SAXITOXIN	1.497 Abs	0.012 µg/L	LOW, 88.895 %ABS	0.020 - 0.400	20L2082
AB43846	SAXITOXIN	1.507 Abs [1.5020] {0.5 CV}	0.011 µg/L [0.012] {0.5 CV}	LOW, 89.489 %ABS	0.020 - 0.400	20L2082
AB43847	SAXITOXIN	1.454 Abs	0.014 µg/L	LOW, 86.342 %ABS	0.020 - 0.400	20L2082
AB43847	SAXITOXIN	1.432 Abs [1.4430] {1.1 CV}	0.015 µg/L [0.014] {1.1 CV}	LOW, 85.036 %ABS	0.020 - 0.400	20L2082
LFB 2	SAXITOXIN	0.726 Abs	0.076 µg/L	43.112 %Abs	0.020 - 0.400	20L2082
LFB 2	SAXITOXIN	0.735 Abs [0.7305] {0.9 CV}	0.074 µg/L [0.075] {0.9 CV}	43.646 %Abs [43.370]	0.020 - 0.400	20L2082
LRB 2	SAXITOXIN	1.560 Abs	0.007 µg/L	LOW, 92.637 %ABS	0.020 - 0.400	20L2082
LRB 2	SAXITOXIN	1.516 Abs [1.5380] {2.0 CV}	0.010 µg/L [0.009] {2.0 CV}	LOW, 90.024 %ABS	0.020 - 0.400	20L2082

Note

 Signature *David Jordan*

Date: 8/13/2020

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: 20L2082

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
8/13/2020 12:39:28 PM				
STX Std 0	1.686 Abs		R ² =0.99964, 100.119 %Abs	RK1:23->A01@2
STX Std 0	1.683 Abs [1.6845] {0.1 CV}		R ² =0.99964, 100.000 %Abs	RK1:23->B01@2
STX Std 1	1.329 Abs		R ² =0.99964, 78.919 %Abs	RK1:24->C01@2
STX Std 1	1.318 Abs [1.3235] {0.6 CV}		R ² =0.99964, 78.266 %Abs	RK1:24->D01@2
STX Std 2	0.948 Abs		R ² =0.99964, 56.295 %Abs	RK1:25->E01@2
STX Std 2	0.910 Abs [0.9290] {2.9 CV}		R ² =0.99964, 54.038 %Abs	RK1:25->F01@3
STX Std 3	0.592 Abs		R ² =0.99964, 35.154 %Abs	RK1:26->G01@3
STX Std 3	0.584 Abs [0.5880] {1.0 CV}		R ² =0.99964, 34.679 %Abs	RK1:26->H01@3
STX Std 4	0.390 Abs		R ² =0.99964, 23.159 %Abs	RK1:27->A02@2
STX Std 4	0.375 Abs [0.3825] {2.8 CV}		R ² =0.99964, 22.268 %Abs	RK1:27->B02@2
STX Std 5	0.227 Abs		13.480 %Abs	RK1:28->C02@2
STX Std 5	0.216 Abs [0.2215] {3.5 CV}		12.827 %Abs	RK1:28->D02@2

8/13/2020 12:39:28 PM				
STX Control (0.060-0.090)	0.743 Abs		44.121 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.721 Abs [0.7320] {2.1 CV}		42.815 %Abs [43.468 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.6845			
STX Std 0 [SD]	0.0021			
STX Std 0 [%CV]	0.1259			
STX Std 1 [MEAN]	1.3235			
STX Std 1 [SD]	0.0078			
STX Std 1 [%CV]	0.5877			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9290			
STX Std 2 [SD]	0.0269			
STX Std 2 [%CV]	2.8924			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.5880			
STX Std 3 [SD]	0.0057			
STX Std 3 [%CV]	0.9621			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3825			
STX Std 4 [SD]	0.0106			
STX Std 4 [%CV]	2.7730			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2215			
STX Std 5 [SD]	0.0078			
STX Std 5 [%CV]	3.5116			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7320			
STX Control (0.060-0.090) [SD]	0.0156			
STX Control (0.060-0.090) [%CV]	2.1252			

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.6845
 B = 1.2438
 C = 0.052748
 D = 0.11296
 R2 coef = 0.99964
 50% = 0.059

