



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB 1	Lab Reagent Blank	8/21/2019	8/21/2019	<0.050	
LFB 1	Lab Fortified Blank (Spike = 0.10 ppb)	8/21/2019	8/21/2019	0.063	63
AB40164	Miami SRA at Mississinewa Lake	8/26/2019	8/27/2019	<0.050	
AB40165	Potato Creek SP	8/26/2019	8/27/2019	<0.050	
AB40165MS	Potato Creek SP MS (Spike = 0.10 ppb)	8/26/2019	8/27/2019	0.084	61
AB40165MSD	Potato Creek SP MSD (Spike = 0.10 ppb)	8/26/2019	8/27/2019	0.026	3
AB40166	Miami SRA at Mississinewa Lake	8/26/2019	8/27/2019	<0.050	
AB40167	Field Blank	8/26/2019	8/27/2019	<0.050	

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: 19G0236

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: "

"

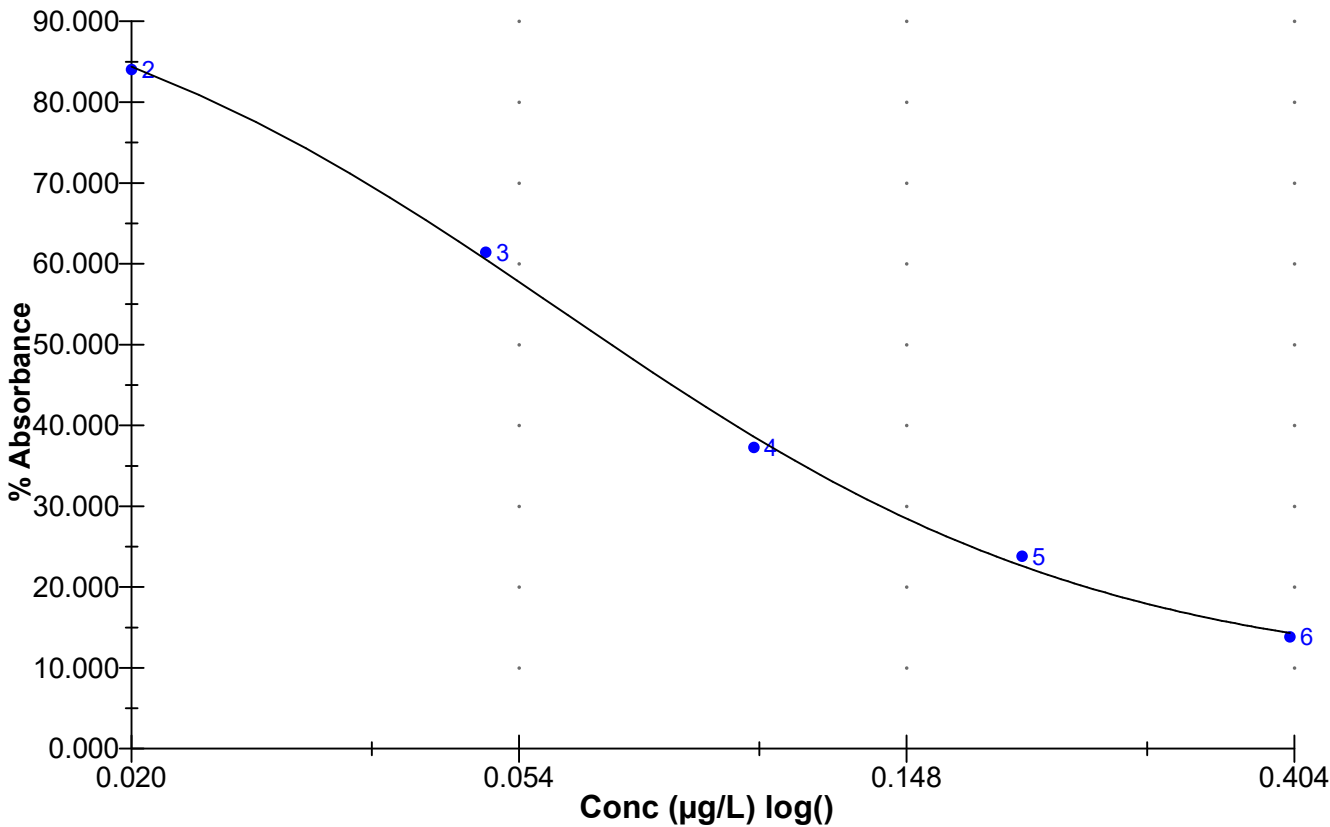
Name	Absorbance	Concentration	Interpretation	Position
8/27/2019 2:58:11 PM				
STX Std 0	1.825 Abs		R ² =0.99926, 99.455 %Abs	RK1:23->A01@2
STX Std 0	1.844 Abs [1.8345] {0.7 CV}		R ² =0.99926, 100.490 %Abs	RK1:23->B01@2
STX Std 1	1.544 Abs		R ² =0.99926, 84.142 %Abs	RK1:24->C01@2
STX Std 1	1.539 Abs [1.5415] {0.2 CV}		R ² =0.99926, 83.869 %Abs	RK1:24->D01@2
STX Std 2	1.143 Abs		R ² =0.99926, 62.289 %Abs	RK1:25->E01@2
STX Std 2	1.110 Abs [1.1265] {2.1 CV}		R ² =0.99926, 60.490 %Abs	RK1:25->F01@3
STX Std 3	0.683 Abs		R ² =0.99926, 37.221 %Abs	RK1:26->G01@3
STX Std 3	0.686 Abs [0.6845] {0.3 CV}		R ² =0.99926, 37.384 %Abs	RK1:26->H01@3
STX Std 4	0.438 Abs		R ² =0.99926, 23.869 %Abs	RK1:27->A02@2
STX Std 4	0.436 Abs [0.4370] {0.3 CV}		R ² =0.99926, 23.760 %Abs	RK1:27->B02@2
STX Std 5	0.257 Abs		14.005 %Abs	RK1:28->C02@2
STX Std 5	0.251 Abs [0.2540] {1.7 CV}		13.678 %Abs	RK1:28->D02@2
+++++				
8/27/2019 2:58:11 PM				
STX Control (0.060-0.090)	0.906 Abs		49.373 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.881 Abs [0.8935] {2.0 CV}		48.011 %Abs [48.692 %Abs]	RK1:29->F02@3

Statistic				
STX Std 0 [MEAN]	1.8345			
STX Std 0 [SD]	0.0134			
STX Std 0 [%CV]	0.7324			
STX Std 1 [MEAN]	1.5415			
STX Std 1 [SD]	0.0035			
STX Std 1 [%CV]	0.2294			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	1.1265			
STX Std 2 [SD]	0.0233			
STX Std 2 [%CV]	2.0714			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.6845			
STX Std 3 [SD]	0.0021			
STX Std 3 [%CV]	0.3099			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.4370			
STX Std 4 [SD]	0.0014			
STX Std 4 [%CV]	0.3236			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2540			
STX Std 5 [SD]	0.0042			
STX Std 5 [%CV]	1.6703			

Name	Absorbance	Concentration	Interpretation	Position	
STX Control (0.060-0.090) [MEAN]	0.8935				
STX Control (0.060-0.090) [SD]	0.0177				
STX Control (0.060-0.090) [%CV]	1.9785				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.8336
 B = 1.4270
 C = 0.060775
 D = 0.15580
 R2 coef = 0.99926
 50% = 0.069



Test Information

Request: 8/27/2019 2:58:11 PM
Date: 8/27/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #	
STX Std 0	SAXITOXIN	1.825 Abs	0.002 µg/L	R^2=0.99926, 99.455		19G0236	
STX Std 0	SAXITOXIN	1.844 Abs [1.8345] {0.7 CV}	0.000 µg/L [0.001] {1}	R^2=0.99926, 100.49		19G0236	
STX Std 1	SAXITOXIN	1.544 Abs	0.020 µg/L	R^2=0.99926, 84.142		19G0236	
STX Std 1	SAXITOXIN	1.539 Abs [1.5415] {0.2 CV}	0.021 µg/L [0.021] {3}	R^2=0.99926, 83.869		19G0236	
STX Std 2	SAXITOXIN	1.143 Abs	0.047 µg/L	R^2=0.99926, 62.289		19G0236	
STX Std 2	SAXITOXIN	1.110 Abs [1.1265] {2.1 CV}	0.050 µg/L [0.049] {4}	R^2=0.99926, 60.490		19G0236	
STX Std 3	SAXITOXIN	0.683 Abs	0.105 µg/L	R^2=0.99926, 37.221		19G0236	
STX Std 3	SAXITOXIN	0.686 Abs [0.6845] {0.3 CV}	0.104 µg/L [0.104] {0}	R^2=0.99926, 37.384		19G0236	
STX Std 4	SAXITOXIN	0.438 Abs	0.186 µg/L	R^2=0.99926, 23.869		19G0236	
STX Std 4	SAXITOXIN	0.436 Abs [0.4370] {0.3 CV}	0.187 µg/L [0.187] {0}	R^2=0.99926, 23.760		19G0236	
STX Std 5	SAXITOXIN	0.257 Abs	> 0.400 µg/L	14.005 %Abs		19G0236	
STX Std 5	SAXITOXIN	0.251 Abs [0.2540] {1.7 CV}	> 0.400 µg/L	13.678 %Abs		19G0236	
STX Control (0.060-0.090)	SAXITOXIN	0.906 Abs	0.071 µg/L	49.373 %Abs		19G0236	
STX Control (0.060-0.090)	SAXITOXIN	0.881 Abs [0.8935] {2.0 CV}	0.074 µg/L [0.073] {2}	48.011 %Abs [48.692]		19G0236	

Test Information

Request: 8/27/2019 3:39:48 PM
Date: 8/27/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.818 Abs	0.002 µg/L	LOW, 99.074 %ABS	0.020 - 0.400	19G0236
LRB	SAXITOXIN	1.818 Abs [1.8180] {0.0 CV}	0.002 µg/L [0.002] {0.0 CV}	LOW, 99.074 %ABS	0.020 - 0.400	19G0236
LFB	SAXITOXIN	0.986 Abs	0.062 µg/L	53.733 %Abs	0.020 - 0.400	19G0236
LFB	SAXITOXIN	0.973 Abs [0.9795] {0.9 CV}	0.063 µg/L [0.063] {1.0 CV}	53.025 %Abs [53.375] {0.6 CV}	0.020 - 0.400	19G0236
AB40164	SAXITOXIN	1.628 Abs	0.016 µg/L	LOW, 88.719 %ABS	0.020 - 0.400	19G0236
AB40164	SAXITOXIN	1.612 Abs [1.6200] {0.7 CV}	0.018 µg/L [0.017] {8.3 CV}	LOW, 87.847 %ABS	0.020 - 0.400	19G0236
AB40165	SAXITOXIN	1.546 Abs	0.022 µg/L	84.251 %Abs	0.020 - 0.400	19G0236
AB40165	SAXITOXIN	1.534 Abs [1.5400] {0.6 CV}	0.023 µg/L [0.023] {3.6 CV}	83.597 %Abs [83.924] {2.0 CV}	0.020 - 0.400	19G0236
AB40165MS	SAXITOXIN	0.806 Abs	0.084 µg/L	43.924 %Abs	0.020 - 0.400	19G0236
AB40165MS	SAXITOXIN	0.800 Abs [0.8030] {0.5 CV}	0.085 µg/L [0.084] {0.6 CV}	43.597 %Abs [43.760] {0.3 CV}	0.020 - 0.400	19G0236
AB40165MSD	SAXITOXIN	1.473 Abs	0.025 µg/L	80.272 %Abs	0.020 - 0.400	19G0236
AB40165MSD	SAXITOXIN	1.432 Abs [1.4525] {2.0 CV}	0.027 µg/L [0.026] {5.5 CV}	78.038 %Abs [79.155] {6.8 CV}	0.020 - 0.400	19G0236
AB40166	SAXITOXIN	1.628 Abs	0.016 µg/L	LOW, 88.719 %ABS	0.020 - 0.400	19G0236
AB40166	SAXITOXIN	1.627 Abs [1.6275] {0.0 CV}	0.016 µg/L [0.016] {0.0 CV}	LOW, 88.665 %ABS	0.020 - 0.400	19G0236
AB40167	SAXITOXIN	1.817 Abs	0.002 µg/L	LOW, 99.019 %ABS	0.020 - 0.400	19G0236
AB40167	SAXITOXIN	1.793 Abs [1.8050] {0.9 CV}	0.005 µg/L [0.004] {6.3 CV}	LOW, 97.711 %ABS	0.020 - 0.400	19G0236

David Jordan

David Jordan 8/27/2019