



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC41208	Pokagon SP - Main Beach	8/12/2024	8/14/2024	< 0.050
AC41209	Pokagon SP - Potawatomi Inn Beach	8/12/2024	8/14/2024	< 0.050
AC41210	Chain O'Lakes SP - Sand Lake Beach	8/12/2024	8/14/2024	0.128
AC41211	Ouabache SP - Kunkel Lake Beach	8/12/2024	8/14/2024	0.050
AC41212	Potato Creek SP - Worster Lake Beach	8/13/2024	8/14/2024	< 0.050
AC41213	Mississinewa Lake - Miami SRA Beach	8/13/2024	8/14/2024	< 0.050
AC41214	Salamonie Lake - Lost Bridge West SRA Beach	8/13/2024	8/14/2024	< 0.050
AC41215	Summit Lake SP - Summit Lake Beach	8/13/2024	8/14/2024	< 0.050
AC41216	Summit Lake SP - Summit Lake Beach (Field Duplicate)	8/13/2024	8/14/2024	< 0.050
AC41217	Field Blank	8/13/2024	8/14/2024	< 0.050
AC41218	Ferdinand State Forest - Ferdinand Lake Beach	8/12/2024	8/14/2024	0.085
AC41219	Lincoln SP - Lake Lincoln Beach	8/12/2024	8/14/2024	< 0.050
AC41220	Patoka Lake - Newton Stewart SRA	8/12/2024	8/14/2024	< 0.050

Test Report (by Request)

Test Information

Request: 8/14/2024 2:52:07 PM
 Date: 8/14/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.381 Abs	0.000 µg/L	R ² =0.99997, 104.3		0.000	Kit:P24A3
STX Std 0	SAXITOXIN	1.265 Abs [1.3230] {6.2 C	0.011 µg/L [0.006]	R ² =0.99997, 95.61		0.000	Kit:P24A3
STX Std 1	SAXITOXIN	1.192 Abs	0.019 µg/L	R ² =0.99997, 90.05		0.020	Kit:P24A3
STX Std 1	SAXITOXIN	1.188 Abs [1.1900] {0.2 C	0.020 µg/L [0.020]	R ² =0.99997, 89.75		0.020	Kit:P24A3
STX Std 2	SAXITOXIN	0.907 Abs	0.051 µg/L	R ² =0.99997, 68.55		0.050	Kit:P24A3
STX Std 2	SAXITOXIN	0.921 Abs [0.9140] {1.1 C	0.050 µg/L [0.051]	R ² =0.99997, 69.61		0.050	Kit:P24A3
STX Std 3	SAXITOXIN	0.626 Abs	0.098 µg/L	R ² =0.99997, 47.31		0.100	Kit:P24A3
STX Std 3	SAXITOXIN	0.609 Abs [0.6175] {1.9 C	0.102 µg/L [0.100]	R ² =0.99997, 46.03		0.100	Kit:P24A3
STX Std 4	SAXITOXIN	0.391 Abs	0.184 µg/L	R ² =0.99997, 29.55		0.200	Kit:P24A3
STX Std 4	SAXITOXIN	0.344 Abs [0.3675] {9.0 C	0.219 µg/L [0.202]	R ² =0.99997, 26.00		0.200	Kit:P24A3
STX Std 5	SAXITOXIN	0.230 Abs	> 0.400 µg/L	17.385 %Abs		0.400	Kit:P24A3
STX Std 5	SAXITOXIN	0.234 Abs [0.2320] {1.2 C	0.396 µg/L [0.396]	R ² =0.99997, 17.68		0.400	Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.769 Abs	0.071 µg/L	58.125 %Abs			Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.762 Abs [0.7655] {0.6 C	0.072 µg/L [0.072]	57.596 %Abs [57.8			Kit:P24A3

Note

Signature David Jordan
 David Jordan 8/14/2024

Test Report (by Request)

Test Information

Request: 8/14/2024 2:53:23 PM
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Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.415 Abs	0.000 µg/L	Low, 106.954 %Abs		0.020 - 0.400	Kit:P24A3
LRB	SAXITOXIN	1.418 Abs [1.4165] {0.1 C	0.000 µg/L [0.000]	Low, 107.181 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.698 Abs	0.083 µg/L	52.759 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.695 Abs [0.6965] {0.3 C	0.084 µg/L [0.084]	52.532 %Abs [52.6		0.020 - 0.400	Kit:P24A3
AC41208	SAXITOXIN	1.338 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41208	SAXITOXIN	1.223 Abs [1.2805] {6.4 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41209	SAXITOXIN	1.346 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41209	SAXITOXIN	1.340 Abs [1.3430] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41210	SAXITOXIN	0.558 Abs	0.126 µg/L	42.177 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41210	SAXITOXIN	0.548 Abs [0.5530] {1.3 C	0.130 µg/L [0.128]	41.421 %Abs [41.7	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41211	SAXITOXIN	0.968 Abs	0.048 µg/L	73.167 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41211	SAXITOXIN	0.954 Abs [0.9610] {1.0 C	0.051 µg/L [0.050]	72.109 %Abs [72.6	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41211MS	SAXITOXIN	0.542 Abs	0.120 µg/L	40.967 %Abs		0.020 - 0.400	Kit:P24A3
AC41211MS	SAXITOXIN	0.525 Abs [0.5335] {2.3 C	0.125 µg/L [0.123]	39.683 %Abs [40.3		0.020 - 0.400	Kit:P24A3
AC41211MSD	SAXITOXIN	0.556 Abs	0.116 µg/L	42.026 %Abs		0.020 - 0.400	Kit:P24A3
AC41211MSD	SAXITOXIN	0.551 Abs [0.5535] {0.6 C	0.117 µg/L [0.117]	41.648 %Abs [41.8		0.020 - 0.400	Kit:P24A3
AC41212	SAXITOXIN	1.180 Abs	0.023 µg/L	89.191 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41212	SAXITOXIN	1.167 Abs [1.1735] {0.8 C	0.024 µg/L [0.024]	88.209 %Abs [88.7	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41213	SAXITOXIN	1.373 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41213	SAXITOXIN	1.344 Abs [1.3585] {1.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41214	SAXITOXIN	1.248 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41214	SAXITOXIN	1.237 Abs [1.2425] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41215	SAXITOXIN	1.361 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41215	SAXITOXIN	1.383 Abs [1.3720] {1.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41216	SAXITOXIN	1.378 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41216	SAXITOXIN	1.368 Abs [1.3730] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41217	SAXITOXIN	1.439 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41217	SAXITOXIN	1.434 Abs [1.4365] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41218	SAXITOXIN	0.740 Abs	0.084 µg/L	55.933 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41218	SAXITOXIN	0.728 Abs [0.7340] {1.2 C	0.086 µg/L [0.085]	55.026 %Abs [55.4	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41219	SAXITOXIN	1.074 Abs	0.035 µg/L	81.179 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41219	SAXITOXIN	1.063 Abs [1.0685] {0.7 C	0.036 µg/L [0.036]	80.348 %Abs [80.7	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41220	SAXITOXIN	1.427 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC41220	SAXITOXIN	1.424 Abs [1.4255] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3

Note

Signature *David Jordan*

David Jordan 8/14/2024

* A - Abs > 3; IA - Initial Abs; DA - Delta Abs; SD - SD of Abs; LR - Linear Range; [...] - Mean result of duplicate tests

* Generated by software version (6.4.1.1171/1085/1.00/0.95) 8/14/2024 3:07:23 PM

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: Kit:P24A3229

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
8/14/2024 2:52:07 PM				
STX Std 0	1.381 Abs	0.000 µg/L	R ² =0.99997, 104.384 %Abs	RK1:30->A07@2
STX Std 0	1.265 Abs [1.3230] {6.2 CV}	0.011 µg/L [0.006] {141.4 CV}	R ² =0.99997, 95.616 %Abs	RK1:30->B07@2
STX Std 1	1.192 Abs	0.019 µg/L	R ² =0.99997, 90.098 %Abs	RK1:31->C07@2
STX Std 1	1.188 Abs [1.1900] {0.2 CV}	0.020 µg/L [0.020] {3.6 CV}	R ² =0.99997, 89.796 %Abs	RK1:31->D07@2
STX Std 2	0.907 Abs	0.051 µg/L	R ² =0.99997, 68.556 %Abs	RK1:32->E07@2
STX Std 2	0.921 Abs [0.9140] {1.1 CV}	0.050 µg/L [0.051] {1.4 CV}	R ² =0.99997, 69.615 %Abs	RK1:32->F07@3
STX Std 3	0.626 Abs	0.098 µg/L	R ² =0.99997, 47.317 %Abs	RK1:33->G07@3
STX Std 3	0.609 Abs [0.6175] {1.9 CV}	0.102 µg/L [0.100] {2.8 CV}	R ² =0.99997, 46.032 %Abs	RK1:33->H07@3
STX Std 4	0.391 Abs	0.184 µg/L	R ² =0.99997, 29.554 %Abs	RK1:34->A08@2
STX Std 4	0.344 Abs [0.3675] {9.0 CV}	0.219 µg/L [0.202] {12.3 CV}	R ² =0.99997, 26.002 %Abs	RK1:34->B08@2
STX Std 5	0.230 Abs	> 0.400 µg/L	17.385 %Abs	RK1:35->C08@2
STX Std 5	0.234 Abs [0.2320] {1.2 CV}	0.396 µg/L [0.396]	R ² =0.99997, 17.687 %Abs	RK1:35->D08@2

8/14/2024 2:52:07 PM				
STX Control (0.060-0.090)	0.769 Abs	0.071 µg/L	58.125 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.762 Abs [0.7655] {0.6 CV}	0.072 µg/L [0.072] {1.0 CV}	57.596 %Abs [57.861 %Abs]	RK1:36->F08@3

Statistic				
STX Std 0 [MEAN]	1.3230	0.0055		
STX Std 0 [SD]	0.0820	0.0078		
STX Std 0 [%CV]	6.1999	141.4214		
STX Std 1 [MEAN]	1.1900	0.0195		
STX Std 1 [SD]	0.0028	0.0007		
STX Std 1 [%CV]	0.2377	3.6262		
STX Std 1 [%DIFF]		-2.5000		
STX Std 2 [MEAN]	0.9140	0.0505		
STX Std 2 [SD]	0.0099	0.0007		
STX Std 2 [%CV]	1.0831	1.4002		
STX Std 2 [%DIFF]		1.0000		
STX Std 3 [MEAN]	0.6175	0.1000		
STX Std 3 [SD]	0.0120	0.0028		
STX Std 3 [%CV]	1.9467	2.8284		
STX Std 3 [%DIFF]		-0.0000		
STX Std 4 [MEAN]	0.3675	0.2015		
STX Std 4 [SD]	0.0332	0.0247		
STX Std 4 [%CV]	9.0433	12.2823		
STX Std 4 [%DIFF]		0.7500		
STX Std 5 [MEAN]	0.2320			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.2191			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7655	0.0715		
STX Control (0.060-0.090) [SD]	0.0049	0.0007		
STX Control (0.060-0.090) [%CV]	0.6466	0.9890		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3243
 B = 1.5095
 C = 0.076613
 D = 0.14265
 R2 coef = 0.99997
 50% = 0.090

