Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB49907	Summit Lake - State Park	5/24/2022	5/26/2022	< 0.05
AB49908	Kunkel Beach @ Oubache State Park	5/24/2022	5/26/2022	< 0.05
AB49909	Pokagon State Park	5/23/2022	5/26/2022	< 0.05
AB49910	Potawatomi Inn's Beach	5/23/2022	5/26/2022	< 0.05
AB49911	Chain O'Lakes SP	5/23/2022	5/26/2022	< 0.05
AB49912	Potato Creek State Park	5/23/2022	5/26/2022	< 0.05
AB49913	Lost Bridge West SRA	5/24/2022	5/26/2022	< 0.05
AB49914	Mississinewa Lake Miami SRA	5/24/2022	5/26/2022	< 0.05
AB49915	Field Blank	5/24/2022	5/26/2022	< 0.05
AB49916	Lost Bridge West SRA (Field Dup)	5/24/2022	5/26/2022	< 0.05
AB51248	Lincoln State Park	5/23/2022	5/26/2022	< 0.05
AB51249	Ferdinand State Forest Lake	5/23/2022	5/26/2022	< 0.05
AB51250	Patoka SRA Beach	5/23/2022	5/26/2022	< 0.05

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Test Report (by Request)

Test Information

Request: 5/26/2022 2:56:07 PM
Date: 5/26/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.452 Abs	0.000 µg/L	R^2=0.99835, 101.2			M21E518(
STX Std 0	SAXITOXIN	1.415 Abs [1.4335] {1.8 C	0.002 µg/L [0.001]	R^2=0.99835, 98.67			M21E518(
STX Std 1	SAXITOXIN	1.161 Abs	0.020 µg/L	R^2=0.99835, 80.96			M21E518(
STX Std 1	SAXITOXIN	1.153 Abs [1.1570] {0.5 C	0.020 µg/L [0.020]	R^2=0.99835, 80.40			M21E518(
STX Std 2	SAXITOXIN	0.861 Abs	0.048 µg/L	R^2=0.99835, 60.04			M21E518(
STX Std 2	SAXITOXIN	0.834 Abs [0.8475] {2.3 C	0.051 µg/L [0.049]	R^2=0.99835, 58.15			M21E518(
STX Std 3	SAXITOXIN	0.569 Abs	0.102 µg/L	R^2=0.99835, 39.67			M21E518(
STX Std 3	SAXITOXIN	0.538 Abs [0.5535] {4.0 C	0.112 µg/L [0.107]	R^2=0.99835, 37.51			M21E518(
STX Std 4	SAXITOXIN	0.414 Abs	0.170 µg/L	R^2=0.99835, 28.87			M21E518(
STX Std 4	SAXITOXIN	0.395 Abs [0.4045] {3.3 C	0.183 µg/L [0.176]	R^2=0.99835, 27.54			M21E518(
STX Std 5	SAXITOXIN	0.246 Abs	> 0.400 µg/L	17.155 %Abs			M21E518(
STX Std 5	SAXITOXIN	0.235 Abs [0.2405] {3.2 C	> 0.400 µg/L	16.388 %Abs			M21E518(
STX Control (0.060-0.090)	SAXITOXIN	0.757 Abs	0.062 µg/L	52.789 %Abs			M21E518(
STX Control (0.060-0.090)	SAXITOXIN	0.740 Abs [0.7485] {1.6 C	0.065 µg/L [0.064]	51.604 %Abs [52.1			M21E518(

Note

Signature

Charles Hostetter 5/26/2022

* 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 (6.4.1.1139/1085/1.00/0.95) 5/26/2022 3:03:48 PM

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Test Report (by Request)

Test Information

Request: 5/26/2022 2:57:16 PM
Date: 5/26/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.405 Abs	0.003 µg/L	Low, 97.978 %Abs		0.020 - 0.400	M21E518(
LRB	SAXITOXIN	1.381 Abs [1.3930] {1.2 C	0.004 µg/L [0.004]	Low, 96.304 %Abs		0.020 - 0.400	M21E518(
LFB (SAX)	SAXITOXIN	0.654 Abs	0.081 µg/L	45.607 %Abs		0.020 - 0.400	M21E518(
LFB (SAX)	SAXITOXIN	0.635 Abs [0.6445] {2.1 C	0.085 µg/L [0.083]	44.282 %Abs [44.9		0.020 - 0.400	M21E518(
AB49907	SAXITOXIN	1.383 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49907	SAXITOXIN	1.363 Abs [1.3730] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49908	SAXITOXIN	1.226 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49908	SAXITOXIN	1.214 Abs [1.2200] {0.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49909	SAXITOXIN	1.327 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49909	SAXITOXIN	1.295 Abs [1.3110] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49910	SAXITOXIN	1.380 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49910	SAXITOXIN	1.349 Abs [1.3645] {1.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49910MS	SAXITOXIN	0.622 Abs	0.088 µg/L	43.375 %Abs		0.020 - 0.400	M21E518(
AB49910MS	SAXITOXIN	0.602 Abs [0.6120] {2.3 C	0.093 µg/L [0.090]	41.980 %Abs [42.6		0.020 - 0.400	M21E518(
AB49910MSD	SAXITOXIN	0.599 Abs	0.094 µg/L	41.771 %Abs		0.020 - 0.400	M21E518(
AB49910MSD	SAXITOXIN	0.584 Abs [0.5915] {1.8 C	0.098 µg/L [0.096]	40.725 %Abs [41.2		0.020 - 0.400	M21E518(
AB49911	SAXITOXIN	1.332 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49911	SAXITOXIN	1.308 Abs [1.3200] {1.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49912	SAXITOXIN	1.391 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49912	SAXITOXIN	1.353 Abs [1.3720] {2.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49913	SAXITOXIN	1.354 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49913	SAXITOXIN	1.365 Abs [1.3595] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49914	SAXITOXIN	1.329 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49914	SAXITOXIN	1.339 Abs [1.3340] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49915	SAXITOXIN	1.400 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49915	SAXITOXIN	1.360 Abs [1.3800] {2.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49916	SAXITOXIN	1.427 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB49916	SAXITOXIN	1.415 Abs [1.4210] {0.6 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51248	SAXITOXIN	1.306 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51248	SAXITOXIN	1.288 Abs [1.2970] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51249	SAXITOXIN	1.352 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51249	SAXITOXIN	1.357 Abs [1.3545] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51250	SAXITOXIN	1.403 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100		M21E518(
AB51250	SAXITOXIN	1.397 Abs [1.4000] {0.3 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100		M21E518(

Note

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Charles Hostetter 5/26/2022

* 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 (6.4.1.1139/1085/1.00/0.95) 5/26/2022 3:03:48 PM

SAXITOXIN - Assay Calibration Report

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:
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 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: M21E5180

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
5/26/2022 2:56:07 PM				
STX Std 0	1.452 Abs	0.000 µg/L	R^2=0.99835, 101.255 %Abs	RK1:30->A07@2
STX Std 0	1.415 Abs [1.4335] {1.8 CV}	0.002 µg/L [0.001] {141.4 C\	R^2=0.99835, 98.675 %Abs	RK1:30->B07@2
STX Std 1	1.161 Abs	0.020 µg/L	R^2=0.99835, 80.962 %Abs	RK1:31->C07@2
STX Std 1	1.153 Abs [1.1570] {0.5 CV}	0.020 µg/L [0.020] {0.0 CV}	R^2=0.99835, 80.404 %Abs	RK1:31->D07@2
STX Std 2	0.861 Abs	0.048 µg/L	R^2=0.99835, 60.042 %Abs	RK1:32->E07@2
STX Std 2	0.834 Abs [0.8475] {2.3 CV}	0.051 µg/L [0.049] {4.3 CV}	R^2=0.99835, 58.159 %Abs	RK1:32->F07@3
STX Std 3	0.569 Abs	0.102 µg/L	R^2=0.99835, 39.679 %Abs	RK1:33->G07@3
STX Std 3	0.538 Abs [0.5535] {4.0 CV}	0.112 µg/L [0.107] {6.6 CV}	R^2=0.99835, 37.517 %Abs	RK1:33->H07@3
STX Std 4	0.414 Abs	0.170 µg/L	R^2=0.99835, 28.870 %Abs	RK1:34->A08@2
STX Std 4	0.395 Abs [0.4045] {3.3 CV}	0.183 µg/L [0.176] {5.2 CV}	R^2=0.99835, 27.545 %Abs	RK1:34->B08@2
STX Std 5	0.246 Abs	> 0.400 µg/L	17.155 %Abs	RK1:35->C08@2
STX Std 5	0.235 Abs [0.2405] {3.2 CV}	> 0.400 µg/L	16.388 %Abs	RK1:35->D08@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
5/26/2022 2:56:07 PM				
STX Control (0.060-0.090)	0.757 Abs	0.062 µg/L	52.789 %Abs	RK1:36->E08@2
STX Control (0.060-0.090)	0.740 Abs [0.7485] {1.6 CV}	0.065 µg/L [0.064] {3.3 CV}	51.604 %Abs [52.197 %Abs]	RK1:36->F08@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.4335	0.0010		
STX Std 0 [SD]	0.0262	0.0014		
STX Std 0 [%CV]	1.8251	141.4214		
STX Std 1 [MEAN]	1.1570	0.0200		
STX Std 1 [SD]	0.0057	0.0000		
STX Std 1 [%CV]	0.4889	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.8475	0.0495		
STX Std 2 [SD]	0.0191	0.0021		
STX Std 2 [%CV]	2.2527	4.2855		
STX Std 2 [%DIFF]		-1.0000		
STX Std 3 [MEAN]	0.5535	0.1070		
STX Std 3 [SD]	0.0219	0.0071		
STX Std 3 [%CV]	3.9603	6.6085		
STX Std 3 [%DIFF]		7.0000		
STX Std 4 [MEAN]	0.4045	0.1765		
STX Std 4 [SD]	0.0134	0.0092		
STX Std 4 [%CV]	3.3214	5.2082		
STX Std 4 [%DIFF]		-11.7500		
STX Std 5 [MEAN]	0.2405			
STX Std 5 [SD]	0.0078			
STX Std 5 [%CV]	3.2342			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7485	0.0635		
STX Control (0.060-0.090) [SD]	0.0120	0.0021		
STX Control (0.060-0.090) [%CV]	1.6060	3.3407		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.4353
B = 1.2256
C = 0.056760
D = 0.14738
R2 coef = 0.99835
50% = 0.069