Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03626	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/24/2023	7/27/2023	< 0.050
AC03627	Cagles Mill Lake - Lieber SRA Beach	7/24/2023	7/27/2023	0.079
AC03628	Starve Hollow SRA - Starve Hollow Lake Beach	7/24/2023	7/27/2023	0.090
AC03629	Whitewater Memorial SP - Whitewater Lake Beach	7/25/2023	7/27/2023	< 0.050
AC03630	Brookville Lake - Quakertown SRA Beach	7/25/2023	7/27/2023	< 0.050
AC03631	Hardy Lake SRA - Hardy Lake SRA Beach	7/25/2023	7/27/2023	< 0.050
AC03632	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	7/24/2023	7/27/2023	0.078
AC03633	Field Blank	7/24/2023	7/27/2023	< 0.050
AC03634	Ft. Ben Harrison SP Dog Lake	7/25/2023	7/27/2023	< 0.050

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Test Report (by Request)

Test Information

Request: 7/27/2023 2:20:30 PM
Date: 7/27/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.359 Abs	0.000 µg/L	R^2=0.99990, 100.2		0.000	Kit:M22L2
STX Std 0	SAXITOXIN	1.351 Abs [1.3550] {0.4 C	0.001 µg/L [0.001]	R^2=0.99990, 99.7(		0.000	Kit:M22L2
STX Std 1	SAXITOXIN	1.128 Abs	0.020 µg/L	R^2=0.99990, 83.24		0.020	Kit:M22L2
STX Std 1	SAXITOXIN	1.130 Abs [1.1290] {0.1 C	0.020 µg/L [0.020]	R^2=0.99990, 83.39		0.020	Kit:M22L2
STX Std 2	SAXITOXIN	0.839 Abs	0.050 µg/L	R^2=0.99990, 61.91		0.050	Kit:M22L2
STX Std 2	SAXITOXIN	0.839 Abs [0.8390] {0.0 C	0.050 µg/L [0.050]	R^2=0.99990, 61.91		0.050	Kit:M22L2
STX Std 3	SAXITOXIN	0.574 Abs	0.100 µg/L	R^2=0.99990, 42.36		0.100	Kit:M22L2
STX Std 3	SAXITOXIN	0.563 Abs [0.5685] {1.4 C	0.103 µg/L [0.102]	R^2=0.99990, 41.55		0.100	Kit:M22L2
STX Std 4	SAXITOXIN	0.372 Abs	0.192 µg/L	R^2=0.99990, 27.45		0.200	Kit:M22L2
STX Std 4	SAXITOXIN	0.366 Abs [0.3690] {1.1 C	0.196 µg/L [0.194]	R^2=0.99990, 27.01		0.200	Kit:M22L2
STX Std 5	SAXITOXIN	0.233 Abs	> 0.400 µg/L	17.196 %Abs		0.400	Kit:M22L2
STX Std 5	SAXITOXIN	0.229 Abs [0.2310] {1.2 C	> 0.400 µg/L	16.900 %Abs		0.400	Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.747 Abs	0.063 µg/L	55.129 %Abs			Kit:M22L2
STX Control (0.060-0.090)	SAXITOXIN	0.728 Abs [0.7375] {1.8 C	0.067 µg/L [0.065]	53.727 %Abs [54.4			Kit:M22L2

Note

Signature _____

Charles Hostetter 7/27/2023

* 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) 7/27/2023 2:50:10 PM

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Test Report (by Request)

Test Information

Request: 7/27/2023 2:21:20 PM
Date: 7/27/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.355 Abs	0.000 µg/L	Low, 100.000 %Abs		0.020 - 0.400	Kit:M22L2
LRB	SAXITOXIN	1.354 Abs [1.3545] {0.1 C	0.000 µg/L [0.000]	Low, 100.000 %Abs		0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.593 Abs	0.095 µg/L	43.764 %Abs		0.020 - 0.400	Kit:M22L2
LFB (SAX)	SAXITOXIN	0.588 Abs [0.5905] {0.6 C	0.096 µg/L [0.096]	43.395 %Abs [43.5		0.020 - 0.400	Kit:M22L2
AC03626	SAXITOXIN	1.336 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03626	SAXITOXIN	1.337 Abs [1.3365] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03627	SAXITOXIN	0.708 Abs	0.077 µg/L	52.251 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03627	SAXITOXIN	0.689 Abs [0.6985] {1.9 C	0.081 µg/L [0.079]	50.849 %Abs [51.5	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03628	SAXITOXIN	0.654 Abs	0.089 µg/L	48.266 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03628	SAXITOXIN	0.650 Abs [0.6520] {0.4 C	0.090 µg/L [0.090]	47.970 %Abs [48.1	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03629	SAXITOXIN	1.319 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03629	SAXITOXIN	1.301 Abs [1.3100] {1.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03629MS	SAXITOXIN	0.603 Abs	0.092 µg/L	44.502 %Abs		0.020 - 0.400	Kit:M22L2
AC03629MS	SAXITOXIN	0.589 Abs [0.5960] {1.7 C	0.096 µg/L [0.094]	43.469 %Abs [43.9		0.020 - 0.400	Kit:M22L2
AC03629MSD	SAXITOXIN	0.586 Abs	0.097 µg/L	43.247 %Abs		0.020 - 0.400	Kit:M22L2
AC03629MSD	SAXITOXIN	0.568 Abs [0.5770] {2.2 C	0.102 µg/L [0.100]	41.919 %Abs [42.5		0.020 - 0.400	Kit:M22L2
AC03630	SAXITOXIN	1.128 Abs	0.022 µg/L	83.247 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03630	SAXITOXIN	1.121 Abs [1.1245] {0.4 C	0.023 µg/L [0.023]	82.731 %Abs [82.9	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03631	SAXITOXIN	1.131 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03631	SAXITOXIN	1.127 Abs [1.1290] {0.3 C	0.022 µg/L	83.173 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03632	SAXITOXIN	0.702 Abs	0.078 µg/L	51.808 %Abs	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03632	SAXITOXIN	0.701 Abs [0.7015] {0.1 C	0.078 µg/L [0.078]	51.734 %Abs [51.7	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03633	SAXITOXIN	1.312 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03633	SAXITOXIN	1.321 Abs [1.3165] {0.5 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03634	SAXITOXIN	1.254 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2
AC03634	SAXITOXIN	1.252 Abs [1.2530] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:M22L2

Note

Signature _____

Charles Hostetter 7/27/2023

* 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) 7/27/2023 2:50:10 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: Kit:M22L2865

Assay Calibration

Current Calibration Status: " **"**

Name	Absorbance	Concentration	Interpretation	Position
7/27/2023 2:20:30 PM				
STX Std 0	1.359 Abs	0.000 µg/L	R^2=0.99990, 100.295 %Abs	RK1:30->A06@1
STX Std 0	1.351 Abs [1.3550] {0.4 CV}	0.001 µg/L [0.001] {141.4 C\	R^2=0.99990, 99.705 %Abs	RK1:30->B06@1
STX Std 1	1.128 Abs	0.020 µg/L	R^2=0.99990, 83.247 %Abs	RK1:31->C06@1
STX Std 1	1.130 Abs [1.1290] {0.1 CV}	0.020 µg/L [0.020] {0.0 CV}	R^2=0.99990, 83.395 %Abs	RK1:31->D06@1
STX Std 2	0.839 Abs	0.050 µg/L	R^2=0.99990, 61.919 %Abs	RK1:32->E06@1
STX Std 2	0.839 Abs [0.8390] {0.0 CV}	0.050 µg/L [0.050] {0.0 CV}	R^2=0.99990, 61.919 %Abs	RK1:32->F06@4
STX Std 3	0.574 Abs	0.100 µg/L	R^2=0.99990, 42.362 %Abs	RK1:33->G06@4
STX Std 3	0.563 Abs [0.5685] {1.4 CV}	0.103 µg/L [0.102] {2.1 CV}	R^2=0.99990, 41.550 %Abs	RK1:33->H06@4
STX Std 4	0.372 Abs	0.192 µg/L	R^2=0.99990, 27.454 %Abs	RK1:34->A07@2
STX Std 4	0.366 Abs [0.3690] {1.1 CV}	0.196 µg/L [0.194] {1.5 CV}	R^2=0.99990, 27.011 %Abs	RK1:34->B07@2
STX Std 5	0.233 Abs	> 0.400 µg/L	17.196 %Abs	RK1:35->C07@2
STX Std 5	0.229 Abs [0.2310] {1.2 CV}	> 0.400 µg/L	16.900 %Abs	RK1:35->D07@2
++++++++++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++	++++++++++++++++++++++++
7/27/2023 2:20:30 PM				
STX Control (0.060-0.090)	0.747 Abs	0.063 µg/L	55.129 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.728 Abs [0.7375] {1.8 CV}	0.067 µg/L [0.065] {4.4 CV}	53.727 %Abs [54.428 %Abs]	RK1:36->F07@3
**********	**********	**********	**********	**********
Statistic				
STX Std 0 [MEAN]	1.3550	0.0005		
STX Std 0 [SD]	0.0057	0.0007		
STX Std 0 [%CV]	0.4175	141.4214		
STX Std 1 [MEAN]	1.1290	0.0200		
STX Std 1 [SD]	0.0014	0.0000		
STX Std 1 [%CV]	0.1253	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.8390	0.0500		
STX Std 2 [SD]	0.0000	0.0000		
STX Std 2 [%CV]	0.0000	0.0000		
STX Std 2 [%DIFF]		-0.0000		
STX Std 3 [MEAN]	0.5685	0.1015		
STX Std 3 [SD]	0.0078	0.0021		
STX Std 3 [%CV]	1.3682	2.0900		
STX Std 3 [%DIFF]		1.5000		
STX Std 4 [MEAN]	0.3690	0.1940		
STX Std 4 [SD]	0.0042	0.0028		
STX Std 4 [%CV]	1.1498	1.4579		
STX Std 4 [%DIFF]		-3.0000		
STX Std 5 [MEAN]	0.2310			
STX Std 5 [SD]	0.0028			
STX Std 5 [%CV]	1.2244			

SAXITOXIN - Assay Calibration Report

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7375	0.0650		
STX Control (0.060-0.090) [SD]	0.0134	0.0028		
STX Control (0.060-0.090) [%CV]	1.8217	4.3514		

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 1.3556
B = 1.2619
C = 0.064802
D = 0.12180
R2 coef = 0.99990
50% = 0.076