



Saxitoxin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	7/31/2019	8/1/2019	<0.050	
LFB	Lab Fortified Blank (True value = 0.10)	7/31/2019	8/1/2019	0.087	87
AB39924	Kunkel Beach at Ouabache SP	7/29/2019	8/1/2019	0.086	
AB39925	Lost Bridge West SRA	7/29/2019	8/1/2019	<0.050	
AB39926	Mississinewa Lake Miami SRA	7/29/2019	8/1/2019	<0.050	
AB39926MS	Mississinewa (Matrix Spike, True Value = 0.10)	7/31/2019	8/1/2019	0.106	70
AB39926MSD	Mississinewa (Matrix Spk. Duplicate, T.V. = 0.10)	7/31/2019	8/1/2019	0.104	68
AB39927	Potato Creek SP	7/29/2019	8/1/2019	<0.050	
AB39928	Lost Bridge West SRA Field Dup.	7/29/2019	8/1/2019	<0.050	
AB39929	Field Blank	7/29/2019	8/1/2019	<0.050	

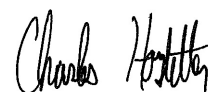
Test Information

Request: 8/1/2019 2:10:55 PM
Date: 8/1/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
STX Std 0	SAXITOXIN	0.994 Abs	0.002 µg/L	R^2=0.99940	0.000
STX Std 0	SAXITOXIN	1.012 Abs [1.0030] {1.3 CV}	0.000 µg/L [0.001] {141}	R^2=0.99940	0.000
STX Std 1	SAXITOXIN	0.836 Abs	0.019 µg/L	R^2=0.99940	0.020
STX Std 1	SAXITOXIN	0.813 Abs [0.8245] {2.0 CV}	0.021 µg/L [0.020] {7.1}	R^2=0.99940	0.020
STX Std 2	SAXITOXIN	0.588 Abs	0.047 µg/L	R^2=0.99940	0.050
STX Std 2	SAXITOXIN	0.561 Abs [0.5745] {3.3 CV}	0.052 µg/L [0.049] {7.1}	R^2=0.99940	0.050
STX Std 3	SAXITOXIN	0.333 Abs	0.109 µg/L	R^2=0.99940	0.100
STX Std 3	SAXITOXIN	0.357 Abs [0.3450] {4.9 CV}	0.099 µg/L [0.104] {6.8}	R^2=0.99940	0.100
STX Std 4	SAXITOXIN	0.216 Abs	0.187 µg/L	R^2=0.99940	0.200
STX Std 4	SAXITOXIN	0.221 Abs [0.2185] {1.6 CV}	0.181 µg/L [0.184] {2.3}	R^2=0.99940	0.200
STX Std 5	SAXITOXIN	0.120 Abs	> 0.400 µg/L		0.400
STX Std 5	SAXITOXIN	0.122 Abs [0.1210] {1.2 CV}	> 0.400 µg/L		0.400
STX Control (0.060-0.090)	SAXITOXIN	0.449 Abs	0.073 µg/L		0.075 +-
STX Control (0.060-0.090)	SAXITOXIN	0.437 Abs [0.4430] {1.9 CV}	0.076 µg/L [0.074] {2.8}		0.075 +-
SAX LRB1	SAXITOXIN	1.007 Abs	0.000 µg/L	LOW	0.020 - C
SAX LRB1	SAXITOXIN	1.018 Abs [1.0125] {0.8 CV}	0.000 µg/L [0.000]	LOW [LOW]	0.020 - C
LFB	SAXITOXIN	0.390 Abs	0.088 µg/L		0.020 - C
LFB	SAXITOXIN	0.397 Abs [0.3935] {1.3 CV}	0.086 µg/L [0.087] {1.6}		0.020 - C
AB39924	SAXITOXIN	0.432 Abs	0.085 µg/L		0.020 - C
AB39924	SAXITOXIN	0.425 Abs [0.4285] {1.2 CV}	0.087 µg/L [0.086] {1.6}		0.020 - C
AB39925	SAXITOXIN	0.899 Abs	0.014 µg/L	LOW	0.020 - C
AB39925	SAXITOXIN	0.875 Abs [0.8870] {1.9 CV}	0.016 µg/L [0.015] {9.4}	LOW	0.020 - C
AB39926	SAXITOXIN	0.695 Abs	0.037 µg/L		0.020 - C
AB39926	SAXITOXIN	0.708 Abs [0.7015] {1.3 CV}	0.035 µg/L [0.036] {3.9}		0.020 - C
AB39926MS	SAXITOXIN	0.338 Abs	0.107 µg/L		0.020 - C
AB39926MS	SAXITOXIN	0.341 Abs [0.3395] {0.6 CV}	0.105 µg/L [0.106] {1.3}		0.020 - C
AB39926MSD	SAXITOXIN	0.345 Abs	0.104 µg/L		0.020 - C
AB39926MSD	SAXITOXIN	0.343 Abs [0.3440] {0.4 CV}	0.105 µg/L [0.104] {0.7}		0.020 - C
AB39927	SAXITOXIN	0.759 Abs	0.030 µg/L		0.020 - C
AB39927	SAXITOXIN	0.745 Abs [0.7520] {1.3 CV}	0.031 µg/L [0.030] {2.3}		0.020 - C
AB39928	SAXITOXIN	0.906 Abs	0.013 µg/L	LOW	0.020 - C
AB39928	SAXITOXIN	0.900 Abs [0.9030] {0.5 CV}	0.014 µg/L [0.014] {5.2}	LOW	0.020 - C
AB39929	SAXITOXIN	0.921 Abs	0.012 µg/L	LOW	0.020 - C
AB39929	SAXITOXIN	0.947 Abs [0.9340] {2.0 CV}	0.009 µg/L [0.010] {20.2}	LOW	0.020 - C

Note

Signature



Charles Hostetter 8/2/2019



SAXITOXIN - Assay Calibration Report

Assay Information

Assay Name: SAXITOXIN
Version: 1
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: 7 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: 12/5/2017 3:33:23 PM
Normal: 0.020 - 0.400
of decimals: 3

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
8/1/2019 2:10:55 PM					
STX Std 0	0.994 Abs	0.002 µg/L	R^2=0.99940	RK1:23->A01@2	
STX Std 0	1.012 Abs [1.0030] {1.3 CV}	0.000 µg/L [0.001] {141.4 CV}	R^2=0.99940	RK1:23->B01@2	
STX Std 1	0.836 Abs	0.019 µg/L	R^2=0.99940	RK1:24->C01@2	
STX Std 1	0.813 Abs [0.8245] {2.0 CV}	0.021 µg/L [0.020] {7.1 CV}	R^2=0.99940	RK1:24->D01@2	
STX Std 2	0.588 Abs	0.047 µg/L	R^2=0.99940	RK1:25->E01@2	
STX Std 2	0.561 Abs [0.5745] {3.3 CV}	0.052 µg/L [0.049] {7.1 CV}	R^2=0.99940	RK1:25->F01@3	
STX Std 3	0.333 Abs	0.109 µg/L	R^2=0.99940	RK1:26->G01@3	
STX Std 3	0.357 Abs [0.3450] {4.9 CV}	0.099 µg/L [0.104] {6.8 CV}	R^2=0.99940	RK1:26->H01@3	
STX Std 4	0.216 Abs	0.187 µg/L	R^2=0.99940	RK1:27->A02@2	
STX Std 4	0.221 Abs [0.2185] {1.6 CV}	0.181 µg/L [0.184] {2.3 CV}	R^2=0.99940	RK1:27->B02@2	
STX Std 5	0.120 Abs	> 0.400 µg/L		RK1:28->C02@2	
STX Std 5	0.122 Abs [0.1210] {1.2 CV}	> 0.400 µg/L		RK1:28->D02@2	
+++++					
8/1/2019 2:10:55 PM					
STX Control (0.060-0.090)	0.449 Abs	0.073 µg/L		RK1:29->E02@2	
STX Control (0.060-0.090)	0.437 Abs [0.4430] {1.9 CV}	0.076 µg/L [0.074] {2.8 CV}		RK1:29->F02@3	

Statistic					
STX Std 0 [MEAN]	1.0030	0.0010			
STX Std 0 [SD]	0.0127	0.0014			
STX Std 0 [%CV]	1.2690	141.4214			
STX Std 1 [MEAN]	0.8245	0.0200			
STX Std 1 [SD]	0.0163	0.0014			
STX Std 1 [%CV]	1.9725	7.0711			
STX Std 1 [%DIFF]		0.0000			
STX Std 2 [MEAN]	0.5745	0.0495			
STX Std 2 [SD]	0.0191	0.0035			
STX Std 2 [%CV]	3.3232	7.1425			
STX Std 2 [%DIFF]		-1.0000			
STX Std 3 [MEAN]	0.3450	0.1040			
STX Std 3 [SD]	0.0170	0.0071			
STX Std 3 [%CV]	4.9190	6.7991			
STX Std 3 [%DIFF]		4.0000			
STX Std 4 [MEAN]	0.2185	0.1840			
STX Std 4 [SD]	0.0035	0.0042			
STX Std 4 [%CV]	1.6181	2.3058			
STX Std 4 [%DIFF]		-8.0000			
STX Std 5 [MEAN]	0.1210				
STX Std 5 [SD]	0.0014				
STX Std 5 [%CV]	1.1688				

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.4430	0.0745		
STX Control (0.060-0.090) [SD]	0.0085	0.0021		
STX Control (0.060-0.090) [%CV]	1.9154	2.8474		
STX Control (0.060-0.090) [%DIFF]		-0.6667		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 1.0035
B = 1.4086
C = 0.055325
D = 0.073987
R2 coef = 0.99939

