



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 | 7/2/2019 | 7/2/2019 | <0.05 | 73 |
| LFB | Lab Fortified Blank | 7/2/2019 | 7/2/2019 | 0.073 | |
| AB39631 | Field Blank | 7/1/2019 | 7/2/2019 | <0.05 | |
| AB39633 | Kunkel Beach @ Ouabache State Park | 7/1/2019 | 7/2/2019 | 0.12 | |
| AB39633LD | Kunkel Beach @ Ouabache State Park (Lab Dup.) | 7/2/2019 | 7/2/2019 | 0.13 | |
| AB39634 | Kunkel Beach @ Ouabache State Park (Field Dup.) | 7/1/2019 | 7/2/2019 | 0.14 | |

Test Information

Request: 7/2/2019 10:51:54 AM
Date: 7/2/2019

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Reference |
|---------------------------|-----------|-----------------------------|---------------------------|----------------|-----------|
| STX Std 0 | SAXITOXIN | 1.007 Abs | 0.000 µg/L | R^2=0.99962 | 0.000 |
| STX Std 0 | SAXITOXIN | 0.976 Abs [0.9915] {2.2 CV} | 0.002 µg/L [0.001] {141} | R^2=0.99962 | 0.000 |
| STX Std 1 | SAXITOXIN | 0.783 Abs | 0.020 µg/L | R^2=0.99962 | 0.020 |
| STX Std 1 | SAXITOXIN | 0.784 Abs [0.7835] {0.1 CV} | 0.020 µg/L [0.020] {0.0} | R^2=0.99962 | 0.020 |
| STX Std 2 | SAXITOXIN | 0.569 Abs | 0.047 µg/L | R^2=0.99962 | 0.050 |
| STX Std 2 | SAXITOXIN | 0.550 Abs [0.5595] {2.4 CV} | 0.050 µg/L [0.049] {4.4} | R^2=0.99962 | 0.050 |
| STX Std 3 | SAXITOXIN | 0.345 Abs | 0.103 µg/L | R^2=0.99962 | 0.100 |
| STX Std 3 | SAXITOXIN | 0.339 Abs [0.3420] {1.2 CV} | 0.105 µg/L [0.104] {1.4} | R^2=0.99962 | 0.100 |
| STX Std 4 | SAXITOXIN | 0.212 Abs | 0.188 µg/L | R^2=0.99962 | 0.200 |
| STX Std 4 | SAXITOXIN | 0.205 Abs [0.2085] {2.4 CV} | 0.196 µg/L [0.192] {2.9} | R^2=0.99962 | 0.200 |
| STX Std 5 | SAXITOXIN | 0.112 Abs | > 0.400 µg/L | | 0.400 |
| STX Std 5 | SAXITOXIN | 0.113 Abs [0.1125] {0.6 CV} | > 0.400 µg/L | | 0.400 |
| STX Control (0.060-0.090) | SAXITOXIN | 0.438 Abs | 0.073 µg/L | | 0.075 +- |
| STX Control (0.060-0.090) | SAXITOXIN | 0.414 Abs [0.4260] {4.0 CV} | 0.080 µg/L [0.076] {6.5} | | 0.075 +- |
| LRB | SAXITOXIN | 0.927 Abs | 0.007 µg/L | LOW | 0.020 - C |
| LRB | SAXITOXIN | 0.913 Abs [0.9200] {1.1 CV} | 0.008 µg/L [0.008] {9.4} | LOW [LOW] | 0.020 - C |
| LFB | SAXITOXIN | 0.437 Abs | 0.074 µg/L | | 0.020 - C |
| LFB | SAXITOXIN | 0.442 Abs [0.4395] {0.8 CV} | 0.072 µg/L [0.073] {1.9} | | 0.020 - C |
| AB39631 | SAXITOXIN | 0.969 Abs | 0.003 µg/L | LOW | 0.020 - C |
| AB39631 | SAXITOXIN | 0.960 Abs [0.9645] {0.7 CV} | 0.004 µg/L [0.004] {20.2} | LOW [LOW] | 0.020 - C |
| AB39633 | SAXITOXIN | 0.306 Abs | 0.120 µg/L | | 0.020 - C |
| AB39633 | SAXITOXIN | 0.289 Abs [0.2975] {4.0 CV} | 0.129 µg/L [0.124] {5.1} | | 0.020 - C |
| AB39633LD | SAXITOXIN | 0.291 Abs | 0.128 µg/L | | 0.020 - C |
| AB39633LD | SAXITOXIN | 0.283 Abs [0.2870] {2.0 CV} | 0.132 µg/L [0.130] {2.2} | | 0.020 - C |
| AB39634 | SAXITOXIN | 0.288 Abs | 0.130 µg/L | | 0.020 - C |
| AB39634 | SAXITOXIN | 0.269 Abs [0.2785] {4.8 CV} | 0.141 µg/L [0.135] {5.7} | | 0.020 - C |

Note

Signature

David Jordan

Date: 7/2/2019



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 | |
|---------------------------|-----------------------------|-------------------------------|----------------|---------------|--|
| 7/2/2019 10:51:54 AM | | | | | |
| STX Std 0 | 1.007 Abs | 0.000 µg/L | R^2=0.99962 | RK1:23->A01@2 | |
| STX Std 0 | 0.976 Abs [0.9915] {2.2 CV} | 0.002 µg/L [0.001] {141.4 CV} | R^2=0.99962 | RK1:23->B01@2 | |
| STX Std 1 | 0.783 Abs | 0.020 µg/L | R^2=0.99962 | RK1:24->C01@2 | |
| STX Std 1 | 0.784 Abs [0.7835] {0.1 CV} | 0.020 µg/L [0.020] {0.0 CV} | R^2=0.99962 | RK1:24->D01@2 | |
| STX Std 2 | 0.569 Abs | 0.047 µg/L | R^2=0.99962 | RK1:25->E01@2 | |
| STX Std 2 | 0.550 Abs [0.5595] {2.4 CV} | 0.050 µg/L [0.049] {4.4 CV} | R^2=0.99962 | RK1:25->F01@3 | |
| STX Std 3 | 0.345 Abs | 0.103 µg/L | R^2=0.99962 | RK1:26->G01@3 | |
| STX Std 3 | 0.339 Abs [0.3420] {1.2 CV} | 0.105 µg/L [0.104] {1.4 CV} | R^2=0.99962 | RK1:26->H01@3 | |
| STX Std 4 | 0.212 Abs | 0.188 µg/L | R^2=0.99962 | RK1:27->A02@2 | |
| STX Std 4 | 0.205 Abs [0.2085] {2.4 CV} | 0.196 µg/L [0.192] {2.9 CV} | R^2=0.99962 | RK1:27->B02@2 | |
| STX Std 5 | 0.112 Abs | > 0.400 µg/L | | RK1:28->C02@2 | |
| STX Std 5 | 0.113 Abs [0.1125] {0.6 CV} | > 0.400 µg/L | | RK1:28->D02@2 | |
| +++++ | | | | | |
| 7/2/2019 10:51:54 AM | | | | | |
| STX Control (0.060-0.090) | 0.438 Abs | 0.073 µg/L | | RK1:29->E02@2 | |
| STX Control (0.060-0.090) | 0.414 Abs [0.4260] {4.0 CV} | 0.080 µg/L [0.076] {6.5 CV} | | RK1:29->F02@3 | |
| ***** | | | | | |
| Statistic | | | | | |
| STX Std 0 [MEAN] | 0.9915 | 0.0010 | | | |
| STX Std 0 [SD] | 0.0219 | 0.0014 | | | |
| STX Std 0 [%CV] | 2.2108 | 141.4214 | | | |
| STX Std 1 [MEAN] | 0.7835 | 0.0200 | | | |
| STX Std 1 [SD] | 0.0007 | 0.0000 | | | |
| STX Std 1 [%CV] | 0.0902 | 0.0000 | | | |
| STX Std 1 [%DIFF] | | 0.0000 | | | |
| STX Std 2 [MEAN] | 0.5595 | 0.0485 | | | |
| STX Std 2 [SD] | 0.0134 | 0.0021 | | | |
| STX Std 2 [%CV] | 2.4013 | 4.3739 | | | |
| STX Std 2 [%DIFF] | | -3.0000 | | | |
| STX Std 3 [MEAN] | 0.3420 | 0.1040 | | | |
| STX Std 3 [SD] | 0.0042 | 0.0014 | | | |
| STX Std 3 [%CV] | 1.2405 | 1.3598 | | | |
| STX Std 3 [%DIFF] | | 4.0000 | | | |
| STX Std 4 [MEAN] | 0.2085 | 0.1920 | | | |
| STX Std 4 [SD] | 0.0049 | 0.0057 | | | |
| STX Std 4 [%CV] | 2.3740 | 2.9463 | | | |
| STX Std 4 [%DIFF] | | -4.0000 | | | |
| STX Std 5 [MEAN] | 0.1125 | | | | |
| STX Std 5 [SD] | 0.0007 | | | | |
| STX Std 5 [%CV] | 0.6285 | | | | |

| Name | Absorbance | Concentration | Interpretation | Position | |
|-----------------------------------|------------|---------------|----------------|----------|--|
| STX Control (0.060-0.090) [MEAN] | 0.4260 | 0.0765 | | | |
| STX Control (0.060-0.090) [SD] | 0.0170 | 0.0049 | | | |
| STX Control (0.060-0.090) [%CV] | 3.9837 | 6.4703 | | | |
| STX Control (0.060-0.090) [%DIFF] | | 2.0000 | | | |

Assay Curve

y = (A-D)/(1+(x/C)^B) + D
Weight: NONE
A = 0.99136
B = 1.2519
C = 0.056420
D = 0.039405
R2 coef = 0.99964

