



## Saxitoxin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

<b>Sample #</b>	<b>Location</b>	<b>Date Collected</b>	<b>Date Analyzed</b>	<b>Conc. (ug/L)</b>
AB42361	Potowatomi Inn's Beach	5/18/2020	5/21/2020	< 0.050
AB42362	Kunkel Beach @ Oubache State Park	5/18/2020	5/21/2020	< 0.050
AB42363	Summit Lake - State Park	5/18/2020	5/21/2020	< 0.050
AB42364	Pokagon State Park	5/18/2020	5/21/2020	< 0.050
AB42365	Potato Creek State Park	5/19/2020	5/21/2020	< 0.050
AB42366	Lost Bridge West SRA	5/19/2020	5/21/2020	< 0.050
AB42367	Chain O'Lakes SP	5/18/2020	5/21/2020	< 0.050
AB42368	Mississinewa Lake Miami SRA	5/19/2020	5/21/2020	< 0.050
AB42369	Kunkel Beach (Field Duplicate)	5/18/2020	5/21/2020	< 0.050
AB42370	Field Blank	5/18/2020	5/21/2020	< 0.050

## Test Report (by Request)

## Test Information

Request: 5/21/2020 11:05:09 AM

Date: 5/21/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
STX Std 0	SAXITOXIN	1.572 Abs	0.000 µg/L	R <sup>2</sup> =0.99969, 100.70		19J1672
STX Std 0	SAXITOXIN	1.550 Abs [1.5610] {1.0 CV}	0.001 µg/L [0.001] {1}	R <sup>2</sup> =0.99969, 99.295		19J1672
STX Std 1	SAXITOXIN	1.263 Abs	0.019 µg/L	R <sup>2</sup> =0.99969, 80.910		19J1672
STX Std 1	SAXITOXIN	1.221 Abs [1.2420] {2.4 CV}	0.022 µg/L [0.021] {1}	R <sup>2</sup> =0.99969, 78.219		19J1672
STX Std 2	SAXITOXIN	0.933 Abs	0.047 µg/L	R <sup>2</sup> =0.99969, 59.769		19J1672
STX Std 2	SAXITOXIN	0.909 Abs [0.9210] {1.8 CV}	0.050 µg/L [0.049] {4}	R <sup>2</sup> =0.99969, 58.232		19J1672
STX Std 3	SAXITOXIN	0.589 Abs	0.104 µg/L	R <sup>2</sup> =0.99969, 37.732		19J1672
STX Std 3	SAXITOXIN	0.595 Abs [0.5920] {0.7 CV}	0.102 µg/L [0.103] {1}	R <sup>2</sup> =0.99969, 38.117		19J1672
STX Std 4	SAXITOXIN	0.377 Abs	0.189 µg/L	R <sup>2</sup> =0.99969, 24.151		19J1672
STX Std 4	SAXITOXIN	0.347 Abs [0.3620] {5.9 CV}	0.209 µg/L [0.199] {7}	R <sup>2</sup> =0.99969, 22.229		19J1672
STX Std 5	SAXITOXIN	0.213 Abs	0.389 µg/L	R <sup>2</sup> =0.99969, 13.645		19J1672
STX Std 5	SAXITOXIN	0.207 Abs [0.2100] {2.0 CV}	> 0.400 µg/L [0.389]	13.261 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.721 Abs	0.076 µg/L	46.188 %Abs		19J1672
STX Control (0.060-0.090)	SAXITOXIN	0.712 Abs [0.7165] {0.9 CV}	0.078 µg/L [0.077] {1}	45.612 %Abs [45.900]		19J1672

## Note

Signature

David Jordan

Date: 5/21/2020

# Test Report (by Request)

**Test Information**

Request: 5/21/2020 11:07:22 AM

Date: 5/21/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	SAXITOXIN	1.444 Abs	0.008 µg/L	<b>LOW, 92.505 %ABS</b>	0.020 - 0.400	19J1672
LRB	SAXITOXIN	1.477 Abs [1.4605] {1.6 CV}	0.006 µg/L [0.007] {2}	<b>LOW, 94.619 %ABS</b>	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.727 Abs	0.075 µg/L	46.573 %Abs	0.020 - 0.400	19J1672
LFB	SAXITOXIN	0.712 Abs [0.7195] {1.5 CV}	0.078 µg/L [0.076] {2}	45.612 %Abs [46.092]	0.020 - 0.400	19J1672
AB42361	SAXITOXIN	1.392 Abs	0.012 µg/L	<b>LOW, 89.174 %ABS</b>	0.020 - 0.400	19J1672
AB42361	SAXITOXIN	1.448 Abs [1.4200] {2.8 CV}	0.008 µg/L [0.010] {2}	<b>LOW, 92.761 %ABS</b>	0.020 - 0.400	19J1672
AB42361MS	SAXITOXIN	0.713 Abs	0.077 µg/L	45.676 %Abs	0.020 - 0.400	19J1672
AB42361MS	SAXITOXIN	0.705 Abs [0.7090] {0.8 CV}	0.079 µg/L [0.078] {1}	45.163 %Abs [45.420]	0.020 - 0.400	19J1672
AB42361MSD	SAXITOXIN	0.653 Abs	0.089 µg/L	41.832 %Abs	0.020 - 0.400	19J1672
AB42361MSD	SAXITOXIN	0.649 Abs [0.6510] {0.4 CV}	0.090 µg/L [0.090] {0}	41.576 %Abs [41.704]	0.020 - 0.400	19J1672
AB42362	SAXITOXIN	1.441 Abs	0.009 µg/L	<b>LOW, 92.313 %ABS</b>	0.020 - 0.400	19J1672
AB42362	SAXITOXIN	1.402 Abs [1.4215] {1.9 CV}	0.011 µg/L [0.010] {1}	<b>LOW, 89.814 %ABS</b>	0.020 - 0.400	19J1672
AB42363	SAXITOXIN	1.447 Abs	0.008 µg/L	<b>LOW, 92.697 %ABS</b>	0.020 - 0.400	19J1672
AB42363	SAXITOXIN	1.437 Abs [1.4420] {0.5 CV}	0.009 µg/L [0.009] {8}	<b>LOW, 92.056 %ABS</b>	0.020 - 0.400	19J1672
AB42364	SAXITOXIN	1.458 Abs	0.008 µg/L	<b>LOW, 93.402 %ABS</b>	0.020 - 0.400	19J1672
AB42364	SAXITOXIN	1.484 Abs [1.4710] {1.2 CV}	0.005 µg/L [0.007] {3}	<b>LOW, 95.067 %ABS</b>	0.020 - 0.400	19J1672
AB42365	SAXITOXIN	1.371 Abs	0.013 µg/L	<b>LOW, 87.828 %ABS</b>	0.020 - 0.400	19J1672
AB42365	SAXITOXIN	1.380 Abs [1.3755] {0.5 CV}	0.013 µg/L [0.013] {0}	<b>LOW, 88.405 %ABS</b>	0.020 - 0.400	19J1672
AB42366	SAXITOXIN	1.397 Abs	0.012 µg/L	<b>LOW, 89.494 %ABS</b>	0.020 - 0.400	19J1672
AB42366	SAXITOXIN	1.405 Abs [1.4010] {0.4 CV}	0.011 µg/L [0.012] {6}	<b>LOW, 90.006 %ABS</b>	0.020 - 0.400	19J1672
AB42367	SAXITOXIN	1.445 Abs	0.009 µg/L	<b>LOW, 92.569 %ABS</b>	0.020 - 0.400	19J1672
AB42367	SAXITOXIN	1.449 Abs [1.4470] {0.2 CV}	0.008 µg/L [0.009] {8}	<b>LOW, 92.825 %ABS</b>	0.020 - 0.400	19J1672
AB42368	SAXITOXIN	1.434 Abs	0.009 µg/L	<b>LOW, 91.864 %ABS</b>	0.020 - 0.400	19J1672
AB42368	SAXITOXIN	1.437 Abs [1.4355] {0.1 CV}	0.009 µg/L [0.009] {0}	<b>LOW, 92.056 %ABS</b>	0.020 - 0.400	19J1672
AB42369	SAXITOXIN	1.413 Abs	0.011 µg/L	<b>LOW, 90.519 %ABS</b>	0.020 - 0.400	19J1672
AB42369	SAXITOXIN	1.419 Abs [1.4160] {0.3 CV}	0.010 µg/L [0.010] {6}	<b>LOW, 90.903 %ABS</b>	0.020 - 0.400	19J1672
AB42370	SAXITOXIN	1.455 Abs	0.008 µg/L	<b>LOW, 93.209 %ABS</b>	0.020 - 0.400	19J1672
AB42370	SAXITOXIN	1.488 Abs [1.4715] {1.6 CV}	0.005 µg/L [0.007] {3}	<b>LOW, 95.324 %ABS</b>	0.020 - 0.400	19J1672
LFB 2	SAXITOXIN	0.648 Abs	0.090 µg/L	41.512 %Abs	0.020 - 0.400	19J1672
LFB 2	SAXITOXIN	0.648 Abs [0.6480] {0.0 CV}	0.090 µg/L [0.090] {0}	41.512 %Abs [41.512]	0.020 - 0.400	19J1672
LRB 2	SAXITOXIN	1.471 Abs	0.006 µg/L	<b>LOW, 94.234 %ABS</b>	0.020 - 0.400	19J1672
LRB 2	SAXITOXIN	1.471 Abs [1.4710] {0.0 CV}	0.006 µg/L [0.006] {0}	<b>LOW, 94.234 %ABS</b>	0.020 - 0.400	19J1672

**Note**

 Signature *David Jordan*

Date: 5/21/2020

**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: 19J1672

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: "

Name	Absorbance	Concentration	Interpretation	Position
<b>5/21/2020 11:05:09 AM</b>				
STX Std 0	1.572 Abs		R <sup>2</sup> =0.99969, 100.705 %Abs	RK1:23->A01@2
STX Std 0	1.550 Abs [1.5610] {1.0 CV}		R <sup>2</sup> =0.99969, 99.295 %Abs	RK1:23->B01@2
STX Std 1	1.263 Abs		R <sup>2</sup> =0.99969, 80.910 %Abs	RK1:24->C01@2
STX Std 1	1.221 Abs [1.2420] {2.4 CV}		R <sup>2</sup> =0.99969, 78.219 %Abs	RK1:24->D01@2
STX Std 2	0.933 Abs		R <sup>2</sup> =0.99969, 59.769 %Abs	RK1:25->E01@2
STX Std 2	0.909 Abs [0.9210] {1.8 CV}		R <sup>2</sup> =0.99969, 58.232 %Abs	RK1:25->F01@3
STX Std 3	0.589 Abs		R <sup>2</sup> =0.99969, 37.732 %Abs	RK1:26->G01@3
STX Std 3	0.595 Abs [0.5920] {0.7 CV}		R <sup>2</sup> =0.99969, 38.117 %Abs	RK1:26->H01@3
STX Std 4	0.377 Abs		R <sup>2</sup> =0.99969, 24.151 %Abs	RK1:27->A02@2
STX Std 4	0.347 Abs [0.3620] {5.9 CV}		R <sup>2</sup> =0.99969, 22.229 %Abs	RK1:27->B02@2
STX Std 5	0.213 Abs		R <sup>2</sup> =0.99969, 13.645 %Abs	RK1:28->C02@2
STX Std 5	0.207 Abs [0.2100] {2.0 CV}		13.261 %Abs	RK1:28->D02@2
*****				
<b>5/21/2020 11:05:09 AM</b>				
STX Control (0.060-0.090)	0.721 Abs		46.188 %Abs	RK1:29->E02@2
STX Control (0.060-0.090)	0.712 Abs [0.7165] {0.9 CV}		45.612 %Abs [45.900 %Abs]	RK1:29->F02@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.5610			
STX Std 0 [SD]	0.0156			
STX Std 0 [%CV]	0.9966			
STX Std 1 [MEAN]	1.2420			
STX Std 1 [SD]	0.0297			
STX Std 1 [%CV]	2.3912			
STX Std 1 [%DIFF]				
STX Std 2 [MEAN]	0.9210			
STX Std 2 [SD]	0.0170			
STX Std 2 [%CV]	1.8426			
STX Std 2 [%DIFF]				
STX Std 3 [MEAN]	0.5920			
STX Std 3 [SD]	0.0042			
STX Std 3 [%CV]	0.7167			
STX Std 3 [%DIFF]				
STX Std 4 [MEAN]	0.3620			
STX Std 4 [SD]	0.0212			
STX Std 4 [%CV]	5.8600			
STX Std 4 [%DIFF]				
STX Std 5 [MEAN]	0.2100			
STX Std 5 [SD]	0.0042			
STX Std 5 [%CV]	2.0203			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.7165			
STX Control (0.060-0.090) [SD]	0.0064			
STX Control (0.060-0.090) [%CV]	0.8882			

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.5592  
 B = 1.1881  
 C = 0.062159  
 D = 0.060825  
 R2 coef = 0.99969  
 50% = 0.066

