



## Saxitoxin ELISA 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. (ppb)</b>
AC40677	Cecil M. Harden Lake - Raccoon Lake SRA Beach	6/24/2024	6/26/2024	< 0.05
AC40678	Cagles Mill Lake - Lieber SRA Beach	6/24/2024	6/26/2024	< 0.05
AC40679	Starve Hollow SRA - Starve Hollow Lake Beach	6/24/2024	6/26/2024	0.10
AC40680	Hardy Lake SRA - Hardy Lake SRA Beach	6/24/2024	6/26/2024	< 0.05
AC40681	Whitewater Memorial SP - Whitewater Lake Beach	6/25/2024	6/26/2024	< 0.05
AC40682	Salamonie Lake - Lost Bridge West SRA Beach	6/25/2024	6/26/2024	< 0.05
AC40687	Cecil M. Harden Lake - Raccoon Lake SRA Beach (Field Duplicate)	6/24/2024	6/26/2024	< 0.05
AC40688	Field Blank	6/24/2024	6/26/2024	< 0.05

# Test Report (by Request)

**Test Information**

Request: 6/26/2024 1:55:21 PM  
Date: 6/26/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
STX Std 0	SAXITOXIN	1.500 Abs	0.000 µg/L	R^2=0.99986, 100.6		0.000	Kit:P24A3
STX Std 0	SAXITOXIN	1.481 Abs [1.4905] {0.9 C	0.001 µg/L [0.001]	R^2=0.99986, 99.32		0.000	Kit:P24A3
STX Std 1	SAXITOXIN	1.247 Abs	0.020 µg/L	R^2=0.99986, 83.63		0.020	Kit:P24A3
STX Std 1	SAXITOXIN	1.249 Abs [1.2480] {0.1 C	0.020 µg/L [0.020]	R^2=0.99986, 83.76		0.020	Kit:P24A3
STX Std 2	SAXITOXIN	0.951 Abs	0.049 µg/L	R^2=0.99986, 63.78		0.050	Kit:P24A3
STX Std 2	SAXITOXIN	0.951 Abs [0.9510] {0.0 C	0.049 µg/L [0.049]	R^2=0.99986, 63.78		0.050	Kit:P24A3
STX Std 3	SAXITOXIN	0.649 Abs	0.100 µg/L	R^2=0.99986, 43.52		0.100	Kit:P24A3
STX Std 3	SAXITOXIN	0.630 Abs [0.6395] {2.1 C	0.105 µg/L [0.103]	R^2=0.99986, 42.25		0.100	Kit:P24A3
STX Std 4	SAXITOXIN	0.413 Abs	0.193 µg/L	R^2=0.99986, 27.70		0.200	Kit:P24A3
STX Std 4	SAXITOXIN	0.401 Abs [0.4070] {2.1 C	0.201 µg/L [0.197]	R^2=0.99986, 26.85		0.200	Kit:P24A3
STX Std 5	SAXITOXIN	0.249 Abs	> 0.400 µg/L	16.700 %Abs		0.400	Kit:P24A3
STX Std 5	SAXITOXIN	0.251 Abs [0.2500] {0.6 C	0.400 µg/L [0.400]	R^2=0.99986, 16.83		0.400	Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.807 Abs	0.069 µg/L	54.125 %Abs			Kit:P24A3
STX Control (0.060-0.090)	SAXITOXIN	0.802 Abs [0.8045] {0.4 C	0.070 µg/L [0.070]	53.789 %Abs [53.9			Kit:P24A3

**Note**

Signature *David Jordan*

David Jordan 6/26/2024

\* 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) 6/26/2024 2:01:22 PM

# Test Report (by Request)

**Test Information**

Request: 6/26/2024 1:56:13 PM  
Date: 6/26/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	SAXITOXIN	1.461 Abs	0.003 µg/L	Low, 97.988 %Abs		0.020 - 0.400	Kit:P24A3
LRB	SAXITOXIN	1.431 Abs [1.4460] {1.5 C	0.006 µg/L [0.005]	Low, 95.976 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.735 Abs	0.081 µg/L	49.296 %Abs		0.020 - 0.400	Kit:P24A3
LFB (SAX)	SAXITOXIN	0.715 Abs [0.7250] {2.0 C	0.085 µg/L [0.083]	47.954 %Abs [48.6		0.020 - 0.400	Kit:P24A3
AC40677	SAXITOXIN	1.425 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40677	SAXITOXIN	1.426 Abs [1.4255] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40678	SAXITOXIN	1.201 Abs	0.026 µg/L	80.550 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40678	SAXITOXIN	1.204 Abs [1.2025] {0.2 C	0.026 µg/L [0.026]	80.751 %Abs [80.6	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40679	SAXITOXIN	0.684 Abs	0.101 µg/L	45.875 %Abs	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40679	SAXITOXIN	0.685 Abs [0.6845] {0.1 C	0.101 µg/L [0.101]	45.942 %Abs [45.9	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40680	SAXITOXIN	1.391 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40680	SAXITOXIN	1.389 Abs [1.3900] {0.1 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40680MS	SAXITOXIN	0.695 Abs	0.089 µg/L	46.613 %Abs		0.020 - 0.400	Kit:P24A3
AC40680MS	SAXITOXIN	0.699 Abs [0.6970] {0.4 C	0.089 µg/L [0.089]	46.881 %Abs [46.7		0.020 - 0.400	Kit:P24A3
AC40680MSD	SAXITOXIN	0.699 Abs	0.089 µg/L	46.881 %Abs		0.020 - 0.400	Kit:P24A3
AC40680MSD	SAXITOXIN	0.669 Abs [0.6840] {3.1 C	0.095 µg/L [0.092]	44.869 %Abs [45.8		0.020 - 0.400	Kit:P24A3
AC40681	SAXITOXIN	1.440 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40681	SAXITOXIN	1.422 Abs [1.4310] {0.9 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40682	SAXITOXIN	1.339 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40682	SAXITOXIN	1.336 Abs [1.3375] {0.2 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40687	SAXITOXIN	1.423 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40687	SAXITOXIN	1.458 Abs [1.4405] {1.7 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40688	SAXITOXIN	1.485 Abs	< LOD	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3
AC40688	SAXITOXIN	1.486 Abs [1.4855] {0.0 C	< LOD [< LOD]	Low, Out Adjust Dilu	MDF=1.100	0.020 - 0.400	Kit:P24A3

**Note**

Signature *David Jordan*

David Jordan 6/26/2024

\* 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) 6/26/2024 2:01:22 PM

**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: Kit:P24A3229

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>6/26/2024 1:55:21 PM</b>				
STX Std 0	1.500 Abs	0.000 µg/L	R <sup>2</sup> =0.99986, 100.604 %Abs	RK1:30->A06@1
STX Std 0	1.481 Abs [1.4905] {0.9 CV}	0.001 µg/L [0.001] {141.4 CV}	R <sup>2</sup> =0.99986, 99.329 %Abs	RK1:30->B06@1
STX Std 1	1.247 Abs	0.020 µg/L	R <sup>2</sup> =0.99986, 83.635 %Abs	RK1:31->C06@1
STX Std 1	1.249 Abs [1.2480] {0.1 CV}	0.020 µg/L [0.020] {0.0 CV}	R <sup>2</sup> =0.99986, 83.769 %Abs	RK1:31->D06@1
STX Std 2	0.951 Abs	0.049 µg/L	R <sup>2</sup> =0.99986, 63.783 %Abs	RK1:32->E06@1
STX Std 2	0.951 Abs [0.9510] {0.0 CV}	0.049 µg/L [0.049] {0.0 CV}	R <sup>2</sup> =0.99986, 63.783 %Abs	RK1:32->F06@4
STX Std 3	0.649 Abs	0.100 µg/L	R <sup>2</sup> =0.99986, 43.528 %Abs	RK1:33->G06@4
STX Std 3	0.630 Abs [0.6395] {2.1 CV}	0.105 µg/L [0.103] {3.4 CV}	R <sup>2</sup> =0.99986, 42.254 %Abs	RK1:33->H06@4
STX Std 4	0.413 Abs	0.193 µg/L	R <sup>2</sup> =0.99986, 27.700 %Abs	RK1:34->A07@2
STX Std 4	0.401 Abs [0.4070] {2.1 CV}	0.201 µg/L [0.197] {2.9 CV}	R <sup>2</sup> =0.99986, 26.895 %Abs	RK1:34->B07@2
STX Std 5	0.249 Abs	> 0.400 µg/L	16.700 %Abs	RK1:35->C07@2
STX Std 5	0.251 Abs [0.2500] {0.6 CV}	0.400 µg/L [0.400]	R <sup>2</sup> =0.99986, 16.834 %Abs	RK1:35->D07@2
*****				
<b>6/26/2024 1:55:21 PM</b>				
STX Control (0.060-0.090)	0.807 Abs	0.069 µg/L	54.125 %Abs	RK1:36->E07@2
STX Control (0.060-0.090)	0.802 Abs [0.8045] {0.4 CV}	0.070 µg/L [0.070] {1.0 CV}	53.789 %Abs [53.957 %Abs]	RK1:36->F07@3
*****				
<b>Statistic</b>				
STX Std 0 [MEAN]	1.4905	0.0005		
STX Std 0 [SD]	0.0134	0.0007		
STX Std 0 [%CV]	0.9014	141.4214		
STX Std 1 [MEAN]	1.2480	0.0200		
STX Std 1 [SD]	0.0014	0.0000		
STX Std 1 [%CV]	0.1133	0.0000		
STX Std 1 [%DIFF]		0.0000		
STX Std 2 [MEAN]	0.9510	0.0490		
STX Std 2 [SD]	0.0000	0.0000		
STX Std 2 [%CV]	0.0000	0.0000		
STX Std 2 [%DIFF]		-2.0000		
STX Std 3 [MEAN]	0.6395	0.1025		
STX Std 3 [SD]	0.0134	0.0035		
STX Std 3 [%CV]	2.1009	3.4493		
STX Std 3 [%DIFF]		2.5000		
STX Std 4 [MEAN]	0.4070	0.1970		
STX Std 4 [SD]	0.0085	0.0057		
STX Std 4 [%CV]	2.0848	2.8715		
STX Std 4 [%DIFF]		-1.5000		
STX Std 5 [MEAN]	0.2500			
STX Std 5 [SD]	0.0014			
STX Std 5 [%CV]	0.5657			

Name	Absorbance	Concentration	Interpretation	Position
STX Control (0.060-0.090) [MEAN]	0.8045	0.0695		
STX Control (0.060-0.090) [SD]	0.0035	0.0007		
STX Control (0.060-0.090) [%CV]	0.4395	1.0174		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.4900  
 B = 1.2537  
 C = 0.069783  
 D = 0.11215  
 R2 coef = 0.99986  
 50% = 0.079

