



## Cylindrospermopsin 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>
AC41107	Potato Creek SP - Worster Lake Beach	7/29/2024	8/1/2024	< 0.10
AC41108	Mississinewa Lake - Miami SRA Beach	7/29/2024	8/1/2024	< 0.10
AC41109	Salamonie Lake - Lost Bridge West SRA Beach	7/29/2024	8/1/2024	< 0.10
AC41110	Potato Creek SP - Worster Lake Beach (Field Duplicate)	7/29/2024	8/1/2024	< 0.10
AC41111	Field Blank	7/29/2024	8/1/2024	< 0.10
AC41112	Patoka Lake - Newton Stewart SRA Beach	7/29/2024	8/1/2024	< 0.10

# Test Report (by Request)

**Test Information**

Request: 8/1/2024 5:22:08 PM  
Date: 8/1/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	0.921 Abs	0.001 µg/L	R <sup>2</sup> =0.99582, 99.24		0.000	Kit:240520
CYL Std 0	CYLINDROSPERMOPSIN	0.934 Abs [0.9275] {1.0 C	0.000 µg/L [0.001]	R <sup>2</sup> =0.99582, 100.6		0.000	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.810 Abs	0.027 µg/L	R <sup>2</sup> =0.99582, 87.28		0.050	Kit:240520
CYL Std 1	CYLINDROSPERMOPSIN	0.729 Abs [0.7695] {7.4 C	0.064 µg/L [0.046]	R <sup>2</sup> =0.99582, 78.55		0.050	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.632 Abs	0.132 µg/L	R <sup>2</sup> =0.99582, 68.10		0.100	Kit:240520
CYL Std 2	CYLINDROSPERMOPSIN	0.656 Abs [0.6440] {2.6 C	0.112 µg/L [0.122]	R <sup>2</sup> =0.99582, 70.65		0.100	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.558 Abs	0.211 µg/L	R <sup>2</sup> =0.99582, 60.12		0.250	Kit:240520
CYL Std 3	CYLINDROSPERMOPSIN	0.541 Abs [0.5495] {2.2 C	0.234 µg/L [0.223]	R <sup>2</sup> =0.99582, 58.25		0.250	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.419 Abs	0.477 µg/L	R <sup>2</sup> =0.99582, 45.15		0.500	Kit:240520
CYL Std 4	CYLINDROSPERMOPSIN	0.408 Abs [0.4135] {1.9 C	0.509 µg/L [0.493]	R <sup>2</sup> =0.99582, 43.96		0.500	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.298 Abs	1.003 µg/L	R <sup>2</sup> =0.99582, 32.11		1.000	Kit:240520
CYL Std 5	CYLINDROSPERMOPSIN	0.268 Abs [0.2830] {7.5 C	1.231 µg/L [1.117]	R <sup>2</sup> =0.99582, 28.87		1.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.213 Abs	1.862 µg/L	R <sup>2</sup> =0.99582, 22.95		2.000	Kit:240520
CYL Std 6	CYLINDROSPERMOPSIN	0.209 Abs [0.2110] {1.3 C	1.924 µg/L [1.893]	R <sup>2</sup> =0.99582, 22.52		2.000	Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.349 Abs	0.725 µg/L	37.608 %Abs			Kit:240520
CYL QCS	CYLINDROSPERMOPSIN	0.340 Abs [0.3445] {1.8 C	0.766 µg/L [0.746]	36.638 %Abs [37.1			Kit:240520

**Note**

Signature

Charles Hostetter 8/1/2024

# Test Report (by Request)

**Test Information**

Request: 8/1/2024 5:23:01 PM  
Date: 8/1/2024

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	0.870 Abs	0.010 µg/L	Low, 93.750 %Abs		0.050 - 2.000	Kit:240520
LRB (CYL)	CYLINDROSPERMOPSIN	0.912 Abs [0.8910] {3.3 C	0.002 µg/L [0.006]	Low, 98.276 %Abs		0.050 - 2.000	Kit:240520
LFB (CYL)	CYLINDROSPERMOPSIN	0.378 Abs	0.608 µg/L	40.733 %Abs		0.050 - 2.000	Kit:240520
LFB (CYL)	CYLINDROSPERMOPSIN	0.385 Abs [0.3815] {1.3 C	0.583 µg/L [0.596]	41.487 %Abs [41.1		0.050 - 2.000	Kit:240520
AC41107	CYLINDROSPERMOPSIN	0.840 Abs	0.018 µg/L	Low, 90.517 %Abs		0.050 - 2.000	Kit:240520
AC41107	CYLINDROSPERMOPSIN	0.839 Abs [0.8395] {0.1 C	0.018 µg/L [0.018]	Low, 90.409 %Abs		0.050 - 2.000	Kit:240520
AC41108	CYLINDROSPERMOPSIN	0.840 Abs	0.018 µg/L	Low, 90.517 %Abs		0.050 - 2.000	Kit:240520
AC41108	CYLINDROSPERMOPSIN	0.959 Abs [0.8995] {9.4 C	0.000 µg/L [0.009]	Low, 103.341 %Abs		0.050 - 2.000	Kit:240520
AC41109	CYLINDROSPERMOPSIN	0.844 Abs	0.016 µg/L	Low, 90.948 %Abs		0.050 - 2.000	Kit:240520
AC41109	CYLINDROSPERMOPSIN	0.853 Abs [0.8485] {0.8 C	0.014 µg/L [0.015]	Low, 91.918 %Abs		0.050 - 2.000	Kit:240520
AC41109MS	CYLINDROSPERMOPSIN	0.389 Abs	0.569 µg/L	41.918 %Abs		0.050 - 2.000	Kit:240520
AC41109MS	CYLINDROSPERMOPSIN	0.379 Abs [0.3840] {1.8 C	0.604 µg/L [0.587]	40.841 %Abs [41.3		0.050 - 2.000	Kit:240520
AC41109MSD	CYLINDROSPERMOPSIN	0.411 Abs	0.500 µg/L	44.289 %Abs		0.050 - 2.000	Kit:240520
AC41109MSD	CYLINDROSPERMOPSIN	0.409 Abs [0.4100] {0.3 C	0.506 µg/L [0.503]	44.073 %Abs [44.1		0.050 - 2.000	Kit:240520
AC41110	CYLINDROSPERMOPSIN	0.849 Abs	0.015 µg/L	Low, 91.487 %Abs		0.050 - 2.000	Kit:240520
AC41110	CYLINDROSPERMOPSIN	0.907 Abs [0.8780] {4.7 C	0.002 µg/L [0.009]	Low, 97.737 %Abs		0.050 - 2.000	Kit:240520
AC41111	CYLINDROSPERMOPSIN	0.893 Abs	0.005 µg/L	Low, 96.228 %Abs		0.050 - 2.000	Kit:240520
AC41111	CYLINDROSPERMOPSIN	0.913 Abs [0.9030] {1.6 C	0.002 µg/L [0.004]	Low, 98.384 %Abs		0.050 - 2.000	Kit:240520
AC41112	CYLINDROSPERMOPSIN	0.877 Abs	0.008 µg/L	Low, 94.504 %Abs		0.050 - 2.000	Kit:240520
AC41112	CYLINDROSPERMOPSIN	0.931 Abs [0.9040] {4.2 C	0.000 µg/L [0.004]	Low, 100.323 %Abs		0.050 - 2.000	Kit:240520

**Note**

Signature

**Assay Information**

Assay Name: CYLINDROSPERMOPSPIN\_  
 Version: 2  
 Temperature: Room Temperature  
 Last Modified By: Security disabled  
 Units: µg/L  
 Assay Description: PN 522011  
 Assay Substances: Controls:

Assay Mode: 4-Parameter Logistic Weight by:None  
 Well Type: Flat bottom  
 Last Modified On: 9/30/2020 10:05:41 AM  
 Normal: 0.050 - 2.000  
 # of decimals: 3  
 Kit Lot Number: Kit:2405201466

CYL QCS  
 Standards:  
 CYL Std 0, Concentration = 0.000, Minimum number to use: 2  
 CYL Std 1, Concentration = 0.050, Minimum number to use: 2  
 CYL Std 2, Concentration = 0.100, Minimum number to use: 2  
 CYL Std 3, Concentration = 0.250, Minimum number to use: 2  
 CYL Std 4, Concentration = 0.500, Minimum number to use: 2  
 CYL Std 5, Concentration = 1.000, Minimum number to use: 2  
 CYL Std 6, Concentration = 2.000, 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>8/1/2024 5:22:08 PM</b>				
CYL Std 0	0.921 Abs	0.001 µg/L	R <sup>2</sup> =0.99582, 99.246 %Abs	RK1:23->A01@2
CYL Std 0	0.934 Abs [0.9275] {1.0 CV}	0.000 µg/L [0.001] {141.4 CV}	R <sup>2</sup> =0.99582, 100.647 %Abs	RK1:23->B01@2
CYL Std 1	0.810 Abs	0.027 µg/L	R <sup>2</sup> =0.99582, 87.284 %Abs	RK1:24->C01@2
CYL Std 1	0.729 Abs [0.7695] {7.4 CV}	0.064 µg/L [0.046] {57.5 CV}	R <sup>2</sup> =0.99582, 78.556 %Abs	RK1:24->D01@2
CYL Std 2	0.632 Abs	0.132 µg/L	R <sup>2</sup> =0.99582, 68.103 %Abs	RK1:25->E01@2
CYL Std 2	0.656 Abs [0.6440] {2.6 CV}	0.112 µg/L [0.122] {11.6 CV}	R <sup>2</sup> =0.99582, 70.690 %Abs	RK1:25->F01@3
CYL Std 3	0.558 Abs	0.211 µg/L	R <sup>2</sup> =0.99582, 60.129 %Abs	RK1:26->G01@3
CYL Std 3	0.541 Abs [0.5495] {2.2 CV}	0.234 µg/L [0.223] {7.3 CV}	R <sup>2</sup> =0.99582, 58.297 %Abs	RK1:26->H01@3
CYL Std 4	0.419 Abs	0.477 µg/L	R <sup>2</sup> =0.99582, 45.151 %Abs	RK1:27->A02@2
CYL Std 4	0.408 Abs [0.4135] {1.9 CV}	0.509 µg/L [0.493] {4.6 CV}	R <sup>2</sup> =0.99582, 43.966 %Abs	RK1:27->B02@2
CYL Std 5	0.298 Abs	1.003 µg/L	R <sup>2</sup> =0.99582, 32.112 %Abs	RK1:28->C02@2
CYL Std 5	0.268 Abs [0.2830] {7.5 CV}	1.231 µg/L [1.117] {14.4 CV}	R <sup>2</sup> =0.99582, 28.879 %Abs	RK1:28->D02@2
CYL Std 6	0.213 Abs	1.862 µg/L	R <sup>2</sup> =0.99582, 22.953 %Abs	RK1:29->E02@2
CYL Std 6	0.209 Abs [0.2110] {1.3 CV}	1.924 µg/L [1.893] {2.3 CV}	R <sup>2</sup> =0.99582, 22.522 %Abs	RK1:29->F02@3
*****				
<b>8/1/2024 5:22:08 PM</b>				
CYL QCS	0.349 Abs	0.725 µg/L	37.608 %Abs	RK1:30->G02@3
CYL QCS	0.340 Abs [0.3445] {1.8 CV}	0.766 µg/L [0.746] {3.9 CV}	36.638 %Abs [37.123 %Abs]	RK1:30->H02@3
*****				
<b>Statistic</b>				
CYL Std 0 [MEAN]	0.9275	0.0005		
CYL Std 0 [SD]	0.0092	0.0007		
CYL Std 0 [%CV]	0.9911	141.4214		
CYL Std 1 [MEAN]	0.7695	0.0455		
CYL Std 1 [SD]	0.0573	0.0262		
CYL Std 1 [%CV]	7.4432	57.5010		
CYL Std 1 [%DIFF]		-9.0000		
CYL Std 2 [MEAN]	0.6440	0.1220		
CYL Std 2 [SD]	0.0170	0.0141		
CYL Std 2 [%CV]	2.6352	11.5919		
CYL Std 2 [%DIFF]		22.0000		
CYL Std 3 [MEAN]	0.5495	0.2225		
CYL Std 3 [SD]	0.0120	0.0163		
CYL Std 3 [%CV]	2.1876	7.3094		
CYL Std 3 [%DIFF]		-11.0000		
CYL Std 4 [MEAN]	0.4135	0.4930		
CYL Std 4 [SD]	0.0078	0.0226		
CYL Std 4 [%CV]	1.8811	4.5897		
CYL Std 4 [%DIFF]		-1.4000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2830	1.1170		
CYL Std 5 [SD]	0.0212	0.1612		
CYL Std 5 [%CV]	7.4958	14.4333		
CYL Std 5 [%DIFF]		11.7000		
CYL Std 6 [MEAN]	0.2110	1.8930		
CYL Std 6 [SD]	0.0028	0.0438		
CYL Std 6 [%CV]	1.3405	2.3159		
CYL Std 6 [%DIFF]		-5.3500		
CYL QCS [MEAN]	0.3445	0.7455		
CYL QCS [SD]	0.0064	0.0290		
CYL QCS [%CV]	1.8473	3.8888		

### Assay Curve

$$y = (A-D)/(1+(x/C)^B) + D$$

Weight: NONE

A = 0.92846

B = 0.74053

C = 0.37004

D = -0.0032784

R2 coef = 0.99582

50% = 0.367

