



## Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB52631	Chain O'Lakes SP	8/29/2022	8/31/2022	< 0.15
AB52632	Kunkel Lake @ Oubache SP	8/29/2022	8/31/2022	< 0.15
AB52633	Potato Creek State Park	8/30/2022	8/31/2022	< 0.15
AB52634	Mississinewa Lake Miami SRA	8/30/2022	8/31/2022	< 0.15
AB52635	Lost Bridge West SRA	8/30/2022	8/31/2022	< 0.15
AB52636	Mississinewa Lake Miami SRA (Field Dup)	8/30/2022	8/31/2022	< 0.15
AB52637	Field Blank	8/30/2022	8/31/2022	< 0.15
AB52638	Patoka SRA Beach	8/29/2022	8/31/2022	< 0.15
AB52642	Ft. Ben Harrison SP Dog Lake	8/30/2022	8/31/2022	0.84
AB52643	Lincoln State Park	8/29/2022	8/31/2022	4.7

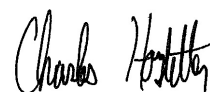
## Test Information

Request: 8/31/2022 3:04:45 PM  
Date: 8/31/2022 - 9/1/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.826 Abs	0.000 µg/L	R^2=0.99800, 101.6			M22G208
CYL Std 0	CYLINDROSPERMOPSIN	1.768 Abs [1.7970] {2.3 C	0.005 µg/L [0.003]	R^2=0.99800, 98.36			M22G208
CYL Std 1	CYLINDROSPERMOPSIN	1.560 Abs	0.042 µg/L	R^2=0.99800, 86.81			M22G208
CYL Std 1	CYLINDROSPERMOPSIN	1.548 Abs [1.5540] {0.5 C	0.045 µg/L [0.043]	R^2=0.99800, 86.14			M22G208
CYL Std 2	CYLINDROSPERMOPSIN	1.311 Abs	0.104 µg/L	R^2=0.99800, 72.95			M22G208
CYL Std 2	CYLINDROSPERMOPSIN	1.308 Abs [1.3095] {0.2 C	0.105 µg/L [0.104]	R^2=0.99800, 72.78			M22G208
CYL Std 3	CYLINDROSPERMOPSIN	0.937 Abs	0.267 µg/L	R^2=0.99800, 52.14			M22G208
CYL Std 3	CYLINDROSPERMOPSIN	0.926 Abs [0.9315] {0.8 C	0.274 µg/L [0.271]	R^2=0.99800, 51.53			M22G208
CYL Std 4	CYLINDROSPERMOPSIN	0.736 Abs	0.434 µg/L	R^2=0.99800, 40.95			M22G208
CYL Std 4	CYLINDROSPERMOPSIN	0.699 Abs [0.7175] {3.6 C	0.477 µg/L [0.456]	R^2=0.99800, 38.85			M22G208
CYL Std 5	CYLINDROSPERMOPSIN	0.457 Abs	0.970 µg/L	R^2=0.99800, 25.43			M22G208
CYL Std 5	CYLINDROSPERMOPSIN	0.447 Abs [0.4520] {1.6 C	1.005 µg/L [0.988]	R^2=0.99800, 24.87			M22G208
CYL Std 6	CYLINDROSPERMOPSIN	0.284 Abs	> 2.000 µg/L	15.804 %Abs			M22G208
CYL Std 6	CYLINDROSPERMOPSIN	0.272 Abs [0.2780] {3.1 C	> 2.000 µg/L	15.136 %Abs			M22G208
CYL QCS	CYLINDROSPERMOPSIN	0.511 Abs	0.811 µg/L	28.436 %Abs			M22G208
CYL QCS	CYLINDROSPERMOPSIN	0.505 Abs [0.5080] {0.8 C	0.827 µg/L [0.819]	28.102 %Abs [28.2			M22G208

## Note

Signature



## Test Information


Request: 8/31/2022 3:05:50 PM  
Date: 8/31/2022 - 9/1/2022

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	1.834 Abs	0.000 µg/L	Low, 102.059 %Abs		0.050 - 2.000	M22G208
LRB	CYLINDROSPERMOPSIN	1.773 Abs [1.8035] {2.4 C	0.005 µg/L [0.003]			0.050 - 2.000	M22G208
LFB	CYLINDROSPERMOPSIN	0.635 Abs	0.565 µg/L	35.337 %Abs		0.050 - 2.000	M22G208
LFB	CYLINDROSPERMOPSIN	0.614 Abs [0.6245] {2.4 C	0.599 µg/L [0.582]	34.168 %Abs [34.7		0.050 - 2.000	M22G208
AB52631	CYLINDROSPERMOPSIN	1.619 Abs	0.031 µg/L	Low, 90.095 %Abs		0.050 - 2.000	M22G208
AB52631	CYLINDROSPERMOPSIN	1.607 Abs [1.6130] {0.5 C	0.033 µg/L [0.032]			0.050 - 2.000	M22G208
AB52631MS	CYLINDROSPERMOPSIN	0.586 Abs	0.648 µg/L	32.610 %Abs		0.050 - 2.000	M22G208
AB52631MS	CYLINDROSPERMOPSIN	0.571 Abs [0.5785] {1.8 C	0.676 µg/L [0.662]	31.775 %Abs [32.1		0.050 - 2.000	M22G208
AB52631MSD	CYLINDROSPERMOPSIN	0.649 Abs	0.544 µg/L	36.116 %Abs		0.050 - 2.000	M22G208
AB52631MSD	CYLINDROSPERMOPSIN	0.612 Abs [0.6305] {4.1 C	0.602 µg/L [0.573]	34.057 %Abs [35.0		0.050 - 2.000	M22G208
AB52632	CYLINDROSPERMOPSIN	1.653 Abs	0.024 µg/L	Low, 91.987 %Abs		0.050 - 2.000	M22G208
AB52632	CYLINDROSPERMOPSIN	1.589 Abs [1.6210] {2.8 C	0.036 µg/L [0.030]			0.050 - 2.000	M22G208
AB52633	CYLINDROSPERMOPSIN	1.605 Abs	0.033 µg/L	Low, 89.316 %Abs		0.050 - 2.000	M22G208
AB52633	CYLINDROSPERMOPSIN	1.594 Abs [1.5995] {0.5 C	0.035 µg/L [0.034]			0.050 - 2.000	M22G208
AB52634	CYLINDROSPERMOPSIN	1.586 Abs	0.037 µg/L	Low, 88.258 %Abs		0.050 - 2.000	M22G208
AB52634	CYLINDROSPERMOPSIN	1.599 Abs [1.5925] {0.6 C	0.035 µg/L [0.036]			0.050 - 2.000	M22G208
AB52635	CYLINDROSPERMOPSIN	1.774 Abs	0.005 µg/L	Low, 98.720 %Abs		0.050 - 2.000	M22G208
AB52635	CYLINDROSPERMOPSIN	1.701 Abs [1.7375] {3.0 C	0.016 µg/L [0.011]			0.050 - 2.000	M22G208
AB52636	CYLINDROSPERMOPSIN	1.614 Abs	0.032 µg/L	Low, 89.816 %Abs		0.050 - 2.000	M22G208
AB52636	CYLINDROSPERMOPSIN	1.593 Abs [1.6035] {0.9 C	0.036 µg/L [0.034]			0.050 - 2.000	M22G208
AB52637	CYLINDROSPERMOPSIN	1.606 Abs	0.033 µg/L	Low, 89.371 %Abs		0.050 - 2.000	M22G208
AB52637	CYLINDROSPERMOPSIN	1.617 Abs [1.6115] {0.5 C	0.031 µg/L [0.032]			0.050 - 2.000	M22G208
AB52638	CYLINDROSPERMOPSIN	1.603 Abs	0.034 µg/L	Low, 89.204 %Abs		0.050 - 2.000	M22G208
AB52638	CYLINDROSPERMOPSIN	1.628 Abs [1.6155] {1.1 C	0.029 µg/L [0.032]			0.050 - 2.000	M22G208
AB52642	CYLINDROSPERMOPSIN	0.507 Abs	0.822 µg/L	28.214 %Abs		0.050 - 2.000	M22G208
AB52642	CYLINDROSPERMOPSIN	0.492 Abs [0.4995] {2.1 C	0.863 µg/L [0.842]	27.379 %Abs [27.7		0.050 - 2.000	M22G208
AB52643	CYLINDROSPERMOPSIN	0.174 Abs	> 2.000 µg/L	9.683 %Abs, Out(Li		0.050 - 2.000	M22G208
AB52643	CYLINDROSPERMOPSIN	0.170 Abs [0.1720] {1.6 C	> 2.000 µg/L	9.460 %Abs, Out(Li		0.050 - 2.000	M22G208
AB52643-10X	CYLINDROSPERMOPSIN	0.727 Abs	0.444 µg/L	40.456 %Abs		0.050 - 2.000	M22G208
AB52643-10X	CYLINDROSPERMOPSIN	0.690 Abs [0.7085] {3.7 C	0.489 µg/L [0.466]	38.397 %Abs [39.4		0.050 - 2.000	M22G208

## Note

AB52643 has a Concentration of 4.66 ug/L. The 10X dilution factor was not added in the software.

Signature



Charles Hostetter 9/1/2022

## Assay Information

Assay Name: CYLINDROSPERMOPSIN\_  
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: M22G2084

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
8/31/2022 3:04:45 PM				
CYL Std 0	1.826 Abs	0.000 µg/L	R <sup>2</sup> =0.99800, 101.614 %Abs	RK1:32->A07@2
CYL Std 0	1.768 Abs [1.7970] {2.3 CV}	0.005 µg/L [0.003] {141.4 CV}	R <sup>2</sup> =0.99800, 98.386 %Abs	RK1:32->B07@2
CYL Std 1	1.560 Abs	0.042 µg/L	R <sup>2</sup> =0.99800, 86.811 %Abs	RK1:33->C07@2
CYL Std 1	1.548 Abs [1.5540] {0.5 CV}	0.045 µg/L [0.043] {4.9 CV}	R <sup>2</sup> =0.99800, 86.144 %Abs	RK1:33->D07@2
CYL Std 2	1.311 Abs	0.104 µg/L	R <sup>2</sup> =0.99800, 72.955 %Abs	RK1:34->E07@2
CYL Std 2	1.308 Abs [1.3095] {0.2 CV}	0.105 µg/L [0.104] {0.7 CV}	R <sup>2</sup> =0.99800, 72.788 %Abs	RK1:34->F07@3
CYL Std 3	0.937 Abs	0.267 µg/L	R <sup>2</sup> =0.99800, 52.142 %Abs	RK1:35->G07@3
CYL Std 3	0.926 Abs [0.9315] {0.8 CV}	0.274 µg/L [0.271] {1.8 CV}	R <sup>2</sup> =0.99800, 51.530 %Abs	RK1:35->H07@3
CYL Std 4	0.736 Abs	0.434 µg/L	R <sup>2</sup> =0.99800, 40.957 %Abs	RK1:36->A08@2
CYL Std 4	0.699 Abs [0.7175] {3.6 CV}	0.477 µg/L [0.456] {6.7 CV}	R <sup>2</sup> =0.99800, 38.898 %Abs	RK1:36->B08@2
CYL Std 5	0.457 Abs	0.970 µg/L	R <sup>2</sup> =0.99800, 25.431 %Abs	RK1:37->C08@2
CYL Std 5	0.447 Abs [0.4520] {1.6 CV}	1.005 µg/L [0.988] {2.5 CV}	R <sup>2</sup> =0.99800, 24.875 %Abs	RK1:37->D08@2
CYL Std 6	0.284 Abs	> 2.000 µg/L	15.804 %Abs	RK1:38->E08@2
CYL Std 6	0.272 Abs [0.2780] {3.1 CV}	> 2.000 µg/L	15.136 %Abs	RK1:38->F08@3
*****				
8/31/2022 3:04:45 PM				
CYL QCS	0.511 Abs	0.811 µg/L	28.436 %Abs	RK1:39->G08@3
CYL QCS	0.505 Abs [0.5080] {0.8 CV}	0.827 µg/L [0.819] {1.4 CV}	28.102 %Abs [28.269 %Abs]	RK1:39->H08@3
*****				
Statistic				
CYL Std 0 [MEAN]	1.7970	0.0025		
CYL Std 0 [SD]	0.0410	0.0035		
CYL Std 0 [%CV]	2.2823	141.4214		
CYL Std 1 [MEAN]	1.5540	0.0435		
CYL Std 1 [SD]	0.0085	0.0021		
CYL Std 1 [%CV]	0.5460	4.8766		
CYL Std 1 [%DIFF]		-13.0000		
CYL Std 2 [MEAN]	1.3095	0.1045		
CYL Std 2 [SD]	0.0021	0.0007		
CYL Std 2 [%CV]	0.1620	0.6767		
CYL Std 2 [%DIFF]		4.5000		
CYL Std 3 [MEAN]	0.9315	0.2705		
CYL Std 3 [SD]	0.0078	0.0049		
CYL Std 3 [%CV]	0.8350	1.8299		
CYL Std 3 [%DIFF]		8.2000		
CYL Std 4 [MEAN]	0.7175	0.4555		
CYL Std 4 [SD]	0.0262	0.0304		
CYL Std 4 [%CV]	3.6464	6.6752		
CYL Std 4 [%DIFF]		-8.9000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.4520	0.9875		
CYL Std 5 [SD]	0.0071	0.0247		
CYL Std 5 [%CV]	1.5644	2.5062		
CYL Std 5 [%DIFF]		-1.2500		
CYL Std 6 [MEAN]	0.2780			
CYL Std 6 [SD]	0.0085			
CYL Std 6 [%CV]	3.0523			
CYL QCS [MEAN]	0.5080	0.8190		
CYL QCS [SD]	0.0042	0.0113		
CYL QCS [%CV]	0.8352	1.3814		

#### Assay Curve

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

Weight: NONE

A = 1.8057

B = 0.98113

C = 0.26296

D = 0.082398

R2 coef = 0.99800

50% = 0.293

