



## 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>
AC03626	Cecil M. Harden Lake - Raccoon Lake SRA Beach	7/24/2023	7/26/2023	< 0.15
AC03627	Cagles Mill Lake - Lieber SRA Beach	7/24/2023	7/26/2023	< 0.15
AC03628	Starve Hollow SRA - Starve Hollow Lake Beach	7/24/2023	7/26/2023	< 0.15
AC03629	Whitewater Memorial SP - Whitewater Lake Beach	7/25/2023	7/26/2023	< 0.15
AC03630	Brookville Lake - Quakertown SRA Beach	7/25/2023	7/26/2023	< 0.15
AC03631	Hardy Lake SRA - Hardy Lake SRA Beach	7/25/2023	7/26/2023	< 0.15
AC03632	Cagles Mill Lake - Lieber SRA Beach (Field Duplicate)	7/24/2023	7/26/2023	< 0.15
AC03633	Field Blank	7/24/2023	7/26/2023	< 0.15
AC03634	Ft. Ben Harrison SP Dog Lake	7/25/2023	7/26/2023	< 0.15

# Test Report (by Request)

**Test Information**

Request: 7/26/2023 3:42:39 PM  
Date: 7/26/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.056 Abs	0.003 µg/L	R <sup>2</sup> =0.99970, 99.24		0.000	Kit:P23C0
CYL Std 0	CYLINDROSPERMOPSIN	1.071 Abs [1.0635] {1.0 C	0.000 µg/L [0.002]	R <sup>2</sup> =0.99970, 100.6		0.000	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	0.894 Abs	0.047 µg/L	R <sup>2</sup> =0.99970, 84.02		0.050	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	0.888 Abs [0.8910] {0.5 C	0.048 µg/L [0.048]	R <sup>2</sup> =0.99970, 83.45		0.050	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.730 Abs	0.102 µg/L	R <sup>2</sup> =0.99970, 68.60		0.100	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.725 Abs [0.7275] {0.5 C	0.104 µg/L [0.103]	R <sup>2</sup> =0.99970, 68.13		0.100	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.482 Abs	0.249 µg/L	R <sup>2</sup> =0.99970, 45.30		0.250	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.474 Abs [0.4780] {1.2 C	0.256 µg/L [0.253]	R <sup>2</sup> =0.99970, 44.54		0.250	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.318 Abs	0.479 µg/L	R <sup>2</sup> =0.99970, 29.88		0.500	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.303 Abs [0.3105] {3.4 C	0.514 µg/L [0.497]	R <sup>2</sup> =0.99970, 28.47		0.500	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.200 Abs	0.942 µg/L	R <sup>2</sup> =0.99970, 18.79		1.000	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.200 Abs [0.2000] {0.0 C	0.942 µg/L [0.942]	R <sup>2</sup> =0.99970, 18.79		1.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.123 Abs	> 2.000 µg/L	11.560 %Abs		2.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.116 Abs [0.1195] {4.1 C	> 2.000 µg/L	10.902 %Abs		2.000	Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.230 Abs	0.767 µg/L	21.617 %Abs			Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.228 Abs [0.2290] {0.6 C	0.777 µg/L [0.772]	21.429 %Abs [21.5			Kit:P23C0

**Note**

Signature *David Jordan*

David Jordan 7/26/2023

\* 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) 7/26/2023 4:25:07 PM

# Test Report (by Request)

**Test Information**

Request: 7/26/2023 3:43:49 PM  
Date: 7/26/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.133 Abs	0.000 µg/L	Low, 106.485 %Abs		0.050 - 2.000	Kit:P23C0
LRB (CYL)	CYLINDROSPERMOPSIN	1.107 Abs [1.1200] {1.6 C	0.000 µg/L [0.000]	Low, 104.041 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.285 Abs	0.562 µg/L	26.786 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.278 Abs [0.2815] {1.8 C	0.583 µg/L [0.573]	26.128 %Abs [26.4		0.050 - 2.000	Kit:P23C0
AC03626	CYLINDROSPERMOPSIN	1.096 Abs	0.000 µg/L	Low, 103.008 %Abs		0.050 - 2.000	Kit:P23C0
AC03626	CYLINDROSPERMOPSIN	1.093 Abs [1.0945] {0.2 C	0.000 µg/L [0.000]	Low, 102.726 %Abs		0.050 - 2.000	Kit:P23C0
AC03627	CYLINDROSPERMOPSIN	1.108 Abs	0.000 µg/L	Low, 104.135 %Abs		0.050 - 2.000	Kit:P23C0
AC03627	CYLINDROSPERMOPSIN	1.094 Abs [1.1010] {0.9 C	0.000 µg/L [0.000]	Low, 102.820 %Abs		0.050 - 2.000	Kit:P23C0
AC03628	CYLINDROSPERMOPSIN	1.120 Abs	0.000 µg/L	Low, 105.263 %Abs		0.050 - 2.000	Kit:P23C0
AC03628	CYLINDROSPERMOPSIN	1.103 Abs [1.1115] {1.1 C	0.000 µg/L [0.000]	Low, 103.665 %Abs		0.050 - 2.000	Kit:P23C0
AC03629	CYLINDROSPERMOPSIN	1.083 Abs	0.000 µg/L	Low, 101.786 %Abs		0.050 - 2.000	Kit:P23C0
AC03629	CYLINDROSPERMOPSIN	1.090 Abs [1.0865] {0.5 C	0.000 µg/L [0.000]	Low, 102.444 %Abs		0.050 - 2.000	Kit:P23C0
AC03629MS	CYLINDROSPERMOPSIN	0.301 Abs	0.519 µg/L	28.289 %Abs		0.050 - 2.000	Kit:P23C0
AC03629MS	CYLINDROSPERMOPSIN	0.312 Abs [0.3065] {2.5 C	0.493 µg/L [0.506]	29.323 %Abs [28.8		0.050 - 2.000	Kit:P23C0
AC03629MSD	CYLINDROSPERMOPSIN	0.308 Abs	0.502 µg/L	28.947 %Abs		0.050 - 2.000	Kit:P23C0
AC03629MSD	CYLINDROSPERMOPSIN	0.313 Abs [0.3105] {1.1 C	0.490 µg/L [0.496]	29.417 %Abs [29.1		0.050 - 2.000	Kit:P23C0
AC03630	CYLINDROSPERMOPSIN	1.141 Abs	0.000 µg/L	Low, 107.237 %Abs		0.050 - 2.000	Kit:P23C0
AC03630	CYLINDROSPERMOPSIN	1.112 Abs [1.1265] {1.8 C	0.000 µg/L [0.000]	Low, 104.511 %Abs		0.050 - 2.000	Kit:P23C0
AC03631	CYLINDROSPERMOPSIN	1.100 Abs	0.000 µg/L	Low, 103.383 %Abs		0.050 - 2.000	Kit:P23C0
AC03631	CYLINDROSPERMOPSIN	1.111 Abs [1.1055] {0.7 C	0.000 µg/L [0.000]	Low, 104.417 %Abs		0.050 - 2.000	Kit:P23C0
AC03632	CYLINDROSPERMOPSIN	1.117 Abs	0.000 µg/L	Low, 104.981 %Abs		0.050 - 2.000	Kit:P23C0
AC03632	CYLINDROSPERMOPSIN	1.132 Abs [1.1245] {0.9 C	0.000 µg/L [0.000]	Low, 106.391 %Abs		0.050 - 2.000	Kit:P23C0
AC03633	CYLINDROSPERMOPSIN	1.110 Abs	0.000 µg/L	Low, 104.323 %Abs		0.050 - 2.000	Kit:P23C0
AC03633	CYLINDROSPERMOPSIN	1.107 Abs [1.1085] {0.2 C	0.000 µg/L [0.000]	Low, 104.041 %Abs		0.050 - 2.000	Kit:P23C0
AC03634	CYLINDROSPERMOPSIN	1.048 Abs	0.006 µg/L	Low, 98.496 %Abs		0.050 - 2.000	Kit:P23C0
AC03634	CYLINDROSPERMOPSIN	1.036 Abs [1.0420] {0.8 C	0.009 µg/L [0.008]	Low, 97.368 %Abs		0.050 - 2.000	Kit:P23C0

**Note**

Signature *David Jordan*

David Jordan 7/26/2023

\* 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) 7/26/2023 4:25:07 PM

**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:P23C0657

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>7/26/2023 3:42:39 PM</b>				
CYL Std 0	1.056 Abs	0.003 µg/L	R <sup>2</sup> =0.99970, 99.248 %Abs	RK1:32->A07@2
CYL Std 0	1.071 Abs [1.0635] {1.0 CV}	0.000 µg/L [0.002] {141.4 CV}	R <sup>2</sup> =0.99970, 100.658 %Abs	RK1:32->B07@2
CYL Std 1	0.894 Abs	0.047 µg/L	R <sup>2</sup> =0.99970, 84.023 %Abs	RK1:33->C07@2
CYL Std 1	0.888 Abs [0.8910] {0.5 CV}	0.048 µg/L [0.048] {1.5 CV}	R <sup>2</sup> =0.99970, 83.459 %Abs	RK1:33->D07@2
CYL Std 2	0.730 Abs	0.102 µg/L	R <sup>2</sup> =0.99970, 68.609 %Abs	RK1:34->E07@2
CYL Std 2	0.725 Abs [0.7275] {0.5 CV}	0.104 µg/L [0.103] {1.4 CV}	R <sup>2</sup> =0.99970, 68.139 %Abs	RK1:34->F07@3
CYL Std 3	0.482 Abs	0.249 µg/L	R <sup>2</sup> =0.99970, 45.301 %Abs	RK1:35->G07@3
CYL Std 3	0.474 Abs [0.4780] {1.2 CV}	0.256 µg/L [0.253] {2.0 CV}	R <sup>2</sup> =0.99970, 44.549 %Abs	RK1:35->H07@3
CYL Std 4	0.318 Abs	0.479 µg/L	R <sup>2</sup> =0.99970, 29.887 %Abs	RK1:36->A08@2
CYL Std 4	0.303 Abs [0.3105] {3.4 CV}	0.514 µg/L [0.497] {5.0 CV}	R <sup>2</sup> =0.99970, 28.477 %Abs	RK1:36->B08@2
CYL Std 5	0.200 Abs	0.942 µg/L	R <sup>2</sup> =0.99970, 18.797 %Abs	RK1:37->C08@2
CYL Std 5	0.200 Abs [0.2000] {0.0 CV}	0.942 µg/L [0.942] {0.0 CV}	R <sup>2</sup> =0.99970, 18.797 %Abs	RK1:37->D08@2
CYL Std 6	0.123 Abs	> 2.000 µg/L	11.560 %Abs	RK1:38->E08@2
CYL Std 6	0.116 Abs [0.1195] {4.1 CV}	> 2.000 µg/L	10.902 %Abs	RK1:38->F08@3
+++++				
<b>7/26/2023 3:42:39 PM</b>				
CYL QCS	0.230 Abs	0.767 µg/L	21.617 %Abs	RK1:39->G08@3
CYL QCS	0.228 Abs [0.2290] {0.6 CV}	0.777 µg/L [0.772] {0.9 CV}	21.429 %Abs [21.523 %Abs]	RK1:39->H08@3
*****				
<b>Statistic</b>				
CYL Std 0 [MEAN]	1.0635	0.0015		
CYL Std 0 [SD]	0.0106	0.0021		
CYL Std 0 [%CV]	0.9973	141.4214		
CYL Std 1 [MEAN]	0.8910	0.0475		
CYL Std 1 [SD]	0.0042	0.0007		
CYL Std 1 [%CV]	0.4762	1.4886		
CYL Std 1 [%DIFF]		-5.0000		
CYL Std 2 [MEAN]	0.7275	0.1030		
CYL Std 2 [SD]	0.0035	0.0014		
CYL Std 2 [%CV]	0.4860	1.3730		
CYL Std 2 [%DIFF]		3.0000		
CYL Std 3 [MEAN]	0.4780	0.2525		
CYL Std 3 [SD]	0.0057	0.0049		
CYL Std 3 [%CV]	1.1834	1.9603		
CYL Std 3 [%DIFF]		1.0000		
CYL Std 4 [MEAN]	0.3105	0.4965		
CYL Std 4 [SD]	0.0106	0.0247		
CYL Std 4 [%CV]	3.4160	4.9846		
CYL Std 4 [%DIFF]		-0.7000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2000	0.9420		
CYL Std 5 [SD]	0.0000	0.0000		
CYL Std 5 [%CV]	0.0000	0.0000		
CYL Std 5 [%DIFF]		-5.8000		
CYL Std 6 [MEAN]	0.1195			
CYL Std 6 [SD]	0.0049			
CYL Std 6 [%CV]	4.1421			
CYL QCS [MEAN]	0.2290	0.7720		
CYL QCS [SD]	0.0014	0.0071		
CYL QCS [%CV]	0.6176	0.9159		

**Assay Curve**

$y = (A-D)/(1+(x/C)^B) + D$   
 Weight: NONE  
 A = 1.0664  
 B = 1.1392  
 C = 0.18551  
 D = 0.063952  
 R2 coef = 0.99970  
 50% = 0.208

