



## Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB48329	Raccoon Lake SRA	8/23/2021	8/25/2021	< 0.15
AB48330	Cagles Mill Lake Beach	8/23/2021	8/25/2021	< 0.15
AB48331	Paynetown SRA	8/23/2021	8/25/2021	< 0.15
AB48332	Fairfax SRA	8/23/2021	8/25/2021	< 0.15
AB48333	Starve Hollow SRA	8/23/2021	8/25/2021	< 0.15
AB48334	Whitewater Memorial SP	8/24/2021	8/25/2021	< 0.15
AB48335	Mounds SRA	8/24/2021	8/25/2021	< 0.15
AB48336	Hardy Lake SRA	8/24/2021	8/25/2021	< 0.15
AB48337	Starve Hollow SRA (Field Duplicate)	8/23/2021	8/25/2021	< 0.15
AB48338	Field Blank	8/23/2021	8/25/2021	< 0.15
AB48373	Kunkel Beach @ Ouabache SP	8/23/2021	8/25/2021	< 0.15

# Test Report (by Request)

## Test Information

Request: 8/26/2021 8:11:20 AM  
Date: 8/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.142 Abs	0.002 µg/L	R^2=0.99879, 99.6%			M21B4676
CYL Std 0	CYLINDROSPERMOPSIN	1.150 Abs [1.1460] {0.5 C	0.000 µg/L [0.001]	R^2=0.99879, 100.3%			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	0.994 Abs	0.049 µg/L	R^2=0.99879, 86.7%			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	1.013 Abs [1.0035] {1.3 C	0.042 µg/L [0.045]	R^2=0.99879, 88.3%			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.857 Abs	0.107 µg/L	R^2=0.99879, 74.7%			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.883 Abs [0.8700] {2.1 C	0.095 µg/L [0.101]	R^2=0.99879, 77.0%			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.646 Abs	0.251 µg/L	R^2=0.99879, 56.3%			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.608 Abs [0.6270] {4.3 C	0.289 µg/L [0.270]	R^2=0.99879, 53.0%			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.481 Abs	0.465 µg/L	R^2=0.99879, 41.9%			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.471 Abs [0.4760] {1.5 C	0.484 µg/L [0.475]	R^2=0.99879, 41.0%			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.317 Abs	0.951 µg/L	R^2=0.99879, 27.6%			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.314 Abs [0.3155] {0.7 C	0.965 µg/L [0.958]	R^2=0.99879, 27.4%			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.192 Abs	> 2.000 µg/L	16.754 %Abs			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.190 Abs [0.1910] {0.7 C	> 2.000 µg/L	16.579 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.355 Abs	0.790 µg/L	30.977 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.360 Abs [0.3575] {1.0 C	0.772 µg/L [0.781]	31.414 %Abs [31.1			M21B4676

## Note

Signature

*David Jordan*

David Jordan 8/25/2021

## Test Information

Request: 8/26/2021 8:12:57 AM  
Date: 8/26/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	1.107 Abs	0.012 µg/L	Low, 96.597 %Abs		0.050 - 2.000	M21B467f
LRB	CYLINDROSPERMOPSIN	1.124 Abs [1.1155] {1.1 C	0.007 µg/L [0.010]	Low, 98.080 %Abs		0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.440 Abs	0.547 µg/L	38.394 %Abs		0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.424 Abs [0.4320] {2.6 C	0.584 µg/L [0.566]	36.998 %Abs [37.6		0.050 - 2.000	M21B467f
AB48329	CYLINDROSPERMOPSIN	1.090 Abs	0.017 µg/L	Low, 95.113 %Abs		0.050 - 2.000	M21B467f
AB48329	CYLINDROSPERMOPSIN	1.092 Abs [1.0910] {0.1 C	0.016 µg/L [0.017]	Low, 95.288 %Abs		0.050 - 2.000	M21B467f
AB48330	CYLINDROSPERMOPSIN	1.108 Abs	0.012 µg/L	Low, 96.684 %Abs		0.050 - 2.000	M21B467f
AB48330	CYLINDROSPERMOPSIN	1.100 Abs [1.1040] {0.5 C	0.014 µg/L [0.013]	Low, 95.986 %Abs		0.050 - 2.000	M21B467f
AB48331	CYLINDROSPERMOPSIN	1.083 Abs	0.019 µg/L	Low, 94.503 %Abs		0.050 - 2.000	M21B467f
AB48331	CYLINDROSPERMOPSIN	1.080 Abs [1.0815] {0.2 C	0.020 µg/L [0.019]	Low, 94.241 %Abs		0.050 - 2.000	M21B467f
AB48332	CYLINDROSPERMOPSIN	1.068 Abs	0.024 µg/L	Low, 93.194 %Abs		0.050 - 2.000	M21B467f
AB48332	CYLINDROSPERMOPSIN	1.048 Abs [1.0580] {1.3 C	0.030 µg/L [0.027]	Low, 91.449 %Abs		0.050 - 2.000	M21B467f
AB48333	CYLINDROSPERMOPSIN	1.049 Abs	0.030 µg/L	Low, 91.536 %Abs		0.050 - 2.000	M21B467f
AB48333	CYLINDROSPERMOPSIN	1.060 Abs [1.0545] {0.7 C	0.026 µg/L [0.028]	Low, 92.496 %Abs		0.050 - 2.000	M21B467f
AB48334	CYLINDROSPERMOPSIN	1.051 Abs	0.029 µg/L	Low, 91.710 %Abs		0.050 - 2.000	M21B467f
AB48334	CYLINDROSPERMOPSIN	1.060 Abs [1.0555] {0.6 C	0.026 µg/L [0.027]	Low, 92.496 %Abs		0.050 - 2.000	M21B467f
AB48334MS	CYLINDROSPERMOPSIN	0.428 Abs	0.575 µg/L	37.347 %Abs		0.050 - 2.000	M21B467f
AB48334MS	CYLINDROSPERMOPSIN	0.415 Abs [0.4215] {2.2 C	0.607 µg/L [0.591]	36.213 %Abs [36.7		0.050 - 2.000	M21B467f
AB48334MSD	CYLINDROSPERMOPSIN	0.424 Abs	0.584 µg/L	36.998 %Abs		0.050 - 2.000	M21B467f
AB48334MSD	CYLINDROSPERMOPSIN	0.405 Abs [0.4145] {3.2 C	0.633 µg/L [0.609]	35.340 %Abs [36.1		0.050 - 2.000	M21B467f
AB48335	CYLINDROSPERMOPSIN	1.023 Abs	0.038 µg/L	Low, 89.267 %Abs		0.050 - 2.000	M21B467f
AB48335	CYLINDROSPERMOPSIN	1.025 Abs [1.0240] {0.1 C	0.038 µg/L [0.038]	Low, 89.442 %Abs		0.050 - 2.000	M21B467f
AB48336	CYLINDROSPERMOPSIN	1.027 Abs	0.037 µg/L	Low, 89.616 %Abs		0.050 - 2.000	M21B467f
AB48336	CYLINDROSPERMOPSIN	1.025 Abs [1.0260] {0.1 C	0.038 µg/L [0.038]	Low, 89.442 %Abs		0.050 - 2.000	M21B467f
AB48337	CYLINDROSPERMOPSIN	1.104 Abs	0.013 µg/L	Low, 96.335 %Abs		0.050 - 2.000	M21B467f
AB48337	CYLINDROSPERMOPSIN	1.036 Abs [1.0700] {4.5 C	0.034 µg/L [0.024]	Low, 90.401 %Abs		0.050 - 2.000	M21B467f
AB48338	CYLINDROSPERMOPSIN	1.033 Abs	0.035 µg/L	Low, 90.140 %Abs		0.050 - 2.000	M21B467f
AB48338	CYLINDROSPERMOPSIN	1.010 Abs [1.0215] {1.6 C	0.043 µg/L [0.039]	Low, 88.133 %Abs		0.050 - 2.000	M21B467f
AB48373	CYLINDROSPERMOPSIN	1.017 Abs	0.040 µg/L	Low, 88.743 %Abs		0.050 - 2.000	M21B467f
AB48373	CYLINDROSPERMOPSIN	0.964 Abs [0.9905] {3.8 C	0.060 µg/L [0.050]	84.119 %Abs [86.4		0.050 - 2.000	M21B467f

## Note

Signature

*David Jordan*

David Jordan 8/25/2021

## 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:  
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 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: M21B4676

## Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position
8/26/2021 8:11:20 AM				
CYL Std 0	1.142 Abs	0.002 µg/L	R <sup>2</sup> =0.99879, 99.651 %Abs	RK1:23->A01@2
CYL Std 0	1.150 Abs [1.1460] {0.5 CV}	0.000 µg/L [0.001] {141.4 CV}	R <sup>2</sup> =0.99879, 100.349 %Abs	RK1:23->B01@2
CYL Std 1	0.994 Abs	0.049 µg/L	R <sup>2</sup> =0.99879, 86.736 %Abs	RK1:24->C01@2
CYL Std 1	1.013 Abs [1.0035] {1.3 CV}	0.042 µg/L [0.045] {10.9 CV}	R <sup>2</sup> =0.99879, 88.394 %Abs	RK1:24->D01@2
CYL Std 2	0.857 Abs	0.107 µg/L	R <sup>2</sup> =0.99879, 74.782 %Abs	RK1:25->E01@2
CYL Std 2	0.883 Abs [0.8700] {2.1 CV}	0.095 µg/L [0.101] {8.4 CV}	R <sup>2</sup> =0.99879, 77.051 %Abs	RK1:25->F01@3
CYL Std 3	0.646 Abs	0.251 µg/L	R <sup>2</sup> =0.99879, 56.370 %Abs	RK1:26->G01@3
CYL Std 3	0.608 Abs [0.6270] {4.3 CV}	0.289 µg/L [0.270] {10.0 CV}	R <sup>2</sup> =0.99879, 53.054 %Abs	RK1:26->H01@3
CYL Std 4	0.481 Abs	0.465 µg/L	R <sup>2</sup> =0.99879, 41.972 %Abs	RK1:27->A02@2
CYL Std 4	0.471 Abs [0.4760] {1.5 CV}	0.484 µg/L [0.475] {2.8 CV}	R <sup>2</sup> =0.99879, 41.099 %Abs	RK1:27->B02@2
CYL Std 5	0.317 Abs	0.951 µg/L	R <sup>2</sup> =0.99879, 27.661 %Abs	RK1:28->C02@2
CYL Std 5	0.314 Abs [0.3155] {0.7 CV}	0.965 µg/L [0.958] {1.0 CV}	R <sup>2</sup> =0.99879, 27.400 %Abs	RK1:28->D02@2
CYL Std 6	0.192 Abs	> 2.000 µg/L	16.754 %Abs	RK1:29->E02@2
CYL Std 6	0.190 Abs [0.1910] {0.7 CV}	> 2.000 µg/L	16.579 %Abs	RK1:29->F02@3
*****				
8/26/2021 8:11:20 AM				
CYL QCS	0.355 Abs	0.790 µg/L	30.977 %Abs	RK1:30->G02@3
CYL QCS	0.360 Abs [0.3575] {1.0 CV}	0.772 µg/L [0.781] {1.6 CV}	31.414 %Abs [31.195 %Abs]	RK1:30->H02@3
*****				
Statistic				
CYL Std 0 [MEAN]	1.1460	0.0010		
CYL Std 0 [SD]	0.0057	0.0014		
CYL Std 0 [%CV]	0.4936	141.4214		
CYL Std 1 [MEAN]	1.0035	0.0455		
CYL Std 1 [SD]	0.0134	0.0049		
CYL Std 1 [%CV]	1.3388	10.8786		
CYL Std 1 [%DIFF]		-9.0000		
CYL Std 2 [MEAN]	0.8700	0.1010		
CYL Std 2 [SD]	0.0184	0.0085		
CYL Std 2 [%CV]	2.1132	8.4013		
CYL Std 2 [%DIFF]		1.0000		
CYL Std 3 [MEAN]	0.6270	0.2700		
CYL Std 3 [SD]	0.0269	0.0269		
CYL Std 3 [%CV]	4.2855	9.9519		
CYL Std 3 [%DIFF]		8.0000		
CYL Std 4 [MEAN]	0.4760	0.4745		
CYL Std 4 [SD]	0.0071	0.0134		
CYL Std 4 [%CV]	1.4855	2.8314		
CYL Std 4 [%DIFF]		-5.1000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3155	0.9580		
CYL Std 5 [SD]	0.0021	0.0099		
CYL Std 5 [%CV]	0.6724	1.0334		
CYL Std 5 [%DIFF]		-4.2000		
CYL Std 6 [MEAN]	0.1910			
CYL Std 6 [SD]	0.0014			
CYL Std 6 [%CV]	0.7404			
CYL QCS [MEAN]	0.3575	0.7810		
CYL QCS [SD]	0.0035	0.0127		
CYL QCS [%CV]	0.9890	1.6297		

#### Assay Curve

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

Weight: NONE

A = 1.1508

B = 0.99530

C = 0.29229

D = 0.059210

R2 coef = 0.99879

50% = 0.329

