



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB47937	Raccoon Lake SRA	7/12/2021	7/14/2021	< 0.015
AB47939	Cagles Mill Lake Beach	7/12/2021	7/14/2021	< 0.015
AB47940	Paynetown SRA	7/12/2021	7/14/2021	< 0.015
AB47941	Fairfax SRA	7/12/2021	7/14/2021	< 0.015
AB47942	Starve Hollow SRA	7/12/2021	7/14/2021	< 0.015
AB47943	Whitewater Memorial SP	7/13/2021	7/14/2021	< 0.015
AB47944	Quakertown SRA	7/13/2021	7/14/2021	< 0.015
AB47945	Mounds SRA	7/13/2021	7/14/2021	< 0.015
AB47946	Hardy Lake SRA	7/13/2021	7/14/2021	< 0.015
AB47938	Deam Lake SRA	7/13/2021	7/14/2021	< 0.015
AB47947	Hardy Lake SRA (Field Duplicate)	7/13/2021	7/14/2021	< 0.015
AB47948	Field Blank	7/12/2021	7/14/2021	< 0.015
AB47959	Ft. Ben Harrison SP Dog Lake - East	7/13/2021	7/14/2021	< 0.015

Test Report (by Request)

Test Information

Request: 7/14/2021 5:08:17 PM
 Date: 7/14/2021 - 7/14/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.143 Abs	0.001 µg/L	R^2=0.99606, 99.82			M21B4676
CYL Std 0	CYLINDROSPERMOPSIN	1.146 Abs [1.1445] {0.2 C	0.000 µg/L [0.001]	R^2=0.99606, 100.0			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	0.971 Abs	0.038 µg/L	R^2=0.99606, 84.80			M21B4676
CYL Std 1	CYLINDROSPERMOPSIN	0.938 Abs [0.9545] {2.4 C	0.047 µg/L [0.042]	R^2=0.99606, 81.92			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.798 Abs	0.102 µg/L	R^2=0.99606, 69.65			M21B4676
CYL Std 2	CYLINDROSPERMOPSIN	0.775 Abs [0.7865] {2.1 C	0.114 µg/L [0.108]	R^2=0.99606, 67.68			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.565 Abs	0.275 µg/L	R^2=0.99606, 49.34			M21B4676
CYL Std 3	CYLINDROSPERMOPSIN	0.557 Abs [0.5610] {1.0 C	0.284 µg/L [0.280]	R^2=0.99606, 48.64			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.475 Abs	0.399 µg/L	R^2=0.99606, 41.48			M21B4676
CYL Std 4	CYLINDROSPERMOPSIN	0.441 Abs [0.4580] {5.2 C	0.462 µg/L [0.431]	R^2=0.99606, 38.51			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.293 Abs	0.950 µg/L	R^2=0.99606, 25.55			M21B4676
CYL Std 5	CYLINDROSPERMOPSIN	0.269 Abs [0.2810] {6.0 C	1.092 µg/L [1.021]	R^2=0.99606, 23.45			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.174 Abs	> 2.000 µg/L	15.197 %Abs			M21B4676
CYL Std 6	CYLINDROSPERMOPSIN	0.179 Abs [0.1765] {2.0 C	> 2.000 µg/L	15.633 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.341 Abs	0.736 µg/L	29.782 %Abs			M21B4676
CYL QCS	CYLINDROSPERMOPSIN	0.328 Abs [0.3345] {2.7 C	0.787 µg/L [0.762]	28.646 %Abs [29.2			M21B4676

Note

Signature _____

Charles Hostetter 7/15/21

Test Report (by Request)

Test Information

 Request: 7/14/2021 5:09:40 PM
 Date: 7/14/2021 - 7/14/2021

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB	CYLINDROSPERMOPSIN	1.125 Abs	0.003 µg/L	Low, 98.253 %Abs		0.050 - 2.000	M21B467f
LRB	CYLINDROSPERMOPSIN	1.064 Abs [1.0945] {3.9 C	0.015 µg/L [0.009]			0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.395 Abs	0.568 µg/L	34.498 %Abs		0.050 - 2.000	M21B467f
LFB	CYLINDROSPERMOPSIN	0.398 Abs [0.3965] {0.5 C	0.560 µg/L [0.564]	34.760 %Abs [34.6		0.050 - 2.000	M21B467f
AB47937	CYLINDROSPERMOPSIN	1.001 Abs	0.029 µg/L	Low, 87.424 %Abs		0.050 - 2.000	M21B467f
AB47937	CYLINDROSPERMOPSIN	1.008 Abs [1.0045] {0.5 C	0.028 µg/L [0.029]			0.050 - 2.000	M21B467f
AB47939	CYLINDROSPERMOPSIN	1.028 Abs	0.023 µg/L	Low, 89.782 %Abs		0.050 - 2.000	M21B467f
AB47939	CYLINDROSPERMOPSIN	1.076 Abs [1.0520] {3.2 C	0.012 µg/L [0.018]			0.050 - 2.000	M21B467f
AB47940	CYLINDROSPERMOPSIN	1.089 Abs	0.010 µg/L	Low, 95.109 %Abs		0.050 - 2.000	M21B467f
AB47940	CYLINDROSPERMOPSIN	1.040 Abs [1.0645] {3.3 C	0.020 µg/L [0.015]			0.050 - 2.000	M21B467f
AB47941	CYLINDROSPERMOPSIN	1.015 Abs	0.026 µg/L	Low, 88.646 %Abs		0.050 - 2.000	M21B467f
AB47941	CYLINDROSPERMOPSIN	1.054 Abs [1.0345] {2.7 C	0.017 µg/L [0.022]			0.050 - 2.000	M21B467f
AB47941MS	CYLINDROSPERMOPSIN	0.404 Abs	0.545 µg/L	35.284 %Abs		0.050 - 2.000	M21B467f
AB47941MS	CYLINDROSPERMOPSIN	0.389 Abs [0.3965] {2.7 C	0.584 µg/L [0.564]	33.974 %Abs [34.6		0.050 - 2.000	M21B467f
AB47941MSD	CYLINDROSPERMOPSIN	0.408 Abs	0.535 µg/L	35.633 %Abs		0.050 - 2.000	M21B467f
AB47941MSD	CYLINDROSPERMOPSIN	0.402 Abs [0.4050] {1.0 C	0.550 µg/L [0.543]	35.109 %Abs [35.3		0.050 - 2.000	M21B467f
AB47942	CYLINDROSPERMOPSIN	1.058 Abs	0.016 µg/L	Low, 92.402 %Abs		0.050 - 2.000	M21B467f
AB47942	CYLINDROSPERMOPSIN	1.027 Abs [1.0425] {2.1 C	0.023 µg/L [0.020]			0.050 - 2.000	M21B467f
AB47943	CYLINDROSPERMOPSIN	1.054 Abs	0.017 µg/L	Low, 92.052 %Abs		0.050 - 2.000	M21B467f
AB47943	CYLINDROSPERMOPSIN	1.064 Abs [1.0590] {0.7 C	0.015 µg/L [0.016]			0.050 - 2.000	M21B467f
AB47944	CYLINDROSPERMOPSIN	1.000 Abs	0.030 µg/L	Low, 87.336 %Abs		0.050 - 2.000	M21B467f
AB47944	CYLINDROSPERMOPSIN	0.991 Abs [0.9955] {0.6 C	0.032 µg/L [0.031]			0.050 - 2.000	M21B467f
AB47945	CYLINDROSPERMOPSIN	1.077 Abs	0.012 µg/L	Low, 94.061 %Abs		0.050 - 2.000	M21B467f
AB47945	CYLINDROSPERMOPSIN	1.089 Abs [1.0830] {0.8 C	0.010 µg/L [0.011]			0.050 - 2.000	M21B467f
AB47946	CYLINDROSPERMOPSIN	1.027 Abs	0.023 µg/L	Low, 89.694 %Abs		0.050 - 2.000	M21B467f
AB47946	CYLINDROSPERMOPSIN	1.042 Abs [1.0345] {1.0 C	0.019 µg/L [0.021]			0.050 - 2.000	M21B467f
AB47938	CYLINDROSPERMOPSIN	1.005 Abs	0.028 µg/L	Low, 87.773 %Abs		0.050 - 2.000	M21B467f
AB47938	CYLINDROSPERMOPSIN	1.006 Abs [1.0055] {0.1 C	0.028 µg/L [0.028]			0.050 - 2.000	M21B467f
AB47947	CYLINDROSPERMOPSIN	1.020 Abs	0.025 µg/L	Low, 89.083 %Abs		0.050 - 2.000	M21B467f
AB47947	CYLINDROSPERMOPSIN	1.032 Abs [1.0260] {0.8 C	0.022 µg/L [0.023]			0.050 - 2.000	M21B467f
AB47948	CYLINDROSPERMOPSIN	1.053 Abs	0.017 µg/L	Low, 91.965 %Abs		0.050 - 2.000	M21B467f
AB47948	CYLINDROSPERMOPSIN	1.048 Abs [1.0505] {0.3 C	0.018 µg/L [0.018]			0.050 - 2.000	M21B467f
AB47959	CYLINDROSPERMOPSIN	0.961 Abs	0.040 µg/L	Low, 83.930 %Abs		0.050 - 2.000	M21B467f
AB47959	CYLINDROSPERMOPSIN	0.923 Abs [0.9420] {2.9 C	0.052 µg/L [0.046]			0.050 - 2.000	M21B467f

Note

Signature

Charles Hostetter 7/15/21

Assay Information

Assay Name: CYLINDROSPERMOPSIS_
 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: M21B4676

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
7/14/2021 5:08:17 PM				
CYL Std 0	1.143 Abs	0.001 µg/L	R ² =0.99606, 99.825 %Abs	RK1:23->A01@2
CYL Std 0	1.146 Abs [1.1445] {0.2 CV}	0.000 µg/L [0.001] {141.4 CV}	R ² =0.99606, 100.000 %Abs	RK1:23->B01@2
CYL Std 1	0.971 Abs	0.038 µg/L	R ² =0.99606, 84.803 %Abs	RK1:24->C01@2
CYL Std 1	0.938 Abs [0.9545] {2.4 CV}	0.047 µg/L [0.042] {15.0 CV}	R ² =0.99606, 81.921 %Abs	RK1:24->D01@2
CYL Std 2	0.798 Abs	0.102 µg/L	R ² =0.99606, 69.694 %Abs	RK1:25->E01@2
CYL Std 2	0.775 Abs [0.7865] {2.1 CV}	0.114 µg/L [0.108] {7.9 CV}	R ² =0.99606, 67.686 %Abs	RK1:25->F01@3
CYL Std 3	0.565 Abs	0.275 µg/L	R ² =0.99606, 49.345 %Abs	RK1:26->G01@3
CYL Std 3	0.557 Abs [0.5610] {1.0 CV}	0.284 µg/L [0.280] {2.3 CV}	R ² =0.99606, 48.646 %Abs	RK1:26->H01@3
CYL Std 4	0.475 Abs	0.399 µg/L	R ² =0.99606, 41.485 %Abs	RK1:27->A02@2
CYL Std 4	0.441 Abs [0.4580] {5.2 CV}	0.462 µg/L [0.431] {10.3 CV}	R ² =0.99606, 38.515 %Abs	RK1:27->B02@2
CYL Std 5	0.293 Abs	0.950 µg/L	R ² =0.99606, 25.590 %Abs	RK1:28->C02@2
CYL Std 5	0.269 Abs [0.2810] {6.0 CV}	1.092 µg/L [1.021] {9.8 CV}	R ² =0.99606, 23.493 %Abs	RK1:28->D02@2
CYL Std 6	0.174 Abs	> 2.000 µg/L	15.197 %Abs	RK1:29->E02@2
CYL Std 6	0.179 Abs [0.1765] {2.0 CV}	> 2.000 µg/L	15.633 %Abs	RK1:29->F02@3

7/14/2021 5:08:17 PM				
CYL QCS	0.341 Abs	0.736 µg/L	29.782 %Abs	RK1:30->G02@3
CYL QCS	0.328 Abs [0.3345] {2.7 CV}	0.787 µg/L [0.762] {4.7 CV}	28.646 %Abs [29.214 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.1445	0.0005		
CYL Std 0 [SD]	0.0021	0.0007		
CYL Std 0 [%CV]	0.1854	141.4214		
CYL Std 1 [MEAN]	0.9545	0.0425		
CYL Std 1 [SD]	0.0233	0.0064		
CYL Std 1 [%CV]	2.4447	14.9740		
CYL Std 1 [%DIFF]		-15.0000		
CYL Std 2 [MEAN]	0.7865	0.1080		
CYL Std 2 [SD]	0.0163	0.0085		
CYL Std 2 [%CV]	2.0678	7.8567		
CYL Std 2 [%DIFF]		8.0000		
CYL Std 3 [MEAN]	0.5610	0.2795		
CYL Std 3 [SD]	0.0057	0.0064		
CYL Std 3 [%CV]	1.0084	2.2769		
CYL Std 3 [%DIFF]		11.8000		
CYL Std 4 [MEAN]	0.4580	0.4305		
CYL Std 4 [SD]	0.0240	0.0445		
CYL Std 4 [%CV]	5.2493	10.3479		
CYL Std 4 [%DIFF]		-13.9000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2810	1.0210		
CYL Std 5 [SD]	0.0170	0.1004		
CYL Std 5 [%CV]	6.0394	9.8344		
CYL Std 5 [%DIFF]		2.1000		
CYL Std 6 [MEAN]	0.1765			
CYL Std 6 [SD]	0.0035			
CYL Std 6 [%CV]	2.0031			
CYL QCS [MEAN]	0.3345	0.7615		
CYL QCS [SD]	0.0092	0.0361		
CYL QCS [%CV]	2.7481	4.7357		

Assay Curve

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

Weight: NONE

A = 1.1502

B = 0.87679

C = 0.25013

D = 0.026918

R2 coef = 0.99606

50% = 0.267

