



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43437	Summit Lake - State Park	7/21/2020	7/22/2020	<0.15
AB43439	Pokagon State Park	7/20/2020	7/22/2020	<0.15
AB43440	Potawatomi Inn's Beach	7/20/2020	7/22/2020	<0.15
AB43441	Chain O'Lakes SP	7/20/2020	7/22/2020	<0.15
AB43442	Potato Creek State Park	7/20/2020	7/22/2020	<0.15
AB43443	Lost Bridge West SRA	7/20/2020	7/22/2020	<0.15
AB43444	Mississinewa Lake Miami SRA	7/20/2020	7/22/2020	<0.15
AB43445	Pokagon State Park (Field Duplicate)	7/20/2020	7/22/2020	<0.15
AB43446	Field Blank	7/20/2020	7/22/2020	<0.15

Test Report (by Request)

Test Information

 Request: 7/22/2020 3:02:19 PM
 Date: 7/22/2020 - 7/22/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	0.515 Abs	0.014 µg/L	R ² =0.99866, 98.470		19G0261
CYL Std 0	CYLINDROSPERMOPSIN	0.531 Abs [0.5230] {2.2 CV}	0.000 µg/L [0.007] {1}	R ² =0.99866, 101.53		19G0261
CYL Std 1	CYLINDROSPERMOPSIN	0.501 Abs	0.036 µg/L	R ² =0.99866, 95.793		19G0261
CYL Std 1	CYLINDROSPERMOPSIN	0.492 Abs [0.4965] {1.3 CV}	0.050 µg/L [0.043] {2}	R ² =0.99866, 94.073		19G0261
CYL Std 2	CYLINDROSPERMOPSIN	0.458 Abs	0.108 µg/L	R ² =0.99866, 87.572		19G0261
CYL Std 2	CYLINDROSPERMOPSIN	0.456 Abs [0.4570] {0.3 CV}	0.112 µg/L [0.110] {2}	R ² =0.99866, 87.189		19G0261
CYL Std 3	CYLINDROSPERMOPSIN	0.396 Abs	0.241 µg/L	R ² =0.99866, 75.717		19G0261
CYL Std 3	CYLINDROSPERMOPSIN	0.399 Abs [0.3975] {0.5 CV}	0.234 µg/L [0.237] {2}	R ² =0.99866, 76.291		19G0261
CYL Std 4	CYLINDROSPERMOPSIN	0.315 Abs	0.513 µg/L	R ² =0.99866, 60.229		19G0261
CYL Std 4	CYLINDROSPERMOPSIN	0.309 Abs [0.3120] {1.4 CV}	0.541 µg/L [0.527] {3}	R ² =0.99866, 59.082		19G0261
CYL Std 5	CYLINDROSPERMOPSIN	0.244 Abs	0.962 µg/L	R ² =0.99866, 46.654		19G0261
CYL Std 5	CYLINDROSPERMOPSIN	0.247 Abs [0.2455] {0.9 CV}	0.936 µg/L [0.949] {1}	R ² =0.99866, 47.228		19G0261
CYL Std 6	CYLINDROSPERMOPSIN	0.175 Abs	> 2.000 µg/L	33.461 %Abs		19G0261
CYL Std 6	CYLINDROSPERMOPSIN	0.172 Abs [0.1735] {1.2 CV}	> 2.000 µg/L	32.887 %Abs		19G0261
CYL QCS	CYLINDROSPERMOPSIN	0.278 Abs	0.708 µg/L	53.155 %Abs		19G0261
CYL QCS	CYLINDROSPERMOPSIN	0.280 Abs [0.2790] {0.5 CV}	0.696 µg/L [0.702] {1}	53.537 %Abs [53.346]		19G0261

Note

Signature

Charles Hostetter 7/23/2020

Test Report (by Request)

Test Information

 Request: 7/22/2020 3:03:35 PM
 Date: 7/22/2020 - 7/22/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	CYLINDROSPERMOPSIN	0.531 Abs	0.000 µg/L	LOW, 101.530 %ABS	0.050 - 2.000	19G0261
LRB	CYLINDROSPERMOPSIN	0.533 Abs [0.5320] {0.3 CV}	0.000 µg/L [0.000]		0.050 - 2.000	19G0261
LFB	CYLINDROSPERMOPSIN	0.285 Abs	0.666 µg/L	54.493 %Abs	0.050 - 2.000	19G0261
LFB	CYLINDROSPERMOPSIN	0.280 Abs [0.2825] {1.3 CV}	0.696 µg/L [0.681] {3}	53.537 %Abs [54.015]	0.050 - 2.000	19G0261
AB43437	CYLINDROSPERMOPSIN	0.501 Abs	0.036 µg/L	LOW, 95.793 %ABS	0.050 - 2.000	19G0261
AB43437	CYLINDROSPERMOPSIN	0.494 Abs [0.4975] {1.0 CV}	0.047 µg/L [0.041] {1}		0.050 - 2.000	19G0261
AB43439	CYLINDROSPERMOPSIN	0.510 Abs	0.022 µg/L	LOW, 97.514 %ABS	0.050 - 2.000	19G0261
AB43439	CYLINDROSPERMOPSIN	0.515 Abs [0.5125] {0.7 CV}	0.014 µg/L [0.018] {3}		0.050 - 2.000	19G0261
AB43440	CYLINDROSPERMOPSIN	0.516 Abs	0.013 µg/L	LOW, 98.662 %ABS	0.050 - 2.000	19G0261
AB43440	CYLINDROSPERMOPSIN	0.517 Abs [0.5165] {0.1 CV}	0.011 µg/L [0.012] {1}		0.050 - 2.000	19G0261
AB43440MS	CYLINDROSPERMOPSIN	0.278 Abs	0.708 µg/L	53.155 %Abs	0.050 - 2.000	19G0261
AB43440MS	CYLINDROSPERMOPSIN	0.268 Abs [0.2730] {2.6 CV}	0.773 µg/L [0.740] {6}	51.243 %Abs [52.195]	0.050 - 2.000	19G0261
AB43440MSD	CYLINDROSPERMOPSIN	0.270 Abs	0.760 µg/L	51.625 %Abs	0.050 - 2.000	19G0261
AB43440MSD	CYLINDROSPERMOPSIN	0.266 Abs [0.2680] {1.1 CV}	0.787 µg/L [0.773] {2}	50.860 %Abs [51.243]	0.050 - 2.000	19G0261
AB43441	CYLINDROSPERMOPSIN	0.505 Abs	0.030 µg/L	LOW, 96.558 %ABS	0.050 - 2.000	19G0261
AB43441	CYLINDROSPERMOPSIN	0.507 Abs [0.5060] {0.3 CV}	0.027 µg/L [0.029] {7}		0.050 - 2.000	19G0261
AB43442	CYLINDROSPERMOPSIN	0.512 Abs	0.019 µg/L	LOW, 97.897 %ABS	0.050 - 2.000	19G0261
AB43442	CYLINDROSPERMOPSIN	0.523 Abs [0.5175] {1.5 CV}	0.002 µg/L [0.010] {1}		0.050 - 2.000	19G0261
AB43443	CYLINDROSPERMOPSIN	0.517 Abs	0.011 µg/L	LOW, 98.853 %ABS	0.050 - 2.000	19G0261
AB43443	CYLINDROSPERMOPSIN	0.514 Abs [0.5155] {0.4 CV}	0.016 µg/L [0.014] {2}		0.050 - 2.000	19G0261
AB43444	CYLINDROSPERMOPSIN	0.501 Abs	0.036 µg/L	LOW, 95.793 %ABS	0.050 - 2.000	19G0261
AB43444	CYLINDROSPERMOPSIN	0.516 Abs [0.5085] {2.1 CV}	0.013 µg/L [0.024] {6}		0.050 - 2.000	19G0261
AB43445	CYLINDROSPERMOPSIN	0.511 Abs	0.021 µg/L	LOW, 97.706 %ABS	0.050 - 2.000	19G0261
AB43445	CYLINDROSPERMOPSIN	0.504 Abs [0.5075] {1.0 CV}	0.031 µg/L [0.026] {2}		0.050 - 2.000	19G0261
AB43446	CYLINDROSPERMOPSIN	0.517 Abs	0.011 µg/L	LOW, 98.853 %ABS	0.050 - 2.000	19G0261
AB43446	CYLINDROSPERMOPSIN	0.522 Abs [0.5195] {0.7 CV}	0.004 µg/L [0.008] {6}		0.050 - 2.000	19G0261

Note

Signature

Charles Hostetter 7/23/2020

Assay Information

Assay Name: CYLINDROSPERMOP SIN
 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: 8/15/2019 12:26:24 PM
 Normal: 0.050 - 2.000
 # of decimals: 3
 Kit Lot Number: 19G0261

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
7/22/2020 3:02:19 PM				
CYL Std 0	0.515 Abs		R ² =0.99866, 98.470 %Abs	RK1:32->A07@2
CYL Std 0	0.531 Abs [0.5230] {2.2 CV}		R ² =0.99866, 101.530 %Abs	RK1:32->B07@2
CYL Std 1	0.501 Abs		R ² =0.99866, 95.793 %Abs	RK1:33->C07@2
CYL Std 1	0.492 Abs [0.4965] {1.3 CV}		R ² =0.99866, 94.073 %Abs	RK1:33->D07@2
CYL Std 2	0.458 Abs		R ² =0.99866, 87.572 %Abs	RK1:34->E07@2
CYL Std 2	0.456 Abs [0.4570] {0.3 CV}		R ² =0.99866, 87.189 %Abs	RK1:34->F07@3
CYL Std 3	0.396 Abs		R ² =0.99866, 75.717 %Abs	RK1:35->G07@3
CYL Std 3	0.399 Abs [0.3975] {0.5 CV}		R ² =0.99866, 76.291 %Abs	RK1:35->H07@3
CYL Std 4	0.315 Abs		R ² =0.99866, 60.229 %Abs	RK1:36->A08@2
CYL Std 4	0.309 Abs [0.3120] {1.4 CV}		R ² =0.99866, 59.082 %Abs	RK1:36->B08@2
CYL Std 5	0.244 Abs		R ² =0.99866, 46.654 %Abs	RK1:37->C08@2
CYL Std 5	0.247 Abs [0.2455] {0.9 CV}		R ² =0.99866, 47.228 %Abs	RK1:37->D08@2
CYL Std 6	0.175 Abs		33.461 %Abs	RK1:38->E08@2
CYL Std 6	0.172 Abs [0.1735] {1.2 CV}		32.887 %Abs	RK1:38->F08@3
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7/22/2020 3:02:19 PM				
CYL QCS	0.278 Abs		53.155 %Abs	RK1:39->G08@3
CYL QCS	0.280 Abs [0.2790] {0.5 CV}		53.537 %Abs [53.346 %Abs]	RK1:39->H08@3

Statistic				
CYL Std 0 [MEAN]	0.5230			
CYL Std 0 [SD]	0.0113			
CYL Std 0 [%CV]	2.1632			
CYL Std 1 [MEAN]	0.4965			
CYL Std 1 [SD]	0.0064			
CYL Std 1 [%CV]	1.2818			
CYL Std 1 [%DIFF]				
CYL Std 2 [MEAN]	0.4570			
CYL Std 2 [SD]	0.0014			
CYL Std 2 [%CV]	0.3095			
CYL Std 2 [%DIFF]				
CYL Std 3 [MEAN]	0.3975			
CYL Std 3 [SD]	0.0021			
CYL Std 3 [%CV]	0.5337			
CYL Std 3 [%DIFF]				
CYL Std 4 [MEAN]	0.3120			
CYL Std 4 [SD]	0.0042			
CYL Std 4 [%CV]	1.3598			
CYL Std 4 [%DIFF]				

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2455			
CYL Std 5 [SD]	0.0021			
CYL Std 5 [%CV]	0.8641			
CYL Std 5 [%DIFF]				
CYL Std 6 [MEAN]	0.1735			
CYL Std 6 [SD]	0.0021			
CYL Std 6 [%CV]	1.2227			
CYL QCS [MEAN]	0.2790			
CYL QCS [SD]	0.0014			
CYL QCS [%CV]	0.5069			

Assay Curve

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

Weight: NONE

A = 0.52443

B = 1.0427

C = 0.56899

D = 0.081811

R2 coef = 0.99866

50% = 0.820

