



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43914	Kunkel Lake @ Ouabache SP	8/31/2020	9/3/2020	< 0.15
AB43915	Deam Lake SRA	8/31/2020	9/3/2020	< 0.15
AB43916	Chain O'Lakes SP	8/31/2020	9/3/2020	< 0.15
AB43917	Deam Lake SRA (Field Duplicate)	8/31/2020	9/3/2020	< 0.15
AB43918	Field Blank	8/31/2020	9/3/2020	< 0.15
AB44105	Ft. Harrison SP Dog Lake	9/1/2020	9/3/2020	7.5

Test Report (by Request)

Test Information

 Request: 9/3/2020 6:50:30 PM
 Date: 9/3/2020 - 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	0.943 Abs	0.000 µg/L	R^2=0.99621, 100.85		19L2079
CYL Std 0	CYLINDROSPERMOPSIN	0.927 Abs [0.9350] {1.2 CV}	0.002 µg/L [0.001] {1}	R^2=0.99621, 99.144		19L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.842 Abs	0.036 µg/L	R^2=0.99621, 90.053		19L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.818 Abs [0.8300] {2.0 CV}	0.051 µg/L [0.043] {2}	R^2=0.99621, 87.487		19L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.759 Abs	0.095 µg/L	R^2=0.99621, 81.176		19L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.748 Abs [0.7535] {1.0 CV}	0.104 µg/L [0.100] {1}	R^2=0.99621, 80.000		19L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.604 Abs	0.288 µg/L	R^2=0.99621, 64.599		19L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.598 Abs [0.6010] {0.7 CV}	0.299 µg/L [0.294] {2}	R^2=0.99621, 63.957		19L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.534 Abs	0.430 µg/L	R^2=0.99621, 57.112		19L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.525 Abs [0.5295] {1.2 CV}	0.452 µg/L [0.441] {3}	R^2=0.99621, 56.150		19L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.383 Abs	0.968 µg/L	R^2=0.99621, 40.963		19L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.364 Abs [0.3735] {3.6 CV}	1.073 µg/L [1.020] {7}	R^2=0.99621, 38.930		19L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.261 Abs	1.923 µg/L	R^2=0.99621, 27.914		19L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.245 Abs [0.2530] {4.5 CV}	> 2.000 µg/L [1.923]	26.203 %Abs		19L2079
CYL QCS	CYLINDROSPERMOPSIN	0.430 Abs	0.753 µg/L	45.989 %Abs		19L2079
CYL QCS	CYLINDROSPERMOPSIN	0.438 Abs [0.4340] {1.3 CV}	0.722 µg/L [0.738] {3}	46.845 %Abs [46.41]		19L2079

Note

Signature

Test Report (by Request)

Test Information

 Request: 9/3/2020 8:02:15 PM
 Date: 9/3/2020 - 9/3/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	CYLINDROSPERMOPSIN	0.936 Abs	0.000 µg/L	LOW, 100.107 %ABS	0.050 - 2.000	19L2079
LRB	CYLINDROSPERMOPSIN	0.898 Abs [0.9170] {2.9 CV}	0.010 µg/L [0.005] {1}		0.050 - 2.000	19L2079
LFB	CYLINDROSPERMOPSIN	0.499 Abs	0.521 µg/L	53.369 %Abs	0.050 - 2.000	19L2079
LFB	CYLINDROSPERMOPSIN	0.476 Abs [0.4875] {3.3 CV}	0.590 µg/L [0.556] {8}	50.909 %Abs [52.13]	0.050 - 2.000	19L2079
AB43914	CYLINDROSPERMOPSIN	0.849 Abs	0.032 µg/L	LOW, 90.802 %ABS	0.050 - 2.000	19L2079
AB43914	CYLINDROSPERMOPSIN	0.829 Abs [0.8390] {1.7 CV}	0.044 µg/L [0.038] {2}		0.050 - 2.000	19L2079
AB43915	CYLINDROSPERMOPSIN	0.815 Abs	0.052 µg/L	87.166 %Abs	0.050 - 2.000	19L2079
AB43915	CYLINDROSPERMOPSIN	0.840 Abs [0.8275] {2.1 CV}	0.037 µg/L [0.045] {2}		0.050 - 2.000	19L2079
AB43915MS	CYLINDROSPERMOPSIN	0.488 Abs	0.553 µg/L	52.193 %Abs	0.050 - 2.000	19L2079
AB43915MS	CYLINDROSPERMOPSIN	0.443 Abs [0.4655] {6.8 CV}	0.703 µg/L [0.628] {1}	47.380 %Abs [49.78]	0.050 - 2.000	19L2079
AB43915MSD	CYLINDROSPERMOPSIN	0.451 Abs	0.674 µg/L	48.235 %Abs	0.050 - 2.000	19L2079
AB43915MSD	CYLINDROSPERMOPSIN	0.469 Abs [0.4600] {2.8 CV}	0.612 µg/L [0.643] {6}	50.160 %Abs [49.19]	0.050 - 2.000	19L2079
AB43916	CYLINDROSPERMOPSIN	0.831 Abs	0.042 µg/L	LOW, 88.877 %ABS	0.050 - 2.000	19L2079
AB43916	CYLINDROSPERMOPSIN	0.830 Abs [0.8305] {0.1 CV}	0.043 µg/L [0.043] {1}		0.050 - 2.000	19L2079
AB43917	CYLINDROSPERMOPSIN	0.819 Abs	0.050 µg/L	87.594 %Abs	0.050 - 2.000	19L2079
AB43917	CYLINDROSPERMOPSIN	0.841 Abs [0.8300] {1.9 CV}	0.037 µg/L [0.043] {2}		0.050 - 2.000	19L2079
AB43918	CYLINDROSPERMOPSIN	0.893 Abs	0.012 µg/L	LOW, 95.508 %ABS	0.050 - 2.000	19L2079
AB43918	CYLINDROSPERMOPSIN	0.853 Abs [0.8730] {3.2 CV}	0.030 µg/L [0.021] {6}		0.050 - 2.000	19L2079
AB44105	CYLINDROSPERMOPSIN	0.440 Abs	7.140 µg/L	47.059 %Abs	0.500 - 20.000	19L2079
AB44105	CYLINDROSPERMOPSIN	0.421 Abs [0.4305] {3.1 CV}	7.900 µg/L [07.52] {7}	45.027 %Abs [46.04]	0.500 - 20.000	19L2079

Note

AB44105 was a 10X dilution.

Signature

Charles Hostetter 9/4/2020

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: 19L2079

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
9/3/2020 6:50:30 PM				
CYL Std 0	0.943 Abs		R ² =0.99621, 100.856 %Abs	RK1:23->A01@2
CYL Std 0	0.927 Abs [0.9350] {1.2 CV}		R ² =0.99621, 99.144 %Abs	RK1:23->B01@2
CYL Std 1	0.842 Abs		R ² =0.99621, 90.053 %Abs	RK1:24->C01@2
CYL Std 1	0.818 Abs [0.8300] {2.0 CV}		R ² =0.99621, 87.487 %Abs	RK1:24->D01@2
CYL Std 2	0.759 Abs		R ² =0.99621, 81.176 %Abs	RK1:25->E01@2
CYL Std 2	0.748 Abs [0.7535] {1.0 CV}		R ² =0.99621, 80.000 %Abs	RK1:25->F01@3
CYL Std 3	0.604 Abs		R ² =0.99621, 64.599 %Abs	RK1:26->G01@3
CYL Std 3	0.598 Abs [0.6010] {0.7 CV}		R ² =0.99621, 63.957 %Abs	RK1:26->H01@3
CYL Std 4	0.534 Abs		R ² =0.99621, 57.112 %Abs	RK1:27->A02@2
CYL Std 4	0.525 Abs [0.5295] {1.2 CV}		R ² =0.99621, 56.150 %Abs	RK1:27->B02@2
CYL Std 5	0.383 Abs		R ² =0.99621, 40.963 %Abs	RK1:28->C02@2
CYL Std 5	0.364 Abs [0.3735] {3.6 CV}		R ² =0.99621, 38.930 %Abs	RK1:28->D02@2
CYL Std 6	0.261 Abs		R ² =0.99621, 27.914 %Abs	RK1:29->E02@2
CYL Std 6	0.245 Abs [0.2530] {4.5 CV}		26.203 %Abs	RK1:29->F02@3
+++++				
9/3/2020 6:50:30 PM				
CYL QCS	0.430 Abs		45.989 %Abs	RK1:30->G02@3
CYL QCS	0.438 Abs [0.4340] {1.3 CV}		46.845 %Abs [46.417 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	0.9350			
CYL Std 0 [SD]	0.0113			
CYL Std 0 [%CV]	1.2100			
CYL Std 1 [MEAN]	0.8300			
CYL Std 1 [SD]	0.0170			
CYL Std 1 [%CV]	2.0446			
CYL Std 1 [%DIFF]				
CYL Std 2 [MEAN]	0.7535			
CYL Std 2 [SD]	0.0078			
CYL Std 2 [%CV]	1.0323			
CYL Std 2 [%DIFF]				
CYL Std 3 [MEAN]	0.6010			
CYL Std 3 [SD]	0.0042			
CYL Std 3 [%CV]	0.7059			
CYL Std 3 [%DIFF]				
CYL Std 4 [MEAN]	0.5295			
CYL Std 4 [SD]	0.0064			
CYL Std 4 [%CV]	1.2019			
CYL Std 4 [%DIFF]				

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3735			
CYL Std 5 [SD]	0.0134			
CYL Std 5 [%CV]	3.5971			
CYL Std 5 [%DIFF]				
CYL Std 6 [MEAN]	0.2530			
CYL Std 6 [SD]	0.0113			
CYL Std 6 [%CV]	4.4718			
CYL QCS [MEAN]	0.4340			
CYL QCS [SD]	0.0057			
CYL QCS [%CV]	1.3034			

Assay Curve

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

Weight: NONE

A = 0.93796

B = 0.74665

C = 0.73751

D = -0.069918

R2 coef = 0.99621

50% = 0.617

