



Cylindrospermopsin Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AB43619	Raccoon Lake SRA	7/27/2020	7/30/2020	<0.15
AB43620	Cagles Mill Lake Beach	7/27/2020	7/30/2020	<0.15
AB43621	Paynetown SRA	7/27/2020	7/30/2020	<0.15
AB43622	Starve Hollow SRA	7/28/2020	7/30/2020	<0.15
AB43623	Whitewater Memorial SP	7/28/2020	7/30/2020	<0.15
AB43624	Quakertown SRA	7/28/2020	7/30/2020	<0.15
AB43625	Mounds SRA	7/28/2020	7/30/2020	<0.15
AB43626	Hardy Lake SRA	7/28/2020	7/30/2020	<0.15
AB43627	Ferdinand State Forest Lake	7/27/2020	7/30/2020	<0.15
AB43628	Patoka Lake	7/27/2020	7/30/2020	<0.15
AB43629	Raccoon Lake SRA (Field Duplicate)	7/27/2020	7/30/2020	<0.15
AB43630	Field Blank	7/27/2020	7/30/2020	<0.15

Test Information

Request: 7/30/2020 2:54:02 PM

Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	1.012 Abs	0.000 µg/L	R ² =0.99752, 101.09		20L2079
CYL Std 0	CYLINDROSPERMOPSIN	0.990 Abs [1.0010] {1.6 CV}	0.002 µg/L [0.001] {1}	R ² =0.99752, 98.901		20L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.883 Abs	0.040 µg/L	R ² =0.99752, 88.212		20L2079
CYL Std 1	CYLINDROSPERMOPSIN	0.865 Abs [0.8740] {1.5 CV}	0.050 µg/L [0.045] {1}	R ² =0.99752, 86.414		20L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.802 Abs	0.092 µg/L	R ² =0.99752, 80.120		20L2079
CYL Std 2	CYLINDROSPERMOPSIN	0.777 Abs [0.7895] {2.2 CV}	0.112 µg/L [0.102] {1}	R ² =0.99752, 77.622		20L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.635 Abs	0.282 µg/L	R ² =0.99752, 63.437		20L2079
CYL Std 3	CYLINDROSPERMOPSIN	0.639 Abs [0.6370] {0.4 CV}	0.276 µg/L [0.279] {1}	R ² =0.99752, 63.836		20L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.570 Abs	0.402 µg/L	R ² =0.99752, 56.943		20L2079
CYL Std 4	CYLINDROSPERMOPSIN	0.532 Abs [0.5510] {4.9 CV}	0.491 µg/L [0.447] {1}	R ² =0.99752, 53.147		20L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.388 Abs	1.031 µg/L	R ² =0.99752, 38.761		20L2079
CYL Std 5	CYLINDROSPERMOPSIN	0.382 Abs [0.3850] {1.1 CV}	1.064 µg/L [1.048] {2}	R ² =0.99752, 38.162		20L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.269 Abs	1.991 µg/L	R ² =0.99752, 26.873		20L2079
CYL Std 6	CYLINDROSPERMOPSIN	0.268 Abs [0.2685] {0.3 CV}	> 2.000 µg/L [1.991]	26.773 %Abs		20L2079
CYL QCS	CYLINDROSPERMOPSIN	0.487 Abs	0.619 µg/L	48.651 %Abs		20L2079
CYL QCS	CYLINDROSPERMOPSIN	0.470 Abs [0.4785] {2.5 CV}	0.675 µg/L [0.647] {6}	46.953 %Abs [47.802]		20L2079

Note

Signature *David Jordan*

Date: 7/30/2020

Test Report (by Request)

Test Information

 Request: 7/30/2020 2:55:58 PM
 Date: 7/30/2020

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
LRB	CYLINDROSPERMOPSIN	0.985 Abs	0.003 µg/L	LOW, 98.402 %ABS	0.050 - 2.000	20L2079
LRB	CYLINDROSPERMOPSIN	0.946 Abs [0.9655] {2.9 CV}	0.013 µg/L [0.008] {8.1 CV}	LOW, 94.505 %ABS	0.050 - 2.000	20L2079
LFB	CYLINDROSPERMOPSIN	0.479 Abs	0.645 µg/L	47.852 %Abs	0.050 - 2.000	20L2079
LFB	CYLINDROSPERMOPSIN	0.477 Abs [0.4780] {0.3 CV}	0.651 µg/L [0.648] {0.3 CV}	47.652 %Abs [47.752]	0.050 - 2.000	20L2079
AB43619	CYLINDROSPERMOPSIN	0.922 Abs	0.022 µg/L	LOW, 92.108 %ABS	0.050 - 2.000	20L2079
AB43619	CYLINDROSPERMOPSIN	0.912 Abs [0.9170] {0.8 CV}	0.026 µg/L [0.024] {1.0 CV}	LOW, 91.109 %ABS	0.050 - 2.000	20L2079
AB43620	CYLINDROSPERMOPSIN	0.939 Abs	0.016 µg/L	LOW, 93.806 %ABS	0.050 - 2.000	20L2079
AB43620	CYLINDROSPERMOPSIN	0.940 Abs [0.9395] {0.1 CV}	0.015 µg/L [0.015] {0.1 CV}	LOW, 93.906 %ABS	0.050 - 2.000	20L2079
AB43621	CYLINDROSPERMOPSIN	1.018 Abs	0.000 µg/L	LOW, 101.698 %ABS	0.050 - 2.000	20L2079
AB43621	CYLINDROSPERMOPSIN	0.994 Abs [1.0060] {1.7 CV}	0.001 µg/L [0.001] {1.7 CV}	LOW, 99.301 %ABS	0.050 - 2.000	20L2079
AB43622	CYLINDROSPERMOPSIN	0.922 Abs	0.022 µg/L	LOW, 92.108 %ABS	0.050 - 2.000	20L2079
AB43622	CYLINDROSPERMOPSIN	0.895 Abs [0.9085] {2.1 CV}	0.034 µg/L [0.028] {3.0 CV}	LOW, 89.411 %ABS	0.050 - 2.000	20L2079
AB43622MS	CYLINDROSPERMOPSIN	0.482 Abs	0.635 µg/L	48.152 %Abs	0.050 - 2.000	20L2079
AB43622MS	CYLINDROSPERMOPSIN	0.516 Abs [0.4990] {4.8 CV}	0.533 µg/L [0.584] {1.1 CV}	51.548 %Abs [49.850]	0.050 - 2.000	20L2079
AB43622MSD	CYLINDROSPERMOPSIN	0.502 Abs	0.573 µg/L	50.150 %Abs	0.050 - 2.000	20L2079
AB43622MSD	CYLINDROSPERMOPSIN	0.510 Abs [0.5060] {1.1 CV}	0.550 µg/L [0.562] {2.2 CV}	50.949 %Abs [50.549]	0.050 - 2.000	20L2079
AB43623	CYLINDROSPERMOPSIN	0.991 Abs	0.001 µg/L	LOW, 99.001 %ABS	0.050 - 2.000	20L2079
AB43623	CYLINDROSPERMOPSIN	0.900 Abs [0.9455] {6.8 CV}	0.032 µg/L [0.017] {1.9 CV}	LOW, 89.910 %ABS	0.050 - 2.000	20L2079
AB43624	CYLINDROSPERMOPSIN	0.914 Abs	0.026 µg/L	LOW, 91.309 %ABS	0.050 - 2.000	20L2079
AB43624	CYLINDROSPERMOPSIN	0.884 Abs [0.8990] {2.4 CV}	0.040 µg/L [0.033] {3.0 CV}	LOW, 88.312 %ABS	0.050 - 2.000	20L2079
AB43625	CYLINDROSPERMOPSIN	0.901 Abs	0.031 µg/L	LOW, 90.010 %ABS	0.050 - 2.000	20L2079
AB43625	CYLINDROSPERMOPSIN	0.888 Abs [0.8945] {1.0 CV}	0.038 µg/L [0.034] {1.5 CV}	LOW, 88.711 %ABS	0.050 - 2.000	20L2079
AB43626	CYLINDROSPERMOPSIN	0.917 Abs	0.024 µg/L	LOW, 91.608 %ABS	0.050 - 2.000	20L2079
AB43626	CYLINDROSPERMOPSIN	0.948 Abs [0.9325] {2.4 CV}	0.013 µg/L [0.019] {4.0 CV}	LOW, 94.705 %ABS	0.050 - 2.000	20L2079
AB43627	CYLINDROSPERMOPSIN	0.939 Abs	0.016 µg/L	LOW, 93.806 %ABS	0.050 - 2.000	20L2079
AB43627	CYLINDROSPERMOPSIN	0.918 Abs [0.9285] {1.6 CV}	0.024 µg/L [0.020] {2.0 CV}	LOW, 91.708 %ABS	0.050 - 2.000	20L2079
AB43628	CYLINDROSPERMOPSIN	0.889 Abs	0.037 µg/L	LOW, 88.811 %ABS	0.050 - 2.000	20L2079
AB43628	CYLINDROSPERMOPSIN	0.892 Abs [0.8905] {0.2 CV}	0.036 µg/L [0.036] {1.0 CV}	LOW, 89.111 %ABS	0.050 - 2.000	20L2079
AB43629	CYLINDROSPERMOPSIN	0.896 Abs	0.034 µg/L	LOW, 89.510 %ABS	0.050 - 2.000	20L2079
AB43629	CYLINDROSPERMOPSIN	0.909 Abs [0.9025] {1.0 CV}	0.028 µg/L [0.031] {1.1 CV}	LOW, 90.809 %ABS	0.050 - 2.000	20L2079
AB43630	CYLINDROSPERMOPSIN	0.952 Abs	0.011 µg/L	LOW, 95.105 %ABS	0.050 - 2.000	20L2079
AB43630	CYLINDROSPERMOPSIN	0.957 Abs [0.9545] {0.4 CV}	0.010 µg/L [0.010] {0.6 CV}	LOW, 95.604 %ABS	0.050 - 2.000	20L2079

Note

Signature

Date: 7/30/2020

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: 20L2079

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
7/30/2020 2:54:02 PM				
CYL Std 0	1.012 Abs		R ² =0.99752, 101.099 %Abs	RK1:23->A01@2
CYL Std 0	0.990 Abs [1.0010] {1.6 CV}		R ² =0.99752, 98.901 %Abs	RK1:23->B01@2
CYL Std 1	0.883 Abs		R ² =0.99752, 88.212 %Abs	RK1:24->C01@2
CYL Std 1	0.865 Abs [0.8740] {1.5 CV}		R ² =0.99752, 86.414 %Abs	RK1:24->D01@2
CYL Std 2	0.802 Abs		R ² =0.99752, 80.120 %Abs	RK1:25->E01@2
CYL Std 2	0.777 Abs [0.7895] {2.2 CV}		R ² =0.99752, 77.622 %Abs	RK1:25->F01@3
CYL Std 3	0.635 Abs		R ² =0.99752, 63.437 %Abs	RK1:26->G01@3
CYL Std 3	0.639 Abs [0.6370] {0.4 CV}		R ² =0.99752, 63.836 %Abs	RK1:26->H01@3
CYL Std 4	0.570 Abs		R ² =0.99752, 56.943 %Abs	RK1:27->A02@2
CYL Std 4	0.532 Abs [0.5510] {4.9 CV}		R ² =0.99752, 53.147 %Abs	RK1:27->B02@2
CYL Std 5	0.388 Abs		R ² =0.99752, 38.761 %Abs	RK1:28->C02@2
CYL Std 5	0.382 Abs [0.3850] {1.1 CV}		R ² =0.99752, 38.162 %Abs	RK1:28->D02@2
CYL Std 6	0.269 Abs		R ² =0.99752, 26.873 %Abs	RK1:29->E02@2
CYL Std 6	0.268 Abs [0.2685] {0.3 CV}		26.773 %Abs	RK1:29->F02@3
+++++				
7/30/2020 2:54:02 PM				
CYL QCS	0.487 Abs		48.651 %Abs	RK1:30->G02@3
CYL QCS	0.470 Abs [0.4785] {2.5 CV}		46.953 %Abs [47.802 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.0010			
CYL Std 0 [SD]	0.0156			
CYL Std 0 [%CV]	1.5541			
CYL Std 1 [MEAN]	0.8740			
CYL Std 1 [SD]	0.0127			
CYL Std 1 [%CV]	1.4563			
CYL Std 1 [%DIFF]				
CYL Std 2 [MEAN]	0.7895			
CYL Std 2 [SD]	0.0177			
CYL Std 2 [%CV]	2.2391			
CYL Std 2 [%DIFF]				
CYL Std 3 [MEAN]	0.6370			
CYL Std 3 [SD]	0.0028			
CYL Std 3 [%CV]	0.4440			
CYL Std 3 [%DIFF]				
CYL Std 4 [MEAN]	0.5510			
CYL Std 4 [SD]	0.0269			
CYL Std 4 [%CV]	4.8766			
CYL Std 4 [%DIFF]				

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.3850			
CYL Std 5 [SD]	0.0042			
CYL Std 5 [%CV]	1.1020			
CYL Std 5 [%DIFF]				
CYL Std 6 [MEAN]	0.2685			
CYL Std 6 [SD]	0.0007			
CYL Std 6 [%CV]	0.2634			
CYL QCS [MEAN]	0.4785			
CYL QCS [SD]	0.0120			
CYL QCS [%CV]	2.5122			

Assay Curve

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

Weight: NONE

A = 1.0028

B = 0.73186

C = 0.67881

D = -0.064873

R2 coef = 0.99752

50% = 0.578

