



## Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB 1	Lab Reagent Blank	8/15/2019	8/15/2019	<0.120	
LFB 1	Lab Fortified Blank (Spike = 0.60 ppb)	8/15/2019	8/15/2019	0.590	98
AB40034	Pokagon State Park Beach	8/12/2019	8/15/2019	<0.300	
AB40034MS	Pokagon (Matrix Spike, True Value = 0.60)	8/12/2019	8/15/2019	0.595	97
AB40034MSD	Pokagon (Matrix Spike Duplicate, True Value = 0.60)	8/12/2019	8/15/2019	0.658	100
AB40035	Potawatomi Inn's Beach @ Pokagon SP	8/12/2019	8/15/2019	<0.120	
AB40036	Chain O'Lakes SP	8/12/2019	8/15/2019	<0.120	
AB40037	Kunkel Beach @ Ouabache State Park	8/12/2019	8/15/2019	<0.120	
AB40038	Potato Creek State Park	8/13/2019	8/15/2019	<0.120	
AB40039	Mississinewa Lake Miami SRA	8/13/2019	8/15/2019	<0.120	
AB40040	Lost Bridge West SRA @ Salamonie Lake	8/13/2019	8/15/2019	<0.120	
AB40041	Field Blank	8/13/2019	8/15/2019	<0.120	
AB40042	Mississinewa Lake (Field Duplicate)	8/13/2019	8/15/2019	<0.120	

## 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 LRB

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: 7/25/2019 3:53:00 PM

Normal: 0.050 - 2.000

# of decimals: 3

Kit Lot Number: 19A8753

## Assay Calibration

Current Calibration Status: "

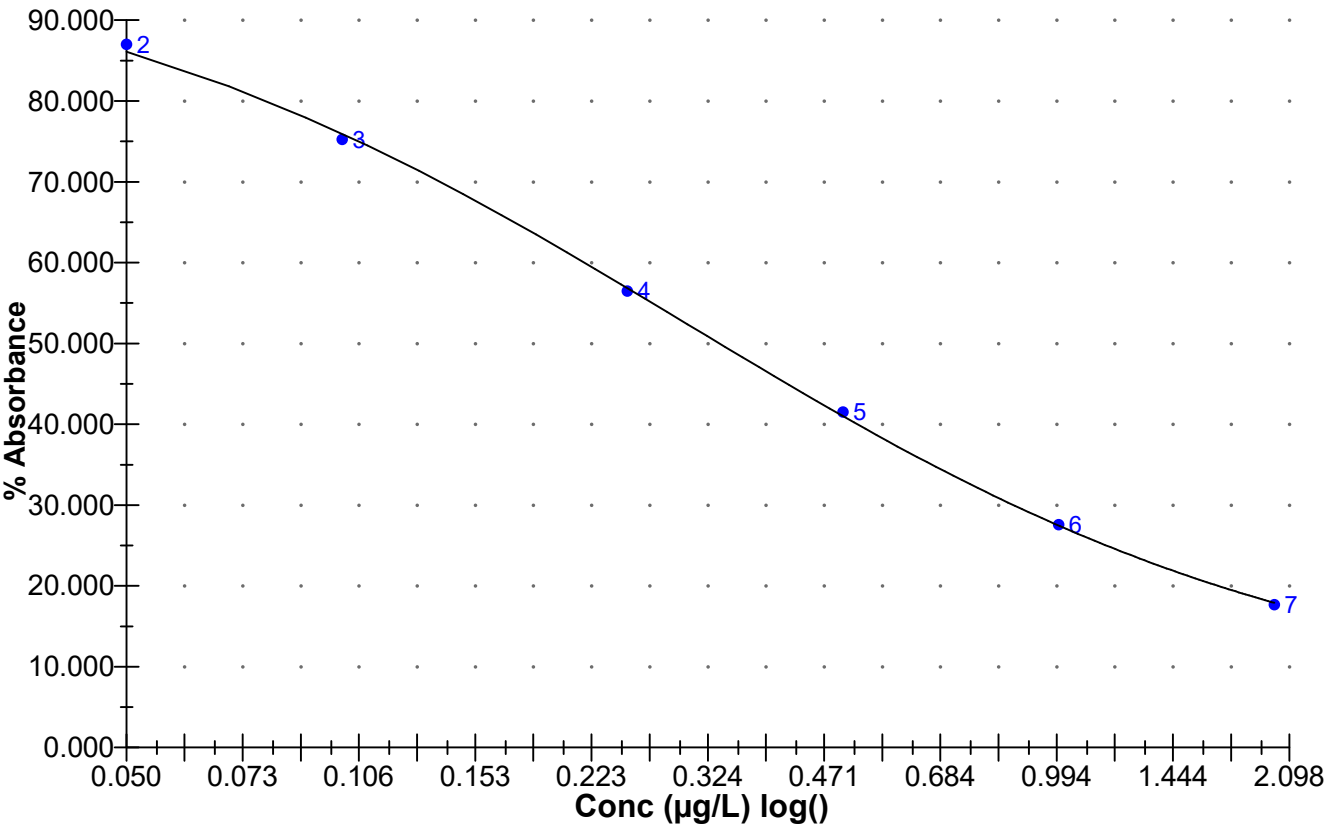
"

Name	Absorbance	Concentration	Interpretation	Position	
8/15/2019 3:51:46 PM					
CYL Std 0	0.852 Abs		R^2=0.99968, 100.472 %Abs	RK1:32->A04@1	
CYL Std 0	0.844 Abs [0.8480] {0.7 CV}		R^2=0.99968, 99.528 %Abs	RK1:32->B04@1	
CYL Std 1	0.753 Abs		R^2=0.99968, 88.797 %Abs	RK1:33->C04@1	
CYL Std 1	0.724 Abs [0.7385] {2.8 CV}		R^2=0.99968, 85.377 %Abs	RK1:33->D04@1	
CYL Std 2	0.632 Abs		R^2=0.99968, 74.528 %Abs	RK1:34->E04@1	
CYL Std 2	0.643 Abs [0.6375] {1.2 CV}		R^2=0.99968, 75.825 %Abs	RK1:34->F04@4	
CYL Std 3	0.476 Abs		R^2=0.99968, 56.132 %Abs	RK1:35->G04@4	
CYL Std 3	0.483 Abs [0.4795] {1.0 CV}		R^2=0.99968, 56.958 %Abs	RK1:35->H04@4	
CYL Std 4	0.352 Abs		R^2=0.99968, 41.509 %Abs	RK1:36->A05@1	
CYL Std 4	0.352 Abs [0.3520] {0.0 CV}		R^2=0.99968, 41.509 %Abs	RK1:36->B05@1	
CYL Std 5	0.235 Abs		R^2=0.99968, 27.712 %Abs	RK1:37->C05@1	
CYL Std 5	0.232 Abs [0.2335] {0.9 CV}		R^2=0.99968, 27.358 %Abs	RK1:37->D05@1	
CYL Std 6	0.150 Abs		17.689 %Abs	RK1:38->E05@1	
CYL Std 6	0.150 Abs [0.1500] {0.0 CV}		17.689 %Abs	RK1:38->F05@4	
*****					
8/15/2019 3:51:46 PM					
CYL LRB	0.853 Abs		100.590 %Abs	RK1:40->G05@4	
CYL LRB	0.890 Abs [0.8715] {3.0 CV}		104.953 %Abs [102.771 %Abs]	RK1:40->H05@4	
CYL QCS	0.282 Abs		33.255 %Abs	RK1:39->A06@1	
CYL QCS	0.276 Abs [0.2790] {1.5 CV}		32.547 %Abs [32.901 %Abs]	RK1:39->B06@1	
*****					
Statistic					
CYL Std 0 [MEAN]	0.8480				
CYL Std 0 [SD]	0.0057				
CYL Std 0 [%CV]	0.6671				
CYL Std 1 [MEAN]	0.7385				
CYL Std 1 [SD]	0.0205				
CYL Std 1 [%CV]	2.7767				
CYL Std 1 [%DIFF]					
CYL Std 2 [MEAN]	0.6375				
CYL Std 2 [SD]	0.0078				
CYL Std 2 [%CV]	1.2201				
CYL Std 2 [%DIFF]					
CYL Std 3 [MEAN]	0.4795				
CYL Std 3 [SD]	0.0049				
CYL Std 3 [%CV]	1.0323				
CYL Std 3 [%DIFF]					
CYL Std 4 [MEAN]	0.3520				

Name	Absorbance	Concentration	Interpretation	Position	
CYL Std 4 [SD]	0.0000				
CYL Std 4 [%CV]	0.0000				
CYL Std 4 [%DIFF]					
CYL Std 5 [MEAN]	0.2335				
CYL Std 5 [SD]	0.0021				
CYL Std 5 [%CV]	0.9085				
CYL Std 5 [%DIFF]					
CYL Std 6 [MEAN]	0.1500				
CYL Std 6 [SD]	0.0000				
CYL Std 6 [%CV]	0.0000				
CYL LRB [MEAN]	0.8715				
CYL LRB [SD]	0.0262				
CYL LRB [%CV]	3.0021				
CYL QCS [MEAN]	0.2790				
CYL QCS [SD]	0.0042				
CYL QCS [%CV]	1.5207				

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$   
Weight: NONE  
A = 0.84991  
B = 0.97518  
C = 0.30081  
D = 0.041774  
R2 coef = 0.99968  
50% = 0.336



## Test Information

Request: 8/15/2019 3:51:46 PM  
Date: 8/15/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
CYL Std 0	CYLINDROSPERMOPSIN	0.852 Abs	0.000 µg/L	R^2=0.99968, 100.47		19A8753
CYL Std 0	CYLINDROSPERMOPSIN	0.844 Abs [0.8480] {0.7 CV}	0.002 µg/L [0.001] {1}	R^2=0.99968, 99.528		19A8753
CYL Std 1	CYLINDROSPERMOPSIN	0.753 Abs	0.039 µg/L	R^2=0.99968, 88.797		19A8753
CYL Std 1	CYLINDROSPERMOPSIN	0.724 Abs [0.7385] {2.8 CV}	0.053 µg/L [0.046] {2}	R^2=0.99968, 85.377		19A8753
CYL Std 2	CYLINDROSPERMOPSIN	0.632 Abs	0.108 µg/L	R^2=0.99968, 74.528		19A8753
CYL Std 2	CYLINDROSPERMOPSIN	0.643 Abs [0.6375] {1.2 CV}	0.101 µg/L [0.105] {4}	R^2=0.99968, 75.825		19A8753
CYL Std 3	CYLINDROSPERMOPSIN	0.476 Abs	0.258 µg/L	R^2=0.99968, 56.132		19A8753
CYL Std 3	CYLINDROSPERMOPSIN	0.483 Abs [0.4795] {1.0 CV}	0.249 µg/L [0.253] {2}	R^2=0.99968, 56.958		19A8753
CYL Std 4	CYLINDROSPERMOPSIN	0.352 Abs	0.489 µg/L	R^2=0.99968, 41.509		19A8753
CYL Std 4	CYLINDROSPERMOPSIN	0.352 Abs [0.3520] {0.0 CV}	0.489 µg/L [0.489] {0}	R^2=0.99968, 41.509		19A8753
CYL Std 5	CYLINDROSPERMOPSIN	0.235 Abs	0.986 µg/L	R^2=0.99968, 27.712		19A8753
CYL Std 5	CYLINDROSPERMOPSIN	0.232 Abs [0.2335] {0.9 CV}	1.007 µg/L [0.997] {1}	R^2=0.99968, 27.358		19A8753
CYL Std 6	CYLINDROSPERMOPSIN	0.150 Abs	> 2.000 µg/L	17.689 %Abs		19A8753
CYL Std 6	CYLINDROSPERMOPSIN	0.150 Abs [0.1500] {0.0 CV}	> 2.000 µg/L	17.689 %Abs		19A8753
CYL LRB	CYLINDROSPERMOPSIN	0.853 Abs	0.000 µg/L	100.590 %Abs		19A8753
CYL LRB	CYLINDROSPERMOPSIN	0.890 Abs [0.8715] {3.0 CV}	0.000 µg/L [0.000]	104.953 %Abs [102.7]		19A8753
CYL QCS	CYLINDROSPERMOPSIN	0.282 Abs	0.727 µg/L	33.255 %Abs		19A8753
CYL QCS	CYLINDROSPERMOPSIN	0.276 Abs [0.2790] {1.5 CV}	0.754 µg/L [0.740] {2}	32.547 %Abs [32.90]		19A8753

## Test Information

Request: 8/15/2019 4:11:30 PM  
Date: 8/15/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference	Lot #
AB40034	CYLINDROSPERMOPSIN	0.831 Abs	0.007 µg/L	<b>LOW, 97.995 %ABS</b>	0.050 - 2.000	19A8753
AB40034	CYLINDROSPERMOPSIN	0.812 Abs [0.8215] {1.6 CV}	0.014 µg/L [0.011] {4}	<b>LOW, 95.755 %ABS</b>	0.050 - 2.000	19A8753
AB40034MS	CYLINDROSPERMOPSIN	0.318 Abs	0.589 µg/L	37.500 %Abs	0.050 - 2.000	19A8753
AB40034MS	CYLINDROSPERMOPSIN	0.314 Abs [0.3160] {0.9 CV}	0.602 µg/L [0.595] {1}	37.028 %Abs [37.264]	0.050 - 2.000	19A8753
AB40034MSD	CYLINDROSPERMOPSIN	0.313 Abs	0.606 µg/L	36.910 %Abs	0.050 - 2.000	19A8753
AB40034MSD	CYLINDROSPERMOPSIN	0.310 Abs [0.3115] {0.7 CV}	0.616 µg/L [0.611] {1}	36.557 %Abs [36.735]	0.050 - 2.000	19A8753
AB40035	CYLINDROSPERMOPSIN	0.819 Abs	0.011 µg/L	<b>LOW, 96.580 %ABS</b>	0.050 - 2.000	19A8753
AB40035	CYLINDROSPERMOPSIN	0.824 Abs [0.8215] {0.4 CV}	0.009 µg/L [0.010] {1}	<b>LOW, 97.170 %ABS</b>	0.050 - 2.000	19A8753
AB40036	CYLINDROSPERMOPSIN	0.806 Abs	0.016 µg/L	<b>LOW, 95.047 %ABS</b>	0.050 - 2.000	19A8753
AB40036	CYLINDROSPERMOPSIN	0.821 Abs [0.8135] {1.3 CV}	0.010 µg/L [0.013] {3}	<b>LOW, 96.816 %ABS</b>	0.050 - 2.000	19A8753
AB40037	CYLINDROSPERMOPSIN	0.790 Abs	0.023 µg/L	<b>LOW, 93.160 %ABS</b>	0.050 - 2.000	19A8753
AB40037	CYLINDROSPERMOPSIN	0.791 Abs [0.7905] {0.1 CV}	0.022 µg/L [0.023] {3}	<b>LOW, 93.278 %ABS</b>	0.050 - 2.000	19A8753
AB40038	CYLINDROSPERMOPSIN	0.784 Abs	0.025 µg/L	<b>LOW, 92.453 %ABS</b>	0.050 - 2.000	19A8753
AB40038	CYLINDROSPERMOPSIN	0.816 Abs [0.8000] {2.8 CV}	0.012 µg/L [0.019] {4}	<b>LOW, 96.226 %ABS</b>	0.050 - 2.000	19A8753
AB40039	CYLINDROSPERMOPSIN	0.825 Abs	0.009 µg/L	<b>LOW, 97.288 %ABS</b>	0.050 - 2.000	19A8753
AB40039	CYLINDROSPERMOPSIN	0.802 Abs [0.8135] {2.0 CV}	0.018 µg/L [0.013] {4}	<b>LOW, 94.575 %ABS</b>	0.050 - 2.000	19A8753
AB40040	CYLINDROSPERMOPSIN	0.826 Abs	0.008 µg/L	<b>LOW, 97.406 %ABS</b>	0.050 - 2.000	19A8753
AB40040	CYLINDROSPERMOPSIN	0.804 Abs [0.8150] {1.9 CV}	0.017 µg/L [0.013] {5}	<b>LOW, 94.811 %ABS</b>	0.050 - 2.000	19A8753
AB40041	CYLINDROSPERMOPSIN	0.793 Abs	0.021 µg/L	<b>LOW, 93.514 %ABS</b>	0.050 - 2.000	19A8753
AB40041	CYLINDROSPERMOPSIN	0.789 Abs [0.7910] {0.4 CV}	0.023 µg/L [0.022] {6}	<b>LOW, 93.042 %ABS</b>	0.050 - 2.000	19A8753
AB40042	CYLINDROSPERMOPSIN	0.775 Abs	0.029 µg/L	<b>LOW, 91.392 %ABS</b>	0.050 - 2.000	19A8753
AB40042	CYLINDROSPERMOPSIN	0.777 Abs [0.7760] {0.2 CV}	0.028 µg/L [0.029] {2}	<b>LOW, 91.627 %ABS</b>	0.050 - 2.000	19A8753
LFB	CYLINDROSPERMOPSIN	0.315 Abs	0.599 µg/L	37.146 %Abs	0.050 - 2.000	19A8753
LFB	CYLINDROSPERMOPSIN	0.320 Abs [0.3175] {1.1 CV}	0.582 µg/L [0.590] {2}	37.736 %Abs [37.44]	0.050 - 2.000	19A8753

David Jordan

David Jordan 8/16/2019