



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)	% Recovery
LRB	Lab Reagent Blank	7/24/2019	7/25/2019	<0.15	
LFB	Lab Fortified Blank (True value = 0.600)	7/24/2019	7/25/2019	0.70	116
AB39883	Whitewater Memorial S P	7/22/2019	7/25/2019	<0.15	
AB39883MS	Whitewater (Matrix Spike, True Value = 0.60)	7/24/2019	7/25/2019	0.61	97
AB39883MS D	Whitewater (Matrix Spike Duplicate, True Value = 0.60)	7/24/2019	7/25/2019	0.62	98
AB39879	Hardy Lake S R A	7/22/2019	7/25/2019	<0.15	
AB39880	Quakertown S R A	7/22/2019	7/25/2019	<0.15	
AB39881	Raccoon Lake S R A	7/22/2019	7/25/2019	<0.15	
AB39884	Hardy Lake S R A Field Dup.	7/22/2019	7/25/2019	<0.15	
AB39885	Field Blank	7/22/2019	7/25/2019	<0.15	
AB39886	Mounds S R A	7/22/2019	7/25/2019	<0.15	
AB39899	Lost Bridge West S R A @ Salamonie Lake	7/23/2019	7/25/2019	<0.15	
AB39900	Lost Bridge West S R A Field Dup.	7/23/2019	7/25/2019	<0.15	
AB39901	Field Blank	7/23/2019	7/25/2019	<0.15	

Test Information

Request: 7/25/2019 8:41:55 AM
Date: 7/25/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
CYL Std 0	CYLINDROSPERMOPSIN	0.979 Abs	0.000 µg/L	R^2=0.99924	0.000
CYL Std 0	CYLINDROSPERMOPSIN	0.958 Abs [0.9685] {1.5 CV}	0.005 µg/L [0.003] {141.1}	R^2=0.99924	0.000
CYL Std 1	CYLINDROSPERMOPSIN	0.847 Abs	0.045 µg/L	R^2=0.99924	0.050
CYL Std 1	CYLINDROSPERMOPSIN	0.846 Abs [0.8465] {0.1 CV}	0.046 µg/L [0.046] {1.6 CV}	R^2=0.99924	0.050
CYL Std 2	CYLINDROSPERMOPSIN	0.737 Abs	0.099 µg/L	R^2=0.99924	0.100
CYL Std 2	CYLINDROSPERMOPSIN	0.721 Abs [0.7290] {1.6 CV}	0.108 µg/L [0.104] {6.1 CV}	R^2=0.99924	0.100
CYL Std 3	CYLINDROSPERMOPSIN	0.541 Abs	0.257 µg/L	R^2=0.99924	0.250
CYL Std 3	CYLINDROSPERMOPSIN	0.533 Abs [0.5370] {1.1 CV}	0.266 µg/L [0.262] {2.4 CV}	R^2=0.99924	0.250
CYL Std 4	CYLINDROSPERMOPSIN	0.410 Abs	0.467 µg/L	R^2=0.99924	0.500
CYL Std 4	CYLINDROSPERMOPSIN	0.399 Abs [0.4045] {1.9 CV}	0.492 µg/L [0.479] {3.7 CV}	R^2=0.99924	0.500
CYL Std 5	CYLINDROSPERMOPSIN	0.279 Abs	0.951 µg/L	R^2=0.99924	1.000
CYL Std 5	CYLINDROSPERMOPSIN	0.271 Abs [0.2750] {2.1 CV}	1.002 µg/L [0.976] {3.7 CV}	R^2=0.99924	1.000
CYL Std 6	CYLINDROSPERMOPSIN	0.194 Abs	1.856 µg/L	R^2=0.99924	2.000
CYL Std 6	CYLINDROSPERMOPSIN	0.170 Abs [0.1820] {9.3 CV}	> 2.000 µg/L [1.856]		2.000
CYL LRB	CYLINDROSPERMOPSIN	0.929 Abs	0.014 µg/L		0 +- 0.4
CYL LRB	CYLINDROSPERMOPSIN	0.926 Abs [0.9275] {0.2 CV}	0.015 µg/L [0.014] {4.9 CV}		0 +- 0.4
CYL QCS	CYLINDROSPERMOPSIN	0.317 Abs	0.756 µg/L		0.75 +- 0.05
CYL QCS	CYLINDROSPERMOPSIN	0.322 Abs [0.3195] {1.1 CV}	0.734 µg/L [0.745] {2.1 CV}		0.75 +- 0.05
CYL LFB 1	CYLINDROSPERMOPSIN	0.331 Abs	0.699 µg/L		0.050 - 2
CYL LFB 1	CYLINDROSPERMOPSIN	0.332 Abs [0.3315] {0.2 CV}	0.695 µg/L [0.697] {0.4 CV}		0.050 - 2
AB39883	CYLINDROSPERMOPSIN	0.896 Abs	0.026 µg/L	LOW	0.050 - 2
AB39883	CYLINDROSPERMOPSIN	0.876 Abs [0.8860] {1.6 CV}	0.034 µg/L [0.030] {18.9 CV}	LOW [LOW]	0.050 - 2
AB39883MS	CYLINDROSPERMOPSIN	0.350 Abs	0.630 µg/L		0.050 - 2
AB39883MS	CYLINDROSPERMOPSIN	0.360 Abs [0.3550] {2.0 CV}	0.598 µg/L [0.614] {3.7 CV}		0.050 - 2
AB39883MSD	CYLINDROSPERMOPSIN	0.347 Abs	0.641 µg/L		0.050 - 2
AB39883MSD	CYLINDROSPERMOPSIN	0.363 Abs [0.3550] {3.2 CV}	0.589 µg/L [0.615] {6.0 CV}		0.050 - 2
AB39879	CYLINDROSPERMOPSIN	0.874 Abs	0.034 µg/L	LOW	0.050 - 2
AB39879	CYLINDROSPERMOPSIN	0.867 Abs [0.8705] {0.6 CV}	0.037 µg/L [0.036] {6.0 CV}	LOW [LOW]	0.050 - 2
AB39880	CYLINDROSPERMOPSIN	0.878 Abs	0.033 µg/L	LOW	0.050 - 2
AB39880	CYLINDROSPERMOPSIN	0.842 Abs [0.8600] {3.0 CV}	0.047 µg/L [0.040] {24.7 CV}	LOW [LOW]	0.050 - 2
AB39881	CYLINDROSPERMOPSIN	0.863 Abs	0.039 µg/L	LOW	0.050 - 2
AB39881	CYLINDROSPERMOPSIN	0.888 Abs [0.8755] {2.0 CV}	0.029 µg/L [0.034] {20.8 CV}	LOW [LOW]	0.050 - 2
AB39884	CYLINDROSPERMOPSIN	0.865 Abs	0.038 µg/L	LOW	0.050 - 2
AB39884	CYLINDROSPERMOPSIN	0.854 Abs [0.8595] {0.9 CV}	0.042 µg/L [0.040] {7.1 CV}	LOW [LOW]	0.050 - 2
AB39885	CYLINDROSPERMOPSIN	0.858 Abs	0.041 µg/L	LOW	0.050 - 2
AB39885	CYLINDROSPERMOPSIN	0.849 Abs [0.8535] {0.7 CV}	0.044 µg/L [0.043] {5.0 CV}	LOW [LOW]	0.050 - 2
AB39886	CYLINDROSPERMOPSIN	0.834 Abs	0.051 µg/L		0.050 - 2
AB39886	CYLINDROSPERMOPSIN	0.823 Abs [0.8285] {0.9 CV}	0.056 µg/L [0.054] {6.6 CV}		0.050 - 2
AB39899	CYLINDROSPERMOPSIN	0.835 Abs	0.050 µg/L		0.050 - 2
AB39899	CYLINDROSPERMOPSIN	0.850 Abs [0.8425] {1.3 CV}	0.044 µg/L [0.047] {9.0 CV}	LOW [LOW]	0.050 - 2
AB39900	CYLINDROSPERMOPSIN	0.844 Abs	0.046 µg/L	LOW	0.050 - 2
AB39900	CYLINDROSPERMOPSIN	0.870 Abs [0.8570] {2.1 CV}	0.036 µg/L [0.041] {17.2 CV}	LOW [LOW]	0.050 - 2
AB39901	CYLINDROSPERMOPSIN	0.857 Abs	0.041 µg/L	LOW	0.050 - 2
AB39901	CYLINDROSPERMOPSIN	0.840 Abs [0.8485] {1.4 CV}	0.048 µg/L [0.045] {11.1 CV}	LOW [LOW]	0.050 - 2

Note

Signature 
Date: 7/25/2019



CYLINDROSPERMOPSIN - Assay Calibration Report

Assay Information

Assay Name: CYLINDROSPERMOPSIN

Version: 1

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: 7 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: 12/6/2017 9:32:58 AM

Normal: 0.050 - 2.000

of decimals: 3

Assay Calibration

Current Calibration Status: "

"

Name	Absorbance	Concentration	Interpretation	Position	
7/25/2019 8:41:55 AM					
CYL Std 0	0.979 Abs	0.000 µg/L	R^2=0.99924	RK1:23->A01@2	
CYL Std 0	0.958 Abs [0.9685] {1.5 CV}	0.005 µg/L [0.003] {141.4 CV}	R^2=0.99924	RK1:23->B01@2	
CYL Std 1	0.847 Abs	0.045 µg/L	R^2=0.99924	RK1:24->C01@2	
CYL Std 1	0.846 Abs [0.8465] {0.1 CV}	0.046 µg/L [0.046] {1.6 CV}	R^2=0.99924	RK1:24->D01@2	
CYL Std 2	0.737 Abs	0.099 µg/L	R^2=0.99924	RK1:25->E01@2	
CYL Std 2	0.721 Abs [0.7290] {1.6 CV}	0.108 µg/L [0.104] {6.1 CV}	R^2=0.99924	RK1:25->F01@3	
CYL Std 3	0.541 Abs	0.257 µg/L	R^2=0.99924	RK1:26->G01@3	
CYL Std 3	0.533 Abs [0.5370] {1.1 CV}	0.266 µg/L [0.262] {2.4 CV}	R^2=0.99924	RK1:26->H01@3	
CYL Std 4	0.410 Abs	0.467 µg/L	R^2=0.99924	RK1:27->A02@2	
CYL Std 4	0.399 Abs [0.4045] {1.9 CV}	0.492 µg/L [0.479] {3.7 CV}	R^2=0.99924	RK1:27->B02@2	
CYL Std 5	0.279 Abs	0.951 µg/L	R^2=0.99924	RK1:28->C02@2	
CYL Std 5	0.271 Abs [0.2750] {2.1 CV}	1.002 µg/L [0.976] {3.7 CV}	R^2=0.99924	RK1:28->D02@2	
CYL Std 6	0.194 Abs	1.856 µg/L	R^2=0.99924	RK1:29->E02@2	
CYL Std 6	0.170 Abs [0.1820] {9.3 CV}	> 2.000 µg/L [1.856]		RK1:29->F02@3	

7/25/2019 8:41:55 AM					
CYL LRB	0.929 Abs	0.014 µg/L		RK1:31->G02@3	
CYL LRB	0.926 Abs [0.9275] {0.2 CV}	0.015 µg/L [0.014] {4.9 CV}		RK1:31->H02@3	
CYL QCS	0.317 Abs	0.756 µg/L		RK1:30->A03@2	
CYL QCS	0.322 Abs [0.3195] {1.1 CV}	0.734 µg/L [0.745] {2.1 CV}		RK1:30->B03@2	

Statistic					
CYL Std 0 [MEAN]	0.9685	0.0025			
CYL Std 0 [SD]	0.0148	0.0035			
CYL Std 0 [%CV]	1.5332	141.4214			
CYL Std 1 [MEAN]	0.8465	0.0455			
CYL Std 1 [SD]	0.0007	0.0007			
CYL Std 1 [%CV]	0.0835	1.5541			
CYL Std 1 [%DIFF]		-9.0000			
CYL Std 2 [MEAN]	0.7290	0.1035			
CYL Std 2 [SD]	0.0113	0.0064			
CYL Std 2 [%CV]	1.5519	6.1488			
CYL Std 2 [%DIFF]		3.5000			
CYL Std 3 [MEAN]	0.5370	0.2615			
CYL Std 3 [SD]	0.0057	0.0064			
CYL Std 3 [%CV]	1.0534	2.4336			
CYL Std 3 [%DIFF]		4.6000			
CYL Std 4 [MEAN]	0.4045	0.4795			

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 4 [SD]	0.0078	0.0177		
CYL Std 4 [%CV]	1.9229	3.6867		
CYL Std 4 [%DIFF]		-4.1000		
CYL Std 5 [MEAN]	0.2750	0.9765		
CYL Std 5 [SD]	0.0057	0.0361		
CYL Std 5 [%CV]	2.0570	3.6930		
CYL Std 5 [%DIFF]		-2.3500		
CYL Std 6 [MEAN]	0.1820			
CYL Std 6 [SD]	0.0170			
CYL Std 6 [%CV]	9.3245			
CYL LRB [MEAN]	0.9275	0.0145		
CYL LRB [SD]	0.0021	0.0007		
CYL LRB [%CV]	0.2287	4.8766		
CYL QCS [MEAN]	0.3195	0.7450		
CYL QCS [SD]	0.0035	0.0156		
CYL QCS [%CV]	1.1066	2.0881		
CYL QCS [%DIFF]		-0.6667		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 0.97235
B = 1.0042
C = 0.27477
D = 0.079710
R2 coef = 0.99924

