



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	8/7/2019	8/8/2019	<0.120	
LFB 1	Lab Fortified Blank (Spike = 0.60 ppb)	8/7/2019	8/8/2019	0.614	102
AB40022	Raccoon Lake SRA	8/5/2019	8/8/2019	<0.120	
AB40025	Starve Hollow SRA	8/5/2019	8/8/2019	<0.120	
AB40026	Whitewater Memorial SP	8/6/2019	8/8/2019	<0.120	
AB40026MS	Whitewater Memorial SP MS (Spk. = 0.6 ppb)	8/6/2019	8/8/2019	0.668	108
AB40026MSD	Whitewater Memorial SP MSD (Spk. = 0.6 ppb)	8/6/2019	8/8/2019	0.699	113
AB40027	Quakertown SRA	8/6/2019	8/8/2019	<0.120	
AB40028	Mounds SRA	8/6/2019	8/8/2019	<0.120	
AB40029	Hardy Lake SRA	8/6/2019	8/8/2019	<0.120	
AB40030	Deam Lake SRA	8/6/2019	8/8/2019	<0.120	
AB40031	Field Blank	8/6/2019	8/8/2019	<0.120	
AB40033	Raccoon Lake SRA Field Dup.	8/5/2019	8/8/2019	<0.120	
AB40046	Fairfax SRA	8/5/2019	8/8/2019	<0.120	
AB40047	Paynetown SRA	8/5/2019	8/8/2019	<0.120	
LRB 2	Lab Reagent Blank 2	8/7/2019	8/8/2019	<0.120	
LFB 2	Lab Fortified Blank 2 (Spike = 0.60 ppb)	8/7/2019	8/8/2019	0.689	115

Test Information

Request: 8/8/2019 7:18:20 AM
Date: 8/8/2019

Name/ID	Assay	Absorbance	Concentration	Interpretation	Reference
CYL Std 0	CYLINDROSPERMOPSIN	0.924 Abs	0.004 µg/L	R^2=0.99984	0.000
CYL Std 0	CYLINDROSPERMOPSIN	0.949 Abs [0.9365] {1.9 CV}	0.000 µg/L [0.002] {141.1}	R^2=0.99984	0.000
CYL Std 1	CYLINDROSPERMOPSIN	0.802 Abs	0.047 µg/L	R^2=0.99984	0.050
CYL Std 1	CYLINDROSPERMOPSIN	0.799 Abs [0.8005] {0.3 CV}	0.049 µg/L [0.048] {2.9}	R^2=0.99984	0.050
CYL Std 2	CYLINDROSPERMOPSIN	0.707 Abs	0.096 µg/L	R^2=0.99984	0.100
CYL Std 2	CYLINDROSPERMOPSIN	0.686 Abs [0.6965] {2.1 CV}	0.109 µg/L [0.102] {9.0}	R^2=0.99984	0.100
CYL Std 3	CYLINDROSPERMOPSIN	0.515 Abs	0.264 µg/L	R^2=0.99984	0.250
CYL Std 3	CYLINDROSPERMOPSIN	0.530 Abs [0.5225] {2.0 CV}	0.245 µg/L [0.255] {5.3}	R^2=0.99984	0.250
CYL Std 4	CYLINDROSPERMOPSIN	0.385 Abs	0.497 µg/L	R^2=0.99984	0.500
CYL Std 4	CYLINDROSPERMOPSIN	0.389 Abs [0.3870] {0.7 CV}	0.487 µg/L [0.492] {1.4}	R^2=0.99984	0.500
CYL Std 5	CYLINDROSPERMOPSIN	0.265 Abs	0.979 µg/L	R^2=0.99984	1.000
CYL Std 5	CYLINDROSPERMOPSIN	0.264 Abs [0.2645] {0.3 CV}	0.986 µg/L [0.982] {0.5}	R^2=0.99984	1.000
CYL Std 6	CYLINDROSPERMOPSIN	0.179 Abs	1.909 µg/L	R^2=0.99984	2.000
CYL Std 6	CYLINDROSPERMOPSIN	0.166 Abs [0.1725] {5.3 CV}	> 2.000 µg/L [1.909]		2.000
CYL LRB	CYLINDROSPERMOPSIN	0.879 Abs	0.018 µg/L		0 +- 0.4
CYL LRB	CYLINDROSPERMOPSIN	0.920 Abs [0.8995] {3.2 CV}	0.005 µg/L [0.011] {79.9}		0 +- 0.4
CYL QCS	CYLINDROSPERMOPSIN	0.296 Abs	0.808 µg/L		0.75 +- 0.05
CYL QCS	CYLINDROSPERMOPSIN	0.303 Abs [0.2995] {1.7 CV}	0.775 µg/L [0.791] {2.9}		0.75 +- 0.05
CYL LFB 1	CYLINDROSPERMOPSIN	0.346 Abs	0.609 µg/L		0.050 - 2
CYL LFB 1	CYLINDROSPERMOPSIN	0.343 Abs [0.3445] {0.6 CV}	0.619 µg/L [0.614] {1.2}		0.050 - 2
AB40022	CYLINDROSPERMOPSIN	0.835 Abs	0.034 µg/L	LOW	0.050 - 2
AB40022	CYLINDROSPERMOPSIN	0.827 Abs [0.8310] {0.7 CV}	0.037 µg/L [0.036] {6.0}	LOW [LOW]	0.050 - 2
AB40025	CYLINDROSPERMOPSIN	0.842 Abs	0.031 µg/L	LOW	0.050 - 2
AB40025	CYLINDROSPERMOPSIN	0.845 Abs [0.8435] {0.3 CV}	0.030 µg/L [0.030] {2.3}	LOW [LOW]	0.050 - 2
AB40026	CYLINDROSPERMOPSIN	0.859 Abs	0.025 µg/L	LOW	0.050 - 2
AB40026	CYLINDROSPERMOPSIN	0.879 Abs [0.8690] {1.6 CV}	0.018 µg/L [0.021] {23.0}	LOW [LOW]	0.050 - 2
AB40026MS	CYLINDROSPERMOPSIN	0.329 Abs	0.668 µg/L		0.050 - 2
AB40026MS	CYLINDROSPERMOPSIN	0.329 Abs [0.3290] {0.0 CV}	0.668 µg/L [0.668] {0.0}		0.050 - 2
AB40026MSD	CYLINDROSPERMOPSIN	0.322 Abs	0.695 µg/L		0.050 - 2
AB40026MSD	CYLINDROSPERMOPSIN	0.320 Abs [0.3210] {0.4 CV}	0.703 µg/L [0.699] {0.8}		0.050 - 2
AB40027	CYLINDROSPERMOPSIN	0.848 Abs	0.029 µg/L	LOW	0.050 - 2
AB40027	CYLINDROSPERMOPSIN	0.856 Abs [0.8520] {0.7 CV}	0.026 µg/L [0.027] {7.7}	LOW [LOW]	0.050 - 2
AB40028	CYLINDROSPERMOPSIN	0.854 Abs	0.026 µg/L	LOW	0.050 - 2
AB40028	CYLINDROSPERMOPSIN	0.848 Abs [0.8510] {0.5 CV}	0.029 µg/L [0.027] {7.7}	LOW [LOW]	0.050 - 2
AB40029	CYLINDROSPERMOPSIN	0.813 Abs	0.043 µg/L	LOW	0.050 - 2
AB40029	CYLINDROSPERMOPSIN	0.808 Abs [0.8105] {0.4 CV}	0.045 µg/L [0.044] {3.2}	LOW [LOW]	0.050 - 2
AB40030	CYLINDROSPERMOPSIN	0.805 Abs	0.046 µg/L	LOW	0.050 - 2
AB40030	CYLINDROSPERMOPSIN	0.824 Abs [0.8145] {1.6 CV}	0.038 µg/L [0.042] {13.5}	LOW [LOW]	0.050 - 2
AB40031	CYLINDROSPERMOPSIN	0.847 Abs	0.029 µg/L	LOW	0.050 - 2
AB40031	CYLINDROSPERMOPSIN	0.852 Abs [0.8495] {0.4 CV}	0.027 µg/L [0.028] {5.1}	LOW [LOW]	0.050 - 2
AB40033	CYLINDROSPERMOPSIN	0.850 Abs	0.028 µg/L	LOW	0.050 - 2
AB40033	CYLINDROSPERMOPSIN	0.847 Abs [0.8485] {0.3 CV}	0.029 µg/L [0.029] {2.5}	LOW [LOW]	0.050 - 2
AB40046	CYLINDROSPERMOPSIN	0.825 Abs	0.038 µg/L	LOW	0.050 - 2
AB40046	CYLINDROSPERMOPSIN	0.823 Abs [0.8240] {0.2 CV}	0.038 µg/L [0.038] {0.0}	LOW [LOW]	0.050 - 2
AB40047	CYLINDROSPERMOPSIN	0.827 Abs	0.037 µg/L	LOW	0.050 - 2
AB40047	CYLINDROSPERMOPSIN	0.804 Abs [0.8155] {2.0 CV}	0.046 µg/L [0.042] {15.3}	LOW [LOW]	0.050 - 2
CYL LRB 2	CYLINDROSPERMOPSIN	0.852 Abs	0.027 µg/L	LOW	0.050 - 2
CYL LRB 2	CYLINDROSPERMOPSIN	0.846 Abs [0.8490] {0.5 CV}	0.029 µg/L [0.028] {5.1}	LOW [LOW]	0.050 - 2
LFB 2	CYLINDROSPERMOPSIN	0.326 Abs	0.679 µg/L		0.050 - 2
LFB 2	CYLINDROSPERMOPSIN	0.321 Abs [0.3235] {1.1 CV}	0.699 µg/L [0.689] {2.1}		0.050 - 2



Test Report (by Request)

Note

Signature David Jordan



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	
8/8/2019 7:18:20 AM					
CYL Std 0	0.924 Abs	0.004 µg/L	R^2=0.99984	RK1:23->A01@2	
CYL Std 0	0.949 Abs [0.9365] {1.9 CV}	0.000 µg/L [0.002] {141.4 CV}	R^2=0.99984	RK1:23->B01@2	
CYL Std 1	0.802 Abs	0.047 µg/L	R^2=0.99984	RK1:24->C01@2	
CYL Std 1	0.799 Abs [0.8005] {0.3 CV}	0.049 µg/L [0.048] {2.9 CV}	R^2=0.99984	RK1:24->D01@2	
CYL Std 2	0.707 Abs	0.096 µg/L	R^2=0.99984	RK1:25->E01@2	
CYL Std 2	0.686 Abs [0.6965] {2.1 CV}	0.109 µg/L [0.102] {9.0 CV}	R^2=0.99984	RK1:25->F01@3	
CYL Std 3	0.515 Abs	0.264 µg/L	R^2=0.99984	RK1:26->G01@3	
CYL Std 3	0.530 Abs [0.5225] {2.0 CV}	0.245 µg/L [0.255] {5.3 CV}	R^2=0.99984	RK1:26->H01@3	
CYL Std 4	0.385 Abs	0.497 µg/L	R^2=0.99984	RK1:27->A02@2	
CYL Std 4	0.389 Abs [0.3870] {0.7 CV}	0.487 µg/L [0.492] {1.4 CV}	R^2=0.99984	RK1:27->B02@2	
CYL Std 5	0.265 Abs	0.979 µg/L	R^2=0.99984	RK1:28->C02@2	
CYL Std 5	0.264 Abs [0.2645] {0.3 CV}	0.986 µg/L [0.982] {0.5 CV}	R^2=0.99984	RK1:28->D02@2	
CYL Std 6	0.179 Abs	1.909 µg/L	R^2=0.99984	RK1:29->E02@2	
CYL Std 6	0.166 Abs [0.1725] {5.3 CV}	> 2.000 µg/L [1.909]		RK1:29->F02@3	

8/8/2019 7:18:20 AM					
CYL LRB	0.879 Abs	0.018 µg/L		RK1:31->G02@3	
CYL LRB	0.920 Abs [0.8995] {3.2 CV}	0.005 µg/L [0.011] {79.9 CV}		RK1:31->H02@3	
CYL QCS	0.296 Abs	0.808 µg/L		RK1:30->A03@2	
CYL QCS	0.303 Abs [0.2995] {1.7 CV}	0.775 µg/L [0.791] {2.9 CV}		RK1:30->B03@2	

Statistic					
CYL Std 0 [MEAN]	0.9365	0.0020			
CYL Std 0 [SD]	0.0177	0.0028			
CYL Std 0 [%CV]	1.8876	141.4214			
CYL Std 1 [MEAN]	0.8005	0.0480			
CYL Std 1 [SD]	0.0021	0.0014			
CYL Std 1 [%CV]	0.2650	2.9463			
CYL Std 1 [%DIFF]		-4.0000			
CYL Std 2 [MEAN]	0.6965	0.1025			
CYL Std 2 [SD]	0.0148	0.0092			
CYL Std 2 [%CV]	2.1320	8.9682			
CYL Std 2 [%DIFF]		2.5000			
CYL Std 3 [MEAN]	0.5225	0.2545			
CYL Std 3 [SD]	0.0106	0.0134			
CYL Std 3 [%CV]	2.0300	5.2790			
CYL Std 3 [%DIFF]		1.8000			
CYL Std 4 [MEAN]	0.3870	0.4920			

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 4 [SD]	0.0028	0.0071		
CYL Std 4 [%CV]	0.7309	1.4372		
CYL Std 4 [%DIFF]		-1.6000		
CYL Std 5 [MEAN]	0.2645	0.9825		
CYL Std 5 [SD]	0.0007	0.0049		
CYL Std 5 [%CV]	0.2673	0.5038		
CYL Std 5 [%DIFF]		-1.7500		
CYL Std 6 [MEAN]	0.1725			
CYL Std 6 [SD]	0.0092			
CYL Std 6 [%CV]	5.3289			
CYL LRB [MEAN]	0.8995	0.0115		
CYL LRB [SD]	0.0290	0.0092		
CYL LRB [%CV]	3.2231	79.9338		
CYL QCS [MEAN]	0.2995	0.7915		
CYL QCS [SD]	0.0049	0.0233		
CYL QCS [%CV]	1.6527	2.9481		
CYL QCS [%DIFF]		5.5333		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
Weight: NONE
A = 0.93830
B = 0.93447
C = 0.29341
D = 0.047308
R2 coef = 0.99985

