



Cylindrospermopsin ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

Sample #	Location	Date Collected	Date Analyzed	Conc. (ppb)
AC03329	Pokagon SP - Main Beach	7/17/2023	7/19/2023	< 0.15
AC03330	Pokagon SP - Potawatomi Inn Beach	7/17/2023	7/19/2023	< 0.15
AC03331	Chain O'Lakes SP - Sand Lake Beach	7/17/2023	7/19/2023	< 0.15
AC03332	Ouabache SP - Kunkel Lake Beach	7/17/2023	7/19/2023	< 0.15
AC03333	Potato Creek SP - Worster Lake Beach	7/17/2023	7/19/2023	< 0.15
AC03334	Mississinewa Lake - Miami SRA Beach	7/18/2023	7/19/2023	< 0.15
AC03335	Salamonie Lake - Lost Bridge West SRA Beach	7/18/2023	7/19/2023	< 0.15
AC03336	Summit Lake SP - Summit Lake Beach	7/18/2023	7/19/2023	< 0.15
AC03337	Pokagon SP - Potawatomi Inn Beach (Field Duplicate)	7/17/2023	7/19/2023	< 0.15
AC03338	Field Blank	7/17/2023	7/19/2023	< 0.15
AC03339	Lincoln SP - Lake Lincoln Beach	7/17/2023	7/19/2023	< 0.15
AC03340	Ferdinand State Forest - Ferdinand Lake Beach	7/17/2023	7/19/2023	< 0.15
AC03341	Patoka Lake - Newton Stewart SRA	7/17/2023	7/19/2023	< 0.15

Test Information

 Request: 7/19/2023 5:43:57 PM
 Date: 7/19/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
CYL Std 0	CYLINDROSPERMOPSIN	1.331 Abs	0.000 µg/L	R ² =0.99874, 100.3		0.000	Kit:P23C0
CYL Std 0	CYLINDROSPERMOPSIN	1.320 Abs [1.3255] {0.6 C	0.002 µg/L [0.001]	R ² =0.99874, 99.54		0.000	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	1.077 Abs	0.045 µg/L	R ² =0.99874, 81.22		0.050	Kit:P23C0
CYL Std 1	CYLINDROSPERMOPSIN	1.065 Abs [1.0710] {0.8 C	0.048 µg/L [0.047]	R ² =0.99874, 80.31		0.050	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.855 Abs	0.102 µg/L	R ² =0.99874, 64.48		0.100	Kit:P23C0
CYL Std 2	CYLINDROSPERMOPSIN	0.842 Abs [0.8485] {1.1 C	0.106 µg/L [0.104]	R ² =0.99874, 63.45		0.100	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.552 Abs	0.256 µg/L	R ² =0.99874, 41.62		0.250	Kit:P23C0
CYL Std 3	CYLINDROSPERMOPSIN	0.532 Abs [0.5420] {2.6 C	0.272 µg/L [0.264]	R ² =0.99874, 40.12		0.250	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.393 Abs	0.443 µg/L	R ² =0.99874, 29.63		0.500	Kit:P23C0
CYL Std 4	CYLINDROSPERMOPSIN	0.379 Abs [0.3860] {2.6 C	0.469 µg/L [0.456]	R ² =0.99874, 28.58		0.500	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.235 Abs	0.968 µg/L	R ² =0.99874, 17.72		1.000	Kit:P23C0
CYL Std 5	CYLINDROSPERMOPSIN	0.237 Abs [0.2360] {0.6 C	0.955 µg/L [0.962]	R ² =0.99874, 17.87		1.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.145 Abs	> 2.000 µg/L	10.935 %Abs		2.000	Kit:P23C0
CYL Std 6	CYLINDROSPERMOPSIN	0.136 Abs [0.1405] {4.5 C	> 2.000 µg/L	10.256 %Abs		2.000	Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.257 Abs	0.843 µg/L	19.382 %Abs			Kit:P23C0
CYL QCS	CYLINDROSPERMOPSIN	0.259 Abs [0.2580] {0.5 C	0.833 µg/L [0.838]	19.532 %Abs [19.4			Kit:P23C0

Note

 Signature *David Jordan*

David Jordan 7/19/2023

Test Report (by Request)

Test Information

 Request: 7/19/2023 5:45:20 PM
 Date: 7/19/2023

Name/ID	Assay	Absorbance	Concentration	Interpretation	Note	Reference	Lot#
LRB (CYL)	CYLINDROSPERMOPSIN	1.335 Abs	0.000 µg/L	Low, 100.679 %Abs		0.050 - 2.000	Kit:P23C0
LRB (CYL)	CYLINDROSPERMOPSIN	1.278 Abs [1.3065] {3.1 C	0.009 µg/L [0.005]	Low, 96.380 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.324 Abs	0.594 µg/L	24.434 %Abs		0.050 - 2.000	Kit:P23C0
LFB (CYL)	CYLINDROSPERMOPSIN	0.308 Abs [0.3160] {3.6 C	0.641 µg/L [0.618]	23.228 %Abs [23.8		0.050 - 2.000	Kit:P23C0
AC03329	CYLINDROSPERMOPSIN	1.216 Abs	0.019 µg/L	Low, 91.704 %Abs		0.050 - 2.000	Kit:P23C0
AC03329	CYLINDROSPERMOPSIN	1.209 Abs [1.2125] {0.4 C	0.020 µg/L [0.020]	Low, 91.176 %Abs		0.050 - 2.000	Kit:P23C0
AC03330	CYLINDROSPERMOPSIN	1.201 Abs	0.022 µg/L	Low, 90.573 %Abs		0.050 - 2.000	Kit:P23C0
AC03330	CYLINDROSPERMOPSIN	1.211 Abs [1.2060] {0.6 C	0.020 µg/L [0.021]	Low, 91.327 %Abs		0.050 - 2.000	Kit:P23C0
AC03331	CYLINDROSPERMOPSIN	1.316 Abs	0.003 µg/L	Low, 99.246 %Abs		0.050 - 2.000	Kit:P23C0
AC03331	CYLINDROSPERMOPSIN	1.266 Abs [1.2910] {2.7 C	0.011 µg/L [0.007]	Low, 95.475 %Abs		0.050 - 2.000	Kit:P23C0
AC03332	CYLINDROSPERMOPSIN	1.262 Abs	0.011 µg/L	Low, 95.173 %Abs		0.050 - 2.000	Kit:P23C0
AC03332	CYLINDROSPERMOPSIN	1.242 Abs [1.2520] {1.1 C	0.015 µg/L [0.013]	Low, 93.665 %Abs		0.050 - 2.000	Kit:P23C0
AC03333	CYLINDROSPERMOPSIN	1.241 Abs	0.015 µg/L	Low, 93.590 %Abs		0.050 - 2.000	Kit:P23C0
AC03333	CYLINDROSPERMOPSIN	1.227 Abs [1.2340] {0.8 C	0.017 µg/L [0.016]	Low, 92.534 %Abs		0.050 - 2.000	Kit:P23C0
AC03334	CYLINDROSPERMOPSIN	1.226 Abs	0.017 µg/L	Low, 92.459 %Abs		0.050 - 2.000	Kit:P23C0
AC03334	CYLINDROSPERMOPSIN	1.236 Abs [1.2310] {0.6 C	0.016 µg/L [0.017]	Low, 93.213 %Abs		0.050 - 2.000	Kit:P23C0
AC03334MS	CYLINDROSPERMOPSIN	0.378 Abs	0.470 µg/L	28.507 %Abs		0.050 - 2.000	Kit:P23C0
AC03334MS	CYLINDROSPERMOPSIN	0.356 Abs [0.3670] {4.2 C	0.515 µg/L [0.493]	26.848 %Abs [27.6		0.050 - 2.000	Kit:P23C0
AC03334MSD	CYLINDROSPERMOPSIN	0.354 Abs	0.520 µg/L	26.697 %Abs		0.050 - 2.000	Kit:P23C0
AC03334MSD	CYLINDROSPERMOPSIN	0.349 Abs [0.3515] {1.0 C	0.531 µg/L [0.526]	26.320 %Abs [26.5		0.050 - 2.000	Kit:P23C0
AC03335	CYLINDROSPERMOPSIN	1.217 Abs	0.019 µg/L	Low, 91.780 %Abs		0.050 - 2.000	Kit:P23C0
AC03335	CYLINDROSPERMOPSIN	1.212 Abs [1.2145] {0.3 C	0.020 µg/L [0.020]	Low, 91.403 %Abs		0.050 - 2.000	Kit:P23C0
AC03336	CYLINDROSPERMOPSIN	1.018 Abs	0.058 µg/L	76.772 %Abs		0.050 - 2.000	Kit:P23C0
AC03336	CYLINDROSPERMOPSIN	0.985 Abs [1.0015] {2.3 C	0.066 µg/L [0.062]	74.284 %Abs [75.5		0.050 - 2.000	Kit:P23C0
AC03337	CYLINDROSPERMOPSIN	1.311 Abs	0.003 µg/L	Low, 98.869 %Abs		0.050 - 2.000	Kit:P23C0
AC03337	CYLINDROSPERMOPSIN	1.265 Abs [1.2880] {2.5 C	0.011 µg/L [0.007]	Low, 95.400 %Abs		0.050 - 2.000	Kit:P23C0
AC03338	CYLINDROSPERMOPSIN	1.276 Abs	0.009 µg/L	Low, 96.229 %Abs		0.050 - 2.000	Kit:P23C0
AC03338	CYLINDROSPERMOPSIN	1.284 Abs [1.2800] {0.4 C	0.008 µg/L [0.009]	Low, 96.833 %Abs		0.050 - 2.000	Kit:P23C0
AC03339	CYLINDROSPERMOPSIN	1.056 Abs	0.049 µg/L	Low, 79.638 %Abs		0.050 - 2.000	Kit:P23C0
AC03339	CYLINDROSPERMOPSIN	1.039 Abs [1.0475] {1.1 C	0.053 µg/L [0.051]	78.356 %Abs [78.9		0.050 - 2.000	Kit:P23C0
AC03340	CYLINDROSPERMOPSIN	1.245 Abs	0.014 µg/L	Low, 93.891 %Abs		0.050 - 2.000	Kit:P23C0
AC03340	CYLINDROSPERMOPSIN	1.223 Abs [1.2340] {1.3 C	0.018 µg/L [0.016]	Low, 92.232 %Abs		0.050 - 2.000	Kit:P23C0
AC03341	CYLINDROSPERMOPSIN	1.302 Abs	0.005 µg/L	Low, 98.190 %Abs		0.050 - 2.000	Kit:P23C0
AC03341	CYLINDROSPERMOPSIN	1.203 Abs [1.2525] {5.6 C	0.021 µg/L [0.013]	Low, 90.724 %Abs		0.050 - 2.000	Kit:P23C0

Note

 Signature *David Jordan*

David Jordan 7/19/2023

Assay Information

Assay Name: CYLINDROSPERMOPSPIN_
 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: 9/30/2020 10:05:41 AM
 Normal: 0.050 - 2.000
 # of decimals: 3
 Kit Lot Number: Kit:P23C0657

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
7/19/2023 5:43:57 PM				
CYL Std 0	1.331 Abs	0.000 µg/L	R ² =0.99874, 100.377 %Abs	RK1:23->A01@2
CYL Std 0	1.320 Abs [1.3255] {0.6 CV}	0.002 µg/L [0.001] {141.4 CV}	R ² =0.99874, 99.548 %Abs	RK1:23->B01@2
CYL Std 1	1.077 Abs	0.045 µg/L	R ² =0.99874, 81.222 %Abs	RK1:24->C01@2
CYL Std 1	1.065 Abs [1.0710] {0.8 CV}	0.048 µg/L [0.047] {4.6 CV}	R ² =0.99874, 80.317 %Abs	RK1:24->D01@2
CYL Std 2	0.855 Abs	0.102 µg/L	R ² =0.99874, 64.480 %Abs	RK1:25->E01@2
CYL Std 2	0.842 Abs [0.8485] {1.1 CV}	0.106 µg/L [0.104] {2.7 CV}	R ² =0.99874, 63.499 %Abs	RK1:25->F01@3
CYL Std 3	0.552 Abs	0.256 µg/L	R ² =0.99874, 41.629 %Abs	RK1:26->G01@3
CYL Std 3	0.532 Abs [0.5420] {2.6 CV}	0.272 µg/L [0.264] {4.3 CV}	R ² =0.99874, 40.121 %Abs	RK1:26->H01@3
CYL Std 4	0.393 Abs	0.443 µg/L	R ² =0.99874, 29.638 %Abs	RK1:27->A02@2
CYL Std 4	0.379 Abs [0.3860] {2.6 CV}	0.469 µg/L [0.456] {4.0 CV}	R ² =0.99874, 28.582 %Abs	RK1:27->B02@2
CYL Std 5	0.235 Abs	0.968 µg/L	R ² =0.99874, 17.722 %Abs	RK1:28->C02@2
CYL Std 5	0.237 Abs [0.2360] {0.6 CV}	0.955 µg/L [0.962] {1.0 CV}	R ² =0.99874, 17.873 %Abs	RK1:28->D02@2
CYL Std 6	0.145 Abs	> 2.000 µg/L	10.935 %Abs	RK1:29->E02@2
CYL Std 6	0.136 Abs [0.1405] {4.5 CV}	> 2.000 µg/L	10.256 %Abs	RK1:29->F02@3
+++++				
7/19/2023 5:43:57 PM				
CYL QCS	0.257 Abs	0.843 µg/L	19.382 %Abs	RK1:30->G02@3
CYL QCS	0.259 Abs [0.2580] {0.5 CV}	0.833 µg/L [0.838] {0.8 CV}	19.532 %Abs [19.457 %Abs]	RK1:30->H02@3

Statistic				
CYL Std 0 [MEAN]	1.3255	0.0010		
CYL Std 0 [SD]	0.0078	0.0014		
CYL Std 0 [%CV]	0.5868	141.4214		
CYL Std 1 [MEAN]	1.0710	0.0465		
CYL Std 1 [SD]	0.0085	0.0021		
CYL Std 1 [%CV]	0.7923	4.5620		
CYL Std 1 [%DIFF]		-7.0000		
CYL Std 2 [MEAN]	0.8485	0.1040		
CYL Std 2 [SD]	0.0092	0.0028		
CYL Std 2 [%CV]	1.0834	2.7196		
CYL Std 2 [%DIFF]		4.0000		
CYL Std 3 [MEAN]	0.5420	0.2640		
CYL Std 3 [SD]	0.0141	0.0113		
CYL Std 3 [%CV]	2.6092	4.2855		
CYL Std 3 [%DIFF]		5.6000		
CYL Std 4 [MEAN]	0.3860	0.4560		
CYL Std 4 [SD]	0.0099	0.0184		
CYL Std 4 [%CV]	2.5646	4.0318		
CYL Std 4 [%DIFF]		-8.8000		

Name	Absorbance	Concentration	Interpretation	Position
CYL Std 5 [MEAN]	0.2360	0.9615		
CYL Std 5 [SD]	0.0014	0.0092		
CYL Std 5 [%CV]	0.5992	0.9560		
CYL Std 5 [%DIFF]		-3.8500		
CYL Std 6 [MEAN]	0.1405			
CYL Std 6 [SD]	0.0064			
CYL Std 6 [%CV]	4.5295			
CYL QCS [MEAN]	0.2580	0.8380		
CYL QCS [SD]	0.0014	0.0071		
CYL QCS [%CV]	0.5481	0.8438		

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.3305
 B = 1.0719
 C = 0.16238
 D = 0.073376
 R2 coef = 0.99874
 50% = 0.182

