



Microcystins ELISA Summary Report

Office of Water Quality - Watershed Assessment and Planning Branch

| Sample # | Location | Date Collected | Date Analyzed | Conc. (ppb) |
|----------|--|----------------|---------------|-------------|
| AC37294 | Potato Creek SP - Worster Lake Beach | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37295 | Mississinewa Lake - Miami SRA Beach | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37296 | Salamonie Lake - Lost Bridge West SRA Beach | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37297 | Ouabache SP - Kunkel Lake Beach | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37298 | Potato Creek SP - Worster Lake Beach (Field Duplicate) | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37299 | Field Blank | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37300 | Ferdinand State Forest - Ferdinand Lake Beach | 8/28/2023 | 8/29/2023 | < 0.30 |
| AC37301 | Patoka Lake - Newton Stewart SRA | 8/28/2023 | 8/29/2023 | < 0.30 |

Test Information

Request: 8/29/2023 4:16:51 PM
Date: 8/29/2023

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|----------------|----------------------|---------------------------|--------------------|--------------------|------|-----------|-----------|
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.183 Abs | 0.000 µg/L | R^2=0.99766, 100.4 | | 0.000 | Kit:P23C0 |
| MCT Std 0 | MICROCYSTINS ADDA 54 | 1.173 Abs [1.1780] {0.6 C | 0.013 µg/L [0.007] | R^2=0.99766, 99.57 | | 0.000 | Kit:P23C0 |
| MCT Std 1 | MICROCYSTINS ADDA 54 | 1.028 Abs | 0.130 µg/L | R^2=0.99766, 87.26 | | 0.150 | Kit:P23C0 |
| MCT Std 1 | MICROCYSTINS ADDA 54 | 0.998 Abs [1.0130] {2.1 C | 0.154 µg/L [0.142] | R^2=0.99766, 84.72 | | 0.150 | Kit:P23C0 |
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.752 Abs | 0.392 µg/L | R^2=0.99766, 63.83 | | 0.400 | Kit:P23C0 |
| MCT Std 2 | MICROCYSTINS ADDA 54 | 0.726 Abs [0.7390] {2.5 C | 0.426 µg/L [0.409] | R^2=0.99766, 61.63 | | 0.400 | Kit:P23C0 |
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.466 Abs | 1.020 µg/L | R^2=0.99766, 39.55 | | 1.000 | Kit:P23C0 |
| MCT Std 3 | MICROCYSTINS ADDA 54 | 0.447 Abs [0.4565] {2.9 C | 1.103 µg/L [1.062] | R^2=0.99766, 37.94 | | 1.000 | Kit:P23C0 |
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.360 Abs | 1.681 µg/L | R^2=0.99766, 30.56 | | 2.000 | Kit:P23C0 |
| MCT Std 4 | MICROCYSTINS ADDA 54 | 0.367 Abs [0.3635] {1.4 C | 1.616 µg/L [1.649] | R^2=0.99766, 31.15 | | 2.000 | Kit:P23C0 |
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.235 Abs | > 5.000 µg/L | 19.949 %Abs | | 5.000 | Kit:P23C0 |
| MCT Std 5 | MICROCYSTINS ADDA 54 | 0.220 Abs [0.2275] {4.7 C | > 5.000 µg/L | 18.676 %Abs | | 5.000 | Kit:P23C0 |
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.121 Abs | 0.059 µg/L | 95.161 %Abs | | | Kit:P23C0 |
| MCT 546 LRB 1 | MICROCYSTINS ADDA 54 | 1.128 Abs [1.1245] {0.4 C | 0.053 µg/L [0.056] | 95.756 %Abs [95.4 | | | Kit:P23C0 |
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.757 Abs | 0.386 µg/L | 64.261 %Abs | | | Kit:P23C0 |
| MCT 546 Low-CV | MICROCYSTINS ADDA 54 | 0.742 Abs [0.7495] {1.4 C | 0.405 µg/L [0.396] | 62.988 %Abs [63.6 | | | Kit:P23C0 |
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.683 Abs | 0.488 µg/L | 57.980 %Abs | | | Kit:P23C0 |
| MCT 546 LFB 1 | MICROCYSTINS ADDA 54 | 0.673 Abs [0.6780] {1.0 C | 0.503 µg/L [0.496] | 57.131 %Abs [57.5 | | | Kit:P23C0 |

Note

Signature 

David Jordan 8/29/2023

Test Report (by Request)

Test Information

Request: 8/29/2023 4:17:43 PM
Date: 8/29/2023

| Name/ID | Assay | Absorbance | Concentration | Interpretation | Note | Reference | Lot# |
|------------|----------------------|---------------------------|--------------------|-------------------|------|---------------|-----------|
| AC37294 | MICROCYSTINS ADDA 54 | 1.083 Abs | 0.088 µg/L | Low, 91.935 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37294 | MICROCYSTINS ADDA 54 | 1.072 Abs [1.0775] {0.7 C | 0.097 µg/L [0.093] | Low, 91.002 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295 | MICROCYSTINS ADDA 54 | 1.012 Abs | 0.143 µg/L | Low, 85.908 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295 | MICROCYSTINS ADDA 54 | 1.011 Abs [1.0115] {0.1 C | 0.143 µg/L [0.143] | Low, 85.823 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295MS | MICROCYSTINS ADDA 54 | 0.558 Abs | 0.730 µg/L | 47.368 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295MS | MICROCYSTINS ADDA 54 | 0.547 Abs [0.5525] {1.4 C | 0.758 µg/L [0.744] | 46.435 %Abs [46.9 | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295MSD | MICROCYSTINS ADDA 54 | 0.561 Abs | 0.722 µg/L | 47.623 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37295MSD | MICROCYSTINS ADDA 54 | 0.567 Abs [0.5640] {0.8 C | 0.708 µg/L [0.715] | 48.132 %Abs [47.8 | | 0.300 - 5.000 | Kit:P23C0 |
| AC37296 | MICROCYSTINS ADDA 54 | 0.961 Abs | 0.184 µg/L | Low, 81.579 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37296 | MICROCYSTINS ADDA 54 | 0.943 Abs [0.9520] {1.3 C | 0.199 µg/L [0.192] | Low, 80.051 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37297 | MICROCYSTINS ADDA 54 | 0.927 Abs | 0.212 µg/L | Low, 78.693 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37297 | MICROCYSTINS ADDA 54 | 0.922 Abs [0.9245] {0.4 C | 0.217 µg/L [0.215] | Low, 78.268 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37298 | MICROCYSTINS ADDA 54 | 1.005 Abs | 0.148 µg/L | Low, 85.314 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37298 | MICROCYSTINS ADDA 54 | 0.972 Abs [0.9885] {2.4 C | 0.175 µg/L [0.162] | Low, 82.513 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37299 | MICROCYSTINS ADDA 54 | 1.162 Abs | 0.024 µg/L | Low, 98.642 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37299 | MICROCYSTINS ADDA 54 | 1.165 Abs [1.1635] {0.2 C | 0.021 µg/L [0.023] | Low, 98.896 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37300 | MICROCYSTINS ADDA 54 | 0.908 Abs | 0.229 µg/L | Low, 77.080 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37300 | MICROCYSTINS ADDA 54 | 0.935 Abs [0.9215] {2.1 C | 0.205 µg/L [0.217] | Low, 79.372 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37301 | MICROCYSTINS ADDA 54 | 1.109 Abs | 0.068 µg/L | Low, 94.143 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| AC37301 | MICROCYSTINS ADDA 54 | 1.081 Abs [1.0950] {1.8 C | 0.090 µg/L [0.079] | Low, 91.766 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| LFB 2 | MICROCYSTINS ADDA 54 | 0.633 Abs | 0.571 µg/L | 53.735 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| LFB 2 | MICROCYSTINS ADDA 54 | 0.616 Abs [0.6245] {1.9 C | 0.603 µg/L [0.587] | 52.292 %Abs [53.0 | | 0.300 - 5.000 | Kit:P23C0 |
| LRB 2 | MICROCYSTINS ADDA 54 | 1.183 Abs | 0.000 µg/L | Low, 100.424 %Abs | | 0.300 - 5.000 | Kit:P23C0 |
| LRB 2 | MICROCYSTINS ADDA 54 | 1.171 Abs [1.1770] {0.7 C | 0.015 µg/L [0.008] | Low, 99.406 %Abs | | 0.300 - 5.000 | Kit:P23C0 |

Note

Signature

David Jordan

David Jordan 8/29/2023

Assay Information

Assay Name: MICROCYSTINS ADDA 546_

Version: 2

Temperature: Room Temperature

Last Modified By: Security disabled

Units: µg/L

Assay Description:

Assay Substances:

Controls:

MCT 546 LRB 1

MCT 546 Low-CV

MCT 546 LFB 1

Standards:

MCT Std 0, Concentration = 0.000, Minimum number to use: 2

MCT Std 1, Concentration = 0.150, Minimum number to use: 2

MCT Std 2, Concentration = 0.400, Minimum number to use: 2

MCT Std 3, Concentration = 1.000, Minimum number to use: 2

MCT Std 4, Concentration = 2.000, Minimum number to use: 2

MCT Std 5, Concentration = 5.000, 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: 9/30/2020 10:02:13 AM

Normal: 0.300 - 5.000

of decimals: 3

Kit Lot Number: Kit:P23C0589

Assay Calibration

Current Calibration Status: "

"

| Name | Absorbance | Concentration | Interpretation | Position | |
|----------------------|-----------------------------|-------------------------------|---------------------------------------|---------------|--|
| 8/29/2023 4:16:51 PM | | | | | |
| MCT Std 0 | 1.183 Abs | 0.000 µg/L | R ² =0.99766, 100.424 %Abs | RK1:23->A01@2 | |
| MCT Std 0 | 1.173 Abs [1.1780] {0.6 CV} | 0.013 µg/L [0.007] {141.4 CV} | R ² =0.99766, 99.576 %Abs | RK1:23->B01@2 | |
| MCT Std 1 | 1.028 Abs | 0.130 µg/L | R ² =0.99766, 87.267 %Abs | RK1:24->C01@2 | |
| MCT Std 1 | 0.998 Abs [1.0130] {2.1 CV} | 0.154 µg/L [0.142] {12.0 CV} | R ² =0.99766, 84.720 %Abs | RK1:24->D01@2 | |
| MCT Std 2 | 0.752 Abs | 0.392 µg/L | R ² =0.99766, 63.837 %Abs | RK1:25->E01@2 | |
| MCT Std 2 | 0.726 Abs [0.7390] {2.5 CV} | 0.426 µg/L [0.409] {5.9 CV} | R ² =0.99766, 61.630 %Abs | RK1:25->F01@3 | |
| MCT Std 3 | 0.466 Abs | 1.020 µg/L | R ² =0.99766, 39.559 %Abs | RK1:26->G01@3 | |
| MCT Std 3 | 0.447 Abs [0.4565] {2.9 CV} | 1.103 µg/L [1.062] {5.5 CV} | R ² =0.99766, 37.946 %Abs | RK1:26->H01@3 | |
| MCT Std 4 | 0.360 Abs | 1.681 µg/L | R ² =0.99766, 30.560 %Abs | RK1:27->A02@2 | |
| MCT Std 4 | 0.367 Abs [0.3635] {1.4 CV} | 1.616 µg/L [1.649] {2.8 CV} | R ² =0.99766, 31.154 %Abs | RK1:27->B02@2 | |
| MCT Std 5 | 0.235 Abs | > 5.000 µg/L | 19.949 %Abs | RK1:28->C02@2 | |
| MCT Std 5 | 0.220 Abs [0.2275] {4.7 CV} | > 5.000 µg/L | 18.676 %Abs | RK1:28->D02@2 | |
| ***** | | | | | |
| 8/29/2023 4:16:51 PM | | | | | |
| MCT 546 LRB 1 | 1.121 Abs | 0.059 µg/L | 95.161 %Abs | RK1:29->E02@2 | |
| MCT 546 LRB 1 | 1.128 Abs [1.1245] {0.4 CV} | 0.053 µg/L [0.056] {7.6 CV} | 95.756 %Abs [95.458 %Abs] | RK1:29->F02@3 | |
| MCT 546 Low-CV | 0.757 Abs | 0.386 µg/L | 64.261 %Abs | RK1:30->G02@3 | |
| MCT 546 Low-CV | 0.742 Abs [0.7495] {1.4 CV} | 0.405 µg/L [0.396] {3.4 CV} | 62.988 %Abs [63.625 %Abs] | RK1:30->H02@3 | |
| MCT 546 LFB 1 | 0.683 Abs | 0.488 µg/L | 57.980 %Abs | RK1:31->A03@2 | |
| MCT 546 LFB 1 | 0.673 Abs [0.6780] {1.0 CV} | 0.503 µg/L [0.496] {2.1 CV} | 57.131 %Abs [57.555 %Abs] | RK1:31->B03@2 | |
| ***** | | | | | |
| Statistic | | | | | |
| MCT Std 0 [MEAN] | 1.1780 | 0.0065 | | | |
| MCT Std 0 [SD] | 0.0071 | 0.0092 | | | |
| MCT Std 0 [%CV] | 0.6003 | 141.4214 | | | |
| MCT Std 1 [MEAN] | 1.0130 | 0.1420 | | | |
| MCT Std 1 [SD] | 0.0212 | 0.0170 | | | |
| MCT Std 1 [%CV] | 2.0941 | 11.9511 | | | |
| MCT Std 1 [%DIFF] | | -5.3333 | | | |
| MCT Std 2 [MEAN] | 0.7390 | 0.4090 | | | |
| MCT Std 2 [SD] | 0.0184 | 0.0240 | | | |
| MCT Std 2 [%CV] | 2.4878 | 5.8782 | | | |
| MCT Std 2 [%DIFF] | | 2.2500 | | | |
| MCT Std 3 [MEAN] | 0.4565 | 1.0615 | | | |
| MCT Std 3 [SD] | 0.0134 | 0.0587 | | | |
| MCT Std 3 [%CV] | 2.9431 | 5.5290 | | | |
| MCT Std 3 [%DIFF] | | 6.1500 | | | |
| MCT Std 4 [MEAN] | 0.3635 | 1.6485 | | | |

| Name | Absorbance | Concentration | Interpretation | Position |
|-----------------------|------------|---------------|----------------|----------|
| MCT Std 4 [SD] | 0.0049 | 0.0460 | | |
| MCT Std 4 [%CV] | 1.3617 | 2.7881 | | |
| MCT Std 4 [%DIFF] | | -17.5750 | | |
| MCT Std 5 [MEAN] | 0.2275 | | | |
| MCT Std 5 [SD] | 0.0106 | | | |
| MCT Std 5 [%CV] | 4.6622 | | | |
| MCT 546 LRB 1 [MEAN] | 1.1245 | 0.0560 | | |
| MCT 546 LRB 1 [SD] | 0.0049 | 0.0042 | | |
| MCT 546 LRB 1 [%CV] | 0.4402 | 7.5761 | | |
| MCT 546 Low-CV [MEAN] | 0.7495 | 0.3955 | | |
| MCT 546 Low-CV [SD] | 0.0106 | 0.0134 | | |
| MCT 546 Low-CV [%CV] | 1.4152 | 3.3970 | | |
| MCT 546 LFB 1 [MEAN] | 0.6780 | 0.4955 | | |
| MCT 546 LFB 1 [SD] | 0.0071 | 0.0106 | | |
| MCT 546 LFB 1 [%CV] | 1.0429 | 2.1406 | | |

Assay Curve

$y = (A-D)/(1+(x/C)^B) + D$
 Weight: NONE
 A = 1.1823
 B = 1.2986
 C = 0.47466
 D = 0.20088
 R2 coef = 0.99766
 50% = 0.658

