

## **APPENDIX B – GREEN COUNTRY TESTING WATER QUALITY RESULTS**

Green Country Testing, Inc.  
6825 E 38th Street  
Tulsa, OK 74145  
TEL: 918-828-9977 FAX: 918-828-7756  
Website: [www.greencountrytesting.com](http://www.greencountrytesting.com)



September 23, 2021

Laura Merriman  
Burns McDonnell OKC  
615 N Hudson, Suite 200  
Oklahoma City, OK 73102  
TEL: (405) 673-1394  
FAX:

RE: Sofidel Verdigris ODEQ Work Plan

Order No.: 2108791

Dear Laura Merriman:

Green Country Testing, Inc. received 28 sample(s) on 8/31/2021 for the analyses presented in the following report.

In accordance with your instructions, Green Country Testing conducted the analysis shown on the following pages on samples submitted by your company. The results relate only to the items tested. Unless otherwise noted, all analysis were conducted using EPA approved methodologies. Test reports meet all the NELAC requirements. All relevant sampling information is on the attached chain-of-custody form. The initials SUB as the analyst designate any testing sub-contracted by Green Country Testing.

Certifications/Accreditation: OK - 7604 - AR - ADEQ - KS - E-10232

A scope of Certified/Accredited parameters is available upon request. If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Brian Duzan  
Laboratory Director

Green Country Testing, Inc.  
6825 E 38th Street  
Tulsa, OK 74145  
TEL: 918-828-9977 FAX: 918-828-7756  
Website: [www.greencountrytesting.com](http://www.greencountrytesting.com)



## Case Narrative

WO#: 2108791  
Date: 9/23/2021

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**CLIENT:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

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2108791  
CHLOROPHYLL has been subbed

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Original

Green Country Testing, Inc.  
6825 E 38th Street  
Tulsa, OK 74145  
TEL: 918-828-9977 FAX: 918-828-7756  
Website: www.greencountrytesting.com



## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-001

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 11.0    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 1.01    | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 99.0    | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 13.0    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |       |        |                   |                        |                       |                      |
|------------------------------------------------|-------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |       |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 5.00  | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |       |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00  | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |       |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00  | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |       |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00  | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |       |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 7.38  | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 6.64  | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |       |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.120 | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |       |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.162 | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |       |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 10.2  | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |       |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 7.9   | 3.0    | mg/L              | 1                      | 9/3/2021 9:55:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |       |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 9 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |     |   |      |   |                     |
|-----------------------|-----|---|------|---|---------------------|
| Total Volatile Solids | 163 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|-----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 367  | 1.0  | umhos/cm | 8/31/2021 9:15:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.2  | 0.10 | mg/L     | 8/31/2021 9:15:00 AM |
| pH, SM4500H+ B, 2011               | 7.72 |      | S.U.     | 8/31/2021 9:15:00 AM |
| Temperature, SM 2550B, 2000        | 29.9 |      | deg C    | 8/31/2021 9:15:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-002

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 10.8    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.778   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 9.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 4.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 8.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 8.44   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 4.85   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.105  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.117  | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.4    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 10.1   | 3.0    | mg/L              | 1                      | 9/3/2021 9:55:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 9 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 87 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 344  | 1.0  | umhos/cm | 8/31/2021 9:46:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.4  | 0.10 | mg/L     | 8/31/2021 9:46:00 AM |
| pH, SM4500H+ B, 2011               | 7.78 |      | S.U.     | 8/31/2021 9:46:00 AM |
| Temperature, SM 2550B, 2000        | 29.8 |      | deg C    | 8/31/2021 9:46:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-003

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 4.10    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.715   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 99.0    | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 8.33   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 6.98   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.122  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.137  | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.1    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 9.7    | 3.0    | mg/L              | 1                      | 9/3/2021 9:55:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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 Website: www.greencountrytesting.com



## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 13 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 52 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 336  | 1.0  | umhos/cm | 8/31/2021 10:06:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.3  | 0.10 | mg/L     | 8/31/2021 10:06:00 AM |
| pH, SM4500H+ B, 2011               | 7.80 |      | S.U.     | 8/31/2021 10:06:00 AM |
| Temperature, SM 2550B, 2000        | 29.9 |      | deg C    | 8/31/2021 10:06:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-004

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml             | 1  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 5.20    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.750   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 98.0    | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD - 20 Day                      | 4.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         | Analyst: <b>1410</b>  |
| Chlorophyll a                                  | 7.48   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |
| Pheophytin a                                   | 5.98   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> | Analyst: <b>CW</b>    |
| Phosphorus, Total Orthophosphate (As P)        | 0.108  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    | Analyst: <b>CW</b>    |
| Total Phosphorus                               | 0.124  | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>    |
| Organic Carbon, Dissolved                      | 10.4   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>    |
| Total Organic Carbon                           | 9.9    | 3.0    | mg/L              | 1                      | 9/3/2021 9:55:00 AM   |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    | Analyst: <b>DW</b>    |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 75 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 325  | 1.0  | umhos/cm | 8/31/2021 10:26:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.3  | 0.10 | mg/L     | 8/31/2021 10:26:00 AM |
| pH, SM4500H+ B, 2011               | 7.82 |      | S.U.     | 8/31/2021 10:26:00 AM |
| Temperature, SM 2550B, 2000        | 30.0 |      | deg C    | 8/31/2021 10:26:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-005

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 6.30    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.610   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 98.0    | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 7.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 8.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 10.7   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 5.77   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.128  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.141  | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.1    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 9.7    | 3.0    | mg/L              | 1                      | 9/3/2021 9:55:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 7 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 24 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 346  | 1.0  | umhos/cm | 8/31/2021 9:27:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.1  | 0.10 | mg/L     | 8/31/2021 9:27:00 AM |
| pH, SM4500H+ B, 2011               | 7.77 |      | S.U.     | 8/31/2021 9:27:00 AM |
| Temperature, SM 2550B, 2000        | 30.0 |      | deg C    | 8/31/2021 9:27:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-006

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 5.20    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.722   | 0.500 |      | mg/L                 | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### CBOD - 20 DAY

**A5210B, 2011 -**

Analyst: **DW**

|                           |        |      |      |   |                     |
|---------------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|--------|------|------|---|---------------------|

### CBOD - 20 DAY - SOLUBLE

**A5210B, 2011 -**

Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

### CBOD - 5 DAY - SOLUBLE

**A5210B, 2011 -**

Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

### CBOD - 5 DAY

**A5210B, 2011 -**

Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

### CHLOROPHYLL - N

**A10200H**

Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 10.7 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 5.02 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

### ORTHOPHOSPHATE (PO4) AS P IN WATER

**A4500 P E, 2011**

Analyst: **CW**

|                                         |       |        |      |   |                     |
|-----------------------------------------|-------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.109 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|-------|--------|------|---|---------------------|

### TOTAL PHOSPHORUS

**4500P-E,2011**

Analyst: **CW**

|                  |       |        |      |   |                      |
|------------------|-------|--------|------|---|----------------------|
| Total Phosphorus | 0.125 | 0.0500 | mg/L | 1 | 9/1/2021 11:21:00 AM |
|------------------|-------|--------|------|---|----------------------|

### DISSOLVED TOTAL ORGANIC CARBON IN WATER

**A5310B, 2011**

Analyst: **KR**

|                           |     |     |      |   |                       |
|---------------------------|-----|-----|------|---|-----------------------|
| Organic Carbon, Dissolved | 9.2 | 3.0 | mg/L | 1 | 9/10/2021 12:29:00 PM |
|---------------------------|-----|-----|------|---|-----------------------|

### TOTAL ORGANIC CARBON IN WATER

**A5310B, 2011**

Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 8.9 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 98 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |  |                      |
|------------------------------------|------|------|----------|--|----------------------|
| Conductivity, EPA 120.1            | 345  | 1.0  | umhos/cm |  | 8/31/2021 9:52:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.3  | 0.10 | mg/L     |  | 8/31/2021 9:52:00 AM |
| pH, SM4500H+ B, 2011               | 7.70 |      | S.U.     |  | 8/31/2021 9:52:00 AM |
| Temperature, SM 2550B, 2000        | 30.2 |      | deg C    |  | 8/31/2021 9:52:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-007

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 7.20    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.533   | 0.500 |      | mg/L                 | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 99.0    | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 9.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 3.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 13.1   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 5.25   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.121  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.148  | 0.0500 | mg/L              | 1                      | 9/1/2021 11:21:00 AM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.0    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 11.2   | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 8 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 39 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 338  | 1.0  | umhos/cm | 8/31/2021 10:12:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.3  | 0.10 | mg/L     | 8/31/2021 10:12:00 AM |
| pH, SM4500H+ B, 2011               | 7.80 |      | S.U.     | 8/31/2021 10:12:00 AM |
| Temperature, SM 2550B, 2000        | 30.4 |      | deg C    | 8/31/2021 10:12:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-008

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 4.00    | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 14.2    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.643   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 99.0    | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 8.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 11.8   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 4.13   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.108  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.109  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 10.0   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 11.7   | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 87 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 330  | 1.0  | umhos/cm | 8/31/2021 10:55:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.7  | 0.10 | mg/L     | 8/31/2021 10:55:00 AM |
| pH, SM4500H+ B, 2011               | 7.82 |      | S.U.     | 8/31/2021 10:55:00 AM |
| Temperature, SM 2550B, 2000        | 30.6 |      | deg C    | 8/31/2021 10:55:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-009

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 12.2    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.630   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 8.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 12.7   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 5.06   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.132  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.131  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 10.1   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 8.0    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 6 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 45 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |  |                      |
|------------------------------------|------|------|----------|--|----------------------|
| Conductivity, EPA 120.1            | 354  | 1.0  | umhos/cm |  | 8/31/2021 9:31:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.7  | 0.10 | mg/L     |  | 8/31/2021 9:31:00 AM |
| pH, SM4500H+ B, 2011               | 7.96 |      | S.U.     |  | 8/31/2021 9:31:00 AM |
| Temperature, SM 2550B, 2000        | 30.3 |      | deg C    |  | 8/31/2021 9:31:00 AM |

#### Qualifiers:

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-010

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 2.00    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst: <b>BG</b>   |
| TKN                                       | < 0.500 | 0.500 |      | mg/L                 | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 99.0    | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 3.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 12.5   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 5.00   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.113  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.103  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 10.1   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 7.3    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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# Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

## TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

## VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 36 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

## FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 347  | 1.0  | umhos/cm | 8/31/2021 9:59:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.4  | 0.10 | mg/L     | 8/31/2021 9:59:00 AM |
| pH, SM4500H+ B, 2011               | 7.90 |      | S.U.     | 8/31/2021 9:59:00 AM |
| Temperature, SM 2550B, 2000        | 30.4 |      | deg C    | 8/31/2021 9:59:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-011

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 4.00    | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 8.50    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.522   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 11.2   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 4.50   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.125  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.126  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.1    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 7.2    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 7 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 64 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 337  | 1.0  | umhos/cm | 8/31/2021 10:17:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.4  | 0.10 | mg/L     | 8/31/2021 10:17:00 AM |
| pH, SM4500H+ B, 2011               | 7.92 |      | S.U.     | 8/31/2021 10:17:00 AM |
| Temperature, SM 2550B, 2000        | 30.4 |      | deg C    | 8/31/2021 10:17:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-012

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 4.10    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | < 0.500 | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 7.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 4.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 8.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 8.44   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 4.11   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.101  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.106  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 14.8   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 6.6    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 7 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 24 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 330  | 1.0  | umhos/cm | 8/31/2021 11:10:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.8  | 0.10 | mg/L     | 8/31/2021 11:10:00 AM |
| pH, SM4500H+ B, 2011               | 7.98 |      | S.U.     | 8/31/2021 11:10:00 AM |
| Temperature, SM 2550B, 2000        | 30.8 |      | deg C    | 8/31/2021 11:10:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-013

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 1.00    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.502   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 102     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM   |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 15.2   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 4.75   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.109  | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.118  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.9    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 7.0    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM   |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 56 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |  |                       |
|------------------------------------|------|------|----------|--|-----------------------|
| Conductivity, EPA 120.1            | 335  | 1.0  | umhos/cm |  | 8/31/2021 11:07:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 6.8  | 0.10 | mg/L     |  | 8/31/2021 11:07:00 AM |
| pH, SM4500H+ B, 2011               | 7.97 |      | S.U.     |  | 8/31/2021 11:07:00 AM |
| Temperature, SM 2550B, 2000        | 30.8 |      | deg C    |  | 8/31/2021 11:07:00 AM |

#### Qualifiers:

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-014

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 4.00    | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 2.00    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.811   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 7.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 4.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 3.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |      |      |      |   |                     |
|--------------------|------|------|------|---|---------------------|
| Carbonaceous BOD-5 | 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 11.1 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 4.44 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |        |        |      |   |                     |
|-----------------------------------------|--------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.0860 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|--------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |        |        |      |   |                     |
|------------------|--------|--------|------|---|---------------------|
| Total Phosphorus | 0.0860 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|--------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |     |     |      |   |                      |
|---------------------------|-----|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 6.0 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|-----|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 8.0 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |     |   |      |   |                     |
|-----------------------|-----|---|------|---|---------------------|
| Total Volatile Solids | 110 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|-----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 337  | 1.0  | umhos/cm | 8/31/2021 11:24:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.0  | 0.10 | mg/L     | 8/31/2021 11:24:00 AM |
| pH, SM4500H+ B, 2011               | 8.04 |      | S.U.     | 8/31/2021 11:24:00 AM |
| Temperature, SM 2550B, 2000        | 30.9 |      | deg C    | 8/31/2021 11:24:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-015

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 1.00    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 12:31:00 PM |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.682   | 0.500 |      | mg/L                  | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 101     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                  | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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Website: www.greencountrytesting.com



## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |        |      |      |   |                     |
|---------------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|--------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |      |      |      |   |                     |
|--------------------|------|------|------|---|---------------------|
| Carbonaceous BOD-5 | 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 14.1 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 4.64 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |       |        |      |   |                     |
|-----------------------------------------|-------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.103 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|-------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |       |        |      |   |                     |
|------------------|-------|--------|------|---|---------------------|
| Total Phosphorus | 0.106 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|-------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |      |     |      |   |                      |
|---------------------------|------|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 11.0 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|------|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 7.8 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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 Website: www.greencountrytesting.com



## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 98 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 334  | 1.0  | umhos/cm | 8/31/2021 11:37:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.1  | 0.10 | mg/L     | 8/31/2021 11:37:00 AM |
| pH, SM4500H+ B, 2011               | 8.05 |      | S.U.     | 8/31/2021 11:37:00 AM |
| Temperature, SM 2550B, 2000        | 31.2 |      | deg C    | 8/31/2021 11:37:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-016

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 1.00    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst: <b>BG</b>   |
| TKN                                       | 0.558   | 0.500 |      | mg/L                 | 1  | 9/9/2021 2:55:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 101     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 9.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                      |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM  |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM  |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM  |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 8:15:00 AM  |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                      | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 18.3   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| Pheophytin a                                   | 8.30   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                      | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.0790 | 0.0500 | mg/L              | 1                      | 9/1/2021 9:46:00 AM  |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                      | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0950 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 8.4    | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 10.0   | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM  |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                      | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |     |   |      |   |                     |
|-----------------------|-----|---|------|---|---------------------|
| Total Volatile Solids | 128 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|-----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 335  | 1.0  | umhos/cm | 8/31/2021 11:44:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.1  | 0.10 | mg/L     | 8/31/2021 11:44:00 AM |
| pH, SM4500H+ B, 2011               | 8.07 |      | S.U.     | 8/31/2021 11:44:00 AM |
| Temperature, SM 2550B, 2000        | 31.1 |      | deg C    | 8/31/2021 11:44:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-017

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 3.00    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.834   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 101     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 4.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 9.84 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 4.92 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |        |        |      |   |                     |
|-----------------------------------------|--------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.0970 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|--------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |       |        |      |   |                     |
|------------------|-------|--------|------|---|---------------------|
| Total Phosphorus | 0.102 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|-------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |      |     |      |   |                      |
|---------------------------|------|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 11.3 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|------|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 9.5 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 6 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 43 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 338  | 1.0  | umhos/cm | 8/31/2021 11:15:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.0  | 0.10 | mg/L     | 8/31/2021 11:15:00 AM |
| pH, SM4500H+ B, 2011               | 8.00 |      | S.U.     | 8/31/2021 11:15:00 AM |
| Temperature, SM 2550B, 2000        | 31.1 |      | deg C    | 8/31/2021 11:15:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-018

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 3:30:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 4.10    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.903   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 4.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 9.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 9.84 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 4.92 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |        |        |      |   |                     |
|-----------------------------------------|--------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.0780 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|--------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |        |        |      |   |                     |
|------------------|--------|--------|------|---|---------------------|
| Total Phosphorus | 0.0680 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|--------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |      |     |      |   |                      |
|---------------------------|------|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 11.5 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|------|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 8.8 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |     |   |      |   |                      |
|--------------------------------------------|-----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | < 5 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|-----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 84 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 333  | 1.0  | umhos/cm | 8/31/2021 11:29:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.2  | 0.10 | mg/L     | 8/31/2021 11:29:00 AM |
| pH, SM4500H+ B, 2011               | 8.02 |      | S.U.     | 8/31/2021 11:29:00 AM |
| Temperature, SM 2550B, 2000        | 31.6 |      | deg C    | 8/31/2021 11:29:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-019

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 5.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 21.1    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 1.34    | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 7.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 6.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 8.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |      |      |      |   |                     |
|--------------------|------|------|------|---|---------------------|
| Carbonaceous BOD-5 | 5.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 8.44 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 4.36 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |       |        |      |   |                     |
|-----------------------------------------|-------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.102 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|-------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |        |        |      |   |                     |
|------------------|--------|--------|------|---|---------------------|
| Total Phosphorus | 0.0930 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|--------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |     |     |      |   |                      |
|---------------------------|-----|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 6.4 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|-----|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 8.2 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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 Website: www.greencountrytesting.com



# Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

## TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 6 | 5 | mg/L | 1 | 9/6/2021 11:15:00 AM |
|--------------------------------------------|---|---|------|---|----------------------|

## VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |     |   |      |   |                     |
|-----------------------|-----|---|------|---|---------------------|
| Total Volatile Solids | 141 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|-----|---|------|---|---------------------|

## FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 336  | 1.0  | umhos/cm | 8/31/2021 11:44:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.2  | 0.10 | mg/L     | 8/31/2021 11:44:00 AM |
| pH, SM4500H+ B, 2011               | 8.07 |      | S.U.     | 8/31/2021 11:44:00 AM |
| Temperature, SM 2550B, 2000        | 31.5 |      | deg C    | 8/31/2021 11:44:00 AM |

### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-020

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 6.10    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.618   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 100     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 6.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 8:15:00 AM  |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                     |
|---------------------------|------|------|------|---|---------------------|
| Carbonaceous BOD - 20 Day | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|---------------------------|------|------|------|---|---------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                     |
|--------------------|--------|------|------|---|---------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|--------|------|------|---|---------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |      |      |      |   |                     |
|--------------------|------|------|------|---|---------------------|
| Carbonaceous BOD-5 | 1.00 | 1.00 | mg/L | 1 | 9/2/2021 8:15:00 AM |
|--------------------|------|------|------|---|---------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 8.33 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 2.36 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |        |        |      |   |                     |
|-----------------------------------------|--------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.0870 | 0.0500 | mg/L | 1 | 9/1/2021 9:46:00 AM |
|-----------------------------------------|--------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |        |        |      |   |                     |
|------------------|--------|--------|------|---|---------------------|
| Total Phosphorus | 0.0760 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|--------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |      |     |      |   |                      |
|---------------------------|------|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 12.7 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|------|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |      |     |      |   |                     |
|----------------------|------|-----|------|---|---------------------|
| Total Organic Carbon | 10.2 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|------|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 10 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 41 | 6 | mg/L | 1 | 9/2/2021 3:42:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 341  | 1.0  | umhos/cm | 8/31/2021 11:52:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.1  | 0.10 | mg/L     | 8/31/2021 11:52:00 AM |
| pH, SM4500H+ B, 2011               | 8.09 |      | S.U.     | 8/31/2021 11:52:00 AM |
| Temperature, SM 2550B, 2000        | 31.4 |      | deg C    | 8/31/2021 11:52:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-021

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 4.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 2.00    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.643   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 104     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 10.0    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 11.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 11.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 6.85   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |
| Pheophytin a                                   | 2.74   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.0830 | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM  |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0910 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM  |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 12.0   | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 8.5    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM  |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 12 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 28 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 345  | 1.0  | umhos/cm | 8/31/2021 11:19:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.0  | 0.10 | mg/L     | 8/31/2021 11:19:00 AM |
| pH, SM4500H+ B, 2011               | 8.01 |      | S.U.     | 8/31/2021 11:19:00 AM |
| Temperature, SM 2550B, 2000        | 31.2 |      | deg C    | 8/31/2021 11:19:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-022

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 4.10    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.582   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 103     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                      |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 10.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 9.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                      | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 9.72   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| Pheophytin a                                   | 4.86   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                      | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.105  | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM  |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                      | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0740 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 12.6   | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 9.0    | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM  |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                      | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 11 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 29 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 341  | 1.0  | umhos/cm | 8/31/2021 11:35:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.2  | 0.10 | mg/L     | 8/31/2021 11:35:00 AM |
| pH, SM4500H+ B, 2011               | 8.04 |      | S.U.     | 8/31/2021 11:35:00 AM |
| Temperature, SM 2550B, 2000        | 31.5 |      | deg C    | 8/31/2021 11:35:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-023

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 2.00    | 2.00  |      | CFU/100ml            | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 5.10    | 1.00  |      | MPN/100mL            | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.801   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 104     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 8.00    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                      |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 12.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 11.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                    | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                      | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 8.33   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| Pheophytin a                                   | 3.33   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                      | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.0860 | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM  |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                      | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0940 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 12.8   | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                      | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 10.4   | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM  |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                      | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 12 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 24 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 343  | 1.0  | umhos/cm | 8/31/2021 11:48:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.1  | 0.10 | mg/L     | 8/31/2021 11:48:00 AM |
| pH, SM4500H+ B, 2011               | 8.01 |      | S.U.     | 8/31/2021 11:48:00 AM |
| Temperature, SM 2550B, 2000        | 31.4 |      | deg C    | 8/31/2021 11:48:00 AM |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-024

**Collection Date:** 8/31/2021 9:00:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | < 2.00  | 2.00  |      | CFU/100ml             | 2  | 8/31/2021 4:00:00 PM |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 5.00    | 1.00  |      | MPN/100mL             | 1  | 8/31/2021 4:45:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 8/31/2021 3:53:00 PM |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst:             |
| TKN                                       | < 0.500 | 0.500 |      | mg/L                  | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 102     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 10.0    | 1.00  |      | mg/L                  | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 12.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 9.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 7.12   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |
| Pheophytin a                                   | 3.84   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.109  | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM  |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0600 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM  |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 10.0   | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 11.1   | 3.0    | mg/L              | 1                      | 9/7/2021 9:43:00 AM  |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |   |   |      |   |                      |
|--------------------------------------------|---|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 8 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|---|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 20 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                       |
|------------------------------------|------|------|----------|-----------------------|
| Conductivity, EPA 120.1            | 341  | 1.0  | umhos/cm | 8/31/2021 12:07:00 PM |
| Dissolved Oxygen, SM4500-O G, 2011 | 7.1  | 0.10 | mg/L     | 8/31/2021 12:07:00 PM |
| pH, SM4500H+ B, 2011               | 8.02 |      | S.U.     | 8/31/2021 12:07:00 PM |
| Temperature, SM 2550B, 2000        | 31.3 |      | deg C    | 8/31/2021 12:07:00 PM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
PL Permit Limit  
RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-025

**Collection Date:** 9/1/2021 10:00:00 AM

**Client Sample ID:** 1

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 31.0    | 2.00  |      | CFU/100ml            | 2  | 9/1/2021 3:40:00 PM  |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 21.3    | 1.00  |      | MPN/100mL            | 1  | 9/1/2021 12:35:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | 2.41    | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.601   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 104     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 13.0    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**CBOD - 20 DAY** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                      |
|---------------------------|------|------|------|---|----------------------|
| Carbonaceous BOD - 20 Day | 12.0 | 1.00 | mg/L | 1 | 9/2/2021 11:15:00 AM |
|---------------------------|------|------|------|---|----------------------|

**CBOD - 20 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                           |      |      |      |   |                      |
|---------------------------|------|------|------|---|----------------------|
| Carbonaceous BOD - 20 Day | 9.00 | 1.00 | mg/L | 1 | 9/2/2021 11:15:00 AM |
|---------------------------|------|------|------|---|----------------------|

**CBOD - 5 DAY - SOLUBLE** **A5210B, 2011** - Analyst: **DW**

|                    |        |      |      |   |                      |
|--------------------|--------|------|------|---|----------------------|
| Carbonaceous BOD-5 | < 1.00 | 1.00 | mg/L | 1 | 9/2/2021 11:15:00 AM |
|--------------------|--------|------|------|---|----------------------|

**CBOD - 5 DAY** **A5210B, 2011** - Analyst: **DW**

|                    |      |      |      |   |                      |
|--------------------|------|------|------|---|----------------------|
| Carbonaceous BOD-5 | 2.00 | 1.00 | mg/L | 1 | 9/2/2021 11:15:00 AM |
|--------------------|------|------|------|---|----------------------|

**CHLOROPHYLL - N** **A10200H** Analyst: **1410**

|               |      |       |                   |   |                      |
|---------------|------|-------|-------------------|---|----------------------|
| Chlorophyll a | 20.8 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |
| Pheophytin a  | 6.39 | 0.100 | mg/m <sup>3</sup> | 1 | 9/8/2021 12:00:00 PM |

**ORTHOPHOSPHATE (PO4) AS P IN WATER** **A4500 P E, 2011** Analyst: **CW**

|                                         |        |        |      |   |                     |
|-----------------------------------------|--------|--------|------|---|---------------------|
| Phosphorus, Total Orthophosphate (As P) | 0.0930 | 0.0500 | mg/L | 1 | 9/1/2021 2:31:00 PM |
|-----------------------------------------|--------|--------|------|---|---------------------|

**TOTAL PHOSPHORUS** **4500P-E,2011** Analyst: **CW**

|                  |       |        |      |   |                     |
|------------------|-------|--------|------|---|---------------------|
| Total Phosphorus | 0.109 | 0.0500 | mg/L | 1 | 9/1/2021 3:44:00 PM |
|------------------|-------|--------|------|---|---------------------|

**DISSOLVED TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                           |     |     |      |   |                      |
|---------------------------|-----|-----|------|---|----------------------|
| Organic Carbon, Dissolved | 9.8 | 3.0 | mg/L | 1 | 9/15/2021 9:40:00 AM |
|---------------------------|-----|-----|------|---|----------------------|

**TOTAL ORGANIC CARBON IN WATER** **A5310B, 2011** Analyst: **KR**

|                      |     |     |      |   |                     |
|----------------------|-----|-----|------|---|---------------------|
| Total Organic Carbon | 8.0 | 3.0 | mg/L | 1 | 9/7/2021 9:43:00 AM |
|----------------------|-----|-----|------|---|---------------------|

**TOTAL SUSPENDED SOLIDS** **A2540D, 2011** Analyst: **DW**

|                    |    |                                                                       |    |                                                    |
|--------------------|----|-----------------------------------------------------------------------|----|----------------------------------------------------|
| <b>Qualifiers:</b> | H  | Holding times for preparation or analysis exceeded                    | M  | Manual Integration used to determine area response |
|                    | ND | Not Detected at the Reporting Limit                                   | PL | Permit Limit                                       |
|                    | R  | RPD outside accepted recovery limits                                  | RL | Reporting Detection Limit                          |
|                    | W  | Sample container temperature is out of limit as specified at testcode |    |                                                    |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 20 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 35 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 367  | 1.0  | umhos/cm | 9/1/2021 10:00:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 8.2  | 0.10 | mg/L     | 9/1/2021 10:00:00 AM |
| pH, SM4500H+ B, 2011               | 8.23 |      | S.U.     | 9/1/2021 10:00:00 AM |
| Temperature, SM 2550B, 2000        | 30.8 |      | deg C    | 9/1/2021 10:00:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-026

**Collection Date:** 9/1/2021 10:10:00 AM

**Client Sample ID:** 2

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 40.0    | 2.00  |      | CFU/100ml            | 2  | 9/1/2021 3:40:00 PM  |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 38.8    | 1.00  |      | MPN/100mL            | 1  | 9/1/2021 12:35:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | 2.43    | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.698   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 103     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 14.0    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD - 20 Day                      | 25.0   | 6.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD - 20 Day                      | 9.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD-5                             | < 1.00 | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011 -</b>  | Analyst: <b>DW</b>    |
| Carbonaceous BOD-5                             | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         | Analyst: <b>1410</b>  |
| Chlorophyll a                                  | 26.4   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |
| Pheophytin a                                   | 6.66   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> | Analyst: <b>CW</b>    |
| Phosphorus, Total Orthophosphate (As P)        | 0.101  | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM   |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    | Analyst: <b>CW</b>    |
| Total Phosphorus                               | 0.0970 | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>    |
| Organic Carbon, Dissolved                      | 10.2   | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM  |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    | Analyst: <b>KR</b>    |
| Total Organic Carbon                           | 9.9    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    | Analyst: <b>DW</b>    |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 60 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 12 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 354  | 1.0  | umhos/cm | 9/1/2021 10:10:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 8.6  | 0.10 | mg/L     | 9/1/2021 10:00:00 AM |
| pH, SM4500H+ B, 2011               | 8.01 |      | S.U.     | 9/1/2021 10:10:00 AM |
| Temperature, SM 2550B, 2000        | 31.0 |      | deg C    | 9/1/2021 10:10:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-027

**Collection Date:** 9/1/2021 10:20:00 AM

**Client Sample ID:** 3

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>  |    | Analyst: <b>DW</b>   |
| E. coli                                   | 209     | 2.00  |      | CFU/100ml            | 2  | 9/1/2021 3:40:00 PM  |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>    |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 52.0    | 1.00  |      | MPN/100mL            | 1  | 9/1/2021 12:35:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>   |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                 | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>   |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | 1.16    | 0.400 |      | mg/L                 | 1  | 9/1/2021 3:07:00 PM  |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b> |    | Analyst:             |
| TKN                                       | 0.779   | 0.500 |      | mg/L                 | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>  |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 106     | 2.50  |      | mg CaCO3/L           | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 18.0    | 1.00  |      | mg/L                 | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011</b>  | -  | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 22.0   | 6.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 9.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 21.1   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 3.52   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.0840 | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.103  | 0.0500 | mg/L              | 1                      | 9/1/2021 3:44:00 PM   |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.8    | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM  |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 9.9    | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 36 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |     |   |      |   |                     |
|-----------------------|-----|---|------|---|---------------------|
| Total Volatile Solids | 169 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|-----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 354  | 1.0  | umhos/cm | 9/1/2021 10:20:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 8.6  | 0.10 | mg/L     | 9/1/2021 10:20:00 AM |
| pH, SM4500H+ B, 2011               | 8.02 |      | S.U.     | 9/1/2021 10:20:00 AM |
| Temperature, SM 2550B, 2000        | 31.2 |      | deg C    | 9/1/2021 10:20:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

**Lab ID:** 2108791-028

**Collection Date:** 9/1/2021 10:30:00 AM

**Client Sample ID:** 4

**Matrix:** SURFACE WATER

| Analyses                                  | Result  | RL    | Qual | Units                 | DF | Date Analyzed        |
|-------------------------------------------|---------|-------|------|-----------------------|----|----------------------|
| <b>ECOLI BACTERIUM - N</b>                |         |       |      | <b>MCOLIBLUE-24</b>   |    | Analyst: <b>DW</b>   |
| E. coli                                   | 1,260   | 20.0  |      | CFU/100ml             | 20 | 9/1/2021 3:40:00 PM  |
| <b>ENTEROCOCCI BACTERIUM - N</b>          |         |       |      | <b>ENTEROLERT</b>     |    | Analyst: <b>DW</b>   |
| Enterococcus (Enterolert)                 | 649     | 1.00  |      | MPN/100mL             | 1  | 9/1/2021 12:35:00 PM |
| <b>AMMONIA AS N</b>                       |         |       |      | <b>A4500-NH3-H</b>    |    | Analyst: <b>BG</b>   |
| NH3                                       | < 0.100 | 0.100 |      | mg/L                  | 1  | 9/2/2021 1:03:00 PM  |
| <b>NITRITE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrite as N                              | < 0.400 | 0.400 |      | mg/L                  | 1  | 9/1/2021 3:07:00 PM  |
| <b>NITRATE AS N IN WATER</b>              |         |       |      | <b>A4500-NO3-F</b>    |    | Analyst: <b>BG</b>   |
| Nitrate as N                              | 0.845   | 0.400 |      | mg/L                  | 1  | 9/1/2021 3:07:00 PM  |
| <b>TOTAL KJELDAHL NITROGEN IN WATER</b>   |         |       |      | <b>500NORG-B,201</b>  |    | Analyst:             |
| TKN                                       | < 0.500 | 0.500 |      | mg/L                  | 1  | 9/9/2021 3:27:00 PM  |
| <b>ALKALINITY IN WATER</b>                |         |       |      | <b>A2320B, 2011</b>   |    | Analyst: <b>CW</b>   |
| Alkalinity, Total (As CaCO3)              | 104     | 2.50  |      | mg CaCO3/L            | 1  | 9/13/2021 9:08:00 AM |
| <b>BIOCHEMICAL OXYGEN DEMAND - 20 DAY</b> |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |
| Biochemical Oxygen Demand - 20 Day        | 13.0    | 1.00  |      | mg/L                  | 1  | 9/2/2021 11:15:00 AM |
| <b>CBOD - 20 DAY</b>                      |         |       |      | <b>A5210B, 2011 -</b> |    | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

|                                                |        |        |                   |                        |                       |                      |
|------------------------------------------------|--------|--------|-------------------|------------------------|-----------------------|----------------------|
| <b>CBOD - 20 DAY</b>                           |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 14.0   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 20 DAY - SOLUBLE</b>                 |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD - 20 Day                      | 9.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 5 DAY - SOLUBLE</b>                  |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 1.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CBOD - 5 DAY</b>                            |        |        |                   | <b>A5210B, 2011</b>    | -                     | Analyst: <b>DW</b>   |
| Carbonaceous BOD-5                             | 2.00   | 1.00   | mg/L              | 1                      | 9/2/2021 11:15:00 AM  |                      |
| <b>CHLOROPHYLL - N</b>                         |        |        |                   | <b>A10200H</b>         |                       | Analyst: <b>1410</b> |
| Chlorophyll a                                  | 22.2   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| Pheophytin a                                   | 6.94   | 0.100  | mg/m <sup>3</sup> | 1                      | 9/8/2021 12:00:00 PM  |                      |
| <b>ORTHOPHOSPHATE (PO4) AS P IN WATER</b>      |        |        |                   | <b>A4500 P E, 2011</b> |                       | Analyst: <b>CW</b>   |
| Phosphorus, Total Orthophosphate (As P)        | 0.0900 | 0.0500 | mg/L              | 1                      | 9/1/2021 2:31:00 PM   |                      |
| <b>TOTAL PHOSPHORUS</b>                        |        |        |                   | <b>4500P-E,2011</b>    |                       | Analyst: <b>CW</b>   |
| Total Phosphorus                               | 0.0950 | 0.0500 | mg/L              | 1                      | 9/3/2021 12:51:00 PM  |                      |
| <b>DISSOLVED TOTAL ORGANIC CARBON IN WATER</b> |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Organic Carbon, Dissolved                      | 9.6    | 3.0    | mg/L              | 1                      | 9/15/2021 9:40:00 AM  |                      |
| <b>TOTAL ORGANIC CARBON IN WATER</b>           |        |        |                   | <b>A5310B, 2011</b>    |                       | Analyst: <b>KR</b>   |
| Total Organic Carbon                           | 10.2   | 3.0    | mg/L              | 1                      | 9/10/2021 12:29:00 PM |                      |
| <b>TOTAL SUSPENDED SOLIDS</b>                  |        |        |                   | <b>A2540D, 2011</b>    |                       | Analyst: <b>DW</b>   |

**Qualifiers:**

|    |                                                                       |
|----|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded                    |
| ND | Not Detected at the Reporting Limit                                   |
| R  | RPD outside accepted recovery limits                                  |
| W  | Sample container temperature is out of limit as specified at testcode |

|    |                                                    |
|----|----------------------------------------------------|
| M  | Manual Integration used to determine area response |
| PL | Permit Limit                                       |
| RL | Reporting Detection Limit                          |

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## Analytical Report

(continuous)

WO#: 2108791

Date Reported: 9/23/2021

**CLIENT:** Burns McDonnell OKC

**Lab Order:** 2108791

**Project:** Sofidel Verdigris ODEQ Work Plan

### TOTAL SUSPENDED SOLIDS

**A2540D, 2011**

Analyst: **DW**

|                                            |    |   |      |   |                      |
|--------------------------------------------|----|---|------|---|----------------------|
| Suspended Solids (Residue, Non-Filterable) | 57 | 5 | mg/L | 1 | 9/6/2021 12:00:00 PM |
|--------------------------------------------|----|---|------|---|----------------------|

### VOLATILE SOLIDS

**A2540E, 2011**

Analyst: **MH**

|                       |    |   |      |   |                     |
|-----------------------|----|---|------|---|---------------------|
| Total Volatile Solids | 32 | 6 | mg/L | 1 | 9/7/2021 4:03:00 PM |
|-----------------------|----|---|------|---|---------------------|

### FIELD PARAMETERS

**FLD**

Analyst: **BWD**

|                                    |      |      |          |                      |
|------------------------------------|------|------|----------|----------------------|
| Conductivity, EPA 120.1            | 358  | 1.0  | umhos/cm | 9/1/2021 10:30:00 AM |
| Dissolved Oxygen, SM4500-O G, 2011 | 8.6  | 0.10 | mg/L     | 9/1/2021 10:30:00 AM |
| pH, SM4500H+ B, 2011               | 7.83 |      | S.U.     | 9/1/2021 10:30:00 AM |
| Temperature, SM 2550B, 2000        | 30.9 |      | deg C    | 9/1/2021 10:30:00 AM |

#### Qualifiers:

H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

M Manual Integration used to determine area response  
 PL Permit Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** 4500Norg-B,2011

|                      |                  |                      |                         |               |              |          |           |             |      |          |      |
|----------------------|------------------|----------------------|-------------------------|---------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-R54472 | SampType: MBLK   | TestCode: TKN        | Units: mg/L             | Prep Date:    | RunNo: 54475 |          |           |             |      |          |      |
| Client ID: PBW       | Batch ID: R54475 | TestNo: 4500Norg-B,2 | Analysis Date: 9/9/2021 | SeqNo: 584843 |              |          |           |             |      |          |      |
| Analyte              | Result           | PQL                  | SPK value               | SPK Ref Val   | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| TKN                  | < 0.500          | 0.500                |                         |               |              |          |           |             |      |          |      |

|                              |                         |                             |                                |                      |                     |          |           |             |      |          |      |
|------------------------------|-------------------------|-----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-R54472</b> | SampType: <b>LCS</b>    | TestCode: <b>TKN</b>        | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54475</b> |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R54475</b> | TestNo: <b>4500Norg-B,2</b> | Analysis Date: <b>9/9/2021</b> | SeqNo: <b>584844</b> |                     |          |           |             |      |          |      |
| Analyte                      | Result                  | PQL                         | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| TKN                          | 8.56                    | 0.500                       | 10.00                          | 0                    | 85.6                | 80       | 120       |             |      |          |      |

|                                  |                         |                             |                                |                      |                     |          |           |             |      |          |      |
|----------------------------------|-------------------------|-----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108785-001BMS</b> | SampType: <b>MS</b>     | TestCode: <b>TKN</b>        | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54475</b> |          |           |             |      |          |      |
| Client ID: <b>BatchQC</b>        | Batch ID: <b>R54475</b> | TestNo: <b>4500Norg-B,2</b> | Analysis Date: <b>9/9/2021</b> | SeqNo: <b>584846</b> |                     |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                         | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| TKN                              | 8.98                    | 0.500                       | 12.00                          | 0                    | 74.8                | 35       | 141       |             |      |          |      |

|                                   |                         |                             |                                |                      |                     |          |           |             |       |          |      |
|-----------------------------------|-------------------------|-----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: <b>2108785-001BMSD</b> | SampType: <b>MSD</b>    | TestCode: <b>TKN</b>        | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54475</b> |          |           |             |       |          |      |
| Client ID: <b>BatchQC</b>         | Batch ID: <b>R54475</b> | TestNo: <b>4500Norg-B,2</b> | Analysis Date: <b>9/9/2021</b> | SeqNo: <b>584847</b> |                     |          |           |             |       |          |      |
| Analyte                           | Result                  | PQL                         | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| TKN                               | 9.00                    | 0.500                       | 12.00                          | 0                    | 75.0                | 35       | 141       | 8.980       | 0.200 | 14.8     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: 4500Norg-B,2011

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54472</b> | SampType: <b>MBLK</b>   | TestCode: <b>TKN</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54476</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54476</b> | TestNo: <b>4500Norg-B,2</b> |                    | Analysis Date: <b>9/9/2021</b> | SeqNo: <b>584883</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| TKN                         | < 0.500                 | 0.500                       |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |  |                             |           |                    |                                |            |           |                      |                     |          |      |
|------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|--------------------------------|------------|-----------|----------------------|---------------------|----------|------|
| Sample ID: <b>LCS-R54472</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>TKN</b>        |           | Units: <b>mg/L</b> |                                | Prep Date: |           |                      | RunNo: <b>54476</b> |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54476</b> |  | TestNo: <b>4500Norg-B,2</b> |           |                    | Analysis Date: <b>9/9/2021</b> |            |           | SeqNo: <b>584884</b> |                     |          |      |
| Analyte                      |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC                           | LowLimit   | HighLimit | RPD Ref Val          | %RPD                | RPDLimit | Qual |
| TKN                          |  | 9.61                    |  | 0.500                       | 10.00     | 0                  | 96.1                           | 80         | 120       |                      |                     |          |      |

|                                  |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-017CMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>TKN</b>        |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54476</b>  |      |          |      |
| Client ID: <b>1</b>              |  | Batch ID: <b>R54476</b> |  | TestNo: <b>4500Norg-B,2</b> |           |                    |      | Analysis Date: <b>9/9/2021</b> |           | SeqNo: <b>584886</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| TKN                              |  | 13.0                    |  | 0.500                       | 12.00     | 0                  | 109  | 35                             | 141       |                      |      |          |      |

|                                   |  |                         |  |                             |           |                    |      |                                |           |                      |        |          |      |
|-----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|--------|----------|------|
| Sample ID: <b>2108791-017CMSD</b> |  | SampType: <b>MSD</b>    |  | TestCode: <b>TKN</b>        |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54476</b>  |        |          |      |
| Client ID: <b>1</b>               |  | Batch ID: <b>R54476</b> |  | TestNo: <b>4500Norg-B,2</b> |           |                    |      | Analysis Date: <b>9/9/2021</b> |           | SeqNo: <b>584887</b> |        |          |      |
| Analyte                           |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD   | RPDLimit | Qual |
| TKN                               |  | 13.0                    |  | 0.500                       | 12.00     | 0                  | 109  | 35                             | 141       | 13.02                | 0.0537 | 14.8     |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: 4500P-E,2011

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54314</b> | SampType: <b>MBLK</b>   | TestCode: <b>PHOS_T</b>     | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54314</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54314</b> | TestNo: <b>4500P-E,2011</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582567</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Phosphorus            | < 0.0500                | 0.0500                      |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |        |                             |             |                    |                                |            |             |                      |                     |      |
|------------------------------|--|-------------------------|--------|-----------------------------|-------------|--------------------|--------------------------------|------------|-------------|----------------------|---------------------|------|
| Sample ID: <b>LCS-R54314</b> |  | SampType: <b>LCS</b>    |        | TestCode: <b>PHOS_T</b>     |             | Units: <b>mg/L</b> |                                | Prep Date: |             |                      | RunNo: <b>54314</b> |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54314</b> |        | TestNo: <b>4500P-E,2011</b> |             |                    | Analysis Date: <b>9/1/2021</b> |            |             | SeqNo: <b>582568</b> |                     |      |
| Analyte                      |  | Result                  | PQL    | SPK value                   | SPK Ref Val | %REC               | LowLimit                       | HighLimit  | RPD Ref Val | %RPD                 | RPDLimit            | Qual |
| Total Phosphorus             |  | 0.254                   | 0.0500 | 0.2430                      | 0           | 105                | 80                             | 120        |             |                      |                     |      |

|                                  |  |                         |  |                             |           |                    |      |                                |           |             |                      |          |      |
|----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108650-001BMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>PHOS_T</b>     |           | Units: <b>mg/L</b> |      | Prep Date:                     |           |             | RunNo: <b>54314</b>  |          |      |
| Client ID: <b>BatchQC</b>        |  | Batch ID: <b>R54314</b> |  | TestNo: <b>4500P-E,2011</b> |           |                    |      | Analysis Date: <b>9/1/2021</b> |           |             | SeqNo: <b>582570</b> |          |      |
| Analyte                          |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Total Phosphorus                 |  | 0.543                   |  | 0.0500                      | 0.5000    | 0.04200            | 100  | 77.8                           | 121       |             |                      |          |      |

|                                   |  |                         |        |                             |             |                                |          |                      |             |                     |          |      |
|-----------------------------------|--|-------------------------|--------|-----------------------------|-------------|--------------------------------|----------|----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2108650-001BMSD</b> |  | SampType: <b>MSD</b>    |        | TestCode: <b>PHOS_T</b>     |             | Units: <b>mg/L</b>             |          | Prep Date:           |             | RunNo: <b>54314</b> |          |      |
| Client ID: <b>BatchQC</b>         |  | Batch ID: <b>R54314</b> |        | TestNo: <b>4500P-E,2011</b> |             | Analysis Date: <b>9/1/2021</b> |          | SeqNo: <b>582571</b> |             |                     |          |      |
| Analyte                           |  | Result                  | PQL    | SPK value                   | SPK Ref Val | %REC                           | LowLimit | HighLimit            | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Total Phosphorus                  |  | 0.533                   | 0.0500 | 0.5000                      | 0.04200     | 98.2                           | 77.8     | 121                  | 0.5430      | 1.86                | 13.7     |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: 4500P-E,2011

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54336</b> | SampType: <b>MBLK</b>   | TestCode: <b>PHOS_T</b>     | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54336</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54336</b> | TestNo: <b>4500P-E,2011</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582857</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Phosphorus            | < 0.0500                | 0.0500                      |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |        |                             |             |                    |                                |            |             |                      |                     |      |
|------------------------------|--|-------------------------|--------|-----------------------------|-------------|--------------------|--------------------------------|------------|-------------|----------------------|---------------------|------|
| Sample ID: <b>LCS-R54336</b> |  | SampType: <b>LCS</b>    |        | TestCode: <b>PHOS_T</b>     |             | Units: <b>mg/L</b> |                                | Prep Date: |             |                      | RunNo: <b>54336</b> |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54336</b> |        | TestNo: <b>4500P-E,2011</b> |             |                    | Analysis Date: <b>9/1/2021</b> |            |             | SeqNo: <b>582858</b> |                     |      |
| Analyte                      |  | Result                  | PQL    | SPK value                   | SPK Ref Val | %REC               | LowLimit                       | HighLimit  | RPD Ref Val | %RPD                 | RPDLimit            | Qual |
| Total Phosphorus             |  | 0.223                   | 0.0500 | 0.2430                      | 0           | 91.8               | 80                             | 120        |             |                      |                     |      |

|                                  |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-008CMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>PHOS_T</b>     |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54336</b>  |      |          |      |
| Client ID: <b>4</b>              |  | Batch ID: <b>R54336</b> |  | TestNo: <b>4500P-E,2011</b> |           |                    |      | Analysis Date: <b>9/1/2021</b> |           | SeqNo: <b>582860</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Total Phosphorus                 |  | 0.635                   |  | 0.0500                      | 0.5000    | 0.1090             | 105  | 77.8                           | 121       |                      |      |          |      |

|                                   |  |                         |                         |                             |                    |      |                                |           |             |                      |          |      |
|-----------------------------------|--|-------------------------|-------------------------|-----------------------------|--------------------|------|--------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-008CMSD</b> |  | SampType: <b>MSD</b>    | TestCode: <b>PHOS_T</b> |                             | Units: <b>mg/L</b> |      | Prep Date:                     |           |             | RunNo: <b>54336</b>  |          |      |
| Client ID: <b>4</b>               |  | Batch ID: <b>R54336</b> |                         | TestNo: <b>4500P-E,2011</b> |                    |      | Analysis Date: <b>9/1/2021</b> |           |             | SeqNo: <b>582861</b> |          |      |
| Analyte                           |  | Result                  | PQL                     | SPK value                   | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Total Phosphorus                  |  | 0.598                   | 0.0500                  | 0.5000                      | 0.1090             | 97.8 | 77.8                           | 121       | 0.6350      | 6.00                 | 13.7     |      |

**Qualifiers:**

H Holding times for preparation or analysis exceeded

PL Permit Limit

S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response

R RPD outside accepted recovery limits

W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC

**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** 4500P-E,2011

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54383</b> | SampType: <b>MBLK</b>   | TestCode: <b>PHOS_T</b>     | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54383</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54383</b> | TestNo: <b>4500P-E,2011</b> |                    | Analysis Date: <b>9/3/2021</b> | SeqNo: <b>583597</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Phosphorus            | < 0.0500                | 0.0500                      |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |        |                             |             |                    |                                |            |             |                      |                     |      |
|------------------------------|--|-------------------------|--------|-----------------------------|-------------|--------------------|--------------------------------|------------|-------------|----------------------|---------------------|------|
| Sample ID: <b>LCS-R54383</b> |  | SampType: <b>LCS</b>    |        | TestCode: <b>PHOS_T</b>     |             | Units: <b>mg/L</b> |                                | Prep Date: |             |                      | RunNo: <b>54383</b> |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54383</b> |        | TestNo: <b>4500P-E,2011</b> |             |                    | Analysis Date: <b>9/3/2021</b> |            |             | SeqNo: <b>583598</b> |                     |      |
| Analyte                      |  | Result                  | PQL    | SPK value                   | SPK Ref Val | %REC               | LowLimit                       | HighLimit  | RPD Ref Val | %RPD                 | RPDLimit            | Qual |
| Total Phosphorus             |  | 0.219                   | 0.0500 | 0.2430                      | 0           | 90.1               | 80                             | 120        |             |                      |                     |      |

|                                  |  |                         |        |                             |             |                                |          |            |                      |      |                     |      |
|----------------------------------|--|-------------------------|--------|-----------------------------|-------------|--------------------------------|----------|------------|----------------------|------|---------------------|------|
| Sample ID: <b>2108791-028CMS</b> |  | SampType: <b>MS</b>     |        | TestCode: <b>PHOS_T</b>     |             | Units: <b>mg/L</b>             |          | Prep Date: |                      |      | RunNo: <b>54383</b> |      |
| Client ID: <b>4</b>              |  | Batch ID: <b>R54383</b> |        | TestNo: <b>4500P-E,2011</b> |             | Analysis Date: <b>9/3/2021</b> |          |            | SeqNo: <b>583600</b> |      |                     |      |
| Analyte                          |  | Result                  | PQL    | SPK value                   | SPK Ref Val | %REC                           | LowLimit | HighLimit  | RPD Ref Val          | %RPD | RPDLimit            | Qual |
| Total Phosphorus                 |  | 0.547                   | 0.0500 | 0.5000                      | 0.09500     | 90.4                           | 77.8     | 121        |                      |      |                     |      |

|                            |  |                  |        |                      |             |             |          |                         |             |               |          |      |
|----------------------------|--|------------------|--------|----------------------|-------------|-------------|----------|-------------------------|-------------|---------------|----------|------|
| Sample ID: 2108791-028CMSD |  | SampType: MSD    |        | TestCode: PHOS_T     |             | Units: mg/L |          | Prep Date:              |             | RunNo: 54383  |          |      |
| Client ID: 4               |  | Batch ID: R54383 |        | TestNo: 4500P-E,2011 |             |             |          | Analysis Date: 9/3/2021 |             | SeqNo: 583601 |          |      |
| Analyte                    |  | Result           | PQL    | SPK value            | SPK Ref Val | %REC        | LowLimit | HighLimit               | RPD Ref Val | %RPD          | RPDLimit | Qual |
| Total Phosphorus           |  | 0.582            | 0.0500 | 0.5000               | 0.09500     | 97.4        | 77.8     | 121                     | 0.5470      | 6.20          | 13.7     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A2320B, 2011

|                              |  |                         |  |                             |           |                          |      |                                 |           |                      |      |          |      |
|------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-R54508</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>ALK</b>        |           | Units: <b>mg CaCO3/L</b> |      | Prep Date:                      |           | RunNo: <b>54508</b>  |      |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54508</b> |  | TestNo: <b>A2320B, 2011</b> |           |                          |      | Analysis Date: <b>9/13/2021</b> |           | SeqNo: <b>585332</b> |      |          |      |
| Analyte                      |  | Result                  |  | PQL                         | SPK value | SPK Ref Val              | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Alkalinity, Total (As CaCO3) |  | 101                     |  | 2.50                        | 100.0     | 0                        | 101  | 80                              | 120       |                      |      |          |      |

|                                   |        |                         |           |                             |      |                                 |           |                      |      |                     |      |
|-----------------------------------|--------|-------------------------|-----------|-----------------------------|------|---------------------------------|-----------|----------------------|------|---------------------|------|
| Sample ID: <b>2108791-001ADUP</b> |        | SampType: <b>DUP</b>    |           | TestCode: <b>ALK</b>        |      | Units: <b>mg CaCO3/L</b>        |           | Prep Date:           |      | RunNo: <b>54508</b> |      |
| Client ID: <b>1</b>               |        | Batch ID: <b>R54508</b> |           | TestNo: <b>A2320B, 2011</b> |      | Analysis Date: <b>9/13/2021</b> |           | SeqNo: <b>585334</b> |      |                     |      |
| Analyte                           | Result | PQL                     | SPK value | SPK Ref Val                 | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit            | Qual |
| Alkalinity, Total (As CaCO3)      | 100    | 2.50                    |           |                             |      |                                 |           | 99.00                | 1.01 | 5.27                |      |

|                              |                         |                             |                                 |                      |                     |          |           |             |      |          |      |
|------------------------------|-------------------------|-----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54508</b>  | SampType: <b>MBLK</b>   | TestCode: <b>ALK</b>        | Units: <b>mg CaCO3/L</b>        | Prep Date:           | RunNo: <b>54508</b> |          |           |             |      |          |      |
| Client ID: <b>PBW</b>        | Batch ID: <b>R54508</b> | TestNo: <b>A2320B, 2011</b> | Analysis Date: <b>9/13/2021</b> | SeqNo: <b>585354</b> |                     |          |           |             |      |          |      |
| Analyte                      | Result                  | PQL                         | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Alkalinity, Total (As CaCO3) | < 2.50                  | 2.50                        |                                 |                      |                     |          |           |             |      |          |      |

|                              |                         |                             |                                 |                      |                     |          |           |             |      |          |      |
|------------------------------|-------------------------|-----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-R54508</b> | SampType: <b>LCS</b>    | TestCode: <b>ALK</b>        | Units: <b>mg CaCO3/L</b>        | Prep Date:           | RunNo: <b>54508</b> |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R54508</b> | TestNo: <b>A2320B, 2011</b> | Analysis Date: <b>9/13/2021</b> | SeqNo: <b>585355</b> |                     |          |           |             |      |          |      |
| Analyte                      | Result                  | PQL                         | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Alkalinity, Total (As CaCO3) | 100                     | 2.50                        | 100.0                           | 0                    | 100                 | 80       | 120       |             |      |          |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791  
 23-Sep-21

**Client:** Burns McDonnell OKC

**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A2320B, 2011

|                                   |                         |                             |                                 |                      |                     |          |           |             |      |          |      |
|-----------------------------------|-------------------------|-----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-021ADUP</b> | SampType: <b>DUP</b>    | TestCode: <b>ALK</b>        | Units: <b>mg CaCO3/L</b>        | Prep Date:           | RunNo: <b>54508</b> |          |           |             |      |          |      |
| Client ID: <b>1</b>               | Batch ID: <b>R54508</b> | TestNo: <b>A2320B, 2011</b> | Analysis Date: <b>9/13/2021</b> | SeqNo: <b>585357</b> |                     |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                         | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Alkalinity, Total (As CaCO3)      | 102                     | 2.50                        |                                 |                      |                     |          |           | 104.0       | 1.94 | 5.27     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A2540D, 2011

|                                            |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|--------------------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54404</b>                | SampType: <b>MBLK</b>   | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54404</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>                      | Batch ID: <b>R54404</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584054</b> |          |           |             |      |          |      |
| Analyte                                    | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Suspended Solids (Residue, Non-Filterable) | < 5                     | 5                           |                    |                                |                      |          |           |             |      |          |      |

|                                            |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|--------------------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-R54404</b>               |  | SampType: <b>LCS</b>    |  | TestCode: <b>TSS</b>        |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54404</b>  |      |          |      |
| Client ID: <b>LCSW</b>                     |  | Batch ID: <b>R54404</b> |  | TestNo: <b>A2540D, 2011</b> |           |                    |      | Analysis Date: <b>9/6/2021</b> |           | SeqNo: <b>584055</b> |      |          |      |
| Analyte                                    |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Suspended Solids (Residue, Non-Filterable) |  | 38                      |  | 5                           | 40        | 0                  | 95   | 80                             | 120       |                      |      |          |      |

|                                            |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|--------------------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2109002-002ADUP</b>          | SampType: <b>DUP</b>    | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54404</b>  |          |           |             |      |          |      |
| Client ID: <b>BatchQC</b>                  | Batch ID: <b>R54404</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584068</b> |          |           |             |      |          |      |
| Analyte                                    | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Suspended Solids (Residue, Non-Filterable) | 88                      | 5                           |                    |                                |                      |          |           | 85          | 3    | 5        |      |

|                                            |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|--------------------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54403</b>                | SampType: <b>MBLK</b>   | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54403</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>                      | Batch ID: <b>R54403</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584077</b> |          |           |             |      |          |      |
| Analyte                                    | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Suspended Solids (Residue, Non-Filterable) | < 5                     | 5                           |                    |                                |                      |          |           |             |      |          |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A2540D, 2011

|                             |                         |                             |                    |                                |                                                        |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-R54403</b> | SampType: <b>MBLK</b>   | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54403</b>                                    |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54403</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584077</b>                                   |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |

|                                            |                         |                             |                    |                                |                                                        |
|--------------------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>LCS-R54403</b>               | SampType: <b>LCS</b>    | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54403</b>                                    |
| Client ID: <b>LCSW</b>                     | Batch ID: <b>R54403</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584078</b>                                   |
| Analyte                                    | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Suspended Solids (Residue, Non-Filterable) | 41                      | 5                           | 40                 | 0                              | 103 80 120                                             |

|                                            |                         |                             |                    |                                |                                                        |
|--------------------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>2109031-001ADUP</b>          | SampType: <b>DUP</b>    | TestCode: <b>TSS</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54403</b>                                    |
| Client ID: <b>BatchQC</b>                  | Batch ID: <b>R54403</b> | TestNo: <b>A2540D, 2011</b> |                    | Analysis Date: <b>9/6/2021</b> | SeqNo: <b>584099</b>                                   |
| Analyte                                    | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Suspended Solids (Residue, Non-Filterable) | 31                      | 5                           |                    |                                | 32 3 5                                                 |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A2540E, 2011

|                             |        |                         |                             |             |                    |                                |           |             |                      |          |      |
|-----------------------------|--------|-------------------------|-----------------------------|-------------|--------------------|--------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>MB-R54364</b> |        | SampType: <b>MBLK</b>   | TestCode: <b>VS</b>         |             | Units: <b>mg/L</b> | Prep Date:                     |           |             | RunNo: <b>54364</b>  |          |      |
| Client ID: <b>PBW</b>       |        | Batch ID: <b>R54364</b> | TestNo: <b>A2540E, 2011</b> |             |                    | Analysis Date: <b>9/2/2021</b> |           |             | SeqNo: <b>584217</b> |          |      |
| Analyte                     | Result | PQL                     | SPK value                   | SPK Ref Val | %REC               | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Total Volatile Solids       | < 6    | 6                       |                             |             |                    |                                |           |             |                      |          |      |

|                              |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-R54364</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>VS</b>         |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54364</b>  |      |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54364</b> |  | TestNo: <b>A2540E, 2011</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>584218</b> |      |          |      |
| Analyte                      |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Total Volatile Solids        |  | 195                     |  | 0                           | 190       | 0                  | 103  | 25                             | 175       |                      |      |          |      |

|                                   |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-020ADUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>VS</b>         |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54364</b>  |      |          |      |
| Client ID: <b>4</b>               |  | Batch ID: <b>R54364</b> |  | TestNo: <b>A2540E, 2011</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>584239</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Total Volatile Solids             |  | 38                      |  | 6                           |           |                    |      |                                |           | 41                   | 8    | 5        | R    |

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54427</b> | SampType: <b>MBLK</b>   | TestCode: <b>VS</b>         | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54427</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54427</b> | TestNo: <b>A2540E, 2011</b> |                    | Analysis Date: <b>9/7/2021</b> | SeqNo: <b>586789</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Volatile Solids       | < 6                     | 6                           |                    |                                |                      |          |           |             |      |          |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A2540E, 2011

| Sample ID: <b>LCS-R54427</b> | SampType: <b>LCS</b>    | TestCode: <b>VS</b>         | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54427</b>  |          |           |             |      |          |      |
|------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>LCSW</b>       | Batch ID: <b>R54427</b> | TestNo: <b>A2540E, 2011</b> |                    | Analysis Date: <b>9/7/2021</b> | SeqNo: <b>586790</b> |          |           |             |      |          |      |
| Analyte                      | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Volatile Solids        | 187                     | 0                           | 200                | 0                              | 93                   | 25       | 175       |             |      |          |      |

| Sample ID: <b>2109036-003ADUP</b> | SampType: <b>DUP</b>    | TestCode: <b>VS</b>         | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54427</b>  |          |           |             |      |          |      |
|-----------------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>BatchQC</b>         | Batch ID: <b>R54427</b> | TestNo: <b>A2540E, 2011</b> |                    | Analysis Date: <b>9/7/2021</b> | SeqNo: <b>586800</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Volatile Solids             | 2,370                   | 12                          |                    |                                |                      |          |           | 2,478       | 4    | 5        |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |

Original  
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## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500 P E, 2011

|                                         |  |                         |  |                              |           |                    |      |                                |           |                      |      |          |      |
|-----------------------------------------|--|-------------------------|--|------------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>MB-R54309</b>             |  | SampType: <b>MBLK</b>   |  | TestCode: <b>PHOS_O</b>      |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54309</b>  |      |          |      |
| Client ID: <b>PBW</b>                   |  | Batch ID: <b>R54309</b> |  | TestNo: <b>A4500 P E, 20</b> |           |                    |      | Analysis Date: <b>9/1/2021</b> |           | SeqNo: <b>582496</b> |      |          |      |
| Analyte                                 |  | Result                  |  | PQL                          | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) |  | < 0.0500                |  | 0.0500                       |           |                    |      |                                |           |                      |      |          |      |

|                                         |  |                         |        |                              |             |                    |          |                                |             |                      |          |      |
|-----------------------------------------|--|-------------------------|--------|------------------------------|-------------|--------------------|----------|--------------------------------|-------------|----------------------|----------|------|
| Sample ID: <b>LCS-R54309</b>            |  | SampType: <b>LCS</b>    |        | TestCode: <b>PHOS_O</b>      |             | Units: <b>mg/L</b> |          | Prep Date:                     |             | RunNo: <b>54309</b>  |          |      |
| Client ID: <b>LCSW</b>                  |  | Batch ID: <b>R54309</b> |        | TestNo: <b>A4500 P E, 20</b> |             |                    |          | Analysis Date: <b>9/1/2021</b> |             | SeqNo: <b>582497</b> |          |      |
| Analyte                                 |  | Result                  | PQL    | SPK value                    | SPK Ref Val | %REC               | LowLimit | HighLimit                      | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) |  | 0.253                   | 0.0500 | 0.2690                       | 0           | 94.1               | 80       | 120                            |             |                      |          |      |

|                                         |  |                         |        |                              |             |                    |          |                                |             |                      |          |      |
|-----------------------------------------|--|-------------------------|--------|------------------------------|-------------|--------------------|----------|--------------------------------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-001AMS</b>        |  | SampType: <b>MS</b>     |        | TestCode: <b>PHOS_O</b>      |             | Units: <b>mg/L</b> |          | Prep Date:                     |             | RunNo: <b>54309</b>  |          |      |
| Client ID: <b>1</b>                     |  | Batch ID: <b>R54309</b> |        | TestNo: <b>A4500 P E, 20</b> |             |                    |          | Analysis Date: <b>9/1/2021</b> |             | SeqNo: <b>582499</b> |          |      |
| Analyte                                 |  | Result                  | PQL    | SPK value                    | SPK Ref Val | %REC               | LowLimit | HighLimit                      | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) |  | 0.638                   | 0.0500 | 0.5000                       | 0.1200      | 104                | 79       | 124                            |             |                      |          |      |

|                                         |        |                         |           |                              |      |                                |           |                      |      |                     |      |
|-----------------------------------------|--------|-------------------------|-----------|------------------------------|------|--------------------------------|-----------|----------------------|------|---------------------|------|
| Sample ID: <b>2108791-001AMSD</b>       |        | SampType: <b>MSD</b>    |           | TestCode: <b>PHOS_O</b>      |      | Units: <b>mg/L</b>             |           | Prep Date:           |      | RunNo: <b>54309</b> |      |
| Client ID: <b>1</b>                     |        | Batch ID: <b>R54309</b> |           | TestNo: <b>A4500 P E, 20</b> |      | Analysis Date: <b>9/1/2021</b> |           | SeqNo: <b>582500</b> |      |                     |      |
| Analyte                                 | Result | PQL                     | SPK value | SPK Ref Val                  | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit            | Qual |
| Phosphorus, Total Orthophosphate (As P) | 0.655  | 0.0500                  | 0.5000    | 0.1200                       | 107  | 79                             | 124       | 0.6380               | 2.63 | 8.34                |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500 P E, 2011

|                                   |  |                         |  |                              |           |                                |      |            |                      |             |                     |          |      |
|-----------------------------------|--|-------------------------|--|------------------------------|-----------|--------------------------------|------|------------|----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2108791-001AMSD</b> |  | SampType: <b>MSD</b>    |  | TestCode: <b>PHOS_O</b>      |           | Units: <b>mg/L</b>             |      | Prep Date: |                      |             | RunNo: <b>54309</b> |          |      |
| Client ID: <b>1</b>               |  | Batch ID: <b>R54309</b> |  | TestNo: <b>A4500 P E, 20</b> |           | Analysis Date: <b>9/1/2021</b> |      |            | SeqNo: <b>582500</b> |             |                     |          |      |
| Analyte                           |  | Result                  |  | PQL                          | SPK value | SPK Ref Val                    | %REC | LowLimit   | HighLimit            | RPD Ref Val | %RPD                | RPDLimit | Qual |

|                                         |                         |                              |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------------------|-------------------------|------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54323</b>             | SampType: <b>MBLK</b>   | TestCode: <b>PHOS_O</b>      | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54323</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>                   | Batch ID: <b>R54323</b> | TestNo: <b>A4500 P E, 20</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582656</b> |          |           |             |      |          |      |
| Analyte                                 | Result                  | PQL                          | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) | < 0.0500                | 0.0500                       |                    |                                |                      |          |           |             |      |          |      |

|                                         |                         |                              |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------------------|-------------------------|------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-R54323</b>            | SampType: <b>LCS</b>    | TestCode: <b>PHOS_O</b>      | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54323</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>                  | Batch ID: <b>R54323</b> | TestNo: <b>A4500 P E, 20</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582657</b> |          |           |             |      |          |      |
| Analyte                                 | Result                  | PQL                          | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) | 0.286                   | 0.0500                       | 0.2690             | 0                              | 106                  | 80       | 120       |             |      |          |      |

|                                         |                         |                              |                                |                      |                     |          |           |             |      |          |      |
|-----------------------------------------|-------------------------|------------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-021AMS</b>        | SampType: <b>MS</b>     | TestCode: <b>PHOS_O</b>      | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54323</b> |          |           |             |      |          |      |
| Client ID: <b>1</b>                     | Batch ID: <b>R54323</b> | TestNo: <b>A4500 P E, 20</b> | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582659</b> |                     |          |           |             |      |          |      |
| Analyte                                 | Result                  | PQL                          | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) | 0.642                   | 0.0500                       | 0.5000                         | 0.08300              | 112                 | 79       | 124       |             |      |          |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
 23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A4500 P E, 2011

|                                         |        |                         |                              |             |                    |                                |           |             |                      |          |      |
|-----------------------------------------|--------|-------------------------|------------------------------|-------------|--------------------|--------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-021AMSD</b>       |        | SampType: <b>MSD</b>    | TestCode: <b>PHOS_O</b>      |             | Units: <b>mg/L</b> | Prep Date:                     |           |             | RunNo: <b>54323</b>  |          |      |
| Client ID: <b>1</b>                     |        | Batch ID: <b>R54323</b> | TestNo: <b>A4500 P E, 20</b> |             |                    | Analysis Date: <b>9/1/2021</b> |           |             | SeqNo: <b>582660</b> |          |      |
| Analyte                                 | Result | PQL                     | SPK value                    | SPK Ref Val | %REC               | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Phosphorus, Total Orthophosphate (As P) | 0.611  | 0.0500                  | 0.5000                       | 0.08300     | 106                | 79                             | 124       | 0.6420      | 4.95                 | 8.34     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NH3-H

|                             |                         |                            |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54354</b> | SampType: <b>MBLK</b>   | TestCode: <b>NH3</b>       | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54354</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54354</b> | TestNo: <b>A4500-NH3-H</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>583081</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                        | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| NH3                         | < 0.100                 | 0.100                      |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |  |                            |           |                    |                                |            |           |                      |                     |          |      |
|------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|--------------------------------|------------|-----------|----------------------|---------------------|----------|------|
| Sample ID: <b>LCS-R54354</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b> |                                | Prep Date: |           |                      | RunNo: <b>54354</b> |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54354</b> |  | TestNo: <b>A4500-NH3-H</b> |           |                    | Analysis Date: <b>9/2/2021</b> |            |           | SeqNo: <b>583082</b> |                     |          |      |
| Analyte                      |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC                           | LowLimit   | HighLimit | RPD Ref Val          | %RPD                | RPDLimit | Qual |
| NH3                          |  | 3.50                    |  | 0.100                      | 3.600     | 0                  | 97.3                           | 90         | 110       |                      |                     |          |      |

|                                  |                         |                            |                                |                      |                     |          |           |             |      |          |      |
|----------------------------------|-------------------------|----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108701-001AMS</b> | SampType: <b>MS</b>     | TestCode: <b>NH3</b>       | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54354</b> |          |           |             |      |          |      |
| Client ID: <b>BatchQC</b>        | Batch ID: <b>R54354</b> | TestNo: <b>A4500-NH3-H</b> | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>583084</b> |                     |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                        | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| NH3                              | 9.06                    | 0.100                      | 10.00                          | 0.1330               | 89.3                | 73.3     | 125       |             |      |          |      |

|                                   |                         |                            |                                |                      |                     |          |           |             |       |          |      |
|-----------------------------------|-------------------------|----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: <b>2108701-001AMSD</b> | SampType: <b>MSD</b>    | TestCode: <b>NH3</b>       | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54354</b> |          |           |             |       |          |      |
| Client ID: <b>BatchQC</b>         | Batch ID: <b>R54354</b> | TestNo: <b>A4500-NH3-H</b> | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>583085</b> |                     |          |           |             |       |          |      |
| Analyte                           | Result                  | PQL                        | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| NH3                               | 9.01                    | 0.100                      | 10.00                          | 0.1330               | 88.8                | 73.3     | 125       | 9.059       | 0.498 | 9.63     |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NH3-H

|                             |  |                         |  |                            |           |                                |      |            |                      |             |                     |          |      |
|-----------------------------|--|-------------------------|--|----------------------------|-----------|--------------------------------|------|------------|----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>MB-R54355</b> |  | SampType: <b>MBLK</b>   |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b>             |      | Prep Date: |                      |             | RunNo: <b>54355</b> |          |      |
| Client ID: <b>PBW</b>       |  | Batch ID: <b>R54355</b> |  | TestNo: <b>A4500-NH3-H</b> |           | Analysis Date: <b>9/2/2021</b> |      |            | SeqNo: <b>583105</b> |             |                     |          |      |
| Analyte                     |  | Result                  |  | PQL                        | SPK value | SPK Ref Val                    | %REC | LowLimit   | HighLimit            | RPD Ref Val | %RPD                | RPDLimit | Qual |
| NH3                         |  | < 0.100                 |  | 0.100                      |           |                                |      |            |                      |             |                     |          |      |

|                              |  |                         |  |                            |           |                    |                                |            |           |                      |                     |          |      |
|------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|--------------------------------|------------|-----------|----------------------|---------------------|----------|------|
| Sample ID: <b>LCS-R54355</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b> |                                | Prep Date: |           |                      | RunNo: <b>54355</b> |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54355</b> |  | TestNo: <b>A4500-NH3-H</b> |           |                    | Analysis Date: <b>9/2/2021</b> |            |           | SeqNo: <b>583106</b> |                     |          |      |
| Analyte                      |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC                           | LowLimit   | HighLimit | RPD Ref Val          | %RPD                | RPDLimit | Qual |
| NH3                          |  | 3.51                    |  | 0.100                      | 3.600     | 0                  | 97.4                           | 90         | 110       |                      |                     |          |      |

|                                  |  |                         |  |                            |           |                    |      |                                |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-016CMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54355</b>  |      |          |      |
| Client ID: <b>4</b>              |  | Batch ID: <b>R54355</b> |  | TestNo: <b>A4500-NH3-H</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>583108</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| NH3                              |  | 9.04                    |  | 0.100                      | 10.00     | 0                  | 90.4 | 73.3                           | 125       |                      |      |          |      |

|                            |                  |                     |             |                         |               |          |           |             |      |          |      |
|----------------------------|------------------|---------------------|-------------|-------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 2108791-016CMSD | SampType: MSD    | TestCode: NH3       | Units: mg/L | Prep Date:              | RunNo: 54355  |          |           |             |      |          |      |
| Client ID: 4               | Batch ID: R54355 | TestNo: A4500-NH3-H |             | Analysis Date: 9/2/2021 | SeqNo: 583109 |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val             | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| NH3                        | 8.82             | 0.100               | 10.00       | 0                       | 88.2          | 73.3     | 125       | 9.042       | 2.54 | 9.63     |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NH3-H

|                             |  |                         |  |                            |           |                    |      |                                |           |                      |      |          |      |
|-----------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>MB-R54355</b> |  | SampType: <b>MBLK</b>   |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54355</b>  |      |          |      |
| Client ID: <b>PBW</b>       |  | Batch ID: <b>R54355</b> |  | TestNo: <b>A4500-NH3-H</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>583129</b> |      |          |      |
| Analyte                     |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| NH3                         |  | < 0.100                 |  | 0.100                      |           |                    |      |                                |           |                      |      |          |      |

|                              |        |                         |           |                            |      |                                |           |             |                      |          |                     |  |
|------------------------------|--------|-------------------------|-----------|----------------------------|------|--------------------------------|-----------|-------------|----------------------|----------|---------------------|--|
| Sample ID: <b>LCS-R54355</b> |        | SampType: <b>LCS</b>    |           | TestCode: <b>NH3</b>       |      | Units: <b>mg/L</b>             |           | Prep Date:  |                      |          | RunNo: <b>54355</b> |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R54355</b> |           | TestNo: <b>A4500-NH3-H</b> |      | Analysis Date: <b>9/2/2021</b> |           |             | SeqNo: <b>583130</b> |          |                     |  |
| Analyte                      | Result | PQL                     | SPK value | SPK Ref Val                | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual                |  |
| NH3                          | 3.51   | 0.100                   | 3.600     | 0                          | 97.4 | 90                             | 110       |             |                      |          |                     |  |

|                                  |  |                         |  |                            |           |                    |      |                                |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2109017-006BMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>NH3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54355</b>  |      |          |      |
| Client ID: <b>BatchQC</b>        |  | Batch ID: <b>R54355</b> |  | TestNo: <b>A4500-NH3-H</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>583132</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| NH3                              |  | 8.78                    |  | 0.100                      | 10.00     | 0                  | 87.8 | 73.3                           | 125       |                      |      |          |      |

|                            |                  |                     |             |                         |               |          |           |             |       |          |      |
|----------------------------|------------------|---------------------|-------------|-------------------------|---------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: 2109017-006BMSD | SampType: MSD    | TestCode: NH3       | Units: mg/L | Prep Date:              | RunNo: 54355  |          |           |             |       |          |      |
| Client ID: BatchQC         | Batch ID: R54355 | TestNo: A4500-NH3-H |             | Analysis Date: 9/2/2021 | SeqNo: 583133 |          |           |             |       |          |      |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val             | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| NH3                        | 8.82             | 0.100               | 10.00       | 0                       | 88.2          | 73.3     | 125       | 8.775       | 0.546 | 9.63     |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NO3-F

|                             |  |                         |  |                            |           |                    |      |                                 |           |                      |      |          |      |
|-----------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>MB-R53304</b> |  | SampType: <b>MBLK</b>   |  | TestCode: <b>NO3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                      |           | RunNo: <b>53304</b>  |      |          |      |
| Client ID: <b>PBW</b>       |  | Batch ID: <b>R53304</b> |  | TestNo: <b>A4500-NO3-F</b> |           |                    |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>581289</b> |      |          |      |
| Analyte                     |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Nitrate as N                |  | < 0.400                 |  | 0.400                      |           |                    |      |                                 |           |                      |      |          |      |

|                              |  |                         |  |                            |           |                    |      |                                 |           |                      |      |          |      |
|------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-R53304</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>NO3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                      |           | RunNo: <b>53304</b>  |      |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R53304</b> |  | TestNo: <b>A4500-NO3-F</b> |           |                    |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>581290</b> |      |          |      |
| Analyte                      |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Nitrate as N                 |  | 5.70                    |  | 0.400                      | 6.725     | 0                  | 84.8 | 90                              | 110       |                      |      |          | S    |

|                                  |  |                         |  |                            |  |                    |  |                                 |  |                      |  |          |  |           |  |             |  |      |  |          |  |      |  |
|----------------------------------|--|-------------------------|--|----------------------------|--|--------------------|--|---------------------------------|--|----------------------|--|----------|--|-----------|--|-------------|--|------|--|----------|--|------|--|
| Sample ID: <b>2108785-001AMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>NO3</b>       |  | Units: <b>mg/L</b> |  | Prep Date:                      |  | RunNo: <b>53304</b>  |  |          |  |           |  |             |  |      |  |          |  |      |  |
| Client ID: <b>BatchQC</b>        |  | Batch ID: <b>R53304</b> |  | TestNo: <b>A4500-NO3-F</b> |  |                    |  | Analysis Date: <b>8/31/2021</b> |  | SeqNo: <b>581292</b> |  |          |  |           |  |             |  |      |  |          |  |      |  |
| Analyte                          |  | Result                  |  | PQL                        |  | SPK value          |  | SPK Ref Val                     |  | %REC                 |  | LowLimit |  | HighLimit |  | RPD Ref Val |  | %RPD |  | RPDLimit |  | Qual |  |
| Nitrate as N                     |  | 8.58                    |  | 0.400                      |  | 8.000              |  | 0                               |  | 107                  |  | 71       |  | 134       |  |             |  |      |  |          |  |      |  |

|                                   |  |                         |       |                            |             |                                 |          |                      |             |                     |          |      |
|-----------------------------------|--|-------------------------|-------|----------------------------|-------------|---------------------------------|----------|----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>2108785-001AMSD</b> |  | SampType: <b>MSD</b>    |       | TestCode: <b>NO3</b>       |             | Units: <b>mg/L</b>              |          | Prep Date:           |             | RunNo: <b>53304</b> |          |      |
| Client ID: <b>BatchQC</b>         |  | Batch ID: <b>R53304</b> |       | TestNo: <b>A4500-NO3-F</b> |             | Analysis Date: <b>8/31/2021</b> |          | SeqNo: <b>581293</b> |             |                     |          |      |
| Analyte                           |  | Result                  | PQL   | SPK value                  | SPK Ref Val | %REC                            | LowLimit | HighLimit            | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Nitrate as N                      |  | 8.52                    | 0.400 | 8.000                      | 0           | 107                             | 71       | 134                  | 8.581       | 0.666               | 9.58     |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NO3-F

|                             |                         |                            |                    |                                 |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|----------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R53304</b> | SampType: <b>MBLK</b>   | TestCode: <b>NO3</b>       | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>53304</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R53304</b> | TestNo: <b>A4500-NO3-F</b> |                    | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>581313</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                        | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Nitrate as N                | < 0.400                 | 0.400                      |                    |                                 |                      |          |           |             |      |          |      |

|                              |  |                         |  |                            |           |                    |      |                                 |           |                      |      |          |      |
|------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-R53304</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>NO3</b>       |           | Units: <b>mg/L</b> |      | Prep Date:                      |           | RunNo: <b>53304</b>  |      |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R53304</b> |  | TestNo: <b>A4500-NO3-F</b> |           |                    |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>581314</b> |      |          |      |
| Analyte                      |  | Result                  |  | PQL                        | SPK value | SPK Ref Val        | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Nitrate as N                 |  | 5.68                    |  | 0.400                      | 5.725     | 0                  | 99.1 | 90                              | 110       |                      |      |          |      |

|                                  |        |                         |           |                            |      |                                 |           |                      |      |                     |      |
|----------------------------------|--------|-------------------------|-----------|----------------------------|------|---------------------------------|-----------|----------------------|------|---------------------|------|
| Sample ID: <b>2108791-017AMS</b> |        | SampType: <b>MS</b>     |           | TestCode: <b>NO3</b>       |      | Units: <b>mg/L</b>              |           | Prep Date:           |      | RunNo: <b>53304</b> |      |
| Client ID: <b>1</b>              |        | Batch ID: <b>R53304</b> |           | TestNo: <b>A4500-NO3-F</b> |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>581316</b> |      |                     |      |
| Analyte                          | Result | PQL                     | SPK value | SPK Ref Val                | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit            | Qual |
| Nitrate as N                     | 9.00   | 0.400                   | 8.000     | 0                          | 112  | 71                              | 134       |                      |      |                     |      |

|                                   |                         |                            |                                 |                      |                     |          |           |             |       |          |      |
|-----------------------------------|-------------------------|----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: <b>2108791-017AMSD</b> | SampType: <b>MSD</b>    | TestCode: <b>NO3</b>       | Units: <b>mg/L</b>              | Prep Date:           | RunNo: <b>53304</b> |          |           |             |       |          |      |
| Client ID: <b>1</b>               | Batch ID: <b>R53304</b> | TestNo: <b>A4500-NO3-F</b> | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>581317</b> |                     |          |           |             |       |          |      |
| Analyte                           | Result                  | PQL                        | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Nitrate as N                      | 8.93                    | 0.400                      | 8.000                           | 0                    | 112                 | 71       | 134       | 8.995       | 0.748 | 9.58     |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A4500-NO3-F

|                             |                         |                            |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54329</b> | SampType: <b>MBLK</b>   | TestCode: <b>NO3</b>       | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54329</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54329</b> | TestNo: <b>A4500-NO3-F</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582752</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                        | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Nitrate as N                | < 0.400                 | 0.400                      |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |  |                            |           |                                |      |            |                      |             |                     |          |      |
|------------------------------|--|-------------------------|--|----------------------------|-----------|--------------------------------|------|------------|----------------------|-------------|---------------------|----------|------|
| Sample ID: <b>LCS-R54329</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>NO3</b>       |           | Units: <b>mg/L</b>             |      | Prep Date: |                      |             | RunNo: <b>54329</b> |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54329</b> |  | TestNo: <b>A4500-NO3-F</b> |           | Analysis Date: <b>9/1/2021</b> |      |            | SeqNo: <b>582753</b> |             |                     |          |      |
| Analyte                      |  | Result                  |  | PQL                        | SPK value | SPK Ref Val                    | %REC | LowLimit   | HighLimit            | RPD Ref Val | %RPD                | RPDLimit | Qual |
| Nitrate as N                 |  | 5.70                    |  | 0.400                      | 5.725     | 0                              | 99.5 | 90         | 110                  |             |                     |          |      |

|                                  |                         |                            |                    |                                |                      |          |           |             |      |          |      |
|----------------------------------|-------------------------|----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-025AMS</b> | SampType: <b>MS</b>     | TestCode: <b>NO3</b>       | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54329</b>  |          |           |             |      |          |      |
| Client ID: <b>1</b>              | Batch ID: <b>R54329</b> | TestNo: <b>A4500-NO3-F</b> |                    | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582755</b> |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                        | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Nitrate as N                     | 10.9                    | 0.400                      | 8.000              | 2.411                          | 106                  | 71       | 134       |             |      |          |      |

|                            |                  |                     |             |                         |               |          |           |             |       |          |      |
|----------------------------|------------------|---------------------|-------------|-------------------------|---------------|----------|-----------|-------------|-------|----------|------|
| Sample ID: 2108791-025AMSD | SampType: MSD    | TestCode: NO3       | Units: mg/L | Prep Date:              | RunNo: 54329  |          |           |             |       |          |      |
| Client ID: 1               | Batch ID: R54329 | TestNo: A4500-NO3-F |             | Analysis Date: 9/1/2021 | SeqNo: 582756 |          |           |             |       |          |      |
| Analyte                    | Result           | PQL                 | SPK value   | SPK Ref Val             | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD  | RPDLimit | Qual |
| Nitrate as N               | 10.8             | 0.400               | 8.000       | 2.411                   | 105           | 71       | 134       | 10.91       | 0.874 | 9.58     |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC

**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A4500-NO3-F

|                           |                         |                            |                                 |                      |                     |          |           |             |      |          |      |
|---------------------------|-------------------------|----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>NO2 LCS</b> | SampType: <b>LCS</b>    | TestCode: <b>NO2</b>       | Units: <b>mg/L</b>              | Prep Date:           | RunNo: <b>53304</b> |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>    | Batch ID: <b>R53304</b> | TestNo: <b>A4500-NO3-F</b> | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>581325</b> |                     |          |           |             |      |          |      |
| Analyte                   | Result                  | PQL                        | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Nitrite as N              | 10.4                    | 0.400                      | 10.00                           | 0                    | 104                 | 90       | 110       |             |      |          |      |

|                           |                         |                            |                                |                      |                     |          |           |             |      |          |      |
|---------------------------|-------------------------|----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>NO2 LCS</b> | SampType: <b>LCS</b>    | TestCode: <b>NO2</b>       | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54329</b> |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>    | Batch ID: <b>R54329</b> | TestNo: <b>A4500-NO3-F</b> | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>582768</b> |                     |          |           |             |      |          |      |
| Analyte                   | Result                  | PQL                        | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Nitrite as N              | 10.1                    | 0.400                      | 10.00                          | 0                    | 101                 | 90       | 110       |             |      |          |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5210B, 2011

|                            |                        |                               |                    |                                |                                                        |
|----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14954</b> | SampType: <b>MBLK</b>  | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54706</b>                                    |
| Client ID: <b>PBW</b>      | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588107</b>                                   |
| Analyte                    | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD - 20 Day  | 1.72                   | 0.200                         |                    |                                |                                                        |

|                             |                        |                               |                    |                                |                                                        |
|-----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>LCS-14954</b> | SampType: <b>LCS</b>   | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54706</b>                                    |
| Client ID: <b>LCSW</b>      | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588108</b>                                   |
| Analyte                     | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD - 20 Day   | 57.0                   | 3.00                          | 198.0              | 0                              | 28.8 75.2 125 S                                        |

|                                   |                        |                               |                    |                                |                                                        |
|-----------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>2108791-020ADUP</b> | SampType: <b>DUP</b>   | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54706</b>                                    |
| Client ID: <b>4</b>               | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588130</b>                                   |
| Analyte                           | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD - 20 Day         | 1.00                   | 1.00                          |                    |                                | 2.000 66.7 17.7 R                                      |

|                            |                        |                               |                    |                                |                                                        |
|----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14962</b> | SampType: <b>MBLK</b>  | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54726</b>                                    |
| Client ID: <b>PBW</b>      | Batch ID: <b>14962</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588442</b>                                   |
| Analyte                    | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD - 20 Day  | 1.42                   | 0.200                         |                    |                                |                                                        |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5210B, 2011

|                             |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-14962</b> | SampType: <b>LCS</b>   | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54726</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>14962</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588443</b> |          |           |             |      |          |      |
| Analyte                     | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Carbonaceous BOD - 20 Day   | < 3.00                 | 3.00                          | 198.0              | 0                              | 0                    | 75.2     | 125       |             |      |          | S    |

|                                   |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-028ADUP</b> | SampType: <b>DUP</b>   | TestCode: <b>CBOD20</b>       | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54726</b>  |          |           |             |      |          |      |
| Client ID: <b>4</b>               | Batch ID: <b>14962</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588453</b> |          |           |             |      |          |      |
| Analyte                           | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Carbonaceous BOD - 20 Day         | 14.0                   | 1.00                          |                    |                                |                      |          |           | 14.00       | 0    | 17.7     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5210B, 2011

|                            |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-14955</b> | SampType: <b>MBLK</b>  | TestCode: <b>CBOD20-Sol</b>   | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54713</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>      | Batch ID: <b>14955</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588254</b> |          |           |             |      |          |      |
| Analyte                    | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

Carbonaceous BOD - 20 Day 0.890 0.200

|                             |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-14955</b> | SampType: <b>LCS</b>   | TestCode: <b>CBOD20-Sol</b>   | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54713</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>14955</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588255</b> |          |           |             |      |          |      |
| Analyte                     | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

Carbonaceous BOD - 20 Day < 3.00 3.00 198.0 0 0 75.2 125 S

|                                   |  |                        |  |                               |           |                    |      |                                |           |                      |      |          |      |
|-----------------------------------|--|------------------------|--|-------------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-020ADUP</b> |  | SampType: <b>DUP</b>   |  | TestCode: <b>CBOD20-Sol</b>   |           | Units: <b>mg/L</b> |      | Prep Date: <b>9/2/2021</b>     |           | RunNo: <b>54713</b>  |      |          |      |
| Client ID: <b>4</b>               |  | Batch ID: <b>14955</b> |  | TestNo: <b>A5210B, 2011 -</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>588277</b> |      |          |      |
| Analyte                           |  | Result                 |  | PQL                           | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |

Carbonaceous BOD - 20 Day 2.00 1.00 2.000 0 17.7

**Qualifiers:** H Holding times for preparation or analysis exceeded  
PL Permit Limit  
S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

Original  
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## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5210B, 2011

|                            |                        |                               |                    |                                |                                                        |
|----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14954</b> | SampType: <b>MBLK</b>  | TestCode: <b>CBOD5</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54415</b>                                    |
| Client ID: <b>PBW</b>      | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584030</b>                                   |
| Analyte                    | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD-5         | 0.800                  | 0.200                         |                    |                                |                                                        |

|                             |                        |                               |                    |                                |                                                        |
|-----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>LCS-14954</b> | SampType: <b>LCS</b>   | TestCode: <b>CBOD5</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54415</b>                                    |
| Client ID: <b>LCSW</b>      | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584031</b>                                   |
| Analyte                     | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD-5          | 173                    | 3.00                          | 198.0              | 0                              | 87.4 75.2 125                                          |

|                                   |                        |                               |                    |                                |                                                        |
|-----------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>2108791-020ADUP</b> | SampType: <b>DUP</b>   | TestCode: <b>CBOD5</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54415</b>                                    |
| Client ID: <b>4</b>               | Batch ID: <b>14954</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584053</b>                                   |
| Analyte                           | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD-5                | 1.00                   | 1.00                          |                    |                                | 1.000 0 57.8                                           |

|                            |                        |                               |                    |                                |                                                        |
|----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14962</b> | SampType: <b>MBLK</b>  | TestCode: <b>CBOD5</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54428</b>                                    |
| Client ID: <b>PBW</b>      | Batch ID: <b>14962</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584264</b>                                   |
| Analyte                    | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Carbonaceous BOD-5         | 0.900                  | 0.200                         |                    |                                |                                                        |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5210B, 2011

|                             |  |                        |  |                               |           |                    |      |                                |           |                      |      |          |      |
|-----------------------------|--|------------------------|--|-------------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>LCS-14962</b> |  | SampType: <b>LCS</b>   |  | TestCode: <b>CBOD5</b>        |           | Units: <b>mg/L</b> |      | Prep Date: <b>9/2/2021</b>     |           | RunNo: <b>54428</b>  |      |          |      |
| Client ID: <b>LCSW</b>      |  | Batch ID: <b>14962</b> |  | TestNo: <b>A5210B, 2011 -</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           | SeqNo: <b>584265</b> |      |          |      |
| Analyte                     |  | Result                 |  | PQL                           | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |

|                    |     |      |       |   |      |      |     |  |  |  |  |
|--------------------|-----|------|-------|---|------|------|-----|--|--|--|--|
| Carbonaceous BOD-5 | 185 | 3.00 | 198.0 | 0 | 93.4 | 75.2 | 125 |  |  |  |  |
|--------------------|-----|------|-------|---|------|------|-----|--|--|--|--|

|                                   |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-028ADUP</b> | SampType: <b>DUP</b>   | TestCode: <b>CBOD5</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54428</b>  |          |           |             |      |          |      |
| Client ID: <b>4</b>               | Batch ID: <b>14962</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584275</b> |          |           |             |      |          |      |
| Analyte                           | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                    |      |      |  |  |  |  |  |       |   |      |  |
|--------------------|------|------|--|--|--|--|--|-------|---|------|--|
| Carbonaceous BOD-5 | 2.00 | 1.00 |  |  |  |  |  | 2.000 | 0 | 57.8 |  |
|--------------------|------|------|--|--|--|--|--|-------|---|------|--|

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |

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# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5210B, 2011

|                            |  |                        |  |                                                 |           |                                |      |          |           |                      |      |          |      |
|----------------------------|--|------------------------|--|-------------------------------------------------|-----------|--------------------------------|------|----------|-----------|----------------------|------|----------|------|
| Sample ID: <b>MB-14955</b> |  | SampType: <b>MBLK</b>  |  | TestCode: <b>CBOD5 - SOL</b> Units: <b>mg/L</b> |           | Prep Date: <b>9/2/2021</b>     |      |          |           | RunNo: <b>54421</b>  |      |          |      |
| Client ID: <b>PBW</b>      |  | Batch ID: <b>14955</b> |  | TestNo: <b>A5210B, 2011 -</b>                   |           | Analysis Date: <b>9/2/2021</b> |      |          |           | SeqNo: <b>584193</b> |      |          |      |
| Analyte                    |  | Result                 |  | PQL                                             | SPK value | SPK Ref Val                    | %REC | LowLimit | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |

Carbonaceous BOD-5 0.490 0.200

|                             |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-14955</b> | SampType: <b>LCS</b>   | TestCode: <b>CBOD5 - SOL</b>  | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54421</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>      | Batch ID: <b>14955</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584194</b> |          |           |             |      |          |      |
| Analyte                     | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

Carbonaceous BOD-5 172 3.00 198.0 0 86.9 75.2 125

|                                   |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-020ADUP</b> | SampType: <b>DUP</b>   | TestCode: <b>CBOD5 - SOL</b>  | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54421</b>  |          |           |             |      |          |      |
| Client ID: <b>4</b>               | Batch ID: <b>14955</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>584216</b> |          |           |             |      |          |      |
| Analyte                           | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

Carbonaceous BOD-5 < 1.00 1.00 0 0 17.7

**Qualifiers:** H Holding times for preparation or analysis exceeded  
PL Permit Limit  
S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
R RPD outside accepted recovery limits  
W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit

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## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5210B, 2011

|                                    |                        |                               |                    |                                |                                                        |
|------------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14953</b>         | SampType: <b>MBLK</b>  | TestCode: <b>BOD20</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54702</b>                                    |
| Client ID: <b>PBW</b>              | Batch ID: <b>14953</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>587989</b>                                   |
| Analyte                            | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Biochemical Oxygen Demand - 20 Day | 0.980                  | 0.200                         |                    |                                |                                                        |

|                                    |                        |                               |                    |                                |                                                        |
|------------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>LCS-14953</b>        | SampType: <b>LCS</b>   | TestCode: <b>BOD20</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54702</b>                                    |
| Client ID: <b>LCSW</b>             | Batch ID: <b>14953</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>587990</b>                                   |
| Analyte                            | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Biochemical Oxygen Demand - 20 Day | 209                    | 3.00                          | 198.0              | 0                              | 106 73.1 118                                           |

|                                    |                        |                               |                    |                                |                                                        |
|------------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>2108791-020ADUP</b>  | SampType: <b>DUP</b>   | TestCode: <b>BOD20</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54702</b>                                    |
| Client ID: <b>4</b>                | Batch ID: <b>14953</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588012</b>                                   |
| Analyte                            | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Biochemical Oxygen Demand - 20 Day | 8.00                   | 1.00                          |                    |                                | 6.000 28.6 0                                           |

|                                    |                        |                               |                    |                                |                                                        |
|------------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|--------------------------------------------------------|
| Sample ID: <b>MB-14961</b>         | SampType: <b>MBLK</b>  | TestCode: <b>BOD20</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54705</b>                                    |
| Client ID: <b>PBW</b>              | Batch ID: <b>14961</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588430</b>                                   |
| Analyte                            | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual |
| Biochemical Oxygen Demand - 20 Day | 0.700                  | 0.200                         |                    |                                |                                                        |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5210B, 2011

|                                    |                        |                               |                    |                                |                      |          |           |             |      |          |      |
|------------------------------------|------------------------|-------------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>LCS-14961</b>        | SampType: <b>LCS</b>   | TestCode: <b>BOD20</b>        | Units: <b>mg/L</b> | Prep Date: <b>9/2/2021</b>     | RunNo: <b>54705</b>  |          |           |             |      |          |      |
| Client ID: <b>LCSW</b>             | Batch ID: <b>14961</b> | TestNo: <b>A5210B, 2011 -</b> |                    | Analysis Date: <b>9/2/2021</b> | SeqNo: <b>588431</b> |          |           |             |      |          |      |
| Analyte                            | Result                 | PQL                           | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Biochemical Oxygen Demand - 20 Day | 224                    | 3.00                          | 198.0              | 0                              | 113                  | 73.1     | 118       |             |      |          |      |

|                                    |  |                        |  |                               |           |                    |      |                                |           |             |                      |          |      |
|------------------------------------|--|------------------------|--|-------------------------------|-----------|--------------------|------|--------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-026ADUP</b>  |  | SampType: <b>DUP</b>   |  | TestCode: <b>BOD20</b>        |           | Units: <b>mg/L</b> |      | Prep Date: <b>9/2/2021</b>     |           |             | RunNo: <b>54705</b>  |          |      |
| Client ID: <b>2</b>                |  | Batch ID: <b>14961</b> |  | TestNo: <b>A5210B, 2011 -</b> |           |                    |      | Analysis Date: <b>9/2/2021</b> |           |             | SeqNo: <b>588439</b> |          |      |
| Analyte                            |  | Result                 |  | PQL                           | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Biochemical Oxygen Demand - 20 Day |  | 14.0                   |  | 1.00                          |           |                    |      |                                |           | 14.00       | 0                    | 0        |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5310B, 2011

|                             |                         |                             |                    |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54441</b> | SampType: <b>MBLK</b>   | TestCode: <b>TOC</b>        | Units: <b>mg/L</b> | Prep Date:                     | RunNo: <b>54441</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54441</b> | TestNo: <b>A5310B, 2011</b> |                    | Analysis Date: <b>9/7/2021</b> | SeqNo: <b>584358</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Total Organic Carbon        | < 3.0                   | 3.0                         |                    |                                |                      |          |           |             |      |          |      |

|                              |  |                         |  |                             |           |                    |                                |            |           |                      |                     |          |      |
|------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|--------------------------------|------------|-----------|----------------------|---------------------|----------|------|
| Sample ID: <b>LCS-R54441</b> |  | SampType: <b>LCS</b>    |  | TestCode: <b>TOC</b>        |           | Units: <b>mg/L</b> |                                | Prep Date: |           |                      | RunNo: <b>54441</b> |          |      |
| Client ID: <b>LCSW</b>       |  | Batch ID: <b>R54441</b> |  | TestNo: <b>A5310B, 2011</b> |           |                    | Analysis Date: <b>9/7/2021</b> |            |           | SeqNo: <b>584359</b> |                     |          |      |
| Analyte                      |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC                           | LowLimit   | HighLimit | RPD Ref Val          | %RPD                | RPDLimit | Qual |
| Total Organic Carbon         |  | 23.1                    |  | 3.0                         | 25.0      | 0                  | 92.3                           | 85         | 115       |                      |                     |          |      |

|                                  |  |                         |  |                             |           |                    |      |                                |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------|------|--------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-006DMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>TOC</b>        |           | Units: <b>mg/L</b> |      | Prep Date:                     |           | RunNo: <b>54441</b>  |      |          |      |
| Client ID: <b>2</b>              |  | Batch ID: <b>R54441</b> |  | TestNo: <b>A5310B, 2011</b> |           |                    |      | Analysis Date: <b>9/7/2021</b> |           | SeqNo: <b>584361</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                         | SPK value | SPK Ref Val        | %REC | LowLimit                       | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Total Organic Carbon             |  | 25.9                    |  | 3.0                         | 20.0      | 8.9                | 84.9 | 47                             | 131       |                      |      |          |      |

|                                   |        |                         |                      |                             |                    |          |                                |             |      |                      |      |
|-----------------------------------|--------|-------------------------|----------------------|-----------------------------|--------------------|----------|--------------------------------|-------------|------|----------------------|------|
| Sample ID: <b>2108791-006DMSD</b> |        | SampType: <b>MSD</b>    | TestCode: <b>TOC</b> |                             | Units: <b>mg/L</b> |          | Prep Date:                     |             |      | RunNo: <b>54441</b>  |      |
| Client ID: <b>2</b>               |        | Batch ID: <b>R54441</b> |                      | TestNo: <b>A5310B, 2011</b> |                    |          | Analysis Date: <b>9/7/2021</b> |             |      | SeqNo: <b>584362</b> |      |
| Analyte                           | Result | PQL                     | SPK value            | SPK Ref Val                 | %REC               | LowLimit | HighLimit                      | RPD Ref Val | %RPD | RPDLimit             | Qual |
| Total Organic Carbon              | 25.5   | 3.0                     | 20.0                 | 8.9                         | 82.8               | 47       | 131                            | 25.9        | 1.7  | 7.72                 |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5310B, 2011

|                                  |                         |                             |                                |                      |                     |          |           |             |      |          |      |
|----------------------------------|-------------------------|-----------------------------|--------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-016DMS</b> | SampType: <b>MS</b>     | TestCode: <b>TOC</b>        | Units: <b>mg/L</b>             | Prep Date:           | RunNo: <b>54441</b> |          |           |             |      |          |      |
| Client ID: <b>4</b>              | Batch ID: <b>R54441</b> | TestNo: <b>A5310B, 2011</b> | Analysis Date: <b>9/7/2021</b> | SeqNo: <b>584373</b> |                     |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                         | SPK value                      | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                      |      |     |      |      |      |    |     |  |  |  |  |
|----------------------|------|-----|------|------|------|----|-----|--|--|--|--|
| Total Organic Carbon | 27.3 | 3.0 | 20.0 | 10.0 | 86.5 | 47 | 131 |  |  |  |  |
|----------------------|------|-----|------|------|------|----|-----|--|--|--|--|

|                                   |        |                         |                      |                             |                    |          |                                |             |      |                      |      |  |
|-----------------------------------|--------|-------------------------|----------------------|-----------------------------|--------------------|----------|--------------------------------|-------------|------|----------------------|------|--|
| Sample ID: <b>2108791-016DMSD</b> |        | SampType: <b>MSD</b>    | TestCode: <b>TOC</b> |                             | Units: <b>mg/L</b> |          | Prep Date:                     |             |      | RunNo: <b>54441</b>  |      |  |
| Client ID: <b>4</b>               |        | Batch ID: <b>R54441</b> |                      | TestNo: <b>A5310B, 2011</b> |                    |          | Analysis Date: <b>9/7/2021</b> |             |      | SeqNo: <b>584374</b> |      |  |
| Analyte                           | Result | PQL                     | SPK value            | SPK Ref Val                 | %REC               | LowLimit | HighLimit                      | RPD Ref Val | %RPD | RPDLimit             | Qual |  |

|                      |      |     |      |      |      |    |     |      |     |      |  |
|----------------------|------|-----|------|------|------|----|-----|------|-----|------|--|
| Total Organic Carbon | 26.5 | 3.0 | 20.0 | 10.0 | 82.6 | 47 | 131 | 27.3 | 2.9 | 7.72 |  |
|----------------------|------|-----|------|------|------|----|-----|------|-----|------|--|

|                             |                         |                             |                    |                                 |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54631</b> | SampType: <b>MBLK</b>   | TestCode: <b>TOC</b>        | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>54631</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54631</b> | TestNo: <b>A5310B, 2011</b> |                    | Analysis Date: <b>9/10/2021</b> | SeqNo: <b>586916</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                      |       |     |  |  |  |  |  |  |  |  |  |
|----------------------|-------|-----|--|--|--|--|--|--|--|--|--|
| Total Organic Carbon | < 3.0 | 3.0 |  |  |  |  |  |  |  |  |  |
|----------------------|-------|-----|--|--|--|--|--|--|--|--|--|

|                              |        |                         |                             |             |                    |                                 |            |             |                      |                     |      |  |
|------------------------------|--------|-------------------------|-----------------------------|-------------|--------------------|---------------------------------|------------|-------------|----------------------|---------------------|------|--|
| Sample ID: <b>LCS-R54631</b> |        | SampType: <b>LCS</b>    | TestCode: <b>TOC</b>        |             | Units: <b>mg/L</b> |                                 | Prep Date: |             |                      | RunNo: <b>54631</b> |      |  |
| Client ID: <b>LCSW</b>       |        | Batch ID: <b>R54631</b> | TestNo: <b>A5310B, 2011</b> |             |                    | Analysis Date: <b>9/10/2021</b> |            |             | SeqNo: <b>586917</b> |                     |      |  |
| Analyte                      | Result | PQL                     | SPK value                   | SPK Ref Val | %REC               | LowLimit                        | HighLimit  | RPD Ref Val | %RPD                 | RPDLimit            | Qual |  |

|                      |      |     |      |   |      |    |     |  |  |  |  |
|----------------------|------|-----|------|---|------|----|-----|--|--|--|--|
| Total Organic Carbon | 24.2 | 3.0 | 25.0 | 0 | 96.8 | 85 | 115 |  |  |  |  |
|----------------------|------|-----|------|---|------|----|-----|--|--|--|--|

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC

**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5310B, 2011

|                                  |                         |                             |                                 |                      |                     |          |           |             |      |          |      |
|----------------------------------|-------------------------|-----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-026DMS</b> | SampType: <b>MS</b>     | TestCode: <b>TOC</b>        | Units: <b>mg/L</b>              | Prep Date:           | RunNo: <b>54631</b> |          |           |             |      |          |      |
| Client ID: <b>2</b>              | Batch ID: <b>R54631</b> | TestNo: <b>A5310B, 2011</b> | Analysis Date: <b>9/10/2021</b> | SeqNo: <b>586919</b> |                     |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                         | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |

|                      |      |     |      |     |     |    |     |  |  |  |  |
|----------------------|------|-----|------|-----|-----|----|-----|--|--|--|--|
| Total Organic Carbon | 31.0 | 3.0 | 20.0 | 9.9 | 106 | 47 | 131 |  |  |  |  |
|----------------------|------|-----|------|-----|-----|----|-----|--|--|--|--|

|                                   |        |                         |                      |                             |                    |          |                                 |             |      |                      |      |  |
|-----------------------------------|--------|-------------------------|----------------------|-----------------------------|--------------------|----------|---------------------------------|-------------|------|----------------------|------|--|
| Sample ID: <b>2108791-026DMSD</b> |        | SampType: <b>MSD</b>    | TestCode: <b>TOC</b> |                             | Units: <b>mg/L</b> |          | Prep Date:                      |             |      | RunNo: <b>54631</b>  |      |  |
| Client ID: <b>2</b>               |        | Batch ID: <b>R54631</b> |                      | TestNo: <b>A5310B, 2011</b> |                    |          | Analysis Date: <b>9/10/2021</b> |             |      | SeqNo: <b>586920</b> |      |  |
| Analyte                           | Result | PQL                     | SPK value            | SPK Ref Val                 | %REC               | LowLimit | HighLimit                       | RPD Ref Val | %RPD | RPDLimit             | Qual |  |

|                      |      |     |      |     |     |    |     |      |     |      |  |
|----------------------|------|-----|------|-----|-----|----|-----|------|-----|------|--|
| Total Organic Carbon | 31.0 | 3.0 | 20.0 | 9.9 | 105 | 47 | 131 | 31.0 | 0.3 | 7.72 |  |
|----------------------|------|-----|------|-----|-----|----|-----|------|-----|------|--|

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |

Original  
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## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: A5310B, 2011

|                                  |  |                         |  |                                                  |           |             |                                 |          |           |                      |      |          |      |
|----------------------------------|--|-------------------------|--|--------------------------------------------------|-----------|-------------|---------------------------------|----------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-003DMS</b> |  | SampType: <b>MS</b>     |  | TestCode: <b>TOC Dissolve</b> Units: <b>mg/L</b> |           |             | Prep Date:                      |          |           | RunNo: <b>54631</b>  |      |          |      |
| Client ID: <b>3</b>              |  | Batch ID: <b>R54631</b> |  | TestNo: <b>A5310B, 2011</b>                      |           |             | Analysis Date: <b>9/10/2021</b> |          |           | SeqNo: <b>586930</b> |      |          |      |
| Analyte                          |  | Result                  |  | PQL                                              | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Organic Carbon, Dissolved        |  | 34.1                    |  | 3.0                                              | 20.0      | 9.1         | 125                             | 42       | 154       |                      |      |          |      |

|                                   |        |                         |           |                                                  |      |                                 |           |             |                      |          |      |
|-----------------------------------|--------|-------------------------|-----------|--------------------------------------------------|------|---------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-003DMSD</b> |        | SampType: <b>MSD</b>    |           | TestCode: <b>TOC Dissolve</b> Units: <b>mg/L</b> |      | Prep Date:                      |           |             | RunNo: <b>54631</b>  |          |      |
| Client ID: <b>3</b>               |        | Batch ID: <b>R54631</b> |           | TestNo: <b>A5310B, 2011</b>                      |      | Analysis Date: <b>9/10/2021</b> |           |             | SeqNo: <b>586931</b> |          |      |
| Analyte                           | Result | PQL                     | SPK value | SPK Ref Val                                      | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Organic Carbon, Dissolved         | 32.3   | 3.0                     | 20.0      | 9.1                                              | 116  | 42                              | 154       | 34.1        | 5.4                  | 5.62     |      |

| Sample ID: <b>MB-R54633</b> | SampType: <b>MBLK</b>   | TestCode: <b>TOC Dissolve</b> | Units: <b>mg/L</b> | Prep Date:                      | RunNo: <b>54633</b>  |          |           |             |      |          |      |
|-----------------------------|-------------------------|-------------------------------|--------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>PBW</b>       | Batch ID: <b>R54633</b> | TestNo: <b>A5310B, 2011</b>   |                    | Analysis Date: <b>9/15/2021</b> | SeqNo: <b>586959</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                           | SPK value          | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Dissolved   | < 3.0                   | 3.0                           |                    |                                 |                      |          |           |             |      |          |      |

|                              |                         |                                                  |           |             |      |                                 |           |             |                      |          |      |
|------------------------------|-------------------------|--------------------------------------------------|-----------|-------------|------|---------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>LCS-R54633</b> | SampType: <b>LCS</b>    | TestCode: <b>TOC Dissolve</b> Units: <b>mg/L</b> |           |             |      | Prep Date:                      |           |             | RunNo: <b>54633</b>  |          |      |
| Client ID: <b>LCSW</b>       | Batch ID: <b>R54633</b> | TestNo: <b>A5310B, 2011</b>                      |           |             |      | Analysis Date: <b>9/15/2021</b> |           |             | SeqNo: <b>586960</b> |          |      |
| Analyte                      | Result                  | PQL                                              | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Organic Carbon, Dissolved    | 24.2                    | 3.0                                              | 25.0      | 0           | 96.7 | 85                              | 115       |             |                      |          |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** A5310B, 2011

|                                  |                         |                                                  |           |             |      |                                 |           |             |                      |          |      |
|----------------------------------|-------------------------|--------------------------------------------------|-----------|-------------|------|---------------------------------|-----------|-------------|----------------------|----------|------|
| Sample ID: <b>2108791-014DMS</b> | SampType: <b>MS</b>     | TestCode: <b>TOC Dissolve</b> Units: <b>mg/L</b> |           |             |      | Prep Date:                      |           |             | RunNo: <b>54633</b>  |          |      |
| Client ID: <b>2</b>              | Batch ID: <b>R54633</b> | TestNo: <b>A5310B, 2011</b>                      |           |             |      | Analysis Date: <b>9/15/2021</b> |           |             | SeqNo: <b>586962</b> |          |      |
| Analyte                          | Result                  | PQL                                              | SPK value | SPK Ref Val | %REC | LowLimit                        | HighLimit | RPD Ref Val | %RPD                 | RPDLimit | Qual |
| Organic Carbon, Dissolved        | 27.5                    | 3.0                                              | 20.0      | 6.0         | 108  | 42                              | 154       |             |                      |          |      |

|                                   |  |                         |  |                                                  |           |             |                                 |          |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|--------------------------------------------------|-----------|-------------|---------------------------------|----------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-014DMSD</b> |  | SampType: <b>MSD</b>    |  | TestCode: <b>TOC Dissolve</b> Units: <b>mg/L</b> |           |             | Prep Date:                      |          |           | RunNo: <b>54633</b>  |      |          |      |
| Client ID: <b>2</b>               |  | Batch ID: <b>R54633</b> |  | TestNo: <b>A5310B, 2011</b>                      |           |             | Analysis Date: <b>9/15/2021</b> |          |           | SeqNo: <b>586963</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                                              | SPK value | SPK Ref Val | %REC                            | LowLimit | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Organic Carbon, Dissolved         |  | 28.3                    |  | 3.0                                              | 20.0      | 6.0         | 112                             | 42       | 154       | 27.5                 | 2.8  | 5.62     |      |

| Sample ID: <b>2108791-023DMS</b> | SampType: <b>MS</b>     | TestCode: <b>TOC DISSOL</b> | Units: <b>mg/L</b>              | Prep Date:           | RunNo: <b>54633</b> |          |           |             |      |          |      |
|----------------------------------|-------------------------|-----------------------------|---------------------------------|----------------------|---------------------|----------|-----------|-------------|------|----------|------|
| Client ID: <b>3</b>              | Batch ID: <b>R54633</b> | TestNo: <b>A5310B, 2011</b> | Analysis Date: <b>9/15/2021</b> | SeqNo: <b>586973</b> |                     |          |           |             |      |          |      |
| Analyte                          | Result                  | PQL                         | SPK value                       | SPK Ref Val          | %REC                | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Dissolved        | 27.1                    | 3.0                         | 20.0                            | 12.8                 | 71.5                | 42       | 154       |             |      |          |      |

|                            |                  |                      |                          |               |              |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|--------------------------|---------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 2108791-023DMSD | SampType: MSD    | TestCode: TOC DISSOL | Units: mg/L              | Prep Date:    | RunNo: 54633 |          |           |             |      |          |      |
| Client ID: 3               | Batch ID: R54633 | TestNo: A5310B, 2011 | Analysis Date: 9/15/2021 | SeqNo: 586974 |              |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value                | SPK Ref Val   | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Organic Carbon, Dissolved  | 27.9             | 3.0                  | 20.0                     | 12.8          | 75.5         | 42       | 154       | 27.1        | 2.9  | 5.62     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: Enterolert

|                             |                         |                              |                         |                                 |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54321</b> | SampType: <b>MBLK</b>   | TestCode: <b>Enterococci</b> | Units: <b>MPN/100mL</b> | Prep Date:                      | RunNo: <b>54321</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54321</b> | TestNo: <b>Enterolert</b>    |                         | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>582625</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                          | SPK value               | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)   | < 1.00                  | 1.00                         |                         |                                 |                      |          |           |             |      |          |      |

|                                   |  |                         |  |                              |           |                         |      |                                 |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|------------------------------|-----------|-------------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-001EDUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>Enterococci</b> |           | Units: <b>MPN/100mL</b> |      | Prep Date:                      |           | RunNo: <b>54321</b>  |      |          |      |
| Client ID: <b>1</b>               |  | Batch ID: <b>R54321</b> |  | TestNo: <b>Enterolert</b>    |           |                         |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>582627</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                          | SPK value | SPK Ref Val             | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)         |  | 11.9                    |  | 1.00                         |           |                         |      |                                 |           | 11.00                | 7.86 | 20       |      |

|                                   |  |                         |  |                              |           |                         |      |                                 |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|------------------------------|-----------|-------------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-011EDUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>Enterococci</b> |           | Units: <b>MPN/100mL</b> |      | Prep Date:                      |           | RunNo: <b>54321</b>  |      |          |      |
| Client ID: <b>3</b>               |  | Batch ID: <b>R54321</b> |  | TestNo: <b>Enterolert</b>    |           |                         |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>582638</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                          | SPK value | SPK Ref Val             | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)         |  | 9.80                    |  | 1.00                         |           |                         |      |                                 |           | 8.500                | 14.2 | 20       |      |

|                                   |                         |                              |                         |                                 |                      |          |           |             |      |          |      |
|-----------------------------------|-------------------------|------------------------------|-------------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-021EDUP</b> | SampType: <b>DUP</b>    | TestCode: <b>Enterococci</b> | Units: <b>MPN/100mL</b> | Prep Date:                      | RunNo: <b>54321</b>  |          |           |             |      |          |      |
| Client ID: <b>1</b>               | Batch ID: <b>R54321</b> | TestNo: <b>Enterolert</b>    |                         | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>582649</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                          | SPK value               | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)         | 3.00                    | 1.00                         |                         |                                 |                      |          |           | 2.000       | 40.0 | 20       | R    |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** **Enterolert**

|                             |                         |                              |                         |                                |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|------------------------------|-------------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54359</b> | SampType: <b>MBLK</b>   | TestCode: <b>Enterococci</b> | Units: <b>MPN/100mL</b> | Prep Date:                     | RunNo: <b>54359</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54359</b> | TestNo: <b>Enterolert</b>    |                         | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>583183</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                          | SPK value               | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)   | < 1.00                  | 1.00                         |                         |                                |                      |          |           |             |      |          |      |

|                                   |                         |                              |                         |                                |                      |          |           |             |      |          |      |
|-----------------------------------|-------------------------|------------------------------|-------------------------|--------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>2108791-028EDUP</b> | SampType: <b>DUP</b>    | TestCode: <b>Enterococci</b> | Units: <b>MPN/100mL</b> | Prep Date:                     | RunNo: <b>54359</b>  |          |           |             |      |          |      |
| Client ID: <b>4</b>               | Batch ID: <b>R54359</b> | TestNo: <b>Enterolert</b>    |                         | Analysis Date: <b>9/1/2021</b> | SeqNo: <b>583188</b> |          |           |             |      |          |      |
| Analyte                           | Result                  | PQL                          | SPK value               | SPK Ref Val                    | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| Enterococcus (Enterolert)         | 501                     | 1.00                         |                         |                                |                      |          |           | 648.8       | 25.7 | 20       | R    |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

ND Not Detected at the Reporting Limit  
RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: mColiBlue-24

|                             |                         |                             |                         |                                 |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|-------------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54331</b> | SampType: <b>MBLK</b>   | TestCode: <b>ECOLI-MF</b>   | Units: <b>CFU/100ml</b> | Prep Date:                      | RunNo: <b>54331</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54331</b> | TestNo: <b>mColiBlue-24</b> |                         | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>582780</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value               | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| E. coli                     | < 1.00                  | 1.00                        |                         |                                 |                      |          |           |             |      |          |      |

|                                   |  |                         |  |                             |           |                         |      |                                 |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|-----------------------------|-----------|-------------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108784-001ADUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>ECOLI-MF</b>   |           | Units: <b>CFU/100ml</b> |      | Prep Date:                      |           | RunNo: <b>54331</b>  |      |          |      |
| Client ID: <b>BatchQC</b>         |  | Batch ID: <b>R54331</b> |  | TestNo: <b>mColiBlue-24</b> |           |                         |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>582783</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                         | SPK value | SPK Ref Val             | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| E. coli                           |  | 25,600                  |  | 200                         |           |                         |      |                                 |           | 26,800               | 4.58 | 37.7     |      |

|                                   |  |                         |  |                             |           |                         |      |                                 |           |                      |      |          |      |
|-----------------------------------|--|-------------------------|--|-----------------------------|-----------|-------------------------|------|---------------------------------|-----------|----------------------|------|----------|------|
| Sample ID: <b>2108791-009EDUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>ECOLI-MF</b>   |           | Units: <b>CFU/100ml</b> |      | Prep Date:                      |           | RunNo: <b>54331</b>  |      |          |      |
| Client ID: <b>1</b>               |  | Batch ID: <b>R54331</b> |  | TestNo: <b>mColiBlue-24</b> |           |                         |      | Analysis Date: <b>8/31/2021</b> |           | SeqNo: <b>582793</b> |      |          |      |
| Analyte                           |  | Result                  |  | PQL                         | SPK value | SPK Ref Val             | %REC | LowLimit                        | HighLimit | RPD Ref Val          | %RPD | RPDLimit | Qual |
| E. coli                           |  | < 2.00                  |  | 2.00                        |           |                         |      |                                 |           | 2.000                | 200  | 37.7     | R    |

|                             |                         |                             |                         |                                 |                      |          |           |             |      |          |      |
|-----------------------------|-------------------------|-----------------------------|-------------------------|---------------------------------|----------------------|----------|-----------|-------------|------|----------|------|
| Sample ID: <b>MB-R54332</b> | SampType: <b>MBLK</b>   | TestCode: <b>ECOLI-MF</b>   | Units: <b>CFU/100ml</b> | Prep Date:                      | RunNo: <b>54332</b>  |          |           |             |      |          |      |
| Client ID: <b>PBW</b>       | Batch ID: <b>R54332</b> | TestNo: <b>mColiBlue-24</b> |                         | Analysis Date: <b>8/31/2021</b> | SeqNo: <b>582803</b> |          |           |             |      |          |      |
| Analyte                     | Result                  | PQL                         | SPK value               | SPK Ref Val                     | %REC                 | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| E. coli                     | < 1.00                  | 1.00                        |                         |                                 |                      |          |           |             |      |          |      |

## Qualifiers:

H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



## QC SUMMARY REPORT

WO#: 2108791

23-Sep-21

Client: Burns McDonnell OKC

Project: Sofidel Verdigris ODEQ Work Plan

TestNo: mColiBlue-24

|                            |        |                  |           |                      |      |                          |           |             |               |          |              |  |
|----------------------------|--------|------------------|-----------|----------------------|------|--------------------------|-----------|-------------|---------------|----------|--------------|--|
| Sample ID: 2108791-019EDUP |        | SampType: DUP    |           | TestCode: ECOLI-MF   |      | Units: CFU/100ml         |           | Prep Date:  |               |          | RunNo: 54332 |  |
| Client ID: 3               |        | Batch ID: R54332 |           | TestNo: mColiBlue-24 |      | Analysis Date: 8/31/2021 |           |             | SeqNo: 582805 |          |              |  |
| Analyte                    | Result | PQL              | SPK value | SPK Ref Val          | %REC | LowLimit                 | HighLimit | RPD Ref Val | %RPD          | RPDLimit | Qual         |  |
| E. coli                    | 5.00   | 2.00             |           |                      |      |                          |           | 5.000       | 0             | 37.7     |              |  |

|                            |  |                  |  |                      |           |                  |      |                          |           |             |               |          |      |
|----------------------------|--|------------------|--|----------------------|-----------|------------------|------|--------------------------|-----------|-------------|---------------|----------|------|
| Sample ID: 2108792-005ADUP |  | SampType: DUP    |  | TestCode: ECOLI-MF   |           | Units: CFU/100ml |      | Prep Date:               |           |             | RunNo: 54332  |          |      |
| Client ID: BatchQC         |  | Batch ID: R54332 |  | TestNo: mColiBlue-24 |           |                  |      | Analysis Date: 8/31/2021 |           |             | SeqNo: 582816 |          |      |
| Analyte                    |  | Result           |  | PQL                  | SPK value | SPK Ref Val      | %REC | LowLimit                 | HighLimit | RPD Ref Val | %RPD          | RPDLimit | Qual |
| E. coli                    |  | < 2.00           |  | 2.00                 |           |                  |      |                          |           | 0           | 0             | 37.7     |      |

|                      |                  |                      |                  |                         |               |          |           |             |      |          |      |
|----------------------|------------------|----------------------|------------------|-------------------------|---------------|----------|-----------|-------------|------|----------|------|
| Sample ID: MB-R54360 | SampType: MBLK   | TestCode: ECOLI-MF   | Units: CFU/100ml | Prep Date:              | RunNo: 54360  |          |           |             |      |          |      |
| Client ID: PBW       | Batch ID: R54360 | TestNo: mColiBlue-24 |                  | Analysis Date: 9/1/2021 | SeqNo: 583197 |          |           |             |      |          |      |
| Analyte              | Result           | PQL                  | SPK value        | SPK Ref Val             | %REC          | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| E. coli              | < 1.00           | 1.00                 |                  |                         |               |          |           |             |      |          |      |

|                            |                  |                      |                         |               |              |          |           |             |      |          |      |
|----------------------------|------------------|----------------------|-------------------------|---------------|--------------|----------|-----------|-------------|------|----------|------|
| Sample ID: 2109003-001ADUP | SampType: DUP    | TestCode: ECOLI-MF   | Units: CFU/100ml        | Prep Date:    | RunNo: 54360 |          |           |             |      |          |      |
| Client ID: BatchQC         | Batch ID: R54360 | TestNo: mColiBlue-24 | Analysis Date: 9/1/2021 | SeqNo: 583204 |              |          |           |             |      |          |      |
| Analyte                    | Result           | PQL                  | SPK value               | SPK Ref Val   | %REC         | LowLimit | HighLimit | RPD Ref Val | %RPD | RPDLimit | Qual |
| E. coli                    | < 20.0           | 20.0                 |                         |               |              |          |           | 0           | 0    | 37.7     |      |

**Qualifiers:** H Holding times for preparation or analysis exceeded  
 PL Permit Limit  
 S Spike Recovery outside accepted recovery limits

M Manual Integration used to determine area response  
 R RPD outside accepted recovery limits  
 W Sample container temperature is out of limit as specified at testcode

ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit



# QC SUMMARY REPORT

WO#: 2108791  
 23-Sep-21

**Client:** Burns McDonnell OKC  
**Project:** Sofidel Verdigris ODEQ Work Plan

**TestNo:** mColiBlue-24

|                                   |  |                         |  |                             |           |                                |      |                      |           |                     |      |          |      |
|-----------------------------------|--|-------------------------|--|-----------------------------|-----------|--------------------------------|------|----------------------|-----------|---------------------|------|----------|------|
| Sample ID: <b>2109027-001ADUP</b> |  | SampType: <b>DUP</b>    |  | TestCode: <b>ECOLI-MF</b>   |           | Units: <b>CFU/100ml</b>        |      | Prep Date:           |           | RunNo: <b>54360</b> |      |          |      |
| Client ID: <b>BatchQC</b>         |  | Batch ID: <b>R54360</b> |  | TestNo: <b>mColiBlue-24</b> |           | Analysis Date: <b>9/1/2021</b> |      | SeqNo: <b>583211</b> |           |                     |      |          |      |
| Analyte                           |  | Result                  |  | PQL                         | SPK value | SPK Ref Val                    | %REC | LowLimit             | HighLimit | RPD Ref Val         | %RPD | RPDLimit | Qual |
| E. coli                           |  | < 2.00                  |  | 2.00                        |           |                                |      |                      |           | 0                   | 0    | 37.7     |      |

**Qualifiers:**

|    |                                                    |   |                                                                       |
|----|----------------------------------------------------|---|-----------------------------------------------------------------------|
| H  | Holding times for preparation or analysis exceeded | M | Manual Integration used to determine area response                    |
| PL | Permit Limit                                       | R | RPD outside accepted recovery limits                                  |
| S  | Spike Recovery outside accepted recovery limits    | W | Sample container temperature is out of limit as specified at testcode |

|    |                                     |
|----|-------------------------------------|
| ND | Not Detected at the Reporting Limit |
| RL | Reporting Detection Limit           |

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Laboratory Number

2108791

|                              |      |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |   |  |  |                                                        |                                                                                                        |
|------------------------------|------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|--------------------|-------|-------|---------------|-------|---|--|--|--------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| Client Name: Burns McDonnell |      |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested     |       |       |               |       |   |  |  | Comments / Remarks                                     |                                                                                                        |
| Contact Name: Laura Merriman |      |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Con | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |   |  |  |                                                        |                                                                                                        |
| Phone                        |      |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |   |  |  |                                                        |                                                                                                        |
| Collection                   |      | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                    |       |       |               |       |   |  |  |                                                        |                                                                                                        |
| Date                         | Time |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |   |  |  |                                                        |                                                                                                        |
| 8-31-21                      | 9:15 | X    |      | 1                                   |  |  |  | 2                  | 1                          | P           | SW                 | X     |       |               |       |   |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered |                                                                                                        |
|                              |      | X    |      | 1                                   |  |  |  | 2                  | 1                          | P           | SW                 |       | X     |               |       |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 1                                   |  |  |  | 2                  | 1                          | P           | SW                 |       |       | X             |       |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 1                                   |  |  |  | 2                  | 1                          | G           | SW                 |       |       |               | X     |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 1                                   |  |  |  | 2 & 4              | 1                          | P           | SW                 |       |       |               |       | X |  |  |                                                        | Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |
| 8-31-21                      | 9:46 | X    |      | 2                                   |  |  |  | 2                  | 1                          | P           | SW                 | X     |       |               |       |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 2                                   |  |  |  | 2                  | 1                          | P           | SW                 |       | X     |               |       |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 2                                   |  |  |  | 2                  | 1                          | P           | SW                 |       |       | X             |       |   |  |  |                                                        |                                                                                                        |
|                              |      | X    |      | 2                                   |  |  |  | 2                  | 1                          | G           | SW                 |       |       |               | X     |   |  |  |                                                        | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                           |
|                              |      | X    |      | 2                                   |  |  |  | 2 & 4              | 1                          | P           | SW                 |       |       |               |       | X |  |  |                                                        |                                                                                                        |

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|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8/31/21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                          |                         |                                                 |
|----------------------|---------------------------------------------------|--------------------------|--------------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions      | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced/Temp. 5°<br>Ambient | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                          | Drinking Water          |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                          | Other: _____            |                                                 |

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Laboratory Number

2108791

|                              |       |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                                                                                  |  |  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|--------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested     |       |       |               |       |  |  | Comments / Remarks                                                                                                                                               |  |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Con | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |  |  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                                                                                  |  |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                                                                                  |  |  |
| Date                         | Time  |      |      |                                     |  |  |  |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                                                                                  |  |  |
| 8-31-21                      | 10:06 | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                 | X     |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |  |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                 |       | X     |               |       |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                 |       |       | X             |       |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | G           | SW                 |       |       |               | X     |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2 & 4              | 1                          | P           | SW                 |       |       |               | X     |  |  |                                                                                                                                                                  |  |  |
| 8-31-21                      | 10:26 | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                 | X     |       |               |       |  |  | UPS / FedEx Airborne / GCT Hand / Mail                                                                                                                           |  |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                 |       | X     |               |       |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                 |       |       | X             |       |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1                          | G           | SW                 |       |       |               | X     |  |  |                                                                                                                                                                  |  |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2 & 4              | 1                          | P           | SW                 |       |       |               | X     |  |  |                                                                                                                                                                  |  |  |

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|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                            |                                |
|----------------------|---------------------------------------------------|--------------------------|----------------------------|--------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions        | Which Regulations Apply        |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced / Temp. 5°<br>Ambient | RCRA                           |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                            | POTW                           |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                            | Drinking Water<br>Other: _____ |
|                      |                                                   |                          |                            | NPDES                          |

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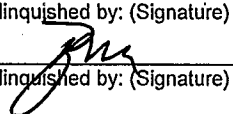
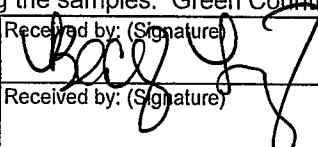
Laboratory Number

2108791

| Client Name: Burns McDonnell |      |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested     |       |       |               |       |  |  |                                                                                                        | Comments / Remarks |  |
|------------------------------|------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|--------------------|-------|-------|---------------|-------|--|--|--------------------------------------------------------------------------------------------------------|--------------------|--|
| Contact Name: Laura Merriman |      |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Con | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                        |                    |  |
| Phone                        |      |      |      |                                     |       |   |   |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                        |                    |  |
| Collection                   |      | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                        |                    |  |
| Date                         | Time |      |      |                                     |       |   |   |                    |                            |             |                    |       |       |               |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 9:27 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                    |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered                                                 |                    |  |
| ↓                            | ↓    | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                    |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓    | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                  |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓    | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                    | X     |       |               |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 9:52 | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                    |       |       |               |       |  |  | Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
| ↓                            | ↓    | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                    |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓    | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                  |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓    | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                    | X     |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓    | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                    |       | X     |               |       |  |  | UPS / FedEx Airborne / GCT Hand / Mail                                                                 |                    |  |

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|                                                                                    |                                                                                     |         |       |                              |                          |      |      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature)                                                       | Received by: (Signature)                                                            | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|  |  | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature)                                                       | Received by: (Signature)                                                            | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                                                                                    |                                                                                     |         |       |                              |                          |      |      |

|                      |                                                   |                 |                     |                         |
|----------------------|---------------------------------------------------|-----------------|---------------------|-------------------------|
| Preservative Codes   |                                                   | Container Types | Shipping Conditions | Which Regulations Apply |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass       | iced Temp. 5        | RCRA                    |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                | P = Plastic     | Ambient             | POTW                    |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                 |                     | NPDES                   |
|                      |                                                   |                 |                     | Drinking Water          |
|                      |                                                   |                 |                     | Other: _____            |

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Laboratory Number

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|                              |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|--------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                        | Comments / Remarks |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                        |                    |  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| Collection                   |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| Date                         | Time  | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 10:12 | X    |      | 3                                   |  |  |  | 2                  | 1 P                        | SW          | X                   |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered                                                 |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1 P                        | SW          |                     | X     |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1 P                        | SW          |                     |       | X     |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1 G                        | SW          |                     |       |       | X             |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 10:55 | X    |      | 4                                   |  |  |  | 2 & 4              | 1 P                        | SW          |                     |       |       |               | X     |  |  | Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1 P                        | SW          | X                   |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1 P                        | SW          |                     | X     |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1 P                        | SW          |                     |       | X     |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2                  | 1 G                        | SW          |                     |       |       | X             |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                           |                    |  |
| ↓                            | ↓     | X    |      | 4                                   |  |  |  | 2 & 4              | 1 P                        | SW          |                     |       |       |               | X     |  |  |                                                                                                        |                    |  |

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|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                 |                     |                         |
|----------------------|---------------------------------------------------|-----------------|---------------------|-------------------------|
| Preservative Codes   |                                                   | Container Types | Shipping Conditions | Which Regulations Apply |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass       | Iced / Temp. 5°     | RCRA                    |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                | P = Plastic     | Ambient             | POTW                    |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                 |                     | NPDES                   |
|                      |                                                   |                 |                     | Drinking Water          |
|                      |                                                   |                 |                     | Other: _____            |

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## GREEN COUNTRY TESTING

## CHAIN OF CUSTODY

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Fax 918-828-7756

**Green Country Testing, Inc.**

Page \_\_\_\_\_ of \_\_\_\_\_ Chain of Custody Record

Laboratory Number

2108791

|                              |      |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|------------------------------|------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |      |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
| Contact Name: Laura Merriman |      |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |      |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |      | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 9:31 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
|                              |      | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 1                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 9:59 | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | UPS / FedEx Airborne / GCT Hand / Mail                                                                                                                           |                    |  |
|                              |      | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |      | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                 |                     |                         |
|----------------------|---------------------------------------------------|-----------------|---------------------|-------------------------|
| Preservative Codes   |                                                   | Container Types | Shipping Conditions | Which Regulations Apply |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass       | Iced Temp. 5        | RCRA                    |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                | P = Plastic     | Ambient             | POTW                    |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                 |                     | NPDES                   |
|                      |                                                   |                 |                     | Drinking Water          |
|                      |                                                   |                 |                     | Other: _____            |

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## Chain of Custody Record

Laboratory Number

2108791

|                              |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |                                                                                                                                                                  |                                              |  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|---|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |   |  |                                                                                                                                                                  | Comments / Remarks                           |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |   |  |                                                                                                                                                                  |                                              |  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |                                                                                                                                                                  |                                              |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |                                                                                                                                                                  |                                              |  |
| Date                         | Time  |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |                                                                                                                                                                  |                                              |  |
| 8-31-21                      | 10:17 | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |   |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                                              |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 3                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               |       | X |  |                                                                                                                                                                  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail |  |
| 8-31-21                      | 11:10 | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |   |  |                                                                                                                                                                  |                                              |  |
|                              |       | X    |      | 4                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               |       | X |  |                                                                                                                                                                  |                                              |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                          |                         |                                                 |
|----------------------|---------------------------------------------------|--------------------------|--------------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions      | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced Temp. 5°<br>Ambient | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                          | POTW                    |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                          | Other: _____            |                                                 |

NPDES

# GREEN COUNTRY TESTING

## CHAIN OF CUSTODY

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# Green Country Testing, Inc.

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Laboratory Number

2108791

| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
|------------------------------|-------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time  |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:07 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:24 | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                         |                         |                                                 |
|----------------------|---------------------------------------------------|--------------------------|-------------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions     | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced/Temp. 5<br>Ambient | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                         | Drinking Water          |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                         | Other: _____            |                                                 |

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Laboratory Number

2108791

|                              |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |  |                                                                                                                                                                  |  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |  | Comments / Remarks                                                                                                                                               |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |  |                                                                                                                                                                  |  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |  |                                                                                                                                                                  |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |  |                                                                                                                                                                  |  |
| Date                         | Time  |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |  |                                                                                                                                                                  |  |
| 8-31-21                      | 11:37 | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |  |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 3                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               | X     |  |  |  |                                                                                                                                                                  |  |
| 8-31-21                      | 11:44 | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |  |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |  |  |  |                                                                                                                                                                  |  |
|                              |       | X    |      | 4                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               | X     |  |  |  |                                                                                                                                                                  |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

## Preservative Codes

1 - HNO<sub>3</sub>  
3 - HCl  
5 - NaOH + Asc.

2 - Ice &lt; 6 C

4 - H<sub>2</sub>SO<sub>4</sub>6 - Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

## Container Types

G = Glass

P = Plastic

## Shipping Conditions

Iced / Temp. 5°  
Ambient

## Which Regulations Apply

RCRA

POTW

NPDES

Drinking Water

Other: \_\_\_\_\_

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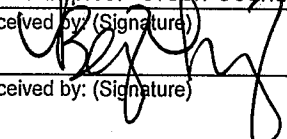
Laboratory Number

2108791

|                              |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
|------------------------------|-------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|--------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                        | Comments / Remarks |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                        |                    |  |
| Phone                        |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| Date                         | Time  |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 11:15 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered                                                 |                    |  |
| ↓                            | ↓     | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                        |                    |  |
| 8-31-21                      | 11:29 | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  | Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
| ↓                            | ↓     | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                        |                    |  |
| ↓                            | ↓     | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                           |                    |  |
| ↓                            | ↓     | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                        |                    |  |

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P.O. Number

|                                                                                    |                                                                                     |         |       |                              |                          |      |      |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature)                                                       | Received by: (Signature)                                                            | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|  |  | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature)                                                       | Received by: (Signature)                                                            | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                                                                                    |                                                                                     |         |       |                              |                          |      |      |

## Preservative Codes

1 - HNO<sub>3</sub>  
 2 - Ice < 6 C  
 3 - HCl  
 4 - H<sub>2</sub>SO<sub>4</sub>  
 5 - NaOH + Asc.  
 6 - Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

## Container Types

G = Glass  
 P = Plastic

## Shipping Conditions

Iced/Temp. 5  
 Ambient

## Which Regulations Apply

RCRA  
 POTW  
 NPDES  
 Drinking Water  
 Other: \_\_\_\_\_

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## GREEN COUNTRY TESTING

## CHAIN OF CUSTODY

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Green Country Testing, Inc.

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Fax 918-828-7756

**Green Country Testing, Inc.**

Page \_\_\_\_\_ of \_\_\_\_\_ Chain of Custody Record

Laboratory Number

2108791

|                              |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time  |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:44 | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓     | X    |      | 3                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               | X     |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:52 | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |  |  | UPS / FedEx Airborne / GCT Hand / Mail                                                                                                                           |                    |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 4                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               | X     |  |  |                                                                                                                                                                  |                    |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                         |                         |
|----------------------|---------------------------------------------------|--------------------------|-------------------------|-------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions     | Which Regulations Apply |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced/Temp. 5<br>Ambient | RCRA                    |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                         | Drinking Water          |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                         | Other: _____            |
|                      |                                                   |                          |                         | NPDES                   |

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# GREEN COUNTRY TESTING

## CHAIN OF CUSTODY

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Page \_\_\_\_\_ of \_\_\_\_\_ Chain of Custody Record

Laboratory Number

2108791

| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
|------------------------------|-------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time  |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:19 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| 8-31-21                      | 11:35 | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                 |                     |                         |                                                 |
|----------------------|---------------------------------------------------|-----------------|---------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types | Shipping Conditions | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass       | ced/Temp. 5         | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                | P = Plastic     | Ambient             | POTW                    |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                 |                     | NPDES                   |                                                 |

## GREEN COUNTRY TESTING

## CHAIN OF CUSTODY

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**Green Country Testing, Inc.**

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**Chain of Custody Record**

Laboratory Number

2108791

|                              |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |  |                    |  |                                                                                                                                                                  |
|------------------------------|-------|------|------|-------------------------------------|--|--|--|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|---|--|--|--------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |  |  |  | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |   |  |  | Comments / Remarks |  |                                                                                                                                                                  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |  |  |  |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |   |  |  |                    |  |                                                                                                                                                                  |
| Phone                        |       |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |  |                    |  |                                                                                                                                                                  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |  |                    |  |                                                                                                                                                                  |
| Date                         | Time  |      |      |                                     |  |  |  |                    |                            |             |                     |       |       |               |       |   |  |  |                    |  |                                                                                                                                                                  |
| 8-31-21                      | 11:48 | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |   |  |  |                    |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 3                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 3                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               |       | X |  |  |                    |  |                                                                                                                                                                  |
| 8-31-21                      | 12:07 | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  | X     |       |               |       |   |  |  |                    |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       | X     |               |       |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | P           | SW                  |       |       | X             |       |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 4                                   |  |  |  | 2                  | 1                          | G           | SW                  |       |       |               | X     |   |  |  |                    |  |                                                                                                                                                                  |
|                              |       | X    |      | 4                                   |  |  |  | 2 & 4              | 1                          | P           | SW                  |       |       |               |       | X |  |  |                    |  |                                                                                                                                                                  |

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P.O. Number

|                              |                          |         |       |                              |                          |      |      |
|------------------------------|--------------------------|---------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 8-31-21 | 13:10 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date    | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |         |       |                              |                          |      |      |

|                      |                                                   |                          |                            |                         |                |                                                 |
|----------------------|---------------------------------------------------|--------------------------|----------------------------|-------------------------|----------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions        | Which Regulations Apply |                | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced / Temp. 5°<br>Ambient | RCRA                    | Drinking Water |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                            | POTW                    | Other: _____   |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                            | NPDES                   |                |                                                 |

# Green Country Testing, Inc.

GREEN COUNTRY TESTING

CHAIN OF CUSTODY

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## Chain of Custody Record

Laboratory Number

2108791

|                              |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|------------------------------|-------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |       |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
| Contact Name: Laura Merriman |       |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |       |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |       | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time  |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 9-1-21                       | 10:00 | X    |      | 1                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 1                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| 9-1-21                       | 10:10 | X    |      | 2                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|                              |       | X    |      | 2                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |

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P.O. Number

|                              |                          |        |       |                              |                          |      |      |
|------------------------------|--------------------------|--------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date   | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 9-1-21 | 11:35 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date   | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |        |       |                              |                          |      |      |

|                      |                                                   |                 |                     |                         |                                                 |
|----------------------|---------------------------------------------------|-----------------|---------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types | Shipping Conditions | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass       | Iced Temp. 8        | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                | P = Plastic     | Ambient             | POTW                    | Drinking Water                                  |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                 |                     | NPDES                   | Other: _____                                    |

## GREEN COUNTRY TESTING

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Laboratory Number

2108791

|                              |      |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
|------------------------------|------|------|------|-------------------------------------|-------|---|---|--------------------|----------------------------|-------------|---------------------|-------|-------|---------------|-------|--|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|--|
| Client Name: Burns McDonnell |      |      |      | Project Name: Verdigris River       |       |   |   | Preservation Codes | Number / Type of Container | Matrix Code | Test Requested      |       |       |               |       |  |  |                                                                                                                                                                  | Comments / Remarks |  |
| Contact Name: Laura Merriman |      |      |      | Sampler's Signature                 |       |   |   |                    |                            |             | pH, Temp, DO & Cond | Wet 1 | Wet 2 | Chlorophyll A | Wet 3 |  |  |                                                                                                                                                                  |                    |  |
| Phone                        |      |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Collection                   |      | Grab | Comp | Sample Identification / Description |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| Date                         | Time |      |      |                                     |       |   |   |                    |                            |             |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| 9-1-21                       | 1020 | X    |      | 3                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | Wet 1 - BOD, CBOD 5 and 20 Day filtered and unfiltered<br>Wet 2 - TSS, VSS, O-Phos, NO3/NO2 Cl-<br>Wet 3 - TKN, NH3, T-Phos<br>pH, Temp, DO, & Cond done on-site |                    |  |
| ↓                            | ↓    | X    |      | 3                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 3                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 3                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 3                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |
| 9-1-21                       | 1030 | X    |      | 4                                   | 2     | 1 | P | SW                 | X                          |             |                     |       |       |               |       |  |  | UPS / FedEx<br>Airborne / GCT<br>Hand / Mail                                                                                                                     |                    |  |
| ↓                            | ↓    | X    |      | 4                                   | 2     | 1 | P | SW                 |                            | X           |                     |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 4                                   | 2     | 1 | P | SW                 |                            |             | X                   |       |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 4                                   | 2     | 1 | G | SW                 |                            |             |                     | X     |       |               |       |  |  |                                                                                                                                                                  |                    |  |
| ↓                            | ↓    | X    |      | 4                                   | 2 & 4 | 1 | P | SW                 |                            |             |                     |       | X     |               |       |  |  |                                                                                                                                                                  |                    |  |

All samples submitted to Green Country testing, Inc. for analysis are accepted on a custodial basis only. Ownership of the material remains with the client submitting the samples. Green Country Testing, Inc. reserves the right of return unused sample portions.

P.O. Number

|                              |                          |        |       |                              |                          |      |      |
|------------------------------|--------------------------|--------|-------|------------------------------|--------------------------|------|------|
| Relinquished by: (Signature) | Received by: (Signature) | Date   | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          | 9-1-21 | 11:35 |                              |                          |      |      |
| Relinquished by: (Signature) | Received by: (Signature) | Date   | Time  | Relinquished by: (Signature) | Received by: (Signature) | Date | Time |
|                              |                          |        |       |                              |                          |      |      |

|                      |                                                   |                          |                         |                         |                                                 |
|----------------------|---------------------------------------------------|--------------------------|-------------------------|-------------------------|-------------------------------------------------|
| Preservative Codes   |                                                   | Container Types          | Shipping Conditions     | Which Regulations Apply | Thank-you for using Green Country Testing, Inc. |
| 1 - HNO <sub>3</sub> | 2 - Ice < 6 C                                     | G = Glass<br>P = Plastic | Iced/Temp. 8<br>Ambient | RCRA                    |                                                 |
| 3 - HCl              | 4 - H <sub>2</sub> SO <sub>4</sub>                |                          |                         | Drinking Water          |                                                 |
| 5 - NaOH + Asc.      | 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> |                          |                         | Other: _____            |                                                 |

CHAIN OF CUSTODY  
ATTACHMENT  
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VERDIGRIS RIVER SITE 1  
36.122796°, -95.569749°

2108791

|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 915      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.72           | 29.9 | 6.2                      | 367      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 946      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.78           | 29.8 | 6.4                      | 344      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1006     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.80           | 29.9 | 6.3                      | 336      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1026     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.82           | 30.0 | 6.3                      | 325      |

COMMENTS:

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CHAIN OF CUSTODY

VERDIGRIS RIVER SITE 2

ATTACHMENT

36.106986°, -95.567904°

2108791

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|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 927      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.77           | 30.0 | 6.1                      | 346      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 952      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.70           | 30.2 | 6.3                      | 345      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1012     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.80           | 30.4 | 6.3                      | 338      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1055     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.82           | 30.6 | 6.7                      | 330      |

COMMENTS:

CHAIN OF CUSTODY

VERDIGRIS RIVER SITE 3

ATTACHMENT

36.092498°, -95.554101°

2108791

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|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 931      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.96           | 30.3 | 6.7                      | 354      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 959      |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.90           | 30.4 | 6.4                      | 347      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1017     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.92           | 30.1 | 6.4                      | 337      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1110     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 7.98           | 30.8 | 6.8                      | 330      |

COMMENTS:

CHAIN OF CUSTODY

VERDIGRIS RIVER SITE 4

ATTACHMENT

36.078611°, -95.555819°

2108791

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|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21<br>1107 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 7.97           | 30.8 | 6.8                      | 335             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21<br>1124 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.04           | 30.9 | 7.0                      | 337             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21<br>1137 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.05           | 31.2 | 7.1                      | 334             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21<br>1144 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.07           | 31.1 | 7.1                      | 335             |

|           |
|-----------|
| COMMENTS: |
|-----------|



GREEN COUNTRY TESTING

CHAIN OF CUSTODY

ATTACHMENT

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# Verdigris River Sampling Form

Verdigris\_2021

VERDIGRIS RIVER SITE 5

36.068478°, -95.555994°

2108791

|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21<br>1115 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.00           | 31.1 | 7.0                      | 338             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21<br>1129 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.02           | 31.6 | 7.2                      | 333             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21<br>1144 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.07           | 31.5 | 7.2                      | 336             |

|                |      |                          |                 |
|----------------|------|--------------------------|-----------------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21<br>1152 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND        |
| 8.09           | 31.4 | 7.1                      | 341             |

COMMENTS:



GREEN COUNTRY TESTING

CHAIN OF CUSTODY

ATTACHMENT

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Verdigris River Sampling Form

Verdigris\_2021

VERDIGRIS RIVER SITE 6

36.065021°, -95.546668°

2108791

|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 1    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1119     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 8.01           | 31.2 | 7.0                      | 345      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 2    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1135     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 8.04           | 31.5 | 7.2                      | 341      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 3    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1148     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 8.01           | 31.4 | 7.1                      | 343      |

|                |      |                          |          |
|----------------|------|--------------------------|----------|
| Sampling Event | 4    | Time Collected / Analyze | 8/31/21  |
|                |      |                          | 1207     |
| pH             | TEMP | Dissolved Oxygen         | SP. COND |
| 8.02           | 31.3 | 7.1                      | 341      |

COMMENTS:

CHAIN OF CUSTODY

ATTACHMENT  
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VERDIGRIS RIVER SITE 7

36.055845°, -95.531802°

2108791

|                  |                   |              |                 |
|------------------|-------------------|--------------|-----------------|
| CLIENT:          | Burns & McDonnell | LOCATON:     | Verdigris River |
| FIELD PERSONNEL: | BD                | DATE 8/31/21 |                 |

|                |      |                          |                                              |
|----------------|------|--------------------------|----------------------------------------------|
| Sampling Event | 1    | Time Collected / Analyze | 9-1-21 <del>8/31/21</del> 9-1-21 (R)<br>1000 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND                                     |
| 8.23           | 30.8 | 8.2                      | 367                                          |

|                |      |                          |                                              |
|----------------|------|--------------------------|----------------------------------------------|
| Sampling Event | 2    | Time Collected / Analyze | 9-1-21 <del>8/31/21</del> 9-1-21 (R)<br>1010 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND                                     |
| 8.01           | 31.0 | 8.6                      | 354                                          |

|                |      |                          |                                              |
|----------------|------|--------------------------|----------------------------------------------|
| Sampling Event | 3    | Time Collected / Analyze | 9-1-21 <del>8/31/21</del> 9-1-21 (R)<br>1020 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND                                     |
| 8.02           | 31.2 | 8.6                      | 354                                          |

|                |      |                          |                                              |
|----------------|------|--------------------------|----------------------------------------------|
| Sampling Event | 4    | Time Collected / Analyze | 9-1-21 <del>8/31/21</del> 9-1-21 (R)<br>1030 |
| pH             | TEMP | Dissolved Oxygen         | SP. COND                                     |
| 7.83           | 30.9 | 8.6                      | 358                                          |

COMMENTS: