

COMMONWEALTH of VIRGINIA

Karen Shelton, MD. State Health Commissioner

R. Christopher Lindsay Chief Operating Officer DEPARTMENT OF HEALTH

# OFFICE OF DRINKING WATER

# **Richmond Field Office**

Madison Building 109 Governor St., 6<sup>th</sup> floor Richmond, VA 23219 Phone: 804-864-7409 Fax: 804-864-7520

System Sanitary Survey Report

June 9, 2025

# \*\*Transmitted Via Email – No Paper Copy to Follow\*\*

To: Nicole Washington Mineral, Town Of P. O. Box 316 Mineral, VA, 23117 SUBJECT: Louisa County Waterworks: Mineral, Town Of PWSID: VA2109525

Survey Date: May 22, 2025

Next Survey Due By: May 22, 2028

Present at Survey:

| Name              | Organization             |
|-------------------|--------------------------|
| Lyndsey McCauley  | Office Of Drinking Water |
| Lydia Belser      | Office Of Drinking Water |
| Toby Bryant       | Office of Drinking Water |
| Hunter Martin     | Town of Mineral          |
| Nicole Washington | Town of Mineral          |

Reviewer: Toby Bryant

As a result of the sanitary survey noted above, the Office of Drinking Water offers the following comments. Should you have questions or desire to discuss our findings, please contact us at (804) 965-4038 or lyndsey.mccauley@vdh.virginia.gov.

# **ACCOLADES:**

We would like to offer the following accolades to recognize exceptional performance at your waterworks:

SIGNIFICANT DEFICIENCIES:



There were no significant deficiencies at the time of this inspection.

# **MINOR DEFICIENCIES:**

The Virginia Waterworks Regulations require your waterworks to complete the following actions. Failure to complete these actions by the specified dates may result in a Notice of Alleged Violation.

| Section                        | Recommendations  |
|--------------------------------|--|
| Distribution System            | The Cross Connection Control Program is currently from 1977. A<br>new CCCP is required in order to include new connections added to<br>the system and/or new backflow prevention devices applied. A<br>template has been attached at your convenience. – Photo Number:<br>None                                       |
| 60,000 Gallon Elevated<br>Tank | A section of the insulation along the pump box looks to have been damaged. Our office acknowledges that a new tank inspection company is in the process of being hired. They may wish to complete this work, however, the piece of insulation needs to be replaced no later than November 1, 2025. – Photo Number: 1 |

## **RECOMMENDATIONS:**

The following recommendations do not rise to the level of a violation of the Virginia Waterworks Regulations but are items identified during the sanitary survey.

| Section        | Recommendations   |  |  |  |  |
|----------------|---|--|--|--|--|
| Management And | During our inspection, we discussed the Emergency Managem           |  |  |  |  |
| Operation      | Plan that is currently in process. Please send this plan to our off |  |  |  |  |
|                | soon as possible and continue to update this plan as needed. – Phot |  |  |  |  |
|                | Number: None  |  |  |  |  |

Please review the attached summary of required sampling and visit our web site at http://www.vdh.virginia.gov/ODW/. There you will find helpful information on water sampling and testing, operator licensing and training, consumer education, project funding and many other topics, as well as, links to other key websites and Virginia's Waterworks Regulations.

Survey By:

Lyndsey McCauley Lyndsey R. McCauley

Environmental Specialist Sr. - PWS

Attachment: Completed Field Checklist

ec:

Warren Hunter Martin, **VDH-ODW-Central Office** Louisa County Health Department Louisa County Administrator

# Attachments:

Photo #1:



#### J. DEMAND AND PRODUCTION Town of Mineral

| # Po | nnection<br>pulation<br>nitted Capacity, gpd | 340<br>478<br>120,000 |            |         |          |
|------|--|-----------------------|------------|---------|----------|
|      |  | LCWA Connection       |            |         |          |
| Pum  | p output, gpm                                | NA                    |            |         |          |
| Perm | nit capacity, gpd                            | 93,600                |            |         |          |
|      |  |                       |            |         |          |
|      | Date   | meter reading         |            |         |          |
|      | 5/22/2025                                    | 117,747,100           |            |         |          |
|      | 1/1/2025                                     | 110,369,700           |            |         |          |
| Days | in operation                                 | 141                   |            |         |          |
| Tota | l Production, gal                            | 7,377,400             |            |         |          |
| Avg. | daily production, gpd                        | 52,322                |            |         |          |
|      |  |                       |            |         |          |
| Pum  | ping Avg, hrs/day                            | NA                    |            |         |          |
|      |  |                       |            | -       |          |
|      |  |                       | Previous   | Percent | % Permit |
| Com  | bined production, gpd                        | Current               | Inspection | Change  | Capacity |
|      | GPD  | 52,322                | N/A        | N/A     | 44%      |
|      | GPD/Conn                                     | 154                   |            |         |          |
|      | GPD/Pop                                      | 109                   |            |         |          |

Enter data from Permit/EDS Enter data from field observation Calculated value for report

\*\*Information given by compliance supervisor

# Public Water System Site Visit

#### PWS ID: VA2109525 PWS Name: MINERAL, TOWN OF

Source Type: SWP

System Type: C

Population: 435

County: LOUISA City:

Last Sanitary Survey Date: 5/22/2025

Local Name:

COUNTY

| Service Area<br>Characteristic Code | Name             | Service<br>Connections | Name    | Count |
|-------------------------------------|------------------|------------------------|---------|-------|
|                                     | RESIDENTIAL AREA | Commercial             | Unknown | 340   |

# Points of Contact

| Name<br>(Job Title)                   | РОС Туре | Address            | Phone | Email                             |
|---------------------------------------|----------|--------------------|-------|-----------------------------------|
| MARTIN, WARREN<br>HUNTER              | DO       | 286 Belleview Ave. |       | whmh2o1@hotmail.com               |
| WASHINGTON,<br>NICOLE<br>TOWN MANAGER | AC   OW  | P. O. Box 316      |       | nwashington@townofmin<br>eral.net |

# Active Water System Facilities

| Active WS Facilities Type<br>Name | WS Facility ID | Active Sample Point Name  |
|-----------------------------------|----------------|---|
| LCWA CONNECTION                   | CC001          |   |
| DISTRIBUTION SYSTEM               | DS001          | LCR13,LCR16,LCR15,LCR10,LCR09,LCR08,LCR07,LC<br>R06,LCR02,LCR01,LCR12,LCR03,LCR05,LCR14,DBP0<br>1,DBP02,LCR11,TCR01 |
| EP WELL 5                         | EP001          |   |
| EP EMERGENCY SPRINGS              | EP002          |   |
| EP WELL 4                         | EP003          | EP003   |
| EMERGENCY SPRING                  | SP010          |   |
| 60,000 GALLON ELEVATED<br>TANK    | ST001          |   |
| SPRING DISINFECTION               | TP002          |   |
| WELL 5 CHLORINE, PH AND PO4       | TP004          |   |
| WELL 4 CHLORINE, PH AND PO4       | TP011          |   |
| WELL 4                            | WL003          | RW003   |
| WELL 5 (ABANDONED)                | WL004          |   |

**Compliance Schedules** 

| Schedule Closed   | Schedule          | Schedule Id | Schedule Status | Schedule Status   | Schedule |
|-------------------|-------------------|-------------|-----------------|-------------------|----------|
| Date              | Effective Date    | Schedule 1d | Code            | Date              | Type     |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 1/1/2025 12:00:00 | 29          | F               | 1/1/2025 12:00:00 | CCR      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 1/1/2025 12:00:00 | 29          | F               | 1/1/2025 12:00:00 | CCR      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 5/19/2025         | 30          | F               | 1/1/0001 12:00:00 | FOLL     |
| AM                | 12:00:00 AM       |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 1/1/2025 12:00:00 | 29          | F               | 1/1/2025 12:00:00 | CCR      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/13/1997         | 2           | F               | 3/19/2019         | PLAN     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
| 1/1/0001 12:00:00 |                   | 27          | F               | 12/14/2024        | LCRR     |
| AM                | 12:00:00 AM       |             |                 | 12:00:00 AM       |          |
| 1/1/0001 12:00:00 | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |
|                   | 2/5/2025 12:00:00 | 27          | F               | 1/1/0001 12:00:00 | CAP      |
| AM                | AM                |             |                 | AM                |          |

| Compliance Schedule Activities |          |                         |                                    |                         |                         |  |  |
|--------------------------------|----------|-------------------------|------------------------------------|-------------------------|-------------------------|--|--|
| Activity Achieve               | Activity | Activity Due            | Activity Name                      | Activity                | Activity                |  |  |
| Date                           | Comment  | Date                    |                                    | Projected Date          | Reported Date           |  |  |
| 5/5/1977<br>12:00:00 AM        |          | 5/5/1977<br>12:00:00 AM | VAPLAN CROSS-<br>CONN.<br>APPROVED | 1/1/0001<br>12:00:00 AM | 1/1/0001<br>12:00:00 AM |  |  |
| Activity Achieve               | Activity | Activity Due            | Activity Name                      | Activity                | Activity                |  |  |
| Date                           | Comment  | Date                    |                                    | Projected Date          | Reported Date           |  |  |
| 10/26/2009                     |          | 10/26/2009              | Z-NOUSE                            | 1/1/0001                | 1/1/0001                |  |  |
| 12:00:00 AM                    |          | 12:00:00 AM             | BSSR/TSWMP                         | 12:00:00 AM             | 12:00:00 AM             |  |  |
| Activity Achieve               | Activity | Activity Due            | Activity Name                      | Activity                | Activity                |  |  |
| Date                           | Comment  | Date                    |                                    | Projected Date          | Reported Date           |  |  |
| 1/1/0001                       |          | 7/1/2025                | CCR                                | 1/1/0001                | 1/1/0001                |  |  |
| 12:00:00 AM                    |          | 12:00:00 AM             | DISTRIBUTION                       | 12:00:00 AM             | 12:00:00 AM             |  |  |
| Activity Achieve               | Activity | Activity Due            | Activity Name                      | Activity                | Activity                |  |  |
| Date                           | Comment  | Date                    |                                    | Projected Date          | Reported Date           |  |  |
| 1/1/0001                       |          | 10/1/2025               | CCR RECEIVE                        | 1/1/0001                | 1/1/0001                |  |  |
| 12:00:00 AM                    |          | 12:00:00 AM             | CERTIFICATION                      | 12:00:00 AM             | 12:00:00 AM             |  |  |

| Activity Achieve                     | Activity  | Activity Due                      |                                     | Activity                                  | Activity                                 |
|--------------------------------------|---|-----------------------------------|-------------------------------------|---|--|
| Date                                 | Comment   | Date                              | Activity Name                       | Projected Date                            | Reported Date                            |
| 1/1/0001<br>12:00:00 AM              | The Town will<br>complete<br>construction for<br>required<br>modifications or<br>additions to the<br>water system as<br>recommended in<br>the PER   | 1/1/2028<br>12:00:00 AM           | Follow UP                           | 1/1/0001<br>12:00:00 AM                   | 1/1/0001<br>12:00:00 AM                  |
| Activity Achieve                     | Activity  | Activity Due                      | Activity Name                       | Activity                                  | Activity                                 |
| Date<br>7/26/1993<br>12:00:00 AM     | Comment   | Date<br>7/26/1993<br>12:00:00 AM  | VAPLAN LCR<br>SAMPLE SITE<br>REPORT | Projected Date<br>1/1/0001<br>12:00:00 AM | Reported Date<br>1/1/0001<br>12:00:00 AM |
| Activity Achieve<br>Date             | Activity<br>Comment   | Activity Due<br>Date              | Activity Name                       | Activity<br>Projected Date                | Activity<br>Reported Date                |
| 3/31/2025<br>12:00:00 AM             | Asked FD/DE for<br>info 4/1/25.<br>Emailed town<br>manager 4/2/25.<br>Emailed FD/Jarret<br>again 4/7/25.<br>Gave Jarrett a<br>template for them<br>to sign when he<br>speaks to her<br>next week.<br>The Town will<br>provide signed<br>certification that<br>water line<br>extensions, water<br>system<br>expansions, or<br>other waterworks<br>modifications that<br>may increase<br>waterworks<br>demand<br>will be paused<br>until additional<br>source water<br>capacity can be<br>provided. The<br>signed<br>certification will<br>be submitted | 3/31/2025<br>12:00:00 AM          | FOLLOW UP                           | 1/1/0001<br>12:00:00 AM                   | 4/8/2025<br>12:00:00 AM                  |
| Activity Achieve<br>Date<br>1/1/0001 | Activity<br>Comment<br>Provide response   | Activity Due<br>Date<br>6/19/2025 | Activity Name<br>FOLLOW UP          | Activity<br>Projected Date<br>1/1/0001    | Activity<br>Reported Date<br>1/1/0001    |
| 12:00:00 AM                          | to after action<br>memo from BWA<br>during week of<br>May 11, 2025. JR<br>5.19.25   | 12:00:00 AM                       |                                     | 12:00:00 AM                               | 12:00:00 AM                              |
| Activity Achieve                     | Activity  | Activity Due                      | Activity Name                       | Activity<br>Brojected Date                | Activity<br>Reported Data                |
| Date<br>1/1/0001                     | Comment   | Date<br>7/1/2025                  | CCR COPY                            | Projected Date<br>1/1/0001                | Reported Date<br>1/1/0001                |
| 12:00:00 AM                          |   | 12:00:00 AM                       | RECEIVED                            | 12:00:00 AM                               | 12:00:00 AM                              |
|                                      |   |                                   |                                     |   |  |

| Activity Achieve<br>Date | Activity  | Activity Due              |   | Activity                   | Activity                  |
|--------------------------|---|---------------------------|---|----------------------------|---------------------------|
| Dale                     | Comment   | Date                      | Activity Name                             | Projected Date             | Reported Date             |
| 9/16/2004                |   | 9/16/2004                 | Z-NOUSE ST1                               | 1/1/0001                   | 1/1/0001                  |
| 12:00:00 AM              |   | 12:00:00 AM               | MONITORING<br>PLAN APPROVED               | 12:00:00 AM                | 12:00:00 AM               |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 4/1/1988<br>12:00:00 AM  |   | 4/1/1988<br>12:00:00 AM   | Z-NOUSE LEAD<br>NOTICE DATE               | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 9/9/2013<br>12:00:00 AM  |   | 9/9/2013<br>12:00:00 AM   | VAPLAN ST2<br>MONITORING<br>PLAN APPROVED | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 3/7/2025<br>12:00:00 AM  | Signed CAP<br>should be<br>returned   | 3/7/2025<br>12:00:00 AM   | FOLLOW UP                                 | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 1/1/0001<br>12:00:00 AM  | Quarterly<br>Progress report<br>for CAP   | 1/10/2026<br>12:00:00 AM  | FOLLOW UP                                 | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 1/1/0001<br>12:00:00 AM  | Quarterly<br>Progress report  | 10/10/2025<br>12:00:00 AM | FOLLOW UP                                 | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 3/15/2007                | comment   | 3/15/2007                 | Z-NOUSE 40/30                             | 1/1/0001                   | 1/1/0001                  |
| 12:00:00 AM              |   | 12:00:00 AM               | CERT ISSUED                               | 12:00:00 AM                | 12:00:00 AM               |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 1/7/2020<br>12:00:00 AM  | Well #5 removed<br>as raw source  | 1/1/0001<br>12:00:00 AM   | VAPLAN RTCR<br>BSSP                       | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve<br>Date | Activity<br>Comment   | Activity Due<br>Date      | Activity Name                             | Activity<br>Projected Date | Activity<br>Reported Date |
| 1/1/0001<br>12:00:00 AM  | If the PER<br>recommendations<br>include<br>construction, The<br>Town will obtain a<br>construction<br>permit for the<br>required<br>construction | 1/1/2027<br>12:00:00 AM   | FOLLOW UP                                 | 1/1/0001<br>12:00:00 AM    | 1/1/0001<br>12:00:00 AM   |
| Activity Achieve         | Activity  | Activity Due              | Activity Name                             | Activity                   | Activity                  |
| Date<br>1/1/0001         | Comment   | Date<br>7/1/2025          | CERTIFY LEAD SL                           | Projected Date<br>7/1/2025 | Reported Date<br>1/1/0001 |
|                          |   | 12:00:00 AM               | NOTIFICATION                              | 12:00:00 AM                | 12:00:00 AM               |

| Activity Achieve        | Activity   | Activity Due             | Activity Name | Activity                | Activity                |
|-------------------------|--|--------------------------|---------------|-------------------------|-------------------------|
| Date                    | Comment  | Date                     |               | Projected Date          | Reported Date           |
| 1/1/0001<br>12:00:00 AM | The Town will<br>hire a Professional<br>Engineer, licensed<br>in the<br>Commonwealth of<br>Virginia, to<br>develop a<br>Preliminary<br>Engineering<br>Report (PER) to<br>evaluate<br>alternatives<br>to establish<br>adequate source<br>water capacity for<br>the waterworks.<br>The Town will<br>submit the PER to<br>RFO |                          | FOLLOW UP     | 1/1/0001<br>12:00:00 AM | 1/1/0001<br>12:00:00 AM |
| Activity Achieve        | Activity   | Activity Due             | Activity Name | Activity                | Activity                |
| Date                    | Comment  | Date                     |               | Projected Date          | Reported Date           |
| 3/7/2025<br>12:00:00 AM | Quarterly<br>Progress report<br>for CAP  | 4/10/2025<br>12:00:00 AM | Follow UP     | 1/1/0001<br>12:00:00 AM | 1/1/0001<br>12:00:00 AM |

# **Treatment Processes**

| Active Treatment Plant<br>Name | Objective Name | Process Name                 | Process Number |
|--------------------------------|----------------|------------------------------|----------------|
| WELL 5 CHLORINE, PH<br>AND PO4 | PHOSPHATE      | INHIBITOR,<br>ORTHOPHOSPHATE | 445            |
| WELL 4 CHLORINE, PH<br>AND PO4 | PHOSPHATE      | INHIBITOR,<br>ORTHOPHOSPHATE | 445            |
| WELL 4 CHLORINE, PH<br>AND PO4 | SODA ASH       | PH ADJUSTMENT, POST          | 741            |
| WELL 5 CHLORINE, PH<br>AND PO4 | PH ADJUSTMENT  | PH ADJUSTMENT, POST          | 741            |
| WELL 4 CHLORINE, PH<br>AND PO4 | CHLORINATOR    | HYPOCHLORINATION, PRE        | 423            |
| SPRING DISINFECTION            | CHLORINATOR    | HYPOCHLORINATION, PRE        | 423            |
| WELL 5 CHLORINE, PH<br>AND PO4 | CHLORINATOR    | HYPOCHLORINATION, PRE        | 423            |

# TCR And Non-TCR Monitoring Schedules

| Routine Schedule Analyte or<br>Group | WSF Name            | Frequency   | Begin Date |
|--------------------------------------|---------------------|-------------|------------|
| COLIFORM (TCR)                       | Distribution System | 1 RT per MN | 1/1/2016   |
| PBCU                                 | DISTRIBUTION SYSTEM | 5 RT per 3Y | 1/1/2016   |
| TTHM/HAA5                            | DISTRIBUTION SYSTEM | 1 RT per YR | 1/1/2025   |

# Water Facility Monthly Testing

| Monthly<br>Analyte | WSF Name               | Count Per<br>Day | Level Type | Level | Unit Of<br>Measure | Begin Date |
|--------------------|------------------------|------------------|------------|-------|--------------------|------------|
| CHLORINE           | DISTRIBUTION<br>SYSTEM | 0                | MAX        | 4.00  | MG/L               | 1/1/2019   |

# TCR Positives in Last 24 Months

There is no TCR Positives data.

Violations in Last Five Years

| Facility | Violation Type | Analyte Name                | Violation Begin<br>Date | Violation End Date |  |  |  |  |
|----------|----------------|-----------------------------|-------------------------|--------------------|--|--|--|--|
|          |                | CONSUMER<br>CONFIDENCE RULE | 7/1/2024                | 7/26/2024          |  |  |  |  |

# **Unresolved Deficiencies**

There is no Unresolved Deficiencies data.

# Sanitary Survey Report

# Distribution

|    | DISTRIBUTION SYSTEM  |                   |
|----|--|-------------------|
| 1  | Is the CCCP maintained by an individual designated in responsible charge of the CCCP by the owner?   | $\checkmark$      |
| 3  | Does the waterworks have adequate and up to date<br>records of all cross connections, all required annual<br>testing of installed backflow prevention devices, and<br>records of assessments of all connections?<br>CCCP is currently from 1977. A new CCCP is required to include<br>new connections etc. No records could be found at time of<br>inspection due to staff turnover etc. | MIN<br>Deficiency |
| 4  | Are CCCP records retained for 10 years?  | MIN<br>Deficiency |
| 5  | CCCP evaluated every 5 years and updated if necessary to meet the requirements of section 600 of the regs  | MIN<br>Deficiency |
| 6  | Is the vault drain/sump pump functioning? (is there evidence of standing water?)   | $\checkmark$      |
| 7  | If the meter is a consecutive connection, Is there an operable sample tap?   | $\checkmark$      |
| 8  | Are operators able to safely enter the vault for inspection, maintenance and repairs? (adequate ladder, confined space equipment and training if applicable)   | $\checkmark$      |
| 9  | Is access to the vault / chamber locked or otherwise secured?  | $\checkmark$      |
| 10 | Is there bypass piping and isolation valves available for<br>meter maintenance?<br>Isolation valves are exercised every 6 to 8 months per<br>operator.   | $\checkmark$      |
| 11 | Are there operable pressure gauges present? (for PRV or altitude valve)<br>Based on previous inspection.   | $\checkmark$      |
| 12 | Are air and vacuum relief valves routinely checked to<br>ensure that ports are properly installed to prevent<br>against cross connections? (not subject to flooding,<br>downward facing, and screened)   | $\checkmark$      |
| 13 | Is the meter in the vault operational? (recommend<br>recording meter reading in comments)<br>Meter reading: 117747100  | $\checkmark$      |
| 14 | Are individual service meters provided for all<br>connections?   | $\checkmark$      |

| 15 | Is a service meter calibration and replacement program<br>in effect?<br>Replacement and calibration is completed as needed.  | $\checkmark$      |
|----|--|-------------------|
| 16 | Is a flushing program in place? (unidirectional preferred)<br>Flushing in place as needed.   | $\checkmark$      |
| 17 | Is an isolation valve exercising program in place?   | $\checkmark$      |
| 18 | No evidence of less than 20 psi at service connections or other pressure problems?   | $\checkmark$      |
| 19 | Does the waterworks follow ODW guidelines for<br>disinfection, sampling, and Boil Water Advisories<br>following a main repair (see ODW Field Manual)?<br>Currently developing SOP's and Emergency management plan<br>to address these concerns. Based on boil water advisory issued<br>last week, they are following all ODW guidelines. | $\checkmark$      |
| 20 | Are water audits (water loss/leakage calculation)<br>routinely performed?<br>Created a new system last year called "Top 10 Consumers" that<br>focuses on finding leaks in the distribution system. The town<br>also has a contract with VRWA that focuses on this new<br>system.   | $\checkmark$      |
| 21 | Was the average leakage (real losses) over the past 12<br>months less than or equal to 30%?<br>Only one massive leak which was found on the costumer side.<br>Reported to LCWA.  | $\checkmark$      |
| 22 | Are fire flow tests routinely performed and<br>communicated to the waterworks?<br>Town maintains the fire hydrants and calls in contractors to<br>help. In the process of replacing some of the older hydrants<br>due to not being able to get parts etc.  | $\checkmark$      |
| 24 | Are plans, sketches, or maps with valve & master meter locations available?  | $\checkmark$      |
| 25 | Inspected records of repairs, flushing, hydrant testing,<br>and water audits, and confirmed that they are addequate<br>and maintained (kept) for at least 5 years?<br>Currently in the process of trying to make copies digital has<br>there is currently a mix.   | $\checkmark$      |
| 26 | CCCP plan document date or approval date is 2022 or<br>more recent? (in compliance with 2021 regs)<br>Discussed the need to update. Will send template with letter.  | MIN<br>Deficiency |

 $\checkmark$ 

 $\checkmark$ 

## **Finished Water Storage**

### **60,000 GALLON ELEVATED TANK**

1 Is the access ladder locked from unauthorized access?

2 Has the waterworks provided documentation to verify the vent is properly shielded and screened with #24 mesh?

3 Has the waterworks provided documentation that the entrance hatch is locked and a shoebox style or otherwise protected from the entrance of water?

| 4  | Are pictures of the tank interior provided? Are there<br>indications of problems? (Floating debris, deteriorated<br>lining, corrosion evident, excess sediment, etc.)<br>Town is in the process of changing tank survey companies from<br>USG to Southern Corrosion Control. Pictures are to be provided<br>once work to the tank is completed. | REC<br>Deficiency |
|----|---|-------------------|
| 5  | Does the tank have a functioning drain with a protected outlet?   | $\checkmark$      |
| 6  | Does the tank have an overflow affixed with a screen<br>adequate to prevent entry of pests or a duckbill, and an<br>air gap with a splash pad/sanitary drain?   | $\checkmark$      |
| 7  | Is the sidewall access and all other access<br>locked/bolted?   | $\checkmark$      |
| 8  | Is access to the storage tank facility fenced and locked,<br>or located within a greater secure area? (fence and lock<br>in good condition)   | $\checkmark$      |
| 9  | Are all other tank openings curbed, sleeved, watertight and freeze protected?   | $\checkmark$      |
| 10 | Does the waterworks have an effective routine tank<br>inspection and preventative maintenance program in<br>place?<br>In the process of changing to new company. New company will<br>be scheduled for tank maintenance on a more frequent basis.  | $\checkmark$      |
| 11 | Does the waterworks have an adequate strategy to<br>monitor and maintain tank water quality? (preventing<br>issues due to stratification, water age, nitrification, etc.)   | $\checkmark$      |
| 12 | Is the tank mixer/aerator functioning adequately?   | $\checkmark$      |
| 13 | Is tank level control adequate? (pressure maintained,<br>high/low alarms if needed, level recorded)<br>Tank levels are shown using a control box that displays levels<br>at the meter vault, well house, and tank itself. During<br>inspection tank was 30% full as plant had start at 6 AM that<br>morning.                                    | $\checkmark$      |
| 14 | Are operators familiar with tank levels necessary to maintain 20 psi, 1/2 day storage, and provide target fire flow for target duration?  | $\checkmark$      |
| 15 | Is adequate corrosion control in place? (exterior coating<br>in good condition, cathodic protection operable, ringwall<br>seal intact)<br>Tank had paint repair last year and will be undergoing a new<br>wash out and paint repair this upcoming year under Southern<br>Corrosion.   | $\checkmark$      |
| 16 | Is operator safety adequately provided? (ladder safety system in good condition, operators trained and adequately equipped, no other hazards)   | $\checkmark$      |
| 17 | Is access to the storage tank maintained? (lot<br>mowed/kept up, road maintained)   | $\checkmark$      |
| 18 | Is surface water diverted from the tank?  | $\checkmark$      |



28 No other issues with tank or associated appurtenances There is a piece of insulation that needs to be replaced on the pump box. See photographs.

# **MR Data Verification**

| 1  | BSSP appropriate for the population served, sample sites used, and extent of the distribution system   | $\checkmark$      |
|----|--|-------------------|
| 2  | Does the waterworks correctly rotate sites, use all<br>approved sites, and not use unapproved sites? (verify<br>collection addresses are from approved sites since the<br>last inspection)                     | $\checkmark$      |
| 5  | Does the DDBP Monitoring Plan include the correct<br>number of samples, frequency, and appropriate sample<br>locations where maximum DBP formation is expected?  | $\checkmark$      |
| 6  | Does the LCR Plan include the correct number of samples, frequency, and appropriate sample locations based on the Tiered criteria?   | $\checkmark$      |
| 7  | Does the MOR confirm continuous Optimized Corrosion<br>Control Treatment (OCCT) in accordance with the<br>Operation Permit Conditions?   | $\checkmark$      |
| 8  | Have all MORs been submitted in the last 12 months?  | $\checkmark$      |
| 9  | Are all required operational treatment parameter<br>monitoring and other information reported?<br>Treatment is normally added to MOR, however, it is offline at<br>this time.                                  | $\checkmark$      |
| 19 | Can the operator/sampler identify the correct sample<br>locations and do they have access to approved<br>monitoring plans (raw, entry point, process control,<br>WQPs, DBPs, total coliform, lead and copper?) | $\checkmark$      |
| 21 | Does the operator/sampler otherwise demonstrate sufficient knowledge of sampling requirements?   | $\checkmark$      |
| 23 | Review of SDWIS, MOR, field samples, and daily log<br>water quality sampling results free of evidence of<br>potential sampler error, potential data falsification, or<br>other data problems?                  | $\checkmark$      |
| 43 | Public Notices and Certification Forms submitted and are up to date in SDWIS   | $\checkmark$      |
| 4  | Does the waterworks have written procedures for<br>notifying groundwater wholesalers of total coliform<br>positive results?  | Not<br>Applicable |
| 14 | Chlorine monitoring - Is an approved method used to<br>analyze the chlorine grab samples? (methods using test<br>strips or a color wheel are not approved)   | Not<br>Applicable |

# **Management and Operation**

| _  |   |                   |
|----|---|-------------------|
| 1  | Are the waterworks facilities and appurtenances in good<br>operating condition? (source, treatment, and distribution<br>facilities without defect) (triennial assessment -<br>mandatory question)<br>Well 4 is currently offline. Only connection is through LCWA<br>which was supposed to be an emergency/supplemental | $\checkmark$      |
|    | connection. CAPDEV has given funding to help rehab well.  |                   |
| 2  | Does the system meet Waterworks Regulations design<br>and construction standards? (unpermitted construction<br>or modification) (triennial assessment - mandatory<br>question)  | $\checkmark$      |
| 3  | Does the waterworks meet all established National<br>Primary Drinking Water Standards, and has taken action<br>to prevent recurrence of past violations? (triennial<br>assessment - mandatory question)   | $\checkmark$      |
| 4  | Did the owner issue Public Notice if required?  | $\checkmark$      |
| 5  | Has the waterworks either not received significant<br>deficiencies, or completed timely correction of all<br>significant deficiencies? (triennial assessment -<br>mandatory question)<br>Currently under a corrective action plan (CAP) to address issues<br>surrounding wells and water capacity issues.               | $\checkmark$      |
| 6  | Did the waterworks address recommendations from recent sanitary surveys? (triennial assessment - mandatory question)  | $\checkmark$      |
| 7  | Free of complaints since the last inspection? (explain or<br>summarize any complaints reported to ODW or the<br>waterworks in the comments)<br>No complaints in terms of water quality. Complaints about on<br>going issues with surrounding water capacity.  | $\checkmark$      |
| 8  | Does the waterworks have a written policy for responding to customer complaints? (triennial assessment - mandatory question)  | $\checkmark$      |
| 9  | Does the waterworks have an emergency response plan<br>that has been tested and is routinely updated?<br>Currently in the process of creating.  | REC<br>Deficiency |
| 10 | Does the Emergency Response Plan include background information with a system description and diagram (including facility addresses), and is it up to date?   | REC<br>Deficiency |
| 11 | Does the Emergency Response Plan include hazard<br>analysis (recommend that analysis is performed with<br>locality emergency manager) that addresses adverse<br>weather events?   | REC<br>Deficiency |
| 12 | Does the Emergency Response Plan include an<br>emergency contact list including all critical emergency<br>contacts (recommend including all contacts from the<br>Waterworks Emergency Response Plan Template<br>available on the ODW website)?  | No Severity       |
| 13 | Does the Emergency Response Plan include action<br>plans to address all risks identified in the hazards<br>analysis? (recommend using EPA hazards specific<br>checklists)?  | REC<br>Deficiency |

- 14 Does the Emergency Response Plan include a Continuity of Operations plan, specifically roles and responsibilities?
- 15 Does the Emergency Response Plan include advisory (BWA, etc.) templates and procedures for non-english speaking populations?
- 16 Is the Emergency Management Plan for Extended Power Outage current? In the process of trying to update. SOP's have been made, however, the officially plan is not yet completed.
- 17 Waterworks is aware of VA WARN (if not, inform the waterworks that this network can aid waterworks in response to emergencies, see vawarn.org)
- 19 Are all plans and reports up to date and implemented (eg. BSSP, LCR Plan, CCCP, CCR, Sampling, etc.)? (triennial assessment - mandatory question)
- 20 Does the waterworks have sufficient licensed operator coverage for sick leave and vacation? (triennial assessment mandatory question)
- 21 No problems with personnel turnover
- 22 Are there records of an active ongoing staff training program? (staff should review the Asset Management Plan to evaluate)
- 23 Have all operators attended a technical training seminar or conference at least once per year, over the past 3 years? (triennial assessment - mandatory question)
- 24 Did operators appear to be adequately trained for their roles?
- 25 Is there an active safety program?
- 26 Clear lines of communication established with managers, plant and system operators?
- 27 Is the system's management generally responsive to operator requests for training, equipment, or other needs?
- 28 Does the waterworks have records demonstrating that preventative maintenance tasks are scheduled and performed?
- 29 Does the waterworks have a written Asset Management Plan? (triennial assessment - mandatory question)
- 31 Does the waterworks have a written Capital Improvement Plan? (triennial assessment - mandatory question)





























REC Deficiency

REC Deficiency

REC Deficiency

- 32 Is a reserve fund established to cover necessary replacements or Capital Improvements? (triennial assessment - mandatory question)
- 34 Does the waterworks have at least 45 days cash on-hand to cover expenses? (triennial assessment mandatory question)
- 35 Is the waterworks budget independent from subsidization by general funds, sewer funds or other funding sources? (triennial assessment - mandatory question)
- 36 Have the waterworks' rates been adjusted in the past three years? (triennial assessment mandatory question)
- 37 Does the waterworks have a WBOP that is up to date and implemented?
- 38 Are all service connections equipped with operational meters and is there a water accountability program in place? (triennial assessment - mandatory question)
- 39 Did the waterworks consistently operate within 80% of its permitted capacity? (not exceeded for 3 consecutive months) (triennial assessment - mandatory question) Calculated usage from Jan 1, 2025 to May 2025. Average water usage around 52,322 GPD. Within their operation permit capacity, however need to keep a close eye on usage considering the usage does not include summer/warmer months.
- 40 Has the waterworks operated within their Operation Permit capacity since the last inspection? (if not, explain in comments)

Permit capacity is set to Well No. 4 and LCWA connection. The connection is a supplement to Well No. 4 which is the main source. However, Well No.4 has been turned offline and the LCWA connection is being fed as the main source. No new connections can be added to the system at this time due to the limitation of capacity.

A Corrective Action Plan has been created with timelines going all the way to 2028. The connection to LCWA is sufficient in providing water to the town at this time but is not to be a permanent solution.

- 43 Records retained in accordance with the Retention and Disposition Schedule of the Library of Virginia, General Schedule No. 7 for public utility records of county and municipal governments CCCP documents are to updated etc.
- 46 No other management and operations issues noted during the survey.
- 18 Waterworks is a member of VA WARN
- 30 Have all item in the Asset Management Plan been completed by the specified deadlines? (staff should review the Asset Management Plan to evaluate)













Not Applicable

Not Applicable

| 33  | Have all item in Capital Improvements Plan been<br>completed by the specified deadlines? (staff should<br>review the Capital Improvements Plan to evaluate)<br>Currently working to competed CAP.  | Not<br>Applicable |
|-----|--|-------------------|
| 14  | Has the waterworks implemented Operational<br>Technology (OT), such as SCADA, industrial controls<br>systems (ICS), building management systems, fire<br>control systems, and physical access control systems?<br>(If yes, update SDWIS OT indicator to reflect) | Not<br>Applicable |
| 45  | Does the waterworks routinely perform cybersecurity assessments and address gaps identified?   | Not<br>Applicable |
| Ope | rator Compliance   |                   |
| _   |  |                   |
| 1   | Does the designated operator have an unexpired Virginia<br>DPOR waterworks operator license of at least the same<br>class as the waterworks?<br>Warren Hunter Martin, Class 1 Waterworks Operator<br>License Number: 1955003275<br>Exp. Date: 02/28/27           | $\checkmark$      |
| th  | er   |                   |
|     |  |                   |
|     | Enter into comment field the number of hours spent<br>(number only) on this survey, including preparation,<br>travel, time on site, and report writing.<br>6 hours   | $\checkmark$      |
|     | Is the waterworks Operation Permit up-to-date? (if no, describe changes needed in comments)  | $\checkmark$      |
|     | Is the Waterworks Description Sheet up-to-date? (if no, describe changes needed in comments)   | $\checkmark$      |
|     | Is SDWIS inventory data current? (update while in the<br>field if possible, or note changes needed in comments to<br>update upon returning to the office)<br>Updated SDWIS to reflect change in population and inactivation<br>of Well No. 4 for the time being. | $\checkmark$      |
|     | SDWIS data review - No unaddressed exceedances<br>(PMCL, SMCL, AL, OEL, etc.) If an exceedance was not<br>indicated by a SDWIS compliance report, log in the<br>SDWIS issue log at Y:\13-Manuals\09-Data Management<br>Manual\SDWIS                              | $\checkmark$      |
|     | SDWIS Data Review - Sample schedule types, frequencies, and number of samples correct  | $\checkmark$      |
|     | SDWIS Violation & Enforcement Action data current?   | $\checkmark$      |
|     | No other safety issues or concerns noted during the inspection   | $\checkmark$      |

# CHEMICAL TEST RESULTS:

|          | PH | Cl<br>(Free) | Cl<br>(Total) | AIK | Hard | Turb | F | Fc | Mn | AI | Р | Color | Temp |
|----------|----|--------------|---------------|-----|------|------|---|----|----|----|---|-------|------|
| Raw      |    |              |               |     |      |      |   |    |    |    |   |       |      |
| Primary  |    |              |               |     |      |      |   |    |    |    |   |       |      |
| Applied  |    |              |               |     |      |      |   |    |    |    |   |       |      |
| Finished |    |              |               |     |      |      |   |    |    |    |   |       |      |

# FINISHED WATER STABILITY:

|                   | PH | Alkalinity | Ca Hardness | TDS/Conduc<br>tivity | Chlorides | Sulfates |
|-------------------|----|------------|-------------|----------------------|-----------|----------|
| Treated<br>Sample |    |            |             |                      |           |          |
| Tap Sample        |    |            |             |                      |           |          |

**Results:** The water is mg/l (scale forming or corrosive)

# CT CALCULATIONS:

|              | UNIT NAME              | RESIDUA<br>L<br>TYPE | DESINFECTA<br>NT<br>RESIDUAL | DETENTIO<br>N<br>TIME (T10) | CT<br>calc | рН | CT 99.9 | CT calc %<br>CT<br>99.9 |
|--------------|------------------------|----------------------|------------------------------|-----------------------------|------------|----|---------|-------------------------|
| CT1          | Primary Rapid<br>Mix   |                      |                              |                             |            |    |         |                         |
| CT2          | Primary Floc           |                      |                              |                             |            |    |         |                         |
| CT3          | Primary Settling       |                      |                              |                             |            |    |         |                         |
| CT4          | Recarbonation<br>Basin |                      |                              |                             |            |    |         |                         |
| CT5          | 2nd Rapid Mix          |                      |                              |                             |            |    |         |                         |
| CT6          | 2nd Floc               |                      |                              |                             |            |    |         |                         |
| CT7          | 2nd Settling           |                      |                              |                             |            |    |         |                         |
| CT8          | 2nd<br>Recarbonation   |                      |                              |                             |            |    |         |                         |
| CT9          | Filters                |                      |                              |                             |            |    |         |                         |
| CT10         | ClearWell              |                      |                              |                             |            |    |         |                         |
| CT<br>other  |                        |                      |                              |                             |            |    |         |                         |
| CT<br>credit |                        |                      |                              |                             |            |    |         | 0.83                    |
| TOTAL        |                        |                      |                              |                             |            |    |         |                         |

**Basic Inventory Comments** 

# Parties Present/Point Of Contact Comments

| Site | Visit Observation Comments |
|------|----------------------------|
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| Site Visit Observation Comments |
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