

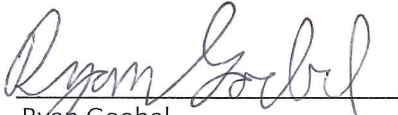
Bay Area WTP

Monthly Operations Report



April, 2021

Water Systems Serial Number: 0465


Ryan Goebel

Water Plant Superintendent
Title

F-1
Classification


Mike Wagar

Operations Supervisor
Title

F-2
Classification

Bay Area Water Treatment Plant

Monthly Operations Report

Supply Name: Bay Area Water System
 WSSN: 0465

Ryan Goebel
 Operator-in-charge

April, 2021
 Month, Year

F-1
 Certification of Operator-in-charge

F-1
 Water Plant Classification

Bay
 County

Treatment Rate and Membrane Data

| | | |
|---|-------|-----------------------------|
| Treatment Rate, Approved Rated Plant Capacity | 17.4 | Millions of Gallons per Day |
| Treatment Rate, Maximum | 8.1 | Millions of Gallons per Day |
| Maximum Approved Transmembrane Pressure | 22 | PSI |
| Maximum Operating Transmembrane Pressure | 16.55 | PSI |
| Maximum Approved Flux Rate | 36.25 | gpd/sq.ft. |
| Maximum Operating Flux Rate | 28.49 | gpd/sq.ft. |

Chemical Data

| | | | | | |
|---|-------|---------|-------------------|-------|------|
| Sodium Hypochlorite on hand: | 3,381 | Gallons | Estimated Supply: | 53.6 | days |
| Caustic Soda on hand: | 3,820 | Gallons | Estimated Supply: | 175.3 | days |
| Corrosion Inhibitor on hand: | 702 | Gallons | Estimated Supply: | 32.5 | days |
| Hydrofluosilicic Acid on hand: | 1,284 | Gallons | Estimated Supply: | 66.9 | days |
| Aluminum Chlorohydrate on hand: | 296 | Gallons | Estimated Supply: | 37.2 | days |
| Sulfuric Acid on hand: | 537 | Gallons | Estimated Supply: | 165.7 | days |
| Sodium Bisulfite on hand: | 935 | Gallons | Estimated Supply: | 130.2 | days |
| Citric Acid on hand: | 1,554 | Gallons | Estimated Supply: | 83.1 | days |
| Cost of All Chemicals per Million Gallons: | 77.32 | Dollars | | | |
| Estimated Electrical Cost per Million Gallons: | 76.84 | Dollars | | | |
| Estimated Natural Gas Cost per Million Gallons: | 10.33 | Dollars | | | |

Remarks

| | |
|--|-------|
| Number of periods of filter confluence turbidity samples > 0.3 NTU | 0 |
| Percent of membrane period confluence samples > 0.3 NTU: | 0.00% |
| Was continuous (every 15 minutes) filter monitoring equipment off-line during the month? If yes, indicate date(s), duration, and individual filter grab sampling frequency on a separate sheet. | No |
| Did POE disinfectant residual fall below 0.2 ppm during the month? If yes, indicate date(s) and duration on a separate sheet. | No |
| Was minimum C*T credit achieved for the entire month? If no, indicate on a separate sheet the date(s) not achieved. | Yes |
| Was continuous POE chlorine residual monitoring equipment off-line during the month? If yes, date(s) and duration will be indicated on the rule page. | No |



Notes

- *Raw Water Tank was out for cleaning/inspection from Monday, April 5 to Friday, April 9
- *Finished Water Tank #2 was out for cleaning/inspection from Monday, April 19 to Tuesday, April 27.

Bay Area WTP Monthly Operating Report

| Flows | | | | | | | | | |
|-----------|----------------|------------|------------|----------------|-------------|--------------|----------------------------|-------------|------------|
| Date | Raw Water (MG) | | | Clarified (MG) | Sludge (MG) | Treated (MG) | Finished Water Pumped (MG) | | |
| | North | South | Total | Total | Total | Total | N. Euclid | Lauria Road | Total |
| | FIT-1000-1 | FIT-1000-2 | Calculated | FIT-5520-1 | FIT-5180 | FIT-4000-1 | FIT-4040-1 | FIT-4040-2 | Calculated |
| 4/1/2021 | 0.00 | 5.19 | 5.19 | 0.25 | 0.04 | 6.66 | 3.15 | 3.11 | 6.26 |
| 4/2/2021 | 0.00 | 4.19 | 4.19 | 0.28 | 0.04 | 6.09 | 2.94 | 2.93 | 5.87 |
| 4/3/2021 | 0.00 | 4.25 | 4.25 | 0.29 | 0.04 | 6.25 | 2.98 | 2.94 | 5.91 |
| 4/4/2021 | 0.00 | 5.97 | 5.97 | 0.28 | 0.04 | 6.39 | 3.13 | 3.06 | 6.19 |
| 4/5/2021 | 0.08 | 3.79 | 3.87 | 0.27 | 0.04 | 6.62 | 3.16 | 3.13 | 6.30 |
| 4/6/2021 | 0.15 | 6.76 | 6.91 | 0.30 | 0.04 | 6.83 | 3.34 | 3.24 | 6.58 |
| 4/7/2021 | 0.01 | 6.42 | 6.43 | 0.24 | 0.04 | 6.45 | 3.18 | 3.12 | 6.31 |
| 4/8/2021 | 0.00 | 6.74 | 6.74 | 0.27 | 0.04 | 6.74 | 3.19 | 3.17 | 6.36 |
| 4/9/2021 | 0.02 | 9.89 | 9.90 | 0.29 | 0.04 | 6.66 | 3.09 | 3.09 | 6.18 |
| 4/10/2021 | 0.00 | 11.86 | 11.86 | 0.29 | 0.04 | 6.49 | 3.16 | 3.12 | 6.27 |
| 4/11/2021 | 0.00 | 6.75 | 6.75 | 0.29 | 0.04 | 6.48 | 3.15 | 3.14 | 6.29 |
| 4/12/2021 | 0.00 | 6.37 | 6.37 | 0.28 | 0.04 | 6.39 | 3.06 | 3.03 | 6.09 |
| 4/13/2021 | 0.00 | 6.46 | 6.46 | 0.25 | 0.04 | 6.54 | 3.15 | 3.13 | 6.28 |
| 4/14/2021 | 0.00 | 6.16 | 6.16 | 0.29 | 0.02 | 6.73 | 3.26 | 3.16 | 6.42 |
| 4/15/2021 | 0.00 | 6.44 | 6.44 | 0.31 | 0.04 | 6.76 | 3.30 | 3.20 | 6.50 |
| 4/16/2021 | 0.00 | 6.92 | 6.92 | 0.30 | 0.04 | 6.31 | 3.06 | 3.05 | 6.12 |
| 4/17/2021 | 0.00 | 5.88 | 5.88 | 0.27 | 0.04 | 6.69 | 3.25 | 3.19 | 6.44 |
| 4/18/2021 | 0.00 | 5.23 | 5.23 | 0.27 | 0.04 | 6.21 | 3.21 | 3.16 | 6.37 |
| 4/19/2021 | 0.00 | 7.11 | 7.11 | 0.23 | 0.07 | 6.16 | 3.31 | 3.31 | 6.62 |
| 4/20/2021 | 0.00 | 8.10 | 8.10 | 0.29 | 0.07 | 6.76 | 3.33 | 3.31 | 6.64 |
| 4/21/2021 | 0.00 | 5.96 | 5.96 | 0.24 | 0.08 | 6.58 | 3.22 | 3.02 | 6.24 |
| 4/22/2021 | 0.00 | 7.01 | 7.01 | 0.29 | 0.08 | 8.09 | 3.34 | 3.12 | 6.46 |
| 4/23/2021 | 0.00 | 7.55 | 7.55 | 0.29 | 0.05 | 7.01 | 3.35 | 3.31 | 6.66 |
| 4/24/2021 | 0.00 | 7.31 | 7.31 | 0.29 | 0.04 | 6.86 | 3.30 | 3.25 | 6.55 |
| 4/25/2021 | 0.00 | 6.84 | 6.84 | 0.29 | 0.04 | 6.51 | 3.17 | 3.13 | 6.30 |
| 4/26/2021 | 0.00 | 6.23 | 6.23 | 0.30 | 0.04 | 7.14 | 3.39 | 3.37 | 6.77 |
| 4/27/2021 | 0.00 | 6.85 | 6.85 | 0.29 | 0.04 | 6.85 | 3.43 | 3.27 | 6.70 |
| 4/28/2021 | 0.00 | 7.27 | 7.27 | 0.33 | 0.06 | 7.12 | 3.61 | 3.43 | 7.04 |
| 4/29/2021 | 0.00 | 7.56 | 7.56 | 0.29 | 0.08 | 7.36 | 3.64 | 3.38 | 7.03 |
| 4/30/2021 | 0.00 | 7.75 | 7.75 | 0.26 | 0.08 | 6.91 | 3.38 | 3.22 | 6.61 |
| Total | 0.25 | 200.78 | 201.04 | 8.41 | 1.41 | 200.64 | 97.25 | 95.11 | 192.36 |
| Avg | 0.01 | 6.69 | 6.70 | 0.28 | 0.05 | 6.69 | 3.24 | 3.17 | 6.41 |
| Min | 0.00 | 3.79 | 3.87 | 0.23 | 0.02 | 6.09 | 2.94 | 2.93 | 5.87 |
| Max | 0.15 | 11.86 | 11.86 | 0.33 | 0.08 | 8.09 | 3.64 | 3.43 | 7.04 |



| Raw Water Analysis | | | | | | | | |
|--------------------|----------|------------|------------|---------|----------------|------------|-------------------|----------|
| Date | Temp | pH | Turbidity | | F ⁻ | Free Cl | Bacti | |
| | Average | Average | Average | Maximum | Grab | Average | Positive/Negative | |
| | °C | | NTU | | mg/L | mg/L | Total Coliform | E. coli |
| | TIT-1000 | AIT-1000-2 | AIT-1000-1 | | Lab | AIT-1035-2 | Lab | |
| 4/1/2021 | 6.6 | 7.85 | 1.08 | 8.27 | 0.10 | 0.62 | Negative | Negative |
| 4/2/2021 | 6.7 | 7.85 | 0.74 | 2.59 | 0.09 | 0.64 | Negative | Negative |
| 4/3/2021 | 6.7 | 7.85 | 1.29 | 6.33 | 0.10 | 0.61 | Negative | Negative |
| 4/4/2021 | 6.8 | 7.88 | 1.43 | 3.99 | 0.09 | 0.54 | Negative | Negative |
| 4/5/2021 | 7.2 | 8.21 | 0.61 | 2.80 | 0.08 | 0.57 | Negative | Negative |
| 4/6/2021 | 7.3 | 8.16 | 0.53 | 0.77 | 0.07 | 0.62 | Positive | Negative |
| 4/7/2021 | 7.2 | 8.13 | 0.62 | 21.78 | 0.07 | 0.55 | Negative | Negative |
| 4/8/2021 | 7.0 | 8.12 | 0.44 | 0.72 | 0.08 | 0.50 | Negative | Negative |
| 4/9/2021 | 7.1 | 7.98 | 0.64 | 3.36 | 0.06 | 0.51 | Negative | Negative |
| 4/10/2021 | 7.4 | 7.88 | 0.71 | 1.50 | 0.06 | 0.55 | Negative | Negative |
| 4/11/2021 | 7.6 | 7.87 | 0.70 | 1.06 | 0.06 | 0.53 | Negative | Negative |
| 4/12/2021 | 7.7 | 7.88 | 0.81 | 7.48 | 0.06 | 0.50 | Negative | Negative |
| 4/13/2021 | 7.9 | 7.90 | 0.76 | 2.19 | 0.08 | 0.44 | Negative | Negative |
| 4/14/2021 | 8.2 | 7.90 | 0.52 | 2.23 | 0.08 | 0.46 | Negative | Negative |
| 4/15/2021 | 8.3 | 7.89 | 0.42 | 0.95 | 0.08 | 0.44 | Negative | Negative |
| 4/16/2021 | 8.3 | 7.87 | 0.51 | 1.33 | 0.07 | 0.51 | Negative | Negative |
| 4/17/2021 | 8.2 | 7.86 | 0.57 | 1.42 | 0.07 | 0.53 | Negative | Negative |
| 4/18/2021 | 8.1 | 7.88 | 0.77 | 3.50 | 0.07 | 0.52 | Negative | Negative |
| 4/19/2021 | 8.3 | 7.89 | 0.53 | 1.61 | 0.06 | 0.49 | Negative | Negative |
| 4/20/2021 | 8.3 | 7.90 | 0.58 | 2.20 | 0.09 | 0.46 | Negative | Negative |
| 4/21/2021 | 8.4 | 7.90 | 0.40 | 0.63 | 0.09 | 0.47 | Negative | Negative |
| 4/22/2021 | 8.4 | 7.89 | 0.52 | 0.95 | 0.09 | 0.48 | Negative | Negative |
| 4/23/2021 | 8.3 | 7.89 | 0.44 | 0.84 | 0.09 | 0.53 | Negative | Negative |
| 4/24/2021 | 8.2 | 7.88 | 0.58 | 0.94 | 0.08 | 0.56 | Negative | Negative |
| 4/25/2021 | 8.2 | 7.86 | 0.57 | 1.68 | 0.09 | 0.62 | Negative | Negative |
| 4/26/2021 | 8.1 | 7.86 | 0.43 | 1.67 | 0.09 | 0.64 | Negative | Negative |
| 4/27/2021 | 8.2 | 7.88 | 0.60 | 1.31 | 0.08 | 0.57 | Negative | Negative |
| 4/28/2021 | 8.2 | 7.87 | 0.49 | 3.10 | 0.08 | 0.60 | Negative | Negative |
| 4/29/2021 | 8.2 | 7.90 | 0.53 | 1.92 | 0.09 | 0.53 | Negative | Negative |
| 4/30/2021 | 8.4 | 7.91 | 0.37 | 0.86 | 0.09 | 0.50 | Negative | Negative |
| Avg | 7.8 | 7.92 | 0.64 | 3.00 | 0.08 | 0.54 | NA | NA |
| Min | 6.6 | 7.85 | 0.37 | 0.63 | 0.06 | 0.44 | NA | NA |
| Max | 8.4 | 8.21 | 1.43 | 21.78 | 0.10 | 0.64 | NA | NA |



10MG Raw water tank down for cleaning/inspection Mon, April 5 to Friday April 9. Results for these days taken from Mem. Feed

| Finished Water Analysis | | | | | | | | | | | | | | | | | | |
|-------------------------|------------|------------|------------|----------|------|----------------------|------------------------------------|-------------|----------|---------|---------------------------------|------------------|--------------|----------------------------|------------------------------|--------------------|-------------------|----------|
| Date | Temp | pH | Phosphate | Fluoride | | Free Cl ₂ | Alkalinity (as CaCO ₃) | | Chloride | Sulfate | Calcium (as CaCO ₃) | Dissolved Oxygen | Conductivity | Langelier Saturation Index | Chloride: Sulfate Mass Ratio | Larson-Skold Index | Bacti | |
| | Average | Average | Average | Tap | Dist | Average | Carbonate | Bicarbonate | Grab | Grab | Grab | Grab | Grab | | | | Positive/Negative | |
| | °C | | mg/L | mg/L | | mg/L | mg/L | | mg/L | mg/L | mg/L | mg/L | uS/cm | Calculated | Lab | | | |
| | AIT-4040-1 | AIT-4050-2 | AIT-4040-5 | Lab | | AIT-4050-1 | Lab | | Lab | Lab | Lab | Lab | Lab | | Total Coliform | E. coli | | |
| 4/1/2021 | 4.5 | 7.72 | 3.36 | 0.81 | | 1.02 | 0 | 82 | 10 | 11 | 68 | 13.2 | 255 | -0.88 | 0.91 | 0.38 | Negative | Negative |
| 4/2/2021 | 4.5 | 7.71 | 3.35 | 0.78 | | 1.00 | 0 | 81 | 9 | 11 | 70 | 13.4 | 240 | -0.88 | 0.82 | 0.37 | Negative | Negative |
| 4/3/2021 | 4.6 | 7.71 | 3.35 | 0.74 | | 1.00 | 0 | 82 | 9 | 10 | 74 | 13.8 | 238 | -0.84 | 0.90 | 0.35 | Negative | Negative |
| 4/4/2021 | 4.8 | 7.71 | 3.36 | 0.74 | | 1.01 | 0 | 80 | 10 | 13 | 78 | 13.4 | 246 | -0.83 | 0.77 | 0.42 | Negative | Negative |
| 4/5/2021 | 5.0 | 7.72 | 3.38 | 0.74 | 0.64 | 1.03 | 0 | 84 | 9 | 12 | 72 | 13.1 | 247 | -0.83 | 0.75 | 0.37 | Negative | Negative |
| 4/6/2021 | 4.8 | 7.70 | 3.45 | 0.77 | | 1.02 | 0 | 78 | 9 | 10 | 72 | 12.8 | 237 | -0.88 | 0.90 | 0.36 | Negative | Negative |
| 4/7/2021 | 4.8 | 7.71 | 3.44 | 0.77 | | 1.02 | 0 | 80 | 10 | 11 | 76 | 12.7 | 246 | -0.84 | 0.91 | 0.39 | Negative | Negative |
| 4/8/2021 | 4.9 | 7.73 | 3.43 | 0.76 | | 1.00 | 0 | 77 | 10 | 10 | 80 | 13.2 | 238 | -0.82 | 1.00 | 0.39 | Negative | Negative |
| 4/9/2021 | 5.0 | 7.73 | 3.41 | 0.75 | | 1.00 | 0 | 77 | 9 | 10 | 76 | 13.4 | 238 | -0.83 | 0.90 | 0.37 | Negative | Negative |
| 4/10/2021 | 5.3 | 7.72 | 3.41 | 0.75 | | 1.00 | 0 | 75 | 9 | 9 | 76 | 13.2 | 236 | -0.84 | 1.00 | 0.36 | Negative | Negative |
| 4/11/2021 | 5.3 | 7.73 | 3.42 | 0.76 | 0.71 | 1.00 | 0 | 76 | 10 | 10 | 76 | 13.4 | 236 | -0.83 | 1.00 | 0.40 | Negative | Negative |
| 4/12/2021 | 5.4 | 7.72 | 3.41 | 0.74 | | 1.01 | 0 | 76 | 9 | 12 | 78 | 13.5 | 236 | -0.83 | 0.75 | 0.41 | Negative | Negative |
| 4/13/2021 | 5.6 | 7.73 | 3.42 | 0.80 | | 1.00 | 0 | 74 | 9 | 12 | 76 | 14.1 | 227 | -0.83 | 0.75 | 0.42 | Negative | Negative |
| 4/14/2021 | 5.8 | 7.74 | 3.40 | 0.77 | | 1.00 | 0 | 86 | 10 | 13 | 80 | 12.0 | 227 | -0.73 | 0.77 | 0.39 | Negative | Negative |
| 4/15/2021 | 5.9 | 7.74 | 3.40 | 0.76 | | 1.03 | 0 | 74 | 9 | 11 | 64 | 12.3 | 241 | -0.89 | 0.82 | 0.40 | Negative | Negative |
| 4/16/2021 | 6.0 | 7.73 | 3.41 | 0.76 | | 1.05 | 0 | 78 | 9 | 11 | 70 | 11.8 | 240 | -0.83 | 0.82 | 0.38 | Negative | Negative |
| 4/17/2021 | 6.0 | 7.73 | 3.41 | 0.77 | | 1.02 | 0 | 75 | 9 | 11 | 72 | 11.7 | 238 | -0.84 | 0.82 | 0.40 | Negative | Negative |
| 4/18/2021 | 5.9 | 7.72 | 3.41 | 0.76 | | 1.02 | 0 | 78 | 9 | 11 | 68 | 11.9 | 239 | -0.86 | 0.82 | 0.38 | Negative | Negative |
| 4/19/2021 | 5.9 | 7.72 | 3.40 | 0.75 | 0.71 | 1.02 | 0 | 78 | 9 | 11 | 68 | 12.1 | 235 | -0.85 | 0.82 | 0.38 | Negative | Negative |
| 4/20/2021 | 5.9 | 7.73 | 3.40 | 0.75 | | 1.02 | 0 | 76 | 9 | 11 | 68 | 12.3 | 234 | -0.87 | 0.82 | 0.39 | Negative | Negative |
| 4/21/2021 | 5.9 | 7.73 | 3.41 | 0.80 | | 1.02 | 0 | 77 | 11 | 11 | 68 | 12.7 | 236 | -0.86 | 1.00 | 0.43 | Negative | Negative |
| 4/22/2021 | 6.0 | 7.73 | 3.40 | 0.77 | | 1.02 | 0 | 77 | 10 | 9 | 74 | 12.0 | 233 | -0.81 | 1.11 | 0.37 | Negative | Negative |
| 4/23/2021 | 6.0 | 7.73 | 3.40 | 0.76 | | 1.03 | 0 | 77 | 10 | 9 | 74 | 12.0 | 236 | -0.82 | 1.11 | 0.37 | Negative | Negative |
| 4/24/2021 | 6.0 | 7.72 | 3.40 | 0.77 | | 1.02 | 0 | 78 | 9 | 8 | 76 | 12.0 | 231 | -0.81 | 1.13 | 0.33 | Negative | Negative |
| 4/25/2021 | 6.0 | 7.72 | 3.40 | 0.77 | 0.75 | 1.02 | 0 | 77 | 9 | 8 | 85 | 11.8 | 232 | -0.76 | 1.13 | 0.34 | Negative | Negative |
| 4/26/2021 | 5.9 | 7.71 | 3.40 | 0.78 | | 1.02 | 0 | 77 | 10 | 10 | 74 | 12.6 | 226 | -0.83 | 1.00 | 0.39 | Negative | Negative |
| 4/27/2021 | 6.0 | 7.74 | 3.38 | 0.77 | | 1.12 | 0 | 77 | 10 | 10 | 68 | 12.4 | 229 | -0.84 | 1.00 | 0.39 | Negative | Negative |
| 4/28/2021 | 6.0 | 7.72 | 3.38 | 0.77 | | 1.02 | 0 | 81 | 9 | 10 | 76 | 12.3 | 230 | -0.79 | 0.90 | 0.35 | Negative | Negative |
| 4/29/2021 | 5.9 | 7.71 | 3.38 | 0.77 | | 1.02 | 0 | 80 | 9 | 10 | 66 | 12.1 | 225 | -0.86 | 0.90 | 0.35 | Negative | Negative |
| 4/30/2021 | 6.0 | 7.73 | 3.39 | 0.77 | | 1.01 | 0 | 82 | 9 | 11 | 68 | 12.5 | 230 | -0.82 | 0.82 | 0.36 | Negative | Negative |
| | | | | | | | 0 | | | | | | | | | | | |
| Avg | 5.5 | 7.72 | 3.40 | 0.77 | 0.70 | 1.02 | 0 | 78 | 9 | 11 | 73 | 12.7 | 236 | -0.83 | 0.90 | 0.38 | NA | NA |
| Min | 4.5 | 7.70 | 3.35 | 0.74 | 0.64 | 1.00 | 0 | 74 | 9 | 8 | 64 | 11.7 | 225 | -0.89 | 0.75 | 0.33 | NA | NA |
| Max | 6.0 | 7.74 | 3.45 | 0.81 | 0.75 | 1.12 | 0 | 86 | 11 | 13 | 85 | 14.1 | 255 | -0.73 | 1.13 | 0.43 | NA | NA |



| Turbidity | | | | | | | | | | |
|-----------|------------|-------|-----------------|---------------------|----------------------------|-------|-----------|---------|------------|----------------|
| Date | Raw Water | | Clarified Water | Membrane Feed Water | Combined Membrane Filtrate | | | | | Finished Water |
| | Avg | Max | Avg | Avg | Avg | Max | # Samples | # > 0.3 | % Exceeded | Avg |
| | NTU | | | | | | | | | |
| | AIT-1000-1 | | AIT-5030-1 | AIT-1035-3 | AIT-4000-1 | | | | | Calculated |
| 4/1/2021 | 1.08 | 8.27 | 1.15 | 1.04 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/2/2021 | 0.74 | 2.59 | 1.95 | 0.92 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/3/2021 | 1.29 | 6.33 | 0.95 | 1.08 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/4/2021 | 1.43 | 3.99 | 1.02 | 1.52 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/5/2021 | 0.61 | 2.80 | 1.18 | 1.15 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/6/2021 | 0.53 | 0.77 | 0.77 | 0.73 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/7/2021 | 0.62 | 21.78 | 0.96 | 0.76 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/8/2021 | 0.44 | 0.72 | 1.05 | 0.67 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/9/2021 | 0.64 | 3.36 | 1.15 | 1.13 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.019 |
| 4/10/2021 | 0.71 | 1.50 | 0.80 | 0.80 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/11/2021 | 0.70 | 1.06 | 1.15 | 0.90 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/12/2021 | 0.81 | 7.48 | 0.94 | 0.67 | 0.024 | 0.026 | 96 | 0 | 0.0 | 0.018 |
| 4/13/2021 | 0.76 | 2.19 | 0.98 | 0.48 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/14/2021 | 0.52 | 2.23 | 0.96 | 0.41 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/15/2021 | 0.42 | 0.95 | 1.00 | 0.40 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/16/2021 | 0.51 | 1.33 | 1.09 | 0.43 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/17/2021 | 0.57 | 1.42 | 1.45 | 0.48 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/18/2021 | 0.77 | 3.50 | 1.27 | 0.56 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/19/2021 | 0.53 | 1.61 | 0.87 | 0.54 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/20/2021 | 0.58 | 2.20 | 0.88 | 0.49 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.023 |
| 4/21/2021 | 0.40 | 0.63 | 1.10 | 0.43 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/22/2021 | 0.52 | 0.95 | 1.05 | 0.44 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.019 |
| 4/23/2021 | 0.44 | 0.84 | 1.01 | 0.43 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/24/2021 | 0.58 | 0.94 | 1.01 | 0.45 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/25/2021 | 0.57 | 1.68 | 1.13 | 0.59 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/26/2021 | 0.43 | 1.67 | 1.09 | 0.52 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/27/2021 | 0.60 | 1.31 | 1.07 | 0.53 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.022 |
| 4/28/2021 | 0.49 | 3.10 | 1.08 | 0.49 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/29/2021 | 0.53 | 1.92 | 1.11 | 0.46 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| 4/30/2021 | 0.37 | 0.86 | 1.09 | 0.42 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| Avg | 0.64 | 3.00 | 1.08 | 0.66 | 0.024 | 0.024 | 96 | 0 | 0.0 | 0.019 |
| Min | 0.37 | 0.63 | 0.77 | 0.40 | 0.023 | 0.023 | 96 | 0 | 0.0 | 0.018 |
| Max | 1.43 | 21.78 | 1.95 | 1.52 | 0.026 | 0.026 | 96 | 0 | 0.0 | 0.023 |

Note: % Exceeded are 4 hr compliance periods where the average of samples are greater than 0.3 NTU



| Date | Membrane LRV/Integrity/Max Turbidity | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|--------------------------------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|------------|-----------|-----------|-----------|-----|
| | Membrane 1 | | | Membrane 2 | | | Membrane 3 | | | Membrane 4 | | | Membrane 5 | | | Membrane 6 | | | Membrane 7 | | | Membrane 8 | | | | |
| | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | LRV | Integrity | Turbidity | | |
| | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | Average | Pass/Fail | Max | | |
| psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU | psi/min | Pass/Fail | NTU |
| 4/1/2021 | 4.32 | PASS | 0.024 | 4.30 | PASS | 0.034 | 4.41 | PASS | 0.021 | 4.47 | PASS | 0.019 | 4.28 | PASS | 0.024 | 4.44 | PASS | 0.024 | 4.40 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/2/2021 | 4.36 | PASS | 0.023 | 4.41 | PASS | 0.036 | 4.39 | PASS | 0.021 | 4.43 | PASS | 0.019 | 4.32 | PASS | 0.026 | 4.43 | PASS | 0.024 | 4.40 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/3/2021 | 4.40 | PASS | 0.024 | 4.41 | PASS | 0.033 | 4.39 | PASS | 0.022 | 4.46 | PASS | 0.019 | 4.40 | PASS | 0.024 | 4.43 | PASS | 0.024 | 4.42 | PASS | 0.036 | 4.34 | PASS | 0.033 | | |
| 4/4/2021 | 4.38 | PASS | 0.025 | 4.40 | PASS | 0.036 | 4.39 | PASS | 0.022 | 4.45 | PASS | 0.019 | 4.37 | PASS | 0.025 | 4.41 | PASS | 0.024 | 4.43 | PASS | 0.036 | 4.37 | PASS | 0.034 | | |
| 4/5/2021 | 4.34 | PASS | 0.024 | 4.38 | PASS | 0.033 | 4.39 | PASS | 0.025 | 4.46 | PASS | 0.019 | 4.43 | PASS | 0.026 | 4.40 | PASS | 0.025 | 4.41 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/6/2021 | 4.35 | PASS | 0.023 | 4.37 | PASS | 0.034 | 4.43 | PASS | 0.021 | 4.47 | PASS | 0.021 | 4.38 | PASS | 0.024 | 4.42 | PASS | 0.023 | 4.45 | PASS | 0.036 | 4.31 | PASS | 0.033 | | |
| 4/7/2021 | 4.36 | PASS | 0.023 | 4.33 | PASS | 0.036 | 4.42 | PASS | 0.022 | 4.43 | PASS | 0.020 | 4.34 | PASS | 0.024 | 4.39 | PASS | 0.023 | 4.41 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/8/2021 | 4.34 | PASS | 0.023 | 4.32 | PASS | 0.036 | 4.38 | PASS | 0.023 | 4.43 | PASS | 0.020 | 4.39 | PASS | 0.024 | 4.38 | PASS | 0.024 | 4.43 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/9/2021 | 4.32 | PASS | 0.026 | 4.34 | PASS | 0.033 | 4.36 | PASS | 0.021 | 4.43 | PASS | 0.021 | 4.36 | PASS | 0.024 | 4.53 | PASS | 0.024 | 4.45 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/10/2021 | 4.48 | PASS | 0.024 | 4.32 | PASS | 0.036 | 4.38 | PASS | 0.023 | 4.46 | PASS | 0.019 | 4.34 | PASS | 0.024 | 4.54 | PASS | 0.024 | 4.43 | PASS | 0.036 | 4.33 | PASS | 0.033 | | |
| 4/11/2021 | 4.45 | PASS | 0.023 | 4.34 | PASS | 0.035 | 4.39 | PASS | 0.022 | 4.53 | PASS | 0.019 | 4.33 | PASS | 0.030 | 4.53 | PASS | 0.023 | 4.43 | PASS | 0.036 | 4.30 | PASS | 0.033 | | |
| 4/12/2021 | 4.40 | PASS | 0.024 | 4.33 | PASS | 0.033 | 4.36 | PASS | 0.022 | 4.61 | PASS | 0.019 | 4.34 | PASS | 0.023 | 4.56 | PASS | 0.023 | 4.45 | PASS | 0.036 | 4.31 | PASS | 0.033 | | |
| 4/13/2021 | 4.39 | PASS | 0.022 | 4.33 | PASS | 0.031 | 4.37 | PASS | 0.021 | 4.61 | PASS | 0.022 | 4.33 | PASS | 0.024 | 4.52 | PASS | 0.022 | 4.45 | PASS | 0.030 | 4.30 | PASS | 0.023 | | |
| 4/14/2021 | 4.38 | PASS | 0.021 | 4.31 | PASS | 0.032 | 4.40 | PASS | 0.021 | 4.59 | PASS | 0.022 | 4.34 | PASS | 0.025 | 4.48 | PASS | 0.023 | 4.46 | PASS | 0.035 | 4.30 | PASS | 0.023 | | |
| 4/15/2021 | 4.40 | PASS | 0.021 | 4.32 | PASS | 0.033 | 4.38 | PASS | 0.021 | 4.56 | PASS | 0.023 | 4.38 | PASS | 0.026 | 4.51 | PASS | 0.023 | 4.48 | PASS | 0.033 | 4.30 | PASS | 0.024 | | |
| 4/16/2021 | 4.39 | PASS | 0.021 | 4.32 | PASS | 0.036 | 4.36 | PASS | 0.025 | 4.59 | PASS | 0.021 | 4.36 | PASS | 0.024 | 4.52 | PASS | 0.023 | 4.46 | PASS | 0.035 | 4.31 | PASS | 0.024 | | |
| 4/17/2021 | 4.39 | PASS | 0.021 | 4.33 | PASS | 0.034 | 4.36 | PASS | 0.021 | 4.59 | PASS | 0.023 | 4.34 | PASS | 0.032 | 4.55 | PASS | 0.022 | 4.44 | PASS | 0.035 | 4.38 | PASS | 0.022 | | |
| 4/18/2021 | 4.38 | PASS | 0.021 | 4.32 | PASS | 0.032 | 4.36 | PASS | 0.020 | 4.57 | PASS | 0.019 | 4.34 | PASS | 0.030 | 4.49 | PASS | 0.022 | 4.60 | PASS | 0.035 | 4.39 | PASS | 0.022 | | |
| 4/19/2021 | 4.38 | PASS | 0.021 | 4.35 | PASS | 0.034 | 4.37 | PASS | 0.021 | 4.58 | PASS | 0.172 | 4.36 | PASS | 0.026 | 4.46 | PASS | 0.021 | 4.64 | PASS | 0.034 | 4.42 | PASS | 0.022 | | |
| 4/20/2021 | 4.37 | PASS | 0.021 | 4.37 | PASS | 0.033 | 4.37 | PASS | 0.020 | 4.59 | PASS | 0.021 | 4.34 | PASS | 0.025 | 4.49 | PASS | 0.021 | 4.60 | PASS | 0.034 | 4.43 | PASS | 0.022 | | |
| 4/21/2021 | 4.36 | PASS | 0.021 | 4.32 | PASS | 0.034 | 4.37 | PASS | 0.020 | 4.58 | PASS | 0.019 | 4.34 | PASS | 0.024 | 4.46 | PASS | 0.021 | 4.56 | PASS | 0.034 | 4.41 | PASS | 0.022 | | |
| 4/22/2021 | 4.35 | PASS | 0.021 | 4.30 | PASS | 0.033 | 4.37 | PASS | 0.020 | 4.53 | PASS | 0.019 | 4.33 | PASS | 0.024 | 4.49 | PASS | 0.021 | 4.53 | PASS | 0.034 | 4.42 | PASS | 0.022 | | |
| 4/23/2021 | 4.34 | PASS | 0.021 | 4.32 | PASS | 0.033 | 4.37 | PASS | 0.020 | 4.53 | PASS | 0.018 | 4.32 | PASS | 0.024 | 4.45 | PASS | 0.020 | 4.54 | PASS | 0.034 | 4.34 | PASS | 0.022 | | |
| 4/24/2021 | 4.36 | PASS | 0.020 | 4.32 | PASS | 0.033 | 4.37 | PASS | 0.020 | 4.55 | PASS | 0.018 | 4.33 | PASS | 0.025 | 4.49 | PASS | 0.020 | 4.55 | PASS | 0.033 | 4.36 | PASS | 0.022 | | |
| 4/25/2021 | 4.39 | PASS | 0.021 | 4.32 | PASS | 0.032 | 4.37 | PASS | 0.020 | 4.52 | PASS | 0.018 | 4.34 | PASS | 0.024 | 4.50 | PASS | 0.023 | 4.56 | PASS | 0.034 | 4.36 | PASS | 0.022 | | |
| 4/26/2021 | 4.38 | PASS | 0.025 | 4.30 | PASS | 0.034 | 4.36 | PASS | 0.020 | 4.56 | PASS | 0.018 | 4.34 | PASS | 0.024 | 4.45 | PASS | 0.023 | 4.56 | PASS | 0.034 | 4.34 | PASS | 0.021 | | |
| 4/27/2021 | 4.38 | PASS | 0.020 | 4.30 | PASS | 0.036 | 4.37 | PASS | 0.020 | 4.58 | PASS | 0.018 | 4.34 | PASS | 0.024 | 4.46 | PASS | 0.022 | 4.56 | PASS | 0.034 | 4.33 | PASS | 0.020 | | |
| 4/28/2021 | 4.36 | PASS | 0.023 | 4.33 | PASS | 0.034 | 4.37 | PASS | 0.020 | 4.60 | PASS | 0.018 | 4.34 | PASS | 0.026 | 4.45 | PASS | 0.022 | 4.57 | PASS | 0.034 | 4.35 | PASS | 0.020 | | |
| 4/29/2021 | 4.35 | PASS | 0.020 | 4.31 | PASS | 0.036 | 4.37 | PASS | 0.020 | 4.62 | PASS | 0.018 | 4.33 | PASS | 0.024 | 4.45 | PASS | 0.023 | 4.55 | PASS | 0.034 | 4.34 | PASS | 0.020 | | |
| 4/30/2021 | 4.37 | PASS | 0.022 | 4.29 | PASS | 0.034 | 4.37 | PASS | 0.020 | 4.58 | PASS | 0.018 | 4.32 | PASS | 0.024 | 4.46 | PASS | 0.022 | 4.52 | PASS | 0.034 | 4.35 | PASS | 0.021 | | |
| Avg | 4.37 | | 0.022 | 4.33 | | 0.034 | 4.38 | | 0.021 | 4.53 | | 0.025 | 4.35 | | 0.025 | 4.47 | | 0.023 | 4.49 | | 0.035 | 4.34 | | 0.026 | | |
| Min | 4.32 | | 0.020 | 4.29 | | 0.031 | 4.36 | | 0.020 | 4.43 | | 0.018 | 4.28 | | 0.023 | 4.38 | | 0.020 | 4.40 | | 0.030 | 4.30 | | 0.020 | | |
| Max | 4.48 | | 0.026 | 4.41 | | 0.036 | 4.43 | | 0.025 | 4.62 | | 0.172 | 4.43 | | 0.032 | 4.56 | | 0.025 | 4.64 | | 0.036 | 4.43 | | 0.034 | | |

*LRV not to exceed Upper Control Limit of 3.32 psi/min



Treatment Chemical Dosages

| Date | Treated Water | Sodium Hypochlorite | | | | | Phosphoric Acid | | Hydroflourosilicic Acid | | |
|-----------|---------------|----------------------|---------------------|-------------------|---------------|---------------|-------------------|---------------|-------------------------|-------------------|---------------|
| | | Raw Water | Membrane Feed Water | Dose pre-FW Tanks | Treated Water | Post FW Tanks | Dose pre-FW Tanks | Post FW Tanks | Raw Water | Dose pre-FW Tanks | Post FW Tanks |
| | Volume | Free Cl ₂ | | | | | PO4 | | F | | |
| | MG | mg/L | | | | | mg/L | | mg/L | | |
| | FIT-4000-1 | AIT-1035-2 | AIT-1035-4 | Added | AIT-4030-1 | AIT-4050-1 | Added | AIT-4040-5 | Lab | Added | Lab |
| 4/1/2021 | 6.7 | 0.62 | 0.50 | 0.51 | 1.10 | 1.02 | 3.24 | 3.36 | 0.10 | 0.64 | 0.81 |
| 4/2/2021 | 6.1 | 0.64 | 0.51 | 0.53 | 1.09 | 1.00 | 3.24 | 3.35 | 0.09 | 0.64 | 0.78 |
| 4/3/2021 | 6.3 | 0.61 | 0.52 | 0.53 | 1.09 | 1.00 | 3.24 | 3.35 | 0.10 | 0.65 | 0.74 |
| 4/4/2021 | 6.4 | 0.54 | 0.49 | 0.58 | 1.10 | 1.01 | 3.25 | 3.36 | 0.09 | 0.65 | 0.74 |
| 4/5/2021 | 6.6 | 0.30 | 0.57 | 0.39 | 1.15 | 1.03 | 3.26 | 3.38 | 0.08 | 0.65 | 0.74 |
| 4/6/2021 | 6.8 | 0.26 | 0.62 | 0.38 | 1.11 | 1.02 | 3.26 | 3.45 | 0.07 | 0.65 | 0.77 |
| 4/7/2021 | 6.5 | 0.23 | 0.55 | 0.47 | 1.11 | 1.02 | 3.25 | 3.44 | 0.07 | 0.65 | 0.77 |
| 4/8/2021 | 6.7 | 0.20 | 0.50 | 0.47 | 1.11 | 1.00 | 3.25 | 3.43 | 0.08 | 0.65 | 0.76 |
| 4/9/2021 | 6.7 | 0.41 | 0.51 | 0.48 | 1.10 | 1.00 | 3.25 | 3.41 | 0.06 | 0.65 | 0.75 |
| 4/10/2021 | 6.5 | 0.55 | 0.50 | 0.47 | 1.09 | 1.00 | 3.25 | 3.41 | 0.06 | 0.65 | 0.75 |
| 4/11/2021 | 6.5 | 0.53 | 0.45 | 0.52 | 1.10 | 1.00 | 3.25 | 3.42 | 0.06 | 0.65 | 0.76 |
| 4/12/2021 | 6.4 | 0.50 | 0.43 | 0.53 | 1.10 | 1.01 | 3.25 | 3.41 | 0.06 | 0.65 | 0.74 |
| 4/13/2021 | 6.5 | 0.44 | 0.39 | 0.55 | 1.09 | 1.00 | 3.25 | 3.42 | 0.08 | 0.65 | 0.80 |
| 4/14/2021 | 6.7 | 0.46 | 0.38 | 0.58 | 1.10 | 1.00 | 3.25 | 3.40 | 0.08 | 0.65 | 0.77 |
| 4/15/2021 | 6.8 | 0.44 | 0.36 | 0.58 | 1.11 | 1.03 | 3.25 | 3.40 | 0.08 | 0.65 | 0.76 |
| 4/16/2021 | 6.3 | 0.51 | 0.38 | 0.57 | 1.10 | 1.05 | 3.25 | 3.41 | 0.07 | 0.65 | 0.76 |
| 4/17/2021 | 6.7 | 0.53 | 0.40 | 0.55 | 1.11 | 1.02 | 3.25 | 3.41 | 0.07 | 0.65 | 0.77 |
| 4/18/2021 | 6.2 | 0.52 | 0.41 | 0.54 | 1.10 | 1.02 | 3.25 | 3.41 | 0.07 | 0.65 | 0.76 |
| 4/19/2021 | 6.2 | 0.49 | 0.41 | 0.56 | 1.11 | 1.02 | 3.25 | 3.40 | 0.06 | 0.65 | 0.75 |
| 4/20/2021 | 6.8 | 0.46 | 0.40 | 0.55 | 1.09 | 1.02 | 3.25 | 3.40 | 0.09 | 0.65 | 0.75 |
| 4/21/2021 | 6.6 | 0.47 | 0.38 | 0.57 | 1.10 | 1.02 | 3.25 | 3.41 | 0.09 | 0.64 | 0.80 |
| 4/22/2021 | 8.1 | 0.48 | 0.39 | 0.56 | 1.10 | 1.02 | 3.25 | 3.40 | 0.09 | 0.64 | 0.77 |
| 4/23/2021 | 7.0 | 0.53 | 0.42 | 0.54 | 1.10 | 1.03 | 3.25 | 3.40 | 0.09 | 0.64 | 0.76 |
| 4/24/2021 | 6.9 | 0.56 | 0.44 | 0.52 | 1.09 | 1.02 | 3.25 | 3.40 | 0.08 | 0.64 | 0.77 |
| 4/25/2021 | 6.5 | 0.62 | 0.47 | 0.48 | 1.10 | 1.02 | 3.25 | 3.40 | 0.09 | 0.64 | 0.77 |
| 4/26/2021 | 7.1 | 0.64 | 0.50 | 0.47 | 1.10 | 1.02 | 3.25 | 3.40 | 0.09 | 0.64 | 0.78 |
| 4/27/2021 | 6.9 | 0.57 | 0.49 | 0.49 | 1.09 | 1.12 | 3.25 | 3.38 | 0.08 | 0.64 | 0.77 |
| 4/28/2021 | 7.1 | 0.60 | 0.50 | 0.49 | 1.11 | 1.02 | 3.25 | 3.38 | 0.08 | 0.64 | 0.77 |
| 4/29/2021 | 7.4 | 0.53 | 0.48 | 0.51 | 1.10 | 1.02 | 3.25 | 3.38 | 0.09 | 0.64 | 0.77 |
| 4/30/2021 | 6.9 | 0.50 | 0.44 | 0.55 | 1.10 | 1.01 | 3.25 | 3.39 | 0.09 | 0.64 | 0.77 |
| Avg | 6.7 | 0.49 | 0.46 | 0.52 | 1.10 | 1.02 | 3.25 | 3.40 | 0.08 | 0.65 | 0.77 |
| Min | 6.1 | 0.20 | 0.36 | 0.38 | 1.09 | 1.00 | 3.24 | 3.35 | 0.06 | 0.64 | 0.74 |
| Max | 8.1 | 0.64 | 0.62 | 0.58 | 1.15 | 1.12 | 3.26 | 3.45 | 0.10 | 0.65 | 0.81 |



| Disinfection CT | | | | | | | | | | | | | | |
|-----------------|-------------|-------------|------------|------------|------------|------------|------------|--------------|----------------------|------------|------------|----------|------------|------------|
| Date | Pipeline CT | | | | FW Tank CT | | | | | | Compliance | | | |
| | Whitestone | Travel Time | Residual | CT | FW Tank 1 | FW Tank 2 | Plant | Contact Time | Free Cl ₂ | CT | Total CT | Temp | CT | CT |
| | Flow | Min | RW | Achieved | Min Level | Min Level | Flow | Min | Min | Achieved | Achieved | Avg | Required | Met |
| | MGD | Minutes | mg/L | mg-min/L | ft | ft | MGD | Minutes | mg/L | mg-min/L | mg-min/L | °C | mg-min/L | Y/N |
| Entry | Calculated | AIT-1035-2 | Calculated | LIT-4005-1 | LIT-4005-2 | Calculated | Calculated | Calculated | Calculated | Calculated | Calculated | TIT-1000 | Calculated | Calculated |
| 4/1/2021 | 35.8 | 3,489 | 0.62 | 2146 | 29.0 | 22.9 | 6.3 | 567 | 0.98 | 557.20 | 2,703.42 | 6.6 | 8.00 | Y |
| 4/2/2021 | 36.9 | 3,387 | 0.64 | 2152 | 28.9 | 22.1 | 5.9 | 595 | 0.97 | 576.01 | 2,727.98 | 6.7 | 8.00 | Y |
| 4/3/2021 | 49.8 | 2,510 | 0.61 | 1521 | 28.9 | 22.9 | 5.9 | 601 | 0.98 | 590.25 | 2,111.44 | 6.7 | 8.00 | Y |
| 4/4/2021 | 50.8 | 2,460 | 0.54 | 1336 | 29.0 | 22.6 | 6.2 | 571 | 0.98 | 560.51 | 1,896.02 | 6.8 | 8.00 | Y |
| 4/5/2021 | 51.1 | 2,449 | 0.57 | 1396 | 28.5 | 23.4 | 6.3 | 565 | 1.00 | 566.64 | 1,962.88 | 7.2 | 8.00 | Y |
| 4/6/2021 | 40.2 | 3,111 | 0.62 | 1915 | 29.0 | 22.4 | 6.6 | 535 | 0.97 | 518.28 | 2,432.85 | 7.3 | 8.00 | Y |
| 4/7/2021 | 39.5 | 3,168 | 0.55 | 1750 | 29.0 | 20.5 | 6.3 | 538 | 1.00 | 535.75 | 2,286.19 | 7.2 | 8.00 | Y |
| 4/8/2021 | 42.8 | 2,919 | 0.50 | 1467 | 28.9 | 16.2 | 6.4 | 487 | 0.98 | 478.37 | 1,944.94 | 7.0 | 8.00 | Y |
| 4/9/2021 | 47.5 | 2,633 | 0.51 | 1336 | 28.6 | 17.8 | 6.2 | 514 | 0.98 | 501.05 | 1,837.20 | 7.1 | 8.00 | Y |
| 4/10/2021 | 56.3 | 2,223 | 0.55 | 1220 | 28.9 | 24.1 | 6.3 | 580 | 0.95 | 549.52 | 1,769.43 | 7.4 | 8.00 | Y |
| 4/11/2021 | 56.5 | 2,212 | 0.53 | 1173 | 29.0 | 22.4 | 6.3 | 560 | 0.98 | 549.59 | 1,722.38 | 7.6 | 8.00 | Y |
| 4/12/2021 | 50.8 | 2,464 | 0.50 | 1233 | 29.0 | 23.5 | 6.1 | 591 | 0.99 | 584.02 | 1,816.96 | 7.7 | 8.00 | Y |
| 4/13/2021 | 42.9 | 2,916 | 0.44 | 1295 | 29.0 | 23.0 | 6.3 | 567 | 0.95 | 537.50 | 1,832.39 | 7.9 | 8.00 | Y |
| 4/14/2021 | 40.8 | 3,064 | 0.46 | 1413 | 28.7 | 21.6 | 6.4 | 538 | 0.87 | 468.89 | 1,881.58 | 8.2 | 8.00 | Y |
| 4/15/2021 | 40.3 | 3,103 | 0.44 | 1369 | 29.0 | 21.2 | 6.5 | 529 | 0.87 | 461.51 | 1,830.06 | 8.3 | 8.00 | Y |
| 4/16/2021 | 43.5 | 2,878 | 0.51 | 1454 | 29.0 | 21.6 | 6.1 | 566 | 0.38 | 217.06 | 1,670.75 | 8.3 | 8.00 | Y |
| 4/17/2021 | 53.0 | 2,360 | 0.53 | 1242 | 29.0 | 18.9 | 6.4 | 509 | 1.00 | 510.85 | 1,753.20 | 8.2 | 8.00 | Y |
| 4/18/2021 | 54.7 | 2,285 | 0.52 | 1196 | 29.0 | 11.4 | 6.4 | 435 | 0.99 | 429.88 | 1,625.40 | 8.1 | 8.00 | Y |
| 4/19/2021 | 55.0 | 2,276 | 0.49 | 1126 | 23.4 | 0.0 | 6.6 | 242 | 1.00 | 241.45 | 1,367.58 | 8.3 | 8.00 | Y |
| 4/20/2021 | 45.3 | 2,762 | 0.46 | 1274 | 23.5 | 0.0 | 6.6 | 243 | 1.00 | 243.53 | 1,517.49 | 8.3 | 8.00 | Y |
| 4/21/2021 | 42.8 | 2,920 | 0.47 | 1362 | 23.8 | 0.0 | 6.2 | 261 | 1.00 | 262.19 | 1,623.93 | 8.4 | 8.00 | Y |
| 4/22/2021 | 41.2 | 3,034 | 0.48 | 1452 | 15.8 | 1.5 | 6.5 | 184 | 0.98 | 179.00 | 1,630.66 | 8.4 | 8.00 | Y |
| 4/23/2021 | 43.9 | 2,851 | 0.53 | 1513 | 23.1 | 30.6 | 6.7 | 553 | 1.00 | 554.36 | 1,751.62 | 8.3 | 8.00 | Y |
| 4/24/2021 | 55.1 | 2,272 | 0.56 | 1283 | 24.2 | 30.6 | 6.6 | 573 | 1.00 | 574.13 | 1,536.67 | 8.2 | 8.00 | Y |
| 4/25/2021 | 55.3 | 2,262 | 0.62 | 1411 | 23.5 | 30.6 | 6.3 | 588 | 1.01 | 593.87 | 1,668.49 | 8.2 | 8.00 | Y |
| 4/26/2021 | 55.1 | 2,272 | 0.64 | 1444 | 24.4 | 30.6 | 6.8 | 557 | 1.00 | 558.49 | 1,692.55 | 8.1 | 8.00 | Y |
| 4/27/2021 | 46.2 | 2,710 | 0.57 | 1554 | 26.4 | 23.9 | 6.7 | 514 | 1.00 | 511.70 | 2,065.55 | 8.2 | 8.00 | Y |
| 4/28/2021 | 42.6 | 2,938 | 0.60 | 1770 | 28.6 | 21.6 | 7.0 | 489 | 0.98 | 480.26 | 2,250.18 | 8.2 | 8.00 | Y |
| 4/29/2021 | 42.7 | 2,927 | 0.53 | 1539 | 29.0 | 21.8 | 7.0 | 495 | 0.96 | 476.24 | 2,015.43 | 8.2 | 8.00 | Y |
| 4/30/2021 | 45.1 | 2,772 | 0.50 | 1387 | 29.0 | 23.2 | 6.6 | 541 | 0.98 | 531.60 | 1,919.05 | 8.4 | 8.00 | Y |
| Avg | 46.8 | 2,721 | 0.54 | 1,458 | 27.2 | 19.8 | 6.4 | 503 | 0.96 | 479.99 | 1,894.81 | 7.8 | 8.00 | NA |
| Min | 35.8 | 2,212 | 0.44 | 1,126 | 15.8 | 0.0 | 5.9 | 184 | 0.38 | 179.00 | 1,367.58 | 6.6 | 8.00 | NA |
| Max | 56.5 | 3,489 | 0.64 | 2,152 | 29.0 | 30.6 | 7.0 | 601 | 1.01 | 593.87 | 2,727.98 | 8.4 | 8.00 | NA |



Notes:

Pipeline volume factor in SMMWSC to RW tank: 125,090 MG-min/day

Distribution System Monitoring

Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl₂)

| WSSN: | Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl ₂) | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|-------------|------|------|------|----------------------|------|------|----------|------|------|------|------|------|------|------------|------|------|------|-----------|------------|----|------------|------|
| | 0072 | 0390 | | | | 0400 | | | 0470 | | | | | | | 0485 | | | | 0517 | 0518 | | 2180 | |
| | Akron | Bangor Twp. | | | | Bangor Monitor Dist. | | | Bay City | | | | | | | Bay County | | | | Beaver Rd | Beaver Twp | | Essexville | |
| Date | 1 | 3 | 4 | 5 | 6 | 7 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 23 | 24 | 26 | 29 | 30 | 32 |
| 4/1/2021 | 0.53 | 0.61 | 0.51 | 0.47 | 0.94 | | | | | | | | | | | 0.82 | 0.80 | 0.79 | 0.69 | 0.63 | | | | |
| 4/2/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/3/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/4/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/5/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/6/2021 | | | | | | 0.88 | 0.95 | | 0.68 | 0.41 | 0.49 | 0.63 | 0.35 | 0.88 | 0.58 | | | | | | | | | 0.94 |
| 4/7/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/8/2021 | | | | 0.31 | 0.50 | | | | 0.62 | 0.38 | 0.51 | 0.59 | 0.35 | 0.77 | 0.56 | 0.82 | 0.84 | 0.80 | 0.67 | 0.61 | | | 0.37 | |
| 4/9/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/10/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/11/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/12/2021 | | | | | | | | | | | | | | | | | | | | | | | | 0.94 |
| 4/13/2021 | | 0.51 | 0.45 | 0.52 | 0.92 | | | 0.94 | | | | | | | | | | | | | 0.90 | | | |
| 4/14/2021 | | | | | | | | | 0.54 | 0.40 | 0.52 | 0.63 | 0.41 | 0.78 | 0.63 | | | | | | | | | |
| 4/15/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/16/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/17/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/18/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/19/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/20/2021 | | | | | | | | | 0.67 | 0.25 | 0.46 | 0.58 | 0.28 | 0.86 | 0.56 | | | | | | | | | |
| 4/21/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/22/2021 | | | | | | | | | 0.69 | 0.28 | 0.47 | 0.64 | 0.32 | 0.85 | 0.54 | | | | | | | | | 0.90 |
| 4/23/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/24/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/25/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/26/2021 | | | | | | | | | | | | | | | | | | | | | | | | 0.90 |
| 4/27/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/28/2021 | | | | | | | | | 0.59 | 0.44 | 0.47 | 0.69 | 0.44 | 0.88 | 0.66 | | | | | | | | | |
| 4/29/2021 | | | | | | | | | | | | | | | | | | | | | | | | 0.91 |
| 4/30/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 0.53 | | | 0.57 | | | | 0.92 | | | | | 0.56 | | | | | | 0.75 | | 0.90 | | 0.44 | 0.92 |
| Min | 0.53 | | | 0.31 | | | | 0.88 | | | | | 0.25 | | | | | | 0.61 | | 0.90 | | 0.37 | 0.90 |
| Max | 0.53 | | | 0.94 | | | | 0.95 | | | | | 0.88 | | | | | | 0.84 | | 0.90 | | 0.51 | 0.94 |



MONITORING STATION ADDRESSES

- | | | |
|--|---|---|
| 1. Sample station at corner of 5758 M-25 & F | 11. Number 1 Fire Station, 1401 Center Ave | 19. Dore's M-84 Party Store, 6183 WS Saginaw Rd |
| 3. Bangor Fire Station, 3921 Wheeler | 12. Number 2 Fire Station, 1000 Fremont Ave | 20. Pump Station #13, 6000 WS Saginaw Rd |
| 4. BCDWS Admin. Bldg. 3933 Patterson Rd. | 13. Skizak's Sport Shop, 807 Salzburg Ave | 23. Rail Trail Pump Station, 366 N. Tuscola Rd. |
| 5. 7-11, 3543 S. Old Kawkawlin Rd. | 14. Number 4 Fire Station, 212 S. Dean St | 24. Little Learners Daycare, 1694 Cass Ave. |
| 6. Admiral Petroleum, 314 S Euclid Ave. | 15. Number 5 Fire Station, 1209 Smith St | 26. Wieland Contracting, 2443 S Mackinaw Rd |
| 7. Sequin Lumber, 3881 Euclid Ave | 16. Bay City Hall, 301 Washington Ave | 29. Sample Station, 2515 S. 11 Mile Rd |
| 9. B's Boutique, 2981 Midland Rd | 17. Skipper Buds Marina, 1809 S Water St | 30. Sample Station, 340 W. Beaver Rd |
| 10. Little Caesars, 3475 E North Union Rd | 18. Bay Valley Animal Hospital 6015 WS Saginaw Rd | 32. Essexville City Hall, 1107 Woodside Ave |

| Distribution System Monitoring | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|--------------|------|------|----------------|------|------|----------------|----|--------------|----|--------------|------|------|-----------------|----|-----------------|------|------------|---------------|------|------|--------|
| Chlorine Residual at Bacteriological Monitoring Stations (mg/L Free Cl ₂) | | | | | | | | | | | | | | | | | | | | | | | | |
| WSSN: | 2465 | | 2960 | | | 3565 | | | 3570 | | 4280 | | 4440 | | | 5330 | | 5335 | | 5540 | 7125 | | | 7134 |
| Date | Fraser Twp. | | Hampton Twp. | | | Kawkawlin Twp. | | | Kawkawlin Met. | | Merritt Twp. | | Monitor Twp. | | | City Pinconning | | Pinconning Twp. | | Portsmouth | Williams Twp. | | | Wisner |
| | 34 | 35 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 45 | 46 | 48 | 49 | 52 | 55 | 58 | 59 | 61 | 63 | 65 | 68 | 69 | 70 | 72 |
| 4/1/2021 | | | | | | | | | | | 0.45 | | | | | | | | | 0.61 | 0.53 | 0.66 | 0.54 | 0.56 |
| 4/2/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/3/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/4/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/5/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/6/2021 | 0.64 | 0.79 | | | | 0.98 | 0.72 | | 0.74 | | | | 0.98 | 0.77 | 0.79 | 0.58 | | 0.78 | 0.59 | | | | | |
| 4/7/2021 | | | 0.45 | 0.62 | 0.66 | | | | | | | | | | | | | | | | | | | |
| 4/8/2021 | | | | | | | | | | | 0.56 | | | | | | | | | | 0.34 | 0.66 | 0.29 | |
| 4/9/2021 | | | | | | | | | | | | | | | | | | | | | 0.41 | | | |
| 4/10/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/11/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/12/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/13/2021 | | | | | | | | 0.82 | 0.75 | | | | 0.89 | 0.71 | 0.64 | 0.52 | | | | | | | | |
| 4/14/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/15/2021 | | | 0.53 | 0.70 | 0.52 | | | | | | | | | | | | | | | | | | | |
| 4/16/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/17/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/18/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/19/2021 | | | 0.57 | 0.58 | 0.56 | | | | | | | | | | | | | | | | | | | |
| 4/20/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/21/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/22/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/23/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/24/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/25/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/26/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/27/2021 | | | 0.61 | | | | | | | | | | | | | | | | | | | | | |
| 4/28/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/29/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| 4/30/2021 | | | | | | | | | | | | | | | | | | | | | | | | |
| Average | 0.72 | | 0.58 | | | 0.84 | | | 0.75 | | 0.51 | | 0.80 | | | 0.55 | | 0.69 | | 0.61 | 0.49 | | | 0.56 |
| Min | 0.64 | | 0.45 | | | 0.72 | | | 0.74 | | 0.45 | | 0.64 | | | 0.52 | | 0.59 | | 0.61 | 0.29 | | | 0.56 |
| Max | 0.79 | | 0.70 | | | 0.98 | | | 0.75 | | 0.56 | | 0.98 | | | 0.58 | | 0.78 | | 0.61 | 0.66 | | | 0.56 |



MONITORING STATION ADDRESSES

- | | | |
|---|--|---|
| 34. Fraser Elevated Tank, 2949 1/2 N. Huron Rd | 43. Kawkawlin Party Store, 105 Grove St | 59. Marathon Gas Station, 511 S Mabel St |
| 35. Lloyd's Cabinet, 1947 N Huron Rd | 45. Kawkawlin Restaurant, 103 S Huron Rd | 61. Pinconning Meter Pit, 3005 N Huron Rd |
| 37. Hampton DPW, 950 Wagner Rd. | 46. John's Bar, 1476 S Tuscola Rd | 63. Master Meter Pit, 2865 Pinconning Rd |
| 38. Bay County Golf Course, 584 W Hampton Rd. | 48. Tool Shed Bar, 12 W Munger Rd | 65. Ike's Welding, 50 N Finn Rd |
| 39. Sewer Lift Station, 902 Nebobish Rd. | 49. Wilder Rd Party Store, 2951 E Wilder Rd | 68. Williams Township Hall, 1080 W Midland Rd |
| 40. Bay Co. Road Commission, 2600 E Beaver Rd | 52. Monitor Twp. Elevated Tank, 1611 E. Midland Rd | 69. Pump Station, 490 W. Salzburg & 9 Mile Rd |
| 41. Parish Rd. Elevated Tank, 1770 E. Parish Rd | 55. Auburn Fertilizer, 4640 S 7 Mile Rd | 70. 11 Mile Elevated Tank, 5003 S. 11 Mile Rd |
| 42. Linwood Tile, 205 S Huron Rd | 58. Pinconning City Hall, 208 S Manitou St | 72. Lindy's Sales, 9051 M-25 |

Distribution System Bacteriological

Water Supplier Bacteriological Analysis Report

MICHIGAN DEPARTMENT OF PUBLIC HEALTH
Bureau of Environmental Health
Water Supplier Bacteriological Analysis Report

Name of Water Supply
Bay Area Water Treatment Plant

April, 2021

| COUNTY | COMMUNITY | WSSN NUMBER | DISTRIBUTION SYSTEM SAMPLES | | | | |
|---------|--------------------------------------|----------------|-----------------------------|--------------------|---------------------|--------------------|-----------------------------|
| | | | avg free cl2 mg/L | NUMBER REQUIRED | NUMBER COLLECTED | NUMBER POSITIVE | NUMBER REPEAT SAMPLES |
| Tuscola | Akron | 0072 | 0.53 | 1 | 1 | 0 | 0 |
| BAY | Bangor Township | 0390 | 0.57 | 10 | 10 | 0 | 0 |
| BAY | Bangor-Monitor Dist. | 0400 | 0.92 | 3 | 3 | 0 | 0 |
| BAY | Bay City | 0470 | 0.56 | 40 | 42 | 0 | 0 |
| BAY | Bay County (Frankl./Monitor/Portsm.) | 0485 | 0.75 | 10 | 10 | 0 | 0 |
| BAY | Beaver Road Area | 0517 | 0.90 | 1 | 1 | 0 | 0 |
| BAY | Beaver Township | 0518 | 0.44 | 2 | 2 | 0 | 0 |
| BAY | Essexville | 2180 | 0.92 | 4 | 5 | 0 | 0 |
| BAY | Fraser Township | 2465 | 0.72 | 2 | 2 | 0 | 0 |
| BAY | Hampton Township | 2960 | 0.58 | 10 | 10 | 0 | 0 |
| BAY | Kawkawlin Township | 3565 | 0.84 | 3 | 3 | 0 | 0 |
| BAY | Kawkawlin Metro Dist. | 3570 | 0.75 | 2 | 2 | 0 | 0 |
| BAY | Merritt Township | 4280 | 0.51 | 2 | 2 | 0 | 0 |
| BAY | Monitor Township | 4440 | 0.80 | 6 | 6 | 0 | 0 |
| BAY | City of Pinconning | 5330 | 0.55 | 2 | 2 | 0 | 0 |
| BAY | Pinconning Township | 5335 | 0.69 | 2 | 2 | 0 | 0 |
| BAY | Portsmouth Township | 5540 | 0.61 | 1 | 1 | 0 | 0 |
| BAY | Williams Township | 7125 | 0.49 | 6 | 9 | 1 | 3 |
| Tuscola | Wisner | 7134 | 0.56 | 1 | 1 | 0 | 0 |

Average Free Cl2 Residual of All Distribution Sites 0.67 mg/L

- | | |
|---|-------|
| 1. Total distribution samples | 114 |
| 2. Total distribution samples with detectable free cl2 residual | 114 |
| 3. Total distribution samples with no detectable free cl2 residual | 0 |
| 4. Total distribution samples with no detectable free cl2 residual and HPC was <500 | 0 |
| 5. Total distribution samples with no detectable free cl2 residual and HPC was >500 | 0 |
| 6. Percent of distribution samples with no detectable free cl2 residual | 0.00% |
| 7. Percent shown line #6 in previous monthly report | 0.00% |



*On 4/8/2021, site #68 from WSSN 7125 tested positive for Total Coliform, negative for E.coli.

*On 4/9/2021, repeat samples were collected at #68, 68A, and 68B. All were negative for Total Coliform and E.coli

* Free chlorine residual at #68A was 0.66 mg/L; Free Chlorine residual at #68B was 0.54 mg/L.