

GCC Energy Hydrologic Monitoring Data

| Hay Gulch Ditch Downgradient | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---------|---------|-------|------|---------|------|------|---------|-------|-------|---------|-------|-------|-------|-------|-------|---------|---------|---------|-------|-------|------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|--|--|
| Year | 2016 | | | | | | | | | | 2017 | | | | | 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | | | | |
| Quarter | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | | | | |
| Month | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 6 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 6 | 8 | 12 | 2 | 6 | 9 | 11 | 3 | 6 | 9 | | | | |
| Sample Date | 3/31 | 4/22 | 5/26 | 6/23 | 7/20 | 8/25 | 9/21 | 10/19 | 11/29 | 12/13 | 1/26 | 2/27 | 3/22 | 6/28 | 9/21 | 11/28 | 2/22 | 5/7 | 8/9 | 11/7 | 2/28 | 5/23 | 8/16 | 11/13 | 2/6 | 6/1 | 8/13 | 12/3 | 2/22 | 6/3 | 9/1 | 11/15 | 3/24 | 6/20 | 9/13 | | | | |
| Lab Analysis (Y/N) | Y | N | N | Y | N | N | Y | N | Y | N | N | N | Y | Y | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flow Rate | cfs | 1.10 | 1.20 | 1.10 | NM | 1.10 | 1.10 | NM | 0.80 | NM | NM | NM | 0.80 | 0.30 | 0.30 | NM | NM | NM | NM | 0.50 | 0.25 | 0.30 | 1.05 | NM | NM | 1.50 | 0.13 | NM | 0.001 | 0.40 | NM | 0.67 | 0.060 | 0.04 | 0.01 | | | | |
| Temperature | deg C | 11.8 | 17.6 | 10.9 | 21.9 | 21.3 | 18.8 | 16.1 | 11.8 | 7.0 | 6.6 | 7.2 | 5.0 | 12.7 | 17.6 | 18.7 | 6.3 | 11.3 | 20.6 | 4.7 | 6.88 | 8.23 | 15.15 | 3.51 | 3.73 | 14.21 | 20.4 | 6.83 | 10.37 | 13.35 | 10.47 | 4.00 | 9.21 | 17.71 | 18.02 | | | | |
| pH | SU | 8.57 | 8.55 | 8.14 | 8.14 | 8.55 | 8.37 | 8.3 | 8.36 | 8.64 | 8.06 | 7.28 | 8.06 | 9.00 | 8.53 | 8.66 | 8.33 | 7.58 | 7.43 | 7.48 | 6.42 | 7.77 | 7.61 | 8.38 | 7.94 | 8.24 | 8.00 | 7.7 | 7.76 | 8.12 | 8.26 | 7.00 | 7.22 | 7.53 | 6.50 | | | | |
| Specific Conductance | µS/cm | 429 | 530 | 297 | 116 | 308 | 257 | 1183 | 420 | 421 | 728 | 678 | 987 | 17 | 114 | 164 | 742 | 304 | 356 | 309 | 577 | 202 | 295 | 554 | 882 | 137 | 237 | 478 | 815 | 131 | 184 | 311 | 636 | 150 | 248 | | | | |
| Oxygen Reduction Potential | mV | 57.5 | 105.9 | 33.2 | 32.5 | 68.6 | 38.4 | 18.7 | 88.6 | 117.5 | 155.2 | 147.6 | -15.5 | 137.8 | 185.3 | 48 | 51.6 | 111.4 | -10.0 | -88.9 | 125.6 | 50.6 | 111.6 | -108.1 | 124.2 | 104.8 | 103.0 | 127.8 | -26.5 | 85.1 | 119.5 | 122.7 | -85.2 | 136.1 | 39.9 | | | | |
| Dissolved Oxygen | mg/L | 7.9 | 7.7 | 8.7 | 6.0 | 6.7 | 5.6 | 6.8 | 7.1 | 6.5 | 7.2 | 7.6 | 9.8 | 5.6 | 6.4 | 7.1 | 9.8 | 8.5 | 6.3 | 9.1 | 7.6 | 8.8 | 7.2 | 9.6 | 9.5 | 8.0 | 6.4 | 9.6 | 6.8 | 7.8 | 6.7 | 9.8 | NM | 7.2 | 7.0 | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 226 | | | 67.8 | | | 480 | | | 267 | | | | | | 503 | 59.1 | 91.4 | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | 8.42 | | | 8.13 | | | 8.25 | | | 8.24 | | | | | | 8.15 | 7.98 | 7.98 | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | 270 | | | 55 | | | 630 | | | 320 | | | | | | 615 | 65.0 | 80.0 | | | | | | | | | | | | | | | | | | | | |
| Total Suspended Solids | mg/L | 27.3 | | | 18 | | | 4.20 | | | 12.4 | | | | | | 12.7 | 3.00 | <0.500 | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | 55.5 | | | 21.9 | | | 94.7 | | | 65.5 | | | | | | 112 | 19.0 | 29.5 | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | 21.1 | | | 3.15 | | | 59.1 | | | 25.2 | | | | | | 54.6 | 2.86 | 4.31 | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | 8.69 | | | 1.57 | | | 16.8 | | | 10.7 | | | | | | 22.5 | 1.49 | 2.37 | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | 1.49 | | | <1 | | | 4.48 | | | 1.46 | | | | | | 2.33 | <1.00 | <1.00 | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | 220 | | | 59 | | | 220 | | | 225 | | | | | | 320 | 47.0 | 85.0 | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | 220 | | | 59 | | | 140 | | | 155 | | | | | | 320 | 47.0 | 85.0 | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | <10 | | | <10 | | | 80.0 | | | 70 | | | | | | <10.0 | <10.0 | <10.0 | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | <10 | | | <10 | | | <10 | | | <10.0 | | | | | | <10.0 | <10.0 | <10.0 | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | 9.40 | | | 1.26 | | | 97.9 | | | 12 | | | | | | 31.9 | <1.00 | 1.54 | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | 0.244 | | | 0.195 | | | 0.244 | | | 0.227 | | | | | | 0.308 | 0.228 | 0.295 | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | 68.1 | | | 13.5 | | | 144 | | | 89.5 | | | | | | 204 | 11.3 | 17.9 | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | 1.53 | | | 1.4 | | | 3.48 | | | 1.65 | | | | | | 2.31 | 2.16 | 0.932 | | | | | | | | | | | | | | | | | | | | |
| Oil & Grease | mg/L | <5 | | | <5 | | | <5 | | | <5.00 | | | | | | <5.00 | <5.00 | <5.00 | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | <0.02 | | | 0.026 | | | 0.027 | | | <0.020 | | | | | | <0.020 | <0.020 | <0.020 | | | | | | | | | | | | | | | | | | | | |
| Sodium Adsorption Ratio (SAR) | no unit | 0.25 | | | 0.03 | | | 0.33 | | | 0.28 | | | | | | 0.44 | 0.08 | 0.11 | | | | | | | | | | | | | | | | | | | | |
| Ammonia as N ^ | mg/L | NA | | | NA | | | NA | | | NA | | | | | | NA | NA | NA | | | | | | | | | | | | | | | | | | | | |
| Ortho-Phosphate as P ^ | mg/L | NA | | | NA | | | NA | | | NA | | | | | | NA | NA | NA | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | <0.05 | | | <0.05 | | | <0.05 | | | <0.050 | | | | | | <0.050 | <0.050 | <0.050 | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | 0.0005 | | | <0.0005 | | | 0.0015 | | | 0.0006 | | | | | | 0.0006 | 0.0005 | 0.0006 | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | <0.0001 | | | <0.0001 | | | <0.0001 | | | <0.0001 | | | | | | <0.0001 | <0.0001 | <0.0001 | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | 0.0004 | | | 0.0016 | | | 0.0012 | | | 0.0005 | | | | | | 0.0004 | 0.0020 | 0.0013 | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | <0.05 | | | <0.05 | | | <0.05 | | | <0.050 | | | | | | <0.050 | <0.050 | <0.050 | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | <0.0005 | | | <0.0005 | | | <0.0005 | | | <0.0005 | | | | | | <0.0005 | <0.0005 | <0.0005 | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | 0.0039 | | | 0.0044 | | | 0.0059 | | | 0.0063 | | | | | | 0.0112 | 0.0009 | 0.0010 | | | | | | | | | | | | | | | | | | | | |
| Mercury (total) | mg/L | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | | | | | | <0.0002 | <0.0002 | <0.0002 | | | | | | | | | | | | | | | | | | | | |
| Mercury (total low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | <0.0005 | | | 0.0008 | | | 0.0013 | | | 0.0007 | | | | | | <0.0005 | 0.0009 | 0.0011 | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | <0.001 | | | <0.001 | | | 0.0026 | | | <0.0010 | | | | | | 0.0022 | <0.0010 | <0.0010 | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | 8.96 | | | 7.48 | | | 11.8 | | | 10.9 | | | | | | 12.2 | 6.80 | 8.53 | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | 4.19 | | | 3.5 | | | 5.51 | | | 5.11 | | | | | | 5.70 | 3.18 | 3.99 | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | 0.0004 | | | 0.0001 | | | 0.0006 | | | 0.0006 | | | | | | 0.0009 | 0.0001 | 0.0002 | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | <0.001 | | | 0.0021 | | | 0.0013 | | | 0.0012 | | | | | | <0.0020 | <0.0020 | <0.0040 | | | | | | | | | | | | | | | | | | | | |
| Radium 226 ^ | pCi/L | <0.4 | | | NA | | | NA | | | NA | | | | | | NA | NA | NA | | | | | | | | | | | | | | | | | | | | |
| Radium 228 ^ | pCi/L | <0.8 | | | NA | | | NA | | | NA | | | | | | NA | NA | NA | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| Wiltse Well | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--------|---------|------|------|---------|------|------|-------|---------|---------|--------|------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|
| Year | 2016 | | | | | | | | | | 2017 | | | | | 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | | | |
| Quarter | Q1 | Q2 | | | Q3 | | | Q4 | | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | |
| Month | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 6 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 12 | 2 | 5 | 8 | 11 | 3 | 6 | 8 | | | |
| Sample Date | 3/31 | 4/27 | 5/25 | 6/23 | 7/19 | 8/24 | 9/20 | 10/24 | 11/29 | 12/13 | 1/18 | 2/27 | 3/21 | 6/13 | 9/28 | 11/28 | 2/22 | 5/16 | 8/9 | 11/8 | 2/28 | 5/23 | 8/19 | 11/11 | 2/17 | 5/13 | 8/12 | 12/15 | 2/24 | 5/21 | 8/11 | 11/3 | 3/1 | 6/1 | 8/10 | | | |
| Lab Analysis (Y/N) | Y | N | N | Y | N | N | Y | N | Y | N | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 150.0 | 38.5 | 23.4 | 18.6 | 19.9 | 17.3 | 15.8 | 17.0 | 10.6 | 18.1 | 39.5 | 39.6 | 39.6 | NM | 18.3 | 23.5 | 11.9 | 12.0 | 18.5 | 12.3 | 28.0 | 38.0 | 18.0 | 17.0 | 35.0 | 24.4 | 16.0 | 18.0 | 15.0 | 12.5 | 8.5 | 24.0 | 18.0 | 25.0 | 25.0 | | |
| Total Purged | gal | 5850 | 4228 | 4229 | 3686 | 2844 | 2979 | 2637 | 2724 | 2992 | 2916 | 3595 | 3580 | 3560 | 2980 | 2712 | 2423 | 2700 | 2890 | 2783 | 2747 | 3017 | 3200 | 3010 | 3058 | 3825 | 3495 | 3200 | 3030 | 2920 | 3000 | 1800 | 2800 | 2900 | 2950 | 3000 | | |
| Depth to Water | ft bgs | 0.35 | 0.00 | 0.85 | 2.15 | 2.99 | 2.60 | 3.32 | 6.85 | 1.90 | 1.95 | 0.30 | 0.00 | 0.00 | 2.05 | 3.40 | 3.40 | 3.35 | 3.93 | 4.13 | 3.78 | 2.40 | 0.05 | 2.47 | 2.68 | 0.43 | 1.60 | 3.18 | 5.65 | 3.64 | 3.70 | 4.55 | 4.10 | 4.70 | 3.70 | 2.82 | | |
| Temperature | deg C | 6.7 | 8.8 | 10.4 | 10.7 | 11.5 | 12.1 | 11.5 | 11.0 | 9.1 | 8.8 | 7.6 | 7.2 | 7.5 | 10.3 | 11.3 | 9.7 | 8.0 | 10.2 | 11.7 | 10.4 | 8.0 | 9.3 | 10.7 | 9.9 | 6.7 | 9.8 | 11.7 | 8.7 | 8.9 | 9.9 | 11.3 | 10.8 | 9.5 | 10.8 | 12.4 | | |
| pH | SU | 7.22 | 7.32 | 7.34 | 7.26 | 7.26 | 7.24 | 7.22 | 7.22 | 7.32 | 7.29 | 7.2 | 7.17 | 7.12 | 7.41 | 7.27 | 7.3 | 7.26 | 7.13 | 7.04 | 7.07 | 7.17 | 7.08 | 7.09 | 7.09 | 7.01 | 7.12 | 7.22 | 7.26 | 7.25 | 7.23 | 7.33 | 7.23 | 7.17 | 7.21 | 7.14 | | |
| Specific Conductance | µS/cm | 2043 | 1633 | 1805 | 1768 | 1478 | 1602 | 1941 | 1937 | 2014 | 2036 | 2262 | 2276 | 2085 | 1869 | 2074 | 2190 | 2232 | 2144 | 2072 | 2167 | 2170 | 2151 | 1964 | 1970 | 2171 | 2017 | 1450 | 1984 | 1739 | 1789 | 2012 | 2038 | 1965 | 2039 | 2285 | | |
| Oxygen Reduction Potential | mV | 105.6 | 17.9 | 20.1 | 38.5 | 26.9 | 20.0 | 28.6 | 21.6 | 13.7 | 20.9 | 3.2 | 18.3 | 6.0 | 13.3 | 19.5 | 19.2 | 14.3 | 29.9 | -52.7 | -18.8 | 22.7 | -10.6 | -23.7 | 51.9 | 49.33 | 71.9 | 72.2 | 73.7 | 6.9 | 31.2 | 41.5 | 50.5 | -26.1 | 32.4 | -76.3 | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 990 | | | 1050 | | | | 1030 | | | | | 1040 | 1060 | 1140 | 1150 | 1090 | 1160 | 1130 | 1180 | 1150 | 1080 | 1080 | 1060 | 982 | 1060 | 1070 | 1130 | 1090 | 1070 | 1080 | 1080 | 1070 | 1300 | | | |
| pH (Lab) | SU | 7.22 | | | 7.34 | | | | 7.29 | | | | | 7.22 | 7.46 | 7.30 | 7.33 | 7.70 | 8.35 | 7.22 | 7.42 | 7.38 | 7.35 | 7.11 | 7.09 | 7.12 | 7.09 | 7.29 | 6.86 | 7.27 | 6.98 | 7.25 | 7.52 | 7.25 | 7.15 | 7.39 | | |
| Total Dissolved Solids (Lab) | mg/L | 1580 | | | 1480 | | | | 1520 | | | | | 1480 | 1510 | 1680 | 1740 | 1740 | 1740 | 1750 | 1720 | 1710 | 1670 | 1520 | 1480 | 1600 | 1560 | 1580 | 1540 | 1550 | 1500 | 1580 | 1640 | 1520 | 1580 | 1850 | | |
| Calcium | mg/L | 197 | | | 208 | | | | 206 | | | | | 205 | 211 | 219 | 226 | 211 | 216 | 221 | 230 | 226 | 214 | 214 | 208 | 191 | 206 | 206 | 215 | 208 | 199 | 206 | 209 | 208 | 206 | 255 | | |
| Magnesium | mg/L | 121 | | | 128 | | | | 126 | | | | | 128 | 129 | 143 | 142 | 136 | 150 | 139 | 147 | 143 | 132 | 132 | 123 | 132 | 136 | 144 | 138 | 140 | 136 | 136 | 133 | 135 | 160 | | | |
| Sodium | mg/L | 95.9 | | | 75.2 | | | | 80.7 | | | | | 110 | 87.5 | 80.7 | 83.4 | 80.4 | 82.3 | 79.1 | 81.2 | 83.2 | 89.4 | 72.4 | 67.3 | 68.1 | 69.1 | 64 | 67.5 | 65.1 | 61.1 | 61.6 | 63.6 | 61.0 | 60.1 | 77.8 | | |
| Potassium | mg/L | 4.64 | | | 4.56 | | | | 4.90 | | | | | 4.61 | 4.79 | 4.62 | <5.00 | 4.73 | 4.98 | 5.01 | 5.00 | 5.01 | 4.77 | 4.92 | 4.85 | 4.33 | <5.00 | 4.48 | 4.54 | <5.00 | 4.35 | <5.00 | 4.41 | 4.42 | 4.41 | 4.92 | | |
| Alkalinity, Total | mg/L | 460 | | | 500 | | | | 470 | | | | | 410 | 445 | 510 | 475 | 445 | 435 | 463 | 505 | 515 | 469 | 474 | 460 | 460 | 431 | 475 | 470 | 480 | 480 | 480 | 520 | 505 | 485 | 530 | | |
| Alkalinity, Bicarbonate | mg/L | 440 | | | 500 | | | | 470 | | | | | 410 | 445 | 510 | 475 | 445 | 435 | 463 | 505 | 515 | 469 | 474 | 460 | 460 | 431 | 475 | 470 | 480 | 480 | 480 | 520 | 505 | 485 | 530 | | |
| Alkalinity, Carbonate | mg/L | 20.0 | | | <10.0 | | | | <10.0 | | | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | | | <10.0 | | | | <10.0 | | | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | |
| Chloride | mg/L | 81.0 | | | 76.3 | | | | 62.3 | | | | | 72.5 | 72.5 | 68.7 | 68.9 | 66.7 | 60 | 57.2 | 67.2 | 67.8 | 49.9 | 48.2 | 57.7 | 51.8 | 58.1 | 57.9 | 54.8 | 52.3 | 49 | 52.4 | 49.8 | 45.7 | 57.5 | | | |
| Fluoride | mg/L | 0.285 | | | <0.5 | | | | <0.5 | | | | | <0.500 | 0.332 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | 0.298 | 0.324 | 0.306 | <0.500 | <0.500 | <0.500 | <0.500 | 0.304 | 0.292 | 0.276 | 0.28 | <0.500 | 0.280 | 0.286 | 0.240 | 0.288 | | |
| Sulfate as SO4 | mg/L | 671 | | | 595 | | | | 656 | | | | | 731 | 702 | 779 | 772 | 832 | 714 | 733 | 741 | 801 | 709 | 627 | 627 | 711 | 633 | 704 | 728 | 683 | 661 | 679 | 697 | 688 | 702 | 818 | | |
| Total Organic Carbon (TOC) | mg/L | 3.54 | | | 4.1 | | | | 3.15 | | | | | 3.40 | 3.54 | 3.34 | 3.26 | 3.37 | 3.5 | 3.51 | 3.63 | 3.82 | 4.87 | 4.27 | 3.30 | 4.22 | 3.80 | 3.69 | 3.43 | 3.29 | 3.33 | 3.48 | 3.37 | 3.21 | 3.19 | 3.72 | | |
| Nitrate/Nitrite as N | mg/L | 0.456 | | | 0.891 | | | | 1.08 | | | | | 0.492 | 1.07 | 1.80 | 1.94 | 2.26 | 2.48 | 2.26 | 1.99 | 1.95 | 0.651 | 0.896 | 1.31 | 1.05 | 0.865 | 1.25 | 1.48 | 1.82 | 1.49 | 2.06 | 1.87 | 1.69 | 1.53 | 1.16 | | |
| Ammonia as N ^ | mg/L | NA | | | NA | | | | NA | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Ortho-Phosphate as P ^ | mg/L | NA | | | NA | | | | NA | | | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Aluminum | mg/L | <0.05 | | | <0.05 | | | | <0.05 | | | | | <0.050 | <0.1 | <0.050 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | | |
| Arsenic | mg/L | <0.0025 | | | <0.0025 | | | | 0.0005 | 0.0008 | | | | 0.0009 | 0.0006 | 0.0005 | 0.0029 | 0.0009 | 0.0006 | <0.0025 | <0.001 | <0.0010 | 0.0006 | <0.0010 | <0.0010 | <0.0010 | <0.0010 | 0.0005 | <0.0025 | <0.0025 | <0.0025 | <0.0010 | <0.0005 | 0.0007 | <0.001 | | | |
| Cadmium | mg/L | <0.0005 | | | <0.0005 | | | | <0.0005 | <0.0001 | | | | <0.0001 | <0.0001 | <0.0001 | <0.0005 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0005 | <0.0002 | <0.0001 | <0.0005 | <0.0025 | <0.0025 | <0.001 | <0.0005 | <0.0005 | <0.001 | |
| Copper | mg/L | 0.0018 | | | 0.0024 | | | | 0.0023 | 0.0020 | 0.0038 | | | 0.0023 | 0.0019 | 0.0025 | 0.0097 | 0.0020 | 0.0019 | 0.0018 | 0.0030 | 0.002 | 0.0021 | 0.0021 | 0.0012 | 0.0020 | <0.0025 | 0.0013 | 0.0006 | 0.0028 | <0.0025 | <0.0025 | 0.0033 | 0.0031 | 0.0049 | 0.0038 | | |
| Iron | mg/L | 0.100 | | | <0.05 | | | | 0.060 | 0.136 | | | | 0.286 | 0.161 | <0.050 | <0.250 | 0.132 | 0.151 | 0.125 | 0.121 | 0.151 | 0.379 | 0.287 | 0.209 | 0.285 | <0.250 | <0.100 | 0.216 | <0.250 | 0.304 | <0.250 | 0.154 | 0.129 | 0.212 | 0.161 | | |
| Lead | mg/L | <0.0025 | | | <0.0025 | | | | <0.0025 | <0.0005 | | | | <0.0005 | <0.0005 | <0.0005 | <0.0025 | <0.0005 | <0.0005 | <0.0005 | <0.001 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0010 | <0.0005 | <0.0025 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.001 | | | |
| Manganese | mg/L | 0.673 | | | 0.857 | | | | 0.440 | 0.797 | 0.881 | | | 0.440 | 0.797 | 0.881 | 4.50 | 0.845 | 0.997 | 1.37 | 1.08 | 0.937 | 0.357 | 0.902 | 0.892 | 0.419 | 0.816 | 1.03 | 0.943 | 1.21 | 0.98 | 1.4 | 1.34 | 1.26 | 1.35 | 0.974 | | |
| Mercury (dissolved) | mg/L | <0.0002 | | | <0.0002 | | | | <0.0002 | <0.0002 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | <0.0025 | | | <0.0025 | | | | 0.0017 | 0.0016 | | | | 0.0016 | 0.0021 | 0.0021 | 0.0093 | 0.0020 | 0.002 | 0.002 | 0.0019 | 0.0017 | 0.0014 | 0.0020 | 0.0017 | 0.0013 | <0.0025 | 0.0018 | 0.0017 | <0.0025 | <0.0025 | <0.0025 | 0.0017 | 0.0017 | 0.0018 | 0.0019 | | |
| Selenium | mg/L | <0.0050 | | | <0.0050 | | | | 0.0013 | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-HGA-4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|-------|--------|---------|-------|-------|---------|--------|--------|---------|-------|---------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2016 | 2017 | | | | | | | | | | | | 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | | Q1 | | Q2 | Q3 | Q4 | Q1 | | Q2 | Q3 | Q4 | Q1 | | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | | | | |
| Sample Date | 12/12 | 1/26 | 2/28 | 3/22 | 4/27 | 5/31 | 6/13 | 7/27 | 8/16 | 9/21 | 10/27 | 11/28 | 12/12 | 1/3 | 2/22 | 5/15 | 8/9 | 11/8 | 2/28 | 5/23 | 8/16 | 11/13 | 2/13 | 5/13 | 8/26 | 12/14 | 2/22 | 5/19 | 8/12 | 11/12 | 2/28 | 5/9 | 8/9 | |
| Lab Analysis (Y/N) | Y | N | N | Y | N | N | Y | N | N | Y | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 0.5 | NM | NM | NM | NM | NM | NM | NM | NM | NM | NM | 9.40 | NM | 0.1 | 1.5 | 2.00 | 1.00 | 1.12 | 1.00 | 1.00 | 0.25 | 1.00 | 0.25 | 0.25 | 0.13 | 0.25 | 0.13 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | |
| Total Purged | gal | 21 | 21 | 21 | 21 | 21 | 21 | 19.5 | 20 | 20 | 21 | 21 | 21 | 24 | 19 | 21 | 19 | 21 | 24 | 22 | 21 | 21 | 22 | 21 | 20 | 21 | 21 | 21 | 20 | 22 | 21 | 21 | 22 | |
| Depth to Water | ft bgs | 0.73 | 0.57 | 0.60 | 0.83 | 0.94 | 2.06 | 2.53 | 3.25 | 2.65 | 3.31 | 3.31 | 1.76 | 4.31 | 1.37 | 0.55 | 2.60 | 3.98 | 1.90 | 0.49 | 0.42 | 1.95 | 1.15 | 0.38 | 2.36 | 3.80 | 1.75 | 0.90 | 2.91 | 3.95 | 2.33 | 0.95 | 2.02 | 1.61 |
| Temperature | deg C | 7.3 | 4.8 | 6.4 | 8.1 | 7.2 | 9.9 | 8.4 | 8.6 | 8.8 | 9.0 | 9.2 | 9.0 | 9.3 | 8.8 | 7.8 | 8.1 | 8.7 | 8.8 | 7.6 | 7.7 | 8.5 | 8.8 | 7.9 | 7.4 | 9.2 | 8.6 | 7.8 | 8.2 | 8.9 | 9.2 | 8.3 | 8.1 | 9.2 |
| pH | SU | 7.29 | 7.36 | 7.40 | 7.41 | 7.33 | 7.36 | 7.40 | 7.36 | 7.35 | 7.33 | 7.31 | 7.27 | 7.27 | 7.33 | 7.30 | 7.18 | 7.27 | 7.05 | 7.15 | 7.18 | 7.16 | 7.09 | 7.12 | 7.23 | 7.28 | 7.31 | 7.29 | 7.34 | 7.37 | 7.31 | 7.25 | 7.28 | 7.19 |
| Specific Conductance | µS/cm | 1284 | 1257 | 1201 | 1155 | 1153 | 1113 | 1055 | 1099 | 1050 | 1124 | 1072 | 1171 | 1160 | 1141 | 1154 | 1098 | 1057 | 1167 | 1183 | 1102 | 1083 | 1127 | 1122 | 1093 | 1022 | 1158 | 975 | 1093 | 1108 | 1160 | 1197 | 1102 | 1198 |
| Oxygen Reduction Potential | mV | -72.1 | -86.6 | -105.1 | -104.4 | -74.5 | -91.3 | -134.7 | -137.6 | -131.0 | -139.5 | -77.3 | -157.9 | -70.1 | -96.6 | -157.3 | -130.9 | -230.8 | -190.9 | -128.3 | -140.7 | -130.9 | -104.9 | -107.8 | -86.7 | -61.1 | -64.7 | -67.9 | -116.8 | -104.9 | -105.8 | -185.5 | -113.0 | -273.0 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 724 | | | 611 | | | 616 | | | 522 | | 595 | | 561 | 555 | 524 | 625 | 613 | 563 | 544 | 624 | 563 | 528 | 571 | 612 | 630 | 582 | 515 | 627 | 598 | 574 | 653 | |
| pH (Lab) | SU | 7.30 | | | 7.17 | | | 7.31 | | | 7.25 | | 7.21 | | 7.58 | 8.15 | 7.33 | 7.12 | 7.2 | 8.17 | 6.95 | 6.88 | 6.78 | 6.89 | 7.07 | 6.95 | 7.38 | 6.89 | 7.05 | 7.03 | 7.22 | 7.26 | 7.20 | |
| Total Dissolved Solids (Lab) | mg/L | 855 | | | 710 | | | 715 | | | 750 | | 775 | | 740 | 730 | 695 | 770 | 795 | 695 | 695 | 715 | 705 | 685 | 700 | 665 | 685 | 680 | 735 | 790 | 790 | 785 | 745 | |
| Calcium | mg/L | 147 | | | 118 | | | 121 | | | 102 | | 118 | | 110 | 108 | 102 | 124 | 122 | 110 | 106 | 123 | 112 | 101 | 111 | 122 | 126 | 114 | 98.7 | 125 | 119 | 110 | 130 | |
| Magnesium | mg/L | 86.7 | | | 76.7 | | | 76.6 | | | 64.9 | | 72.8 | | 69.3 | 69 | 65.4 | 76.5 | 74.7 | 70.3 | 67.9 | 76.8 | 68.9 | 67.0 | 71.7 | 74.9 | 76.8 | 72 | 65.2 | 76.6 | 72.9 | 72.5 | 79.9 | |
| Sodium | mg/L | 19.5 | | | 27.4 | | | 28.6 | | | 24.9 | | 27.2 | | 26.5 | 30.4 | 29.9 | 27.6 | 27 | 28.6 | 28.3 | 31.9 | 27.9 | 30.3 | 30.5 | 26.8 | 28.4 | 27.4 | 26.4 | 23.1 | 23.9 | 28.1 | 27.1 | |
| Potassium | mg/L | 2.02 | | | 2.13 | | | 2.11 | | | 1.75 | | 2.21 | | 2.17 | 2.22 | 2.33 | 2.13 | 2.16 | 2.00 | 2.10 | 2.38 | 2.05 | 2.06 | 2.08 | 2.11 | 2.24 | 2.03 | <5.00 | <5.00 | 1.82 | 2.02 | 2.13 | |
| Alkalinity, Total | mg/L | 545 | | | 465 | | | 415 | | | 465 | | 475 | | 460 | 425 | 410 | 460 | 455 | 445 | 455 | 432 | 435 | 416 | 485 | 457 | 475 | 465 | 470 | 580 | 470 | 435 | 500 | |
| Alkalinity, Bicarbonate | mg/L | 545 | | | 465 | | | 415 | | | 465 | | 475 | | 460 | 425 | 410 | 460 | 455 | 445 | 455 | 432 | 435 | 416 | 485 | 457 | 475 | 465 | 470 | 580 | 470 | 435 | 500 | |
| Alkalinity, Carbonate | mg/L | ND | | | <10.0 | | | <10.0 | | | <10.0 | | <10.0 | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | |
| Alkalinity, Hydroxide | mg/L | ND | | | <10.0 | | | <10.0 | | | <10.0 | | <10.0 | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | |
| Chloride | mg/L | 10.9 | | | 8.75 | | | 7.95 | | | 8.96 | | 8.74 | | 8.43 | 7.57 | 6.47 | 9.40 | 10.5 | 8.06 | 8.44 | 9.46 | 8.39 | 7.64 | 8.78 | 10.1 | 9.65 | 9.41 | 11.1 | 13.9 | 12.0 | 10.2 | 14.6 | |
| Fluoride | mg/L | 0.577 | | | 0.485 | | | 0.506 | | | 0.517 | | 0.495 | | 0.496 | 0.459 | 0.482 | 0.487 | 0.484 | 0.456 | 0.443 | 0.520 | 0.447 | 0.449 | 0.431 | 0.473 | 0.424 | 0.434 | <0.500 | 0.420 | 0.472 | 0.413 | 0.450 | |
| Sulfate as SO4 | mg/L | 240 | | | 229 | | | 192 | | | 205 | | 204 | | 222 | 190 | 169 | 201 | 221 | 186 | 212 | 190 | 193 | 181 | 179 | 187 | 191 | 184 | 194 | 199 | 216 | 183 | 215 | |
| Total Organic Carbon (TOC) | mg/L | NA | | | 4.54 | | | 4.35 | | | 4.69 | | 4.79 | | 4.56 | 4.57 | 4.30 | 4.72 | 4.82 | 4.45 | 4.58 | 4.35 | 4.8 | 4.30 | 4.56 | 4.67 | 4.31 | 4.36 | 4.55 | 4.84 | 5.47 | 4.21 | 4.64 | |
| Nitrate/Nitrite as N | mg/L | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | | <0.100 | | <0.020 | <0.020 | <0.020 | <0.020 | 0.173 | <0.020 | <0.020 | <0.020 | <0.020 | <0.100 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | |
| Ammonia as N ^ | mg/L | NA | | | NA | | | NA | | | NA | | NA | | NA | NA | NA | NA | NA | NA | NA | 0.528 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | | NA | | | NA | | | NA | | NA | | NA | NA | NA | NA | NA | NA | NA | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | 0.423 | | | <0.050 | | | <0.050 | | | <0.050 | | <0.050 | | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.050 | <0.100 | <0.100 | <0.100 | <0.050 | <0.050 | <0.050 | <0.250 | <0.250 | <0.050 | <0.050 | <0.050 | |
| Arsenic | mg/L | 0.0030 | | | 0.0029 | | | 0.0028 | | | <0.0005 | | 0.0035 | | 0.0037 | 0.0034 | 0.0036 | 0.0032 | 0.0031 | 0.0029 | 0.0028 | 0.0033 | 0.0022 | 0.0025 | 0.0026 | 0.0038 | 0.0036 | 0.0033 | 0.0034 | 0.0027 | 0.0036 | 0.0031 | 0.0034 | |
| Cadmium | mg/L | <0.0001 | | | <0.0001 | | | <0.0001 | | | <0.0001 | | <0.0001 | | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 | <0.0001 |
| Copper | mg/L | 0.0006 | | | 0.0008 | | | 0.0002 | | | 0.0004 | | 0.0002 | | 0.0006 | 0.0008 | 0.0004 | 0.0008 | <0.0010 | 0.0003 | 0.0004 | 0.0002 | 0.0005 | <0.0010 | <0.0010 | <0.0005 | 0.0006 | 0.0007 | 0.0009 | <0.0025 | <0.0005 | 0.0010 | 0.0005 | |
| Iron | mg/L | 3.71 | | | 7.29 | | | 7.32 | | | 0.378 | | 7.84 | | 7.60 | 7.92 | 8.55 | 8.44 | 8.35 | 7.98 | 8.38 | 9.76 | 8.59 | 8.22 | 8.95 | 9.31 | 9.6 | 9.29 | 8.52 | 8.44 | 8.25 | 9.41 | 9.73 | |
| Lead | mg/L | <0.0005 | | | <0.0005 | | | <0.0005 | | | <0.0005 | | <0.0005 | | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | |
| Manganese | mg/L | 4.07 | | | 2.78 | | | 2.78 | | | 2.03 | | 2.11 | | 1.99 | 1.81 | 1.58 | 2.13 | 2.56 | 2.12 | 1.84 | 1.78 | 1.77 | 1.49 | 1.66 | 2.36 | 2.54 | 2.51 | 1.79 | 2.86 | 3.03 | 2.29 | 3.00 | |
| Mercury (dissolved) | mg/L | ND | | | <0.0002 | | | <0.0002 | | | <0.0002 | | <0.0002 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0013 | | | 0.0024 | | | 0.0027 | | | 0.0028 | | 0.0027 | | 0.0030 | 0.0031 | 0.0038 | 0.0029 | 0.0026 | 0.0027 | 0.0029 | 0.0031 | 0.0025 | 0.0030 | 0.0032 | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-1-MI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|------|--------|--------|-------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|-------|------|------|------|
| Year | 2017 | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | |
| Quarter | Q2 | | Q3 | | | Q4 | | Q1 | | Q2 | | | Q3 | | Q4 | | Q1 | | Q2 | | Q3 | | Q4 | | Q1 | | Q2 | | Q3 | | |
| Month | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 |
| Sample Date | 6/7 | 7/18 | 8/23 | 9/26 | 10/26 | 11/16 | 12/5 | 1/2 | 2/9 | 3/22 | 4/11 | 5/10 | -- | 7/23 | 8/7 | 11/1 | 2/20 | 5/30 | 8/14 | 11/5 | 2/12 | 5/28 | 9/1 | 11/16 | 2/15 | 5/20 | 8/23 | 11/17 | 3/17 | 6/14 | 9/12 |
| Lab Analysis (Y/N) | Y | N | N | N | N | N | N | N | N | N | N | N | N | Y | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM* | NM | NM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Purged | gal | 19.5 | NM* | <0.5 | NM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | 259.99 | NM* | 258.29 | 258.34 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | deg C | 15.8 | NM* | 11.8 | 21.7 | dry | dry | dry | dry | dry | dry | dry | *** | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| pH | SU | 8 | NM* | 7.94 | 7.86 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | 2032 | NM* | 2137 | 2119 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | 160.5 | NM* | 65.7 | 61.4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 231 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | 8.14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | 1520 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | 46.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | 27.9 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | 470 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | 2.55 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | 600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | 600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | <10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | 7.69 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | 1.14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | 739 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | 5.14 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | 0.103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | <0.050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | 0.0029 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | <0.0001 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | 0.0067 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | <0.050 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | 0.0010 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | 0.0445 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | <0.0002 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | 0.0796 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | 0.0028 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | 11.6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | 5.44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | 0.0505 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | 1.52 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

- *** La Plata County stage 3 fire restrictions prevented sampling activity
 - Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-1-C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|------|--------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|------|---|
| Year | 2017 | | | | | | | | 2018 | | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | | | | |
| Quarter | Q2 | | Q3 | | | Q4 | | | Q1 | | Q2 | | Q3 | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | |
| Month | 6 | 7 | 8 | 9 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 |
| Sample Date | 6/7 | 7/18 | 8/23 | 9/7 | 9/26 | 10/26 | 11/16 | 12/5 | 1/2 | 2/9 | 3/22 | 4/11 | 5/10 | -- | 7/23 | 8/7 | 11/18 | 2/20 | 5/30 | 8/14 | 11/5 | 2/12 | 5/28 | 9/1 | 11/16 | 2/15 | 5/20 | 8/23 | 11/17 | 3/17 | 6/14 | 9/12 | | | | |
| Lab Analysis (Y/N) | Y | N | N | N | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM* | NM* | NM | NM | NM | NM | MM | 0.1 | NM | 0.1 | 0.1 | *** | 0.05 | 0.1 | 0.10 | 0.06 | 0.02 | 0.03 | 0.01 | 0.01 | 0.10 | 0.05 | 0.05 | 0.05 | 0.05 | 0.01 | 0.13 | 0.13 | 0.13 | 0.13 | | | | |
| Total Purged | gal | 5 | NM* | NM* | NM | NM | 1.00 | 1.00 | 1 | 1 | 1 | 1 | 1.25 | | 1 | 1 | 1.10 | 1.00 | 1.10 | 1.00 | 1.00 | 1.00 | 0.75 | 0.80 | 1.00 | 1.00 | 2.00 | 1.00 | 1.25 | 1.00 | 1.00 | 1.00 | | | | |
| Depth to Water | ft bgs | 216.5 | NM* | 216.91 | 216.95 | 216.59 | 216.52 | 216.48 | 216.52 | 216.38 | 216.38 | 216.37 | 216.35 | 216.41 | | 216.41 | 216.05 | 216.04 | 216.41 | 216.20 | 216.02 | 216.04 | 216.12 | 216.10 | 216.41 | 216.66 | 216.66 | 216.66 | 216.66 | 216.66 | 216.66 | 216.66 | 213.98 | | | |
| Temperature | deg C | 16.0 | NM* | NM* | NM | 12.9 | 11.7 | 10.6 | 7.0 | 9.7 | 9.6 | 6.7 | 9.2 | 10.5 | | 20.0 | 14.1 | 9.7 | 5.4 | 9.8 | 10.4 | 11.1 | 6.4 | 9.5 | 11.2 | 9.7 | 7.0 | 10.7 | 12.1 | 10.1 | 7.7 | 12.3 | 12.7 | | | |
| pH | SU | 7.52 | NM* | NM* | NM | 7.17 | 7.16 | 7.15 | 7.17 | 7.11 | 7.19 | 7.32 | 7.03 | 7.05 | | 6.91 | 6.97 | 6.93 | 7.09 | 6.80 | 6.65 | 6.70 | 6.79 | 6.85 | 6.93 | 6.99 | 7.40 | 7.18 | 7.16 | 7.15 | 7.12 | 7.20 | 7.23 | | | |
| Specific Conductance | µS/cm | 2446 | NM* | NM* | NM | 2725 | 2738 | 2739 | 2778 | 2778 | 2738 | 2751 | 2700 | 2749 | | 2693 | 2675 | 2751 | 2621 | 3139 | 3172 | 3080 | 3005 | 3002 | 2653 | 2709 | 2410 | 2249 | 2290 | 2554 | 2223 | 2362 | 2278 | | | |
| Oxygen Reduction Potential | mV | 74.3 | NM* | NM* | NM | 77.4 | 31.7 | 23.9 | 13.0 | 6.2 | -4.3 | -29.6 | -15.3 | -42.3 | | -41.8 | -32.5 | -110.0 | -23.4 | 27.6 | 10.5 | 51.0 | 50.7 | -57.7 | 21.8 | 49.6 | 57.5 | -16.8 | 0.0 | -7.0 | -92.9 | -49.3 | -191.8 | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 498 | | | | 1290 | | 1180 | | | 1190 | | | 1130 | | | 1120 | 1180 | 1010 | 1820 | 1840 | 1700 | 1600 | 1590 | 1400 | 1420 | 1320 | 953 | 975 | 920 | 750 | 766 | 638 | | | |
| pH (Lab) | SU | 8.35 | | | | 7.36 | | 7.34 | | | 7.22 | | | 7.2 | | | 7.20 | 7.02 | 7.24 | 6.93 | 6.67 | 6.63 | 6.80 | 6.62 | 6.83 | 7.12 | 7.08 | 6.86 | 7.04 | 6.89 | 7.22 | 7.06 | 7.40 | | | |
| Total Dissolved Solids (Lab) | mg/L | 2020 | | | | 2440 | | 2360 | | | 2360 | | | 2340 | | | 2170 | 2200 | 1960 | 2880 | 2890 | 2750 | 2610 | 2460 | 2420 | 2450 | 2330 | 1910 | 1850 | 1840 | 1680 | 1770 | 1640 | | | |
| Calcium | mg/L | 96.0 | | | | 234 | | 216 | | | 219 | | | 203 | | | 203 | 219 | 188 | 340 | 342 | 318 | 301 | 294 | 248 | 265 | 241 | 175 | 178 | 168 | 142 | 137 | 113 | | | |
| Magnesium | mg/L | 62.8 | | | | 172 | | 155 | | | 156 | | | 150 | | | 148 | 154 | 131 | 237 | 240 | 219 | 207 | 207 | 189 | 183 | 173 | 126 | 129 | 122 | 95.7 | 103 | 86.6 | | | |
| Sodium | mg/L | 506 | | | | 242 | | 253 | | | 260 | | | 239 | | | 239 | 255 | 265 | 146 | 119 | 119 | 143 | 155 | 168 | 194 | 206 | 196 | 214 | 234 | 229 | 240 | 261 | | | |
| Potassium | mg/L | 11.4 | | | | 3.81 | | <5.00 | | | <5.00 | | | 3.07 | | | 3.04 | 2.65 | 3.13 | <5.00 | <5.00 | <5.00 | 3.05 | <5.00 | 2.82 | <5.00 | <5.00 | 2.68 | <5.00 | <3.00 | 2.68 | 2.48 | <5.00 | | | |
| Alkalinity, Total | mg/L | 530 | | | | 700 | | 540 | | | 570 | | | 580 | | | 560 | 410 | 525 | 530 | 518 | 505 | 515 | 490 | 445 | 520 | 580 | 480 | 485 | 640 | 510 | 530 | 570 | | | |
| Alkalinity, Bicarbonate | mg/L | 530 | | | | 700 | | 540 | | | 570 | | | 580 | | | 560 | 410 | 525 | 530 | 518 | 505 | 515 | 490 | 445 | 520 | 580 | 480 | 485 | 640 | 510 | 530 | 570 | | | |
| Alkalinity, Carbonate | mg/L | <10.0 | | | | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | | | | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | | |
| Chloride | mg/L | 24.2 | | | | 6.97 | | 8.03 | | | 7.78 | | | 7.75 | | | 5.97 | 6.22 | 6.36 | 10.2 | 9.31 | 8.78 | 8.54 | 8.20 | 8.15 | 7.14 | 7.13 | 5.3 | 5.04 | 7.12 | 4.87 | 5.55 | 5.59 | | | |
| Fluoride | mg/L | 1.59 | | | | 0.864 | | 0.955 | | | 1.03 | | | 0.96 | | | 0.888 | 0.924 | 0.975 | 0.67 | 0.525 | 0.565 | 0.615 | 0.695 | 0.705 | 0.750 | 0.804 | 0.654 | 0.716 | 0.755 | 0.712 | 1.04 | 1.24 | | | |
| Sulfate as SO4 | mg/L | 1090 | | | | 1350 | | 1230 | | | 1160 | | | 1210 | | | 1090 | 1080 | 1070 | 1630 | 1730 | 1520 | 1400 | 1370 | 1280 | 1180 | 1150 | 940 | 872 | 886 | 805 | 908 | 821 | | | |
| Total Organic Carbon (TOC) | mg/L | 4.56 | | | | 2.84 | | 2.12 | | | 2.21 | | | 2.2 | | | 2.35 | 2.37 | 2.32 | 2.62 | 2.52 | 2.30 | 2.30 | 2.32 | 2.2 | 2.13 | 2.26 | 1.92 | 1.93 | 1.91 | 1.79 | 1.80 | 1.74 | | | |
| Nitrate/Nitrite as N | mg/L | <2.00 | | | | <0.400 | | <0.100 | | | <0.020 | | | <0.020 | | | 0.036 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | | | |
| Ammonia as N ^ | mg/L | NA | | | | NA | | NA | | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | |
| Ortho-Phosphate as P ^ | mg/L | NA | | | | NA | | NA | | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | |
| Aluminum | mg/L | <0.050 | | | | <0.050 | | <0.250 | | | <0.250 | | | <0.05 | | | <0.05 | <0.100 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.250 | <0.050 | <0.050 | <0.250 | <0.100 | <0.250 | <0.150 | <0.050 | <0.100 | <0.250 | | | |
| Arsenic | mg/L | 0.0029 | | | | 0.0016 | | <0.0025 | | | <0.0025 | | | 0.0051 | | | 0.0052 | 0.0035 | 0.0038 | 0.0048 | 0.0034 | <0.0025 | <0.0025 | 0.0019 | <0.0025 | <0.0005 | <0.0025 | <0.0025 | <0.0025 | <0.0010 | 0.0009 | 0.0024 | 0.0028 | | | |
| Cadmium | mg/L | <0.0001 | | | | <0.0001 | | <0.0005 | | | <0.0005 | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0002 | <0.0005 | <0.0005 | <0.0003 | <0.0005 | <0.0001 | <0.0005 | <0.0025 | <0.0025 | <0.0010 | <0.0005 | <0.001 | <0.0025 | | | |
| Copper | mg/L | 0.0088 | | | | 0.0085 | | 0.0036 | | | 0.0052 | | | 0.003 | | | 0.0049 | 0.0033 | 0.0054 | 0.0057 | 0.0014 | 0.0096 | <0.0025 | <0.0015 | <0.0025 | <0.0005 | <0.0025 | 0.0042 | 0.0043 | 0.0093 | 0.0086 | 0.0104 | | | | |
| Iron | mg/L | <0.050 | | | | <0.250 | | <0.250 | | | <0.250 | | | 0.643 | | | 1.01 | 1.12 | 0.988 | 2.3 | 0.819 | 0.543 | 0.570 | 0.606 | 0.619 | 0.855 | 0.769 | 0.552 | 0.573 | 0.724 | 0.630 | 0.671 | 0.679 | | | |
| Lead | mg/L | <0.0005 | | | | <0.0005 | | <0.0025 | | | <0.0025 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0005 | <0.0010 | <0.0025 | <0.0025 | <0.0015 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0010 | <0.0005 | <0.0010 | <0.0025 | | | | |
| Manganese | mg/L | 0.0744 | | | | 0.0853 | | 0.0959 | | | 0.0989 | | | 0.153 | | | 0.140 | 0.106 | 0.0807 | 0.075 | 0.0562 | 0.0512 | 0.0537 | 0.0473 | 0.0445 | 0.0496 | 0.0482 | 0.0419 | 0.0383 | 0.0346 | 0.0362 | 0.0342 | 0.0304 | | | |
| Mercury (dissolved) | mg/L | <0.0002 | | | | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 | |
| Molybdenum | mg/L | 0.0164 | | | | 0.0049 | | <0.0025 | | | <0.0025 | | | 0.0006 | | | <0.0025 | <0.0005 | <0.0010 | <0.0005 | <0.0010 | <0.0025 | <0.0025 | <0.0015 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.001 | <0.0005 | <0.001 | <0.0025 | | | | |
| Selenium | mg/L | 0.0136 | | | | 0.0012 | | <0.0050 | | | <0.0050 | | | <0.001 | | | <0.0050 | 0.0011 | <0.0020 | 0.0016 | 0.0023 | <0.0050 | <0.0050 | <0.0030 | <0.0050 | <0.0050 | <0.0050 | <0.0050 | <0.0020 | <0.0010 | <0.0020 | <0.005 | | | | |
| Silica (SiO2) | mg/L | 10.6 | | | | 16.6 | | 13.2 | | | 14.8 | | | 15.2 | | | 14.7 | 14.5 | 14 | 16.6 | 17.3 | 16.4 | 15.7 | 13.8 | 14.1 | 14.8 | 14.4 | 15.0 | 14.5 | 14.8 | 14.2 | 13.0 | 11.7 | | | |
| Silicon | mg/L | 4.94 | | | | 7.77 | | 6.16 | | | 6.94 | | | 7.09 | | | 6.87 | 6.78 | 6.55 | 7.75 | 8.07 | 7.65 | 7.35 | 6.47 | 6.6 | 6.93 | 6.75 | 7.00 | 6.79 | 6.94 | 6.66 | 6.07 | 5.47 | | | |
| Uranium | mg/L | 0.0500 | | | | 0.0044 | | 0.0028 | | | 0.0024 | | | 0.0025 | | | 0.0022 | 0.0021 | 0.0016 | 0.002 | 0.0025 | 0.0023 | <0.0025 | 0.0020 | <0.0025 | <0.0015 | <0.0025 | <0.0025 | <0.0025 | 0.0010 | 0.0008 | <0.0010 | <0.0025 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-2-A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|-----|------|------|-------|-------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|-----|-------|------|------|------|-------|------|------|-----|
| Year | 2017 | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | |
| Quarter | Q1 | Q2 | Q3 | | Q4 | | | Q1 | | Q2 | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 3 | 6 | 7 | 8 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 |
| Sample Date | 3/30 | 6/7 | 7/18 | 8/23 | 10/30 | 11/16 | 12/5 | 1/2 | 2/9 | 3/22 | 4/11 | 5/10 | 8/7 | 11/1 | 2/20 | 5/29 | 8/14 | 11/6 | 2/11 | 5/27 | 9/1 | 11/24 | 2/15 | 5/20 | 8/24 | 11/17 | 3/23 | 6/14 | 9/8 |
| Lab Analysis (Y/N) | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Purged | gal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | deg C | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| pH | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

| | | | |
|-------|-----------------------------|--|--|
| Y/N | yes or no | | |
| gpm | gallons per minute | 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. | |
| deg C | degrees Celsius | 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. | |
| SU | standard pH units | | |
| µS/cm | microsiemens per centimeter | 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. | |
| mV | millivolts | | |
| mg/L | milligram per liter | | |
| pCi/L | picocuries per liter | | |
| NM | not measured (field) | | |
| NA | not analyzed (lab) | | |
| ng/L | nanogram per liter | | |

GCC Energy Hydrologic Monitoring Data

| MW-2-MI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|-----|------|------|-------|-------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|-----|-------|------|------|------|-------|------|------|-----|
| Year | 2017 | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | |
| Quarter | Q1 | Q2 | Q3 | | Q4 | | | Q1 | | Q2 | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 3 | 6 | 7 | 8 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 |
| Sample Date | 3/30 | 6/7 | 7/18 | 8/23 | 10/30 | 11/16 | 12/5 | 1/2 | 2/9 | 3/22 | 4/11 | 5/10 | 8/7 | 11/1 | 2/20 | 5/29 | 8/14 | 11/6 | 2/11 | 5/27 | 9/1 | 11/24 | 2/15 | 5/20 | 8/24 | 11/17 | 3/23 | 6/14 | 9/8 |
| Lab Analysis (Y/N) | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Purged | gal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | deg C | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| pH | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-2-C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|-----|------|------|-------|-------|------|------|-----|------|------|------|-----|------|------|------|------|------|------|------|-----|-------|------|------|------|-------|------|------|-----|
| Year | 2017 | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | |
| Quarter | Q1 | Q2 | Q3 | | Q4 | | | Q1 | | Q2 | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 3 | 6 | 7 | 8 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 |
| Sample Date | 3/30 | 6/7 | 7/18 | 8/23 | 10/30 | 11/16 | 12/5 | 1/2 | 2/9 | 3/22 | 4/11 | 5/10 | 8/7 | 11/1 | 2/20 | 5/29 | 8/14 | 11/6 | 2/11 | 5/27 | 9/1 | 11/24 | 2/15 | 5/20 | 8/24 | 11/17 | 3/23 | 6/14 | 9/8 |
| Lab Analysis (Y/N) | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Purged | gal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | deg C | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| pH | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

| | | |
|-------|-----------------------------|---|
| Y/N | yes or no | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |

GCC Energy Hydrologic Monitoring Data

| MW-3-A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---------------|---------|---------|--------|--------|---------|--------|--------|--------|---------|--------|--------|--------|--------|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--|
| Year | 2017 | | | | | | | | 2018 | | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | |
| Quarter | Q1 | Q2 | Q3 | | | Q4 | | | Q1 | | Q2 | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | |
| Month | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 12 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | |
| Sample Date | 3/27 | 6/30 | 7/18 | 8/24 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/7 | 8/8 | 11/6 | 2/27 | 5/21 | 8/14 | 11/12 | 2/4 | 5/26 | 8/31 | 12/1 | 2/10 | 5/18 | 8/10 | 11/9 | 2/24 | 5/11 | 9/6 | |
| Lab Analysis (Y/N) | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | <i>gpm</i> | 0.50 | NM | NM | NM | NM | NM | NM | NM | 0.10 | NM | 0.10 | 0.10 | 0.10 | 0.10 | 0.12 | 0.15 | 0.06 | 0.25 | 0.12 | 0.13 | 0.13 | 0.13 | 0.05 | 0.13 | 0.15 | 0.13 | 0.25 | 0.25 | 0.13 | |
| Total Purged | <i>gal</i> | 30.0 | 2.0 | NM | NM | NM | 1.0 | 1.0 | 1.0 | 1.3 | 1.5 | 1.5 | 1.0 | 1.3 | 1.0 | 1.1 | 1.5 | 1.3 | 1.3 | 1.5 | 1.1 | 1.2 | 1.5 | 1.3 | 1.5 | 1.5 | 1.5 | 1.5 | 2.0 | 1.5 | |
| Depth to Water | <i>ft bgs</i> | 297.35 | 298.24 | 297.45 | 298.24 | 298.11 | 298.12 | 298.01 | 298.05 | 298.37 | 298.04 | 297.86 | 297.76 | 298.17 | 298.55 | 298.27 | 297.85 | 296.79 | 297.27 | 297.33 | 296.47 | 296.87 | 297.21 | 297.02 | 296.97 | 296.72 | 297.47 | 297.46 | 296.67 | 296.74 | |
| Temperature | <i>deg C</i> | 11.7 | 13.2 | 19.5 | 12.6 | 12.3 | 12.5 | 11.7 | 12.0 | 11.8 | 11.7 | 12.2 | 11.9 | 13.5 | 13.5 | 11.9 | 11.8 | 12.1 | NM | 13.1 | 11.5 | 13.2 | 13.1 | 11.9 | 12.1 | 12.4 | 13.6 | 12.2 | 11.4 | 13.0 | |
| pH | <i>SU</i> | 8.82 | 8.75 | 8.56 | 8.67 | 8.72 | 8.64 | 8.61 | 8.57 | 8.54 | 8.52 | 8.61 | 8.21 | 8.38 | 8.30 | 8.31 | 8.28 | 8.31 | 8.13 | 8.51 | 8.11 | 8.26 | 8.23 | 8.39 | 8.53 | 8.46 | 8.42 | 8.47 | 8.35 | 8.21 | |
| Specific Conductance | <i>µS/cm</i> | 2535 | 2446 | 2115 | 2524 | 2470 | 2430 | 2483 | 2494 | 2528 | 2506 | 2458 | 2415 | 2253 | 2336 | 2391 | 2355 | 2309 | NM | 2204 | 2211 | 2249 | 2112 | 2192 | 1930 | 1525 | 2091 | 2127 | 2121 | 2055 | |
| Oxygen Reduction Potential | <i>mV</i> | -269.0 | -101.5 | -55.3 | -87.4 | -142.3 | -124.5 | -125.6 | -146.8 | -120.3 | -125.2 | -181.6 | -135.8 | -138.2 | -155.8 | -164.6 | -145.9 | -132.3 | -138.6 | -120.1 | -65.7 | -156.8 | -98.8 | -89.3 | -101.3 | -157.1 | -149.0 | -156.8 | -221.2 | -124.2 | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | <i>mg/L</i> | 7.53 | 12.6 | | | 12.6 | | | | 10.4 | | | | | 11.5 | | | | 11.2 | 12.6 | 14.1 | 11.9 | 10.7 | 10.4 | 11.1 | 10.8 | 10.3 | 11.1 | 9.41 | 10.5 | |
| pH (Lab) | <i>SU</i> | 8.63 | 8.69 | | | 8.53 | | | | 8.29 | | | | | 8.45 | | | | 8.36 | 8.37 | 8.24 | 8.28 | 8.29 | 8.27 | 8.39 | 8.09 | 7.68 | 8.16 | 8.13 | 8.13 | |
| Total Dissolved Solids (Lab) | <i>mg/L</i> | 1630 | 1670 | | | 1630 | | | | 1690 | | | | | 1680 | | | | 1670 | 1600 | 1540 | 1500 | 1530 | 1520 | 1510 | 1500 | 1460 | 1380 | 1460 | 1410 | |
| Calcium | <i>mg/L</i> | 2.00 | 3.67 | | | 3.63 | | | | 3.27 | | | | | 3.33 | | | | 3.2 | 3.71 | 4.15 | 3.55 | 3.16 | 3.08 | 3.34 | 3.14 | 3.07 | 3.02 | 2.83 | 3.07 | |
| Magnesium | <i>mg/L</i> | 0.616 | 0.823 | | | 0.859 | | | | 0.550 | | | | | 0.776 | | | | 0.774 | 0.811 | 0.913 | 0.739 | 0.692 | 0.655 | 0.680 | 0.723 | 0.645 | 0.866 | 0.568 | 0.698 | |
| Sodium | <i>mg/L</i> | 566 | 585 | | | 589 | | | | 551 | | | | | 562 | | | | 542 | 562 | 605 | 543 | 525 | 553 | 528 | 520 | 507 | 510 | 505 | 536 | |
| Potassium | <i>mg/L</i> | 1.72 | 2.02 | | | 2.04 | | | | <5.00 | | | | | <2.00 | | | | 1.8 | <2.00 | 2.17 | <2.00 | 1.92 | <2.00 | <5.00 | <3.00 | <5.00 | <5.00 | <5.00 | <3.00 | |
| Alkalinity, Total | <i>mg/L</i> | 530 | 470 | | | 500 | | | | 490 | | | | | 430 | | | | 480 | 480 | 475 | 540 | 450 | 459 | 420 | 460 | 430 | 440 | 470 | 520 | |
| Alkalinity, Bicarbonate | <i>mg/L</i> | 380 | 470 | | | 440 | | | | 460 | | | | | 360 | | | | 480 | 420 | 385 | 330 | 430 | 423 | 420 | 460 | 400 | 440 | 450 | 520 | |
| Alkalinity, Carbonate | <i>mg/L</i> | 150 | <10.0 | | | 60.0 | | | | 30.0 | | | | | 70.0 | | | | <10.0 | 60.0 | 90.0 | 210 | 20 | 36.0 | <10.0 | <10.0 | 30.0 | <10.0 | 20 | <10.0 | |
| Alkalinity, Hydroxide | <i>mg/L</i> | <10.0 | <10.0 | | | <10.0 | | | | <10.0 | | | | | <10.0 | | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | |
| Chloride | <i>mg/L</i> | 16.1 | 17.4 | | | 18.5 | | | | 16.9 | | | | | 16.4 | | | | 16.1 | 15.1 | 16.0 | 15.2 | 15 | 15.0 | 14.7 | 13.9 | 13.9 | 13.5 | 14 | 14.1 | |
| Fluoride | <i>mg/L</i> | 0.464 | 0.488 | | | 0.535 | | | | <0.500 | | | | | <0.500 | | | | <0.5 | NA | 0.383 | 0.406 | 0.404 | 0.396 | <0.500 | 0.370 | 0.374 | 0.366 | 0.372 | 0.336 | |
| Sulfate as SO4 | <i>mg/L</i> | 729 | 802 | | | 840 | | | | 730 | | | | | 812 | | | | 756 | 706 | 682 | 716 | 699 | 724 | 633 | 637 | 656 | 624 | 644 | 600 | |
| Total Organic Carbon (TOC) | <i>mg/L</i> | 3.52 | 10.0 | | | 7.26 | | | | 6.07 | | | | | 5.32 | | | | 4.7 | 4.62 | 4.52 | 4.15 | 4.10 | 3.84 | 3.81 | 3.42 | 3.48 | 3.39 | 3.15 | 3.16 | |
| Nitrate/Nitrite as N | <i>mg/L</i> | <0.100 | <0.100 | | | <0.020 | | | | <0.020 | | | | | <0.020 | | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.024 | 0.026 | 0.039 | 0.032 | <0.020 | |
| Ammonia as N ^ | <i>mg/L</i> | NA | NA | | | NA | | | | NA | | | | | NA | | | | NA | NA | NA | NA | NA | 0.354 | NA | NA | NA | NA | NA | NA | |
| Ortho-Phosphate as P ^ | <i>mg/L</i> | NA | NA | | | NA | | | | NA | | | | | NA | | | | NA | NA | NA | NA | NA | 0.0730 | NA | NA | NA | NA | NA | NA | |
| Aluminum | <i>mg/L</i> | <0.050 | <0.050 | | | <0.050 | | | | <0.250 | | | | | <0.100 | | | | <0.050 | <0.050 | <0.100 | <0.100 | <0.100 | <0.050 | <0.100 | <0.150 | <0.250 | <0.250 | <0.250 | <0.250 | |
| Arsenic | <i>mg/L</i> | 0.0025 | <0.0025 | | | <0.0025 | | | | <0.0025 | | | | | <0.0025 | | | | 0.0006 | <0.0025 | <0.0010 | <0.0010 | <0.0025 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | 0.0026 | 0.0006 | |
| Cadmium | <i>mg/L</i> | <0.0001 | <0.0005 | | | <0.0005 | | | | <0.0005 | | | | | <0.0005 | | | | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0005 | <0.0002 | <0.0002 | <0.0002 | <0.0005 | <0.0005 | <0.0005 | <0.0010 | |
| Copper | <i>mg/L</i> | 0.0061 | 0.0081 | | | 0.0080 | | | | 0.0079 | | | | | 0.0236 | | | | 0.0063 | 0.0117 | 0.0086 | 0.0137 | 0.0078 | 0.0067 | 0.0039 | 0.0037 | 0.0021 | 0.0051 | 0.0055 | 0.0037 | |
| Iron | <i>mg/L</i> | <0.050 | <0.050 | | | <0.050 | | | | <0.250 | | | | | <0.100 | | | | <0.05 | <0.05 | <0.100 | <0.100 | <0.050 | <0.100 | <0.250 | <0.150 | <0.250 | <0.250 | <0.250 | <0.150 | |
| Lead | <i>mg/L</i> | <0.0005 | <0.0025 | | | <0.0025 | | | | <0.0025 | | | | | <0.0025 | | | | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0025 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| Manganese | <i>mg/L</i> | 0.0042 | 0.0251 | | | 0.0194 | | | | 0.0269 | | | | | 0.0232 | | | | 0.018 | 0.0222 | 0.0187 | 0.0172 | 0.0185 | 0.0166 | 0.0140 | 0.0162 | 0.0136 | 0.0120 | 0.0125 | 0.0128 | |
| Mercury (dissolved) | <i>mg/L</i> | <0.0002 | <0.0002 | | | <0.0002 | | | | <0.0002 | | | | | <0.0002 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| Mercury (dissolved low-level) | <i>ng/L</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | <i>mg/L</i> | 0.0005 | 0.0274 | | | 0.0091 | | | | 0.0078 | | | | | 0.0065 | | | | 0.0046 | 0.0043 | 0.0033 | 0.003 | 0.003 | 0.0018 | 0.0027 | 0.0022 | 0.0015 | <0.0025 | <0.0025 | <0.0025 | |
| Selenium | <i>mg/L</i> | 0.0577 | <0.0050 | | | <0.0050 | | | | <0.0050 | | | | | <0.0050 | | | | 0.0109 | <0.0050 | 0.0028 | 0.0039 | <0.005 | 0.0020 | <0.0020 | <0.0020 | 0.0033 | 0.0086 | <0.0050 | 0.129 | |
| Silica (SiO2) | <i>mg/L</i> | 10.1 | 10.9 | | | 11.6 | | | | 7.66 | | | | | 11.1 | | | | 11 | 12.0 | 12.8 | 11.7 | 11 | 12.7 | 11.8 | 11.6 | 10.5 | 11.0 | 11.2 | 11.3 | |
| Silicon | <i>mg/L</i> | 4.70 | 5.10 | | | 5.41 | | | | 3.58 | | | | | 5.18 | | | | 5.17 | 5.62 | 5.97 | 5.46 | 5.16 | 5.95 | 5.53 | 5.43 | 4.92 | 5.14 | 5.22 | 5.28 | |
| Uranium | <i>mg/L</i> | 0.0002 | 0.0040 | | | 0.0051 | | | | 0.0036 | | | | | 0.0030 | | | | 0.0026 | 0.0026 | 0.0027 | 0.0018 | 0.0014 | 0.0012 | 0.0011 | 0.0010 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| Zinc | <i>mg/L</i> | 0.0031 | <0.0100 | | | <0.0100 | | | | <0.0100 | | | | | <0.0100 | | | | <0.002 | <0.002 | <0.0040 | <0.0040 | <0.01 | <0.0080 | <0.0040 | <0.0040 | <0.0040 | <0.0100 | <0.0100 | <0.0100 | |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each component reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-3-MI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---------------|---------|---------|--------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----|--|------|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|
| Year | | 2017 | | | | | | | | 2018 | | | | | | | | 2019 | | | | | | | | 2020 | | | | | | | | 2021 | | | | | | | | 2022 | | | | | | | |
| Quarter | | Q1 | Q2 | Q3 | | | | Q4 | | | | Q1 | | Q2 | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | | | | | | | | | | | | | |
| Month | | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 12 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | | | | | | | | | | | | | | | | | | |
| Sample Date | | 3/27 | 6/30 | 7/18 | 8/16 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/7 | 8/8 | 11/6 | 2/27 | 5/21 | 8/21 | 11/12 | 2/4 | 5/26 | 8/31 | 12/1 | 2/10 | 5/18 | 8/10 | 11/9 | 2/24 | 5/11 | 9/6 | | | | | | | | | | | | | | | | | | |
| Lab Analysis (Y/N) | | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | <i>gpm</i> | 0.50 | NM | NM | NM | NM | NM | NM | NM | NM | 0.10 | NM | 0.10 | 0.10 | 0.10 | 0.10 | 0.12 | 0.12 | 0.06 | 0.25 | 0.50 | 0.25 | 0.13 | 0.13 | 0.10 | 0.13 | 0.13 | 0.25 | 0.25 | 0.25 | 0.15 | | | | | | | | | | | | | | | | | | |
| Total Purged | <i>gal</i> | 19.0 | 2.0 | NM | NM | NM | 1.0 | 1.0 | 1.0 | 1.3 | 1.5 | 1.5 | 1.0 | 1.3 | 1.0 | 1.1 | 1.5 | 1.3 | 2.0 | 1.0 | 1.5 | 1.3 | 1.8 | 1.3 | 1.3 | 1.5 | 1.5 | 1.3 | 1.5 | 2.0 | 1.3 | | | | | | | | | | | | | | | | | | |
| Depth to Water | <i>ft bgs</i> | 304.49 | 241.15 | 240.46 | 240.53 | 240.46 | 240.44 | 240.44 | 240.58 | 240.73 | 240.55 | 240.65 | 240.84 | 241.04 | 241.97 | 242.13 | 242.15 | 242.32 | 246.55 | 243.07 | 242.85 | 243.05 | 243.6 | 243.9 | 243.93 | 244.25 | 244.28 | 244.15 | 242.90 | 244.05 | 244.65 | | | | | | | | | | | | | | | | | | |
| Temperature | <i>deg C</i> | 10.0 | 12.6 | 22.0 | 12.9 | 11.0 | 12.1 | 11.7 | 11.7 | 11.9 | 11.3 | 11.9 | 11.8 | 12.6 | 13.0 | 12.4 | 11.6 | 11.3 | 13.2 | 12.3 | 11.6 | 12.6 | 12.8 | 11.7 | 11.5 | 12.8 | 13.0 | 11.9 | 11.4 | 13.2 | 13.7 | | | | | | | | | | | | | | | | | | |
| pH | <i>SU</i> | 9.34 | 8.94 | 8.46 | 8.90 | 8.74 | 8.90 | 8.86 | 8.86 | 8.84 | 8.83 | 8.84 | 8.51 | 8.48 | 8.49 | 8.46 | 8.51 | 8.55 | 8.71 | 8.75 | 8.71 | 8.92 | 9.01 | 9.09 | 9.03 | 9.06 | 9.13 | 9.11 | 9.07 | 9.04 | 9.03 | | | | | | | | | | | | | | | | | | |
| Specific Conductance | <i>µS/cm</i> | 1907 | 1699 | 1402 | 1598 | 1737 | 1729 | 1745 | 1786 | 1790 | 1810 | 1771 | 1772 | 1727 | 1709 | 1746 | 1753 | 1739 | 1691 | 1739 | 1758 | 1737 | 1560 | 1555 | 1519 | 1232 | 1647 | 1765 | 1705 | 1686 | 1720 | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | <i>mV</i> | -87.0 | -54.5 | -26.4 | -108.2 | -107.3 | -113.8 | -124.2 | -163.1 | -136.0 | -131.4 | -160.7 | -99.9 | -103.9 | -127.8 | -176.5 | -113.0 | -84.5 | 43.9 | -130.8 | -104.3 | -174.5 | -111.0 | -132.4 | -94.6 | -120.4 | -142.9 | -163.3 | -207.2 | -104.2 | -184.3 | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | <i>mg/L</i> | 4.85 | 8.73 | | | 9.02 | | 7.75 | | | 9.92 | | | 8.65 | 8.63 | 8.88 | 7.63 | 6.84 | 7.98 | 6.64 | 6.50 | 7.25 | 6.39 | 5.94 | 6.63 | 5.06 | 5.39 | 5.21 | 5.28 | 5.13 | <3.31 | | | | | | | | | | | | | | | | | | |
| pH (Lab) | <i>SU</i> | 8.95 | 8.75 | | | 8.72 | | 8.72 | | | 8.66 | | | 8.56 | 8.58 | 8.34 | 8.5 | 8.45 | 8.58 | 8.62 | 8.61 | 8.59 | 8.87 | 8.77 | 8.72 | 8.84 | 8.81 | 8.88 | 8.78 | 8.87 | 8.76 | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | <i>mg/L</i> | 1550 | 1120 | | | 1140 | | 1080 | | | 1170 | | | 1210 | 1110 | 1120 | 1120 | 1170 | 1010 | 1130 | 1130 | 1130 | 1060 | 1160 | 1120 | 1110 | 1180 | 1130 | 1070 | 1140 | 1080 | | | | | | | | | | | | | | | | | | |
| Calcium | <i>mg/L</i> | 1.32 | 2.32 | | | 2.34 | | 2.06 | | | 2.22 | | | 1.91 | 1.95 | 2.03 | 1.87 | 1.7 | 2.04 | 1.73 | 1.63 | 1.76 | 1.62 | 1.42 | 1.66 | 1.28 | 1.34 | 1.25 | 1.30 | 1.32 | 1.14 | | | | | | | | | | | | | | | | | | |
| Magnesium | <i>mg/L</i> | 0.374 | 0.714 | | | 0.775 | | 0.632 | | | 1.07 | | | 0.945 | 0.911 | 0.926 | 0.715 | 0.629 | 0.703 | 0.561 | 0.591 | 0.694 | 0.570 | 0.579 | 0.606 | 0.454 | 0.5 | 0.508 | 0.496 | 0.442 | <0.500 | | | | | | | | | | | | | | | | | | |
| Sodium | <i>mg/L</i> | 420 | 430 | | | 440 | | 411 | | | 459 | | | 417 | 446 | 476 | 434 | 419 | 454 | 437 | 437 | 427 | 431 | 431 | 468 | 410 | 403 | 390 | 413 | 415 | 374 | | | | | | | | | | | | | | | | | | |
| Potassium | <i>mg/L</i> | 2.15 | 2.21 | | | 1.93 | | <5.00 | | | <2.00 | | | 1.63 | <2.00 | <2.00 | 1.39 | 1.65 | <2.00 | <5.00 | <2.00 | <5.00 | <3.00 | <4.00 | <5.00 | <2.00 | <2.00 | <2.00 | <2.00 | <5.00 | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | <i>mg/L</i> | 740 | 675 | | | 700 | | 660 | | | 700 | | | 680 | 730 | 720 | 685 | 755 | 720 | 690 | 705 | 680 | 625 | 770 | 690 | 690 | 705 | 705 | 740 | 740 | 780 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | <i>mg/L</i> | 510 | 555 | | | 600 | | 570 | | | 600 | | | 500 | 630 | 610 | 485 | 605 | 590 | 610 | 645 | 550 | 465 | 690 | 450 | 550 | 555 | 565 | 580 | 580 | 480 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | <i>mg/L</i> | 230 | 120 | | | 100 | | 90.0 | | | 100 | | | 180 | 100 | 110 | 200 | 150 | 130 | 80.0 | 60.0 | 130 | 160 | 80 | 240 | 140 | 150 | 140 | 160 | 160 | 300 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | <i>mg/L</i> | <10.0 | <10.0 | | | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | | | | | | | | | | | | | | | | | |
| Chloride | <i>mg/L</i> | 8.66 | 10.1 | | | 10.7 | | 10.6 | | | 10.7 | | | 10.7 | 8.54 | 8.83 | 9.21 | 9.25 | 10.2 | 9.13 | 9.21 | 9.61 | 9.45 | 10 | 9.84 | 10.5 | 10.4 | 10.4 | 10.6 | 10.2 | 11.2 | | | | | | | | | | | | | | | | | | |
| Fluoride | <i>mg/L</i> | 0.952 | 1.34 | | | 1.26 | | 1.26 | | | 1.30 | | | 1.2 | 1.16 | 1.19 | 1.21 | 1.22 | 1.19 | 1.19 | 1.13 | 1.13 | 1.09 | 1.12 | 1.03 | 1.09 | 1.07 | 0.980 | 1.10 | 0.982 | 1.11 | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | <i>mg/L</i> | 165 | 241 | | | 247 | | 254 | | | 245 | | | 250 | 226 | 230 | 232 | 229 | 236 | 224 | 227 | 231 | 222 | 110 | 223 | 227 | 228 | 230 | 233 | 213 | 240 | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | <i>mg/L</i> | 8.34 | 14.8 | | | 10.9 | | 10.3 | | | 9.24 | | | 8.67 | 7.83 | 7.28 | 6.73 | 6.56 | 6.17 | 5.78 | 5.58 | 6.07 | 5.79 | 5.46 | 5.34 | 5.33 | 5.4 | 5.26 | 5.14 | 4.94 | 5.06 | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | <i>mg/L</i> | <0.020 | <0.020 | | | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.034 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | | | | | | | | | | | | | | | | | | |
| Ammonia as N ^ | <i>mg/L</i> | NA | NA | | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.317 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | | | | | | | | | | | | | |
| Ortho-Phosphate as P ^ | <i>mg/L</i> | NA | NA | | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.348 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | | | | | | | | | | | | | |
| Aluminum | <i>mg/L</i> | <0.050 | 0.102 | | | <0.050 | | <0.250 | | | <0.100 | | | <0.050 | <0.050 | <0.10 | <0.050 | <0.050 | 0.167 | <0.250 | <0.100 | <0.250 | <0.150 | <0.200 | <0.250 | <0.100 | <0.100 | <0.100 | <0.050 | <0.100 | <0.250 | | | | | | | | | | | | | | | | | | |
| Arsenic | <i>mg/L</i> | 0.0134 | 0.0167 | | | 0.0131 | | 0.0135 | | | 0.0160 | | | 0.0152 | 0.0127 | 0.0104 | 0.0149 | 0.0107 | 0.0142 | 0.0099 | 0.0093 | 0.0086 | 0.0061 | 0.007 | 0.0083 | 0.0091 | 0.0091 | 0.0078 | 0.0095 | 0.0082 | 0.0084 | | | | | | | | | | | | | | | | | | |
| Cadmium | <i>mg/L</i> | <0.0001 | <0.0005 | | | <0.0005 | | <0.0005 | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0005 | <0.0001 | <0.0002 | <0.0002 | <0.0005 | <0.0005 | <0.0004 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | | | | | | | | | | | | | | | | | | |
| Copper | <i>mg/L</i> | 0.0055 | 0.0058 | | | 0.0065 | | 0.0059 | | | 0.0122 | | | 0.0048 | 0.0071 | 0.0073 | 0.0068 | 0.0063 | 0.0049 | 0.0037 | 0.0024 | <0.0025 | 0.0046 | 0.0045 | 0.0031 | 0.0131 | 0.0143 | 0.0097 | 0.0072 | 0.0126 | 0.0170 | | | | | | | | | | | | | | | | | | |
| Iron | <i>mg/L</i> | <0.050 | <0.100 | | | <0.050 | | <0.250 | | | <0.100 | | | <0.05 | <0.05 | <0.1 | <0.050 | <0.050 | <0.100 | <0.250 | <0.100 | <0.250 | <0.150 | <0.200 | <0.250 | <0.100 | <0.100 | <0.100 | <0.050 | <0.100 | <0.250 | | | | | | | | | | | | | | | | | | |
| Lead | <i>mg/L</i> | 0.0024 | <0.0025 | | | <0.0025 | | <0.0025 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0005 | <0.0025 | <0.0005 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | <0.0020 | <0.0025 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.002 | | | | | | | | | | | | | | | | | | |
| Manganese | <i>mg/L</i> | 0.0022 | 0.0058 | | | 0.0033 | | 0.0045 | | | 0.0049 | | | 0.006 | 0.0054 | 0.0072 | 0.0078 | 0.0082 | 0.0079 | 0.0099 | 0.0095 | 0.0102 | 0.0072 | 0.007 | 0.0069 | 0.0057 | 0.0058 | 0.0054 | 0.0051 | 0.0049 | 0.0047 | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | <i>mg/L</i> | <0.0002 | <0.0002 | | | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | <i>ng/L</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | <i>mg/L</i> | 0.0061 | 0.0211 | | | 0.0148 | | 0.0152 | | | 0.0170 | | | 0.016 | 0.0149 | 0.0158 | 0.0157 | 0.0167 | 0.0277 | 0.0372 | 0.0204 | 0.0195 | 0.0149 | 0.0163 | 0.0162 | 0.016 | 0.0149 | 0.0140 | 0.0148 | 0.0143 | 0.0150 | | | | | | | | | | | | | | | | | | |
| Selenium | <i>mg/L</i> | 0.0013 | <0.0050 | | | <0.0050 | | <0.0050 | | | 0.0010 | | | 0.0019 | <0.0050 | <0.002 | 0.0034 | <0.005 | <0.0010 | <0.0020 | <0.0020 | <0.0050 | <0.0050 | <0.004 | 0.0462 | 0.0033 | <0.0020 | 0.0091 | 0.0018 | <0.0020 | <0.0020 | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | <i>mg/L</i> | 7.97 | 8.18 | | | 9.05 | | 5.35 | | | 9.33 | | | 8.83 | 9.49 | 10.2 | 8.95 | 8.85 | 9.73 | 9.46 | 8.80 | 8.24 | 8.84 | 9.11 | 9.64 | 8.11 | 8.77 | 8.82 | 9.04 | 8.63 | 7.45 | | | | | | | | | | | | | | | | | | |
| Silicon | <i>mg/L</i> | 3.73 | 3.82 | | | 4.23 | | 2.50 | | | 4.36 | | | 4.13 | 4.44 | 4.76 | 4.18 | 4.14 | 4.55 | 4.42 | 4.11 | 3.85 | 4.13 | 4.26 | 4.51 | 3.79 | 4.1 | 4.12 | 4.22 | 4.03 | 3.48 | | | | | | | | | | | | | | | | | | |
| Uranium | <i>mg/L</i> | 0.0049 | 0.0084 | | | 0.0140 | | 0.0124 | | | 0.0125 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-3-C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|---------|--------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2017 | | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| | Q1 | Q2 | Q3 | | Q4 | | | Q1 | | Q2 | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | |
| Quarter | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Month | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 9 | 11 | 11 | 3 | 5 | 8 | 12 | 2 | 5 | 8 | 11 | 2 | 5 | 9 |
| Sample Date | 3/27 | 6/30 | 7/27 | 8/24 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/7 | 8/8 | 11/6 | 2/27 | 5/21 | 9/17 | 11/12 | 2/27 | 5/26 | 8/31 | 12/1 | 2/10 | 5/18 | 8/10 | 11/10 | 2/24 | 5/11 | 9/6 | |
| Lab Analysis (Y/N) | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 0.50 | NM | NM | NM | NM | NM | NM | NM | 0.10 | NM | 0.10 | 0.10 | 0.10 | 0.10 | 0.06 | 0.06 | 0.13 | 0.13 | 0.10 | 0.03 | 0.08 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.15 | 0.10 | 0.15 | |
| Total Purged | gal | 20.0 | 2.0 | NM | NM | NM | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 | 1.0 | 1.3 | 1.3 | 1.1 | 1.3 | 1.5 | 10.0 | 1.5 | 11.0 | 1.1 | 1.3 | 1.5 | 1.3 | 1.5 | 1.3 | 1.5 | 1.5 | 1.5 | 1.5 |
| Depth to Water | ft bgs | 304.21 | 296.3 | 296.93 | 296.87 | 297.43 | 297.46 | 297.43 | 297.35 | 297.01 | 296.66 | 296.57 | 296.62 | 296.78 | 297.12 | 296.80 | 296.39 | 295.56 | 295.70 | 295.50 | 299.35 | 294.99 | 294.60 | 295.26 | 295.97 | 295.25 | 295.70 | 295.68 | 294.45 | 295.11 | 295.45 |
| Temperature | deg C | 10.5 | 12.9 | 13.1 | 12.5 | 11.8 | 12.7 | 11.5 | 11.7 | 11.7 | 11.4 | 11.6 | 12.2 | 13.0 | 13.3 | 11.5 | 11.0 | 11.4 | 13.5 | 12.5 | 11.3 | 13.4 | 15.0 | 14.0 | 9.9 | 12.3 | 15.6 | 9.6 | 9.4 | 13.2 | 14.4 |
| pH | SU | 8.61 | 8.57 | 8.51 | 8.46 | 8.44 | 8.48 | 8.41 | 8.48 | 8.43 | 8.43 | 8.45 | 8.25 | 8.28 | 8.26 | 8.17 | 8.28 | 8.29 | 8.31 | 8.20 | 7.98 | 8.44 | 8.45 | 8.73 | 8.71 | 8.50 | 8.71 | 8.85 | 8.62 | 8.43 | 8.29 |
| Specific Conductance | µS/cm | 3549 | 3588 | 3815 | 4112 | 4351 | 4412 | 4659 | 4596 | 4923 | 4864 | 5063 | 5019 | 4916 | 4953 | 5127 | 5155 | 5184 | 5144 | 5144 | 4921 | 3143 | 5039 | 4251 | 4426 | 3755 | 4571 | 5244 | 4564 | 4694 | 5306 |
| Oxygen Reduction Potential | mV | -129.0 | -87.2 | -137.5 | -128.8 | -149.9 | -198.3 | -200.7 | -222.2 | -187.9 | -183.5 | -155.4 | -154.7 | -161.4 | -180.5 | -217.6 | -185.4 | -188.5 | -151.8 | -184.4 | -155.0 | -240.5 | -174.4 | -150.0 | -202.7 | -149.6 | -255.3 | -227.4 | -325.6 | -223.4 | -307.9 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 14.4 | 11.8 | | | 15.1 | | 14.9 | | | 16.1 | | 17.9 | 21.7 | 17.3 | 16.8 | 18.6 | 18.6 | 18.3 | 16.0 | 18.1 | 16.9 | 18.5 | 14.8 | 16.9 | 16.7 | 16.0 | 17.4 | 20.4 | | |
| pH (Lab) | SU | 8.5 | 8.48 | | | 8.35 | | 8.28 | | | 8.35 | | | 8.34 | 8.31 | 8.24 | 8.2 | 8.23 | 8.31 | 8.12 | 7.98 | 8.41 | 8.36 | 8.36 | 8.43 | 8.38 | 8.47 | 8.87 | 8.44 | 8.47 | 8.18 |
| Total Dissolved Solids (Lab) | mg/L | 2130 | 2360 | | | 3070 | | 3310 | | | 3540 | | | 3610 | 3520 | 3360 | 3300 | 3440 | 3500 | 3390 | 3220 | 3180 | 3170 | 3280 | 3200 | 3230 | 3300 | 3200 | 3270 | 3250 | 3280 |
| Calcium | mg/L | 3.60 | 2.87 | | | 3.50 | | 3.58 | | | 3.81 | | | 7.28 | 4.01 | 4.70 | 4.05 | 3.74 | 4.30 | 4.23 | 4.26 | 3.81 | 3.97 | 3.72 | 4.25 | 3.59 | 3.84 | 3.76 | 3.66 | 4.10 | 4.49 |
| Magnesium | mg/L | 1.31 | 1.12 | | | 1.55 | | 1.44 | | | 1.59 | | | 5.38 | 1.92 | 2.41 | 1.75 | 1.8 | 1.91 | 1.94 | 1.86 | 1.58 | 1.98 | 1.84 | 1.92 | 1.42 | 1.77 | 1.78 | 1.67 | 1.74 | 2.23 |
| Sodium | mg/L | 796 | 890 | | | 1100 | | 1130 | | | 1200 | | | 1350 | 1220 | 1460 | 1270 | 1100 | 1360 | 1300 | 1280 | 1240 | 1250 | 1250 | 1360 | 1220 | 1220 | 1170 | 1200 | 1260 | 1360 |
| Potassium | mg/L | 3.47 | 3.24 | | | 4.01 | | <5.00 | | | <10.0 | | | <5.00 | <5.00 | <5.00 | <5.00 | 5.24 | <5.00 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <6.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | |
| Alkalinity, Total | mg/L | 1490 | 1570 | | | 1690 | | 1880 | | | 1910 | | | 1760 | 1730 | 2050 | 2000 | 2110 | 2190 | 2130 | 2160 | 2050 | 1820 | 2090 | 2170 | 2130 | 2140 | 2230 | 2180 | 2170 | 2110 |
| Alkalinity, Bicarbonate | mg/L | 1360 | 1480 | | | 1650 | | 1830 | | | 1810 | | | 1600 | 1670 | 1900 | 1830 | 2000 | 2020 | 2070 | 2000 | 1800 | 1690 | 1970 | 1710 | 1910 | 1950 | 1820 | 1870 | 1990 | |
| Alkalinity, Carbonate | mg/L | 130 | 90.0 | | | 40.0 | | 50.0 | | | 100 | | | 160 | 60.0 | 150 | 170 | 110 | 170 | 60.0 | 160 | 250 | 130 | 120 | 460 | 220 | 190 | 280 | 360 | 300 | 120 |
| Alkalinity, Hydroxide | mg/L | <10.0 | <10.0 | | | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | NA | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 182 | 330 | | | 477 | | 506 | | | 549 | | | 544 | 524 | 561 | 577 | 575 | 620 | 542 | 549 | 555 | 552 | 578 | 574 | 577 | 582 | 462 | 608 | 605 | 613 |
| Fluoride | mg/L | 4.89 | 4.94 | | | 4.52 | | 4.34 | | | 4.15 | | | 3.52 | 3.84 | 4.04 | 4.04 | 3.91 | 3.78 | 3.66 | 3.61 | 3.51 | 3.47 | 3.53 | 3.37 | 3.34 | 3.36 | 3.16 | 3.37 | 3.06 | 3.51 |
| Sulfate as SO4 | mg/L | 73.4 | 73.5 | | | 46.4 | | 24.5 | | | <10.0 | | | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 |
| Total Organic Carbon (TOC) | mg/L | 10.6 | 58.5 | | | 219 | | 251 | | | 337 | | | 343 | 306 | 141 | 122 | 129 | 132 | 107 | 81.9 | 23.4 | 17.1 | 15.7 | 15.7 | 16.3 | 15.7 | 16.4 | 17.9 | 16.2 | 16.1 |
| Nitrate/Nitrite as N | mg/L | <0.020 | <0.400 | | | <0.400 | | <0.020 | | | <0.020 | | | <0.02 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.100 |
| Ammonia as N ^ | mg/L | NA | NA | | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | NA | | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.212 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.050 | <0.100 | | | <0.050 | | <0.250 | | | <0.500 | | | 1.47 | <0.500 | <0.250 | <0.250 | <0.500 | <0.250 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.300 | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 |
| Arsenic | mg/L | 0.0115 | 0.0088 | | | 0.0098 | | 0.0091 | | | 0.0194 | | | 0.0168 | 0.0148 | 0.0155 | 0.0218 | 0.0171 | 0.0192 | 0.0188 | 0.0087 | 0.0133 | 0.0106 | 0.0125 | 0.0113 | 0.0163 | 0.0195 | 0.0170 | 0.0157 | 0.0130 | 0.0151 |
| Cadmium | mg/L | <0.0001 | <0.0010 | | | <0.0010 | | <0.0005 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.001 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0010 | <0.001 | <0.0010 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| Copper | mg/L | 0.0109 | 0.0147 | | | 0.0174 | | 0.0160 | | | 0.0409 | | | 0.0183 | 0.0257 | 0.0227 | 0.0223 | 0.0168 | 0.0102 | 0.0109 | 0.0069 | 0.0064 | 0.0136 | 0.0156 | 0.0102 | 0.0499 | 0.0434 | 0.0323 | 0.0287 | 0.0347 | 0.0555 |
| Iron | mg/L | <0.050 | <0.050 | | | <0.050 | | <0.250 | | | <0.500 | | | 0.252 | <0.500 | <0.250 | <0.250 | 0.344 | 0.328 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.300 | 0.464 | 0.310 | 0.260 | 0.305 | 0.427 |
| Lead | mg/L | 0.0085 | <0.0050 | | | <0.0050 | | <0.0025 | | | <0.0025 | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.005 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0050 | <0.0050 | <0.0050 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | |
| Manganese | mg/L | 0.0091 | 0.0188 | | | 0.0178 | | 0.0202 | | | 0.0307 | | | 0.0275 | 0.0243 | 0.0252 | 0.0483 | 0.063 | 0.0378 | 0.0266 | 0.0245 | 0.0175 | 0.0102 | 0.0079 | 0.0052 | 0.0046 | 0.0034 | 0.0032 | 0.0028 | 0.0040 | 0.0025 |
| Mercury (dissolved) | mg/L | <0.0002 | <0.0002 | | | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | 0.0143 | 0.0291 | | | 0.0241 | | 0.0241 | | | 0.0221 | | | 0.0189 | 0.0155 | 0.0140 | 0.0134 | 0.0121 | 0.0081 | 0.0075 | 0.0082 | 0.0085 | 0.0076 | 0.0075 | 0.008 | 0.0069 | 0.0061 | 0.0061 | 0.0059 | 0.0065 | 0.0058 |
| Selenium | mg/L | 0.0233 | 0.0121 | | | 0.0149 | | 0.0240 | | | 0.0383 | | | 0.0268 | 0.0232 | 0.0261 | 0.0464 | 0.0203 | 0.0203 | 0.0173 | 0.0125 | 0.0129 | 0.0135 | 0.0191 | 0.027 | 0.0411 | 0.0372 | 0.0319 | 0.0335 | 0.0185 | 0.0247 |
| Silica (SiO2) | mg/L | 7.82 | 8.86 | | | 9.16 | | 6.01 | | | <10.7 | | | 9.69 | 8.68 | 10.7 | 8.24 | 8.35 | 9.06 | <10.7 | <10.7 | <10.7 | <10.7 | <10.7 | <10.7 | 7.48 | 8.4 | 8.33 | 7.79 | 7.59 | 8.75 |
| Silicon | mg/L | 3.66 | 4.14 | | | 4.28 | | 2.81 | | | <5.00 | | | 4.53 | 4.06 | 5.01 | 3.85 | 3.9 | 4.24 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | 3.5 | 3.93 | 3.89 | 3.64 | 3.55 | 4.09 | |
| Uranium | mg/L | 0.0091 | 0.0102 | | | 0.0137 | | 0.0100 | | | 0.0091 | | | 0.0087 | 0.0089 | 0.0113 | 0.0077 | 0.0046 | 0.0053 | 0.0034 | 0.0045 | 0.0033 | <0.0050 | <0.0050 | <0.0050 | 0.0025 | 0.0025 | <0.0025 | <0.0025 | 0.0025 | |
| Zinc | mg/L | 0.375 | <0.0200 | | | <0.0200 | | <0.010 | | | | | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-4-A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|---------|--------|--------|---------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|
| Year | 2017 | | | | | | | | 2018 | | | | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | | |
| Quarter | Q1 | Q2 | Q3 | | | Q4 | | | Q1 | | Q2 | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | |
| Month | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | | |
| Sample Date | 3/29 | 6/30 | 7/19 | 8/23 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/14 | 8/8 | 11/5 | 2/27 | 5/22 | 8/15 | 11/12 | 2/6 | 5/26 | 8/27 | 11/25 | 2/10 | 5/18 | 8/10 | 11/10 | 2/23 | 5/11 | 9/1 | | |
| Lab Analysis (Y/N) | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM | NM | NM | NM | NM | NM | NM | 0.10 | NM | 0.10 | 0.10 | 0.10 | 0.10 | 0.06 | 0.06 | 0.06 | 0.13 | 0.03 | 0.03 | 0.13 | 0.13 | 0.05 | 0.13 | 0.25 | 0.20 | 0.22 | 0.13 | 0.13 | | |
| Total Purged | gal | 19.0 | 2.0 | 1.5 | 0.5 | 1.0 | 1.0 | 1.0 | 1.3 | 1.5 | 1.5 | 1.0 | 1.5 | 1.5 | 1.1 | 1.5 | 1.3 | 1.1 | 1.0 | 1.5 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.5 | 1.3 | 1.8 | 1.5 | 1.0 | | |
| Depth to Water | ft bgs | 338.6 | 334.96 | 335.59 | 334.79 | 334.81 | 334.86 | 332.29 | 334.09 | 334.31 | 334.73 | 334.81 | 335.07 | 335.58 | 336.06 | 336.73 | 335.6 | 335.07 | 335.21 | 335.16 | 336.35 | 337.16 | 336.88 | 336.13 | 335.46 | 335.72 | 335.93 | 336.16 | 336.01 | 336.31 | 336.74 | |
| Temperature | deg C | 15.6 | 16.8 | 25.5 | 17.6 | 11.9 | 11.6 | 10.8 | 10.1 | 10.9 | 9.8 | 11.4 | 10.9 | 17.8 | 12.9 | 11.6 | 11.1 | 10.4 | 13.6 | 11.6 | 10.3 | 12.5 | 14.0 | 12.3 | 10.3 | 11.2 | 12.1 | 11.6 | 9.4 | 12.4 | 15.6 | |
| pH | SU | 8.61 | 8.29 | 8.55 | 7.98 | 8.41 | 8.32 | 8.38 | 8.32 | 8.33 | 8.37 | 8.41 | 8.19 | 8.20 | 8.10 | 8.12 | 8.15 | 8.08 | 8.02 | 8.11 | 8.07 | 8.19 | 8.27 | 8.30 | 8.25 | 8.30 | 8.38 | 8.38 | 8.35 | 8.34 | 8.33 | |
| Specific Conductance | µS/cm | 2163 | 2053 | 1876 | 2096 | 2180 | 2165 | 2186 | 2261 | 2259 | 2267 | 2207 | 2214 | 2183 | 2192 | 2246 | 2205 | 2237 | 2201 | 2211 | 2271 | 2273 | 2165 | 2249 | 2052 | 1618 | 2205 | 2268 | 2294 | 2244 | 2236 | |
| Oxygen Reduction Potential | mV | 28.6 | 54.0 | 60.2 | 61.7 | -8.6 | -27.0 | -12.3 | -51.8 | -35.2 | -75.9 | -117.3 | -77.9 | -81.8 | -137.5 | -157.6 | -92.3 | -89.3 | -54.3 | -19.8 | 15.3 | -71.3 | -11.5 | -10.6 | 29.0 | -63.4 | -48.7 | -77.3 | -153.2 | -78.6 | -203.9 | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 9.16 | 9.85 | | | 7.77 | 7.11 | | | 7.73 | | | 7.84 | 7.69 | 8.81 | 7.76 | 7.31 | 8.62 | 8.00 | 8.19 | 7.46 | 7.87 | 7.77 | 8.87 | 7.02 | 5.81 | 7.54 | 8.32 | 7.88 | 8.44 | | |
| pH (Lab) | SU | 8.2 | 8.40 | | | 8.36 | 8.40 | | | 8.28 | | | 8.31 | 8.21 | 8.24 | 8.05 | 8.08 | 8.15 | 8.02 | 8.11 | 7.90 | 8.19 | 8.16 | 8.04 | 8.15 | 8.09 | 8.21 | 8.24 | 8.24 | 8.50 | | |
| Total Dissolved Solids (Lab) | mg/L | 1470 | 1470 | | | 1450 | 1500 | | | 1490 | | | 1470 | 1430 | 1350 | 1450 | 1410 | 1540 | 1490 | 1500 | 1480 | 1460 | 1560 | 1370 | 1430 | 1510 | 1470 | 1400 | 1540 | 1480 | | |
| Calcium | mg/L | 2.23 | 2.43 | | | 1.76 | 1.87 | | | 1.81 | | | 1.75 | 1.71 | 1.92 | 1.77 | 1.68 | 1.94 | 1.82 | 1.88 | 1.67 | 1.79 | 1.73 | 2.04 | 1.65 | 1.41 | 1.76 | 1.87 | 1.88 | 1.95 | | |
| Magnesium | mg/L | 0.871 | 0.916 | | | 0.823 | 0.591 | | | 0.778 | | | 0.846 | 0.832 | 0.973 | 0.809 | 0.756 | 0.914 | 0.837 | 0.850 | 0.798 | 0.826 | 0.836 | 0.917 | 0.704 | 0.555 | 0.765 | 0.890 | 0.771 | 0.868 | | |
| Sodium | mg/L | 515 | 537 | | | 513 | 507 | | | 507 | | | 528 | 531 | 568 | 535 | 515 | 548 | 529 | 551 | 498 | 533 | 531 | 565 | 507 | 411 | 488 | 504 | 523 | 520 | | |
| Potassium | mg/L | 1.57 | 1.75 | | | 1.63 | <5.00 | | | <2.00 | | | 1.5 | <2.00 | <2.00 | <2.00 | <2.00 | 4.75 | <5.00 | <3.00 | <5.00 | <5.00 | <5.00 | <5.00 | <3.00 | <5.00 | <2.00 | <2.00 | <2.00 | <2.00 | | |
| Alkalinity, Total | mg/L | 635 | 560 | | | 630 | 590 | | | 530 | | | 560 | 575 | 575 | 545 | 565 | 575 | 544 | 560 | 585 | 605 | 538 | 620 | 590 | 580 | 670 | 535 | 605 | 590 | | |
| Alkalinity, Bicarbonate | mg/L | 635 | 560 | | | 590 | 560 | | | 490 | | | 560 | 555 | 575 | 505 | 544 | 535 | 528 | 560 | 545 | 565 | 530 | 620 | 530 | 580 | 670 | 485 | 455 | 590 | | |
| Alkalinity, Carbonate | mg/L | <10.0 | <10.0 | | | 40.0 | 30.0 | | | 40.0 | | | <10.0 | 20.0 | <10.0 | 40 | 32 | 40.0 | 16.0 | <10.0 | 40.0 | 40 | <10.0 | <10.0 | 60 | <10.0 | <10.0 | 50.0 | 150 | <10.0 | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | <10.0 | | | <10.0 | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | |
| Chloride | mg/L | 9.56 | 9.66 | | | 10.3 | 10.3 | | | 10.0 | | | 9.94 | 9.55 | 8.60 | 8.93 | 8.99 | 8.91 | 8.76 | 8.83 | 8.89 | 10.1 | 9.15 | 8.79 | 9.15 | 9.17 | 9.04 | 9.04 | 8.97 | 9.89 | | |
| Fluoride | mg/L | <0.400 | <0.400 | | | <0.500 | <0.500 | | | <0.500 | | | <0.500 | <0.500 | 0.143 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.500 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | | |
| Sulfate as SO4 | mg/L | 594 | 588 | | | 783 | 594 | | | 579 | | | 561 | 522 | 450 | 567 | 584 | 615 | 559 | 557 | 580 | 542 | 607 | 561 | 577 | 593 | 551 | 581 | 525 | 580 | | |
| Total Organic Carbon (TOC) | mg/L | 6.63 | 11.7 | | | 3.52 | 3.27 | | | 3.46 | | | 3.59 | 3.60 | 3.59 | 3.47 | 3.40 | 3.33 | 3.25 | 3.10 | 3.49 | 3.48 | 3.27 | 3.42 | 3.42 | 3.23 | 3.28 | 3.31 | 3.32 | 3.40 | | |
| Nitrate/Nitrite as N | mg/L | 0.035 | <0.020 | | | <0.020 | <0.020 | | | <0.020 | | | <0.02 | <0.02 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | | |
| Ammonia as N ^ | mg/L | NA | NA | | | NA | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.312 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | |
| Ortho-Phosphate as P ^ | mg/L | NA | NA | | | NA | NA | | | NA | | | NA | NA | NA | NA | NA | NA | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | |
| Aluminum | mg/L | <0.050 | <0.050 | | | <0.050 | <0.250 | | | <0.100 | | | <0.05 | <0.05 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.250 | <0.150 | <0.250 | <0.250 | <0.250 | <0.150 | <0.250 | <0.100 | <0.100 | <0.100 | | |
| Arsenic | mg/L | 0.0016 | <0.0025 | | | <0.0025 | <0.0025 | | | 0.0019 | | | 0.0005 | <0.0025 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | <0.0025 | 0.0005 | <0.0010 | <0.0010 | 0.0008 | <0.0010 | <0.001 | | |
| Cadmium | mg/L | <0.0001 | <0.0005 | | | <0.0005 | <0.0005 | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.001 | | |
| Copper | mg/L | 0.0053 | 0.0093 | | | 0.0076 | 0.0073 | | | 0.0124 | | | 0.0077 | 0.0105 | 0.0084 | 0.0081 | 0.0061 | 0.0120 | 0.0037 | 0.0034 | 0.0020 | 0.0056 | 0.0053 | 0.0036 | 0.0135 | 0.0161 | 0.0126 | 0.0097 | 0.0133 | 0.0215 | | |
| Iron | mg/L | <0.050 | <0.050 | | | <0.050 | <0.250 | | | <0.100 | | | <0.050 | <0.050 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.250 | <0.150 | <0.250 | <0.250 | <0.250 | <0.150 | <0.250 | <0.100 | <0.100 | <0.100 | | |
| Lead | mg/L | 0.0014 | <0.0025 | | | <0.0025 | <0.0025 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | <0.0025 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.001 | <0.002 | | |
| Manganese | mg/L | 0.0044 | 0.0063 | | | 0.0044 | 0.0040 | | | 0.0035 | | | 0.0033 | <0.0075 | 0.0034 | 0.0032 | 0.0031 | 0.0026 | 0.0016 | 0.0033 | 0.0031 | 0.0029 | 0.0035 | 0.0029 | 0.003 | 0.0030 | 0.0032 | 0.0033 | 0.0035 | 0.0035 | | |
| Mercury (dissolved) | mg/L | <0.0002 | <0.0002 | | | <0.0002 | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0009 | 0.0275 | | | <0.0025 | <0.0025 | | | 0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.0025 | <0.0025 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | | |
| Selenium | mg/L | 0.0016 | <0.0050 | | | <0.0050 | <0.0050 | | | 0.0014 | | | 0.0025 | <0.0050 | <0.0020 | 0.0036 | <0.0010 | <0.0010 | <0.0020 | <0.0020 | <0.0020 | <0.0050 | <0.0050 | <0.0050 | & | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-4-MI | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|---------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|------|------|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|
| Year | 2017 | | | | | | | | 2018 | | | | | | | | 2019 | | | | | | | | 2020 | | | | | | | | 2021 | | | | | | | | 2022 | | | | | | | |
| Quarter | Q1 | Q2 | Q3 | | Q4 | | Q1 | Q2 | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | | | | | | | | | | | | | | |
| Month | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | | | | | | | | | | | | | | | | | | |
| Sample Date | 3/30 | 6/16 | 7/27 | 8/23 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/14 | 8/8 | 11/5 | 2/27 | 5/22 | 8/15 | 11/12 | 2/6 | 5/26 | 8/27 | 11/25 | 2/10 | 5/18 | 8/10 | 11/10 | 2/23 | 5/11 | 9/1 | | | | | | | | | | | | | | | | | | |
| Lab Analysis (Y/N) | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | | | | | | | | | | | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM | NM | NM | NM | NM | NM | NM | NM | 0.10 | NM | 0.10 | 0.10 | 0.10 | 0.10 | 0.06 | 0.06 | 0.13 | 0.25 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.25 | 0.25 | 0.25 | 0.25 | 0.15 | | | | | | | | | | | | | | | | | |
| Total Purged | gal | 0.5 | 6.5 | NM | NM | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.5 | 1.5 | 1.0 | 1.3 | 1.8 | 1.6 | 2.0 | 1.3 | 1.1 | 1.0 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.5 | 1.3 | 1.5 | 1.5 | 1.3 | 1.5 | 1.0 | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | 378.2 | 330.15 | 330.94 | 330.85 | 330.81 | 330.8 | 330.74 | 330.67 | 330.52 | 330.42 | 330.53 | 330.5 | 329.62 | 331.1 | 336.57 | 331.1 | 331.06 | 331.92 | 332.1 | 332.5 | 332.87 | 332.45 | 333.29 | 333.22 | 329.27 | 333.57 | 333.65 | 333.45 | 333.8 | 334.22 | | | | | | | | | | | | | | | | | |
| Temperature | deg C | 15.0 | 14.6 | 12.9 | 12.5 | 11.4 | 10.7 | 11.3 | 11.4 | 11.2 | 11.0 | 10.5 | 10.9 | 10.1 | 11.8 | 11.3 | 11.1 | 10.8 | 13.3 | 11.6 | 11.8 | 12.2 | 12.9 | 11.8 | 10.8 | 11.6 | 12.1 | 11.7 | 11.0 | 12.0 | 13.0 | | | | | | | | | | | | | | | | | |
| pH | SU | 9.08 | 8.91 | 8.78 | 8.79 | 8.76 | 8.76 | 8.73 | 8.67 | 8.62 | 8.48 | 8.53 | 8.01 | 8.50 | 8.14 | 8.25 | 8.38 | 8.23 | 8.14 | 8.26 | 8.18 | 8.42 | 8.45 | 8.57 | 8.57 | 8.60 | 8.59 | 8.59 | 8.46 | 8.56 | 8.51 | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | 1581 | 1668 | 1731 | 1708 | 1784 | 1794 | 1804 | 1833 | 1848 | 1856 | 1841 | 1816 | 1739 | 1756 | 1808 | 1716 | 1800 | 1830 | 1776 | 1795 | 1794 | 1730 | 1777 | 1605 | 1258 | 1711 | 1761 | 1745 | 1727 | 1718 | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | 155.2 | 64.7 | 9.8 | 35.2 | -29.6 | -37.3 | -111.5 | -89.2 | -112.5 | -151.3 | -145.7 | -117.7 | -130.0 | -178.2 | -202.3 | -140.4 | -154.7 | -127.3 | -76.8 | -50.6 | -131.2 | -92.0 | -87.7 | -53.9 | -105.9 | -97.8 | -118.1 | -141.5 | -128.8 | -247.1 | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 5.43 | 8.71 | | 7.07 | | 4.20 | | | 6.01 | | | 5.88 | 6.06 | 6.39 | 5.35 | 4.93 | 5.65 | 3.31 | 4.70 | <3.31 | 5.19 | 2.84 | 4.91 | 3.79 | 4.59 | 4.53 | 4.17 | 4.15 | 4.59 | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | 8.83 | 8.59 | | 8.63 | | 8.51 | | | 8.47 | | | 8.48 | 8.31 | 8.47 | 8.35 | 8.3 | 8.44 | 8.08 | 8.33 | 8.02 | 8.28 | 8.38 | 8.21 | 8.38 | 8.28 | 8.59 | 8.35 | 8.42 | 8.68 | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | 1160 | 1170 | | 1180 | | 1180 | | | 1220 | | | 1140 | 1120 | 1100 | 1130 | 1130 | 1140 | 1120 | 1110 | 1110 | 1070 | 1170 | 1130 | 1100 | 1130 | 1090 | 1100 | 1140 | 1070 | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | 1.53 | 2.32 | | 1.88 | | 1.68 | | | 1.64 | | | 1.55 | 1.56 | 1.60 | 1.44 | 1.3 | 1.51 | 1.32 | 1.21 | 1.22 | 1.32 | 1.14 | 1.97 | 1.05 | 1.23 | 1.09 | 1.05 | 1.13 | 1.13 | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | 0.392 | 0.707 | | 0.579 | | <0.500 | | | 0.465 | | | 0.49 | 0.524 | 0.580 | 0.428 | 0.408 | 0.458 | <0.500 | 0.406 | <0.500 | 0.459 | <0.400 | <0.500 | 0.285 | 0.37 | 0.441 | 0.372 | 0.321 | 0.431 | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | 408 | 458 | | 447 | | 452 | | | 447 | | | 471 | 470 | 500 | 462 | 458 | 496 | 477 | 441 | 460 | 459 | 458 | 476 | 431 | 427 | 418 | 430 | 443 | 448 | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | 1.46 | <2.00 | | 1.73 | | <5.00 | | | <2.00 | | | 1.39 | <2.00 | <2.00 | 1.43 | 1.77 | 2.03 | <5.00 | <2.00 | <5.00 | <3.00 | <4.00 | <5.00 | <2.00 | <2.00 | <2.00 | <2.00 | <2.00 | <2.00 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | 965 | 915 | | 1100 | | 985 | | | 965 | | | 955 | 968 | 995 | 510 | 890 | 970 | 978 | 985 | 1030 | 1020 | 1010 | 990 | 1020 | 985 | 1140 | 935 | 1020 | 1180 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | 775 | 825 | | 880 | | 885 | | | 875 | | | 865 | 896 | 885 | 420 | 650 | 880 | 886 | 895 | 935 | 940 | 965 | 910 | 900 | 865 | 1020 | 825 | 870 | 1040 | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | 190 | 90.0 | | 220 | | 100 | | | 90.0 | | | 90 | 72.0 | 110 | 90 | 240 | 90.0 | 92.0 | 90.0 | 90.0 | 80 | 40 | 80 | 120 | 120 | 110 | 150 | 140 | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | <10.0 | | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | 2.18 | 7.50 | | 8.78 | | 9.11 | | | 8.74 | | | 7.99 | 5.68 | 5.38 | 5.98 | 5.98 | 5.83 | 5.47 | 5.37 | 5.11 | 5.02 | 4.97 | 4.89 | 4.85 | 4.91 | 4.98 | 4.55 | 4.36 | 4.29 | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | 4.72 | 5.02 | | 5.09 | | 5.10 | | | 5.02 | | | 4.82 | 4.84 | 4.94 | 5.49 | 5.44 | 5.38 | 5.31 | 5.11 | 5.16 | 5 | 5.27 | 4.92 | 5.03 | 5.2 | 4.78 | 5.16 | 4.73 | 5.42 | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | 17.4 | 64.7 | | 76.6 | | 77.5 | | | 68.6 | | | 54.4 | 48.3 | 47.6 | 38.7 | 34.4 | 31.9 | 28.2 | 24.6 | 21.9 | 20 | 18.7 | 17.1 | 16.1 | 16.4 | 13.7 | 13.4 | 12.4 | 12.7 | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | 2.64 | 6.49 | | 8.58 | | 9.53 | | | 9.54 | | | 9.25 | 8.94 | 8.48 | 8.37 | 8.25 | 7.81 | 6.42 | 6.63 | 6.55 | 5.93 | 5.77 | 5.78 | 5.36 | 5.29 | 5.09 | 4.80 | 4.28 | 4.73 | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | <0.020 | <0.020 | | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | | | | | | | | | | | | | | | | | | |
| Ammonia as N ^ | mg/L | NA | NA | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.240 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | | | | | | | | | | | | | |
| Ortho-Phosphate as P ^ | mg/L | NA | NA | | NA | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | 0.280 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | <0.050 | <0.100 | | <0.050 | | <0.250 | | | <0.100 | | | <0.050 | <0.100 | <0.100 | <0.050 | <0.050 | <0.100 | <0.250 | <0.100 | <0.250 | <0.150 | <0.200 | <0.250 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | 0.0099 | 0.0220 | | 0.0131 | | 0.0122 | | | 0.0139 | | | 0.0153 | 0.014 | 0.0119 | 0.0164 | 0.0111 | 0.0116 | 0.0107 | 0.0127 | 0.0139 | 0.0084 | 0.0092 | 0.0088 | 0.011 | 0.0099 | 0.0120 | 0.0092 | 0.0094 | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | <0.0001 | <0.0001 | | <0.0005 | | <0.0005 | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0002 | <0.0001 | <0.0001 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0005 | <0.0004 | <0.0005 | <0.0005 | <0.0010 | <0.0005 | <0.0010 | <0.0005 | <0.0010 | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | 0.0059 | 0.0058 | | 0.0071 | | 0.0070 | | | 0.0079 | | | 0.0063 | 0.0071 | 0.0078 | 0.0087 | 0.0153 | 0.0051 | 0.0027 | 0.0028 | 0.0020 | 0.0052 | 0.0045 | 0.004 | 0.0103 | 0.0134 | 0.0107 | 0.0116 | 0.0107 | 0.0177 | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | <0.050 | <0.100 | | <0.050 | | <0.250 | | | <0.100 | | | <0.050 | <0.100 | <0.100 | <0.050 | <0.050 | <0.100 | <0.250 | <0.100 | <0.250 | <0.150 | <0.200 | <0.250 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | <0.100 | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | 0.0010 | <0.0005 | | <0.0025 | | <0.0025 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0005 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0025 | <0.0020 | <0.0025 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.002 | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | 0.0020 | 0.0066 | | 0.0081 | | 0.0124 | | | 0.0080 | | | 0.007 | 0.0068 | 0.0084 | 0.0091 | 0.0084 | 0.0084 | 0.0073 | 0.0085 | 0.0086 | 0.0086 | 0.0092 | 0.0094 | 0.0073 | 0.0075 | 0.0077 | 0.0076 | 0.0080 | 0.0078 | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | <0.0002 | <0.0002 | | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | 0.0020 | 0.0160 | | 0.0127 | | 0.0134 | | | 0.0151 | | | 0.0119 | 0.0115 | 0.0129 | 0.0121 | 0.0119 | 0.0108 | 0.0101 | 0.0096 | 0.0091 | 0.0081 | 0.0089 | 0.0082 | 0.0076 | 0.0068 | 0.0065 | 0.0065 | 0.0062 | 0.0064 | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | <0.0010 | 0.0012 | | <0.0050 | | <0.0050 | | | <0.0010 | | | 0.0022 | 0.0113 | <0.0020 | 0.002 | <0.0010 | <0.0010 | <0.0020 | <0.0020 | <0.0010 | <0.005 | <0.0040 | 0.0143 | <0.0010 | <0.0020 | <0.0040 | <0.0010 | <0.0020 | <0.0020 | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | 7.27 | 8.01 | | 8.80 | | <5.35 | | | 8.30 | | | 8.9 | 9.29 | 10.3 | 8.86 | 9.06 | 10.2 | 9.51 | 8.21 | 7.81 | 8.39 | 8.88 | 9.26 | 7.82 | 8.69 | 8.54 | 8.49 | 8.30 | 8.76 | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | 3.40 | 3.75 | | 4.11 | | 2.50 | | | 3.88 | | | 4.16 | 4.34 | 4.81 | 4.14 | 4.24 | 4.76 | 4.45 | 3.84 | 3.65 | 3.92 | 4.15 | 4.33 | 3.66 | 4.06 | 3.99 | 3.97 | 3.88 | 4.09 | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | 0.0043 | 0.0126 | | 0.0184 | | 0.0169 | | | 0.0183 | | | 0.0173 | 0.0151 | 0.0191 | 0.0269 | 0.0176 | 0.0168 | 0.0145 | 0.0163 | 0.0195 | 0.0121 | 0.0139 | 0.0137 | 0.0115 | 0.0112 | 0.0097 | 0.0089 | 0.0086 | 0.0084 | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | 0.113 | 0.0697 | | <0.0100 | | <0.0100 | | | <0.0020 | | | <0.0020 | <0.0020 | <0.0040 | <0.0020 | <0.0020 | <0.0100 | <0.0040 | <0.0040 | <0.0040 | <0.0100 | <0.0080 | <0.0100 | <0.0020 | <0.0040 | <0.0040 | <0.0020 | <0.0040 | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-4-C | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---------------|---------|---------|--------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|------|--|------|--|--|
| Year | 2017 | | | | | | | | 2018 | | | | | | | | 2019 | | | | | | | | 2020 | | | | | | | | 2021 | | | | | | | | 2022 | | |
| Quarter | Q1 | Q2 | Q3 | | | Q4 | | | Q1 | | | Q2 | | | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | | | | | | | | | | | | |
| Month | 3 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 12 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 9 | | | | | | | | | |
| Sample Date | 3/30 | 6/16 | 7/27 | 8/23 | 9/28 | 10/27 | 11/17 | 12/7 | 1/3 | 2/21 | 3/23 | 4/12 | 5/14 | 8/8 | 11/5 | 2/27 | 5/22 | 8/15 | 11/12 | 2/4 | 5/26 | 8/27 | 12/1 | 2/10 | 5/18 | 8/10 | 11/10 | 2/23 | 5/11 | 9/1 | | | | | | | | | | | | | |
| Lab Analysis (Y/N) | Y | Y | N | N | Y | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | | | | | | | | | | | | | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | <i>gpm</i> | NM | NM | NM | NM | NM | NM | NM | NM | 0.1 | NM | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.2 | | | | | | | | | |
| Total Purged | <i>gal</i> | 7.0 | 1.5 | NM | NM | 1.0 | 1.0 | 1.0 | 1.0 | 1.5 | 1.5 | 1.5 | 1.0 | 1.5 | 1.0 | 1.5 | 1.3 | 1.1 | 1.0 | 1.5 | 1.2 | 1.5 | 1.3 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.0 | | | | | | | | | |
| Depth to Water | <i>ft bgs</i> | 328.33 | 314.05 | 309.87 | 306.86 | 303.96 | 303.80 | 302.47 | 304.80 | 282.35 | 281.30 | 303.30 | 304.05 | NM | 302.55 | 302.17 | 302.45 | 303.93 | 304.93 | 305.73 | 306.44 | 304.90 | 307.80 | 308.05 | 308.65 | 308.58 | 309.32 | 309.90 | 309.80 | 311.45 | 310.88 | | | | | | | | | | | | |
| Temperature | <i>deg C</i> | 13.3 | 17.4 | 12.7 | 12.0 | 13.9 | 11.8 | 11.2 | 11.0 | 11.7 | 10.8 | 12.5 | 11.4 | 12.4 | 12.9 | 11.5 | 11.3 | 11.2 | 12.5 | 11.7 | 11.2 | 12.7 | 13.0 | 11.4 | 10.0 | 11.4 | 12.3 | 11.7 | 10.3 | 12.2 | 13.8 | | | | | | | | | | | | |
| pH | <i>SU</i> | 8.33 | 7.62 | 7.68 | 7.70 | 7.69 | 7.75 | 7.72 | 7.79 | 7.80 | 7.88 | 7.94 | 7.75 | 7.79 | 7.76 | 7.79 | 7.87 | 7.86 | 7.81 | 7.85 | 7.87 | 7.97 | 8.00 | 8.05 | 8.02 | 8.05 | 8.12 | 8.11 | 8.06 | 8.05 | 8.06 | | | | | | | | | | | | |
| Specific Conductance | <i>µS/cm</i> | 3792 | 5944 | 5997 | 5885 | 5813 | 5721 | 5782 | 5604 | 5834 | 5903 | 5628 | 5792 | 5592 | 5583 | 5775 | 5710 | 5712 | 5930 | 5636 | 5729 | 5636 | 5429 | 5665 | 5106 | 4047 | 5454 | 5687 | 5698 | 5645 | 5589 | | | | | | | | | | | | |
| Oxygen Reduction Potential | <i>mV</i> | 57.3 | 20.3 | -101.5 | -111.2 | -103.7 | -117.4 | -109.0 | -120.1 | -123.8 | -154.3 | -131.3 | -134.9 | -129.3 | -157.6 | -209.0 | -160.1 | -180.1 | -156.8 | -148.7 | -135.9 | -147.7 | -132.1 | -128.7 | -106.2 | -100.6 | -142.3 | -173.0 | -255.6 | -178.7 | -278.7 | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | <i>mg/L</i> | 46.3 | 55.9 | | | 38.9 | | | | | | | | | | 26.5 | | | | 26.5 | 25.9 | 28.6 | 23.6 | 22.5 | 25.2 | 24.4 | 24.0 | 22.7 | 23 | 21.8 | 25.6 | 19.6 | 21.9 | 20.9 | 22.2 | 21.4 | 26.0 | | | | | | |
| pH (Lab) | <i>SU</i> | 7.61 | 7.77 | | | 7.79 | | | | | | | | | | 7.84 | | | | 7.84 | 7.97 | 7.96 | 8.27 | 7.9 | 7.92 | 7.95 | 7.85 | 7.95 | 7.76 | 7.92 | 7.94 | 7.96 | 7.97 | 7.96 | 8.08 | 8.01 | 8.07 | 8.19 | | | | | |
| Total Dissolved Solids (Lab) | <i>mg/L</i> | 3230 | 4050 | | | 3750 | | | | | | | | | | 3730 | | | | 3660 | 3650 | 3590 | 3580 | 3590 | 3610 | 3610 | 3580 | 3570 | 3510 | 3610 | 3720 | 3540 | 3600 | 3630 | 3520 | 3580 | 3670 | | | | | | |
| Calcium | <i>mg/L</i> | 13.6 | 13.7 | | | 9.15 | | | | | | | | | | 6.32 | | | | 6.15 | 5.90 | 6.60 | 5.5 | 5.21 | 5.83 | 5.61 | 5.57 | 5.31 | 5.3 | 5.15 | 5.98 | 4.64 | 5.07 | 4.77 | 5.04 | 5.14 | 6.01 | | | | | | |
| Magnesium | <i>mg/L</i> | 2.99 | 5.26 | | | 3.90 | | | | | | | | | | 2.61 | | | | 2.62 | 2.72 | 2.94 | 2.39 | 2.3 | 2.57 | 2.53 | 2.44 | 2.30 | 2.36 | 2.18 | 2.58 | 1.95 | 2.25 | 2.19 | 2.33 | 2.07 | 2.68 | | | | | | |
| Sodium | <i>mg/L</i> | 908 | 1510 | | | 1490 | | | | | | | | | | 1410 | | | | 1400 | 1410 | 1590 | 1410 | 1370 | 1440 | 1430 | 1440 | 1390 | 1400 | 1400 | 1520 | 1310 | 1340 | 1270 | 1360 | 1350 | 1530 | | | | | | |
| Potassium | <i>mg/L</i> | 4.38 | 5.71 | | | 6.07 | | | | | | | | | | <10.0 | | | | <5.00 | <5.00 | 5.36 | <5.00 | <5.00 | 5.42 | <10.0 | <5.00 | <10.0 | <10.0 | <10.0 | <10.0 | <6.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | | | | | | |
| Alkalinity, Total | <i>mg/L</i> | 1250 | 2360 | | | 2780 | | | | | | | | | | 2600 | | | | 2410 | 2480 | 2450 | 2470 | 2550 | 2500 | 2470 | 2480 | 2460 | 2500 | 2950 | 2470 | 2500 | 2410 | 2630 | 2360 | 2500 | 2430 | | | | | | |
| Alkalinity, Bicarbonate | <i>mg/L</i> | 1250 | 2360 | | | 2780 | | | | | | | | | | 2600 | | | | 2330 | 2480 | 2450 | 2470 | 2350 | 2390 | 2410 | 2420 | 2340 | 2390 | 2880 | 2430 | 2360 | 2290 | 2410 | 2180 | 2300 | 2430 | | | | | | |
| Alkalinity, Carbonate | <i>mg/L</i> | <10.0 | <10.0 | | | <10.0 | | | | | | | | | | <10.0 | | | | 80 | <10.0 | <10.0 | <10.0 | 200 | 110 | 60.0 | 60.0 | 120 | 110 | 70 | 40 | 140 | 120 | 220 | 180 | 200 | <10.0 | | | | | | |
| Alkalinity, Hydroxide | <i>mg/L</i> | <10.0 | <10.0 | | | <10.0 | | | | | | | | | | <10.0 | | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | | | | | |
| Chloride | <i>mg/L</i> | 181 | 550 | | | 587 | | | | | | | | | | 592 | | | | 573 | 533 | 590 | 575 | 554 | 580 | 525 | 528 | 555 | 543 | 565 | 557 | 553 | 572 | 561 | 562 | 563 | 570 | | | | | | |
| Fluoride | <i>mg/L</i> | 1.29 | 2.04 | | | 2.17 | | | | | | | | | | 2.53 | | | | 2.52 | 2.48 | 2.54 | 2.64 | 2.62 | 2.59 | 2.51 | 2.41 | 2.36 | 2.34 | 2.37 | 2.21 | 2.16 | 2.28 | 2.04 | 2.26 | 2.02 | 2.34 | | | | | | |
| Sulfate as SO4 | <i>mg/L</i> | 534 | 487 | | | 70.2 | | | | | | | | | | 34.5 | | | | 27 | 18.7 | 11.2 | 5.07 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | <5.00 | | | | | | |
| Total Organic Carbon (TOC) | <i>mg/L</i> | 30 | 6.42 | | | 5.08 | | | | | | | | | | 3.23 | | | | 3.23 | 2.80 | 3.46 | 3.24 | 2.62 | 2.63 | 4.18 | 2.23 | 2.50 | 2.31 | 3.72 | 4.57 | 4.92 | 4.81 | 4.70 | 5.93 | 4.91 | 4.39 | | | | | | |
| Nitrate/Nitrite as N | <i>mg/L</i> | <2.00 | <0.500 | | | <0.400 | | | | | | | | | | <0.100 | | | | <0.020 | <0.020 | <0.020 | <0.020 | 0.061 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.100 | | | | | | | |
| Ammonia as N ^ | <i>mg/L</i> | NA | NA | | | NA | | | | | | | | | | NA | | | | NA | NA | NA | NA | NA | NA | 0.424 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | |
| Ortho-Phosphate as P ^ | <i>mg/L</i> | NA | NA | | | NA | | | | | | | | | | NA | | | | NA | NA | NA | NA | NA | NA | 0.182 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | | | | | | |
| Aluminum | <i>mg/L</i> | <0.050 | <0.050 | | | <0.050 | | | | | | | | | | <0.500 | | | | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 | <0.500 | <0.250 | <0.500 | <0.500 | <0.500 | <0.300 | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 | | | | | | | |
| Arsenic | <i>mg/L</i> | 0.0059 | 0.0119 | | | 0.0128 | | | | | | | | | | 0.0246 | | | | 0.0195 | 0.0202 | 0.0164 | 0.0211 | 0.0171 | 0.0178 | 0.0179 | 0.0203 | 0.0195 | 0.015 | 0.0182 | 0.0177 | 0.0212 | 0.0248 | 0.0213 | 0.0213 | 0.0172 | 0.0219 | | | | | | |
| Cadmium | <i>mg/L</i> | <0.0001 | <0.0010 | | | <0.0010 | | | | | | | | | | <0.0005 | | | | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0001 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | | | | | | | |
| Copper | <i>mg/L</i> | 0.0125 | 0.0243 | | | 0.0221 | | | | | | | | | | 0.0482 | | | | 0.0389 | 0.0280 | 0.0230 | 0.0249 | 0.0382 | 0.0198 | 0.0107 | 0.0111 | 0.0069 | 0.0151 | 0.0148 | 0.0111 | 0.0464 | 0.0499 | 0.0370 | 0.0302 | 0.0371 | 0.0618 | | | | | | |
| Iron | <i>mg/L</i> | <0.050 | <0.050 | | | <0.050 | | | | | | | | | | <0.500 | | | | 0.373 | 0.397 | 0.474 | 0.279 | 0.391 | 0.522 | 0.619 | 0.591 | 0.551 | <0.500 | 0.553 | 0.837 | 0.355 | 0.793 | 0.551 | 0.598 | 0.801 | 0.795 | | | | | | |
| Lead | <i>mg/L</i> | <0.0005 | <0.0050 | | | <0.0050 | | | | | | | | | | <0.0025 | | | | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0005 | <0.0025 | <0.0025 | <0.0025 | <0.0050 | <0.0050 | <0.0050 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0050 | | | | | | |
| Manganese | <i>mg/L</i> | 0.0269 | 0.0772 | | | 0.0554 | | | | | | | | | | 0.0647 | | | | 0.0529 | 0.0381 | 0.0283 | 0.0268 | 0.0174 | 0.0162 | 0.0096 | 0.0209 | 0.0103 | 0.008 | 0.0076 | 0.0059 | 0.0063 | 0.005 | 0.0047 | 0.0051 | 0.0046 | 0.0049 | | | | | | |
| Mercury (dissolved) | <i>mg/L</i> | <0.0002 | <0.0002 | | | <0.0002 | | | | | | | | | | <0.0002 | | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | | | | | | | |
| Mercury (dissolved low-level) | <i>ng/L</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | <5.00 | <500 | | | | |
| Molybdenum | <i>mg/L</i> | 0.0526 | 0.115 | | | 0.0138 | | | | | | | | | | 0.0086 | | | | 0.0072 | 0.0071 | 0.0057 | 0.0074 | 0.007 | 0.0056 | 0.0047 | 0.0045 | 0.0044 | <0.005 | <0.005 | <0.0050 | 0.0037 | 0.0031 | 0.0031 | 0.0033 | 0.0031 | 0.0036 | | | | | | |
| Selenium | <i>mg/L</i> | 0.0248 | 0.0231 | | | 0.0214 | | | | | | | | | | 0.0378 | | | | 0.0317 | 0.0260 | 0.0211 | 0.0339 | 0.0195 | 0.0195 | 0.0156 | 0.0140 | 0.0129 | 0.0112 | 0.0182 | <0.0100 | 0.0186 | 0.028 | 0.0269 | 0.0219 | 0.0146 | 0.0218 | | | | | | |
| Silica (SiO2) | <i>mg/L</i> | 9.85 | 12.6 | | | 12.9 | | | | | | | | | | <10.7 | | | | 11 | 11.2 | 12.8 | 10.1 | 10.5 | 11.3 | 11.0 | 9.88 | <10.7 | <10.7 | <10.7 | 10.8 | 8.35 | 9.54 | 9.37 | 9.28 | 8.56 | 10.4 | | | | | | |
| Silicon | <i>mg/L</i> | 4.61 | 5.88 | | | 6.02 | | | | | | | | | | <5.00 | | | | 5.16 | 5.24 | 6.00 | | | | | | | | | | | | | | | | | | | | | |

GCC Energy Hydrologic Monitoring Data

| MW-6-A | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----|
| Year | 2018 | 2019 | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | |
| Sample Date | 12/28 | 1/31 | 2/21 | 3/21 | 4/23 | 5/20 | 6/19 | 7/23 | 8/15 | 9/24 | 11/7 | 2/5 | 5/14 | 8/11 | 11/25 | 2/9 | 5/17 | 8/9 | 11/9 | 2/15 | 5/10 | 8/31 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | N | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM | 0.10 | 2.00 | 0.03 | 0.03 | 0.03 | 0.06 | 0.03 | 0.02 | 0.01 | 0.05 | 0.13 | 0.05 | 0.05 | 0.05 | 0.02 | 0.13 | 0.02 | 0.05 | 0.10 | |
| Total Purged | gal | 36.3 | 0.5 | 0.5 | 2.0 | 2.0 | 1.3 | 1.0 | 1.3 | 1.1 | 1.3 | 1.5 | 1.1 | 1.0 | 1.3 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Depth to Water | ft bgs | 304.33 | 306.41 | 307.40 | 309.60 | 311.05 | 312.50 | 314.20 | 315.75 | 316.43 | NM | 318.70 | 315.46 | 319.63 | 319.64 | 319.65 | 319.66 | 319.66 | 319.64 | 319.66 | 320.30 | 320.68 | |
| Temperature | deg C | 7.4 | 10.7 | 8.1 | 7.5 | 9.6 | 7.3 | 12.5 | 12.3 | 11.9 | 10.4 | 10.4 | 7.8 | 9.8 | 19.5 | 8.0 | 9.7 | 12.6 | 19.4 | 10.7 | 11.5 | 17.3 | |
| pH | SU | 7.32 | 6.64 | 6.66 | 6.74 | 6.65 | 6.73 | 6.76 | 6.75 | 6.76 | 6.80 | 6.79 | 6.89 | 6.95 | 6.97 | 7.10 | 7.03 | 7.10 | 7.11 | 7.11 | 7.02 | 7.05 | |
| Specific Conductance | µS/cm | 6573 | 6053 | 6072 | 6107 | 6012 | 6057 | 5725 | 5598 | 5562 | 5451 | 5108 | 5043 | 4779 | 4339 | 4656 | 4051 | 3198 | 4238 | 4465 | 4486 | 4477 | |
| Oxygen Reduction Potential | mV | -22.8 | 19.4 | 24.6 | 12.6 | 11.8 | 34.8 | 86.6 | 25.8 | 6.5 | 29.2 | 20.5 | 36.7 | 51.7 | 62.3 | 55.2 | 73.5 | 83.5 | 5.2 | 26.5 | -56.1 | 2.4 | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 4360 | | 4190 | | | 3920 | | | 3540 | | 3070 | 3200 | 2780 | 2690 | 2710 | 2660 | 2550 | 2740 | 2510 | 2440 | 2490 | |
| pH (Lab) | SU | 7.10 | | 6.85 | | | 6.77 | | | 6.85 | | 6.87 | 6.9 | 6.93 | 6.66 | 7.04 | 7.20 | 6.93 | 7.1 | 6.98 | 7.19 | 7.26 | |
| Total Dissolved Solids (Lab) | mg/L | 6520 | | 6520 | | | 120* | | | 6080 | | 5210 | 4980 | 4670 | 4490 | 4570 | 4480 | 4390 | 4440 | 4310 | 4440 | 4450 | |
| Calcium | mg/L | 615 | | 559 | | | 553 | | | 492 | | 431 | 467 | 400 | 398 | 406 | 398 | 378 | 415 | 370 | 359 | 365 | |
| Magnesium | mg/L | 687 | | 678 | | | 617 | | | 560 | | 484 | 495 | 431 | 411 | 413 | 404 | 390 | 413 | 385 | 374 | 383 | |
| Sodium | mg/L | 294 | | 283 | | | 296 | | | 304 | | 276 | 296 | 274 | 261 | 273 | 272 | 266 | 263 | 254 | 257 | 268 | |
| Potassium | mg/L | 15.0 | | 14.4 | | | 12.4 | | | 12.8 | | 11.1 | <20.0 | 10.6 | 10.3 | 10.5 | 11.1 | 10.7 | 11 | 10.4 | 10.7 | 10.6 | |
| Alkalinity, Total | mg/L | 160 | | 160 | | | 143 | | | 183 | | 220 | 215 | 233 | 236 | 246 | 245 | 290 | 255 | 295 | 285 | 270 | |
| Alkalinity, Bicarbonate | mg/L | 160 | | 160 | | | 143 | | | 183 | | 220 | 215 | 233 | 236 | 246 | 245 | 290 | 255 | 295 | 285 | 270 | |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | |
| Chloride | mg/L | 97.4 | | 28.6 | | | 27.3 | | | 29.9 | | 29.6 | 28.4 | 29.0 | 26.0 | 26.6 | 24.9 | 25.8 | 26 | 26.6 | 26.2 | 26.1 | |
| Fluoride | mg/L | 2.83 | | <0.500 | | | <0.500 | | | <0.500 | | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | <0.500 | |
| Sulfate as SO4 | mg/L | 205 | | 4300 | | | 4280 | | | 4260 | | 3460 | 3080 | 3020 | 3160 | 2890 | 2620 | 2740 | 2780 | 2790 | 2870 | 2820 | |
| Total Organic Carbon (TOC) | mg/L | 3.45 | | 3.08 | | | 2.91 | | | 3.57 | | 3.10 | 3.16 | 3.39 | 3.31 | 3.26 | 1.71 | 3.82 | 3.33 | 3.25 | 3.26 | 3.14 | |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | <0.020 | 0.049 | 0.154 | 0.117 | 0.093 | 0.039 | 0.156 | 0.118 | 0.096 | 0.131 | 0.103 | |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | 2.72 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Aluminum | mg/L | <0.500 | | <0.250 | | | <0.250 | | | <0.250 | | <0.250 | <1.00 | <0.500 | <0.250 | <0.500 | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 | <0.250 | |
| Arsenic | mg/L | <0.0025 | | <0.0025 | | | 0.0009 | | | <0.0025 | | <0.0025 | <0.0025 | <0.0050 | <0.0025 | <0.0050 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0020 | <0.0025 | |
| Cadmium | mg/L | <0.0005 | | <0.0005 | | | 0.0001 | | | <0.0005 | | <0.0005 | <0.0010 | <0.0005 | <0.0010 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0005 | <0.0020 | <0.0025 | |
| Copper | mg/L | 0.0116 | | 0.0081 | | | 0.0035 | | | 0.0039 | | 0.0017 | 0.0028 | <0.0050 | <0.0025 | <0.0050 | <0.0025 | 0.0068 | 0.0082 | 0.0063 | 0.0065 | 0.0093 | |
| Iron | mg/L | 1.37 | | 3.75 | | | 3.93 | | | 3.22 | | 2.72 | 1.95 | 1.38 | 1.10 | 1.24 | 1.17 | 0.890 | 1.48 | 1.15 | 1.41 | 1.37 | |
| Lead | mg/L | <0.0025 | | <0.0025 | | | <0.0005 | | | <0.0025 | | <0.0025 | <0.0025 | <0.0050 | <0.0025 | <0.0050 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0020 | <0.0025 | |
| Manganese | mg/L | 0.788 | | 0.802 | | | 0.724 | | | 0.690 | | 0.585 | 0.551 | 0.526 | 0.520 | 0.454 | 0.437 | 0.397 | 0.407 | 0.391 | 0.420 | 0.431 | |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | <5.00 | |
| Molybdenum | mg/L | <0.0025 | | <0.0025 | | | <0.0005 | | | <0.0025 | | <0.0025 | <0.0025 | <0.0050 | <0.0025 | <0.005 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0020 | <0.0025 | |
| Selenium | mg/L | <0.0050 | | <0.0050 | | | 0.0028 | | | <0.0050 | | <0.0050 | <0.005 | <0.0100 | <0.0050 | <0.0100 | <0.0050 | <0.0050 | <0.0050 | <0.0100 | <0.0040 | <0.0050 | |
| Silica (SiO2) | mg/L | 12.3 | | 11.9 | | | 14.3 | | | 13.4 | | 12.5 | <21.4 | 11.0 | 11.4 | 12.3 | 11.9 | 13.2 | 14.3 | 13.6 | 12.7 | 12.3 | |
| Silicon | mg/L | 5.77 | | 5.57 | | | 6.69 | | | 6.28 | | 5.83 | <10.00 | 5.17 | 5.35 | 5.76 | 5.58 | 6.17 | 6.67 | 6.36 | 5.96 | 5.73 | |
| Uranium | mg/L | <0.0005 | | <0.0005 | | | <0.0001 | | | <0.0005 | | <0.0005 | <0.0025 | <0.0050 | <0.0025 | <0.0050 | <0.0025 | <0.0025 | <0.0025 | <0.0025 | <0.0020 | <0.0025 | |
| Zinc | mg/L | 0.0689 | | <0.0100 | | | 0.0082 | | | 0.0108 | | 0.0117 | 0.0107 | <0.0200 | 0.0159 | <0.0200 | <0.0100 | <0.0100 | <0.0100 | <0.0100 | <0.0080 | <0.0100 | |

Notes & Definitions:

- * Anomalous value under review
- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-6-MI | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|---------|--------|--------|----------------|--------|------|------|------|------|------|------|------|------|-------|------|------|-----|------|------|------|-----|-----|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | | Q3 | | | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 5 | 6 | 7 | 8 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | |
| Sample Date | 12/29 | 1/31 | 2/25 | 3/21 | 4/19 | 5/20 | 5/30 | 6/19 | 7/23 | 8/15 | 9/24 | 11/7 | 2/5 | 5/14 | 8/11 | 11/24 | 2/9 | 5/17 | 8/9 | 11/9 | 2/15 | 5/10 | 8/1 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | N [#] | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM | NM | 0.5 | 0.1 | 0.015 | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| Total Purged | gal | 11.3 | 0.5 | 1.5 | 0.5 | 1.0 | 0.9 | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | 374.49 | 368.09 | 367.92 | 370.49 | 369.50 | 371.00 | | | | | | | | | | | | | | | | | |
| Temperature | deg C | 14.3 | 13.6 | 10.8 | 9.7 | 16.7 | 3.9 | | | | | | | | | | | | | | | | | |
| pH | SU | 8.26 | 7.43 | 7.21 | 7.55 | 7.97 | 7.84 | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | 3390 | 3620 | 3132 | 2619 | 2202 | 2527 | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | 103.0 | -80.2 | 77.6 | 59.8 | 38.3 | 64.9 | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 679 | 147 | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | 8.18 | 8.35 | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | 2480 | 1880 | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | 104 | 23.4 | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | 102 | 21.6 | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | 646 | 565 | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | 12.0 | 5.30 | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | 395 | 615 | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | 345 | 615 | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | 50.0 | <10.0 | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | <10.0 | <10.0 | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | 175 | 178 | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | 2.06 | 2.46 | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | 1210 | 585 | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | 3.63 | 4.55 | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | 0.023 | <0.020 | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | <0.100 | <0.100 | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | 0.0084 | 0.0144 | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | <0.0001 | <0.0002 | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | 0.0113 | 0.0112 | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | <0.100 | <0.100 | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | <0.0005 | <0.0010 | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | 0.0500 | 0.0224 | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | <0.0002 | <0.0002 | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | 0.0558 | 0.0690 | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | 0.0098 | 0.0127 | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | 9.93 | 9.05 | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | 4.64 | 4.23 | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | 0.0200 | 0.0118 | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | 0.0092 | 0.0143 | | | | | | | | | | | | | | | | | | | | | |

Notes & Definitions:

- # No sample collected, due to low yield, insufficient volume for lab sample after field parameters we measured
 - Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-6-C | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------|------|-----|------|------|------|-----|-----|
| Year | 2018 | 2019 | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | |
| Sample Date | 12/24 | 1/30 | 2/21 | 3/21 | 4/23 | 5/20 | 6/19 | 7/23 | 8/15 | 9/24 | 11/7 | 2/5 | 5/12 | 8/11 | 11/24 | 2/9 | 5/17 | 8/9 | 11/9 | 2/15 | 5/10 | 8/1 | |
| Lab Analysis (Y/N) | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | | | | | | | | | | | | | | | | | | | | | | |
| Total Purged | gal | | | | | | | | | | | | | | | | | | | | | | |
| Depth to Water | ft bgs | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | deg C | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry | dry |
| pH | SU | | | | | | | | | | | | | | | | | | | | | | |
| Specific Conductance | µS/cm | | | | | | | | | | | | | | | | | | | | | | |
| Oxygen Reduction Potential | mV | | | | | | | | | | | | | | | | | | | | | | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| pH (Lab) | SU | | | | | | | | | | | | | | | | | | | | | | |
| Total Dissolved Solids (Lab) | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Calcium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Magnesium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Sodium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Potassium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Total | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Bicarbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Carbonate | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Alkalinity, Hydroxide | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Chloride | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Fluoride | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Sulfate as SO4 | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Total Organic Carbon (TOC) | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Nitrate/Nitrite as N | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Aluminum | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Arsenic | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Copper | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Iron | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Lead | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Manganese | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved) | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | |
| Molybdenum | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Selenium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Silica (SiO2) | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Silicon | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Uranium | mg/L | | | | | | | | | | | | | | | | | | | | | | |
| Zinc | mg/L | | | | | | | | | | | | | | | | | | | | | | |

| Notes & Definitions: | | |
|---|--|--|
| <p>Y/N yes or no</p> <p>gpm gallons per minute</p> <p>deg C degrees Celsius</p> <p>SU standard pH units</p> <p>µS/cm microsiemens per centimeter</p> <p>mV millivolts</p> <p>mg/L milligram per liter</p> <p>pCi/L picocuries per liter</p> <p>NM not measured (field)</p> <p>NA not analyzed (lab)</p> <p>ng/L nanogram per liter</p> | | <ol style="list-style-type: none"> 1. "$<$" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |

GCC Energy Hydrologic Monitoring Data

| MW-6-LM | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | |
| Sample Date | 12/30 | 1/31 | 2/25 | 3/21 | 4/23 | 5/20 | 6/19 | 7/23 | 8/15 | 9/24 | 10/28 | 11/7 | 2/5 | 5/14 | 8/11 | 11/25 | 2/9 | 5/17 | 8/9 | 11/9 | 2/15 | 5/10 | 8/31 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | N | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | NM | 0.06 | 2.00 | 0.03 | 0.03 | 0.10 | 0.06 | 0.03 | 0.02 | 0.01 | 0.03 | 0.01 | 0.13 | 0.01 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | |
| Total Purged | gal | 0.5 | 0.5 | 1.5 | 2.0 | 2.0 | 2.3 | 1.3 | 1.3 | 1.8 | 2.0 | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | 1.5 | 1.0 |
| Depth to Water | ft bgs | 535.72 | 538.73 | 539.34 | 540.64 | 539.98 | 537.58 | 540.00 | 540.35 | 540.24 | 540.17 | 539.80 | 540.18 | 539.70 | 539.45 | 539.98 | 540.30 | 539.78 | 540.20 | 541.25 | 541.34 | 541.00 | 541.30 | 542.20 |
| Temperature | deg C | 7.9 | 14.3 | 7.8 | 8.1 | 9.1 | 9.3 | 11.7 | 14.0 | 13.4 | 11.6 | 10.1 | 12.4 | 10.5 | 11.3 | 14.8 | 11.4 | 10.2 | 11.6 | 14.4 | 11.1 | 11.0 | 11.8 | 13.1 |
| pH | SU | 7.64 | 7.38 | 7.51 | 7.54 | 7.49 | 7.54 | 7.67 | 7.80 | 7.65 | 7.43 | 7.45 | 7.37 | 7.39 | 7.54 | 7.44 | 7.47 | 7.44 | 7.54 | 7.52 | 7.49 | 7.46 | 7.56 | 7.64 |
| Specific Conductance | µS/cm | 6011 | 3784 | 3503 | 1461 | 1164 | 1296 | 1400 | 1272 | 1532 | 2104 | 2267 | 2113 | 2283 | 2287 | 2442 | 2495 | 2136 | 1629 | 2531 | 2478 | 2362 | 2297 | 2053 |
| Oxygen Reduction Potential | mV | 185.3 | 10.7 | 40.9 | -32.8 | -35.8 | -111.0 | -194.5 | -163.6 | -67.2 | 6.4 | -48.0 | 19.9 | -128.9 | -222.9 | 32.1 | 21.8 | 3.5 | -188.8 | -2.6 | -36.6 | -135.8 | -112.6 | -181.6 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 2260 | | 1270 | | | 431 | | | 621 | | | 843 | 1060 | 965 | 1130 | 1160 | 1120 | 1010 | 1280 | 1130 | 1030 | 954 | 971 |
| pH (Lab) | SU | 7.60 | | 7.52 | | | 7.47 | | | 7.59 | | | 7.32 | 7.43 | 7.18 | 6.95 | 7.45 | 7.49 | 7.45 | 7.37 | 7.57 | 7.54 | 7.60 | 7.90 |
| Total Dissolved Solids (Lab) | mg/L | 5100 | | 2840 | | | 875 | | | 1150 | | | 1630 | 1840 | 1840 | 2040 | 2020 | 1990 | 1830 | 2290 | 2050 | 1990 | 1840 | 1870 |
| Calcium | mg/L | 367 | | 216 | | | 75.9 | | | 103 | | | 136 | 173 | 150 | 179 | 184 | 176 | 154 | 201 | 174 | 159 | 145 | 152 |
| Magnesium | mg/L | 325 | | 177 | | | 58.7 | | | 88.3 | | | 122 | 153 | 143 | 165 | 171 | 166 | 152 | 189 | 170 | 154 | 144 | 143 |
| Sodium | mg/L | 459 | | 248 | | | 129 | | | 153 | | | 172 | 203 | 188 | 194 | 194 | 188 | 169 | 177 | 166 | 162 | 158 | 163 |
| Potassium | mg/L | 173 | | 64.5 | | | 14.0 | | | 13.7 | | | 11.3 | 11 | 7.82 | 7.20 | 6.04 | 5.96 | 5.22 | 5.69 | 4.99 | 5.22 | <5.00 | 4.84 |
| Alkalinity, Total | mg/L | 205 | | 315 | | | 371 | | | 381 | | | 355 | 320 | 353 | 335 | 329 | 336 | 346 | 330 | 380 | 365 | 365 | 337 |
| Alkalinity, Bicarbonate | mg/L | 205 | | 315 | | | 371 | | | 381 | | | 355 | 320 | 353 | 335 | 329 | 336 | 346 | 330 | 380 | 365 | 365 | 337 |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 256 | | 43.7 | | | 5.73 | | | 8.70 | | | 11.4 | 11 | 11.7 | 12.2 | 12.4 | 11 | 10.5 | 12.6 | 11.1 | 10.5 | 10.9 | 10.7 |
| Fluoride | mg/L | 0.530 | | <0.500 | | | 0.324 | | | <0.500 | | | <0.500 | 0.352 | <0.500 | 0.346 | 0.356 | 0.318 | 0.340 | 0.418 | 0.306 | 0.328 | <0.500 | 0.310 |
| Sulfate as SO4 | mg/L | 3050 | | 1790 | | | 338 | | | 492 | | | 830 | 951 | 904 | 1260 | 1170 | 1020 | 978 | 1300 | 1100 | 555 | 931 | 1010 |
| Total Organic Carbon (TOC) | mg/L | 3.46 | | 2.61 | | | 1.57 | | | 1.78 | | | 1.85 | 1.76 | 1.84 | 1.87 | 1.93 | 3.17 | 1.81 | 1.91 | 1.94 | 1.83 | 1.74 | 2.08 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | 1.99 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.250 | | <0.250 | | | <0.050 | | | <0.050 | | | <0.100 | <0.250 | <0.250 | <0.150 | <0.250 | <0.250 | <0.150 | <0.100 | <0.100 | <0.250 | <0.250 | <0.100 |
| Arsenic | mg/L | 0.0039 | | 0.0049 | | | 0.0036 | | | 0.0038 | | | 0.0035 | 0.0044 | 0.0034 | 0.0038 | 0.0036 | 0.0038 | 0.0038 | 0.0039 | 0.0038 | 0.0042 | 0.0034 | 0.0034 |
| Cadmium | mg/L | <0.0005 | | <0.0005 | | | <0.0001 | | | <0.0001 | | | <0.0002 | <0.0002 | <0.0005 | <0.0003 | <0.0005 | <0.0005 | <0.0015 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.001 |
| Copper | mg/L | 0.0135 | | 0.0064 | | | 0.0017 | | | 0.0018 | | | 0.0069 | 0.0014 | <0.0025 | <0.0015 | <0.0025 | <0.0025 | 0.0042 | 0.0046 | 0.0040 | 0.0044 | 0.0038 | 0.0054 |
| Iron | mg/L | <0.250 | | <0.250 | | | <0.050 | | | <0.050 | | | <0.100 | <0.250 | <0.250 | <0.150 | <0.250 | <0.250 | <0.150 | <0.100 | <0.100 | <0.250 | <0.250 | <0.100 |
| Lead | mg/L | <0.0025 | | <0.0025 | | | <0.0005 | | | <0.0005 | | | <0.0010 | <0.001 | <0.0025 | <0.0015 | <0.0025 | <0.0025 | <0.0015 | <0.0010 | <0.0010 | <0.0010 | <0.0025 | <0.001 |
| Manganese | mg/L | 0.383 | | 0.223 | | | 0.0692 | | | 0.148 | | | 0.166 | 0.184 | 0.171 | 0.267 | 0.292 | 0.253 | 0.203 | 0.257 | 0.263 | 0.339 | 0.249 | 0.174 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0490 | | 0.0169 | | | 0.0037 | | | 0.0025 | | | 0.0022 | 0.002 | <0.0025 | 0.0023 | <0.0025 | <0.0025 | <0.0015 | 0.0016 | 0.0013 | 0.0013 | <0.0025 | 0.0014 |
| Selenium | mg/L | 0.0080 | | <0.0050 | | | <0.0010 | | | <0.0010 | | | <0.0020 | <0.002 | <0.0050 | <0.0030 | <0.0050 | 0.0151 | <0.0030 | <0.0020 | <0.0040 | <0.0020 | <0.0050 | 0.0028 |
| Silica (SiO2) | mg/L | 10.5 | | 13.5 | | | 17.0 | | | 17.4 | | | 15.9 | 17.1 | 15.1 | 14.7 | 16.0 | 15.6 | 16.4 | 16.8 | 16.6 | 16.0 | 15.5 | 17.3 |
| Silicon | mg/L | 4.91 | | 6.29 | | | 7.96 | | | 8.12 | | | 7.43 | 7.97 | 7.07 | 6.88 | 7.47 | 7.3 | 7.68 | 7.85 | 7.75 | 7.49 | 7.24 | 8.07 |
| Uranium | mg/L | 0.0230 | | 0.0075 | | | 0.0039 | | | 0.0054 | | | 0.0047 | 0.0055 | 0.0043 | 0.0046 | 0.0042 | 0.0039 | 0.0030 | 0.0037 | 0.0032 | 0.0028 | 0.0025 | 0.0026 |
| Zinc | mg/L | 0.0323 | | <0.0100 | | | <0.0020 | | | <0.0040 | | | <0.0040 | <0.004 | <0.0100 | 0.0069 | <0.0100 | <0.0100 | <0.0060 | <0.0040 | <0.0040 | <0.0040 | <0.0100 | <0.0040 |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-7-EAA | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|---------|---------|---------|---------|---------|---------|----------|----------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 | |
| Sample Date | 12/23 | 1/29 | 2/19 | 3/20 | 4/16 | 5/29 | 6/20 | 7/24 | 8/13 | 9/27 | 10/24 | 11/6 | 2/11 | 5/27 | 8/25 | 11/11 | 2/16 | 5/24 | 8/24 | 11/30 | 3/23 | 6/7 | 9/8 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | N | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 1.10 | 1.10 | 1.00 | 3.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.25 | 0.13 | 0.25 | 0.25 | 0.13 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | |
| Total Purged | gal | 15.0 | 18.0 | 15.0 | 3.0 | 15.0 | 16.0 | 15.3 | 15.3 | 17.0 | 15.0 | 15.0 | 36.5 | 15.0 | 16.0 | 17.0 | 15.0 | 17.0 | 17.0 | 18.0 | 18.0 | 17.0 | 17.0 | |
| Depth to Water | ft bgs | 36.13 | 36.27 | 36.45 | 36.52 | 36.70 | 36.25 | 36.22 | 36.48 | 36.49 | 36.88 | 36.85 | 36.72 | 35.40 | 36.35 | 37.10 | 36.20 | 35.33 | 36.91 | 35.92 | 35.90 | 35.70 | 36.71 | |
| Temperature | deg C | 10.0 | 10.0 | 10.0 | 9.9 | 10.1 | 10.4 | 10.4 | 10.6 | 10.5 | 10.3 | 10.4 | 10.6 | 10.4 | 12.1 | 10.3 | 10.3 | 10.1 | 10.5 | 10.9 | 10.6 | 10.5 | 10.7 | |
| pH | SU | 6.99 | 7.01 | 7.04 | 6.93 | 7.00 | 7.06 | 7.07 | 6.28 | 6.95 | 7.06 | 6.91 | 7.17 | 7.17 | 7.09 | 7.12 | 7.14 | 7.19 | 7.24 | 7.23 | 7.12 | 7.15 | 7.14 | |
| Specific Conductance | µS/cm | 2001 | 1910 | 1910 | 1926 | 1912 | 1767 | 1836 | 1885 | 1890 | 1913 | 1936 | 1922 | 1993 | 1890 | 1772 | 1628 | 1672 | 1805 | 1814 | 1878 | 1882 | 1896 | |
| Oxygen Reduction Potential | mV | -68.0 | -36.7 | -41.4 | -38.1 | -48.8 | 14.1 | -13.8 | -33.9 | -37.8 | -29.5 | -25.6 | -21.3 | 0.9 | -49.2 | 17.6 | -8.6 | 2.2 | -55.8 | -41.9 | -20.4 | -133.6 | -73.8 | |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 936 | | 1030 | | | 982 | | | 997 | | | 1020 | 963 | 1020 | 1080 | 939 | 1090 | 958 | 986 | 957 | 1040 | 958 | 916 |
| pH (Lab) | SU | 7.2 | | 7.37 | | | 7.17 | | | 7.09 | | | 6.99 | 6.92 | 6.89 | 7.23 | 7.06 | 6.99 | 6.92 | 7.03 | 7.01 | 7.11 | 7.12 | 7.24 |
| Total Dissolved Solids (Lab) | mg/L | 1460 | | 1480 | | | 1490 | | | 1480 | | | 1530 | 1520 | 1430 | 1480 | 1450 | 1590 | 1460 | 1510 | 1580 | 1500 | 1500 | 1490 |
| Calcium | mg/L | 170 | | 179 | | | 171 | | | 173 | | | 162 | 165 | 175 | 183 | 157 | 186 | 167 | 167 | 164 | 173 | 166 | 154 |
| Magnesium | mg/L | 124 | | 142 | | | 135 | | | 137 | | | 144 | 134 | 142 | 150 | 133 | 152 | 131 | 138 | 133 | 149 | 132 | 129 |
| Sodium | mg/L | 75.3 | | 81.3 | | | 75.0 | | | 75.2 | | | 74.9 | 73.7 | 76.0 | 80.9 | 73.4 | 81.4 | 75 | 74.6 | 72.0 | 77.8 | 71.9 | 71.6 |
| Potassium | mg/L | 3.87 | | 3.9 | | | <5.00 | | | 3.74 | | | 3.74 | 3.82 | <5.00 | <5.00 | <5.00 | 4.25 | <5.00 | <5.00 | 3.69 | 3.88 | 3.59 | 3.71 |
| Alkalinity, Total | mg/L | 380 | | 367 | | | 405 | | | 392 | | | 350 | 357 | 355 | 268 | 430 | 420 | 395 | 340 | 440 | 425 | 425 | 400 |
| Alkalinity, Bicarbonate | mg/L | 380 | | 367 | | | 405 | | | 392 | | | 425 | 357 | 355 | 268 | 430 | 420 | 395 | 340 | 440 | 425 | 425 | 400 |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 11.9 | | 10.7 | | | 10.8 | | | 10.9 | | | 11.6 | 10.3 | 10.7 | 10.2 | 10.1 | 10.4 | 10.1 | 10.5 | 10.3 | 10.1 | 10.3 | 11.2 |
| Fluoride | mg/L | <0.500 | | 0.332 | | | 0.322 | | | 0.322 | | | <0.500 | 0.354 | 0.330 | 0.322 | 0.322 | 0.300 | 0.304 | 0.312 | 0.260 | 0.292 | <0.200 | 0.310 |
| Sulfate as SO4 | mg/L | 732 | | 736 | | | 733 | | | 844 | | | 746 | 774 | 803 | 767 | 742 | 757 | 746 | 796 | 751 | 755 | 743 | 759 |
| Total Organic Carbon (TOC) | mg/L | 3.72 | | 3.57 | | | 3.73 | | | 3.70 | | | 3.45 | 3.42 | 3.63 | 4.01 | 3.39 | 3.00 | 3.42 | 3.63 | 3.38 | 3.50 | 3.42 | 3.38 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | 0.178 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.050 | | <0.100 | | | <0.250 | | | <0.100 | | | <0.050 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.250 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 |
| Arsenic | mg/L | 0.0014 | | 0.0015 | | | 0.0013 | | | 0.0016 | | | 0.0013 | 0.0013 | 0.0011 | <0.0015 | <0.0025 | 0.0016 | <0.0025 | <0.0025 | 0.0011 | 0.0009 | 0.0014 | <0.0025 |
| Cadmium | mg/L | <0.0001 | | <0.0002 | | | <0.0001 | | | <0.0001 | | | <0.0002 | <0.0002 | <0.0002 | <0.0003 | <0.0005 | <0.0001 | <0.00025 | <0.00025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Copper | mg/L | 0.0003 | | 0.0018 | | | 0.0011 | | | 0.0008 | | | 0.0006 | <0.0010 | <0.0010 | <0.0015 | <0.0025 | 0.0007 | <0.0025 | <0.0025 | 0.0018 | 0.0021 | 0.0036 | <0.0025 |
| Iron | mg/L | 1.82 | | 1.95 | | | 1.81 | | | 2.12 | | | 2.00 | 1.84 | 1.71 | 2.16 | 2.15 | 2.08 | 1.92 | 1.75 | 1.63 | 2.05 | 1.69 | 1.75 |
| Lead | mg/L | <0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0010 | <0.001 | <0.0010 | <0.0015 | <0.0025 | <0.0005 | <0.0025 | <0.0025 | <0.0010 | <0.0025 | <0.0005 | <0.0025 |
| Manganese | mg/L | 3.72 | | 4.49 | | | 4.01 | | | 4.22 | | | 4.76 | 4.86 | 3.63 | 4.49 | 4.42 | 5.22 | 4.21 | 4.39 | 4.66 | 4.48 | 4.58 | 4.61 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0008 | | 0.0011 | | | 0.0007 | | | 0.0009 | | | <0.0010 | 0.001 | <0.0010 | <0.0015 | <0.0025 | 0.0006 | <0.0025 | <0.0025 | <0.0010 | 0.0007 | 0.0007 | <0.0025 |
| Selenium | mg/L | <0.0020 | | <0.0020 | | | <0.0010 | | | 0.0011 | | | <0.0020 | <0.002 | <0.0020 | <0.0030 | <0.0050 | <0.0010 | <0.0050 | <0.0050 | <0.0020 | <0.0010 | 0.0012 | <0.0050 |
| Silica (SiO2) | mg/L | 16.6 | | 16.1 | | | 16.1 | | | 16.9 | | | 16.8 | 16.4 | 15.8 | 16.9 | 14.9 | 17.7 | 17.1 | 16.7 | 17.2 | 18.3 | 16.8 | 16.1 |
| Silicon | mg/L | 7.75 | | 7.52 | | | 7.55 | | | 7.90 | | | 7.83 | 7.67 | 7.37 | 7.91 | 6.96 | 8.28 | 7.97 | 7.81 | 8.03 | 8.57 | 7.86 | 7.54 |
| Uranium | mg/L | 0.0021 | | 0.0018 | | | 0.0017 | | | 0.0018 | | | 0.0020 | 0.0019 | 0.0016 | 0.0018 | <0.0025 | 0.0018 | <0.0025 | <0.0025 | 0.0015 | <0.0025 | 0.0018 | <0.0025 |
| Zinc | mg/L | <0.0050 | | <0.0040 | | | 0.0021 | | | 0.0020 | | | <0.0040 | <0.004 | <0.0040 | <0.0060 | <0.0100 | 0.0022 | <0.0100 | <0.0100 | <0.0040 | <0.0020 | 0.0041 | <0.0100 |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-8-EAA | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--------|---------|-------|---------|-------|-------|---------|-------|-------|---------|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 | |
| Sample Date | 12/23 | 1/29 | 2/19 | 3/20 | 4/16 | 5/29 | 6/20 | 7/24 | 8/13 | 9/27 | 10/24 | 11/6 | 2/11 | 5/27 | 8/25 | 11/11 | 2/16 | 5/24 | 8/24 | 11/30 | 3/23 | 6/7 | 9/8 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 0.85 | 1.10 | 0.50 | 3.00 | 0.50 | 0.75 | 1.00 | 1.00 | 0.75 | 0.50 | 1.00 | 0.25 | 1.00 | 0.25 | 0.13 | 0.13 | 0.13 | 0.13 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 |
| Total Purged | gal | 18.0 | 14.0 | 15.0 | 3.0 | 15.0 | 17.0 | 15.3 | 15.3 | 18.0 | 15.3 | 15.5 | 15.0 | 15.2 | 15.0 | 16.0 | 15.0 | 15.0 | 16.0 | 15.0 | 14.0 | 15.0 | 15.0 | 16.0 |
| Depth to Water | ft bgs | 40.00 | 39.95 | 40.10 | 43.45 | 40.44 | 40.05 | 39.94 | 40.10 | 40.08 | 40.25 | 40.31 | 40.22 | 40.40 | 40.45 | 34.50 | 40.83 | 41.22 | 41.00 | 40.98 | 48.04 | 40.95 | 41.00 | 41.30 |
| Temperature | deg C | 10.3 | 10.2 | 10.0 | 9.9 | 10.3 | 10.5 | 10.6 | 10.5 | 10.6 | 10.3 | 10.2 | 11.2 | 10.5 | 11.0 | 11.1 | 11.0 | 10.9 | 11.0 | 11.2 | 10.7 | 10.7 | 10.8 | 10.7 |
| pH | SU | 7.12 | 7.09 | 7.13 | 7.17 | 7.09 | 7.02 | 7.17 | 7.09 | 7.05 | 7.03 | 6.99 | 6.99 | 6.99 | 7.14 | 7.19 | 7.19 | 7.20 | 7.27 | 7.31 | 7.30 | 7.18 | 7.23 | 7.23 |
| Specific Conductance | µS/cm | 1781 | 1696 | 1720 | 1725 | 1729 | 1628 | 1676 | 1699 | 172 | 1739 | 1774 | 1739 | 1758 | 1760 | 1675 | 1716 | 1570 | 1642 | 1671 | 1746 | 1750 | 1763 | 1763 |
| Oxygen Reduction Potential | mV | -65.0 | -52.8 | -51.8 | -53.0 | -59.7 | 11.0 | -29.5 | -46.6 | -44.8 | -33.5 | -38.8 | -39.2 | -18.2 | -72.4 | 1.4 | -14.7 | -20.2 | -63.3 | -57.4 | -37.2 | -156.9 | -111.7 | -230.9 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 870 | | 861 | | | 864 | | | 883 | | | 867 | 861 | 907 | 937 | 810 | 914 | 838 | 859 | 859 | 937 | 867 | 831 |
| pH (Lab) | SU | 7.28 | | 7.36 | | | 7.13 | | | 7.05 | | | 7.01 | 7.11 | 6.96 | 7.18 | 7.1 | 7.03 | 6.97 | 7.06 | 6.81 | 7.19 | 7.16 | 7.27 |
| Total Dissolved Solids (Lab) | mg/L | 1220 | | 1290 | | | 1240 | | | 1280 | | | 1380 | 1290 | 1260 | 1280 | 1310 | 1400 | 1320 | 1320 | 1340 | 1380 | 1330 | 1360 |
| Calcium | mg/L | 152 | | 151 | | | 148 | | | 154 | | | 143 | 149 | 153 | 160 | 134 | 156 | 146 | 146 | 149 | 158 | 150 | 143 |
| Magnesium | mg/L | 119 | | 118 | | | 120 | | | 121 | | | 124 | 119 | 127 | 130 | 115 | 127 | 115 | 120 | 118 | 131 | 119 | 115 |
| Sodium | mg/L | 81.7 | | 82.6 | | | 77.2 | | | 78.6 | | | 77.1 | 77.2 | 77.7 | 82.9 | 74.3 | 80.9 | 76.1 | 75.8 | 74.9 | 81.2 | 75.0 | 75.0 |
| Potassium | mg/L | 3.80 | | 3.27 | | | 3.55 | | | 3.18 | | | 3.52 | 3.8 | <5.00 | <5.00 | <5.00 | 3.63 | 3.49 | <5.00 | 3.36 | 3.65 | 3.35 | 3.45 |
| Alkalinity, Total | mg/L | 400 | | 435 | | | 450 | | | 431 | | | 445 | 404 | 385 | 288 | 480 | 450 | 445 | 385 | 490 | 460 | 465 | 480 |
| Alkalinity, Bicarbonate | mg/L | 400 | | 435 | | | 450 | | | 431 | | | 445 | 404 | 385 | 288 | 480 | 450 | 445 | 385 | 490 | 460 | 465 | 480 |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 9.83 | | 10.5 | | | 10.3 | | | 11.1 | | | 11.0 | 10.2 | 10.3 | 10.1 | 11.3 | 10.4 | 10.2 | 10.3 | 10.5 | 10.5 | 10.6 | 11.7 |
| Fluoride | mg/L | 0.380 | | 0.370 | | | 0.338 | | | 0.342 | | | <0.500 | 0.33 | 0.346 | 0.336 | 0.334 | 0.292 | 0.306 | 0.35 | 0.272 | 0.304 | 0.204 | 0.332 |
| Sulfate as SO4 | mg/L | 533 | | 559 | | | 606 | | | 643 | | | 577 | 602 | 625 | 605 | 582 | 609 | 595 | 615 | 599 | 608 | 597 | 627 |
| Total Organic Carbon (TOC) | mg/L | 3.77 | | 3.59 | | | 3.77 | | | 3.68 | | | 3.52 | 3.49 | 3.56 | 3.82 | 3.54 | 3.04 | 3.65 | 3.71 | 3.48 | 3.49 | 3.56 | 3.64 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.100 | | <0.100 | | | <0.050 | | | <0.100 | | | <0.050 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.050 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 |
| Arsenic | mg/L | 0.0020 | | 0.0018 | | | 0.0018 | | | 0.0021 | | | 0.0018 | 0.0017 | 0.0017 | 0.0018 | <0.0025 | 0.0018 | 0.0018 | <0.0025 | 0.0017 | 0.0015 | 0.0019 | <0.0025 |
| Cadmium | mg/L | <0.0001 | | <0.0002 | | | <0.0001 | | | <0.0001 | | | <0.0001 | <0.0002 | <0.0002 | <0.0003 | <0.0005 | <0.0003 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Copper | mg/L | 0.0004 | | 0.0024 | | | 0.0023 | | | 0.0008 | | | 0.0010 | 0.001 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | 0.0017 | 0.0021 | 0.0031 | <0.0025 |
| Iron | mg/L | 2.12 | | 2.13 | | | 2.42 | | | 2.46 | | | 2.30 | 2.28 | 2.29 | 2.31 | 0.762 | 2.33 | 2.25 | 2.2 | 2.22 | 2.52 | 2.22 | 2.28 |
| Lead | mg/L | <0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0005 | <0.001 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.001 | <0.0025 | <0.0025 | <0.0025 |
| Manganese | mg/L | 3.17 | | 3.52 | | | 3.06 | | | 3.37 | | | 3.39 | 3.7 | 3.36 | 3.54 | 3.81 | 3.55 | 3.5 | 3.6 | 3.66 | 3.77 | 3.70 | 3.77 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0009 | | 0.0011 | | | 0.0008 | | | 0.0011 | | | 0.0008 | <0.0010 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | 0.0009 | 0.0009 | <0.0025 |
| Selenium | mg/L | <0.0020 | | <0.0020 | | | 0.0010 | | | 0.0013 | | | <0.0010 | <0.0020 | <0.0020 | <0.0030 | <0.0050 | 0.0046 | <0.0030 | <0.0050 | 0.0035 | <0.0010 | 0.0015 | <0.0050 |
| Silica (SiO2) | mg/L | 16.3 | | 15.3 | | | 15.7 | | | 16.1 | | | 15.9 | 15.7 | 15.0 | 16.1 | 14.2 | 16.0 | 16.5 | 15.5 | 16.4 | 17.3 | 16.0 | 15.4 |
| Silicon | mg/L | 7.63 | | 7.15 | | | 7.32 | | | 7.52 | | | 7.42 | 7.32 | 7.02 | 7.53 | 6.63 | 7.48 | 7.72 | 7.24 | 7.68 | 8.10 | 7.47 | 7.18 |
| Uranium | mg/L | 0.0021 | | 0.0017 | | | 0.0016 | | | 0.0018 | | | 0.0019 | 0.0019 | 0.0017 | 0.0017 | <0.0025 | 0.0016 | 0.0016 | <0.0025 | 0.0015 | <0.0025 | <0.0025 | <0.0025 |
| Zinc | mg/L | <0.0050 | | <0.0040 | | | <0.0020 | | | <0.0020 | | | <0.0020 | <0.0040 | <0.0040 | <0.0060 | <0.0100 | <0.0060 | <0.0060 | <0.0100 | <0.0040 | <0.0020 | 0.0021 | <0.01 |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-8-MI | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|--------|---------|--------|-------|---------|-------|--------|---------|-------|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 | |
| Sample Date | 12/23 | 1/29 | 2/19 | 3/20 | 4/16 | 5/29 | 6/20 | 7/24 | 8/13 | 9/27 | 10/24 | 11/6 | 2/11 | 5/27 | 8/25 | 11/11 | 2/16 | 5/24 | 8/24 | 11/30 | 3/23 | 6/7 | 9/8 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | N | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 1.10 | 1.00 | 0.50 | 3.00 | 0.50 | 0.50 | 0.25 | 0.50 | 0.75 | 0.50 | 1.00 | 0.25 | 0.25 | 0.13 | 0.10 | 0.25 | 0.25 | 0.13 | 0.25 | 0.25 | 0.13 | 0.15 | |
| Total Purged | gal | 27.5 | 18.0 | 1.0 | 3.0 | 1.5 | 2.5 | 2.5 | 2.3 | 3.0 | 2.0 | 2.5 | 1.0 | 1.0 | 1.0 | 2.0 | 1.0 | 2.0 | 3.0 | 1.0 | 1.0 | 0.8 | 0.5 | |
| Depth to Water | ft bgs | 45.75 | 43.48 | 43.50 | 44.30 | 44.47 | 44.10 | 44.24 | 44.45 | 44.59 | 44.90 | 45.12 | 45.10 | 45.20 | 45.42 | 45.84 | 46.24 | 46.38 | 46.54 | 47.27 | 46.84 | 47.69 | 48.00 | 48.00 |
| Temperature | deg C | 10.8 | 10.8 | 10.6 | 11.2 | 10.4 | 11.1 | 11.4 | 11.0 | 11.4 | 10.9 | 10.3 | 11.4 | 10.2 | 11.3 | 13.1 | 11.3 | 10.0 | 11.6 | 11.9 | 11.1 | 10.9 | 12.5 | 14.3 |
| pH | SU | 7.57 | 7.50 | 7.48 | 7.47 | 7.34 | 7.31 | 7.48 | 7.42 | 7.38 | 7.30 | 7.23 | 7.15 | 7.08 | 7.44 | 7.44 | 7.43 | 7.47 | 7.59 | 7.55 | 7.56 | 7.41 | 7.54 | 7.59 |
| Specific Conductance | µS/cm | 1786 | 1667 | 1651 | 1658 | 1643 | 1595 | 1639 | 1645 | 1658 | 1637 | 1689 | 1642 | 1651 | 1659 | 1598 | 1628 | 1468 | 1616 | 1554 | 1629 | 1596 | 1575 | 1505 |
| Oxygen Reduction Potential | mV | -84.4 | -177.1 | -122.1 | -113.3 | -87.2 | -54.4 | -97.1 | -116.4 | -119.4 | -88.4 | -82.0 | -59.3 | -136.6 | -184.9 | -107.0 | -112.2 | -72.0 | -131.9 | -123.1 | -115.9 | -195.3 | -150.6 | -262.2 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 167 | | 249 | | | 273 | | | 253 | | | 267 | 254 | 309 | 355 | 339 | 376 | 288 | 377 | 317 | 406 | 378 | 374 |
| pH (Lab) | SU | 7.73 | | 7.54 | | | 7.24 | | | 7.46 | | | 7.44 | 7.53 | 7.25 | 7.34 | 7.27 | 7.33 | 7.36 | 7.31 | 7.06 | 7.36 | 7.38 | 7.70 |
| Total Dissolved Solids (Lab) | mg/L | 1050 | | 1030 | | | 1100 | | | 1110 | | | 1050 | 1060 | 1040 | 1010 | 1040 | 1060 | 1040 | 1000 | 1100 | 1050 | 1040 | 1050 |
| Calcium | mg/L | 34.0 | | 48.5 | | | 52.4 | | | 49.7 | | | 51.3 | 48.7 | 58.5 | 65.9 | 62.6 | 69.7 | 54 | 70.3 | 59.8 | 75.5 | 71.2 | 69.2 |
| Magnesium | mg/L | 19.9 | | 31.0 | | | 34.5 | | | 31.4 | | | 33.8 | 32.1 | 39.6 | 46.2 | 44.4 | 49.1 | 37.2 | 48.9 | 40.8 | 52.7 | 48.7 | 48.8 |
| Sodium | mg/L | 344 | | 312 | | | 289 | | | 289 | | | 275 | 269 | 272 | 260 | 232 | 237 | 256 | 229 | 238 | 226 | 220 | 213 |
| Potassium | mg/L | 4.47 | | 5.25 | | | <5.00 | | | 4.55 | | | 5.07 | 4.71 | 5.00 | 5.56 | 5.22 | 5.88 | 5.05 | 5.69 | 5.14 | 5.98 | 5.47 | 5.59 |
| Alkalinity, Total | mg/L | 500 | | 565 | | | 560 | | | 573 | | | 585 | 543 | 545 | 448 | 590 | 590 | 575 | 570 | 605 | 590 | 590 | 500 |
| Alkalinity, Bicarbonate | mg/L | 500 | | 565 | | | 560 | | | 573 | | | 585 | 543 | 545 | 448 | 590 | 590 | 575 | 570 | 605 | 590 | 590 | 500 |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 12.7 | | 10.0 | | | 9.33 | | | 9.06 | | | 9.66 | 8.19 | 8.23 | 8.12 | 7.91 | 7.96 | 8.07 | 7.85 | 7.91 | 7.70 | 8.36 | 8.88 |
| Fluoride | mg/L | <0.500 | | <0.200 | | | <0.200 | | | <0.200 | | | <0.500 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 | <0.200 |
| Sulfate as SO4 | mg/L | 347 | | 353 | | | 343 | | | 366 | | | 317 | 314 | 316 | 335 | 319 | 326 | 314 | 324 | 312 | 325 | 322 | 352 |
| Total Organic Carbon (TOC) | mg/L | 2.73 | | 2.83 | | | 2.81 | | | 2.74 | | | 2.65 | 2.6 | 2.94 | 2.87 | 2.76 | 2.6 | 2.74 | 2.97 | 2.66 | 2.77 | 2.77 | 2.96 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | 1.31 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.050 | | <0.100 | | | <0.250 | | | <0.100 | | | <0.050 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.050 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 |
| Arsenic | mg/L | 0.0008 | | <0.0010 | | | 0.0006 | | | 0.0005 | | | 0.0005 | <0.0010 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | 0.0006 | <0.0025 |
| Cadmium | mg/L | <0.0001 | | <0.0002 | | | <0.0001 | | | <0.0001 | | | <0.0001 | <0.0002 | <0.0003 | <0.0005 | <0.0003 | <0.0003 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Copper | mg/L | 0.0031 | | 0.0066 | | | 0.0036 | | | 0.0035 | | | 0.0037 | 0.0027 | <0.0010 | <0.0015 | <0.0025 | 0.0015 | 0.0046 | 0.0047 | 0.0054 | 0.0055 | 0.0087 | 0.0038 |
| Iron | mg/L | 0.137 | | 0.162 | | | <0.250 | | | 0.129 | | | 0.130 | 0.108 | <0.250 | <0.250 | <0.250 | <0.150 | 0.113 | <0.250 | 0.168 | 0.113 | 0.090 | <0.100 |
| Lead | mg/L | <0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0005 | <0.0010 | <0.0025 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0025 | <0.0025 | <0.0025 |
| Manganese | mg/L | 0.0495 | | 0.0383 | | | 0.0327 | | | 0.0351 | | | 0.0377 | 0.0391 | 0.0393 | 0.0551 | 0.0546 | 0.0579 | 0.0412 | 0.0544 | 0.0443 | 0.0603 | 0.0553 | 0.0597 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0005 | <0.001 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Selenium | mg/L | <0.0020 | | <0.0020 | | | 0.0010 | | | 0.0010 | | | <0.0010 | <0.0020 | 0.0020 | <0.0030 | <0.0050 | 0.0425 | 0.0037 | 0.0072 | 0.0264 | 0.0016 | 0.0040 | <0.0050 |
| Silica (SiO2) | mg/L | 12.1 | | 12.4 | | | 12.8 | | | 12.5 | | | 12.6 | 12.2 | 11.9 | 12.9 | 12.1 | 13.5 | 13.2 | 13.6 | 13.7 | 15.2 | 14.0 | 13.6 |
| Silicon | mg/L | 5.65 | | 5.78 | | | 5.99 | | | 5.83 | | | 5.88 | 5.71 | 5.55 | 6.05 | 5.67 | 6.32 | 6.17 | 6.35 | 6.39 | 7.08 | 6.57 | 6.35 |
| Uranium | mg/L | 0.0002 | | 0.0002 | | | 0.0002 | | | 0.0001 | | | 0.0001 | <0.0010 | <0.0025 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0025 | <0.0025 | <0.0025 |
| Zinc | mg/L | <0.0050 | | <0.0040 | | | <0.0020 | | | <0.0020 | | | <0.0020 | <0.0040 | <0.0040 | <0.0060 | <0.0100 | <0.0060 | <0.0060 | <0.0100 | <0.0040 | <0.0020 | <0.0020 | <0.0100 |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-8-LM | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 | |
| Sample Date | 12/28 | 1/29 | 2/19 | 3/21 | 4/16 | 5/29 | 6/18 | 7/24 | 8/13 | 9/27 | 10/24 | 11/6 | 2/11 | 5/27 | 8/25 | 11/11 | 2/16 | 5/24 | 8/24 | 11/30 | 3/23 | 6/7 | 9/8 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | Y | N | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | NM | 1.00 | 0.25 | 1.00 | 0.50 | 0.10 | 0.25 | 0.25 | 0.50 | 0.25 | 0.12 | 0.25 | 0.25 | 0.13 | 0.13 | 0.13 | 0.13 | 0.25 | 0.25 | 0.25 | 0.25 | 0.15 | |
| Total Purged | gal | 30 | 4.0 | 1.5 | 1.0 | 2.0 | 1.3 | 6.8 | 2.0 | 2.0 | 1.0 | 1.0 | 1.5 | 1.0 | 1.0 | 2.0 | 1.0 | 2.0 | 1.5 | 1.0 | 1.0 | 1.0 | 1.0 | |
| Depth to Water | ft bgs | 136.39 | 130.52 | 134.30 | 144.03 | 140.03 | 137.48 | 142.23 | 144.15 | 138.06 | 137.50 | 137.60 | 137.34 | 139.15 | 129.70 | 127.90 | 125.75 | 126.72 | 126.13 | 125.25 | 123.55 | 124.10 | 123.75 | 126.81 |
| Temperature | deg C | 4.1 | 13.9 | 13.2 | 8.7 | 13.6 | 13.9 | 12.8 | 13.7 | 13.4 | 13.0 | 11.7 | 13.3 | 11.4 | 13.4 | 13.6 | 8.8 | 12.1 | 12.8 | 13.5 | 12.5 | 12.3 | 14.1 | 13.4 |
| pH | SU | 8.37 | 8.70 | 8.71 | 8.41 | 8.70 | 8.50 | 8.66 | 8.64 | 8.58 | 8.44 | 8.44 | 8.47 | 7.98 | 8.76 | 8.83 | 8.81 | 8.82 | 8.90 | 8.90 | 8.91 | 8.79 | 8.84 | 8.82 |
| Specific Conductance | µS/cm | 2306 | 1274 | 1265 | 1310 | 1262 | 1234 | 1264 | 1226 | 1269 | 1252 | 1299 | 1255 | 1294 | 1282 | 1055 | 1117 | 1132 | 1121 | 1196 | 1262 | 1260 | 1232 | 1255 |
| Oxygen Reduction Potential | mV | 37.5 | -114.3 | 112.8 | 77.0 | -36.2 | 33.2 | -63.9 | -93.5 | -103.0 | -115.9 | -94.4 | -47.4 | -106.6 | -204.5 | -106.9 | -93.6 | -87.8 | -164.1 | -106.1 | -99.3 | -241.3 | -149.4 | -247.4 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 45.0 | | 7.29 | | | 16.9 | | | 6.67 | | | 6.38 | 6.79 | 7.76 | 7.53 | 6.35 | 6.93 | 7.23 | 4.65 | 7.11 | 7.29 | 6.61 | 6.43 |
| pH (Lab) | SU | 8.57 | | 8.63 | | | 8.02 | | | 8.56 | | | 8.52 | 8.55 | 8.41 | 8.45 | 8.48 | 8.54 | 8.57 | 8.48 | 8.31 | 8.61 | 8.63 | 8.99 |
| Total Dissolved Solids (Lab) | mg/L | 1420 | | 770 | | | 780 | | | 785 | | | 780 | 840 | 730 | 740 | 700 | 795 | 720 | 740 | 760 | 740 | 795 | 755 |
| Calcium | mg/L | 10.8 | | 1.93 | | | 3.84 | | | 1.78 | | | 1.68 | 1.77 | 2.09 | 2.05 | 1.71 | 1.87 | 1.92 | 1.86 | 1.88 | 1.96 | 1.77 | 1.70 |
| Magnesium | mg/L | 4.39 | | 0.600 | | | 1.77 | | | 0.541 | | | 0.528 | 0.574 | 0.620 | 0.587 | 0.502 | 0.550 | 0.592 | <0.500 | 0.587 | 0.580 | 0.530 | 0.532 |
| Sodium | mg/L | 382 | | 341 | | | 317 | | | 306 | | | 305 | 309 | 315 | 337 | 304 | 319 | 315 | 308 | 291 | 316 | 298 | 298 |
| Potassium | mg/L | 45.7 | | 3.49 | | | <5.00 | | | 2.27 | | | 2.18 | 2.06 | <5.00 | <5.00 | <5.00 | <3.00 | 2.24 | <5.00 | 2.12 | 2.31 | 2.06 | <2.00 |
| Alkalinity, Total | mg/L | 615 | | 720 | | | 745 | | | 731 | | | 745 | 685 | 630 | 675 | 780 | 730 | 755 | 750 | 770 | 780 | 765 | 760 |
| Alkalinity, Bicarbonate | mg/L | 535 | | 610 | | | 645 | | | 645 | | | 685 | 595 | 530 | 585 | 680 | 630 | 645 | 650 | 620 | 640 | 655 | 580 |
| Alkalinity, Carbonate | mg/L | 80.0 | | 110 | | | 100 | | | 86.0 | | | 60.0 | 90 | 100 | 90 | 100 | 100 | 110 | 100 | 150 | 140 | 110 | 180 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 175 | | 5.11 | | | 6.80 | | | 2.63 | | | 2.48 | 3.04 | 3.01 | 2.98 | 2.47 | 2.5 | 2.48 | 2.55 | 2.47 | 2.47 | 2.49 | 2.64 |
| Fluoride | mg/L | 2.06 | | 3.91 | | | 3.95 | | | 3.97 | | | 3.88 | 3.61 | 3.63 | 3.53 | 3.66 | 3.58 | 3.48 | 3.67 | 3.40 | 3.44 | 3.25 | 3.79 |
| Sulfate as SO4 | mg/L | 190 | | 3.79 | | | 9.58 | | | 1.02 | | | <1.00 | <2.00 | <2.00 | <2.00 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <1.00 | <2.00 |
| Total Organic Carbon (TOC) | mg/L | 2.80 | | 1.80 | | | 3.33 | | | 1.94 | | | 1.69 | 1.69 | 1.92 | 1.82 | 1.66 | 1.2 | 1.71 | 1.79 | 1.60 | 1.70 | 1.72 | 1.77 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | 0.282 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.050 | | <0.100 | | | <0.250 | | | <0.050 | | | <0.050 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.050 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 |
| Arsenic | mg/L | 0.0106 | | <0.0010 | | | 0.0006 | | | 0.0007 | | | 0.0006 | <0.0005 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | 0.0008 | 0.0008 | <0.0025 |
| Cadmium | mg/L | <0.0001 | | <0.0002 | | | <0.0001 | | | <0.0001 | | | <0.0001 | <0.0001 | <0.0002 | <0.0003 | <0.0005 | <0.0003 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Copper | mg/L | 0.0337 | | 0.0077 | | | 0.0047 | | | 0.0041 | | | 0.0051 | 0.0033 | 0.0012 | 0.0017 | <0.0025 | 0.0025 | 0.0057 | 0.0068 | 0.0065 | 0.0075 | 0.0167 | 0.0052 |
| Iron | mg/L | <0.050 | | <0.100 | | | <0.250 | | | <0.050 | | | <0.050 | <0.100 | <0.250 | <0.250 | <0.250 | <0.150 | <0.050 | <0.250 | <0.100 | <0.050 | <0.050 | <0.100 |
| Lead | mg/L | <0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0010 | <0.0005 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0025 | <0.0025 | <0.0025 |
| Manganese | mg/L | 0.0258 | | 0.0038 | | | 0.0150 | | | 0.0020 | | | 0.0026 | 0.0025 | 0.0029 | 0.0026 | 0.0028 | 0.0024 | 0.0021 | 0.0025 | 0.0023 | 0.0022 | 0.0027 | <0.0025 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 |
| Molybdenum | mg/L | 0.0142 | | <0.0010 | | | 0.0009 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0005 | <0.0005 | <0.0025 |
| Selenium | mg/L | 0.0020 | | <0.0020 | | | <0.0010 | | | <0.0010 | | | <0.0010 | <0.0010 | <0.0020 | <0.0030 | <0.0050 | 0.0031 | <0.0030 | <0.0050 | <0.0020 | <0.0010 | <0.0010 | <0.0050 |
| Silica (SiO2) | mg/L | 9.09 | | 8.45 | | | 8.68 | | | 8.28 | | | 7.77 | 7.62 | 7.40 | 7.84 | 7.4 | 8.17 | 8.21 | 7.82 | 8.28 | 8.44 | 8.13 | 7.63 |
| Silicon | mg/L | 4.25 | | 3.95 | | | 4.06 | | | 3.87 | | | 3.63 | 3.56 | 3.46 | 3.67 | 3.46 | 3.82 | 3.84 | 3.66 | 3.87 | 3.95 | 3.80 | 3.56 |
| Uranium | mg/L | 0.0044 | | <0.0002 | | | 0.0001 | | | 0.0001 | | | <0.0002 | <0.0005 | <0.0010 | <0.0015 | <0.0025 | <0.0015 | <0.0015 | <0.0025 | <0.0010 | <0.0025 | <0.0025 | <0.0025 |
| Zinc | mg/L | 0.0080 | | <0.0040 | | | 0.0023 | | | <0.0020 | | | <0.0020 | <0.002 | <0.0040 | <0.0060 | <0.0100 | <0.0060 | <0.0060 | <0.0100 | <0.0040 | 0.0079 | <0.0100 | <0.0100 |

Notes & Definitions:

- ^ one-time analysis
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

| MW-8-PL | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--------|---------|--------|---------|--------|--------|---------|--------|--------|---------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Year | 2018 | 2019 | | | | | | | | | | | 2020 | | | | 2021 | | | | 2022 | | | |
| Quarter | Q4 | Q1 | | | Q2 | | | Q3 | | | Q4 | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | |
| Month | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 2 | 5 | 8 | 11 | 2 | 5 | 8 | 11 | 3 | 6 | 9 | |
| Sample Date | 12/27 | 1/29 | 2/19 | 3/20 | 4/16 | 5/29 | 6/20 | 7/24 | 8/13 | 9/27 | 10/24 | 11/6 | 2/11 | 5/27 | 8/25 | 11/11 | 2/16 | 5/24 | 8/24 | 11/30 | 3/23 | 6/7 | 9/8 | |
| Lab Analysis (Y/N) | Y | N | Y | N | N | Y | N | N | N | Y | N | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y | |
| Field Parameters: | | | | | | | | | | | | | | | | | | | | | | | | |
| Purge Flow Rate | gpm | 0.25 | 1.00 | 0.50 | 3.00 | 0.50 | 0.25 | 0.50 | 1.00 | 0.50 | 0.50 | 0.75 | 0.25 | 0.25 | 0.25 | 0.25 | 0.75 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.13 | |
| Total Purged | gal | 20.0 | 5.0 | 2.0 | 3.0 | 2.0 | 3.0 | 2.5 | 2.3 | 2.5 | 2.0 | 2.5 | 1.3 | 2.0 | 2.0 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 | |
| Depth to Water | ft bgs | 125.97 | 126.29 | 126.40 | 127.10 | 126.98 | 126.70 | 126.82 | 127.25 | 127.38 | 127.42 | 127.48 | 127.59 | 127.32 | 127.34 | 128.00 | 127.31 | 127.50 | 127.83 | 127.89 | 127.90 | 128.30 | 128.40 | 128.53 |
| Temperature | deg C | 10.3 | 14.2 | 13.4 | 12.9 | 13.2 | 14.2 | 14.8 | 14.7 | 14.9 | 14.0 | 13.2 | 14.9 | 13.8 | 14.8 | 14.9 | 14.1 | 12.9 | 14.6 | 14.8 | 13.4 | 14.1 | 14.1 | 14.3 |
| pH | SU | 7.50 | 7.30 | 7.49 | 7.30 | 7.29 | 7.31 | 7.57 | 7.56 | 7.52 | 7.45 | 7.47 | 7.52 | 7.55 | 7.47 | 7.52 | 7.52 | 7.53 | 7.58 | 7.55 | 7.57 | 7.43 | 7.49 | 7.44 |
| Specific Conductance | µS/cm | 1690 | 1531 | 1571 | 1558 | 1554 | 1411 | 1326 | 1165 | 1083 | 947 | 940 | 900 | 862 | 844 | 792 | 827 | 760 | 813 | 816 | 836 | 817 | 826 | 822 |
| Oxygen Reduction Potential | mV | 30.2 | -116.5 | 97.9 | -108.7 | -110.6 | 34.2 | -57.6 | -74.0 | -79.5 | -51.3 | -52.5 | -30.8 | -59.9 | -101.9 | -38.0 | -37.3 | -11.5 | -76.6 | -64.4 | -53.5 | -161.9 | -94.6 | -215.9 |
| Lab Analytical Results: | | | | | | | | | | | | | | | | | | | | | | | | |
| Hardness as CaCO3 | mg/L | 617 | | 644 | | | 596 | | | 411 | | | 294 | 278 | 298 | 292 | 268 | 281 | 283 | 280 | 272 | 292 | 276 | 275 |
| pH (Lab) | SU | 7.28 | | 7.40 | | | 7.26 | | | 7.22 | | | 7.39 | 7.47 | 7.19 | 7.16 | 7.41 | 7.36 | 7.41 | 7.29 | 7.16 | 7.42 | 7.47 | 7.88 |
| Total Dissolved Solids (Lab) | mg/L | 1150 | | 1090 | | | 995 | | | 705 | | | 620 | 500 | 490 | 525 | 465 | 525 | 505 | 475 | 465 | 485 | 505 | 500 |
| Calcium | mg/L | 112 | | 120 | | | 105 | | | 73.1 | | | 52.1 | 49.3 | 53.8 | 53.3 | 49.1 | 52.2 | 53.3 | 53 | 51.1 | 55.7 | 53.1 | 52.4 |
| Magnesium | mg/L | 82.1 | | 83.8 | | | 81.4 | | | 55.4 | | | 39.7 | 37.6 | 39.7 | 38.5 | 35.4 | 36.6 | 36.5 | 35.9 | 35.0 | 37.1 | 34.9 | 35.1 |
| Sodium | mg/L | 106 | | 124 | | | 102 | | | 91.7 | | | 83.3 | 78.5 | 80.4 | 81.6 | 77.2 | 78.6 | 79.7 | 77.8 | 73.7 | 80.8 | 75.4 | 76.3 |
| Potassium | mg/L | 5.14 | | 5.62 | | | <5.00 | | | 2.80 | | | 2.35 | 2.32 | 2.11 | <2.00 | <2.00 | 1.78 | 1.73 | <2.00 | 1.54 | 1.71 | 1.48 | 1.53 |
| Alkalinity, Total | mg/L | 370 | | 415 | | | 435 | | | 393 | | | 390 | 339 | 340 | 315 | 410 | 370 | 385 | 360 | 385 | 362 | 380 | 356 |
| Alkalinity, Bicarbonate | mg/L | 370 | | 415 | | | 435 | | | 393 | | | 390 | 339 | 340 | 315 | 410 | 370 | 385 | 360 | 385 | 362 | 380 | 340 |
| Alkalinity, Carbonate | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | 16.0 |
| Alkalinity, Hydroxide | mg/L | <10.0 | | <10.0 | | | <10.0 | | | <10.0 | | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 |
| Chloride | mg/L | 18.8 | | 18.5 | | | 9.03 | | | 5.61 | | | 5.66 | 3.51 | 3.38 | 3.33 | 3.32 | 3.39 | 3.30 | 3.33 | 3.38 | 3.33 | 3.34 | 3.66 |
| Fluoride | mg/L | 0.505 | | 0.474 | | | 0.290 | | | 0.291 | | | <0.500 | 0.258 | 0.240 | 0.233 | 0.224 | 0.219 | 0.200 | 0.222 | 0.196 | 0.195 | 0.159 | 0.198 |
| Sulfate as SO4 | mg/L | 478 | | 471 | | | 390 | | | 232 | | | 127 | 109 | 103 | 99.2 | 99 | 101 | 96.3 | 102 | 98.4 | 100 | 94.7 | 106 |
| Total Organic Carbon (TOC) | mg/L | 4.17 | | 4.02 | | | 2.92 | | | 2.21 | | | 1.75 | 1.63 | 1.63 | 1.61 | 1.44 | 0.928 | 1.42 | 1.54 | 1.40 | 1.54 | 1.36 | 1.60 |
| Nitrate/Nitrite as N | mg/L | <0.020 | | <0.020 | | | <0.020 | | | <0.020 | | | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | <0.020 | 0.052 | <0.020 | <0.020 |
| Ammonia as N ^ | mg/L | NA | | NA | | | NA | | | NA | | | 0.199 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Ortho-Phosphate as P ^ | mg/L | NA | | NA | | | NA | | | NA | | | <0.0500 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Aluminum | mg/L | <0.050 | | <0.100 | | | <0.250 | | | <0.050 | | | <0.050 | <0.050 | <0.100 | <0.100 | <0.100 | <0.050 | <0.050 | <0.100 | <0.050 | <0.050 | <0.050 | <0.050 |
| Arsenic | mg/L | 0.0074 | | 0.0124 | | | 0.0190 | | | 0.0156 | | | 0.0104 | 0.0073 | 0.0075 | 0.0064 | 0.0058 | 0.0074 | 0.0055 | 0.0017 | 0.0051 | 0.0046 | 0.0047 | 0.0042 |
| Cadmium | mg/L | <0.0001 | | <0.0002 | | | <0.0001 | | | <0.0001 | | | <0.0001 | <0.0002 | <0.0001 | <0.0002 | <0.0002 | <0.0001 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0005 | <0.0010 |
| Copper | mg/L | 0.0016 | | 0.0025 | | | 0.0017 | | | 0.0011 | | | 0.0004 | 0.001 | <0.0025 | <0.001 | 0.0014 | 0.0005 | 0.0013 | <0.0010 | 0.0015 | 0.0023 | 0.0040 | 0.0014 |
| Iron | mg/L | <0.050 | | 0.352 | | | <0.250 | | | 0.129 | | | 0.075 | 0.054 | <0.100 | <0.100 | <0.100 | <0.050 | <0.050 | <0.100 | 0.070 | 0.079 | <0.050 | 0.063 |
| Lead | mg/L | <0.0005 | | <0.0010 | | | <0.0005 | | | <0.0005 | | | <0.0005 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0025 | <0.0010 |
| Manganese | mg/L | 1.31 | | 1.22 | | | 0.697 | | | 0.505 | | | 0.313 | 0.303 | 0.307 | 0.259 | 0.219 | 0.196 | 0.175 | 0.0772 | 0.161 | 0.163 | 0.150 | 0.145 |
| Mercury (dissolved) | mg/L | <0.0002 | | <0.0002 | | | <0.0002 | | | <0.0002 | | | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 | <0.0002 |
| Mercury (dissolved low-level) | ng/L | | | | | | | | | | | | | | | | | | | | | <5.00 | <100 | |
| Molybdenum | mg/L | 0.0090 | | 0.0068 | | | 0.0020 | | | 0.0021 | | | 0.0017 | 0.0008 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.0005 | <0.0005 | <0.0010 |
| Selenium | mg/L | 0.0012 | | <0.0020 | | | <0.0010 | | | <0.0010 | | | <0.0010 | <0.001 | <0.0010 | <0.0020 | <0.0020 | 0.0038 | <0.0020 | <0.0020 | 0.0031 | <0.0010 | 0.0014 | <0.0020 |
| Silica (SiO2) | mg/L | 14.1 | | 16.3 | | | 17.7 | | | 18.5 | | | 18.0 | 18.9 | 18.7 | 19.9 | 18.5 | 20.1 | 21.5 | 20 | 20.8 | 22.2 | 20.4 | 20.8 |
| Silicon | mg/L | 6.58 | | 7.64 | | | 8.28 | | | 8.67 | | | 8.42 | 8.82 | 8.75 | 9.28 | 8.66 | 9.40 | 10.00 | 9.37 | 9.71 | 10.4 | 9.54 | 9.75 |
| Uranium | mg/L | 0.0052 | | 0.0040 | | | 0.0010 | | | 0.0009 | | | 0.0004 | <0.0005 | <0.0005 | <0.0010 | <0.0010 | <0.0005 | <0.001 | <0.0010 | <0.0005 | <0.0005 | <0.0025 | <0.0010 |
| Zinc | mg/L | 0.0344 | | <0.0040 | | | <0.0020 | | | <0.0080 | | | <0.0020 | <0.0020 | <0.0100 | <0.0040 | <0.0040 | <0.0020 | <0.004 | <0.0040 | <0.0020 | <0.0020 | <0.0020 | <0.0040 |

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