# Mesa Water Report Summary

This is a summary of the Mesa Water Report showing the effectiveness of the Sentry Wellness System against contaminants found in Mesa, AZ water.
You can view the full report on pages 2-5.

Aquatic Consulting & Testing, Inc. tested a sample of Mesa, AZ water in 2022 after it was treated with the Sentry Wellness System. This testing shows a significant decrease in harmful toxins, including arsenic, chromium, and fluoride, as well as an increase in good minerals, including calcium, magnesium, and pH.

The chart below shows the amount of each contaminant and mineral present in Mesa, AZ water without treatment and the amount of each found after treatment with the Sentry Wellness System. The chart also shows the increase in the amount of each contaminant found in untreated Mesa, AZ water between 2020 and 2021.

| CONTAMINANTS / MINERALS | 2020 MESA WATER WITHOUT TREATMENT* | 2021 MESA WATER WITHOUT TREATMENT** | MESA WATER TREATED WITH SENTRY WELLNESS SYSTEM |
|---|---|---|---|
| **Arsenic** | 4.5 ppb | 6 ppb | <0.5 ppb |
| **Chromium** | 9 ppb | 12 ppb | <0.1 ppb |
| **Fluoride** | 0.53 ppm | 0.615 ppm | <0.5 ppm |
| **Calcium** | 67 ppm | 64 ppm | 100 ppm |
| **Magnesium** | 25.5 ppm | 25.5 ppm | 198 ppm |
| **pH** | 7.65 SU | 7.635 SU | 8.5 SU |

***Units of Measurement:*** *ppb = parts per billion  ppm = parts per million  SU = Standard Units*

**These are averages of the sample ranges listed in the City of Mesa Water Resources 2020 Water Quality Consumer Confidence Report. For example, the range listed for arsenic is 1.2-7.8 ppb, so the average amount of arsenic found in Mesa, AZ water in 2020 was 4.5 ppb.*

***These are averages of the sample ranges listed in the Mesa Water Report by Aquatic Consulting & Testing, Inc.. For example, the range listed for arsenic is 1.2-10.8 ppb, so the average amount of arsenic found in Mesa, AZ water in 2021 was 6 ppb.*

**Still have questions about this report? We're happy to help!**
Please send us an email at CleanWater@SentryH2O.com or call us at 1-833-377-3817 Monday-Friday 8am-4pm AZ Time.

Sentry $H_2O$

# 2021 Regulated Contaminants

| Radionuclides | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Contaminant** | **Unit of Measure** | **MCL Violation Y or N** | **Highest Level Detected** | **Range of All Samples** | **MCL** | **MCLG** | **Sample Year** | **Likely Sources of Contamination** |
| **Gross alpha, excluding radon and uranium** | piC/L | **N** | 5.0 | 2.4 - 5.0 | 15 | 0 | 2021 | Erosion of natural deposits |
| **Inorganic Chemicals** | | | | | | | | |
| **Contaminant** | **Unit of Measure** | **MCL Violation Y or N** | **Highest Level Detected** | **Range of All Samples (Low - High)** | **MCL** | **MCLG** | **Sample Year** | **Likely Sources of Contamination** |
| **Arsenic** | ppb | **N** | 10.8** | 1.20 - 10.8 | 10** | 0 | 2021 | Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes. |
| **Barium** | ppm | **N** | 0.11 | 0.005 - 0.11 | 2 | 2 | 2021 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits. |
| **Chromium, Total** | ppb | **N** | 24 | ND - 24 | 100 | 100 | 2021 | Discharge from steel and pulp mills; Erosion of natural deposits. |
| **Fluoride** | ppm | **N** | 1.11 | 0.12 - 1.11 | 4 | 4 | 2021 | Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories. |
| **Nitrate** | ppm | **N** | 6.46 | ND - 6.46 | 10 | 10 | 2021 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. |
| **Sodium** | ppm | **N** | 190 | 53 - 190 | N/A | N/A | 2021 | Erosion of natural deposits. |
| **Synthetic Organic Chemicals** | | | | | | | | |
| **Contaminant** | **Unit of Measure** | **MCL Violation Y or N** | **Highest Level Detected** | **Range of All Samples (Low - High)** | **MCL** | **MCLG** | **Sample Year** | **Likely Sources of Contamination** |
| **Dibromochloropropane** | ppt | **N** | 26 | ND - 26 | 200 | 0 | 2021 | Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards. |
| **Volatile Organic Chemicals** | | | | | | | | |
| **Contaminant** | **Unit of Measure** | **MCL Violation Y or N** | **Highest Level Detected** | **Range of All Samples (Low - High)** | **MCL** | **MCLG** | **Sample Year** | **Likely Sources of Contamination** |
| **Dichloromethane** | ppb | **N** | 0.5 | ND - 0.5 | 5 | 0 | 2021 | Discharge from pharmaceutical and chemical factories. |
| **Tetrachloroethylene** | ppb | **N** | 0.56 | ND - 0.56 | 5 | 0 | 2021 | Discharge from factories and dry cleaners |
| **Trichloroethylene** | ppb | **N** | 0.54 | ND - 0.54 | 5 | 0 | 2021 | Discharge from metal degreasing sites and other factories. |

# 2021 Regulated Contaminants

## Surface Water Monitoring - *CRYPTOSPORIDIUM*

The City of Mesa performed surface water monitoring for Cryptosporidium in 2020. Eight (8) samples were collected. There was no indication of the presence of Cryptosporidium in our source water during the 2020 calendar year.

## Violation Summary (for MCL, MRDL, AL, TT, or Monitoring and Reporting Requirement)

*The City of Phoenix was issued a violation for Treatment Technique (TT) for one turbidity sample in January 2021. Compliance was restored upon submission of the report.
The City of Mesa was issued a monitoring violation for missed reporting for the DBP Stage 1 Monitoring Plan for Total Organic Carbon for January 2021.

**This Arsenic result was from a single annual sample in the fourth quarter of 2021, which triggered quarterly monitoring. Compliance is then based on a location-specific running four quarter average.

## Other Parameters of Interest

| Contaminant | Unit of Measure | Range of All Samples (Low - High) | Non-enforceable Secondary Standard | Sample Year |
|---|---|---|---|---|
| **pH** | S.U. (standard units) | 6.87 - 8.4 | 6.5 - 8.5 | 2021 |
| **Calcium** | ppm | 49 - 79 | N/A | 2021 |
| **Magnesium** | ppm | 11 - 40 | N/A | 2020 |
| **Hardness** | ppm | 140 - 410 | N/A | 2020 |
| **Hardness** | **gpg** | **8.2 - 25** | **N/A** | **2020** |
| **Sodium** | ppm | 53 - 190 | N/A | 2021 |
| **Potassium** | ppm | 5 - 5.39 | N/A | 2020 |
| **Nickel** | ppb | ND - 3.8 | N/A | 2021 |
| **Iron** | ppb | ND - 50 | 300 | 2020 |

***WHY IS THE RANGE OF HARDNESS SO WIDE?***
Drinking water in Mesa comes from surface water and groundwater sources. Depending on utility operations, the water you consume may have a higher percentage of groundwater. Groundwater sources also vary in the concentration of mineral deposits and hardness. A range for the sources sampled in 2020 and 2021 is provided.

# AQUATIC CONSULTING & TESTING, INC.

1525 W. University Drive, Suite 106
P.O. Box 1510
Tempe, Arizona 85281
Phone: (480) 921-8044 • Fax: (480) 921-0049

Lic. No. AZ0003


## LABORATORY REPORT

**Client:** Celtic Plastic
329 S Rockford Dr
Tempe, AZ 85281

**Date Submitted:** 10/28/22
**Date Reported:** 11/04/22

**Attn:** Corey McIlveen

**Project:** Sentry Filtration Wellness Syste

### RESULTS

**Client ID:** Mesa Home Sample 2
**ACT Lab No.:** CE08418

**Sample Type:** Drinking Water
**Sample Time:** 10/28/22 09:00

| Parameter | Analysis Date Start | Analysis Date End | Method No. | Result | Unit |
|---|---|---|---|---|---|
| Chromium, Hexavalent | 10/28/22 | 10/28/22 | SM3500Cr D | <0.01 | mg/L |
| Arsenic | 11/01/22 | 11/01/22 | 200.8 | <0.0050 | mg/L |

**Reviewed by:** _____

**Frederick A. Amalfi, Ph.D.**
**Laboratory Director**

# AQUATIC CONSULTING & TESTING, INC.

1525 W. University Drive, Suite 106
P.O. Box 1510
Tempe, Arizona 85281
Phone: (480) 921-8044 • Fax: (480) 921-0049

Lic. No. AZ0003


## LABORATORY REPORT

**Client:** Celtic Plastic
329 S Rockford Dr
Tempe, AZ 85281

**Date Submitted:** 10/28/22
**Date Reported:** 11/04/22

**Attn:** Corey McIlveen

**Project:** Sentry Filtration Wellness Syste

### RESULTS

**Client ID:** Mesa Home Sample 1
**ACT Lab No.:** CE08417

**Sample Type:** Drinking Water
**Sample Time:** 10/28/22 09:00

| Parameter | Analysis Date Start | Analysis Date End | Method No. | Result | Unit |
|---|---|---|---|---|---|
| Fluoride | 10/28/22 | 10/28/22 | SM4500F C | <0.5 | mg/L |
| Total Hardness | 11/01/22 | 11/01/22 | SM2340C | 298. | mg/L as CaCO3 |
| Calcium Hardness | 11/03/22 | 11/03/22 | 200.7 | 100. | mg/L as CaCO3 |
| pH | 10/28/22 | 10/28/22 | SM4500H+ B | 8.5@23C | SU |

Calcium = 40 ppm, Magnesium = 48 ppm.

**Reviewed by:** _____

**Frederick A. Amalfi, Ph.D.**
**Laboratory Director**