ANNUAL WATER QUALITY REPORT

REPORTING YEAR 2023

PRESENTED BY

HESPERIA WATER DISTRICT

BOARD OF DIRECTORS

Larry Bird, Chair
Rebekah Swanson, Vice Chair
Brigit Bennington, Board Member
Cameron Gregg, Board Member
Allison Lee, Board Member

Rachel Molina, *General Manager*

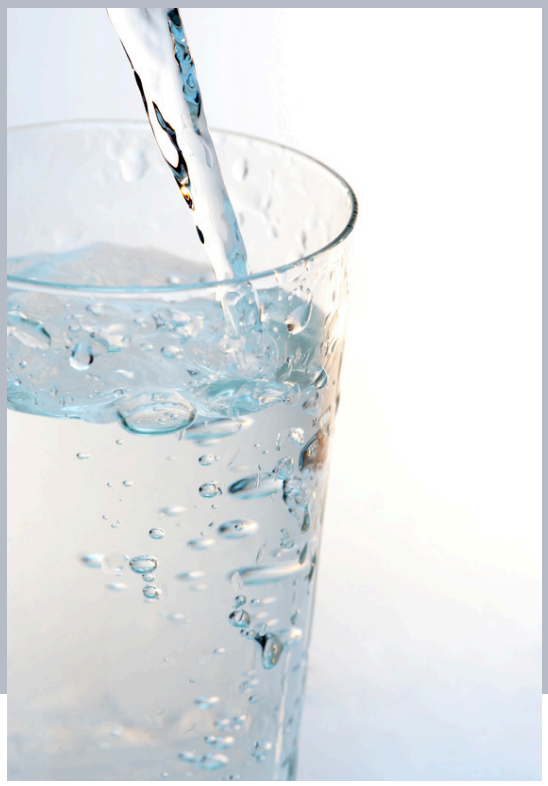
Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: CA3610024

Dear Customers,

The Hesperia Water District is pleased to present to you the 2023 Annual Water Quality Report. This report contains detailed information regarding the quality of your drinking water, where it comes from, and other information in compliance with federal and state law. This report is intended to assure citizens that their drinking water is of the highest quality, meeting all federal and state water quality standards since the implementation of the U.S. Environmental Protection Agency's (U.S. EPA) Safe Drinking Water Act in 1974. The district serves a population of nearly 100,744 residents, including residential and business customers. In 2023 the district provided 12,601 acre-feet of potable (drinkable) water to customers. This equates to over 4.1 billion gallons of water citywide. Thanks to our trained and certified water professionals, residents have the security of knowing their drinking water is of the very best quality.

Thank you,
Hesperia Water District



SUBSTANCES IN THE WATER

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and Herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;
- Radioactive Contaminants that can be naturally occurring or can be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U.S. EPA and the State Water Resources Control Board prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

LEAD IN HOME PLUMBING

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Hesperia Water District is responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to two minutes before using water for drinking or cooking. (If you do so, you may wish to collect the flushed water and reuse it for another beneficial purpose, such as watering plants.) If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at (800) 426-4791 or at www.epa.gov/safewater/lead.

STAY INFORMED

Board meetings are held the first and third Tuesday of each month at 6:30 p.m. in conjunction with city council meetings. Meetings are open to the public and may be viewed live on the city's website, www. cityofhesperia.us. City Hall is located at 9700 Seventh Avenue, Hesperia.

IMPORTANT HEALTH INFORMATION

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or http://water.epa.gov/drink/hotline.

QUESTIONS

For more information about this report, or for any questions related to your drinking water, please contact a Hesperia Water District water quality specialist at (760) 947-1490.

TEST RESULTS

Our water is monitored for many different kinds of substances on a very strict sampling schedule, and the water we deliver must meet specific health standards. Here, we only show those substances that were detected in our water (a complete list of all our analytical results is available upon request). Remember that detecting a substance does not mean the water is unsafe to drink; our goal is to keep all detects below their respective maximum allowed levels. We are pleased to report that your drinking water meets or exceeds all federal and state requirements. The state allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than a year old.

SOURCE WATER DESCRIPTION

Hesperia's water is extracted through 15 wells, where the water is regularly tested and treated in compliance with all applicable state and federal regulations. The water is pumped directly from the Alto Subarea sub-basin of the Mojave River groundwater basin. The basin is recharged by rainfall and snowmelt from the local mountains as well as imported water from the State Water Project. Because the quality of the groundwater meets state and federal standards, the wells pump directly into Hesperia's distribution system or storage reservoirs after disinfection.

The peak day of production for the district was July 13, 2023, during which it produced over 18 million gallons of water within a 24-hour period. Hesperia's households and businesses maintained positive water pressure.

SOURCE WATER ASSESSMENT

A source water assessment has been conducted on all 15 wells for the Hesperia Water District. The water sources are most vulnerable to the activities of septic systems with high density. Copies of the District's Source Water Assessments can be obtained by contacting the Water Quality Specialist at (760) 947-1490 or by contacting the State Water Resources Control Board Division of Drinking Water, Mojave District Office located at 464 West Fourth Street, Suite 437, San Bernardino, CA. 92401.

REGULATED SUBSTANCES

Substance (Unit of Measure)	Year Sampled	MCL	PHG (MCLG)	Amount Detected	Range Low-High	Violation	Typical Source
Arsenic (ppb)	2021/2022	10	0.004	0.18	ND - 1.9	NO	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Chromium, Total (ppb)	2022	50	(100)	0.09	ND - 1.4	NO	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2021/2023	2	1	0.24	ND - .65	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Gross Alpha Particle Activity (pCi/L)	2022/2023	15	(0)	1.4	ND - 4.88	NO	Erosion of natural deposits
Nitrate as N (ppm)	2023	10	10	1.03	ND - 2.7	NO	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

MICROBIOLOGICAL CONTAMINANTS

Substance (Unit of Measure)	Year Sampled	MCL	PHG (MCLG)	Amount Detected	Violation	Typical Source
Total Coliform Bacteria (# positive samples)	2023	Less than 5% of monthly samples are positive	0	0	NO	Naturally present in the environment
Fecal Coliform or *E. Coli* (# of positive samples)	2023	0	(0)	0	NO	Human and animal fecal waste

DISINFECTION BYPRODUCTS, DISINFECTANT RESIDUALS

Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG [MRDLG]	Amount Detected	Range Low-High	Violation	Typical Source
Chlorine (ppm)	2023	[4]	[4]	0.29	0.2 - 1.20	NO	Drinking water disinfectant added for treatment
TTHMs [Total Trihalomethanes] (ppb)	2023	80	N/A	ND	ND	NO	Byproduct of drinking water disinfection
HAA5 [Sum of 5 Haloacetic Acids] (ppb)	2023	60	N/A	ND	ND	NO	Byproduct of drinking water disinfection

LEAD AND COPPER

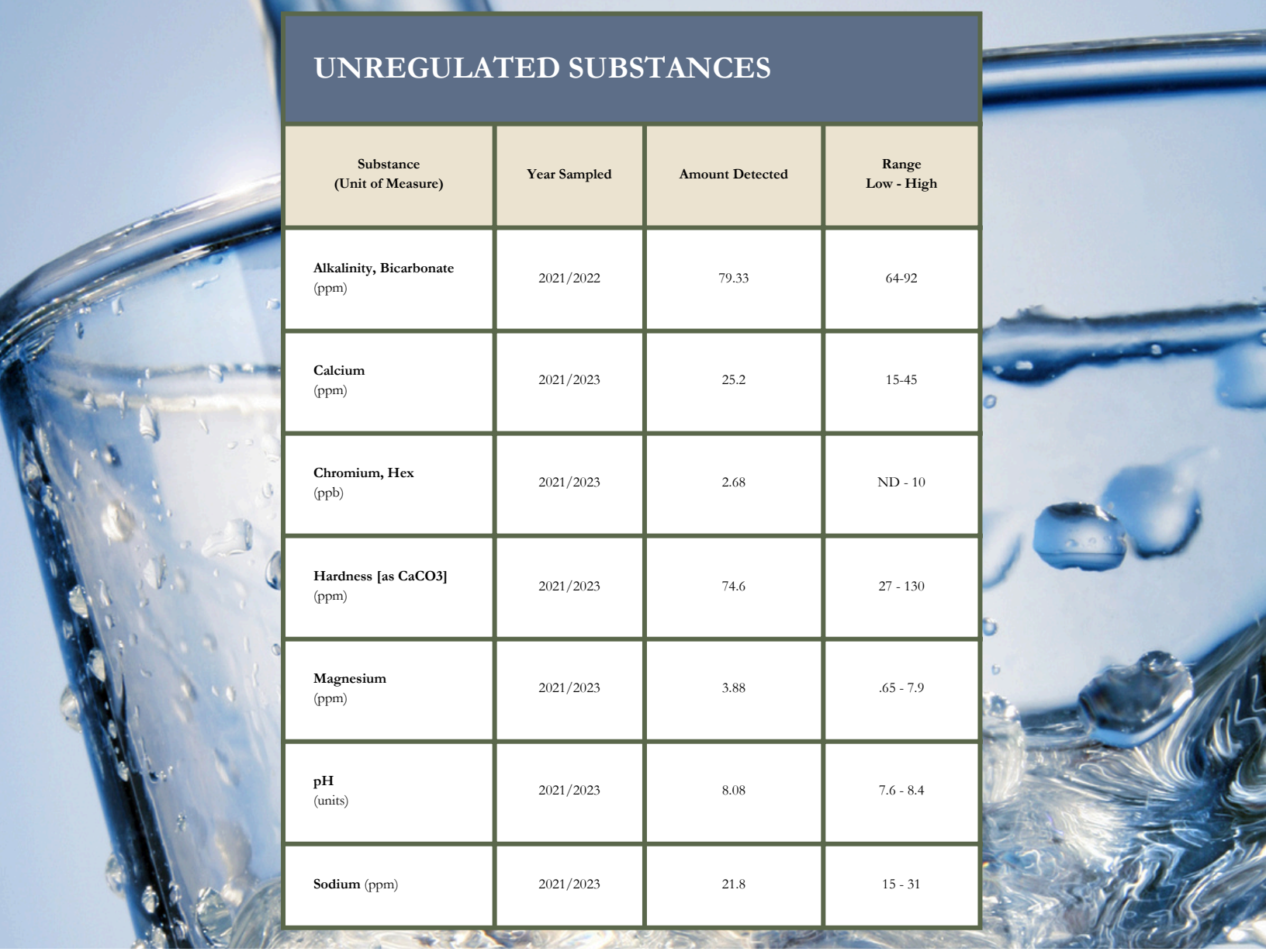
Substance (Unit of Measure)	Year Sampled	AL	PHG (MCLG)	Amount Detected (90th Percentile)	Sites Above AL/Total Sites	Violation	Typical Source
Copper (ppm)	2022	1.3	0.3	ND	0/30	NO	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb)	2022	15	0.2	ND	0/30	NO	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits

UNREGULATED CONTAMINANT MONITORING RULE 5

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low - High	Violation
Perfluorooctanoic Acid [PFOA] (ppt)	2023	5.1	ND - 10.2	NO
Perfluorooctanesulfonic Acid [PFOS] (ppt)	2023	5.55	ND - 11.11	NO

SECONDARY SUBSTANCES

Substance (Unit of Measure)	Year Sampled	MCL	Amount Detected	Range Low-High	Violation	Typical Source
Chloride (ppm)	2021/2023	500	15.79	(5.6 - 41)	NO	Runoff/leaching from natural deposits; seawater influence
Copper (ppm)	2021/2023	1	0.31	(ND - 2.6)	NO	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Odor, Threshold (TON)	2021/2023	3	0.53	(ND - 2)	NO	Naturally-occurring organic materials
Specific Conductance (umho/cm)	2021/2023	1,600	247.33	(170 - 380)	NO	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2021/2023	500	12.13	(2.6 - 26)	NO	Runoff/leaching from natural deposits; industrial wastes
Turbidity (NTU)	2021/2023	5	0.20	(ND - .54)	NO	Soil runoff
Total Dissolved Solids [TDS] (ppm)	2021/2023	1,000	152.67	(110 - 220)	NO	Runoff/leaching from natural deposits



UNREGULATED SUBSTANCES

Substance (Unit of Measure)	Year Sampled	Amount Detected	Range Low - High
Alkalinity, Bicarbonate (ppm)	2021/2022	79.33	64-92
Calcium (ppm)	2021/2023	25.2	15-45
Chromium, Hex (ppb)	2021/2023	2.68	ND - 10
Hardness [as CaCO3] (ppm)	2021/2023	74.6	27 - 130
Magnesium (ppm)	2021/2023	3.88	.65 - 7.9
pH (units)	2021/2023	8.08	7.6 - 8.4
Sodium (ppm)	2021/2023	21.8	15 - 31

DEFINITIONS

90th Percentile: The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our lead and copper detections.

AL(Regulatory Action Level):
The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

MCL (Maximum Contaminant Level):
The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable.

ND: (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

pCi/L (picocuries per liter): A measure of radioactivity.

PDWS (Primary Drinking Water Standard): MCLs, MRDLs and treatment techniques (TTs) for contaminants that affect health, along with their monitoring and reporting requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

ppt (parts per trillion): One part substance per trillion parts water (or nanograms per liter).

TON (Threshold Odor Number): A measure of odor in water.

µmho/cm (micromhos per centimeter): A unit expressing the amount of electrical conductivity of a solution.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

The Hesperia Water District imports a small amount of water from the Mojave Water Agency (MWA). Of the 12,601 acre-feet produced, 2.2 acre-feet was supplied by the Mojave Water Agency. This equates to 730,796 gallons of the 4.1 billion gallons supplied to customers by the district. The results of Mojave Water Agency's 2023 drinking water quality testing are reflected in the table below.

2023 DRINKING WATER QUALITY TEST RESULTS

Wells 1-5

This report includes results from several tests for various constituents. Mojave Water Agency routinely monitors for constituents in the Agency's drinking water in accordance with federal and state laws. Substances that are not detected (ND) are not listed. Values accompanied by < indicate a result less than the detection limit.

The results below represent drinking water quality tests performed by Mojave Water Agency on Wells 1, 2, 3, 4, & 5 in the R3 wholesale water system. These wells provide high quality drinking water through service connections to the cities of Victorville, Hesperia and Adelanto upon request. Contact your local water provider for detailed information on your water quality and where your water comes from.

Inorganics w/ Primary Drinking Water Standards							**Wells 1, 2, 3, 4 & 5**
Contaminants	**Average**	**Sample Range**	**MCL**	**PHG**	**Sample Date**	**Violation**	**Major Sources in Drinking Water**
Fluoride (mg/L) (Naturally Occurring)	0.28	0.23 - 0.33	2	1	2022	NO	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (mg/L) (NO3-N)	0.54	0.47 - 0.64	10	10	2023	NO	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Nitrate + Nitrate (mg/L) (as N)	0.54	0.47 - 0.64	10	10	2023	NO	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits

Radioactive Contaminants							Wells 1, 2, 3, 4 & 5
Contaminants	**Average**	**Sample Range**	**MCL**	**PHG**	**Sample Date**	**Violation**	**Major Sources in Drinking Water**
Uranium (pCi/L)	<1.0	<1.0 - 1.2	20	0.43	2022	NO	Erosion of natural deposits
Radium 226 + 228 (pCi/L)	<1.0	<1.0 - 1.4	5	0	2022	NO	Erosion of Natural Deposits
Disinfectant Byproducts					**Samples are from the distribution system from Wells 1, 2, 3, 4 & 5**		
Haloacetic Acids (ug/L) (HAA5)	<1.0	<1.0 - 1.2	60	N/A	2023	NO	Byproduct of drinking water disinfection
Total Trihalomethanes (ug/L) (TTHM)	5.9	<1.0 - 15.4	80	N/A	2023	NO	Byproduct of drinking water disinfection

Regulated Contaminants with Secondary Maximum Contaminant Levels						Wells 1, 2, 3, 4 & 5
Contaminants	**Average**	**Sample Range**	**Secondary MCL**	**Sample Date**	**Violation**	**Major Sources in Drinking Water**
Chloride (mg/L)	24	19 -29	500	2022	NO	Runoff/leaching from natural deposits; seawater influence
Foaming Agents (ug/L) (MBAS)	<100	<100 - 100	500	2022	NO	Municipal and industrial waste discharges
Odor (Units)	1	1	3	2022	NO	Naturally occurring organic materials
Specific Conductance (µS/cm)	262	240 - 290	1600	2022	NO	Substances that form ions when in water; seawater influence
Sulfate (mg/L)	15	12 - 17	500	2022	NO	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids (mg/L)	170	140 - 190	1000	2022	NO	Runoff/leaching from natural deposits
Turbidity (NTU)	0.17	<0.10 - 0.40	5	2022	NO	Soil runoff

Disinfection Residuals						Sample Results are from the distribution system from Wells 1, 2, 3, 4 & 5
Constituent	**Average**	**Sample Range**	**MCL**	**PHG (MCLG)**	**Sample Date**	**Major Sources in Drinking Water**
Chlorine (mg/L)	0.49	0.20 - 0.94	4	4	Weekly	Drinking water disinfectant added for treatment

Constituents That May Be of Interest to Consumers				Wells 1, 2, 3, 4 & 5
Constituents	**Average**	**Range**	**Sample Date**	**Note**
Bicarbonate (mg/L)	82	80 - 86	2022	No PHG or MCL's available
Calcium (mg/L)	30	28 - 32	2022	No PHG or MCL's available
Magnesium (mg/L)	4.5	4.3 - 4.8	2022	No PHG or MCL's available
pH	7.3	7.1 - 7.7	2022	No PHG or MCL's available
Potassium (mg/L)	1.5	1.5 - 1.6	2022	No PHG or MCL's available
Sodium (mg/L)	16	15 - 17	2022	No PHG or MCL's available
Total Alkalinity (as CaCO3) (mg/L)	67	66 - 71	2022	No PHG or MCL's available
Total Hardness (as CaCO3) (mg/L)	94	88 - 100	2022	No PHG or MCL's available
Aggressive Index	11.20	10.77 - 11.40	2022	No PHG or MCL's available