ANNUAL WATER QUALITY REPORT

Reporting Year 2021

Presented By

Kearns Improvement District

Este es informe valioso sobre su agua potable, si usted desea este información en español nuestra oficina dispone del personal para atenderle.

PWS ID#: 18011

Introduction

Each year the Kearns Improvement District (KID) has the opportunity to publish a report on how well we have met the requirements of the state and federal regulations regarding the delivery of one our most precious resources -safe, clean, and reliable drinking water. Simply put, KID has met or exceeded all regulatory requirements in the delivery of our community's water. The water is continually sampled and tested to ensure its quality as it is delivered to each of you, our customers.

Much of the Intermountain West, including Utah, is in a severe drought. We encourage you to conserve this precious resource. Throughout the year KID will publish tips on ways to help conserve water. Please join us in this statewide effort to SLOW the FLOW.

In the topics below, we have tried to anticipate the questions or concerns that you may have regarding our water. If the answer to a question you have is not answered, please feel free to contact me or John Lawson, our Water Quality Specialist, at (801) 968-1011, and we will provide the information you need.

Our commitment and promise to our customers, our employees, and our community is that you will know that KID CARES!

F. Greg Anderson, PE
General Manager

Radon

Our system monitored for radon and found levels of 0.001 to 10.1 picocuries per liter (pCi/L). Radon is a radioactive gas that you cannot see, taste, or smell. It is found throughout the U.S. Radon can move up through the ground and into a home through cracks and holes in the foundation. Radon can build up to high levels in all types of homes. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water will, in most cases, be a small source of radon in indoor air. Radon is a known human carcinogen. Breathing air containing radon can lead to lung cancer. Drinking water containing radon may also cause increased risk of stomach cancer. If you are concerned about radon in your home, test the air in your home. Testing is inexpensive and easy. You should pursue radon removal for your home if the level of radon in your air is 4 pCi/L or higher. There are simple ways to fix a radon problem that are not too costly. For additional information, call your state radon program or the U.S. EPA Radon Hotline at (800) SOS-RADON.

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. We are responsible for providing high-quality drinking water, but we 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 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 online at: www.epa.gov/safewater/lead.

Important Health Information

While your drinking water meets U.S. EPA's standard for arsenic, it does contain low levels of arsenic. U.S. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water. U.S. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and linked to other health effects such as skin damage and circulatory problems.

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 online at: http://water.epa.gov/drink/hotline.

Where Does My Water Come From?

KID buys 94 percent of the water delivered to our customers from the Jordan Valley Water Conservancy District (JVWCD), our wholesale water provider. Water sources include Jordanelle Reservoir, Deer Creek Reservoir, and local mountain springs and wells. The water is treated at the Jordan Valley Water Treatment Plant, the Southeast Regional Water Treatment Plant, and the Southwest Groundwater Treatment Plant. The remaining 6 percent of the water is delivered through 12 wells located in the Kearns area. KID staff operate and maintain these wells.

Tap vs. Bottled

Thanks in part to aggressive marketing, the bottled water industry has successfully convinced us all that water purchased in bottles is a healthier alternative to tap water. However, according to a four-year study conducted by the Natural Resources Defense Council (NRDC), bottled water is not necessarily cleaner or safer than most tap water. In fact, about 40 percent of bottled water is actually just tap water, according to government estimates.

The Food and Drug Administration (FDA) is responsible for regulating bottled water, but these rules allow for less rigorous testing and purity standards than those required by the U.S. EPA for community tap water. For instance, the high mineral content of some bottled waters makes them unsuitable for babies and young children. Further, the FDA completely exempts bottled water that is packaged and sold within the same state, which accounts for about 70 percent of all bottled water sold in the United States.

People spend 10,000 times more per gallon for bottled water than they typically do for tap water. If you get your recommended eight glasses a day from bottled water, you could spend up to $1,400 annually. The same amount of tap water would cost about 49 cents. Even if you installed a filter device on your tap, your annual expenditure would be far less than what you would pay for bottled water.

For a detailed discussion on the NRDC study results, check out its website at: https://goo.gl/Jxb6xG.

Safeguard Your Drinking Water

Protection of drinking water is everyone's responsibility. You can help protect your community's drinking water source in several ways:

- Eliminate excess use of lawn and garden fertilizers and pesticides—they contain hazardous chemicals that can reach your drinking water source.
- Pick up after your pets.
- Dispose of chemicals properly; take used motor oil to a recycling center.
- Volunteer in your community. Find a watershed or wellhead protection organization in your community and volunteer to help. If there are no active groups, consider starting one. Use U.S. EPA's Adopt Your Watershed to locate groups in your community.
- Organize a storm drain stenciling project with others in your neighborhood. Stencil a message next to the street drain reminding people "Dump No Waste – Drains to River" or "Protect Your Water." Produce and distribute a flyer for households to remind residents that storm drains dump directly into your local water body.

Failure in Flint

The national news coverage of water conditions in Flint, Michigan, has created a great deal of confusion and consternation. The water there has been described as being corrosive; images of corroded batteries and warning labels on bottles of acids come to mind. But is corrosive water bad?

Corrosive water can be defined as a condition of water quality that will dissolve metals (iron, lead, copper, etc.) from metallic plumbing at an excessive rate. There are a few contributing factors, but generally speaking, corrosive water has a pH of less than 7; the lower the pH, the more acidic, or corrosive, the water becomes. (By this definition, many natural waterways throughout the country can be described as corrosive.) While all plumbing will be somewhat affected over time by the water it carries, corrosive water will damage plumbing much more rapidly than water with low corrosivity.

By itself, corrosive water is not a health concern; your morning glass of orange juice is considerably more corrosive than the typical lake or river. What is of concern is that exposure to elevated levels of the dissolved metals in drinking water increases adverse health risks. And therein lies the problem.

Public water systems are required to maintain their water at optimal conditions to prevent it from reaching corrosive levels. Rest assured that we routinely monitor our water to make sure that what happened in Flint never happens here.

Water Conservation Tips

You can play a role in conserving water and save yourself money in the process by becoming conscious of the amount of water your household is using and looking for ways to use less whenever you can. It's not hard to conserve water. Here are a few tips:

- Automatic dishwashers use 15 gallons for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Watch for a few minutes to see if the color shows up in the bowl. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you save more than 30,000 gallons a year.
- Use your water meter to detect hidden leaks. Simply turn off all taps and water-using appliances. Then check the meter after 15 minutes. If it moved, you have a leak.

FOG (fats, oils, and grease)

You may not be aware of it, but every time you pour fat, oil, or grease (FOG) down your sink (e.g., bacon grease), you are contributing to a costly problem in the sewer collection system. FOG coats the inner walls of the plumbing in your house as well as the walls of underground piping throughout the community. Over time, these greasy materials build up and form blockages in pipes, which can lead to wastewater backing up into parks, yards, streets, and storm drains. These backups allow FOG to contaminate local waters, including drinking water. Exposure to untreated wastewater is a public health hazard. FOG discharged into septic systems and drain fields can also cause malfunctions, resulting in more frequent tank pump-outs and other expenses.

Communities spend billions of dollars every year to unplug or replace grease-blocked pipes, repair pump stations, and clean up costly and illegal wastewater spills. Here are some tips that you and your family can follow to help maintain a well-run system now and in the future:

NEVER:

- Pour fats, oil, or grease down the house or storm drains.
- Dispose of food scraps by flushing them.
- Use the toilet as a wastebasket.

ALWAYS:

- Scrape and collect fat, oil, and grease into a waste container, such as an empty coffee can, and dispose of it with your garbage.
- Place food scraps in waste containers or garbage bags for disposal with solid wastes.
- Place a wastebasket in each bathroom for solid wastes like disposable diapers, creams and lotions, and personal hygiene products, including nonbiodegradable wipes.

What's a Cross-Connection?

Cross-connections that contaminate drinking water distribution lines are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air- conditioning systems, fire sprinkler systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine occurrences (main breaks, heavy water demand), causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or attached to a chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools, or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed industrial, commercial, and institutional facilities in the service area to make sure that potential cross-connections are identified and eliminated or protected by a backflow preventer. We also inspect and test backflow preventers to make sure that they provide maximum protection.

For more information on backflow prevention, contact the Safe Drinking Water Hotline at (800) 426-4791.

> **When the well is dry, we know the worth of water.**
>
> *—Benjamin Franklin*

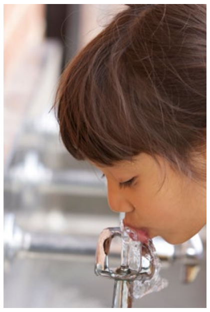
To The Last Drop

The National Oceanic and Atmospheric Administration (NOAA) defines drought as a deficiency in precipitation over an extended period of time, usually a season or more, resulting in a water shortage causing adverse impacts on vegetation, animals, and people. Drought strikes in virtually all climate zones, from very wet to very dry.

There are primarily three types of drought: meteorological drought refers to the lack of precipitation, or the degree of dryness and the duration of the dry period; agricultural drought refers to the agricultural impact of drought, focusing on precipitation shortages, soil water deficits, and reduced groundwater or reservoir levels needed for irrigation; and hydrological drought refers to periods of extended precipitation shortfalls that can impact water supply (i.e., stream flow, reservoir and lake levels, groundwater).

Drought is a temporary aberration from normal climatic conditions; thus, it can vary significantly from one region to another. Although normally occurring, human factors such as water demand can exacerbate the duration and impact that drought has on a region. By following simple water conservation measures, you can help significantly reduce the lasting effects of extended drought.

Count on Us



Delivering high-quality drinking water to our customers involves far more than just pushing water through pipes. Water treatment is a complex, time-consuming process. Because tap water is highly regulated by state and federal laws, water treatment plant and system operators must be licensed and are required to commit to long-term, on-the-job training before becoming fully qualified. Our licensed water professionals have a basic understanding of a wide range of subjects, including mathematics, biology, chemistry, and physics. Some of the tasks they complete on a regular basis include:

- Operating and maintaining equipment to purify and clarify water.
- Monitoring and inspecting machinery, meters, gauges, and operating conditions.
- Conducting tests and inspections on water and evaluating the results.
- Maintaining optimal water chemistry.
- Applying data to formulas that determine treatment requirements, flow levels, and concentration levels.
- Documenting and reporting test results and system operations to regulatory agencies.
- Serving our community through customer support, education, and outreach.

So the next time you turn on your faucet, think of the skilled professionals who stand behind each drop.

Source Water Assessment

A Water Source Protection Plan is now available at our office. This plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area and a determination of the water supply's susceptibility to contamination by the identified potential sources. KID sources have a low to moderate susceptibility to contaminants.

JVWCD also has a Drinking Water Source Protection Plan available for review. Please call (801) 565-4300 if you have any questions or would like to review the plan. JVWCD sources have a low to moderate susceptibility to contaminants.

Substances That Could Be in Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must 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 these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife;

Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which 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 may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Community Participation

You are invited to attend our monthly board of trustees meetings. We generally meet the second Tuesday of each month, beginning at 5:30 p.m., in the KID office, 5350 West 5400 South, Kearns.

Test Results

We are pleased to report that your drinking water meets or exceeds all federal and state requirements. 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.

The state recommends monitoring for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

Definitions

1/cm: one/centimeter

90th %ile: 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 (Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

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 allow for a margin of safety.

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.

NE: Not established

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.

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).

SMCL (Secondary Maximum Contaminant Level): These standards are developed to protect aesthetic qualities of drinking water and are not health based.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

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

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	Kearns Improvement District AMOUNT DETECTED	Kearns Improvement District RANGE LOW-HIGH	Jordan Valley Water Conservancy District AMOUNT DETECTED	Jordan Valley Water Conservancy District RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Alpha Emitters (pCi/L)	2019	15	0	0.08	ND–0.08	14[1]	ND–14[1]	No	Erosion of natural deposits
Antimony (ppb)	2021	6	6	NA	NA	0.7	ND–0.7	No	Discharge from petroleum refineries; Fire retardants; Ceramics; Electronics; Solder
Arsenic (ppb)	2021	10	0	5.4	1–5.4	3.1	ND–3.1	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2019	2	2	0.096	0.060–0.096	0.15[2]	ND–0.15[2]	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Beta/Photon Emitters (pCi/L)	2019	50[3]	0	3.2	2.7–3.2	32[1]	1.2–32[1]	No	Decay of natural and human-made deposits
Cadmium (ppb)	2021	5	5	NA	NA	0.5	ND–0.5	No	Corrosion of galvanized pipes; Erosion of natural deposits
Chlorine Dioxide (ppb)	2021	[800]	[800]	NA	NA	0.5	ND–0.5	No	Water additive used to control microbes
Chlorine (ppm)	2021	[4]	[4]	0.90	0.07–0.90	1.1	0.01–1.1	No	Water additive used to control microbes
Chlorite (ppm)	2021	1	0.8	NA	NA	0.5	ND–0.5	No	By-product of drinking water disinfection
Combined Radium (pCi/L)	2016	5	0	1.4	0.12–1.4	NA	NA	No	Decay of natural and human-made deposits
Cyanide (ppb)	2019	200	200	0.002	NA	3[2]	ND–3[2]	No	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Fluoride (ppm)	2021	4	4	0.917	0.512–0.917	1	0.3–1	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs]–Stage 2 (ppb)	2021	60	NA	28.40	8.85–28.40	50.8[1]	ND–50.8[1]	No	By-product of drinking water disinfection
Nitrate (ppm)	2021	10	10	3.65	0.370–3.65	2.8	0.1–2.8	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2021	1	1	NA	NA	1	ND–1	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2019	50	50	3.6	ND–3.6	8.1[2]	ND–8.1[2]	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
Tetrachloroethylene (ppb)	2016	5	0	1	NA	NA	NA	No	Discharge from factories and dry cleaners
Thallium (ppb)	2021	2	0.5	NA	NA	1.1	ND–1.1	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Total Organic Carbon[4] (ppm)	2016	TT	NA	1.8	1.5–1.8	2.1[2]	ND–2.1[2]	No	Naturally present in the environment
TTHMs [total trihalomethanes]–Stage 2 (ppb)	2021	80	NA	50.57	27.47–50.57	70	ND–70	No	By-product of drinking water disinfection
Turbidity[5] (NTU)	2019	TT	NA	0.31	0.05–0.31	0.7[1]	0.1–0.7[1]	No	Soil runoff
Turbidity (lowest monthly percent of samples meeting limit)	2020	TT = 95% of samples meet the limit	NA	NA	NA	100	NA	No	Soil runoff
Uranium (ppb)	2021	30	0	NA	NA	11	1.2–11	No	Erosion of natural deposits

Tap water samples were collected for lead and copper analyses from sample sites throughout the community

				Kearns Improvement District		Jordan Valley Water Conservancy District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/TOTAL SITES	AMOUNT DETECTED (90TH %ILE)	SITES ABOVE AL/ TOTAL SITES	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2019	1.3	1.3	0.195	0/30	0.31	0/30	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2019	15	0	1.9	0/30	4.7	1/30	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER REGULATED SUBSTANCES

				Kearns Improvement District		Jordan Valley Water Conservancy District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloroform (ppb)	2021	NA	NE	NA	NA	28	ND–28	No	By-product of drinking water disinfection
Copper (ppb)	2021	NE	NE	NA	NA	125	ND–125	No	Erosion of naturally occurring deposits
Giardia (cyst/L)	2017	TT	0	NA	NA	7	ND–7	No	Parasite that enters lakes and rivers through sewage and animal waste
Lead (ppb)	2021	NE	NE	NA	NA	1.4	ND–1.4	No	Erosion of naturally occurring deposits
Radium 226 (pCi/L)	2021	NE	NE	NA	NA	1.3	ND–1.3	No	Decay of natural and human-made deposits
Radium 228 (pCi/L)	2019	NE	NE	0.32	ND–0.32	0.5[2]	ND–0.5[2]	No	Naturally occurring
Radon (pCi/L)	2021	NE	NE	NA	NA	10.1	0.001–10.1	No	Naturally occurring in soil
Total Dissolved Solids [TDS] (ppm)	2019	1,000	NA	740	260–740	652[2]	13.2–652[2]	No	Runoff/leaching from natural deposits
Turbidity [groundwater sources] (NTU)	2021	5	NE	NA	NA	0.8	0.01–0.8	No	Suspended material from soil runoff
Turbidity [surface water sources] (NTU)	2021	0.3	TT	NA	NA	0.8	0.01–0.8	No	Suspended material from soil runoff

SECONDARY SUBSTANCES

				Kearns Improvement District		Jordan Valley Water Conservancy District			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Aluminum (ppb)	2021	200	NA	NA	NA	17.7	ND–17.7	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2020	250	NA	NA	NA	161	10–161	No	Runoff/leaching from natural deposits
Color (units)	2021	15	NA	NA	NA	10	0.3–10	No	Naturally occurring organic materials
Iron (ppb)	2021	300	NA	NA	NA	188	ND–188	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2021	50	NA	NA	NA	34	ND–34	No	Leaching from natural deposits
pH (units)	2021	6.5-8.5	NA	NA	NA	8.4	6.9–8.4	No	Naturally occurring
Silver (ppb)	2020	100	NA	NA	NA	0.7	ND–0.7	No	Industrial discharges
Sulfate (ppm)	2019	250	NA	94	41–94	239[2]	5.4–239[2]	No	Runoff/leaching from natural deposits; Industrial wastes
Zinc (ppm)	2021	5	NA	NA	NA	1.2	ND–1.2	No	Runoff/leaching from natural deposits; Industrial wastes

UNREGULATED SUBSTANCES

		Kearns Improvement District		Jordan Valley Water Conservancy District		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Bromodichloromethane (ppb)	2021	12.80	<0.50–12.80	7.9	ND–7.9	Disinfection by-products
Bromoform (ppb)	2021	14.40	<0.50–14.40	2.7[1]	ND–2.7[1]	Disinfection by-products
Chloroform (ppb)	2021	32.20	16.40–32.20	28	ND–28	Disinfection by-products
Dibromochloromethane (ppb)	2021	9.08	2.53–9.08	2.9	ND–2.9	Disinfection by-products
Nickel (ppb)	2021	NA	NA	3	ND–3	Naturally occurring
Sodium (ppm)	2019	58.6	12.4–58.6	74.2[2]	8–74.2[2]	Erosion of natural deposits

OTHER UNREGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	Kearns Improvement District		Jordan Valley Water Conservancy District		TYPICAL SOURCE
		AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	
Alkalinity [CO2] (ppm)	2016	NA	NA	132	28–132	Naturally occurring
Alkalinity, Bicarbonate [HCO3] (ppm)	2021	NA	NA	225	37–225	Naturally occurring
Alkalinity, Carbonate (ppm)	2021	NA	NA	4	ND–4	Naturally occurring
Alkalinity, Total [as CaCO3] (ppm)	2021	NA	NA	225	22–225	Naturally occurring
Ammonia (ppm)	2018	NA	NA	0.3	NA	Runoff from fertilizer and naturally occurring
Boron (ppm)	2018	NA	NA	39	NA	Erosion of naturally occurring deposits
Bromide (ppb)	2021	NA	NA	9.6	ND–9.6	Naturally occurring
Bromochloroacetic Acid (ppb)	2020	4.2	0.52–4.2	NA	NA	By-product of drinking water disinfection
Bromodichloroacetic Acid (ppb)	2020	3.3	0.83–3.3	NA	NA	By-product of drinking water disinfection
Calcium, Total (ppm)	2021	NA	NA	137	22.7–137	Erosion of naturally occurring deposits
Chloride (ppm)	2021	NA	NA	161.1	10–161.1	Erosion of naturally occurring deposits
Chlorodibromoacetic Acid (ppb)	2020	0.55	0.31–0.55	NA	NA	By-product of drinking water disinfection
Chromium, Total (ppb)	2020	NA	NA	12.6[2]	ND–12.6[2]	Discharge from steel and pulp mills; Erosion of natural deposits
Conductivity (µmho/cm)	2021	NA	NA	1,100	47–1,100	Naturally occurring
Cyanide, Total (ppb)	2021	NA	NA	4	ND–4	Discharge from steel/metal factories; Discharge from plastic and fertilizer factories
Dibromoacetic Acid (ppb)	2021	1.68	ND–1.68	NA	NA	By-product of drinking water disinfection
Dichloroacetic Acid (ppb)	2021	16.30	2.87–16.30	NA	NA	By-product of drinking water disinfection
Dissolved Organic Carbon (ppm)	2021	NA	NA	2.2	1.7–2.2	Naturally occurring
Geosmin (ppt)	2021	NA	NA	7.9	ND–7.9	Naturally occurring organic compound associated with musty odor
Gross Alpha Particles (pCi/L)	2021	NA	NA	2.6	ND–2.6	Decay of natural and human-made deposits
Gross Beta Particles (pCi/L)	2021	NA	NA	7.2	ND–7.2	Decay of natural and human-made deposits
HAA5 (ppb)	2021	NA	NA	39	ND–39	By-product of drinking water disinfection
HAA6Br (ppb)	2021	NA	NA	43.5	26.2–43.5	By-product of drinking water disinfection
Hardness, Calcium (ppm)	2021	NA	NA	178	14–178	Erosion of naturally occurring deposits
Hardness, Total [as CaCO3] (ppm)	2021	NA	NA	381	16–381	Erosion of naturally occurring deposits
Magnesium (ppm)	2021	NA	NA	41.3	ND–41.3	Erosion of naturally occurring deposits
Manganese (ppb)	2020	12	0.47–12	34	ND–34	Naturally occurring
Molybdenum (ppb)	2021	NA	NA	3	ND–3	By-product of copper and tungsten mining
Orthophosphates (ppb)	2021	NA	NA	20	ND–20	Erosion of naturally occurring deposits
Potassium (ppm)	2021	NA	NA	3.5	ND–3.5	Erosion of naturally occurring deposits
TSS (total suspended solids) (ppm)	2021	NA	NA	0.7	ND–0.7	Erosion of naturally occurring deposits
Total Organic Carbon [TOC][4] (ppb)	2020	1,800	1,500–1,800	3,100	ND–3,100	Naturally occurring
Trichloroacetic Acid (ppb)	2021	12.10	4.50–19.50	NA	NA	By-product of drinking water disinfection
Turbidity (NTU)	2020	NA	NA	0.8	0.1–0.8	Suspended material from soil runoff
UV 254 (1/cm)	2021	NA	NA	0.04	0.01–0.04	Naturally occurring
Vanadium (ppb)	2021	NA	NA	3.6	ND–3.6	Naturally occurring

[1] Sampled in 2020.
[2] Sampled in 2021.
[3] The MCL for beta particles is 4 millirems per year. U.S. EPA considers 50 pCi/L to be the level of concern for beta particles.
[4] The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than 1 indicates that the water system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.
[5] Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of the filtration system.