



Consumer Confidence Report for Calendar Year 2022

Este informe contiene información muy importante sobre el agua usted bebe.
Tradúscalo ó hable con alguien que lo entienda bien.

Public Water System ID Number		Public Water System Name	
AZ0407008		Berniel Water Company	
Contact Name and Title		Phone Number	E-mail Address
Lacey Merritt, Compliance Manager		520-649-0720	compliance@southwesternutility.com
We want our valued customers to be informed about their water quality. If you would like to learn more, please contact Jason Long at 520-431-7723.			

Drinking Water Sources

The sources of drinking water (both tap 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.

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water source(s): Two wells over 800 feet deep that are located on or near the Camelback Golf Course, Consecutive Connection with the City of Scottsdale Water AZ0407098

Consecutive Connection Sources

A public water system that receives some or all of its finished water from one or more wholesale systems by means of a direct connection or through the distribution system of one or more consecutive systems. Systems that purchase water from another system report regulated contaminants detected from the source water supply in a separate table.

PWS # AZ0407098, City of Scottsdale provides us a consecutive connection source of water.

Drinking Water Contaminants

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 result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming

Pesticides and Herbicides: Such as agriculture, urban storm water runoff, and residential uses that may come from a variety of sources

Organic Chemical Contaminants: Such as synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.

Radioactive Contaminants: That can be naturally occurring or be the result of oil and gas production and mining activities.

Vulnerable Population

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. Some people may be more vulnerable to contaminants in drinking water than the general population.

Immuno-compromised 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 can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and microbiological contaminants call the EPA *Safe Drinking Water Hotline* at 1-800-426-4791.

Source Water Assessment

- Based on the information currently available on the hydrogeologic settings of and the adjacent land uses that are in the specified proximity of the drinking water source(s) of this public water system, the department has given a low risk designation for the degree to which this public water system drinking water source(s) are protected. A low risk designation indicates that most source water protection measures are either already implemented, or the hydrogeology is such that the source water protection measures will have little impact on protection. Further source water assessment documentation can be obtained by contacting ADEQ.

Definitions

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water	Minimum Reporting Limit (MRL): The smallest measured concentration of a substance that can be reliably measured by a given analytical method
Level 1 Assessment: A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria was present	Millirems per year (MREM): A measure of radiation absorbed by the body
Level 2 Assessment: A very detailed study of the water system to identify potential problems and determine (if possible) why an <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria was present	Not Applicable (NA): Sampling was not completed by regulation or was not required
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment, or other requirements	Not Detected (ND or <): Not detectable at reporting limit
Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water	Nephelometric Turbidity Units (NTU): A measure of water clarity
Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health	Million fibers per liter (MFL)
Maximum Residual Disinfectant Level (MRDL): The level of disinfectant added for water treatment that may not be exceeded at the consumer's tap	Picocuries per liter (pCi/L): Measure of the radioactivity in water
Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant added for treatment at which no known or anticipated adverse effect on health of persons would occur	ppm: Parts per million or Milligrams per liter (mg/L)
	ppb: Parts per billion or Micrograms per liter (µg/L)
	ppt: Parts per trillion or Nanograms per liter (ng/L) ppm x 1000 = ppb
	ppq: Parts per quadrillion or Picograms per liter (pg/L) ppb x 1000 = ppt
	ppt x 1000 = ppq

Lead Informational Statement:

Lead, in drinking water, is primarily from materials and components associated with service lines and home plumbing. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Berniel Water Company 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 2 minutes before using water for drinking or cooking. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

Water Quality Data – Regulated Contaminants

Microbiological (RTCR)	TT Violation Y or N	Number of Positive Samples	Positive Sample(s) Month & Year	MCL	MCLG	Likely Source of Contamination	
E. Coli	N	0	n/a	0	0	Human and animal fecal waste	
Fecal Indicator (coliphage, enterococci and/or E. coli)	N	0	n/a	0	0	Human and animal fecal waste	
Disinfectants	MCL Violation Y or N	Running Annual Average (RAA)	Range of All Samples (Low-High)	MRDL	MRDLG	Sample Month & Year	Likely Source of Contamination
Chlorine/Chloramine (ppm)	N	0.71 ppm	0.36 – 0.86	4	4	2022	Water additive used to control microbes
Lead & Copper	MCL Violation Y or N	90 th Percentile	Number of Samples Exceeds AL	AL	ALG	Sample Month & Year	Likely Source of Contamination
Copper (ppm)	N	0.067 ppm	0	1.3	1.3	6/2022	Corrosion of household plumbing systems; erosion of natural deposits
Lead (ppb)	N	ND	0	15	0	6/2022	Corrosion of household plumbing systems; erosion of

							natural deposits
Radionuclides	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Alpha Emitters (pCi/L)	N	2.7 pCi/L	2.7 – 2.7	15	0	2022	Erosion of natural deposits
Inorganic Chemicals (IOC)	MCL Violation Y or N	Running Annual Average (RAA) OR Highest Level Detected	Range of All Samples (Low-High)	MCL	MCLG	Sample Month & Year	Likely Source of Contamination
Arsenic ¹ (ppb)	N	8.9 ppb	8.6 – 8.9	10	0	10/2022	Erosion of natural deposits, runoff from orchards, runoff from glass and electronics production wastes
Barium (ppm)	N	0.032 ppm	0.031 – 0.032	2	2	7/2022	Discharge of drilling wastes; discharge from metal refineries; Erosion of natural deposits
Chromium (ppb)	N	10 ppb	10 – 10	100	100	7/2022	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	N	0.33 ppm	0.33 – 0.33	4	4	7/2022	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate ² (ppm)	N	5.9 ppm	5.8 – 5.9	10	10	7/2022	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

¹ **Arsenic** is a mineral known to cause cancer in humans at high concentration and is linked to other health effects, such as skin damage and circulatory problems. If arsenic is less than or equal to the MCL, your drinking water meets EPA's standards. EPA's standard balances the current understanding of arsenic's possible health effects against the costs of removing arsenic from drinking water, and continues to research the health effects of low levels of arsenic.

² **Nitrate** in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause "blue baby syndrome." Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, and detected nitrate levels are above 5 ppm, you should ask advice from your health care provider.

City of Scottsdale - AZ0407098

2022 Results - Treated Source Water								
Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	System Average	Highest Running Annual Average ¹	Likely Source in Drinking Water
Arsenic	ppb	10	0	1	7.5	4.0	7.5	Leaching of natural deposits
Barium	ppb	2,000	2,000	25.5	109	67	105	Leaching of natural deposits
Chromium	ppb	100	100	ND	18.1	5.5	15.0	Leaching of natural deposits
Fluoride	ppm	4	4	0.3	0.5	0.4	0.5	Leaching of natural deposits
Nickel	ppb	N/A	N/A	ND	1.6	0.2	1.6	Leaching of natural deposits
Nitrate	ppm	10	10	ND	6.2	1.8	5.3	Leaching of natural deposits and septic systems; Runoff from fertilizer use
Selenium	ppb	50	50	1	4.1	2	4.1	Leaching of natural deposits; Discharge from petroleum refineries and mining
Alpha Emitters ²	pCi/L	15	0	ND	2.6	0.8	N/A	Leaching of natural deposits
Uranium	ppb	30	0	1.7	6	3.7	N/A	Leaching of natural deposits
Radium, Combined ²	pCi/L	5	0	ND	ND	ND	N/A	Leaching of natural deposits
Total Organic Carbon	ppm	TT	N/A	0.9	1.8	1.4	N/A	Naturally present in the environment
Substance	Unit	MCL	TT Requirement	Highest Measurement	Treatment Technique Comparison			Likely Source in Drinking Water
Turbidity	NTU	1	95% less than 0.3 NTU	0.11	100 % less than 0.3 NTU			Soil Runoff
2022 Results - Distribution System								
Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	Average	Likely Source in Drinking Water	
Total Coliform	%	5 (monthly)	0	0	2.8	0.3	Naturally present in the environment	
Chlorine	ppm	4 (MRDL)	4 (MRDLG)	0	2.1	0.68	Water additive used to control microbial growth	
Total Trihalomethanes (TTHMs)	ppb	80	N/A	19.0	74.7	67.9	Byproduct of drinking water disinfection	
Haloacetic Acids (HAAs)	ppb	60	N/A	3.8	13.4	13.4	Byproduct of drinking water disinfection	
Substance	Unit	AL	MCLG	90th Percentile Value	# Homes Greater than AL	Levels in Treated Water	System Average Levels in Treated Water	Likely Source in Drinking Water
Lead ⁴	ppb	15	0	4.2	1 out of 57	ND - 1.7	0	Corrosion of household plumbing
Copper ⁴	ppb	1300	N/A	243	0 out of 57	ND - 13.7	4	Corrosion of household plumbing

1: Highest average at a single sample location

2: Includes 2017, 2020, & 2022 Sampling Data

3: Reported value is the highest locational running annual average (LRAA) calculated on a quarterly basis.

4: Lead and Copper Standard: 90% of homes tested must have lead and copper levels below the alert level (AL).

2022 Results - Treated Source Water					
Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected
Alkalinity	ppm	NA	NA	106	250
Aluminum	ppm	NA	NA	ND	0.14
Calcium	ppm	NA	NA	31	76
Chloride	ppm	NA	NA	36	281
Iron	ppm	NA	NA	ND	0.06
Magnesium	ppm	NA	NA	21	60
Manganese	ppm	NA	NA	ND	0.0013
pH	Std. Unit	NA	NA	7.3	8.4
Sodium	ppm	NA	NA	41	160
Sulfate	ppm	NA	NA	ND	219
Temperature	°C	NA	NA	14	30
	°F	NA	NA	57	86
Total Dissolved Solids	ppm	NA	NA	332	800
Zinc	ppm	NA	NA	ND	0.018

2020 Results for Unregulated Contaminant Monitoring Rule (UCMR4)

Substance	Unit	MCL	MCLG	Lowest Amount Detected	Highest Amount Detected	Average	Likely Source in Drinking Water
Manganese	ppb	N/A	N/A	0.0	3.3	0.61	Leaching of natural deposits
Germanium	ppb	N/A	N/A	0	0.44	0.024	Leaching of natural deposits
Total Organic Carbon ¹	ppm	N/A	N/A	3.2	5.1	4.1	Decaying natural organic matter
Bromide ¹	ppm	N/A	N/A	0.057	0.12	0.08	Natural and industrial sources
HAA5 ²	ppb	N/A	N/A	5.3	13	9.5	Byproduct of drinking water disinfection
HAA6Br ²	ppb	N/A	N/A	8.8	17.0	13.7	Byproduct of drinking water disinfection
HAA9 ²	ppb	N/A	N/A	11	26	20.0	Byproduct of drinking water disinfection

1: Halo Acetic Acid Indicator measured in source water

2: Halo Acetic Acid (HAA) Group