

Annual Drinking Water Quality Report
Elrod Water Company Inc. dba Hoosier Hills Regional Water District
IN 5269002

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our goal is to constantly provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water while asking all our customers to help us protect our water sources, which are the heart of our community, our way of life and our children's future.

We have a source water assessment plan available from our office that provides more information such as potential sources of contamination.

Our water source is from wells from the Whitewater River Valley Aquifer. We are pleased to report that our drinking water is safe and meets federal and state requirements. If you have any questions about this report or concerning your water utility, please contact Trace Cutter at 812-654-3200. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the fourth Wednesday of every month at 6:00 pm.

Hoosier Hills Regional Water District routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of **January 1st to December 31st, 2022**. As water travels over the land or underground, it can pick up substances or contaminants such as microbes, inorganic and organic chemicals, and radioactive substances. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

Parts per million (ppm) or Milligrams per liter (mg/l) - one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

Nephelometric Turbidity Unit (NTU) - nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

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

Maximum Contaminant Level (MCL) - The "Maximum Allowed" (MCL) is 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.

Maximum Contaminant Level Goal (MCLG) - The "Goal"(MCLG) is 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.

Maximum Residual Disinfectant Level (MRDL) -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.

Maximum Residual Disinfectant Level Goal (MRDLG) –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.

TEST RESULTS								
Contaminant	Year/Date Sampled	Violation Y/N	Highest Level Detected	Range of Levels Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants								
Total Coliform Bacteria		N	None	None		0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Fecal coliform and <i>E.coli</i>		N	None	None		0	a routine sample and repeat sample are total coliform positive, and one is also fecal coliform or <i>E. coli</i> positive	Human and animal fecal waste
Radioactive Contaminants								
Gross Beta/photon emitters	4/9/2019	N	4.1	4.1 – 4.1	pCi/l	0	4 mrem/y	Decay of natural and man-made deposits
Gross Alpha	4/9/2019	N	1.8+/- 1.1	1.8+/-1.1	pCi/L	0	15	
Radium-228	4/9/2019	N	- 0.31+/- 0.39	-0.31+/- 0.39	pCi/L	0	5	
Combined Uranium	5/18/2010	N	0.7	0.7 – 0.7	µg/L	0	30	Erosion of natural deposits
Inorganic Contaminants								
Arsenic	3/23/2021	N	ND	<1.5	Ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
Barium	3/23/2021	N	.0092	0.092-0.092	Ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits

Cadmium	03/21/2021	N	4.3	4.3	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Cyanide	03/23/2021	N	ND	<5.0	ppm	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride	3/23/2021	N	0.579	0.579-0.579	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Mercury (inorganic)	4/6/2021	N	ND	<0.0002	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
Nickel	3/29/2021	N	ND	<0.0040	Mg/l	0	100	Possible waste runoff from industry
Nitrate (as Nitrogen)	2022	N	2	1.78-1.78	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	3/23/2021	N	0.002	0.002-0.002	Mg/l	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Thallium	3/30/2021	N	ND	<0.0010	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Sodium	3/23/2021	N	8.69	8.69	Mg/l	N/A	N/A	Runoff from road salt application
Synthetic Organic Contaminants including Pesticides and Herbicides								
2,4-D	12/19/2022	N	ND	<1.0	ppb	70	70	Runoff from herbicide used on row crops
2,4,5-TP (Silvex)	12/19/2022	N	ND	<1.0	ppb	50	50	Residue of banned herbicide
Alachlor (Lasso)	12/08/2022	N	ND	<0.2	ppb	0	2	Runoff from herbicide used on row crops
Atrazine	12/08/2022	N	ND	<0.2	ppb	3	3	Runoff from herbicide used on row crops
Benzo(a)pyrene (PAH)	12/08/2022	N	ND	<0.01	Nanograms /l	0	200	Leaching from linings of water storage tanks and distribution lines

Carbofuran	12/07/2022	N	ND	<0.9	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
Chlordane	12/12/2022	N	ND	<0.05	ppb	0	2	Residue of banned termiticide
Dalapon	12/10/2022	N	ND	<.05	ppb	200	200	Runoff from herbicide used on rights of way
Di(2-ethylhexyl) adipate	12/08/2022	N	ND	<0.6	ppb	400	400	Discharge from chemical factories
Di(2-ethylhexyl) phthalate	12/08/2022	N	ND	<0.6	ppb	0	6	Discharge from rubber and chemical factories
Dibromochloropropane	12/09/2022	N	ND	<0.02	ppb	0	200	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards
Dinoseb	12/19/2022	N	ND	<1	ppb	7	7	Runoff from herbicide used on soybeans and vegetables
Diquat	12/15/2022	N	ND	<2.0	ppb	20	20	Runoff from herbicide use
Endothall	09/02/2022	N	ND	<9.0	ppb	100	100	Runoff from herbicide use
Endrin	12/12/2022	N	ND	<0.1	ppb	2	2	Residue of banned insecticide
Ethylene dibromide	12/09/2022	N	ND	<10.0	nanograms/1	0	50	Discharge from petroleum refineries
Heptachlor	12/12/2022	N	ND	<0.1	ppb	0	400	Residue of banned termiticide
Heptachlor epoxide	12/12/2022	N	ND	<0.2	ppb	0	200	Breakdown of heptachlor
Hexachlorobenzene	12/12/2022	N	ND	< 0.1	ppb	0	1	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene	12/08/2022	N	ND	<0.5	ppb	50	50	Discharge from chemical factories
Lindane	7/24/2019	N	ND	<0.1	ppb	200	200	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor	4/27/2022	N	ND	<0.1	ppb	40	40	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl [Vydate]	12/07/2022	N	ND	<1.0	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol	12/19/2022	N	ND	<0.4	ppb	0	1	Discharge from wood preserving factories
Picloram (Tordon)	12/19/2022	N	ND	<1.0	ppb	500	500	Herbicide runoff
Simazine	12/08/2022	N	ND	<0.2	ppb	4	4	Herbicide runoff
Toxaphene	12/12/2022	N	ND	<1.0	ppb	0	3	Runoff/leaching from insecticide used on cotton and cattle

Volatile Organic Contaminants								
Benzene	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
Carbon tetrachloride	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from chemical plants and other industrial activities
Chlorobenzene	3/25/2021	N	ND	<0.5	ppb	100	100	Discharge from chemical and agricultural chemical factories
1,2 - Dichloroethane	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from industrial chemical factories
1,1 - Dichloroethylene	3/25/2021	N	ND	<0.5	ppb	7	7	Discharge from industrial chemical factories
Dichloromethane	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from pharmaceutical and chemical factories
1,2-Dichloropropane	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from industrial chemical factories
Ethylbenzene	3/25/2021	N	ND	<0.5	ppb	700	700	Discharge from petroleum refineries
Styrene	3/25/2021	N	ND	<0.5	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene	3/25/2021	N	ND	<0.5	ppb	0	5	Discharge from factories and dry cleaners
1,2,4 – Trichlorobenzene	3/25/2021	N	ND	<0.5	ppb	70	70	Discharge from textile-finishing factories
1,1,2 - Trichloroethane	3/25/2021	N	ND	<0.5	ppb	3	5	Discharge from industrial chemical factories
Toluene	3/25/2021	N	ND	<0.5	ppb	1	1	Discharge from petroleum factories

Disinfectants and Disinfection By-Products								
Chlorine	2022	Y	1	1-1	Ppm	4.0	4.0	Water additive used to control microbes.
TTHM (Total trihalomethanes)	2022	N	<u>17</u>	<u>17.3-17.3</u>	ppb	No Goal For Total	80	By-product of drinking water chlorination
HAA5's (Total Halocetic Acids)	2022	N	<u>9</u>	<u>8.53-8.53</u>	ppb	No Goal For Total	60	By-product of drinking water chlorination

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.

LEAD AND COPPER

Definitions:

Action Level Goal (ALG) – The level of a contaminate in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Action Level – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

“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. Hoosier Hills Regional 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 setting for several hours, you can minimize the potential of lead exposure by flushing your tap for 30 seconds to 2 minutes before using the 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 or at <http://www.epa.gov/safewater/lead>.”

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	8/18/2020	1.3	1.3	0.167	20	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	8/18/2020	0	15	2.74	20	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

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 you should ask advice from your health care provider.

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home’s plumbing. If you are concerned about elevated lead levels in your home’s water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791). As you can see by the table our system had violations.

Violations Table

Ground Water Rule			
The Ground Water Rule specifies the appropriate use of disinfection while addressing other components of ground water systems to ensure public health protection.			
Violation Type	Violation Begin	Violation End	Violation Explanation
FAILURE MAINTAIN MICROBIAL TREAT.(GWR)	06/01/2021	06/30/2021	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequatedisinfection is required to ensure safe drinking water.
FAILURE MAINTAIN MICROBIAL TREAT.(GWR)	08/01/2021	08/31/2021	Measurements of disinfectant indicate that adequate disinfection did not occur for the period indicated. Adequatedisinfection is required to ensure safe drinking water.
MONITORING, RTN/RPT MINOR (GWR)	06/01/2021	06/30/2021	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.
MONITORING, RTN/RPT MINOR (GWR)	08/01/2021	08/31/2021	We failed to complete all the required tests of our drinking water for the contaminant and period indicated.

We're proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

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 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, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm 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, storm water runoff, and residential uses.
- Organic chemicals, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, also come from gas stations, urban storm water runoff, and septic systems.
- Radioactive materials, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure tap water is safe to drink, EPA prescribes regulations that 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.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or man made. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher-than-normal level of nitrates in the water supply.

Lead: Lead in drinking water is rarely the sole cause of lead poisoning, but it can add to a person's total lead exposure. All potential sources of lead in the household should be identified and removed, replaced or reduced.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

Thank you for allowing us to continue providing your family with clean, quality water this year. In order to maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all of our customers. These improvements are sometimes reflected as rate structure adjustments. Thank you for understanding.

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. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).