



**Annual Water Quality Report
2022
City of Elkins
WV3304203
401 Davis Avenue
Elkins, WV 26241**



February 2, 2023

In compliance with the Safe Drinking Water Act Amendments, the City of Elkins is providing its customers with this annual water quality report. This report explains where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. The information in this report shows the results of our monitoring for the period of January 1st to December 31st, 2022 or earlier if not on a yearly schedule.

If you have any questions concerning this report, you may contact the Chief Operator, **Wes Lambert, Monday through Friday (7:30AM-4:00PM) @ 681-298-5200**. If you have any further questions, comments or suggestions, please attend any of our regularly scheduled water board meetings held on the 4th Tuesday at 4:00pm in the Elkins City Hall Council Chambers located at 401 Davis Ave. in Elkins WV.

Your water source is surface water from the Tygart River.



A Source Water Protection Plan was updated in 2019. The intake that supplies drinking water to the Elkins water plant has a higher susceptibility to contamination, due to the sensitive nature of surface water supplies and the potential contaminant sources identified within the area. This does not mean that this intake will become contaminated; only that conditions are such that the surface water could be impacted by a potential contaminant source. Future contamination may be avoided by implementing protective measures. The source water assessment report which contains more information is available for review or a copy will be provided to you at our office during business hours or from the WVBPH 304-558-2981.

All drinking water contains various amounts and kinds of contaminants. Federal and state regulations establish limits, controls, and treatment practices to minimize these contaminants and to reduce any subsequent health effects.

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. FDA regulations establish limits of 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 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 (800-426-4791).

The source of drinking water (both tap and bottled water) includes 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 water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, farming.

Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

Organic chemical contaminants, 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 contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

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 disorders, some elderly, and infants can be particularly at risk from infections. These guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Water Quality Data Table



Definitions of terms and abbreviations used in the table or report:

- **AL - Action Level**, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
- **LRAA - Locational Running Annual Average** is an average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
- **MCL - Maximum Contaminant Level**, or 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 technique.
- **MCLG - Maximum Contaminant Level Goal**, or 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**, or the highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of disinfectant is necessary to control microbial contaminants.
- **MRDLG - Maximum Residual Disinfectant Level Goal**, or the level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect benefits of use of disinfectants to control microbial contaminants.
- **N/A** - not applicable
- **ND** – Not Detectable, no contaminants were detected in the sample(s) taken.
- **NE** - not established
- **ppt** – parts per trillion or nanograms per liter (**ng/l**)
- **NTU** - Nephelometric Turbidity Unit, used to measure cloudiness in water
- **pCi/L** – picocuries per liter (a measure of radioactivity)
- **ppb** - parts per billion or micrograms per liter (**µg/l**)
- **ppm** - parts per million or milligrams per liter (**mg/l**)
- **RAA** - Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.
- **SMCL -Secondary Monitoring Contaminant Level**, or the highest level of a contaminant that is allowed in drinking water.

Colors used in the table or report:

Table Title or Contents
Column Titles
Sample analytical results for contaminants
Table related abbreviations and definitions for them

The City of Elkins routinely monitors for contaminants in your drinking water according to federal and state laws. The tables below show the results of our monitoring for contaminants.



Tables of Test Results - Regulated Contaminants

EPA’s surface water treatment rules require conventional water treatment plants like the City of Elkins to monitor Turbidity. The NTU must never exceed 1.0 at any time. The samples for turbidity must be less than or equal to 0.3 NTU in at least 95% of the samples in one month. Elkin's turbidity samples are in the table below. EPA considers these limits as a TT or Treatment Technique. A Treatment Technique is a required process intended to reduce the level of a contaminant in drinking water.

Turbidity				
Monthly % < 0.3 NTU	Yearly High	Month of Highest Reading	Likely Source of Contaminant	Violation
100 %	0.03 NTU	October, 2022	Soil runoff	No
NTU		Nephelometric Turbidity Unit, used to measure cloudiness in water		

The removal of Total Organic Carbon (TOC) is an important process to help control Disinfection By Products created when Chlorine is used as a disinfectant. TOC testing measures the level of organic molecules or contaminants present. TOC tests will not determine which compounds are present, but only the amount of compounds. The results of these tests are in the table below.

Total Organic Carbon (TOC)						
Contaminant	RAA	Range (low/high)	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
TOC (Source)	1.9 ppm	0.97/2.8	N/A	TT	Naturally occurring in the environment	No
TOC (Finished)	1.37 ppm	0.98/1.8	N/A	TT	Naturally occurring in the environment	No
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL’s.					
TT	Treatment Technique					
ppm	parts per million or milligrams per liter (mg/l)					

Disinfectant						
Contaminant	RAA	Range (low/high)	Maximum Goal (MRDLG)	Maximum Level Allowed (MRDL)	Likely Source of Contaminant	Violation
Chlorine (water plant)	1.4 ppm	1.1 / 1.7	4	4	Water additive used to control microbes	Yes
Chlorine (Distribution)	1.68 ppm	1.5 / 1.9	4	4	Water additive used to control microbes	No
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL's.					
MRDLG	Maximum Residual Disinfectant Level Goal, or the level of drinking water disinfectant below which there is no known or expected risk to health.					
MRDL	Maximum Residual Disinfectant Level, or the highest level of disinfectant allowed in drinking water.					
ppm	parts per million or milligrams per liter (mg/l)					

Disinfection Byproducts						
Contaminant	Location	Highest LRAA	Range (low/high)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
Haloacetic acids (HAA5)	225 Georgetown Rd. IOOF (Odd Fellows) Home	41.81 ppb	9 / 56 ppb	60 ppb	By-product of drinking water disinfection	No
Haloacetic acids (HAA5)	WV 92, 33 Norton Rd, JF Allen	50.25 ppb	9 / 57 ppb	60 ppb	By-product of drinking water disinfection	No
Total trihalomethanes (TTHMs)	225 Georgetown Rd. IOOF (Odd Fellows) Home	40.73 ppb	6 / 60 ppb	80 ppb	By-product of drinking water disinfection	No
Total trihalomethanes (TTHMs)	WV 92, 33 Norton Rd, JF Allen	50.75 ppb	2 / 75 ppb	80 ppb	By-product of drinking water disinfection	No
LRAA	Locational Running Annual Average is an average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.					
ppb	parts per billion or micrograms per liter (µg/l)					

Inorganic Contaminants						
Contaminant	RAA	Level Detected or Range	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
Arsenic	N/A	.0011 ppm	0	0.010	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production waste	Yes
Barium	N/A	0.03 ppm	2	2	Discharge from drilling wastes, discharge from metal refineries, erosion of natural deposits.	No
Chromium	N/A	0.00077 ppm	0.1	0.1	Discharge from steel and pulp mills; erosion of natural deposits	No
Fluoride	0.52 ppm	Range 0.21 – 0.97 ppm	4	4	Erosion of natural deposits; water additive that promotes strong teeth; discharge from aluminum and fertilizer plants	No
Nitrate	N/A	0.11 ppm	10	10	Runoff from fertilizer use; erosion of natural deposits	Yes
RAA	Running Annual Average is an average of sample results obtained over the most current 12 months and used to determine compliance with MCL's.					
ppm	parts per million or milligrams per liter (mg/l)					

Organic Contaminants						
Contaminant	Date Collected	Level Detected or Range	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant	Violation
2,4-D	5/13/2020	0.6 ppb	70	70	Runoff from herbicide used on right of way crops	No
Atrazine	6/19/2020	0.03 ppb	3	3	Runoff from herbicide used on right of way crops	No
Hexachloro-cyclopentadiene	6/19/2020	0.05 ppb	50	50	Discharge from chemical factories	No
ppb	parts per billion or micrograms per liter (µg/l)					

Lead & Copper - samples were collected from 20 area residences on 8/20/2021.

These samples are collected every three years from customer taps.

Contaminant	90% of Test Levels Were Less Than	Ideal Goal (MCLG)	EPA's Action Level	Number of Tests With Levels Above EPA's Action Level	Typical Sources	Violation
Copper, Free	0.089 ppm	1.3 ppm	90% of homes less than 1.3 ppm	0 - out of 10	Corrosion of household plumbing	No
Lead	1.8 ppb	0 ppb	90% of homes less than 15 ppb	1 - out of 10	Corrosion of household plumbing	No
ppm	parts per million or milligrams per liter (mg/l)					
ppb	parts per billion or micrograms per liter (µg/l)					

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 City of Elkins 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. If you are concerned about lead in your drinking 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 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.

Radionuclides

Contaminant	Collection Date	Level Detected	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contaminant
Gross Alpha	2/12/2020	1.03 pCi/L	0	15	Erosion of natural deposits
Radium-Combined 226&228	11/8/2018	0.0289+-1.716 pCi/L	0	5	Erosion of natural deposits
Gross Beta Particle Activity	5/29/2018	0.966	0	4	Decay of natural and man-made deposits
pCi/L	picocuries per liter (a measure of radioactivity)				



Unregulated Contaminants

Contaminant	Date Collected	High	Ideal Goal (MCLG)	Highest Level Allowed (MCL)	Likely Source of Contamination
Alkalinity, Total	10/12/2022	63.9 ppm	N/A	10000	N/A
Sodium	3/8/2022	7.15 ppm	NE	20	Erosion of natural deposits
ppm	parts per million or milligrams per liter (mg/l)				

The City of Elkins conducted monitoring of contaminants included in the Unregulated Contaminant Monitoring Rule (UCMR) issued by the US Environmental Protection Agency (USEPA). Unregulated Contaminants are those that don't yet have a drinking water standard set by the USEPA. The purpose of monitoring for these contaminants is to help USEPA to decide whether or not the contaminants should have a standard.

USEPA - Unregulated Contaminants Monitoring Rule (UCMR) Schedule

Title	UCM-State Rounds 1&2	UCMR 1	UCMR 2	UCMR 3	UCMR 4	UCMR 5
Testing Periods	(1988-1997)	(2001-2005)	(2007-2011)	(2012-2016)	(2017-2021)	(2023-2025)

The City of Elkins samples for UCMR 4 were collected during the months of July to October in 2019. All test results were Non-Detect.



In the 2022 calendar year, the City of Elkins had the below noted violation(s) of drinking water regulations.

Date	Number	Type / Name	Compliance Period
6/16/2022	2022-296	36 / Monitoring, RTN/RPT Major (SWTR-Filter)	4/1/2022-4/30/2022
2/15/2022	2022-11918	03 / Monitoring Routine, Major (Inorganics C)	1/1/2021-12/31/2021
2/15/2022	2022-11925	03 / Monitoring Routine, Major (Arsenic Total)	1/1/2021-12/31/2021
2/16/2022	2022-11979	03 / Monitoring Routine, Major (Nitrate)	1/1/2021-12/31/2021

Sample and Report paperwork errors. The water quality was not affected by these errors.

We have made every effort and taken every precaution to return to compliance.

The City of Elkins had an on-site visit, from the WV Bureau of Public Health, for a Sanitary Survey on February 23, 2022 and no deficiencies were reported.

Additional Information

All other water test results for the reporting year 2022 were all non-detects.

Turbidity is a measure of the cloudiness in water. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system.

PLEASE SHARE THIS REPORT WITH OTHER PEOPLE WHO DRINK THIS WATER, ESPECIALLY THOSE WHO DO NOT RECEIVE THIS INFORMATION DIRECTLY. (FOR EXAMPLE, RESIDENTS IN APARTMENT BUILDINGS, NURSING HOMES, SCHOOLS AND BUSINESSES).

This report will not be mailed. To receive a paper copy in the mail, please contact us at the phone number above.