ANNUAL DRINKING WATER QUALITY REPORT - 2024

FOR THE **VILLAGE OF UNION SPRINGS**

PREPARED AND WRITTEN BY WATER OPERATOR KEVIN THURSTON

Public Water System ID No.: 0501725
Number of Water Connections: 445

INTRODUCTION

To comply with State regulations, Village of Union Springs, will be annually issuing a report describing the quality of your drinking water. The purpose of this report is to raise your understanding of drinking water and awareness of the need to protect our drinking water sources. Last year, your tap water met all State drinking water health standards. We are proud to report that our system did not violate a maximum contaminant level or any other water quality standard. This report provides an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to State standards.

If you have any questions about this report or concerning your drinking water, please contact someone from the list below. We want you to be informed about your drinking water. If you want to learn more, please attend any of our regularly scheduled village board meetings.

	Home	Work
Village Office		315-889-7341
Water Commissioner – Bill Boyd, Jr.	315-889-5692	
Water Operator – Kevin Thurston	315- 916-4200	
Cayuga County Health Department		315-253-1405

You are welcome to come to Village Board meetings at anytime for information. The meetings are held in the Village Meeting Room at 26 Chapel Street on the lake on the third Tuesday of every month, unless posted otherwise.

WHERE DOES OUR WATER COME FROM?

In general, 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 activities. Contaminants that may be present in source water include: microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the State and the EPA prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Our water supply is located on Route 90 in Union Springs across from the Union Springs High School. We have two drilled wells with a very good supply of water and two well houses, labeled North Well House and South Well House.

We pump with 30 HP Goulds submersible pumps. In each pumping cycle, we alternate wells and pumps. Each cycle is recorded on a chart as well as the tank levels. We calculate a total of gallons pumped daily. The water then goes to the air stripper tower for the removal of the volatile organic contaminants (VOC's). Next it is chlorinated and the chlorine is checked once each day. The system is equipped with an alarm system. If there is any failure in the system, the alarm will dial out until someone answers the call. We have about eight miles of water

mains in the Village. There are seven pressure reducing pits in the Village, 445 metered water customers, and two water storage tanks. The Center Street water tank has a 200,000 gallon capacity, and the Grove Street water tank has a 189,000 gallon capacity. Each tank has a control pit for the signal equipment. In recent years, the Village has expanded the water system to provide water to a portion of the Town of Springport. Overall you have an investment of $3,500,000 in the water system.

The NYS DOH has completed a source water assessment for our system, based on available information. Possible and actual threats to this drinking water source were evaluated. The state source water assessment includes a susceptibility rating based on the risk posed by each potential source of contamination and how easily contaminants can move through the subsurface to the wells. The susceptibility rating is an estimate of the potential for contamination of the source water. It does not mean that the water delivered to consumers is or will become contaminated. See section "Are there contaminants in our drinking water?" for a list of the contaminants that have been detected. The source water assessments provide resource managers with additional information for protecting source waters into the future.

As mentioned before, our water is derived from two drilled wells. The source water assessment has rated these wells as having a high susceptibility to microbials, industrial organics, and petroleum products. These ratings are due primarily to the close proximity of gas wells and animal pastures in relation to the wells as well as the documentation of the presence of halogenated solvents and nitrates in the ground water. In addition, the wells draw from an unconfined aquifer with high hydraulic conductivity. Please note that, while the source water assessment rates our well as being susceptible to microbials, our water is disinfected to ensure that the finished water delivered into your home meets the New York State drinking water standards for microbial contamination.

The county and state health department will use this information to direct future source water protection activities. These may include water quality monitoring, resource management, planning, and education programs. A copy of the assessment is available for review by calling the Cayuga County Health Department at 253-1405.

ARE THERE CONTAMINANTS IN OUR DRINKING WATER?

The Village of Union Springs routinely monitors for contaminants in your drinking water according to Federal and State laws. We test the drinking water for 27 inorganic compounds, nitrate, nitrite, 60 volatile organic compounds, total trihalomethanes, and 52 synthetic organic compounds. In addition we test the water for coliform bacteria once a month and chlorine once a day. The table presented below depicts which compounds were detected in your drinking water. The State allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore some of the data, though representative of the water quality, is more than one year old. See Chart A attached.

It should be noted that all drinking water including bottled drinking water may be reasonably 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 EPA's Safe Drinking Water Hotline (800-426-4791) or the Cayuga County Health Department at 315-253-1405.

CHART A North Well (N.W.) South Well (S.W.)

Table of Detected Contaminants

Contaminants	Y/N Violation	Date of Sample	Level Detected Max. Range	Unit Measure-ment	MCLG	MCL	Likely Source of Contamination
Inorganic Contaminants							
Barium	No	10-21-24	88.0	ug/L	2000	2000	Discharge of drilling waste, and metal refineries; erosion of natural deposits
Fluoride-free	No	10-21-24	0.2	mg/L	n/a	2.2	Erosion of natural deposits
Copper[1]	No	7-30-24	0.263[1] Range: 0.005-0.26	mg/L	1.3	AL= 1.3	Corrosion of household plumbing system; leaching from wood preservation; erosion of natural deposits

Lead[2]	No	7-30-24	4.2[2] Range: <0.001 – 4.2	ug/L	0	AL= 15	Corrosion of household plumbing; erosion of natural deposits
Nitrate (North Well)	No	9-11-24	3.21	mg/L	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate (South Well)	No	9-11-24	3.06	mg/L	10	10	
Sodium (South Well)	No	11-13-24	49.1	mg/L	N/A	N/A	Naturally occurring; road salt; water softeners; animal waste
Sodium (North Well)	No	11-13-24	41.8	mg/L	N/A	N/A	Naturally occurring; road salt; water softeners; animal waste
Organic Contaminants							
Cis-1, 2 Dichloroethene	No	2-14-24 5-15-24 8-14-24 11-13-24	RAW Range: 0.63-1.30 FINISHED Range ND	ug/L	N/A	5.0	Discharge from industrial chemical factories
Trichloroethene	No		RAW Range: ND -0.54 FINISHED Range ND		0		Discharge from metal degreasing sites and other factories
1,4-dioxane North Well	No	03-11-24	ND	ug/L	N/A	N/A	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
1,4-dioxane South Well	No	03-11-24	ND	ug/L	N/A	N/A	Released into the environment from commercial and industrial sources and is associated with inactive and hazardous waste sites.
Perfluorobutanoic acid (PFBA)	No	03-11-24	1.3 (north)[3] 1.5 (south)[3]	ng/L	n/a	10	Released into the environment from widespread use in commercial and industrial applications.
Disinfection Byproducts							
Haloacetic Acid	No	8-14-24	Sampling Location 1: 2.4 Sampling Location 2: 2.0	ug/1	N/A	60	By-product of drinking water disinfection needed to kill harmful organisms

Total Trihalomethanes	No	8-14-24	Sampling Location 1: 13.5 Sampling Location 2: 46.6	ug/1	N/A	80	By-product of drinking water chlorination needed to kill harmful organisms. TTHMs are formed when source water contains large amounts of organic matter

1. The level presented represents the 90th percentile of the 10 sites tested. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. The 90th percentile is equal to or greater than 90% of the copper values detected at your water system. In this case, ten samples were collected at your water system and the 90th percentile value was the second highest value, 0.22 mg/L. The action level for copper was not exceeded at any of the sites tested.
2. The level presented represents the 90th percentile of the samples collected. The action level for the lead was not exceeded at any of the 10 sites tested.
3. Detected below the Reporting Limit (lowest calibration standard); therefore result is an estimated concentration.

Definitions we use:

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

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 highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible.

Maximum Contaminant Level Goal (MCLG) – The goal is the level of a contaminant in drinking water below which there is no known or expected health risk. MCLGs allow for a margin of safety.

Milligrams Per Liter (mg/L) – corresponds to one part of liquid in one million parts of liquid (parts per million – ppm).

Micrograms Per Liter (ug/L) – corresponds to one part of liquid in one billion parts of liquid (parts per billion – ppb).

Nanograms per liter (ng/l): Corresponds to one part of liquid to one trillion parts of liquid (parts per trillion - ppt).

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.

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

SUMMARY OF NON-DETECTED CONTAMINANTS:

Union Springs was required to sample for the following additional contaminants which were **not detected** in the water supply.

10/7/21: Aldicarb Sulfoxide, Aldicarb Sulfone, Oxamyl (Vydate), Methomyl (Lannate), 3-Hydroxy Carbofuran, Aldicarb (Temik), Propoxur (Baygon), Carbofuran, Carbaryl (Sevin), Methiocarb, Pentachlorophenol, 2,4,5-TP (Silvex), 2,4,5-T, 2,4-DB, Dinoseb, Picloram, Acifluorfen, Simazine, Atrazine, Metribuzin, Alachlor (Lasso), Metolachlor (Dual), Butachlor, Hexachlorocyclopentadiene (C-56), Hexachlorobenzene, HCH, Alpha, HCH, Gamma (Lindane), HCH, Beta, HCH, Delta, Heptachlor, Aldrin, Heptachlor epoxide, Endosulfan I, 4,4'-DDE, Dieldrin, Endrin, 4,4'-DDD, Endosulfan II, 4,4'-DDT, Endrin aldehyde, Endosulfan sulfate, Methoxychlor, Mirex, Toxaphene, Chlordane, technical, Aroclor 1016, Aroclor 1221, Aroclor 1232, Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260, 1,2-Dibromoethane (EDB), 1,2,3-Trichloropropane, Dibromo-3-chloropropane, Dichlorodifluoromethane, Chloromethane, Vinyl Chloride, Bromomethane, Chloroethane, Trichlorofluoromethane, 1,1-Dichloroethene, Methylene Chloride, trans-1,2-Dichloroethene, Methyl-t-Butyl-Ether, 1,1-Dichloroethane, Methyl Ethyl Ketone, cis-1,2-Dichloroethene, Bromochloromethane, Chloroform, 2,2-Dichloropropane, 1,2-Dichloroethane, 1,1,1-Trichloroethane, 1,1-Dichloropropene, Carbon Tetrachloride, Benzene, Dibromomethane, 1,2-Dichloropropane, Trichloroethene, Bromodichloromethane, cis-1,3-Dichloropropene, Methyl Isobutyl Ketone, trans-1,3-Dichloropropene, 1,1,2-Trichloroethane, Toluene, 1,3-Dichloropropane, Dibromochloromethane, Tetrachloroethene, 1,1,1,2-Tetrachloroethane, Chlorobenzene, Ethylbenzene, Bromoform, m/p-Xylene, Styrene,

1,1,2,2-Tetrachloroethane, o-Xylene, 1,2,3-Trichloropropane, Isopropylbenzene, Bromobenzene, n-Propylbenzene, 2-Chlorotoluene, 4-Chlorotoluene, 1,3,5-Trimethylbenzene, tert-Butylbenzene, 1,2,4-Trimethylbenzene, sec-Butylbenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, p-Cymene, 1,2-Dichlorobenzene, n-Butylbenzene, 1,2,4-Trichlorobenzene, Naphthalene, Hexachlorobutadiene (C-46), 1,2,3-Trichlorobenzene, Fluoride, Free, Beryllium, Chromium, Nickel, Arsenic, Selenium, Cadmium, Antimony, Thallium, Lead, Mercury, Cyanide.
Monthly in 2024: Total Coliform Bacteria.
Annually in 2024: Perfluorooctane Acid (PFOA) and Perfluorooctane sulfonate (PFOS).
Quarterly in 2024: Volatile Organic Contaminants: Benzene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromoform, Bromomethane, N-Butylbenzene, Sec-Butylbenzene, Tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Cumene (Isopropyl benzene), Cymene (4-Isopropyltoluene), Cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethane, Trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,3-Dichloropropane, 2-2-Dichloropropane, 1,1-Dichloropropane, Trans-1,3-Dichloropropene, Ethylbenzene, Hexachlorobutadiene, Methylene Chloride, Naphthalene, N-Propyl benzene, Styrene, Toluene, Trichloroethene, Trichlorofluoromethane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,2-Trichloroethane, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 1,1,1-Trichloroethane, Vinyl Chloride, M+P Xylenes, O-Xylenes.

WHAT DOES THIS INFORMATION MEAN?

As you can see by the table, our system had no violations. During 2024 our system was in compliance with applicable State drinking water operating, monitoring, and reporting requirements.

VOCs:
In the past, the Village of Union Springs has had violations in our V.O.C.'s. As the testing is done, the amounts of Cis-1, 2-Dichloroethene, and Trichloroethene vary. We have highs and lows. This is a by-product of manufacturing plants and it is used as a cleaning fluid or degreaser. Some people who drink water containing Cis-1, 2-Dichloroethene in excess of the MCL over many years could experience problems with their liver. Some people who drink water containing Trichloroethene in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer. Over the past few years we have tested many times. At the present time, we do four tests a year.

We are required to present the following information on lead in drinking water:
Lead can cause serious health effects in people of all ages, especially pregnant people, infants (both formula-fed and breastfed), and young children. Lead in drinking water is primarily from materials and parts used in service lines and in home plumbing. *Village of Union Springs* is responsible for providing high quality drinking water and removing lead pipes but cannot control the variety of materials used in the plumbing in your home. Because lead levels may vary over time, lead exposure is possible even when your tap sampling results do not detect lead at one point in time. You can help protect yourself and your family by identifying and removing lead materials within your home plumbing and taking steps to reduce your family's risk. Using a filter, certified by an American National Standards Institute accredited certifier to reduce lead, is effective in reducing lead exposures. Follow the instructions provided with the filter to ensure the filter is used properly. Use only cold water for drinking, cooking, and making baby formula. Boiling water does not remove lead from water. Before using tap water for drinking, cooking, or making baby formula, flush your pipes for several minutes. You can do this by running your tap, taking a shower, doing laundry or a load of dishes. If you have a lead service line or galvanized requiring replacement service line, you may need to flush your pipes for a longer period. If you are concerned about lead in your water and wish to have your water tested, contact *The Village of Union Springs 315 889-7341, 26 Chapel St PO Box 99 Union Springs, NY 13060*. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available at *https://www.epa.gov/safewater/lead*.

IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN OPERATIONS?

During 2024, our system was in compliance with applicable State drinking water operating, monitoring and reporting requirements

INFORMATION ON LEAD SERVICE LINE INVENTORY

A Lead Service Line (LSL) is defined as any portion of pipe that is made of lead which connects the water main to the building inlet. An LSL may be owned by the water system, owned by the property owner, or both. The inventory includes both potable and non-potable SLs within a system. In accordance with the federal Lead and Copper Rule Revisions (LCRR) our system has prepared a lead service line inventory and made if publicly accessibly by visiting our website at: https://unionspringsny.com.

DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Although our drinking water met or exceeded state and federal regulations, some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbial pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

The Village of Union Springs added an air stripper tower to its water system in 2001. The job that the air stripper does will reflect in our contaminant levels listed in our Annual Drinking Water Quality Report. Since all water has to pass through the air stripper, those levels will be referred to as Raw Water and Finished Water for either well head. At the present time, the air stripper is doing a great job; hopefully, this will put many minds to rest. We will continue to sample quality and list the results in our Annual Drinking Water Quality Report. We would like to thank you for allowing us to continue to provide you with clean, quality water this year. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

WHY SAVE WATER AND HOW TO AVOID WASTING IT?

Although our system has an adequate amount of water to meet present and future demands, there are a number of reasons why it is important to conserve water:

- Saving water saves energy and some of the costs associated with both of these necessities of life;
- Saving water reduces the cost of energy required to pump water and the need to construct costly new wells, pumping systems and water towers; and
- Saving water lessens the strain on the water system during a dry spell or drought, helping to avoid severe water use restrictions so that essential firefighting needs are met.

You can play a role in conserving water by becoming conscious of the amount of water your household is using, and by looking for ways to use less whenever you can. It is not hard to conserve water. Conservation tips include:

- 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 one of these otherwise invisible toilet leaks. 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.

CLOSING

Thank you for allowing us to continue to provide your family with quality drinking water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all our customers. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements. We ask all our customers to help us protect our water sources, which are the heart of our community. Please call our office if you have questions.

The Village of Union Springs is an equal employment opportunity provider and employer.

Appendix D – Certification Form

CWS name: Village of Union Springs PWS I.D. No.: 0501725

The community water system named above hereby confirms that its Annual Drinking Water Quality Report has been distributed to customers (and appropriate notices of availability have been given). Further, the system certifies that the information contained in the report is correct and consistent with the compliance monitoring data previously submitted to the primary agency.

Certified by: Kevin L. Thurston Title: Water Operator
License No. NY0043431 Expiration Date: 8/31/26
Phone: (315)889-5680