pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF SAFE DRINKING WATER

2022 ANNUAL DRINKING WATER QUALITY REPORT

PWSID #: 4560042 **NAME:** Borough of Somerset

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

WATER SYSTEM INFORMATION:

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Larry Kowatch, Superintendent and Chief Operator at (814) 445-2111. We want you to be informed about your water supply. If you want to learn more, please attend any of our regularly scheduled meetings.They are held at the Somerset Borough Municipal Building. Council meetings are held the fourth Monday of every month at 7:00 PM. Municipal Water Authority meetings are held the third Monday of every month at 7:00 PM. Visit the website: somerestborough.com or call (814) 443-2661 for more information.

SOURCE(S) OF WATER:

Our water source(s) is/are: (Name-Type-Location)

Well #1 and Well #2	Well water	Shafer Run Road, Somerset, PA 15501
Well #3	Well water	278 Beck Road, Somerset, PA 15501
Well #7, #8, #9	Well water	3518 Coxes Creek Road, Somerset, PA 15501

The Borough of Somerset purchases water from the *Somerset County General Authority Water System,* please review their "Annual Drinking Water Quality Report" for additional information (Attached).

A *Source Water Assessment* of our source(s) was completed by the PA Department of Environmental Protection (Pa. DEP). The Assessment has found that our source(s) of is/are potentially most susceptible to Transportation Corridors, Junk Yard / Auto Repair Shop and Dairy Farms. A summary report of the Assessment is available on the *Source Water Assessment & Protection web* page at (http://www.dep.state.pa.us/dep/deputate/watermgt/wc/Subjects/SrceProt/SourceAssessment/default.htm). On review of the document, note that the Source Water Assessment includes surface water from the Laurel Hill Creek. The Borough of Somerset no longer has a permit to use the Laurel Hill Creek's surface water as a source. Also, Somerset Borough's water production is limited to only six well water sources not eight. Complete reports were distributed to municipalities, water supplier, local planning agencies and PADEP offices. Copies of the complete report are available for review at the Pa. DEP Ebensburg Regional Office, Records Management Unit at (814) 472-1921.

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 microbial contaminants are available from the *Safe Drinking Water Hotline* (800-426-4791).

MONITORING YOUR WATER:

We routinely monitor for contaminants in your drinking water according to federal and state laws. The following tables show the results of our monitoring for the period of January 1 to December 31, 2022. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data is from prior years in accordance with the Safe Drinking Water Act. The date has been noted on the sampling results table.

DEFINITIONS:

Action Level (AL) **-** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

EP – Entry point from treatment plant to the distribution system. EP 101 = Laurel Hill Filtration Plant EP 103 = Coxes Creek Treatment Plant

Maximum Contaminant Level (MCL) - 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 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.

Minimum Residual Disinfectant Level (MinRDL) - The minimum level of residual disinfectant required at the entry point to the distribution system.

Plant 300 – Laurel Hill Filtration Plant

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

Mrem/year = millirems per year (a measure of radiation absorbed by the body)

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)

ppq = parts per quadrillion, or picograms per liter

ppt = parts per trillion, or nanograms per liter

DETECTED SAMPLE RESULTS:

Chemical Contaminants

Contaminant		MCL in CCR Units	MCLG	Level Detected	Range of Detections	Units	Sample Date	Violation Y/N	Sources of Contamination
Chlorine	EP 101	MRDL= 4	MRDLG= 4	2.48	2.01 - 2.48	ppm	2022	N	Disinfectant water additive used to control microbes.
Chlorine	EP 103	MRDL= 4	MRDLG= 4	2.51	1.81 - 2.51	ppm	2022	N	Disinfectant water additive used to control microbes.
Fluoride	EP 101	2*	4	1.03	.60 - 1.03	ppm	2022	N	Water additive which promotes strong teeth.
Fluoride	EP 103	2*	4	1.03	.60 - 1.03	ppm	2022	N	Water additive which promotes strong teeth.
Nitrate	EP 101	10	10	.60	NA	ppm	9/14/2022	N	Runoff from fertilizer use.
Nitrate	EP 103	10	10	0.2	NA	ppm	9/14/2022	N	Runoff from fertilizer use.
Nitrite	EP 101	1	1	0	NA	ppm	9/14/2022	N	Runoff from fertilizer use.
Nitrate	EP 103	1	1	0	NA	ppm	9/14/2022	N	Runoff from fertilizer use.
Arsenic	EP 101	10	0	0	NA	ppm	9/14/2022	N	Erosion of natural deposits; Runoff from orchards
Arsenic	EP 103	10	0	0	NA	ppm	1/12/2021	N	Erosion of natural deposits; Runoff from orchards

*EPA's MCL for fluoride is 4 ppm. However, Pennsylvania has set a lower MCL to better protect human health.

Contaminant		MCL in ppm	MCLG	Highest *LRAA	Range of Quarterly *LRAA	Units	Sample Date	Violation Y/N	Sources of Contamination
HAA5	DEP ID 701	0.060	NA	.045	.029 - .045	ppb	2022	N	By-product of drinking water disinfection
HAA5	DEP ID 702	0.060	NA	.049	.036 - .049	ppb	2021	N	By-product of drinking water disinfection
TTHM	DEP ID 701	0.080	NA	.036	.025 - .036	ppb	2022	N	By-product of drinking water disinfection
TTHM	DEP ID 702	0.080	NA	.042	.027 - .042	ppb	2022	N	By-product of drinking water disinfection

*Locational Running Annual Average (LRAA) EPA/DEP Stage 2 Disinfectant Byproducts Rule requires this quarterly method to indicate MCL Violations.

Heading	DEP Maximum Contaminate Level	Heading	DEP Maximum Contaminate Level
pH	8.50	Mang Manganese	.05 mg/l
Alk Alkalinity	NA	Iron	.30 mg/l
T Hard Total Hardness	NA	Turb Turbidity	3
C Hard Calcium Hardness	NA	TDS Total Dissolved Solids	500 mg/l
Chloride	250.0 mg/l	Cond Conductivity	NA
F Chlorine Free Chlorine	3.00 mg/l	Fl2 Fluoride	2.00
T Chlorine Total Chlorine	4.00 mg/l	Po4 Phosphate	NA

Distribution System Disinfectant Residual							
Contaminant	**Minimum Disinfectant Residual**	**Lowest Level Detected**	**Range of Detections**	**Units**	**Sample Date**	**Violation Y/N**	**Sources of Contamination**
Chlorine Distribution as Total Chlorine	MCL .20	.64	.64 – 2.22	ppm	2022	N	By-product of drinking water disinfection

Microbial					
Contaminants	**MCL**	**MCLG**	**Highest # or % of Positive**	**Violation Y/N**	**Sources of Contamination**
Total Coliform Bacteria	For systems that collect <40 samples/month: … More than 1 positive monthly sample	0	0	N	Naturally present in the environment.
Fecal Coliform Bacteria or *E. coli*	0	0	0	N	Human and animal fecal waste.

VIOLATIONS CONCERNING HEALTH EFFECTS:

None "No MCL's or Treatment Techniques were exceeded" in any location of the CCR.

OTHER VIOLATIONS:

None

EDUCATIONAL INFORMATION:

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 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 stormwater run-off, 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 can also come from gas stations, urban stormwater runoff, and septic systems.
- … Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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 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).

2022 Finished Water Analysis

Current as of: 1/9/2023

Facility #1 Laurel Hill Filtration Plant Entry Point (EP) 101

	Lab pH	Alk	T Hard	C Hard	F Chlorine	Mang	Iron	Po4	Fl2	Temp	TDS	Cond.	Inactivation Log Values 4.0
Ave	7.59	72.77	88.89	80.04	2.23	0.01	0.02	0.52	0.83	12.58	108.88	173.88	311.48
Min	7.46	64.4	70	69.2	2.01	0.001	0.01	0.16	0.6	0.9	99.3	143.5	197.46
Max	7.76	772	101.6	106.4	2.48	0.033	0.06	0.62	1.03	16.5	116.5	203.1	441.04

Facility # 2 Shafer Run Wells

	pH	Alk	T Hard	C Hard	Mang	Iron	Temp	TDS	Cond.
Ave	7.75	71.76	89.87	80.80	0.01	0.03	13.17	105.92	172.09
Min	7.61	62.8	77.2	67.6	0.002	0.01	0.92	11.2	130
Max	7.89	92.4	104.8	112.4	0.031	0.07	17.6	114.2	201.7

Facility #3 Coxes Creek Filtration Plant Entry Point (EP) 103

	pH	Alk	T Hard	C Hard	Fl2	F Chlorine	Mang	Iron	Po4	Temp	TDS	Cond.	Inactivation Log Value 4.0
Ave	7.27	158.35	136.15	113.08	0.82	2.02	0.02	0.02	0.52	10.81	167.95	280.69	24.38
Min	7.16	148.8	124	102.4	0.6	1.81	0.001	0.001	0.1	8.3	150.4	252	20.00
Max	7.43	175.2	156.8	153.2	1.03	2.51	0.043	0.52	0.85	13.3	184.7	307	29.11

Facility #4 Quemahoning Chemical Feed Building Entry Point (EP) 104

INF (Influence from County Water System, Purchased Water)

Finished Water Analysis (EP to Distribution System)

	pH	Alk	T Hard	C Hard	T Chlorine	Mang	Iron	TDS	Cond.	T Chlorine	Po4	Fl2
Ave	7.35	38.40	92.09	70.17	1.24	0.01	0.02	119.05	201.51	1.45	0.47	0.76
Min	7.12	28.4	70.8	55.7	1.01	0.0011	0.01	103.8	157.9	0.9	0.33	0.51
Max	7.53	54.8	132	111.2	1.55	0.044	0.06	136.2	241.2	1.59	0.67	1.11

Note: On the average our water production is as follows:

Facility #1 and Facility #2 are combined production (Facility #2 water flows through Facility #1) producing 23%, Facility #3 produces 17% and we purchase 60% from the County water system through Facility #4

** With water demand and seasonal conditions these percentages vary.

Heading	DEP Maximum Contaminate Level	Heading	DEP Maximum Contaminate Level
pH	8.50	Mang Manganese	.05 mg/l
Alk Alkalinity	NA	Iron	.30 mg/l
T Hard Total Hardness	NA	Turb Turbidity	3.00
C Hard Calcium Hardness	NA	TDS Total Dissolved Solids	500 mg/l
Chloride	250.0 mg/l	Cond Conductivity	NA
F Chlorine Free Chlorine	3.00 mg/l	Fl2 Fluoride	DEP 2.00 mg/l - EPA 4.0 mg/l
T Chlorine Total Chlorine	4.00 mg/l	Po4 Phosphate	NA
Alum	.200 mg/l	Copper	1.00 mg/l
Zink	5.00 mg/l		

2022 Annual Drinking Water Quality Report
Somerset County General Authority - PWSID #4560009

Este informe contiene información importante acerca de su agua potable. Haga que alguien lo traduzca para usted, ó hable con alguien que lo entienda. (This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.)

The Somerset County General Authority takes great pleasure in presenting our 2022 Annual Drinking Water Quality Report. This report provides information about your water quality and what it means. Included are details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. If you would like to learn more, please attend any of our regularly scheduled meetings which are held on the second Thursday of each month at 3:00 PM, in the Commissioner's Board Room.

Our water source is surface water from the Quemahoning Reservoir, which is located in Somerset County and spans portions of Conemaugh, Jenner, and Quemahoning Townships. The reservoir is owned by the Cambria-Somerset Authority (CSA). We purchase raw water from the CSA and process it through our water treatment plant where it is treated to remove contaminants, filtered, and disinfected with chlorine before entering the distribution system.

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).

The tables below list all of the drinking water contaminants that we detected during the 2022 calendar year. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2022. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

In this table, you may find terms and abbreviations that you are not familiar with. The following definitions have been provided to help you better understand this data:

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* (µg/L) -** One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.

Picocuries per liter (pCi/L) - a measure of radioactivity

***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.

Table 3: Turbidity						
Contaminant (Unit of Measurement)	**MCL**	**MCLG**	**Level Detected**	**Sample Date**	**Violation Yes/No**	**Major Sources in Drinking Water**
Turbidity (NTU)	TT = 1 NTU for a single measurement	0	0.140	3/5/22	No	Soil Runoff
	TT = at least 95% of monthly samples $\leq$ 0.3 NTU		100%	2022	No	

Table 4: Total Organic Carbon (TOC)					
Contaminant	**Range of % Removal Required**	**Range of % Removal Achieved**	**Number of Quarters out of Compliance**	**Violation Yes/No**	**Major Sources in Drinking Water**
Total Organic Carbon (TOC)	35%	22% - 36%	None*	No	Naturally present in the environment

***Alternative Compliance Criteria (ACC) were used to determine compliance**

Table 5: Microbial					
Contaminant	**TT**	**MCLG**	**Assessments/ Corrective Actions**	**Violation Yes/No**	**Major Sources in Drinking Water**
Total Coliform Bacteria	Any system that has failed to complete all the required assessments or correct all identified sanitary defects, is in violation of the treatment technique requirement	N/A	See detailed description under "**Detected Contaminants Health Effects Language and Corrective Actions**" section	No	Human and animal fecal waste

Table 6: Microbial (related to E. coli)					
Contaminant	**MCL**	**MCLG**	**Positive Sample(s)**	**Violation Yes/No**	**Sources of Contamination**
E. coli	Routine and repeat samples are total coliform-positive and either is *E. coli*-positive or system fails to take repeat samples following *E. coli*-positive routine sample or system fails to analyze total coliform-positive repeat sample for *E. coli.*	0	1	No	Human and animal fecal waste

Detected Contaminants Health Effects Language and Corrective Actions:

Coliforms are bacteria that *are naturally present in the environment and are used as an indicator that other potentially-harmful, bacteria may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessment(s) to identify problems and to correct any problems that were found during these assessments.*

During the past year, we were required to conduct one Level 1 assessment. One Level 1 assessment was completed, with no deficiencies being found. In January of 2022, we detected total coliform bacteria and *E.coli* in our routine monthly bacteria samples. Check samples were immediately taken and were found to be free of any total coliform bacteria or *E.coli*. Since the check samples were clear, there was no confirmation of contamination and therefore, no violation of the *E.coli* MCL occurred.

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 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 run-off, 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 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 be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and DEP prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA and DEP 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 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) or at http://www.epa.gov/safewater/lead.