

Rural Water District Cons. 5, Atchison County, KS

– Water Quality Report *(covers calendar year 2018)*

This pamphlet lists water quality information for Rural Water District No. 5 Consolidated, Atchison County, Kansas. It includes limited details on the source and quality parameters and how our water compares to Environmental Protection Agency (EPA) and state standards. It's important that customers be aware of the efforts that are made continually to improve their water system. To learn more, please contact Rhonda Snyder 913/874-4071. Meetings of the board are held on the second Tuesday of each month at 7 p.m. (8 p.m. DST) at the district office at 11068 286th Rd., Lancaster.

The water source for RWD 5-C is purchased from the city of Atchison (surface water) and produced from three wells owned by the District. The water is treated to remove contaminants. A disinfectant is also added to protect the water supply against microbial contaminants.

A message from EPA

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. The city treats water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

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).

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 EPA's Safe Drinking Water Hotline (800-426-4791).

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 before treatment may 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 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 and residential uses.
- **Radioactive contaminants**, which are naturally occurring.
- **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.

■ **Lead**: 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. Your water system 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 thirty seconds to two minutes before using 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>.

■ **Total Coliform Rule (TCR)**: 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. During 2018, the utility collected two samples per month and all were in compliance except in December when the sampling was not completed.

Water Quality Data

The table on the reverse side lists all the drinking water contaminants that we detected during the 2018 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless noted, the data presented in this table is from testing done January 1 - December 31, 2018. 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. The bottom line is that the water that is provided to you is safe.

Terms & Abbreviations

- **Maximum Contaminant Level Goal (MCLG)**: The "Goal" is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.
- **Maximum Contaminant Level (MCL)**: the "Maximum Allowed" MCL is the highest level of a contaminant allowed in drinking water. MCLs are set as close to the MCLGs as feasible using best available treatment technology.
- **Secondary Maximum Contaminant Level (SMCL)**: recommended level for a contaminant that is not regulated and has no MCL.
- **Action Level (AL)**: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements.
- **Technique (TT)**: A required process intended to reduce levels of a contaminant in drinking water.
- **Maximum Residual Disinfectant Level (MRDL)**: 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.
- **Non-Detects (ND)**: Lab analysis indicates the contaminant is not present.
- **Parts per Million (ppm) or milligrams per liter (mg/l)**
- **Parts per Billion (ppb) or micrograms per liter (µg/l)**
- **Picocuries per Liter (pCi/L)**: A measure of the radioactivity in water.
- **Millirems per Year (mrem/yr)**: Measure of radiation absorbed by the body.
- **Period Average (MPA)**: An average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.
- **Nephelometric Turbidity Unit (NTU)**: A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for ground water systems.
- **Running Annual Average (RAA)**: Average of sample results obtained over

Testing Results for Consolidated Rural Water District No. 5, Atchison County

The district failed to monitor for submit the required sampling for coliform bacteria in December 2018 (and also January 2019). Some of the testing results shown below are more than one year old because of the monitoring schedules.

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ARSENIC	1/25/2017	1.6	1.6	ppb	10	0	Erosion of natural deposits
BARIUM	1/25/2017	0.22	0.22	ppm	2	2	Discharge from metal refineries
FLUORIDE	1/25/2017	0.19	0.19	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	4/18/2018	0.52	0.52	ppm	10	10	Runoff from fertilizer use
SELENIUM	1/25/2017	3.9	3.9	ppb	50	50	Erosion of natural deposits

Disinfection Byproducts	Monitoring Period	Highest RAA	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2018	27	10 - 39	ppb	60	0	By-product of drinking water disinfection
TTHM	2018	41	20 - 74	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2015 - 2017	0.018	0.002 - 0.053	ppm	1.3	0	Corrosion of household plumbing

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL	1/25/2017	300	300	MG/L	300
CALCIUM	1/25/2017	97	97	MG/L	200
CHLORIDE	1/25/2017	32	32	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	1/25/2017	740	740	UMHO/CM	1500
CORROSIVITY	1/25/2017	0.42	0.42	LANG	0
HARDNESS, TOTAL (AS CaCO3)	1/25/2017	320	320	MG/L	400
IRON	1/25/2017	0.14	0.14	MG/L	0.3
MAGNESIUM	1/25/2017	20	20	MG/L	150
MANGANESE	1/25/2017	0.47	0.47	MG/L	0.05
PH	1/25/2017	7.6	7.6	PH	8.5
PHOSPHORUS, TOTAL	1/25/2017	2.7	2.7	MG/L	5
POTASSIUM	1/25/2017	2.4	2.4	MG/L	100
SILICA	1/25/2017	30	30	MG/L	50
SODIUM	1/25/2017	35	35	MG/L	100
SULFATE	1/25/2017	28	28	MG/L	250
TDS	4/17/2014	470	470	MG/L	500
ZINC	1/25/2017	0.0055	0.0055	MG/L	5

The district purchases some water from the City of Atchison. Testing results for the city follow:

Regulated Contaminants	Collection Date	Water System	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
BARIUM	4/3/2018	CITY OF ATCHISON	0/083	0/083	ppm	2	2	Discharge from metal refineries
FLUORIDE	1/9/2018	CITY OF ATCHISON	0.3	0.18 - 0.3	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	4/3/2018	CITY OF ATCHISON	2.8	1.9- 2.8	ppm	10	10	Runoff from fertilizer use
SELENIUM	4/3/2018	CITY OF ATCHISON	3.5	3.5	ppb	50	50	Erosion of natural deposits

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Secondary Contaminants	Collection Date	Water System	Highest Value	Range	Unit	SMCL
ALKALINITY, TOTAL	4/3/2018	CITY OF ATCHISON	160	160	MG/L	300
ALUMINUM	4/3/2018	CITY OF ATCHISON	0.052	0.052	MG/L	0.05
BROMATE	7/24/2018	CITY OF ATCHISON	8.2	5.7-8.2	PPB	10
CALCIUM	4/3/2018	CITY OF ATCHISON	73	73	MG/L	200
CHLORIDE	4/3/2018	CITY OF ATCHISON	28	28	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	4/3/2018	CITY OF ATCHISON	790	790	UMHO/CM	1500
CORROSIVITY	4/3/2018	CITY OF ATCHISON	0.089	0.089	LANG	0
HARDNESS, TOTAL (AS CaCO3)	4/3/2018	CITY OF ATCHISON	290	290	MG/L	400
MAGNESIUM	4/3/2018	CITY OF ATCHISON	27	27	MG/L	150
MANGANESE	4/3/2018	CITY OF ATCHISON	0.0092	0.0092	MG/L	0.05
NICKEL	4/3/2018	CITY OF ATCHISON	0.0022	0.0022	MG/L	0.1
PH	4/3/2018	CITY OF ATCHISON	7.6	7.6	PH	8.5
POTASSIUM	4/3/2018	CITY OF ATCHISON	7.7	7.7	MG/L	100
SILICA	4/3/2018	CITY OF ATCHISON	16	16	MG/L	50
SODIUM	4/3/2018	CITY OF ATCHISON	47	47	MG/L	100
SULFATE	4/3/2018	CITY OF ATCHISON	180	180	MG/L	250
TDS	4/3/2018	CITY OF ATCHISON	480	480	MG/L	500

Atchison was cited for a drinking water regulation failure by the Kansas Dept. of Health and Environment for not providing a report concerning the lead and copper rule.

This report was amended to include the public notice required as a result of the district's failure to monitor for coliform in December 2018 and January 2019. See the notice attached.

PUBLIC NOTICE FOR FAILURE TO MEET MONITORING REQUIREMENT

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

ATCHISON CO RWD 5C public water supply system violated a drinking water standard. Even though this was not an emergency, customers have a right to know what happened and what the district is doing to correct this situation.

The district is required to monitor the drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not the drinking water meets health standards. During December 2018 and January 2019, the District did not submit all required coliform samples. The District is not sure what happened with the one of the December samples, but believes the sample made it to the KDHE lab on time but does not have sufficient documentation. During January, two samples did not reach the KDHE lab as our courier was not able to deliver due to inclement weather. Unfortunately, our courier did not notify us in time to collect replacement samples.

What happened: The district is required to test for coliform bacteria no fewer than two times a month. Additional samples are required following a coliform-positive or rejected sample. A monitoring violation occurred because of failure to collect one or more of the routine microbiological samples required during December 2018 and January 2019.

The District did submit the samples but was not aware that the samples were not received at the KDHE lab until much later so replacement samples could not be collected.

What you should do and who is at risk: Of course this is not an emergency. There is no direct health risk to consumers.

What the district is doing: Since it is the district's desire to provide the safest water possible to our consumers, the district is paying close attention to the monthly sampling program and daily record keeping, and will review alternative resources for testing or shipping if necessary in order to prevent future violations. The district will contact the testing laboratory early in the month if sampling bottles haven't been received. The District has addressed this issue with its courier to make sure the courier calls the District if they cannot deliver the samples to the KDHE lab in time so replacement samples may be collected.

For more information, please contact Name: JOHN BROWN
Phone: 913-874-4071

Or by Mail: 11068 286th RD, LANCASTER, KS 66041

This notice is being sent to you by ATCHISON CO RWD 5C
Federal ID #: KS2000511

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