Annual Drinking Water Quality Report

CARLYLE

IL0270300

Annual Water Quality Report for the period of January 1 to December $31,\ 2023$

This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water.

The source of drinking water used by CARLYLE is Surface Water

For more information regarding this report contact:

Name Andrew Wennerstrom

Phone 1 (618) 594-3321

Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.

Source of Drinking Water

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 runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from 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.

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 EPAs Safe Drinking Water Hotline at (800) 426-4791.

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 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).

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. We 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 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.

Source Water Information

Source Water Name Type of Water Report Status Location

IN60043-KASKASKIA RIVER 0.5 MI S OF CARLYLE RESE SW Active 0.5 MI S of Carlyle Rese

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The source water assessment for our supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at <u>1 (618) 594-3321</u>. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl.

Source of Water: CARLYLEIllinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems, hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion.

Lead and Copper

Definitions:

Definitions:

Action Level Goal (ALG): The level of a contaminant 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.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2023	1.3	1.3	0.24	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2023	0	15	1.1	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

The following tables contain scientific terms and measures, some of which may require explanation.

Water Quality Test Results

Avg:	Regulatory compliance with some MCLs are based on running annual average of monthly samples.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment:	A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
Maximum Contaminant Level or 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 or 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.
$\label{eq:maximum} \mbox{\tt Maximum residual disinfectant level or } \mbox{\tt MRDL:}$	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 or 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.

Water Quality Test Results

na: not applicable.

mrem: millirems per year (a measure of radiation absorbed by the body)

ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.

ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Treatment Technique or TT: A required process intended to reduce the level of a contaminant in drinking water.

Regulated Contaminants

Disinfectants and Disinfection By- Products	Collection Date	Highest Level Detected	Range of Levels Detected	s MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	2023	2.3	1.9 - 3	MRDLG = 4	MRDL = 4	ppm	N	Water additive used to control microbes.
Haloacetic Acids (HAA5)	2023	47	24 - 54.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHM)	2023	48	36.8 - 59.4	No goal for the total	80	ppb	N	By-product of drinking water disinfection.
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	s MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2023	2	1.5 - 1.5	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	2023	0.051	0.051 - 0.051	2	2	mqq	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2023	0.4	0.376 - 0.376	4	4.0	ppm	N	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2023	0.39	0.39 - 0.39	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2023	12	12 - 12			ppb	N	Erosion from naturally occuring deposits. Used in water softener regeneration.
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	s MCLG	MCL	Units	Violation	Likely Source of Contamination

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Synthetic organic contaminants including pesticides and herbicides	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Atrazine	2023	1	0 - 2.3	3	3	ppb	N	Runoff from herbicide used on row crops.
Simazine	2023	0.79	0 - 0.79	4	4	ppb	N	Herbicide runoff.

5

pCi/L

N

0

Turbidity

Combined Radium

11/02/2021

0.825

0.825 - 0.825

	Limit (Treatment Technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	1 NTU	0.17 NTU	N	Soil runoff.
Lowest monthly % meeting limit	0.3 NTU	100%	N	Soil runoff.

Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of quality and the effectiveness of our filtration system and disinfectants.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Erosion of natural deposits.

Violations Table

Chlordane

Some people who drink water containing chlordane in excess of the MCL over many years could experience problems with their liver or nervous system, and may

Violation Type	Violation Begin Violation End		Violation Explanation		
MONITORING, ROUTINE MAJOR	04/01/2023	06/30/2023	The sample collected was turned into the lab for Chlordane but results were not submitted by Pace Laboratory to the IEPA in time and therefore had to re submit sample. All samples submitted were in compliance.		

Haloacetic Acids (HAA5)

Some people who drink water containing haloacetic acids in excess of the MCL over many years may have an increased risk of getting cancer.

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	07/01/2023	09/30/2023	The sample collected was turned in late to the lab for Haloacetic Acids and therefore cannot be sure of the quality of our drinking water during that time. All samples submitted were in compliance.

PCBs [Polychlorinated biphenyls]

Some people who drink water containing PCBs in excess of the MCL over many years could experience changes in their skin, problems with their thymus gland,

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	04/01/2023	06/30/2023	The sample collected was turned into the lab for Total Polychlorinated Biphenyls but results were not submitted by Pace Laboratory to the IEPA in time and therefore had to re submit sample. All samples submitted were in compliance.

Total Trihalomethanes (TTHM)

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central

Violation Type	Violation Begin	Violation End	Violation Explanation		
MONITORING, ROUTINE (DBP), MAJOR	07/01/2023	09/30/2023	The sample collected was turned in late to the lab for Total Trihalomethanes and therefore cannot be sure of the quality of our drinking water during that time. All samples submitted were in compliance.		

Violations Table

Toxaphene

Some people who drink water containing toxaphene in excess of the MCL over many years could have problems with their kidneys, liver, or thyroid, and may have

Violation Type	Violation Begin	Violation End	Violation Explanation
MONITORING, ROUTINE MAJOR	04/01/2023	06/30/2023	The sample collected was turned into the lab for Toxaphene but results were not submitted by Pace Laboratory to the IEPA in time and therefore had to re submit sample. All samples submitted were in compliance.

Monitoring Violations Annual Notice Template

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

Monitoring Requirements Not Met for Carlyle Water

Our water system violated several drinking water standards over the past year. Even though these were not emergencies, as our customers, you have a right to know what happened and what we did to correct these situations.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 1/1/23-12/31/23 The Sample collected was turned in to the lab for Chlordane, Total Polychlorinated Biphenyls and Toxaphene but the results were not submitted by Pace Laboratory to the IEPA in time and therefore had to re submit sample. All samples submitted were in compliance.

What should I do?

Toxaphene

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for Chlordane, Total Polychlorinated Biphenyls and Toxaphene how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
Chlordane	Quarterly	6	6/21/23	Resample 8/7/23
Total Polychlorinated Biphenyls	Quarterly	6	6/21/23	Resample 8/7/23

What happened? What is being done? Lab messed up sample. Carlyle Water resampled for Toxaphene, Chlordane and Total Polychlorinated Biphenyls, bringing Carlyle Water back into compliance with IEPA.

6/21/23

Resample 8/7/23

Sample was submitted and within compliance.

Quarterly

For more information, please contact Andy Wennerstrom 1-618-594-3321,151 Jefferson St. Carlyle II.62231

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Carlyle Water Water System ID# IL0270300 Date distributed With CCR

Monitoring Violations Annual Notice Template

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We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not our drinking water meets health standards. During 7-1-23 through 9-30-23 The Sample collected was turned in late to the lab for THM and HAA's and therefore cannot be sure of the quality of our drinking water during that time. All samples submitted were in compliance.

What should I do?

There is nothing you need to do at this time.

The table below lists the contaminant(s) we did not properly test for during the last year, how often we are supposed to sample for THM/HAA's, how many samples we are supposed to take, how many samples we took, when samples should have been taken, and the date on which follow-up samples were (or will be) taken.

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
THM/HAA	Quarterly	6	August 2023	9/12/23

What happened? What is being done? Sample was received late. Sample received was in compliance with IEPA.

Sample was submitted and within compliance.

For more information, please contact Andy Wennerstrom 1-618-594-3321,151 Jefferson St. Carlyle II.62231

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