

**City of Calumet City**

**WATER  
DEPARTMENT**



**2016  
Annual Drinking  
Water Quality Report**

# Annual Drinking Water Quality Report

Calumet City, IL0310390

Annual Water Quality Report

For the period of January 1 to December 31, 2016

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

Calumet City draws 100% of its drinking water from Lake Michigan (supplied by Chicago 20% and Hammond 80%).

Each year, on a monthly basis, our water is tested by State approved laboratories for a wide range of possible contaminants.

This year, as in the years past, our City's water has met all USEPA and state drinking water health standards. Our system vigilantly safeguards its water supply.

This report summarizes the quality of water that we provided last year, including information on where your water comes from, what it contains, and how it compares to standards set by regulating agencies. We are committed to providing you with information because informed customers are our best allies.

For more information regarding this report, contact:  
Calumet City Water Department  
Gerry Surufka - 708-891-8155  
Board Meetings 2nd & 4th Thursday Each Month

Este informe contiene informacion muy importante sobre el agua que usted bebe. Si no entiende el contenido o tiene alguna pregunta puede llamar a la oficina de la Alcalde Michelle Markiewicz Qualkinbush al (708) 891-8113.

## **Source of Water: CHICAGO**

The Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems. The very nature of surface water allows contaminants to migrate into the intake with no protection only dilution. This is the reason for mandatory treatment for all surface water supplies in Illinois. Chicago's offshore intakes are located at a distance that shoreline impacts are not usually considered a factor on water quality. At certain times of the year, however, the potential for contamination exists due to wet-weather flows and river reversals. In addition, the placement of the crib structures may serve to attract waterfowl, gulls and terns that frequent the Great Lakes area, thereby concentrating fecal deposits at the intake and thus compromising the source water quality. Conversely, the shore intakes are highly susceptible to storm water runoff, marinas and shoreline point sources due to the influx of groundwater to the lake. Source of Water: HAMMOND INDIANA Illinois EPA considers all surface water sources of public water supply susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public 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.

**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 a variety of sources 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, the SEPA 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 person 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). [Http://www.epa.gov/safewater/lead](http://www.epa.gov/safewater/lead)

The City of Calumet City purchases water from Hammond, Indiana. Its source water is Lake Michigan, which is surface water. There were no synthetic organic compounds, volatile organic compounds, or any unregulated contaminant's detected in the Finished Water at the entry point to the Hammond distribution system. The following table contains the results from Hammond.							
Microbial Contaminant's Turbidity (1% < 0.3 NTU)	MCLG N/A	MCL TT	Level Found 100.00%	Range of Detection N/A			
Turbidity (NTU) Soil Runoff - Highest Single Measurement	N/A	TT=1 NTU Max	0.30	.04-.14			
Disinfectants & Disinfectant By-Products	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Total Haloacetic Acids	6.6	2.5-4.2	N/A	60	ppb	No	By-Product of Drinking Water Chlorination
Inorganic Contaminant's	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contaminant
Fluoride	1.4	0.4-1.4	4	4	ppm	No	Erosion of Natural deposits; Water Additive which promotes Strong Teeth; Fertilizer Discharge
Sodium	8.5 mg/l	N/A	N/A	N/A	ppm	No	Erosion of Naturally Occurring Deposits
There is not a state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium restricted diet, you should consult a physician about this level of sodium in the water.							

# 2016 Water Quality Data Chicago – Hammond

## DEFINITION OF TERMS

**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 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.

**Level Found:** This column represents the highest result, unless otherwise noted, during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

**Range of Detections:** This column represents a range of individual sample results, from lowest to highest, that were collected during the CCR calendar year.

**Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.

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

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

**nd:** Not detectable at testing limits.    **n/a:** Not applicable

## Chicago Table Detected Contaminants

Microbial Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
<b>TURBIDITY (&lt;0.3 NTU)</b> Soil runoff. Lowest monthly percent meeting limit.	n/a	TT	100%	100%-100%		
<b>TURBIDITY (NTU)</b> Soil runoff. Highest Single measurement.	n/a	TT=1NTU <sub>max</sub>	0.16	n/a		
Inorganic Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
<b>BARIUM (ppm)</b> Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0.0206	0.0196-0.0206		
<b>NITRATE (as Nitrogen) (ppm)</b> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40-0.46		
<b>TOTAL NITRATE &amp; NITRITE (ppm)</b> Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	10	10	0.46	0.40-0.46		
<b>TOC (TOTAL ORGANIC CARBON)</b> The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set by IEPA						

# 2016 Chicago Contaminant Detections

The following table identifies contaminants detected within the past five years. State and federal regulations do not require monitoring for these contaminants and no maximum contaminant level (MCL) has been established. These detections are for informational purposes only. No mandated health effects language exists. The CCR Rule does not require that this information be reported; however, it may be useful when evaluating possible sources of contamination or characterizing overall water quality.

## DEFINITION OF TERMS

**Level Found:** This column represents the highest result, unless otherwise noted, during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.

**Range of Detections:** This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.

**Date of Sample:** If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Unregulated Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
SULFATE (ppm) Erosion of naturally occurring deposits.	n/a	n/a	25.7	25.0-25.7		
SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	8.92	8.49-8.92		
State Regulated Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
FLUORIDE (ppm) Water additive which promotes strong teeth	4	4	0.78	0.62-0.78		
Radioactive Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample
COMBINED RADIUM (226/228) (pCi/L) Decay of natural and man-made deposits.	0	5	.84	.5-.84		2/11/2014
GROSS ALPHA excluding radon and uranium. Decay of natural & man-made deposits.	0	15	6.6	6.1-6.6		2/11/2014

## **TURBIDITY**

Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

## **UNREGULATED CONTAMINANTS:**

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

## **FLUORIDE**

Fluoride is added to the water supply to help promote strong teeth. The Illinois Department of Public Health recommends an optimal fluoride range of 0.9 mg/l to 1.2 mg/l.

## **SODIUM**

There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

\* Highest Running Annual Average computed



# 2016 Regulated Contaminants Detected - Calumet City 2016

## Lead and Copper

Definitions:

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

---- 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 are responsible for providing high quality drinking water, but 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>. ----

Action level Goal (ALG): The level of a contaminant in drinking water below which there is not known or expected risk to health. ALGs allow for a margin of safety.

Lead and Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Site Over AL	Units	Violation	Likely Source of Contamination
Copper	2015	1.3	1.3	0.14	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	2015	0	15	12.8	5	ppb	1	Corrosion of household plumbing systems; Erosion of natural deposits.

## Water Quality Test Results

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

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum contaminant Level Goal 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. MCLG's allow for a margin of safety.

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

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

na: not applicable.

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of 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 disinfectant in drinking water 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.

## Regulated Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12/31/2016	1.3	1 - 1	MRDLG=4	MRDL=4	ppm	N	Water additive used to control Microbes
Haloacetic Acids (HAA5*)	2016	9	3.1-7.28	No goal for the total	60	ppb	N	By-product of drinking water chlorination
Total Trihalomethanes (TThm)*	2016	29	7.72-24	No goal for the total	80	ppb	N	By-product of drinking water chlorination

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future

## Coliform Bacteria

Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli or Fecal Coliform Samples	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples are positive	4.3		0	N	Naturally present in the environment

## Violations Table

Consumer Confidence Rule			
The Consumer Confidence Rule requires community water systems to prepare and provide to their customers annual consumer confidence reports on the quality of the water delivered by the systems.			
Violation Type	Violation Begin	Violation End	Violation Explanation
CCR Adequacy/Availability/Content	07/01/2016	2016	We failed to provide to you, our drinking water customers, an annual report that adequately informed you about the quality of our drinking water and the risks from exposure to contaminants detected in our drinking water.