Water Quality Analysis

The chart that follows the definitions lists the highest recorded level in Michigan City in 2021 and the highest allowed by the USEPA. Michigan City water has met all EPA requirements.

Definitions

MCL: Maximum Contaminant Level, the highest level of a contaminant that is allowed in drinking water, if applicable.
MCLG: Maximum Contaminant Level Goal, the level of a contaminant in drinking water below which there is no known or expected risk to health, if applicable.
MRDL: Maximum Residual Disinfectant Level, the highest level of disinfectant allowed in drinking water.
MRDLG: Maximum Residual Disinfectant Level Goal, the level of drinking water disinfectant below which there is no know or expected risk to health.
AL: Action level, the concentration of a contaminant, which if exceeded, triggers treatment or other requirements, which a water system must follow.
TT: Treatment Technique, a required process intended to reduce the level of a contaminant in drinking water.
NTU: Nephelometric Turbidity Unit, is the measure of clarity of the water
mg/l: milligrams per liter, a measurement for concentration equivalent to ppm = one part per million
ug/l: micrograms per liter, measurement for concentration equivalent to ppb = one part per billion
pCi/l: picocuries per liter, a measurement of radiation
P*: Potential violation, one that is likely to occur in the near future, subject to other applicable requirements.
ND: Not detected, the result was not detected at or below the analytical method detection level.
TT: Special Note on Turbidity:** The turbidity treatment technique (TT) requires that at least 95% of the total combined effluent turbidity samples shall not exceed 0.3 NTU (1.0 NTU for slow sand and diatomaceous earth filtration systems). At least 95% is required to be in compliance. In addition, the maximum turbidity level cannot exceed 1.0 NTU at any time.
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.

Date	Contaminant	MCL	MCLG	Unit	Result	Min	Max	Sites over AL	Violation	Likely Sources
6/15/2021	Barium	2	2	mg/L	0.023				No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
6/15/2021	Fluoride	4	4	mg/L	0.9	0.88	0.88		No	Water additive that promotes strong teeth; Erosion of natural deposits; Discharges from fertilizer and aluminum factories.
6/15/2021	Nitrate-Nitrite (as N)	10	10	mg/L	0.36				No	Erosion of natural deposits; Runoff from fertilizers; Leaching from septic systems and sewers.
6/15/2021	Sodium	N/A	N/A	mg/L	8.2				No	Metals; Erosion of natural deposits.
6/15/2021	Bromodichloromethane	N/A	N/A	ug/L	3.4				No	Byproduct of drinking water chlorination
6/15/2021	Chloroform	N/A	N/A	ug/L	3.6				No	Byproduct of drinking water chlorination
6/15/2021	Dibromochloromethane	N/A	N/A	ug/L	1.7				No	Byproduct of drinking water chlorination
2021	Total Trihalomethanes	80	0	ug/L	12.3	7.6	18.4		No	Byproduct of drinking water chlorination
2021	Total Haloacetic Acids	60	0	ug/L	1.8	0	5		No	Byproduct of drinking water chlorination
2021	Chloramines	MRDL = 4	MRDLG = 4	mg/L	1.12	0.15	2.2		No	Water additive used to control microbes
2021	Total Organic Carbon	TT	TT	mg/L	1.56	1.02	2.31		No	Naturally present in the environment
2021	Turbidity (lowest percentage)	TT**	TT**	%	97%	97%	100%		No	Soil runoff
2021	Turbidity (Maximum level)	1	1	NTU	1.00	0.02	1.00		No	Soil runoff
2021	Total Coliform (40/month)	5%	0%	%	6%	0	6%		No[1]	Naturally present in the environment
Valid until 12/31/2023	Lead (90th percentile)	15 (AL)	0	ug/L	3	ND	9.1	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Valid until 12/31/2023	Copper (90th percentile)	1.3 (AL)	1.3	mg/L	0.23	ND	1.17	0	No	Erosion of natural deposits; Corrosion of household plumbing systems; Leaching from wood preservatives

No[1]: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens 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 the 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 (1) Level 1 Assessment. One (1) Level 1 Assessment was completed. In addition, we were required to take one (1) corrective action and we completed one (1) action.