

# CITY OF RALEIGH

## 2016 FINISHED WATER QUALITY REPORT

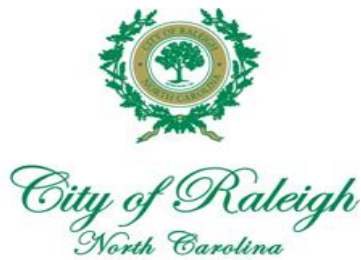
*-Summarizing 2016  
Finished Water  
Quality Test  
Results*



## Finished Water Quality Data for 2016

In the following pages, you will find an overview of the required and voluntary water testing analysis that protects our drinking water system. In order to ensure that your tap water is safe to drink, the Environmental Protection Agency prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. 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).





## 2016 Annual Finished Water Quality Report

### Tests of Finished Water From the EM Johnson Water Treatment Facility

The City of Raleigh consistently provides a reliable supply of high quality drinking water that surpasses all State and Federal drinking water quality requirements. The following tables represents levels of regulated and unregulated water quality parameters sampled in 2016. The water quality test results indicate that your drinking water complies with all of the EPA's drinking water standards in 2016. If you have any questions regarding this report, please contact the City of Raleigh Drinking Water Laboratory at (919)996-2870.

#### Microbiologicals

Contaminant	Your water	MCL	Sources of Contaminant
Cryptosporidium, Oocysts/L (12/19/16)	0	NA	Human and animal fecal waste
Giardia, cyst/L (12/19/16)	0	NA	Human and animal fecal waste
Heterotrophic Plate Count, MPN/ml, (AVG) Distribution	32	NA	HPC measures a range of bacteria that are naturally present in the environment
Total Coliform (240 samples per month), Distribution	0.83% were positive	NA	Coliforms are naturally present in the environment
<i>E Coli</i> (240 samples per month), Distribution	0% were positive	(Note: If either an original routine sample and/or its repeat samples are <i>E coli</i> positive, a Tier 1 violation exists)	Human and animal fecal waste
Viruses* (12/28/16)	Negative	NA	Human and animal fecal waste

\*Viruses include Adenovirus, Astrovirus, Rotavirus and Panternterovirus

#### Disinfectants and Disinfection Byproducts

Contaminant	Your water	MCL	Sources of Contaminant
Bromate, mg/l	<0.005	0.01	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5), ppb	21.5	60	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs), ppb	22.9	80	Byproduct of drinking water disinfection
Total Organic Carbon, ppm	2.26	na	Naturally present in the environment
Chloramines, ppm	2.70	MRDL = 4	Water additive used to control microbes

#### Lead and Copper: Sample Date 2016

Contaminant	Your water	MCL	Sources of Contaminant
Copper (ppm) (90th percentile)	0.04	AL = 1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead (ppb) (90th percentile)	<3	AL = 15	Corrosion of household plumbing systems, erosion of natural deposits

#### Asbestos

Contaminant	Your water	MCL	Sources of Contaminant
Total Asbestos (MF/L)	<0.2	7	Decay of asbestos cement water mains; erosion of natural deposits

### **Turbidity (Combined Filter Effluent Turbidity Values)**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Turbidity, NTU (Average)	0.06	TT = 1 NTU	Soil runoff

### **Nitrate and Nitrite**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Nitrate, ppm	<1.0	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite, ppm	<0.1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

### **Minerals**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>
Calcium, mg/l	5.93	N/A
Sodium, mg/l	27.8	N/A
Magnesium, mg/l	2.56	N/A
Potassium, mg/l	2.29	N/A

### **Inorganic Chemicals**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Antimony, mg/l	<0.001	0.006	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic, mg/l	<0.005	0.01	Erosion of natural deposits; runoff from orchards, runoff from glass & electronic production wastes
Barium, mg/l	<0.400	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium, mg/l	<0.002	0.004	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium, mg/l	<0.001	0.005	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (Total), mg/l	<0.020	0.1	Discharge from steel and pulp mills; erosion of natural deposits
Chromium 6 (Hexavalent Chromium), mg/l	0.00006	NA	Commonly discharged from steel and pulp mills as well as metal plating and leather tanning facilities
Cyanide, mg/l	<0.050	0.2	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride, mg/l	0.73	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Mercury, mg/l	<0.0004	0.002	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands
Selenium, mg/l	<0.010	0.05	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines
Thallium, mg/l	<0.001	0.002	Leaching from ore-processing sites; discharge from electronics, glass and drug factories

### Volatile Organic Chemicals (VOCs)

Contaminant	Your water	MCL	Sources of Contaminant
Benzene, mg/l	<0.0005	0.005	Discharge from factories; leaching from gas storage tanks and landfills
Carbon Tetrachloride, mg/l	<0.0005	0.005	Discharge from chemical plants and other industrial activities
Chlorobenzene, mg/l	<0.0005	0.1	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene, mg/l	<0.0005	0.6	Discharge from industrial chemical factories
p-Dichlorobenzene, mg/l	<0.0005	0.075	Discharge from industrial chemical factories
1,2-Dichloroethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
1,1-Dichloroethylene, mg/l	<0.0005	0.007	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene, mg/l	<0.0005	0.07	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene, mg/l	<0.0005	0.1	Discharge from industrial chemical factories
Dichloromethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
1,2-Dichloropropane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
Ethylbenzene, mg/l	<0.0005	0.7	Discharge from petroleum refineries
Styrene, mg/l	<0.0005	0.1	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene, mg/l	<0.0005	0.005	Discharge from factories and dry cleaners
Toluene, mg/l	<0.0005	1	Discharge from petroleum factories
1,2,4-Trichlorobenzene, mg/l	<0.0005	0.07	Discharge from textile finishing factories
1,1,1-Trichloroethane, mg/l	<0.0005	0.2	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
Trichloroethylene, mg/l	<0.0005	0.005	Discharge from metal degreasing sites and other factories
Vinyl chloride, mg/l	<0.0005	0.002	Leaching from PVC pipes; discharge from plastic factories
Xylenes (Total), mg/l	<0.0005	10	Discharge from petroleum factories; discharge from chemical factories

### Synthetic Organic Chemicals (SOCs) Contaminants Including Pesticides and Herbicides

Contaminant	Your water	MCL	Sources of Contaminant
Alachlor, mg/l	<0.0002	0.002	Runoff from herbicide used on row crops
Atrazine, mg/l	<0.0001	0.003	Runoff from herbicide used on row crops
Benzo(a)pyrene, mg/l	<0.00002	0.0002	Leaching from linings of water storage tanks and distribution lines
Carbofuran, mg/l	<0.0009	0.04	Leaching of soil fumigant used on rice and alfalfa
Chlordane, mg/l	<0.0002	0.002	Residue of banned termiticide
2,4-D, mg/l	<0.0001	0.07	Runoff from herbicide used on row crops
Dalapon, mg/l	<0.001	0.2	Runoff from herbicide used on row crops
Dibromochloropropane	<0.00002	0.0002	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards
Di(2-ethylhexyl)adipate, mg/l	<0.0006	0.4	Discharge from chemical factories
Di(2-ethylhexyl)phthalate, mg/l	<0.00132	0.006	Discharge from rubber and chemical factories

## Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides ~cont

Contaminant	Your water	MCL	Sources of Contaminant
Dinoseb, mg/l	<0.0002	0.007	Runoff from herbicide used on soybeans and vegetables
Endrin, mg/l	<0.00001	0.002	Residue of banned insecticide
Ethylene dibromide, mg/l	<0.00001	0.00005	Discharge from petroleum refineries
Heptachlor, mg/l	<0.00004	0.0004	Residue of banned termiticide
Heptachlor epoxide, mg/l	<0.00002	0.0002	Breakdown of heptachlor
Hexachlorobenzene, mg/l	<0.0001	0.001	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene, mg/l	<0.0001	0.05	Discharge from chemical factories
Lindane, mg/l	<0.00002	0.0002	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor, mg/l	<0.0001	0.04	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock
Oxamyl (Vydate), mg/l	<0.002	0.2	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes
PCBs (Polychlorinated Biphenyls), mg/l	<0.001	0.0005	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol, mg/l	<0.00004	0.001	Runoff from landfills; discharge of waste chemicals
Picloram, mg/l	<0.0001	0.5	Herbicide runoff
Simazine, mg/l	<0.00007	0.004	Herbicide runoff
Toxaphene, mg/l	<0.001	0.003	Runoff/leaching from insecticide used on cotton and cattle
2,4,5-TP (Silvex), mg/l	<0.0002	0.05	Residue of banned herbicide

## Radionuclides

Contaminant	Your water	MCL	Sources of Contaminant
Alpha emitters, pCi/L	<3	15	Erosion of natural deposits
Beta photon emitters, pCi/L	4.2	50	Decay of natural and man made deposits
Combined radium (pCi/L)	1.46	5	Erosion of natural deposits
Uranium, pCi/L	<1	20.1	Erosion of natural deposits
Radon, pCi/L	<100	300	naturally occurring gas formed from uranium decay; can be released in the air as it leaves the faucet

## Water Quality Characteristics

Contaminant	Your water	MCL
Alkalinity, mg/l as CaCO <sub>3</sub>	29.1	NA
Aluminum, mg/l	<0.01	0.2
Total Ammonia, mg/l	0.48	NA
Carbon Dioxide, mg/l	0.25	NA
Chloride, mg/l	14.0	250
Color, CU	1.17	15
Conductivity, uS/cm	231	NA
Dissolved Oxygen, mg/l	11.3	NA

### Water Quality Characteristics ~cont

<i>Contaminant</i>	<i>Your water</i>	<i>MCL</i>
Hardness, Total, mg/l as CaCO <sub>3</sub>	25.4	Classified as "Soft"
Hardness, Total, grains per gallon	1.49	Classified as "Soft"
Iron, mg/l	<0.06	0.3
Manganese, mg/l	<0.01	0.05
Nickel, mg/l	<0.100	NA
Odor, TON	0.07	3
pH, SU	8.38	6.5 to 8.5
Silica, mg/l	7.17	NA
Sulfate, mg/l	52.6	250
Temperature, °C	19.9	NA
Total Dissolved Solids, mg/l	155	500
UV 254, mg/l	0.04	NA
Zinc, mg/l	<0.01	5

### Unregulated Contaminants

<i>Contaminant</i>	<i>Your water</i>	<i>MCL</i>
Perchlorate, mg/l	<0.00005	NA
N-Nitrosodimethylamine (NDMA), ng/l	<2.0	NA
Acetaldehyde, ug/l	<5.0	NA
Benzaldehyde, ug/l	<5.0	NA
Butanal, ug/l	<5.0	NA
Crotonaldehyde, ug/l	<5.0	NA
Cyclohexanone, ug/l	<5.0	NA
Decanal, ug/l	<5.0	NA
Formaldehyde, ug/l	21	NA
Glyoxal, ug/l	<5.0	NA
Heptanal, ug/l	<5.0	NA
Hexanal, ug/l	<5.0	NA
Methyl glyoxal, ug/l	<5.0	NA
Nonanal, ug/l	<5.0	NA
Octanal, ug/l	<5.0	NA
Pentanal, ug/l	<5.0	NA
Propanal, ug/l	<5.0	NA

### **Treatment Process Information**

<b>Chemical</b>	<b>Typical Dosage Range</b>	<b>Purpose of Treatment</b>
Ozone, ppm	1 - 3	Oxidant
Sodium Permanganate, ppm	1 - 4	Pre Oxidant
Ferric Sulfate, ppm	50 - 90	Coagulant
Polymer, ppm	0.05 - 0.10	Coagulant Aid
Sodium Hydroxide, ppm	15 - 35	pH Control
Carbon, ppm	1 - 5	Taste and Odor and organics removal
Silicate, ppm	1.5 - 13	Corrosion control
Hydrofluorosilicic Acid, ppm	0.7 - 1	Fluoride Additive
Chlorine, ppm	6 - 7	Disinfectant
Ammonia, ppm	3.8:1 Cl <sub>2</sub> :NH <sub>3</sub> Ratio	Disinfectant when use in conjunction with chlorine to form chloramines
Filter Aid Polymer, ppm	0.08 - 0.12	Enhanced Filtration





*City of Raleigh*  
North Carolina

**2016 Annual Finished Water Quality Report**  
**Tests of Finished Water From the DE Benton Water Treatment Facility**

The City of Raleigh consistently provides a reliable supply of high quality drinking water that surpasses all State and Federal drinking water quality requirements. The following tables represents levels of regulated and unregulated water quality parameters sampled in 2016. The water quality test results indicate that your drinking water complies with all of the EPA's drinking water standards in 2016. If you have any questions regarding this report, please contact the City of Raleigh Drinking Water Laboratory at (919)996-2870.

**Microbiologicals**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Cryptosporidium, Oocysts/L (12/20/2016)	0	NA	Human and animal fecal waste
Giardia, cyst/L (12/20/2016)	0	NA	Human and animal fecal waste
Viruses* (12/29/2016)	Negative	NA	Human and animal fecal waste

\*Viruses include Adenovirus, Astrovirus, Rotavirus and Panternterovirus

**Disinfection Byproducts**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Bromate, mg/l	<0.005	0.01	Byproduct of drinking water disinfection
Haloacetic Acids (HAA5), ppb	10.1	60	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHMs), ppb	18.9	80	Byproduct of drinking water disinfection
Total Organic Carbon, ppm	1.62	NA	Naturally present in the environment

**Asbestos**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Total Asbestos (MF/L)	<0.2	7	Decay of asbestos cement water mains; erosion of natural deposits

**Nitrate and Nitrite**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Nitrate, ppm	<1.0	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrite, ppm	<0.1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

**Turbidity (Combined Filter Effluent Turbidity Values)**

<b>Contaminant</b>	<b>Your water</b>	<b>MCL</b>	<b>Sources of Contaminant</b>
Turbidity, NTU (Average)	0.05	TT = 1 NTU	Soil runoff

## Minerals

Contaminant	Your water	MCL
Calcium, mg/l	5.81	N/A
Sodium, mg/l	21.9	N/A
Magnesium, mg/l	1.67	N/A
Potassium, mg/l	3.09	N/A

## Inorganic Chemicals

Contaminant	Your water	MCL	Sources of Contaminant
Antimony, mg/l	<0.001	0.006	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
Arsenic, mg/l	<0.005	0.01	Erosion of natural deposits; runoff from orchards, runoff from glass & electronic production wastes
Barium, mg/l	<0.400	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Beryllium, mg/l	<0.002	0.004	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
Cadmium, mg/l	<0.001	0.005	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
Chromium (Total), mg/l	<0.020	0.1	Discharge from steel and pulp mills; erosion of natural deposits
Chromium 6 (Hexavalent Chromium), mg/l	0.00004	NA	Commonly discharged from steel and pulp mills as well as metal plating and leather tanning facilities
Cyanide, mg/l	<0.050	0.2	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
Fluoride, mg/l	0.75	4	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories
Mercury, mg/l	<0.0004	0.002	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands
Selenium, mg/l	<0.010	0.05	Discharge from petroleum refineries; erosion of natural deposits; discharge from mines
Thallium, mg/l	0.001	0.002	Leaching from ore-processing sites; discharge from electronics, glass and drug factories

## Volatile Organic Chemicals (VOCs)

Contaminant	Your water	MCL	Sources of Contaminant
Benzene, mg/l	<0.0005	0.005	Discharge from factories; leaching from gas storage tanks and landfills
Carbon Tetrachloride, mg/l	<0.0005	0.005	Discharge from chemical plants and other industrial activities
Chlorobenzene, mg/l	<0.0005	0.1	Discharge from chemical and agricultural chemical factories
o-Dichlorobenzene, mg/l	<0.0005	0.6	Discharge from industrial chemical factories
p-Dichlorobenzene, mg/l	<0.0005	0.075	Discharge from industrial chemical factories
1,2-Dichloroethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
1,1-Dichloroethylene, mg/l	<0.0005	0.007	Discharge from industrial chemical factories
cis-1,2-Dichloroethylene, mg/l	<0.0005	0.07	Discharge from industrial chemical factories
trans-1,2-Dichloroethylene, mg/l	<0.0005	0.1	Discharge from industrial chemical factories

### Volatile Organic Chemicals (VOCs) ~ cont

Contaminant	Your water	MCL	Sources of Contaminant
Dichloromethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
1,2-Dichloropropane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
Ethylbenzene, mg/l	<0.0005	0.7	Discharge from petroleum refineries
Styrene, mg/l	<0.0005	0.1	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene, mg/l	<0.0005	0.005	Discharge from factories and dry cleaners
Toluene, mg/l	<0.0005	1	Discharge from petroleum factories
1,2,4-Trichlorobenzene, mg/l	<0.0005	0.07	Discharge from textile finishing factories
1,1,1-Trichloroethane, mg/l	<0.0005	0.2	Discharge from metal degreasing sites and other factories
1,1,2-Trichloroethane, mg/l	<0.0005	0.005	Discharge from industrial chemical factories
Trichloroethylene, mg/l	<0.0005	0.005	Discharge from metal degreasing sites and other factories
Vinyl chloride, mg/l	<0.0005	0.002	Leaching from PVC pipes; discharge from plastic factories
Xylenes (Total), mg/l	<0.0005	10	Discharge from petroleum factories; discharge from chemical factories

### Synthetic Organic Chemicals (SOCs) Contaminants Including Pesticides and Herbicides

Contaminant	Your water	MCL	Sources of Contaminant
Alachlor, mg/l	<0.0002	0.002	Runoff from herbicide used on row crops
Atrazine, mg/l	<0.0001	0.003	Runoff from herbicide used on row crops
Benzo(a)pyrene, mg/l	<0.00002	0.0002	Leaching from linings of water storage tanks and distribution lines
Carbofuran, mg/l	<0.0009	0.04	Leaching of soil fumigant used on rice and alfalfa
Chlordane, mg/l	<0.0002	0.002	Residue of banned termiticide
2,4-D, mg/l	<0.0001	0.07	Runoff from herbicide used on row crops
Dalapon, mg/l	<0.001	0.2	Runoff from herbicide used on row crops
Dibromochloropropane	<0.00002	0.0002	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples and orchards
Di(2-ethylhexyl)adipate, mg/l	<0.0006	0.4	Discharge from chemical factories
Di(2-ethylhexyl)phthalate, mg/l	<0.00132	0.006	Discharge from rubber and chemical factories
Dinoseb, mg/l	<0.0002	0.007	Runoff from herbicide used on soybeans and vegetables
Endrin, mg/l	<0.00001	0.002	Residue of banned insecticide
Ethylene dibromide, mg/l	<0.00001	0.00005	Discharge from petroleum refineries
Heptachlor, mg/l	<0.00004	0.0004	Residue of banned termiticide
Heptachlor epoxide, mg/l	<0.00002	0.0002	Breakdown of heptachlor
Hexachlorobenzene, mg/l	<0.0001	0.001	Discharge from metal refineries and agricultural chemical factories
Hexachlorocyclopentadiene, mg/l	<0.0001	0.05	Discharge from chemical factories
Lindane, mg/l	<0.00002	0.0002	Runoff/leaching from insecticide used on cattle, lumber, gardens
Methoxychlor, mg/l	<0.0001	0.04	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock

## Synthetic Organic Chemical (SOC) Contaminants Including Pesticides and Herbicides ~cont

Contaminant	Your water	MCL	Sources of Contaminant
Oxamyl (Vydate), mg/l	<0.002	0.2	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes
PCBs (Polychlorinated Biphenyls), mg/l	<0.001	0.0005	Runoff from landfills; discharge of waste chemicals
Pentachlorophenol, mg/l	<0.00004	0.001	Runoff from landfills; discharge of waste chemicals
Picloram, mg/l	<0.0001	0.5	Herbicide runoff
Simazine, mg/l	<0.00007	0.004	Herbicide runoff
Toxaphene, mg/l	<0.001	0.003	Runoff/leaching from insecticide used on cotton and cattle
2,4,5-TP (Silvex), mg/l	<0.0002	0.05	Residue of banned herbicide

## Radionuclides

Contaminant	Your water	MCL	Sources of Contaminant
Alpha emitters, pCi/L	<3	15	Erosion of natural deposits
Beta photon emitters, pCi/L	<4	50	Decay of natural and man made deposits
Combined radium (pCi/L)	1.71	5	Erosion of natural deposits
Uranium, pCi/L	<1	20.1	Erosion of natural deposits
Radon, pCi/L	<100	300	Radiative gas

## Water Quality Characteristics

Contaminant	Your water	MCL
Alkalinity, mg/l as CaCO <sub>3</sub>	25.4	NA
Aluminum, mg/l	<0.01	0.2
Carbon Dioxide, mg/l	0.14	NA
Color, CU	0.42	15
Chloride, mg/l	13.8	250
Conductivity, uS/cm	195	NA
Hardness, Total, mg/l as CaCO <sub>3</sub>	23.3	Classified as "Soft"
Hardness, Total, grains per gallon	1.36	Classified as "Soft"
Iron, mg/l	<0.06	0.3
Manganese, mg/l	<0.010	0.05
Nickel, mg/l	<0.100	NA
pH, SU	8.54	6.5 to 8.5
Silica, mg/l	8.47	NA
Sulfate, mg/l	40.4	250
Temperature, °C	20.1	NA
Total Dissolved Solids, mg/l	131	500
UV 254, mg/l	0.03	NA
Zinc, mg/l	<0.01	5

## Unregulated Contaminants

<i>Contaminant</i>	<i>Your water</i>	<i>MCL</i>
Perchlorate, mg/l	0.0002	NA
N-Nitrosodimethylamine (NDMA), ng/l	<2.0	NA
Acetaldehyde, ug/l	<5.0	NA
Benzaldehyde, ug/l	<5.0	NA
Butanal, ug/l	<5.0	NA
Crotonaldehyde, ug/l	<5.0	NA
Cyclohexanone, ug/l	<5.0	NA
Decanal, ug/l	<5.0	NA
Formaldehyde, ug/l	<5.0	NA
Glyoxal, ug/l	<5.0	NA
Heptanal, ug/l	<5.0	NA
Hexanal, ug/l	<5.0	NA
Methyl glyoxal, ug/l	<5.0	NA
Nonanal, ug/l	<5.0	NA
Octanal, ug/l	<5.0	NA
Pentanal, ug/l	<5.0	NA
Propanal, ug/l	<5.0	NA

## Treatment Process Information

<i>Chemical</i>	<i>Typical Dosage Range</i>	<i>Purpose of Treatment</i>
Ozone, ppm	1.8 - 3.6	Oxidant
Potassium Permanganate, ppm	1 - 2.5	Pre Oxidant
Ferric Sulfate, ppm	60 - 100	Coagulant
Polymer, ppm	0.30 - 0.60	Coagulant Aid
Sodium Hydroxide, ppm	25 - 45	pH Control
Carbon, ppm	3 - 6	Taste and Odor and organics removal
Silicate, ppm	1 - 2	Corrosion control
Hydrofluorosilicic Acid, ppm	0.75 - 0.90	Fluoride Additive
Chlorine, ppm	4.5 - 5.5	Disinfectant
Ammonia, ppm	3.5:1 Cl <sub>2</sub> :NH <sub>3</sub> Ratio	Disinfectant when use in conjunction with chlorine to form chloramines
Filter Aid Polymer, ppm	0.08 - 0.12	Enhanced Filtration

## Abbreviations and Definitions

As you review the test results, you may find terms and abbreviations with which you are not familiar. Below is a reference guide to help you better understand the terms and abbreviations used in this report.

**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 (ug/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)** – Picocuries per liter is a measure of the radioactivity in water.

**Million Fibers per Liter (MF/L)** – Million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

**Nephelometric Turbidity Unit (NTU)** – Nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

**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.

**Not-Applicable (N/A)** – Information not applicable/not required for that particular water system or for that particular rule.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water