

Comparing New York City tap water (unfiltered) with NYC tap water filtered through the XL7000

Background:

NYC tap water in midtown Manhattan was sampled from two office pantry kitchens, drawing from the cold water side of the main faucet (~2 gallons / minute flow). One of the faucets was supplied with all cold water filtered through an XL7000 filtration system. The samples were collected about 12 minutes apart. The customer took custody of the collected samples and overnight-shipped them to National Testing Labs, which issued the reports that follow.

Summary:

Contaminants in NYC tap water, levels reported, and results after XL7000 filtration, are summarized below. The complete lab analyses follow.

Contaminant	Level found in tap water	Level found after filtration
Copper	0.132 mg/L	none
Iron	0.028 mg/L	none
Manganese	0.010 mg/L	none
Zinc	0.005 mg/L	none
Turbidity	0.7 NTU	none
Bromodichloromethane (THM)	0.005 mg/L	none
Chloroform (THM)	0.036 mg/L	none

Of the remaining water quality factors presented, none are contaminants:

Calcium, magnesium, sodium, chloride and **fluoride** are minerals, unaffected by the filtration process. Silica is an element, harmless (or beneficial according to some studies). All levels reporting are effectively trace.

The **hardness** level of 21 mg/L (or 1.23 grains) - also a measure of mineral content - shows NYC water to be very soft water, with no remedial action indicated. Manhattan water is among the softest water in the nation.

Total Dissolved Solids (TDS), 30 - 36 mg/L, is at an extremely low level for water in the US. By comparison, a bottle of Poland Spring typically reports TDS at 47 mg/L.

In the complete analyses below, where the results differ between NYC tap water (pp 2 - 7) and XL7000 filtered (pp 8 - 13) as shown in the analyses from National Testing Labs...

Red font for contaminants present in tap water, **green font** for those same contaminants resolved by the XL7000.

Informational Water Quality Report

Watercheck with Pesticide Option

Ordered by:

An office location at
60 Columbus Circle
New York, NY 10023

Dealer of record:

Better Waters
PO Box 8545
JAF Station
New York, NY 10116



6571 Wilson Mills Rd
Cleveland, Ohio 44143
1-800-458-3330

Sample Number: 844326

Location: 18th Fl, West Pantry, 60 Columbus Circle

Type of Water: City Water

Collection Date and Time: 4/10/2014 14:52

Received Date and Time: 4/11/2014 08:50

Date Completed: 4/18/2014

Unfiltered NYC tap water
(Contaminants shown in red font)

Definition and Legend

This informational water quality report compares the actual test result to national standards as defined in the EPA's Primary and Secondary Drinking Water Regulations.

Primary Standards: Are expressed as the maximum contaminant level (MCL) which is the highest level of contaminant that is allowed in drinking water. MCLs are enforceable standards.

Secondary standards: Are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. Individual states may choose to adopt them as enforceable standards.


Action levels: Are defined in treatment techniques which are required processes intended to reduce the level of a contaminant in drinking water.


mg/L (ppm): Unless otherwise indicated, results and standards are expressed as an amount in milligrams per liter or parts per million.


Minimum Detection Level (MDL): The lowest level that the laboratory can detect a contaminant.


ND: The contaminant was not detected above the minimum detection level.


NA: The contaminant was not analyzed.

 The contaminant was not detected in the sample above the minimum detection level.




















 The contaminant was detected at or above the minimum detection level, but not above the referenced standard.

 The contaminant was detected above the standard, which is not an EPA enforceable MCL.

 The contaminant was detected above the EPA enforceable MCL.

 These results may be invalid.

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
Microbiologicals					
✓	Total Coliform by P/A	Total Coliform and E.coli were ABSENT in this sample.			
Inorganic Analytes - Metals					
✓	Aluminum	ND	mg/L	0.2	EPA Secondary 0.1
✓	Arsenic	ND	mg/L	0.010	EPA Primary 0.005
✓	Barium	ND	mg/L	2	EPA Primary 0.30
✓	Cadmium	ND	mg/L	0.005	EPA Primary 0.002
●	Calcium	6.2	mg/L	--	2.0
✓	Chromium	ND	mg/L	0.1	EPA Primary 0.010
●	Copper	0.132	mg/L	1.3	EPA Action Level 0.004
●	Iron	0.028	mg/L	0.3	EPA Secondary 0.020
✓	Lead	ND	mg/L	0.015	EPA Action Level 0.002
●	Magnesium	1.36	mg/L	--	0.10
●	Manganese	0.010	mg/L	0.05	EPA Secondary 0.004
✓	Mercury	ND	mg/L	0.002	EPA Primary 0.001
✓	Nickel	ND	mg/L	--	0.020
✓	Potassium	ND	mg/L	--	1.0
✓	Selenium	ND	mg/L	0.05	EPA Primary 0.020
●	Silica	2.9	mg/L	--	0.1
✓	Silver	ND	mg/L	0.100	EPA Secondary 0.002
●	Sodium	9	mg/L	--	1
●	Zinc	0.005	mg/L	5	EPA Secondary 0.004
Physical Factors					
✓	Alkalinity (Total as CaCO3)	ND	mg/L	--	20
●	Hardness	21	mg/L	100	NTL Internal 10
✓	pH	7.1	pH Units	6.5 to 8.5	EPA Secondary
●	Total Dissolved Solids	30	mg/L	500	EPA Secondary 20
●	Turbidity	0.7	NTU	1.0	EPA Action Level 0.1

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
Inorganic Analytes - Other					
	Chloride	10.0	mg/L	250	EPA Secondary 5.0
	Fluoride	0.5	mg/L	4.0	EPA Primary 0.5
	Nitrate as N	ND	mg/L	10	EPA Primary 0.5
	Nitrite as N	ND	mg/L	1	EPA Primary 0.5
	Ortho Phosphate	ND	mg/L	--	2.0
	Sulfate	ND	mg/L	250	EPA Secondary 5.0
Organic Analytes - Trihalomethanes					
	Bromodichloromethane	0.005	mg/L	--	0.002
	Bromoform	ND	mg/L	--	0.004
	Chloroform	0.036	mg/L	--	0.002
	Dibromochloromethane	ND	mg/L	--	0.004
	Total THMs	0.041	mg/L	0.080	EPA Primary 0.002
Organic Analytes - Volatiles					
	1,1,1,2-Tetrachloroethane	ND	mg/L	--	0.002
	1,1,1-Trichloroethane	ND	mg/L	0.2	EPA Primary 0.001
	1,1,2,2-Tetrachloroethane	ND	mg/L	--	0.002
	1,1,2-Trichloroethane	ND	mg/L	0.005	EPA Primary 0.002
	1,1-Dichloroethane	ND	mg/L	--	0.002
	1,1-Dichloroethene	ND	mg/L	0.007	EPA Primary 0.001
	1,1-Dichloropropene	ND	mg/L	--	0.002
	1,2,3-Trichlorobenzene	ND	mg/L	--	0.002
	1,2,3-Trichloropropane	ND	mg/L	--	0.002
	1,2,4-Trichlorobenzene	ND	mg/L	0.07	EPA Primary 0.002
	1,2-Dichlorobenzene	ND	mg/L	0.6	EPA Primary 0.001
	1,2-Dichloroethane	ND	mg/L	0.005	EPA Primary 0.001
	1,2-Dichloropropane	ND	mg/L	0.005	EPA Primary 0.002
	1,3-Dichlorobenzene	ND	mg/L	--	0.001

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
✓	1,3-Dichloropropane	ND	mg/L	--	0.002
✓	1,4-Dichlorobenzene	ND	mg/L	0.075 EPA Primary	0.001
✓	2,2-Dichloropropane	ND	mg/L	--	0.002
✓	2-Chlorotoluene	ND	mg/L	--	0.001
✓	4-Chlorotoluene	ND	mg/L	--	0.001
✓	Acetone	ND	mg/L	--	0.01
✓	Benzene	ND	mg/L	0.005 EPA Primary	0.001
✓	Bromobenzene	ND	mg/L	--	0.002
✓	Bromomethane	ND	mg/L	--	0.002
✓	Carbon Tetrachloride	ND	mg/L	0.005 EPA Primary	0.001
✓	Chlorobenzene	ND	mg/L	0.1 EPA Primary	0.001
✓	Chloroethane	ND	mg/L	--	0.002
✓	Chloromethane	ND	mg/L	--	0.002
✓	cis-1,2-Dichloroethene	ND	mg/L	0.07 EPA Primary	0.002
✓	cis-1,3-Dichloropropene	ND	mg/L	--	0.002
✓	DBCP	ND	mg/L	--	0.001
✓	Dibromomethane	ND	mg/L	--	0.002
✓	Dichlorodifluoromethane	ND	mg/L	--	0.002
✓	Dichloromethane	ND	mg/L	0.005 EPA Primary	0.002
✓	EDB	ND	mg/L	--	0.001
✓	Ethylbenzene	ND	mg/L	0.7 EPA Primary	0.001
✓	Methyl Tert Butyl Ether	ND	mg/L	--	0.004
✓	Methyl-Ethyl Ketone	ND	mg/L	--	0.01
✓	Styrene	ND	mg/L	0.1 EPA Primary	0.001
✓	Tetrachloroethene	ND	mg/L	0.005 EPA Primary	0.002
✓	Tetrahydrofuran	ND	mg/L	--	0.01
✓	Toluene	ND	mg/L	1 EPA Primary	0.001
✓	trans-1,2-Dichloroethene	ND	mg/L	0.1 EPA Primary	0.002

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
✓	trans-1,3-Dichloropropene	ND	mg/L	--	0.002
✓	Trichloroethene	ND	mg/L	0.005 EPA Primary	0.001
✓	Trichlorofluoromethane	ND	mg/L	--	0.002
✓	Vinyl Chloride	ND	mg/L	0.002 EPA Primary	0.001
✓	Xylenes (Total)	ND	mg/L	10 EPA Primary	0.001
Organic Analytes - Others					
✓	2,4-D	ND	mg/L	0.07 EPA Primary	0.010
✓	Alachlor	ND	mg/L	0.002 EPA Primary	0.001
✓	Aldrin	ND	mg/L	--	0.002
✓	Atrazine	ND	mg/L	0.003 EPA Primary	0.002
✓	Chlordane	ND	mg/L	0.002 EPA Primary	0.001
✓	Dichloran	ND	mg/L	--	0.002
✓	Dieldrin	ND	mg/L	--	0.001
✓	Endrin	ND	mg/L	0.002 EPA Primary	0.0001
✓	Heptachlor	ND	mg/L	0.0004 EPA Primary	0.0004
✓	Heptachlor Epoxide	ND	mg/L	0.0002 EPA Primary	0.0001
✓	Hexachlorobenzene	ND	mg/L	0.001 EPA Primary	0.0005
✓	Hexachlorocyclopentadiene	ND	mg/L	0.05 EPA Primary	0.001
✓	Lindane	ND	mg/L	0.0002 EPA Primary	0.0002
✓	Methoxychlor	ND	mg/L	0.04 EPA Primary	0.002
✓	Pentachloronitrobenzene	ND	mg/L	--	0.002
✓	Silvex 2,4,5-TP	ND	mg/L	0.05 EPA Primary	0.005
✓	Simazine	ND	mg/L	0.004 EPA Primary	0.002
✓	Total PCBs	ND	mg/L	0.0005 EPA Primary	0.0005
✓	Toxaphene	ND	mg/L	0.003 EPA Primary	0.001
✓	Trifluralin	ND	mg/L	--	0.002

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
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We certify that the analyses performed for this report are accurate, and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency or variations of these EPA methods.

These test results are intended to be used for informational purposes only and may not be used for regulatory compliance.

National Testing Laboratories, Ltd.

NATIONAL TESTING LABORATORIES, LTD

Informational Water Quality Report

Watercheck with Pesticide Option

Ordered by:

An office location at
60 Columbus Circle
New York, NY 10023

Dealer of record:

Better Waters
PO Box 8545
JAF Station
New York, NY 10116



6571 Wilson Mills Rd
Cleveland, Ohio 44143
1-800-458-3330

Sample Number: 844325

Location: 19th Fl, North Pantry, 60 Columbus Circle

Type of Water: Filtered Water

Collection Date and Time: 4/10/2014 14:40

Received Date and Time: 4/11/2014 08:50

Date Completed: 4/18/2014

**NYC tap water filtered through XL7000 at 2 gpm
(Contaminants resolved by filtration shown in green font)**

Definition and Legend

This informational water quality report compares the actual test result to national standards as defined in the EPA's Primary and Secondary Drinking Water Regulations.

Primary Standards: Are expressed as the maximum contaminant level (MCL) which is the highest level of contaminant that is allowed in drinking water. MCLs are enforceable standards.

Secondary standards: Are non-enforceable guidelines regulating contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. Individual states may choose to adopt them as enforceable standards.


Action levels: Are defined in treatment techniques which are required processes intended to reduce the level of a contaminant in drinking water.

mg/L (ppm): Unless otherwise indicated, results and standards are expressed as an amount in milligrams per liter or parts per million.


Minimum Detection Level (MDL): The lowest level that the laboratory can detect a contaminant.


ND: The contaminant was not detected above the minimum detection level.


NA: The contaminant was not analyzed.

 The contaminant was not detected in the sample above the minimum detection level.


 The contaminant was detected at or above the minimum detection level, but not above the referenced standard.

 The contaminant was detected above the standard, which is not an EPA enforceable MCL.

 The contaminant was detected above the EPA enforceable MCL.

 These results may be invalid.

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
Microbiologicals					
✓	Total Coliform by P/A	Total Coliform and E.coli were ABSENT in this sample.			
Inorganic Analytes - Metals					
✓	Aluminum	ND	mg/L	0.2	EPA Secondary 0.1
✓	Arsenic	ND	mg/L	0.010	EPA Primary 0.005
✓	Barium	ND	mg/L	2	EPA Primary 0.30
✓	Cadmium	ND	mg/L	0.005	EPA Primary 0.002
●	Calcium	6.0	mg/L	--	2.0
✓	Chromium	ND	mg/L	0.1	EPA Primary 0.010
✓	Copper	ND	mg/L	1.3	EPA Action Level 0.004
✓	Iron	ND	mg/L	0.3	EPA Secondary 0.020
✓	Lead	ND	mg/L	0.015	EPA Action Level 0.002
●	Magnesium	1.41	mg/L	--	0.10
✓	Manganese	ND	mg/L	0.05	EPA Secondary 0.004
✓	Mercury	ND	mg/L	0.002	EPA Primary 0.001
✓	Nickel	ND	mg/L	--	0.020
✓	Potassium	ND	mg/L	--	1.0
✓	Selenium	ND	mg/L	0.05	EPA Primary 0.020
●	Silica	9.5	mg/L	--	0.1
✓	Silver	ND	mg/L	0.100	EPA Secondary 0.002
●	Sodium	9	mg/L	--	1
✓	Zinc	ND	mg/L	5	EPA Secondary 0.004
Physical Factors					
✓	Alkalinity (Total as CaCO3)	ND	mg/L	--	20
●	Hardness	21	mg/L	100	NTL Internal 10
✓	pH	7.2	pH Units	6.5 to 8.5	EPA Secondary
●	Total Dissolved Solids	36	mg/L	500	EPA Secondary 20
✓	Turbidity	ND	NTU	1.0	EPA Action Level 0.1

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
Inorganic Analytes - Other					
	Chloride	9.6	mg/L	250	EPA Secondary 5.0
	Fluoride	0.5	mg/L	4.0	EPA Primary 0.5
	Nitrate as N	ND	mg/L	10	EPA Primary 0.5
	Nitrite as N	ND	mg/L	1	EPA Primary 0.5
	Ortho Phosphate	ND	mg/L	--	2.0
	Sulfate	ND	mg/L	250	EPA Secondary 5.0
Organic Analytes - Trihalomethanes					
	Bromodichloromethane	ND	mg/L	--	0.002
	Bromoform	ND	mg/L	--	0.004
	Chloroform	ND	mg/L	--	0.002
	Dibromochloromethane	ND	mg/L	--	0.004
	Total THMs	ND	mg/L	0.080	EPA Primary 0.002
Organic Analytes - Volatiles					
	1,1,1,2-Tetrachloroethane	ND	mg/L	--	0.002
	1,1,1-Trichloroethane	ND	mg/L	0.2	EPA Primary 0.001
	1,1,2,2-Tetrachloroethane	ND	mg/L	--	0.002
	1,1,2-Trichloroethane	ND	mg/L	0.005	EPA Primary 0.002
	1,1-Dichloroethane	ND	mg/L	--	0.002
	1,1-Dichloroethene	ND	mg/L	0.007	EPA Primary 0.001
	1,1-Dichloropropene	ND	mg/L	--	0.002
	1,2,3-Trichlorobenzene	ND	mg/L	--	0.002
	1,2,3-Trichloropropane	ND	mg/L	--	0.002
	1,2,4-Trichlorobenzene	ND	mg/L	0.07	EPA Primary 0.002
	1,2-Dichlorobenzene	ND	mg/L	0.6	EPA Primary 0.001
	1,2-Dichloroethane	ND	mg/L	0.005	EPA Primary 0.001
	1,2-Dichloropropane	ND	mg/L	0.005	EPA Primary 0.002
	1,3-Dichlorobenzene	ND	mg/L	--	0.001

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
✓	1,3-Dichloropropane	ND	mg/L	--	0.002
✓	1,4-Dichlorobenzene	ND	mg/L	0.075 EPA Primary	0.001
✓	2,2-Dichloropropane	ND	mg/L	--	0.002
✓	2-Chlorotoluene	ND	mg/L	--	0.001
✓	4-Chlorotoluene	ND	mg/L	--	0.001
✓	Acetone	ND	mg/L	--	0.01
✓	Benzene	ND	mg/L	0.005 EPA Primary	0.001
✓	Bromobenzene	ND	mg/L	--	0.002
✓	Bromomethane	ND	mg/L	--	0.002
✓	Carbon Tetrachloride	ND	mg/L	0.005 EPA Primary	0.001
✓	Chlorobenzene	ND	mg/L	0.1 EPA Primary	0.001
✓	Chloroethane	ND	mg/L	--	0.002
✓	Chloromethane	ND	mg/L	--	0.002
✓	cis-1,2-Dichloroethene	ND	mg/L	0.07 EPA Primary	0.002
✓	cis-1,3-Dichloropropene	ND	mg/L	--	0.002
✓	DBCP	ND	mg/L	--	0.001
✓	Dibromomethane	ND	mg/L	--	0.002
✓	Dichlorodifluoromethane	ND	mg/L	--	0.002
✓	Dichloromethane	ND	mg/L	0.005 EPA Primary	0.002
✓	EDB	ND	mg/L	--	0.001
✓	Ethylbenzene	ND	mg/L	0.7 EPA Primary	0.001
✓	Methyl Tert Butyl Ether	ND	mg/L	--	0.004
✓	Methyl-Ethyl Ketone	ND	mg/L	--	0.01
✓	Styrene	ND	mg/L	0.1 EPA Primary	0.001
✓	Tetrachloroethene	ND	mg/L	0.005 EPA Primary	0.002
✓	Tetrahydrofuran	ND	mg/L	--	0.01
✓	Toluene	ND	mg/L	1 EPA Primary	0.001
✓	trans-1,2-Dichloroethene	ND	mg/L	0.1 EPA Primary	0.002

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
✓	trans-1,3-Dichloropropene	ND	mg/L	--	0.002
✓	Trichloroethene	ND	mg/L	0.005 EPA Primary	0.001
✓	Trichlorofluoromethane	ND	mg/L	--	0.002
✓	Vinyl Chloride	ND	mg/L	0.002 EPA Primary	0.001
✓	Xylenes (Total)	ND	mg/L	10 EPA Primary	0.001
Organic Analytes - Others					
✓	2,4-D	ND	mg/L	0.07 EPA Primary	0.010
✓	Alachlor	ND	mg/L	0.002 EPA Primary	0.001
✓	Aldrin	ND	mg/L	--	0.002
✓	Atrazine	ND	mg/L	0.003 EPA Primary	0.002
✓	Chlordane	ND	mg/L	0.002 EPA Primary	0.001
✓	Dichloran	ND	mg/L	--	0.002
✓	Dieldrin	ND	mg/L	--	0.001
✓	Endrin	ND	mg/L	0.002 EPA Primary	0.0001
✓	Heptachlor	ND	mg/L	0.0004 EPA Primary	0.0004
✓	Heptachlor Epoxide	ND	mg/L	0.0002 EPA Primary	0.0001
✓	Hexachlorobenzene	ND	mg/L	0.001 EPA Primary	0.0005
✓	Hexachlorocyclopentadiene	ND	mg/L	0.05 EPA Primary	0.001
✓	Lindane	ND	mg/L	0.0002 EPA Primary	0.0002
✓	Methoxychlor	ND	mg/L	0.04 EPA Primary	0.002
✓	Pentachloronitrobenzene	ND	mg/L	--	0.002
✓	Silvex 2,4,5-TP	ND	mg/L	0.05 EPA Primary	0.005
✓	Simazine	ND	mg/L	0.004 EPA Primary	0.002
✓	Total PCBs	ND	mg/L	0.0005 EPA Primary	0.0005
✓	Toxaphene	ND	mg/L	0.003 EPA Primary	0.001
✓	Trifluralin	ND	mg/L	--	0.002

Status	Contaminant	Results	Units	National Standards	Min. Detection Level
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We certify that the analyses performed for this report are accurate, and that the laboratory tests were conducted by methods approved by the U.S. Environmental Protection Agency or variations of these EPA methods.

These test results are intended to be used for informational purposes only and may not be used for regulatory compliance.

National Testing Laboratories, Ltd.
NATIONAL TESTING LABORATORIES, LTD