

# CITY OF FREEPORT

## 2016 WATER QUALITY REPORT

The Freeport Water & Sewer Commission is pleased to present to you this year's Water Quality Report. This report is a summary of the quality of water that we provided last year. Included in the report are details about where your water comes from, what it contains and how it compares to Environmental Protection Agency (EPA) and state health standards. We are committed to providing you with information because informed customers are our best allies. For more information about this report, please feel free to visit our web page at [http://www.ci.freeport.il.us/departments/water\\_sewer.htm](http://www.ci.freeport.il.us/departments/water_sewer.htm) or contact Tom Glendenning at 815-233-1686.

During the 2015 calendar year the Water & Sewer Commission conducted tests for 115 drinking water contaminants. We are pleased to report that no drinking water quality violations were recorded during 2015. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water "is safe" at these levels. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling USEPA's Safe Drinking Water Hotline (800-426-4791).

In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. The Water & Sewer Commission completed monitoring for EPA's third list of unregulated contaminants in the second quarter of 2015. Results for the detected and/or undetected unregulated contaminants are available by either viewing the table below, by visiting our web page or by calling our water office at 815-233-0111.

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. USEPA/CDC guidelines on the appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800-426-4791).

Freeport obtains its drinking water from wells. Other sources of drinking water (including both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs and springs. 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 human activity. Possible contaminants of source water include: microbial contaminants such as viruses and bacteria, inorganic contaminants such as salts and metals, pesticides and herbicides from residential uses or agricultural runoff, synthetic and volatile organic chemicals from industrial sources and radioactive contaminants from mining or naturally occurring sources.

The Freeport Water Treatment Plant has been in operation since 1882. Through 11,800 service connections, the Water & Sewer Commission supplies an average of 2.8 million gallons per day of treated drinking water to the local population. Most of Freeport's groundwater is obtained from four municipal wells drilled around the water treatment plant. Two wells are drilled into the glacial and alluvial deposits above the bedrock while the other two wells are in a shallow bedrock aquifer called the Saint Peter Sandstone. Raw well water is pumped to the water treatment plant where it undergoes several treatment processes including aeration, chlorination, filtration and fluoridation. An air stripping facility is designed to remove volatile organics from the water supply on an as needed basis.

Well No. 8 was added to the City's water distribution system in October of 2000. This well obtains water from the St. Peter Sandstone aquifer and the much deeper Ironton-Galesville aquifers. The City's newest well (No. 9) was added to the water distribution system in March of 2014. This well also obtains water from the St. Peter Sandstone aquifer and the much deeper Cambrian-Trempealeau aquifers. Because the source water of both these wells is lower in manganese and iron, only the chlorination and fluoridation treatment processes are needed.

To determine Freeport's susceptibility to groundwater contamination the Illinois Rural Water Association conducted a well site survey in January 2003. The survey identified 33 potential sources of ground water contamination that could pose a hazard to the groundwater utilized by the City of Freeport. Based upon this information, the Illinois EPA determined that Freeport's source water supply for wells numbers 2 and 5 through 7 are susceptible to contamination. The study also determined that the source water for well No. 8 is not susceptible to contamination. As such, the Illinois EPA has provided 5-year recharge area calculations for wells number 2 and 5 through 7. The land use within the recharge areas of the wells was analyzed as part of this susceptibility determination. This land use includes residential, commercial and agricultural properties. Additional information on the Source Water Assessment Summary and source water protection efforts recommended by EPA can be found on our web page or by calling our water office at 815-233-0111.

In addition to the informational section of this report, we have included a water quality data table for your review. The table will give you a better picture of the contaminants that were detected in Freeport's water. A complete listing of the contaminants that were tested for, but not detected can be obtained from our web page. If you would like to learn more about your water utility, please feel free to attend any of our regularly scheduled Board meetings. The meetings are held on the last Tuesday of every month at 11:30 A.M. in the City Council Chambers at 524 West Stephenson Street in Freeport, Illinois.

## City of Freeport - 2015 Water Quality Data

**Definitions:** *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. *Maximum Contaminant Level (MCL):* The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology. *Maximum Residual Disinfectant Level Goal (MRDLG):* The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbiological contaminants. *Maximum Residual Disinfectant Level (MRDL):* The highest level of a drinking water disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbiological contaminants. *Action Level (AL):* The concentration of a contaminant which, when 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.

**Abbreviations:** *ND.:* Not detected at testing limits. *N/A:* Not applicable. *ppm:* Parts per million or milligrams per liter. *ppb:* Parts per billion or micrograms per liter. *ppt:* Parts per trillion or nanograms per liter. *pCi/l:* picocuries per liter is a measure of the radioactivity in water. *# of positives/month:* Number of positive samples per month.

The table below lists all the drinking water contaminants that were detected during the period of January 1 to December 31, 2015. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. In most cases, the **Level Found** column represents data from the entry point with the highest level detected. In some cases, the level found represents an average of sampling data collected during the calendar year. The **Range of Detections** column represents a range of individual sampling results, from lowest to highest that were collected during the calendar year. If a date appears in the **Date of Sample** column, the Illinois EPA requires monitoring for this contaminant less than once per year. This is because the concentrations do not frequently change. IEPA has given Special Exception Permits to the Commission for reduced monitoring of some volatile organic and synthetic organic chemicals. A Triggered Source Water Monitoring Special Exception Permit for triggered total coliform and *E. coli* monitoring was given to the Commission in 2011.

<b>TEST RESULTS - DETECTED CONTAMINANTS</b>							
Contaminant (units)	MCLG	MCL	Level Found	Range of Detections	Violation Y/N	Date of Sample	Likely Source of Contamination
<b>Radioactive Contaminants</b>							
Alpha Emitters (pCi/L)	0	15	11.8	6.8 to 11.8	N	2015	Erosion of natural deposits.
Combined Radium (pCi/L)	0	5	4.4	2.98 to 4.4	N	2015	Erosion of natural deposits.
Radium 226 (pCi/L)	N/A	N/A	4.2	2.0 to 4.2	N	2015	Erosion of natural deposits.
Radium 228 (pCi/L)	N/A	N/A	0.75	0.2 to 1.1	N	2015	Erosion of natural deposits.

<b>Inorganics Contaminants</b>							
Barium (ppm)	2	2	0.290	0.119 to 0.290	N	2015	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Copper (ppm)	1.3	AL= 1.3	0.230	0 exceeding AL	N	June 2013	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives.
Fluoride (ppm)	4	4 State	0.99	0.92 to 1.21	N	2015	Water additive which promotes strong teeth.
Iron (ppb)	N/A	1000 State	140	ND. to 140	N	2015	Erosion from naturally occurring deposits.
Lead (ppb)	0	AL= 15	7.2	1 exceeding AL	N	June 2013	Corrosion of household plumbing systems, erosion of natural deposits.
Nitrate (As Nitrogen) (ppm)	10	10	0.232	ND. to 0.232	N	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Selenium (ppb)	50	50	3.63	ND. to 3.63	N	2015	Discharge from petroleum and metal refineries; erosion of natural deposit; discharges from mines.
Sodium (ppm)	N/A	N/A	19.5	5.44 to 19.5	N	2015	Erosion of naturally occurring deposits; used as a water softener.
Sulfate (ppm)	N/A	N/A	46.6	15.4 to 46.6	N	2015	Erosion of naturally occurring deposits.

<b>Disinfectants/Disinfection By-Products</b>							
TTHM [Total Trihalomethanes] (ppb)	N/A	80	64.5	8.54 to 102.5	N	2015	By-product of drinking water chlorination.
Bromodichloromethane (ppb)	N/A	N/A	17.6	1.97 to 25.8	N	2015	By-product of drinking water chlorination.
Bromoform (ppb)	N/A	N/A	2.6	ND. to 2.87	N	2015	Discharge from manufacturing plants; used to dissolve dirt and grease.
Chloroform (ppb)	N/A	N/A	35.6	4.58 to 59.4	N	2015	Used as a solvent for fats, oils, rubber, resins; A cleansing agent; found in fire extinguishers.
Dibromochloromethane (ppb)	N/A	N/A	9.8	ND. to 14.7	N	2015	Used as a chemical reagent; an intermediate in organic synthesis.
Total Haloacetic Acids (ppb)	N/A	60	16.8	2.80 to 21.9	N	2015	By-product of drinking water chlorination.
Monobromoacetic Acid (ppb)	N/A	N/A	0.28	ND. to 1.07	N	2015	By-product of drinking water chlorination.
Dichloroacetic Acid (ppb)	N/A	N/A	7.1	0.86 to 10.7	N	2015	By-product of drinking water chlorination.
Trichloroacetic Acid (ppb)	N/A	N/A	7.78	1.36 to 9.93	N	2015	By-product of drinking water chlorination.
Dibromoacetic Acid (ppb)	N/A	N/A	2.66	ND. to 3.46	N	2015	By-product of drinking water chlorination.
Chlorine (free) (ppm)	MRDLG =4	MRDL =4	0.90	0.21 to 1.86	N	2015	Water additive used to control microbes.

<b>Volatile Organic Chemicals</b>							
Cis-1,2-Dichloroethylene (ppb)	70	70	1.14	ND. to 1.14	N	2015	Discharge from industrial chemical factories.

<b>Test Results – Detected Unregulated Contaminants</b>							
Contaminant (units)	MCLG	MCL	Level Found	Range of Detections	Violation Y/N	Date of Sample	Likely Source of Contamination
Chromium (ppb)	N/A	N/A	0.29	ND. to 0.29	N	2015	Naturally-occurring element; used in making steel and other alloys. Used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Strontium ( ppb)	N/A	N/A	160	92.9 to 160	N	2015	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
1,4 Dioxane (ppb)	N/A	N/A	0.094	ND. to 0.094	N	2015	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos, cleaning agent, surface coating and adhesive agent.
Hexavalent Chromium (ppb)	N/A	N/A	0.17	ND. to 0.17	N	2015	Naturally-occurring element; used in making steel and other alloys. Used for chrome plating, dyes and pigments, leather tanning and wood preservation.

Chlorate (ppb)	N/A	N/A	543	125 to 543	N	2015	Agricultural defoliant or desiccant; disinfection byproduct; used in production of chlorine dioxide.
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## About The Data

**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.

**Iron:** This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more.

**Lead:** Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your service lines or homes plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and you should flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>.

**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.

**Trihalomethanes:** Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys or central nervous systems and may have an increased risk of getting cancer.

**Unregulated Contaminants:** A maximum contamination 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.

TEST RESULTS - UNDETECTED CONTAMINANTS							
Contaminant (units)	MCLG	MCL	Level Found	Range of Detections	Violation Y/N	Date of Sample	Likely Source of Contamination
<b>Microbiological Contaminants</b>							
Total Coliform Bacteria (# positive samples/month)	0	>1	ND.	ND.	N	2015 Data	Naturally present in the environment.
Fecal coliform and <i>E.coli</i>	0	>1	ND.	ND.	N	2015 Data	Human and animal fecal waste.
<b>Inorganic Contaminants</b>							
Antimony (ppb)	6	6	ND.	ND.	N	11-23-15	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder.
Arsenic (ppb)	0	10	ND.	ND.	N	11-23-15	Erosion of natural deposits; runoff from orchards; runoff from glass and electronic production wastes
Beryllium (ppb)	4	4	ND.	ND.	N	11-23-15	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.
Cadmium (ppb)	5	5	ND.	ND.	N	11-23-15	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints.
Chromium (ppb)	100	100	ND.	ND.	N	11-23-15	Discharge from steel and pulp mills; erosion of natural deposits.
Cyanide (ppb)	200	200	ND.	ND.	N	11-23-15	Discharge from steel/metal factories; discharge from plastic and fertilizer factories.
Manganese (ppb)	150	150 State	ND.	ND.	N	11-23-15	Erosion of naturally occurring deposits.
Mercury (inorganic) (ppb)	2	2	ND.	ND.	N	11-23-15	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.

Nickel (ppb)	N/A	100	ND.	ND.	N	11-23-15	Erosion from naturally occurring sources; discharges from nickel plating, storage batteries, magnets, electrodes and spark plugs.
Nitrite (ppm)	1	1	ND.	ND.	N	4-15-15	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits.
Thallium (ppb)	0.5	2	ND.	ND.	N	11-23-15	Leaching from ore-processing sites; discharge from electronics, glass and drug factories.
Zinc (ppb)	N/A	5000 State	ND.	ND.	N	11-23-15	Naturally occurring; discharge from metal factories.

### **Synthetic Organic Contaminants including Pesticides and Herbicides**

2,4-D (ppb)	70	70	ND.	ND.	N	5-26-15	Runoff from herbicide used on row crops.
2,4,5-TP (Silvex) (ppb)	50	50	ND.	ND.	N	5-26-15	Residue of banned herbicide.
Alachlor (ppb)	0	2	ND.	ND.	N	5-26-15	Runoff from herbicide used on row crops.
Aldrin (ppb)	N/A	1.0 State	ND.	ND.	N	5-26-15	Runoff from use as an insecticide, not used since 1987.
Atrazine (ppb)	3	3	ND.	ND.	N	5-26-15	Runoff from herbicide used on row crops.
Benzo(a)pyrene (PAH) (ppt)	0	200	ND.	ND.	N	5-26-15	Leaching from linings of water storage tanks and distribution lines.
Carbofuran (ppb)	40	40	ND.	ND.	N	5-26-15	Leaching of soil fumigant used on rice and alfalfa.
Chlordane (ppb)	0	2	ND.	ND.	N	5-26-15	Residue of banned termiticide.
Dalapon (ppb)	200	200	ND.	ND.	N	5-26-15	Runoff from herbicide used on rights of way.
DDT (ppb)	N/A	50.0 State	ND.	ND.	N	5-26-15	Runoff from use as a contact insecticide.
Di(2-ethylhexyl)adipate (ppb)	400	400	ND.	ND.	N	5-26-15	Discharge from chemical factories.
Di(2-ethylhexyl)phthalate (ppb)	0	6	ND.	ND.	N	5-26-15	Discharge from rubber and chemical factories.
Dibromochloropropane (ppt)	0	200	ND.	ND.	N	5-26-15	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards.
Dieldrin (ppb)	N/A	1.0 State	ND.	ND.	N	5-26-15	Runoff from use as an insecticide; not used since 1987.
Dinoseb (ppb)	7	7	ND.	ND.	N	5-26-15	Runoff from herbicide used on soybeans and vegetables.
Diquat (ppb)	20	20	ND.	ND.	N	5-26-15	Runoff from herbicide use.
Endothall (ppb)	100	100	ND.	ND.	N	5-26-15	Runoff from herbicide use.
Endrin (ppb)	2	2	ND.	ND.	N	5-26-15	Residue of banned insecticide.
Ethylene dibromide (ppt)	0	50	ND.	ND.	N	5-26-15	Discharge from petroleum refineries.
Glyphosate (ppb)	700	700	ND.	ND.	N	4-24-06	Runoff from herbicide use.
Heptachlor (ppt)	0	400	ND.	ND.	N	5-26-15	Residue of banned termiticide.
Heptachlor epoxide (ppt)	0	200	ND.	ND.	N	5-26-15	Breakdown of heptachlor.
Hexachlorobenzene (ppb)	0	1	ND.	ND.	N	5-26-15	Discharge from metal refineries and agricultural chemical factories.
Hexachlorocyclopentadiene (ppb)	50	50	ND.	ND.	N	5-26-15	Discharge from chemical factories.
Lindane (ppt)	200	200	ND.	ND.	N	5-26-15	Runoff/leaching from insecticide used on cattle, lumber, gardens.
Methoxychlor (ppb)	40	40	ND.	ND.	N	5-26-15	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock.
Oxamyl [Vydate] (ppb)	200	200	ND.	ND.	N	5-26-15	Runoff/leaching from insecticide used on apples, potatoes and tomatoes.
PCBs [Polychlorinated biphenyls] (ppt)	0	500	ND.	ND.	N	5-26-15	Runoff from landfills; discharge of waste chemicals.
Pentachlorophenol (ppb)	0	1	ND.	ND.	N	5-26-15	Discharge from wood preserving factories.

Picloram (ppb)	500	500	ND.	ND.	N	5-26-15	Herbicide runoff.
Simazine (ppb)	4	4	ND.	ND.	N	5-26-15	Herbicide runoff.
Toxaphene (ppb)	0	3	ND.	ND.	N	5-26-15	Runoff/leaching from insecticide used on cotton and cattle.

### Volatile Organic Contaminants

Benzene (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from factories; leaching from gas storage tanks and landfills.
Carbon tetrachloride (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from chemical plants and other industrial activities.
Chlorobenzene (ppb)	100	100	ND.	ND.	N	1-20-15	Discharge from chemical and agricultural chemical factories.
o-Dichlorobenzene (ppb)	600	600	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
p-Dichlorobenzene (ppb)	75	75	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
1,2 - Dichloroethane (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
1,1 - Dichloroethylene (ppb)	7	7	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
trans - 1,2 Dichloroethylene (ppb)	100	100	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
Dichloromethane (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from pharmaceutical and chemical factories.
1,2-Dichloropropane (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
Ethylbenzene (ppb)	700	700	ND.	ND.	N	1-20-15	Discharge from petroleum refineries.
Styrene (ppb)	100	100	ND.	ND.	N	1-20-15	Discharge from rubber and plastic factories; leaching from landfills.
Tetrachloroethylene (ppb)	0	5	ND.	ND.	N	1-20-15	Leaching from PVC pipes; discharge from factories and dry cleaners.
1,2,4 -Trichlorobenzene (ppb)	70	70	ND.	ND.	N	1-20-15	Discharge from textile-finishing factories.
1,1,1 - Trichloroethane (ppb)	200	200	ND.	ND.	N	1-20-15	Discharge from metal degreasing sites and other factories.
1,1,2 -Trichloroethane (ppb)	3	5	ND.	ND.	N	1-20-15	Discharge from industrial chemical factories.
Trichloroethylene (ppb)	0	5	ND.	ND.	N	1-20-15	Discharge from metal degreasing sites and other factories.
Toluene (ppm)	1	1	ND.	ND.	N	1-20-15	Discharge from petroleum factories.
Vinyl Chloride (ppb)	0	2	ND.	ND.	N	1-20-15	Leaching from PVC piping; discharge from plastics factories.
Xylenes (ppm)	10	10	ND.	ND.	N	1-20-15	Discharge from petroleum factories; discharge from chemical factories.

### Additional Contaminants

Aldicarb (ppb)	N/A	N/A	ND.	ND.	N	5-26-15	Insecticide
Aldicarb Sulfone (ppb)	N/A	N/A	ND.	ND.	N	5-26-15	
Aldicarb Sulfoxide (ppb)	N/A	N/A	ND.	ND.	N	5-26-15	
Butachlor (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	
Carbaryl (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	
Dicamba (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	Herbicide
3-Hydroxycarbofuran (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	
Methomyl (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	Insecticide
Metolachlor (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	Herbicide

Metribuzin (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	Herbicide
Propachlor (ppb)	N/A	N/A	ND.	ND.	N	4-08-09	Herbicide
Monochloroacetic Acid	N/A	N/A	ND.	ND.	N	2015 Data	By-product of drinking water chlorination
<b>Unregulated Detected and Undetected Contaminants</b>							
2,4-Dinitrotoluene (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Used in the production of isocyanate and explosives.
2,6-Dinitrotoluene (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Used as a mixture with 2,4dinitrotoluene (similar uses).
4,4'-DDE (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Degradation product of DDT, a general insecticide.
EPTAM (EPTC) (ppb)-	N/A	N/A	ND.	ND.	N	12-09-03	Herbicide used on annual grasses, weeds, in potatoes and corn.
Terbacil (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Herbicide used with sugarcane, alfalfa and some fruit.
Acetochlor (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Herbicide used with cabbage, citrus, coffee and corn crops.
Molinate (Ordam) (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Selective herbicide used with rice, controls watergrass.
Dacthal (DCPA) (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	An herbicide used on grasses and weeds with fruit and vegetable crops.
Methyl tert-butyl ether (MTBE) (ppb)	N/A	N/A	ND.	ND.	N	1-20-15	Octane enhancer in unleaded gasoline.
Nitrobenzene (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Used in the production aniline, which is used to make dyes, herbicides and drugs.
Perchlorate (ppb)	N/A	N/A	ND.	ND.	N	12-09-03	Oxygen additive in solid fuel propellant for rockets, missiles and fireworks.
Dimethoate (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Insecticide used on cotton and other field crops, orchard crops, vegetable crops, in forestry and residential uses.
2,2'4,4',5,5'-Hexa-bromodiphenyl (HBB) (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Flame retardant additive; production of PBBE's ended in 1976 in US after incident of significant agricultural contamination in 1973.
2,2'4,4',5,5'-Hexabromodi-phenyl Ether (BDE-153)(ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Flame retardants added to plastics (for products such as computer monitors, televisions, textiles and plastic foams).
2,2'4,4',5-Pentabromodi-phenyl Ether (BDE-99) (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Flame retardants added to plastics (for products such as computer monitors, televisions, textiles and plastic foams).
2,2'4,4',6-Pentabromodi-phenyl Ether (BDE-100)(ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Flame retardants added to plastics (for products such as computer monitors, televisions, textiles and plastic foams).
Terbufos-Sulfone (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Parent Compound, terbufos, used for systemic control of soil-borne insects and nematodes in fields of corn, grain sorghum and sugar beets.
2,2'4,4'-Tetrabromodiphenyl Ether (BDE-47) (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Flame retardants added to plastics (for products such as computer monitors, televisions, textiles and plastic foams).
1,3-Dinitrobenzene (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Used in explosives; also formed as a by-product during the manufacture of the explosives trinitrotoluene (TNT); used in the manufacture of aramid fibers, spandex and dyes.
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine (ppb)	N/A	N/A	ND.	ND.	N	7-13-10	Used in detonators, primers, mines, rocket boosters and plastic explosives; also used in fireworks and demolition blocks and used as a rodenticide.
TNT (2,4,6-Trinitrotoluene) (ppb)	N/A	N/A	ND.	ND.	N	7-31-10	Used as explosive in bombs and grenades, also used as a propellant; small amounts used for industrial explosive applications, such as deep well and underwater blasting; chemical intermediate in manufacture of dyestuffs and photographic chemicals.
Perfluorobutanesulfonic Acid (PFBS) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluoroheptanoic Acid (PFHpA) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Manmade chemical; used in products to make them stain, grease, heat and water resistant.

Perfluorohexanesulfonic Acid (PFHxS) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluorononanoic Acid (PFNA) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Manmade chemical; used in products to make them stain, grease, heat and water resistant.
Perfluorooctanesulfonic Acid (PFOS) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Surfactant or emulsifier; used in fire-fighting foam, circuit board etching acids, alkaline cleaners, floor polish, and as a pesticide active ingredient for insect bait traps; U.S. manufacture of PFOS phased out in 2002; however, PFOS still generated incidentally.
Perfluorooctanoic Acid (PFOA) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Perfluorinated aliphatic carboxylic acid; used for its emulsifier and surfactant properties in or as fluoropolymers (such as Teflon), fire-fighting foams, cleaners, cosmetics, greases and lubricants, paints, polishers, adhesives and photographic films.
Chromium (ppb)	N/A	N/A	0.29	ND. to 0.29	N	5-11-15	Naturally-occurring element; used in making steel and other alloys. Chromium 3 or 6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Cobalt (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Naturally-occurring element found in the earth's crust and at low concentrations in seawater and in some surface and ground water; cobaltous chloride was formally used in medicines and as a germicide.
Molybdenum (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Naturally-occurring element found in ores and present in plants, animals and bacteria; commonly used form molybdenum trioxide used as a chemical reagent.
Strontium (ppb)	N/A	N/A	160	92.9 to 160	N	5-11-15	Naturally-occurring element; historically, commercial use of strontium has been in the faceplate glass of cathode-ray tube televisions to block x-ray emissions.
Vandium (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Naturally-occurring element; used as vanadium pentoxide which is an intermediate and a catalyst.
1,4 Dioxane (ppb)	N/A	N/A	0.094	ND. to 0.094	N	5-11-15	Cyclic aliphatic ether; used as a solvent or solvent stabilizer in manufacture and processing of paper, cotton, textile products, automotive coolant, cosmetics and shampoos.
Bromochloromethane (Halon 1011) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Used as a fire-extinguishing fluid, an explosive suppressant and as a solvent in the manufacturing of pesticides.
Bromomethane (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Halogenated alkane; occurs as a gas and used as a fumigant on soil before planting on crops after harvest, on vehicles and buildings and for other specialized purposes.
1,3-Butadiene (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Alkene; used in rubber manufacturing and occurs as a gas.
Chlorodifluoromethane (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Chlorofluorocarbon, occurs as a gas and used as a refrigerant, as a low temperature solvent and in fluorocarbon resins, especially tetrafluoroethylene polymers.
Chloromethane (Methyl chloride) (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Halogenated alkane; used as a foaming agent, in production of other substances and by-product that can form when chlorine is used to disinfect drinking water.
1,1-dichloroethane (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Halogenated alkane; used as a solvent.
1,2,3-Trichloropropane (ppb)	N/A	N/A	ND.	ND.	N	5-11-15	Halogenated alkane; used an ingredient in paint, varnish remover, solvents and degreasing agents.
Hexavalent Chromium (ppb)	N/A	N/A	0.17	ND. to 0.17	N	5-11-15	Naturally-occurring element; used in making steel and other alloys. Chromium 3 or 6 forms are used for chrome plating, dyes and pigments, leather tanning and wood preservation.
Chlorate (ppb)	N/A	N/A	543	125 to 543	N	5-11-15	Agricultural defoliant or desiccant; used in production of chlorine dioxide.