CIRCULAR NO. 31 1951

STATE OF ILLINOIS
ADLAI E. STEVENSON, Governor

OFFICE COPY

MINERAL CONTENT OF PUBLIC GROUNDWATER SUPPLIES IN ILLINOIS

T. E. LARSON

DEPARTMENT OF REGISTRATION AND EDUCATION
NOBLE J. PUFFER, Director

STATE WATER SURVEY DIVISION
A. M. BUSWELL, Chief

URBANA, ILLINOIS
(PRINTED BY AUTHORITY OF THE STATE OF ILLINOIS)

179

MINERAL CONTENT OF PUBLIC GROUNDWATER SUPPLIES IN ILLINOIS

By

T. E. Larson *

Introduction

This circular has been prepared in order to provide a ready tabulation of the mineral constituents in the public groundwater supplies in Illinois. The analyses are tabulated alphabetically with respect to the municipality or public institution at which the sample was collected. With a few exceptions all samples were collected by State Water Survey Engineers during 1947 and 1948 at which time physical and engineering data were collected for the State Water Survey Bulletin No. 40 on Public Groundwater Supplies in Illinois.

It has been evident for sometime that a circular devoted mainly to the chemical composition of public water supplies is desirable, although most of the data are duplicated in Illinois State Water Survey Bulletin No. 40. No surface water supplies are included in this tabulation, since with the exception of Lake Michigan, the chemical quality of other streams and reservoirs varies seasonally as well as in some cases, from year to year. It will suffice to say that all Illinois public surface water supplies are clarified and chlorinated, and in most cases the hardness will range from 50 ppm. to 450 ppm.

Sampling

Wherever possible samples were collected from a tap at the pump discharge and the temperature and pH determined at that time. Each analysis reported herein has been selected as representative of the general quality of the water for the particular municipality. At certain municipalities the supply is derived from alluvial or outwash deposits adjacent to streams. In such cases a certain amount of variation in the quality maybe expected throughout the year. At other municipalities whose supply is derived from rock wells which penetrate more than one exposed aquifer the quality may vary throughout any particular pumping period since the quality from each aquifer is generally distinctive. The quality at any time may therefore depend upon the duration of the previous idle period, the relative non-pumping pressures of the water in the aquifer, and the capacities of the aquifers to yield water.

In many cases the indicated source of the water is not necessarily definite. For example, in one instance a well penetrating the St. Peter sandstone actually derives drift water by way of crevices in the intervening limestone between the bottom of the casing (which was pressure grouted through the drift) and the top of this sandstone. In general the source is indicated to be the formation at the bottom of the well unless the origin of the water in the well has been definitely determined.

Analytical Methods

Data on color, odor, and turbidity are not reported since, as a general rule (in the absence of iron) the turbidity of groundwater supplies is negligible. Odor, when present is normally caused by hydrogen sulfide and only a very few supplies have any appreciable color.

Nevertheless, taste, odor, and color are each significant in that if objectionable, in a bacteriologically safe supply, it may cause the consumer to turn to a more palatable but unsafe supply.

All analyses were made according to Standard Methods of Water Analysis, 9th edition.

All samples were carbonated with dry ice prior to filtration and analysis. The following procedures were used in general:

Determination	Symbol	Procedure
Iron	Fe	Ortho phenathroline
Manganese	Mn	Periodate
Calcium	Ca	Permanganate titration
Magnesium	Mg	Pyrophosphate
Ammonium	NH4	Distillation and Nesslerization
Sodium	Na	by Difference
Silica	SiO_2	Molybdate
Chloride	Cl	Mohr
Nitrate	NO_3	Reduction
Sulphate	SO_4	Gravimetric
Alkalinity	(as $CaCO_3$)	Methyl Orange
Hardness	(as $CaCO_3$)	by Calculation
Non-carbonate hardness	(as $CaCO_3$)	by Difference
Carbon dioxide	CO_2	by Calculation
Total dissolved solids	TDS	Evaporation

Results

The results are expressed in parts per million (ppm.). Parts per million refers to pounds per million pounds of water or grams per 1000 liters of water. Such results can be converted to grains per gallon (gpg.) by dividing by the factor 17. 2. The parts per million results can be converted to equivalents per million by dividing by the equivalent weight of the particular ion. The results for hardness, alkalinity and non-carbonate hardness are expressed in equivalent terms of calcium carbonate. Since the pH of nearly all samples was less than eight, no carbonate alkalinity existed and the alkalinity exists actually as bicarbonate.

Interpretation and Significance

The interpretation of any water analysis must of necessity depend on the intended use of this water. In general the following discussions will pertain largely to the use of water for general household purposes.

It is assumed that the water is of unimpeachable sanitary quality, both from the standpoint of the existence of any possible source of entrance of contamination and from the bacteriological tests for purity. Such considerations are the function of the Illinois State Department of Public Health, Springfield, Illinois and

*Head, Chemistrv Subdivision

any questions concerning this primary factor must be directed to their office in Springfield.

Total Dissolved Solids

The total mineral content includes all the mineral ingredients in the water. These ingredients originated by the solution of the chloride, nitrate, sulfate and carbonate salts of calcium, magnesium, ammonium and sodium. On solution of each or any of these ingredients however, the component parts of each salt exist in the water as separate entities and bear no relation to the original combination.

Water with a high mineral content may have a salty or brackish taste, of an intensity which depends on the concentration and kind of minerals in solution.

The Public Health Service Drinking Water Standards for Interstate Carriers (1946) states that water should not contain more than 500 ppm. total dissolved solids, but if such water is not available 1000 ppm. may be permitted. A mineralization of 1000 ppm. can be faintly tasted. Several municipalities in Illinois use waters of 1500 to 2000 ppm. mineral content. Waters of 3000 and 4000 ppm. can hardly be called palatable, and at 5000 or 6000 ppm. even live stock do not do very well, although they can get used to it, and live. At about 12, 000 ppm. or 1. 2%, the water is injurious and would cause death if used continuously. Sea water contains 3.4% dissolved minerals. In the range of 500 to 2000 ppm. the taste factor is one to which the public may become accustomed to such a point that if a change from 1500 ppm. to 500 ppm. water is experienced it would again become necessary to become accustomed to the 500 ppm. water.

Equipment is now available which can be used to demineralize limited quantities of mineralized water. Such units however, are costly when compared to ordinary zeolite softeners, and the cost of chemicals for regeneration seriously limits the extensive use of such equipment. However, for small quantities of water, for drinking or cooking purposes, there is a field of application. The cost of the original installation will depend on the quality of the raw water and the quantity of demineralized water required. The cost of regenerating chemicals is from one dollar to two dollars per each one thousand parts per million of mineral content per thousand gallons. The cost of chemicals to demineralize one hundred gallons of water containing five thousand parts per million total dissolved solids would be about one dollar. This, of course, wouldbe expensive water for sprinkling purposes, but water for sixteen cups of coffee would cost one cent.

Hardness

Hard water is caused primarily by the presence of calcium and magnesium in the water. The hardness of 88.7% of 532 of the Illinois public ground water supplies is greater than 200 ppm. and 60.2% have a hardness greater than 300 ppm. Three supplies have a hardness greater than 1100 ppm. Of the 11. 5% of the supplies that have a hardness greater than 500 ppm. only 24.6% have a softening plant. Only 80 of the 472 supplies having a hardness greater than200ppm. practices public water softening. The lime or limesoda process is used at 25 plants and zeolite or bare-exchange process is used at 54 plants. One plant combines the lime and zeolite processes.

Hardness	Percent of Supplies	Percent of these Supplies Softened
201 ppm. or more	88.7	17.0
251 ppm. or more	77.8	17.4
301 ppm. or more	60.2	20.2
326 ppm. or more	48. 7	22.4
351 ppm. or more	41.6	22.8
400 ppm. or more	27.0	25.2
500 ppm. or more	11.5	24.6

The distinction between hard and soft water is one of relativity. Municipalities accustomed to water of 250 ppm. consider Lake Michigan water (130 ppm.) to be soft, whereas, municipalities supplied by softened water of 50 to 75 ppm. hardness consider Lake Michigan water to be hard. In turn, individuals who are accustomed to home zeolite softened water of 0 to 10 ppm. hardness or to rain water consider 50 to75ppm. to be classed as hard water.

The effects of hard water are numerous. Very few of the effects are advantageous. Hard water is responsible for the formation of scale in boilers or hot water heaters.

The formation of scale due to hardness results from the fact that the solubility of the calcium carbonate and sulfate salts and magnesium hydroxide is lower at increased temperatures.

If an appreciable proportion of the hardness is non-carbonate hardness, the scale will be very hard and difficult to remove. If little or none of the hardness is non-carbonate, thatis: if all of the hardness is present as carbonate hardness, the scale will be soft and sludgy. In either case, the scale formed in furnace coils or in hot water coils is a distinct nuisance, and may reduce the rate of heat transfer to such an extent that the metal can become burned by over-heating.

Chemical treatment of water used in boilers for the production of steam and power is a common practice and is in most cases an economic necessity.

The effect of hard water on soap and soap products is well known to everyone. The insoluble calcium and magnesium soaps which are formed with hard water combine with the dirt removed from the laundry and re-deposits it on the clothes, with the eventual result of a gray, rather than a clean white appearance of clothes

Rinsed dishes and glassware do not drain dry; hard water leaves an accumulating white deposit on them which canbe unsanitary as well as unsightly. Hair washed and rinsed with hard water becomes sticky and stiff.

Highly mineralized water of 2 000 ppm. or more mineral content although soft with respect to calcium and magnesium content often behaves as hard water when soap is used for detergency purposes. The salt content prevents sufficient solution of soap to provide an effective cleaning concentration.

The State Water Survey in conjunction with the University of Illinois conducted a survey of soap consumption in four municipalities in 1929. The results were published in 1930 and the following table indicates the cost and the pounds of soap used per capitaatthese municipalities. This table also indicates these costs in 1947 at which time the average soap product costs were about 80% greater than that in 1930.

Municipal softening of hard water of 300 ppm. costs approximately 65 cents to a dollar per capita per year. Home owned and home serviced softened water

Annual per Capita Cost of Soap in Four Cities

City	Total Hardness of Water Supply ppm.	Annual per Capita Soap Consumption	Annual per Capita Cost of Soap $/Year 1930	1947
Superior, Wisconsin	45	29. 23	3. 75	6. 75
Bloomington, Illinois	70	32.13	4.48	8.06
Urbana-Champaign, Illinois	298	39.89	5.93	10.67
Chicago Heights, Illinois	555	45.78	7.50	13.50

for a supply having a hardness of 300 ppm. may vary from $7.00 to $l5. 00 per capita per year, depending on the proportion of water softened for home use.

The impact of synthetic detergents has beenhighly beneficial in most cases where hard water is used. Such detergents have a distinct advantage over soaps in that they do not form an insoluble scum with the minerals in hard water, hence none is wasted. However, no synthetic detergent has been devised which has universal application, both from the standpoint of water quality and from the standpoint of purpose of use.

It should perhaps be worthwhile to mention that hard water can be partially softened in batches for laundry purposes by treatment with lime. Ordinary lye may also be used. The dosage will depend on the analysis of the water, but in generalfor Illinois groundwaters "such dosage is usually three to five ounces of lye per hundred gallons, and is best determined by trial and error. The lime is added to the water, mixed completely and the sludge permitted to settle out over night.

Iron and Manganese

Two out of every three well water supplies in Illinois contain 0. 4 ppm. iron or more. The following table indicates the occurrence of iron in 536 public groundwater supplies and the practice of iron removal at 103 plants. If the waters contain more than 0.3 ppm. iron and manganese, staining will occur and 1. 0 ppm. is much more than most consumers like to have present. Iron as it exists in natural groundwater is in the soluble (ferrous) state and gives the water a faint

Iron Content	% of Supplies	% of these supplies that treat for iron removal*
0.4 ppm. or more	65.%	27%
1.0 ppm. or more	40%	40%
2. 0 ppm. or more	20%	46%
5. 0 ppm. or more	5%	60%

green tinge. On exposure to air it is converted into the insoluble ferric state and separates from the water to form very finely divided reddish-brown rust particles. This constitutes "red water. " If allowed to stand long enough these particles will gather together and settle to the bottom of the container. The presence of red water is responsible for red stains on laundry, and is responsible for clogging in pipes in the distribution system and in the service lines to the homes.

* These include lime or zeolite softening plants that also remove iron.

In some cases the presence of iron supports the growth of "iron bacteria" which accumulate and eventually clog the distribution system pipes and mains. The presence of appreciable quantities of iron is sometimes responsible for clogging in zeolite softeners. Some types of exchange materials are more resistant to this type of clogging than others. Muchdepends on the form of the iron as the water is applied to the zeolite, or exchange bed, and much also depends on the rate and the manner of backwashing and regeneration of these exchange units. A goodly number of Illinois municipalities treat the water for iron removal prior to distribution.

Manganese is present in a concentration of 0.2 ppm. in 14.4% of 506 public ground water supplies. More than half of these supplies receive treatment for iron removal and/or for hardness reduction thereby reducing the manganese content to a minimum. In only two supplies is the manganese content appreciably greater than the iron content and in these two supplies no treatment is provided although the concentration is greater than 1. 0 ppm.

Manganese Content	% of 506 supplies	% of these supplies softened or treated for iron removal
0. 1 ppm. or more	27.0%	41.2
0.2 ppm. or more	14.4%	50.6
0. 3 ppm. or more	8. 3%	42. 8
0. 4 ppm. or more	4. 9%	48. 0
0. 5 ppm. or more	2.8%	57.0

Fluorides

The fluoride content of waters has been reported to be associated with both dental caries and mottled tooth enamel or dental fluorosis. The incidence of dental caries is low for water supplies containing 1 to 1. 5 ppm. of fluoride, or more, and is high for water supplies containing 0to.5 ppm. fluoride. On the other hand, the incidence of darkened or mottled teeth is high for water supplies containing 1. 5 or more ppm. fluorides, and is low for water supplies containing less than 1. 0 ppm. fluoride.

Only 6. 9% of 495 ground water supplies contain more than 1.4 ppm. fluoride and 5.8% contain 1.0 to 1.4 ppm. Appreciable fluoride concentrations are found only in water from rock well supplies 23. 6% containing 1. 0 ppm. or more. Only one supply (1.3 ppm.) from unconsolidated formations above the bedrock contains more than 1. Oppm. fluoride. More than half of the latter supplies contain less than 0. 3 ppm. fluoride.

Fluoride Content	Unconsolidated Wells	Rock Wells	All Supplies
0.3 ppm. or more	48. 5	62.8	55.8
0.4 ppm. or more	24. 0	53.2	38.8
0.7 ppm. or more	6.1	35.2	20.8
1.0 ppm. or more	1.6	23.6	12.7
1. 5 ppm. or more	0.0	13.6	6.9

Nitrates

Excessive nitrate concentrations in water may cause "blue babies" when such water is used in the preparation of infant feeding formulas. Serious cases of methemoglobinemea in adults have also been attributed to this. An upper safe limit has tentatively been set as 44 ppm. (as NO_3)by the National Research Council. At least one supply in Illinois, however, contains more than 80 ppm. and has been in use for a number of years with no reported difficulty from this cause. This subject is under constant consideration by the State Department of Public Health at the present time.

Chloride and Sulfate

The presence of high chloride and sulfate concentrations are direct indications of high total mineral content. Chloride and sulfate salts are generally quite soluble in water at normal temperatures, although the solubility of calcium sulfate at temperatures approaching boiling reduces to the point where all of the calcium and sulfate are not compatible in solution. The incompatibility of calcium and sulfate at elevated temperatures is not as great as the incompatibility of calcium and carbonate.

The presence of high chloride and sulfate content producing waters of high mineral content is responsible for greater electrical conductivity. This in turn enhances corrosive properties of water, particularly with respect to iron and greatly accelerates the galvanic corrosive effect on iron when coupled with copper-bearing metals.

Chlorides are detectable by taste when present in concentrations of 400 to 500 ppm.

Alkalinity

In most ground waters in Illinois, the alkalinity is in the range of 200 to 400 ppm. , and in general is associated with 20 to 50 ppm. free carbon dioxide. The free carbon dioxide in the water is usually not more than that which is necessary to maintain the solubility of calcium in these waters. The exact concentration of free carbon dioxide has been calculated from the pH* and the bicarbonate alkalinity in such cases where the pH determination was made. Only a few waters contain a free carbon dioxide content greater than 50 ppm. In such cases the waters have atendency to be excessively corrosive to pumping equipment and to hot water facilities.

Alkalinity in groundwaters is responsible for the presence of and the formation of carbonates which being incompatible with calcium in water forms aprecipitate of lime or calcium carbonate on heating. The change from bicarbonate to carbonate takes place on loss of carbon dioxide. Such loss occurs when free carbon dioxide in the water escapes to the air either on standing, exposed to air, or particularly when the temperature is elevated thereby driving out the free carbon dioxide present in the water.

Waters softenedby zeolite will produce excessive quantities of carbon dioxide in steam and the resultant corrosion therefrom in condensate return lines can be a major problem. The removal of carbon dioxide by aeration is of limited benefit for Illinois waters since the removal of some carbon dioxide only causes the formation of an additional quantity of free carbon dioxide by the conversion of bicarbonates to carbonates and free carbon dioxide.

Free carbon dioxide when disproportionate in balance with calcium and bicarbonate alkalinity may cause corrosion or scale formation depending upon whether its concentration is greater or less than that required for the saturation solubility of calcium carbonate.

Hydrogen Sulfide

Hydrogen sulfide when present in water in concentrations greater than 0.2 ppm. causes the water to have a mild to strong odor of rotten eggs. Ordinary aeration procedures are usually sufficient to remove this gas from the water. Chlorine also reacts readily with this gas. When this gas is found to be present in the water it has been noted that the water usually has been obtained from one of the limestone formations in the bedrock.

Methane

Methane gas is present in a number of groundwater supplies and on several occasions has caused severe explosions. This gas is colorless, odorless, and tasteless. It is lighter than air, inflammable, and when released from the water and mixed in concentrations of 5 to 15% with air the resultant mixture is highly explosive on ignition. If water containing this gas is passed through a pressure tank, it is possible for the air cushion to contain a high proportion of methane. In such cases the vent or the release of accumulated gas in the pressure tank should extend outdoors and should not be vented inside of the building. An inside vent can easily lead to the 5 to 15% mixture with air in the room in which the pressure tankis located. Methane gas can readily be removed from water by standard aeration procedures.

The occurrence of methane in groundwaters appears to be limited to supplies which obtain their water from the unconsolidated beds above the bedrock. On a few occasions such gas has been obtained from well yielding water from limestone where the limestone presumably has been fed from the overlying unconsolidated deposits.

Nitrogen and Oxygen

Nearly all groundwaters and surface waters in Illinois contain approximately 2 1/2 cubic feet of nitrogen per thousand gallons. The presence of this gas has no particular significance for general household purposes.

Illinois groundwaters rarely, if ever, contain dissolved oxygen as originally pumped from the ground.

*pH is a measure of the intensity of acidity and basicity. A pH of 7. 0 is considered to be neutral wherein the basicity is equal to the acidity, a pH of 6 is 10 times as acidic, and a pH of 8 is one-tenth as acidic, a pH of 9 is one-hundreth as acidic, etc.

However, in the process of treatment, either for gas removal or for iron removal, 6 to 10 ppm. of oxygen may be added to the water. At other plants where the water is stored in ground reservoirs or in elevated tanks, oxygen again may be dissolved in the water to a small extent. Oxygen is also added to water at any time that water is withdrawn from a tap. The effects of oxygen are numerous. Only 0. 16 ppm. is required to convert 1 ppm. soluble ferrous iron to the insoluble ferric iron, thereby causing a reddish cast or tinge to the water, if iron is present in the water.

The presence of oxygen in water accelerates corrosion and affects the suitability of water for specific purposes. Aerated water usually tastes better since minor traces of other volatile substances are thereby removed. Oxygen has no taste or odor in itself.

Distribution Systems

It is pertinent to keep in mind that all analyses of treated water quoted herein were made on samples of water as delivered to the distribution system at each particular water supply. In view of the many changes in handling, it is not surprising that the quality as delivered at the consumer's tap is not always identical with that delivered to the distribution system. In specific cases the water passes upward through an elevated storage tank through miles of cast iron, asbestos or cement lined pipe, through valves or constrictions, around bends and turns, and is subjected to sudden changes in pressure and velocity, often developing into water hammer. The velocity of flow through the pipes and the service lines varies from zero to a very high velocity at such times as the water is used in emergency for fire fighting. Low flow rates promote the deposition of any suspended matter and high flow rates tend to disturb and resuspend these deposits, often in a greater concentration than was originally present.

Often times water has been passed through the mains for years before a water treatment plant was installed and in many cases perfectly good water leaving the treatment plant must come in contact with accumulations or deposits of oxidized iron or corrosion products or slime deposits which may not otherwise have been present.

The water may come in contact with many junctions of disimilar metals, such as brass and iron, or copper and steel, and the resulting galvanic corrosion causes the solution of some iron, and in some cases causes a deposition of accumulating scale deposits, thereby constricting the opening and thereby be responsible for a reduced rate of flow of water and lack of pressure at the tap.

In other cases the water may contain such ingredients as may promote the growth of bacteria to form a slime on the pipe walls. Such slime producing organisms are not considered to be harmful to humans, but prove to be a nuisance when bacteria may be present in the water to convert sulfates to hydrogen sulfide which in turn reacts with soluble iron toformferrous sulfide, a black substance.

Since the distribution system and mains are only a few feet below the ground surface, the temperature of the water as it passes through the distribution system may change considerably seasonally. It is not unusual for well water with a constant temperature of about 55° to vary in temperature at the ends of the distribution system from 40° to 70° F. Such temperature changes may cause changes in chemical equilibria in the water and may on occasion cause a pickup of a few parts per million hardness from old hardness deposits in the mains. These same changes in chemical equilibria may be responsible for certain increases in iron in the water as it passes through the distribution system.

Since odors are more pronounced at higher temperatures, they are more frequently noticed at such . times of the year as the temperature of the water maybe high.

Often times cold water passes through the basement of homes in cold water pipes adjacent to a furnace pipe and thereby becomes heated. On heating, gases present in the water to any appre ciable extent, become less soluble and can produce a milky water as it is drawn at the tap.

The effect of temperature changes on the water properties is particularly emphasized at hot water heaters on furnace coils, where scale or corrosion or both may be experienced depending on the original mineral character of the water.

It is therefore evident that the quality of water as delivered to the consumer is dependent not only on the quality of the water as obtained from its source but also on the method of handling and the effects of the various physical changes to which it is subjected in transportation.

Symbols (in tabulated data)

Source
"D" unconsolidated materials above the bedrock.
"L" limestone deposits.
"S" sandstone deposits.

Treatment
"I" iron removal.
"A" aeration.
"L" lime or lime-soda softening.
"Z" zeolite (or base-exchange) softening.
"Cl" chlorination.

Methane and Hydrogen Sulfide
"X" present.

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) ---(as	Total Hardness $CaCO_3$)	Non-Carbonate Hardness ---	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Abingdon	109796	S		0.7	0.0	1.1	319.7	84.4	33.4	14	3.5	0.9	160.0	565.7	232.	349.	117.	1324.					71.5
Addison	110327	L		1.4	Tr.	0.4	18.2	108.8	56.7	24	0.2	1.0	6.0	200.1	328..	505.	177.	625.	7.0	86.			52.2
Aledo	108244	S	C1	0.1	0.0	1.2	325.2	61.5	17.6	12	2.4	0.3	176.0	400.9	272.	227.		1158.					62.5
Alexis	112719	S		0.2	0.0	Tr.	153.6	72.3	28.6	18	0.9	4.4	56.0	213.5	328.	299.		765.					59.
Algonquin	110959	D			0.0	0.8	0.2	68.5	39.5	26	0.3	0.9	4.0	13.8	316.	334.	18.	360.	7.6	24.			50.5
Alpha	108554	S		0.1	0.0	0.5	298.1	46.8	20.3	26	2.4	3.4	195.0	323.6	236.	201.		1051.					57.6
Amboy	112906	S	ILC)	1.9	0.0	0.5	6.9	91.4	39.6	21	0.1	Tr.	9.0	41.1	352.	392.	40.	421.					55.
(treated)	112901			0.1							0.2		8.0		34.	50.	16.	123.					
Anna	113381	L	LC1	0.1	Tr.	Tr.	26.4	103.7	8.1	18	0.1	21.5	27.0	37.2	256.	293.	37.	389.	7.2	40.			59.5
(treated)	114107			0.1							0.3		30.0		26.	77.	51.	163.	9.6				
Anna State Hospital	113441	L	C1	0.1	0.0	Tr.	4.8	83.8	7.6	27	0.2	3.9	6.0	15.2	224.	241.	17.	277.	7.2	36.			53.5
Antioch	107551	D		0.2	0.0	0.1	22.5	38.8	43.9	33	0.8	0.0	3.0	59.4	256.	273.	17.	355.	7.8	7.			52.6
Apple River	108581	S		0.2	0.0	0.1	0.9	58.7	30.2	16	0.3	1.9	6.0	21.0	242.	272.	30.	292.	7.2	41.			50.6
Apple River Canyon State Park	88415	L		0.1									1.0		344.	347.	3.	381.					
Arcola	115102	D		6.0	0.3	15.1	112.5	67.6	29.3	26	0.2	0.2	51.0	0.6	504.	290.		582.	6.9	159.			55.5
Arenzville	114564	D		0.2	0.1	Tr.	0.0	88.0	32.5	23	0.1	35.8	12.0	53.9	252.	354.	102.	391.					57.
Arlington	111313	D		1.9	Tr.	0.1	5.8	82.3	37.6	23	0.1	1.1	10.0	44.6	312.	361.	49.	392.					53.
Arlington Heights	106728	S		0.2	Tr.	0.8	55.7	71.2	22.7	11	1.2	2.8	18.0	75.5	288.	272.		433.	7.1	65.			54.5
Arthur	115187	D		2.0	0.0	1.1	100.5	59.5	28.6	24	0.3	0.4	8.0	0.0	476.	267.		517.	7.4	48.	X	X	55.7
Ashkum	110440	L		1.2	0.1	2.2	50.6	55.0	37.2	12	0.4	1.1	50.0	76.1	256.	291.	35.	444.	7.3	33.			53.5
Ashland	114562	D	IL	1.6	0.2	Tr.	23.0	110.0	47.9	19	0.2	1.7	43.0	88.5	368.	472.	104.	574.					49.5
Ashton	113129	L		Tr.	0.0	Tr.	3.0	88.9	47.7	19	0,1	42.9	18.0	78.0	284.	419.	135.	470.					52.2
Assumption	115314	D	ZC1	0.3	0.3	Tr.	8.7	91.1	29.4	19	0.3	0.3	7.0	124.9	228.	349.	121.	412.					54.5
(treated)	115514			Tr.							0.1		6.0		204.	74.		344.	8.0	5.			65.
Athens	113545	D	IC1	8.7	0.2	3.1	17.0	81.6	31.6	21	0.2	0.4	5.0	46.5	324.	334.	10.	390.					
Atkinson	108417	S		0.2	0.0	1.7	169.7	20.1	9.9	14	0.7	1.6	9.0	34.1	416.	92.		512.					54.6
Atlanta	115838	D		5.0	0.1	7.1	13.8	85.9	43.1	28	0.2	1.4	1.0	0.0	440.	393.		455.	7.3	55.			56.
Atwood	115101	D	IZC1	2.6	0.0	2.2	22.3	111.8	34.4	30	0.2	0.2	3.0	3.1	468.	421.		514.	7.3	59.			56.
(treated)	115180			0.2							0.1		4.0		456.	96.		475.	7.7	22.			59.
Aurora	95186	S		0.6	0.0	0.6	169.0	93.1	31.8	10		0.9	307.5	39.3	258.	363.	105.5	828.					
I & M Canal State Park	93438	L		0.9	0.0	1.5	29.0	61.1	29.4	7		0.2	14.0	29.6	290.	274.		358.	7.1	43.		X	53.3
Ava	113844	S	IZC1	0.7	0.2	Tr.	35.0	98.1	48.3	16	0.1	2.0	7.0	137.0	368.	444.	76.	580.	7.1	72.			57.5
(treated)	114785			Tr.							0.2		14.0		380.	221.		541.	7.8	15.			58.7
Avon	113349	S		0.7	0.0	1.6	522.1	214.4	85.6	14	3.5	Tr.	305.0	1333.8	210.	888.	678.	2656.					67.5

Barrington	106280	L		0.3	0.1	0.4	13.1	58.1	41.9	24	0.4	1.1	2.0	75.9	264.	318.	54.	385.					51.3
Barry	114125	D	C1	0.1	0.0	Tr.	9.0	65.1	7.3	18	0.1	15.8	12.0	30.0	152.	193.	41.	256.					49.
Bartlett	106281	L	C1	1.0	0.0	0.5	0.5	83.1	53.0	21	0.3	0.3	4.0	40.7	380.	426.	46.	435.					51.
Batavia	111562	S		0.4	0.0	0.1	38.0	55.7	22.6	15	1.1	2.7	31.0	32.5	236.	233.		339.	7.4	25.			60.6
Beardstown	114561	D		1.1	0.4	Tr.	20.9	80.3	29.2	22	0.4	2.4	32.0	99.6	216.	321.	105.	437.					57.
Bedford Park District	107219	LS		1.0	0.0	0.3	82.9	115.6	80.6	16	0.5	1.3	28.0	516.1	224.	621.	397.	1007.					58.6
Beecher	107893	L	C1	0.4	0.0	0.8	50.4	162.1	49.0	13	0.7	0.0	3.0	456.2	240.	607.	367.	870.	7.2	39.			52.5
Bellwood	95364	S	C1	0.2	Tr.	0.1	111.1	50.4	16.9	10		3.3	49.0	101.6	260.	195.		492.					64.
Belmont	110602	L		0.2	0.1	0.1	4.1	97.6	42.2	19	0.2	0.5	7.0	127.5	284.	418.	134.	471.	7.6	19.			50.3
Belvidere	104558	L	C1	0.2	Tr.	0.2	2.1	75.8	30.8	14		2.4	5.0	26.9	284.	316.	32.	340.	7.1	59.			51.2
Bement	115722	D		0.4	0.1	2.3	48.8	69.4	35.9	23	0.3	0.1	22.0	2.1	400.	321.		444.					55.2
Bensenville	110309	S		0.4	0.0	0.4	44.9	71.4	17.9	12	1.2	0.7	13.0	57.4	272.	252.		378.	7.2	41.			60.
Benson	109421	D		7.1	0.2	0.6	9.7	118.9	55.8	21	0.2	0.2	25.0	144.0	364.	527.	163.	610.					
Berkeley	106311	L		0.6	0.0	0.7	26.5	94.3	56.2	13	0.4	2.8	4.0	163.7	348.	467.	119.	579.	7.2	59.			50.6
Bethalto	116545	D		0.2	0.3	0.1	3.2	101.3	37.6	29	0.2	6.1	5.0	99.6	300.	408.	108.	473.					56.
Bethany	115188	D	IZ	1.7	0.2	Tr.	42.1	77.0	33.2	26	0.3	10.1	9.0	0.0	400.	329.		432.	7.2	63.	X	X	55.5
(treated)	115176			0.2									12.0		424.	74.		470.	7.7	21.			57.8
Biggsville	108143	L		0.3	Tr.	1.8	453.8	178.8	69.2	14	5.5	0.2	195.0	1191.8	208.	732.	524.	2287.					65.
Blue Mound	115619	D	IZ	0.7	0.2	Tr.	6.0	74.4	33.3	22	0.3	0.7	19.0	81.0	224.	323.	99.	365.					55.
(treated)	115782			0.1							0.2		19.0		232.	85.		369.					57.5
Bluffs	113692	D	ILC1	1.8	0.2	0.2	19.1	127.9	53.8	19	0.3	0.1	24.0	224.0	316.	542.	226.	662.					55.
(treated)	113691			0.2							0.2		27.0		140.	216.	76.	474.					
Bourbonnais	112688	L		0.9	0.1	0.1	2.5	83.4	39.9	17	0.0	2.4	3.0	43.2	328.	373.	45.	401.					52.7
Bowen	117011	L		0.6							0.3	0.2	3.0		428.	373.		441.					54.5
Bradford	108719	LS		0.4	0.0	1.0	398.6	76.0	31.0	11	1.4	3.9	500.0	248.9	220.	318.	98.	1428.					68.5
Bradley	112689	S	C1	0.2	0.0	0.7	256.7	116.3	59.3	11	1.4	13.3	270.0	445.8	240.	535.	295.	1354.	7.3	30.			58.
Braidwood	107909	S	C1	0.2	Tr.	1.0	267.3	86.7	44.8	11	1.2	0.1	250.0	361.8	256.	401.	145.	1199	7.4	25.		X	58.6
Brookport	113289	D		0.4	0.1	Tr.	3.5	66.9	8.9	15	0.3	Tr.	4.0	21.8	184.	204.	20.	238.					60.
Brownstown	114770	D	IC1	Tr.	Tr.	0.2	114.3	85.7	33.0	23	0.1	0.3	45.0	177.9	348.	350.	2.	678.					58.
Buckingham	112780	D		0.5	0.1	0.4	97.1	33.2	18.7	15	0.6	Tr.	22.0	51.0	288.	160.		398.	7.7	15.			53.3
Buckley	116414	D	IZ	1.4	0.2	3.3	55.7	188.4	73.2	26	0.3	0.4	4.0	531.1	344.	772.	428.	1149.	7.1	70.			54.3
(treated)	116648			0.1							0.2		6.0		340.	21.		1088.	7.5	27.			55.
Buda	111403	S		0.9	Tr.	Tr.	345.9	48.8	22.6	16	1.4	7.2	350.0	203.2	256.	215.		1143.					62.
Buffalo Rock State Park	110855	S		0.2									59.0	77.5	316.	437.	121.	514.					53.2
Bureau	108163	L		0.4	0.0	0.2	783.4	13.5	4.7	11	5.5	0.0	770.0	176.1	488.	34.		2062.	8.0	12.			55.5
Burlington	111400	D	I	3.1	0.0	0.4	11.5	78.2	34.7	34	0.3	10.8	5.0	4.1	344.	338.		385.	7.5	29.			51.
Bushnell	113769	S	C1	0.3	0.0	1.3	505.8	100.8	41.2	14	3.5.	0.2	400.0	648.6	236.	422.	186.	1874.				X	
Byron	112656	S	C1	0.4	0.0	Tr.	0.2	50.2	33.6	12	0.1	0.4	2.0	15.6	244.	264.	20.	256.					55.
Cabery	116366	L		1.4	Tr.	1.4	278.8	171.5	67.5	14	1.0	5.4	21.0	1059.8	180.	707.	527.	1744.	7.6	11.			55.
Cambridge	108415	S		0.2	0.0	3.2	168.1	45.2	18.8	13	0.8	1.7	50.0	138.8	348.	190.		640.					59.7
Campbell Hill	108603	S		2.1	0.1	0.7	17.5	142.0	41.9	17		1.0	9.0	166.8	380.	525	145.	617					60.1
Camp Point	113932	D	ILC1	2.9	0.6	1.3	30.6	229.2	74.1	25	0.3	Tr.	6.0	373.4	556.	883.	327.	1096.					52.5
(treated)	113931			Tr.							0.1		7.0		408.	310.		882.					
Campus	110183	D		1.0	0.0	2.7	140.3	59.1	25.0	15	0.5	0.2	82.0	211.3	228.	251.	23.	692.					

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) --- (as $CaCO_3$) ---	Total Hardness --- (as $CaCO_3$) ---	Non-Carbonate Hardness --- (as $CaCO_3$) ---	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Capron	108435	L		0.9	0.0	0.4	1.4	80.1	37.1	27	0.2	1.1	2.0	4.9	348.	353.	5.	376.	7.2	56.			51.2
Carbon Hill	1)2612	S	C1	0.3									272.0	341.5	244.	421.	177.	1224.	7.3	30.		X	56.6
Carpentersville	111396	S	IC1	0. 1	0.0	0.5	40.3	51.8	20.2	14	0.8	0,6	10.0	14.4	272.	213.		309.	7.2	43.		X	55.7
Carrollton	116393	L,	C1	0.1	Tr.	Tr.	3.7	82.7	25.9	20	0.2	11.5	5.0	31.7	272.	314.	42.	355.					58.
Gary	110886	L		0.1	0.0	0.6	29.9	43.4	37.1	23	0.7	0.8	5.0	7.6	312.	261.		334.	7.8	13.			52.
Casev	114962	D	ILC1	7.0	0.6	6.0	88.3	76.2	32.2	19	0.4	Tr.	97.0	3.1	392.	323.		560.	7.7	20.			54.7
(treated)	115179			0.3							0.4		100.0		148.	89.		345.					58.5
Catlin	118847	S	C1	0.5	J.O	0.8	120.5	115.1	48.6	26	Tr.	3.2	74.0	263.7	372.	490.	118.	892.					
Cedar Point	110703	LS		3.6	0.0	1.1	297.2	53.7	22.1	15	1.1	1.7	308.0	182.9	248.	225.		1023.					
Cedarville	117974	L		2.9	0.2	0.2	12.0	137.3	56.6	23	0.1	0.3	14.0	63.8	516.	576.	60.	628.	7.0	139.			50.6
Cerro Gordo	115791	D		0.7	0.1	Tr.	16.1	85.5	35.7	14	0.1	0.2	25.0	108.4	248.	361.	113.	462.	7.1	62.			55.
Chadwick	108716	S		0.4	0.0	0.7	1.2	89.2	39.5	17	0.2	0.8	2.0	2.3	384.	386.	2.	377.	7.1	92.			
Champaign and Urbana	117042	D	IC1	0.8	Tr.	0.8	26.0	50.3	26.9	19	0.1	0.2	2.0	0.0	292.	237.		288.					
Chandlerville	114560	D	L	Tr.	0.2	Tr.	17.7	115.8	44.1	18	0.1	57.8	23.0	175.5	248.	471.	223.	592.					
(treated)	114559			0.1							0.1		23.0		36.	173.	137.	355.					
Chats worth	110261	S	Z	0.3	0.0	2.8	84.9	93.9	44.1	13	0.6	8.8	2.0	183.5	408.	417.	9.	699.					
(treated)	110477			0.4							0.5		16. 0		416.	90.		710.					
Chebanse	117374	L		1.7	0.1	0.9	68.3	64.6	24.1	12	0.7	0.1	4.0	163.9	236.	261.	25.	469.					
Chenoa	116019	D	IC1	1.7	0.1	9.0	214.4	32.0	10.9	27	0.1	0.4	63.0	2.3	524.	125.		670.	7.3	74.			55.
(blended)	116033			0.6							0.5		149.0		484.	142.		770.	7.5	41.			60.
Cherry	111311	D	IZ	1.8	0.1	Tr.	0.5	72.6	28.5	16	0.2	0.9	5.0	69.1	220.	299.	79.	324.					53.
Chicago Hts.	104680	L	C1	0.4	Tr.	Tr.	33.4	111.6	45.4	19		4.1	4.0	159.2	364.	466.	102.	618.	7.0	96.			51.6
Chillicothe	108929	D	C1	0.1	0.0	Tr.	9.4	89.2	37.0	19	0.2	32.9	16.0	113.8	228.	375.	147.	456.					55.
Chrisman	114991	D		2.5	0.0	15.5	109.3	67.0	25.2	26	0.3	Tr.	51.0		480.	271.		549.	7.8	19.			55.
Cissna Park	116411	D		0.7	Tr.	2.7	14.5	86.9	37.5	21	0.1	0.2	2.0	30.2	376.	372.		430.	7.5	31.			54.
Clarendon Hills	110351	L	IZ	1.5	0.0	0.8	25.8	145.2	46.3	23	0.3	0.7	5.0	215.4	380.	554.	174.	687.	7.0	100.			51.5
(treated)	11.0888			0.1							0.3		5:0		352.	36.		673.	7.7	20.			53.
Clifton	116365	D	I	0.8	Tr.	2.5	52.7	105.2	44.2	12	0.5	0.4	4.0	242.9	308.	445.	103.	664.	7.1	71.			53.
Clinton	115703	D		0.5	0.0	4.2	67.9	72.2	32.1	14	0.7	0.4	51.0	0.2	400.	313.		510.:			X		55.3
Coal City	112573	LS		1.2	0.0	1.4	327.8	112.2	51.2	11	0.6	0.5	225.0	516.7	352.	491.	139.	1470.	7.3	52.			52.7
Coal Valley	112248	L		0.6	0.0	Tr.	95.0	45.4	19.7	15	0.3	11.8	6.0	20.6	364.	195.		428.				X	53.
Cobden	113372	S	IZ	0.1	0.0	Tr.	17.9	69.4	6.8	17	0.1	2.4	9.0	44.2	180.	202.	22.	295.	6.6	111.			58.
Colchester	113831		IZC1	2.3	0.4	1.1	104.2	190.1	64.2	17	0.1	Tr.	10.0	479.5	456.	740.	284.	1132.					48.5
(treated)	113830			Tr.							0.2		13.0		468.	173.		1172.					
Colfax	115949	D	ILC1	1.8	0.0	13.3	103.7	91.1	36.3 .	31	0.3	0.4	59.0	0.2	556.	377.		664.	7.1	127.			53.7
(treated)	116037			0.2							0.3		66.0		208.	76.		374.	10.2				58.
Collinsville	116736	D		0.3	o.3	Tr.	7.6	103.5	39.3	30	0.4	6.1	11.0	123.6	288.	421.	133.	521.					
Compton	113200	L		1.2	0.0	0.4	30.8	46.5	20.6	20	0.5	0.2	1.0	0.0	268.	202.		284.					52.
Cowden	115229	D		0.1	Tr.	Tr.	2.8	87.3	34.5	20	0.1	9.5	7.0	62.3	284.	361.	77.	420.	7.0	61.			
Crescent	116413	D		0.9	Tr.	2.3	33.6	88.1	34.0	22	0.2	0.4	5.0	95.9	332.	360.	28.	490.					54.

Creston	112799	LS		1.8	0.0	0.7	23.9	43.9	28.0	16	0.5	0.2	2.0	0.0	276.	,225',		300.					53.8
Crete	107892	L	C1	0.3	0.0	0.3	2.5	99.0	44.0	19	0.1	Tr.	3.0	41.1	388.	429.	41.	452.	7.1	81.			51.7
Creve Coeur	117267	D		0.1	0.0	Tr.	42.3	117.1	47.9	23	0.1	8.4	11.0	245.6	304.	490.	186.	678.					53.
Crossville	118845	D	IZ	0.5	0.0	C.8	130.4	46.3	22.7	18	0.0	0.2	76.0	0.0	388.	209.		528.					
(treated)	114110			0.1							0.1		83.0		352.	132.		614.	7.6	25.			55.
Crotty	118246	S	I	2.1	Tr.	0.7	98.0	73.2	35.8	13	.4	c,l	100.0	123.6	276.	330.	54.	628.				X	
Crystal Lake	110907	S		0.3	0.0	0.3	11.0	53.2	26.3	14	0.3	1.0	5.0	21.0	236.	241.	5.	292.	7.4	23.			61.2
Cuba	119405	LS		Tr.	0.0	3.4	552.0	153.1	60.6	14	3.5	0.1	390.0	990.4	260.	632.	372.	2380.				X	72.5
Cullom	111683	LS		3.6	0.1	0.1	141.0	187.9	69.3	19	0.8	8.1	14.0	888.0	112.	755.	643.	1438.	7.4	11.		X	53.3
Cutler	113695	S		0.7	Tr.	0.6	53.1	49.0	15.4	14	0.1	0.5	25.0	14.4	252.	186.		313.	7.5	19.			63.2
Dalzell	111333	D	Z	0.3	0.0	Tr.	10.8	102.8	45.8	21	0.1	4.5	11.0	116.6	328.	445.	117.	535.					
Danforth	116360	L	C1	0.2	0.0	0.6	328.9	9.1	4.0	12	3.0	0.7	235.0	3.7	420.	40.		859.	8.0	12.			54.
Danvers	115974	D	IZ	1.8	Tr.	11.2	139.8	65.5	30.8	22	0.1	0.4	54.0	1.2	548.	322.		656.	7.3	81.	X		55.5
(treated)	116041			1.3							0.0		55.0		564.	104.		672.	7.7	45.			60.5
Deer Creek	109235	D		0.6	Tr.	0.2	8.7	73.2	28.2	20	0.1	1.2	1.0	3.7	312.	299.		323.					
DeKalb	111969	S		0.4	0.0	0.2	12.7	63.3	32.9	13	0.3	1.5	4.0	6.6	308.	294.		328.	7.5	25.			55.5
Deland	115723	D	IZ	4.1	0.0	19.9	59.6	120.8	58.6	39	0.1	0.2	14.0	4.3	704.	543.		689.			X		54.5
(treated)	115781			0.3							0.2		16.0		688.	66.		738.					57.
Delavan	109277	D		2.0	Tr.	1.5	2.5	77.0	29.6	26	0.2	0.8	2.0	0.0	320.	314.		328.					54.5
DePue	111363	S	I	0.7	0.0	1.1	118.7	53.2	22.5	14	0.7	0.9	88.0	63.6	296.	226.		546.					65.
Des Plaines	108774	S	ILC1	0.6	0.1	0.5	48.3	75.6	20.9	12	1.0	1.1	17.0	116.0	236.	275.	39.	443.	7.5	18.			59.
(treated)	106432			Tr.									36.0		50.	104.	54.	328.					66.
Dixon	113127	S		0.6	Tr.	0.1	4.1	66.9	34.0	14	0.3	Tr.	2.0	13.2	300.	307.	7.	308.					57.4
Dixon St. Hosp.	112902	S	Z	2.0	Tr.	Tr.	3.7	77.9	38.5	14	0.5	6.3	14.0	47.1	288.	354.	66.	383.					57.3
Dongola	113371	L		0.4	0.1	Tr.	27.8	87.9	5.2	17	0.1	10.7	13.0	10.5	264.	242.		331.	7.2	41.			58.7
Donovan	116417	D		2.3	0.0	0.7	64.2	40.0	9.0	17	0.7	0.2	30.0	0.0	236.	137.		315.	7.7	12.			54.
Downers Grove	110517	L	C1	Tr.		Tr.	10.0	122.2	54.2	19		0.6	9.0	189.1	340.	528.	188.	621.	7.1				51.1
Durand	112316	S	IC1	0.2.	0.0	Tr.	1.6	55.8	39.3	14	0.1	5.0	1.0	14.0	288.	301.	13.	295.	7.6	19.			52.5
Dwight	110368	D		1.4	0.0	3.6	154.1	108.5	43.1	16	0.6	0.6	50.0	406.7	300.	449.	149.	995.					
Earlville	110626	S		0.5	0.0	Tr.	13.3	56.3	26.5	16	0.4	2.5	4.0	3.5	268.	250.		279.					52.5
East Alton	116786	D	C1	0.2	0.3	Tr.	23.9	108.7	30.5	34	0.4	11.5	27.0	171.1	224.	398.	174.	538;					
East Dubuque	108575	S		0.3	Tr.	0.1	2.3	54.3	32.2	13	0.2	1.0	3.0	20.0	248.	269.	21.	272.	7.3	33.			61.6
East Dundee	111398	D	C1	1.6	0.0	5.6	3.0	85.7	38.2	23	0.3	1.2	6.0	42.4	340.	372.	32.	414.	7.5	28.			52.6
East Moline	112249	S		0.1	0.0	Tr.	255.5	71.2	30.6	13	0. 9	7. 0	285. 0	192. 1	252.	304.	52	1006.					61. 5
East Moline St. Hosp.	113406	LS		0.8	Tr.	1.8	173.7	88.8	38.3	17	0.3	Tr.	210.0	105.9	356.	380.	24.	868.	7.3	44.			59.2
East Peoria	117268	D		0.0	0.0	Tr.	14.3	118.4	41.7	16	0.1	13,7	10.0	155.3	312.	468.	156.	557.					48.
Edinburg	107923	D	I	22.5	0.9	1.7	21.2	63.3	26.0	38		0.4	6.0	3.3	304.	266.		353.	6.6	196.		X	53.8
Edwardsville	116489	D	C1	2.8	0.3	0.1		59.9	15.0	27	0.5	8.1	5.0	51.8	144.	211.	67.	264.					57.5
Elburn	111420	D	I	1.8	Tr.	2.5	35.4	53.9	28.8	23	0.3	1.0	2.0	1.6	332.	254.		350.					51.5
Elgin	115123	S	ILC1	0.5	0.0	0,7	9.0	79.9	32.0	16	0.1	0.8	11.0	85.4	248.	332.	84.	386.					54.
(treated)	112421			0.0							0.4		7.0		96.	86.		155.	9.0	Tr.			57.5
Elgin St. Hosp.	111322	LS	C1	0.2									25.0		288.	458.	170.	506.	7.2				54.5
Elizabeth	108630	L		0.7	0.0	0.1	2.3	74.0	39.9	12	0.1	1.3	3.0	39.3	310.	351.	41.	361.	7.0	81.			52.5
Elkhart City	115818	D	I	2.4	0.0	0.8	35.0	89.8	38.1	30	0.1	0.2	17.0	2.7	432.	381.		462.	7.1	97.			55.
Elmhurst	118442	S		0.4	0.0	0.5	77.1	90.3	21.0	14	1.1	Tr.	98.0	83.5	256.	312.	56.	540.					60.
Elmwood	109034	S		0.5	Tr.	1.0	453.1	64.5	27.1	15	3.0	2.5	275.0	587.3	260.	273.	13.	1606.					71.
ElPaso	109423	D	IZ	1.0	Tr.	4.9	29.9	86.2	34.9	25	0.2	1.4	6.0	3.9	424.	359.		435.					53.
(treated)	109424			Tr.						24	0.6		9 0		420.	11.		467.					
Elwood	107916	LS	C1	0.6	0.0	0.5	89.0	54.1	26.2	15	0.9	0.5	14.0	48.8	368.	244.		458.	7.4	38.		X	54.

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) ---(as $CaCO_3$)---	Total Hardness ---(as $CaCO_3$)---	Non-Carbonate Hardness ---(as $CaCO_3$)---	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature F.
Emden	115827	D	IC1	4.1	0.0	2.8	18.6	76.2	32.8	34	0.1	4.7	4.0	0.0	364.	325.		384.	7.4	35.			
Erie	112153	L		0.3	1.6	Tr.	0.0	54.6	18.2	25	0.2	20.1	10.0	24.3	156.	212.	56.	245.					
Fairbury	110259	D	LC1	0.4	0.2	3.8	0.9	86.5	36.1	18	0.2	10.9	6.0	115.6	240.	365.	125.	410.					52.
(treated)	110260			0.0							0.2		8.0		40.	104.	64.	211.					
Fairview	114922	S		1.0	0.0	0.2	41.9	92.4	56.8	28	0.2	1.5	6.0	36.8	508.	465.		590.					
Farina	113907	S		0.5	0.4	1.2	72.7	77.5	31.0	30	0.4	0.2	42.0	3.9	420.	367.		496.					56.
Farmer City	115684	D		5.0	0.1	5.7	177.6	72.3	27.4	25	0.3	0.1	96.0	0.0	560.	294.		765			X		54.5
Farmington	113288	S		0.3	Tr.	1.2	763.4	31.3	11.0	14	2.5	0.1	630.0	371.5	512.	124.		2161.					68.
Findlay	115228	D	IZC1	4.8	0.0	11.3	148.1	58.9	27.9	23	0.3	0.4	82.0	0.0	500.	263.		642.		62.			57.8
(treated)	115512			0.4							0.3		85.0		500.	111.		673.	7.4	48.			59.2
Fisher	116783	D	IZ	1.9	Tr.	14.0	8.3	92.9	34.9	29	0.2	0.3	2.0	90.5	336.	376.	40.	461.	7.3	49.			54.5
(treated)	116784			0.2									83.0		364.	84.		640.	7.6	23.			55.
Flanagan	110150	D		0.2	0.0	28.8	157.1	25.0	14.1	18	0.5	0.2	15.0	120.5	396.	121.		614.					54.
Flossmoor	112006	L		0.5	0.0	Tr.	43.0	153.5	70.4	17	0.5	2.7	4.0	437.7	304.	674.	370.	929.					52.8
Forrest	110083	D	I	2.1	0.0	3.6	13.8	72.1	35.3	22	0.5	0.2	3.0	1.2	360.	326.		358.					53.
Forreston	112650	L		0.0	Tr.	Tr.	23.0	99.5	42.7	23	0.1	22.7	42.0	75.7	318.	425.	107.	530.					51.8
Fox Lake	107552	D	I	0.9	0.0	0.0	5.3	85.1	42.2	27	0.1	0.4	10.0	30.6	352.	387.	35.	402.					51.6
Fox River Grove	110887	L		0.3	0.0	0.1	6.9	80.6	40.4	21	0.1	0.7	10.0	81.5	284.	368.	84.	415.	7.6	21.			51.5
Franklin Grove	112905	L		1.2	0.1	Tr.	9.4	103.8	44.6	19	0.1	1.4	19.0	91.1	340.	443.	103.						
Frankfort	107859	L		1.1	0.0	0.5	6.2	101.2	49.4	22	0.4	0.0	7.0	89.5	368.	456.	88.	495.	7.1	77.			51.4
Freeport	112962	S	IC1	0.6		Tr.	6.0	61.6	36.3	8	0.0	0.2	1.0	10.1	304.	303.		310.					
Fulton	112156	S		0.1	0.0	Tr.	1.6	59.6	31.0	12	0.4	2.2	5.0	22.0	248.	277.	29.	308.					58.
Galena	108526	S		0.2	0.0	0.1	3.0	49.0	31.6	12	0.1	3.9	1.0	18.5	236.	253.	17.	265.	6.9	82.			57.6
Galesburg	105245	S	C1	0.1	0.0	1.2	297.6	55.7	21.3	13	2.0	0.5	190.0	364.3	230.	227.		1086.					69.5
Galva	112718	S		0.1	0.0	1.1	281.0	29.2	13.0	12	3.0	0.1	148.0	219.7	304.	127.		898.					65.
Gardner	112625	S	C1	0.7	0.1	0.4	454.0	51.7	13.7	14	2.2	Tr.	58.0	368.8	708.	186.		1392.	7.1	145.			53.7
Geneseo	111087	D	C1	1.5	0.2	Tr..	24.6	154.4	66.5	22	Tr.	0.7	49.0	272.3	360.	660.	300.	840.	7.0	95.			52.0
Geneva	115959	S	IC1	Tr.	0.0	0.2	28.5	66.4	25.3	13	0.8	0.2	24.0	27.8	268.	270.	2.	363.					58.
Genoa	112030	S		0.4	0.0	Tr.	6.2	70.4	36.9	24	0.2	2.7	6.0	22.0	308.	328.	20.	349.	7.2	57.			52.1
Germantown	113936	D		0.3	0.4	Tr.	104.4	150.0	54.5	18	0.2	32.6	52.0	373.6	340.	601.	261.	1018.	7.3	43.			56.
Giant City State Park	103558	S		3.1									17.0	139.9	238.	330.	92.	510.					65.
Gibson City	119440	D		1.0	0.0	0.1	5.8	64.7	33.9	18	0.2	3.5	2.0	26.7	280.	301.	21.	341.	7.2	45.			53.5
Gilman	116361	D	IZ	2.2	Tr.	1.9	67.9	152.6	57.1	20	0.3	0.3	20.0	401.1	324.	617.	293.	947.	7.3	47.			54.
(treated)	116353			0.2			358.6	3.8	6.8		0.4		23.0	435.5	332.	38.		1036.	8.0	8.			55.
Glasford	109096	S	A	1.0	0.0	1.6	585.6	57.5	18.9	14	4.0	1.1	450.0	564.9	276.	222.		1866.				X	70.
Glen Carbon	116649	D	Z	3.0	0.2	0.2	22.5	162.8	69.1	24	0.4	0.2	27.0	337.1	352.	691.	339.	867.					57.5
Glen Ellyn	110684	L		0.5	0.0	0.5	57.0	65.3	30.6	17	0.0	1.0	8.0	121.8	276.	290.	14.	471.					51.8
Glenview Countryside	106729	L		0.1	0.0	0.5	77.1	92.1	34.8	12	0.6	1.3	36.0	225.4	256.	374.	118.	651.					56.5
Grand Ridge	110769	D		0.4	Tr.	1.7	102.4	21.4	11.6	12	1.3	6.0	8.0	0.0	312.	101.		358.					53.

Grant Park	117118	L		4.1	0.1	0.4	17.5	116.9	45.8	25	0.1	0.2	21.0	97.9	388.	481.	93.	567.					
Granville	109928	S		0.1	Tr.	0.4	315.8	61.8	23.2	14	1.1	4.8	375.0	149.7	248.	250.	2.	1091.					67.
Grays Lake	107555	S	C1	0.3	0.0	0.4	18.9	70.5	18.6	12	0.9	0.1	9.0	37.0	244.	253.	9.	319.	7.2	38.			59.6
Grayville	118846	D		0.5	0.3	Tr.		93.1	21.6	18	0.0	.9	10.0	47.9	256.	322.	66.	354.					
Greenfield	119759	D	IZC1	2.5	0.2	0.7	50.4	130.2	49.0	19	0.3	0.0	53.0	184.9	392.	547.	155.	736.					
Greenup	114927	D		0.3	0.2	Tr.	2.8	75.1	29.6	21	0.1	6.8	5.0	60.7	240.	310.	70.	362.	7.5	20.			54.2
Green Valley	116249	X)		2.0	0.1	0.2	1.2	84.9	34.1	20	0.1	0.3	11.0	75.7	260.	353.	93.	387.	7.3	35.			54.
Greenview	113543	D		25.5	0.2	9.9	208.6	292.7	130.1	24	0.3	1.3	53.0	892.7	744.	1267.	523.	2148.					56.
Greenville	116363	D	C1	0.1	Tr	Tr.	44.4	139.9	47.9	27	0.1	4.5	42.0	201.0	372.	547.	175.	776.					58.
Gridley	115992	D		0.5	0.1	4.0	183.2	36.2	17.8	18	0.2	0.2	17.0	142.8	400.	164.		648.	7.9	14.			55.
Griggsville	114728	D	C1	0.0	0.0	Tr.	0.2	92.7	31.3	20	0.1	11.9	6.0	26.3	316.	361.	45.	369.					53.
Hammond	115790	L	IZ	5.3	0.1	10.3	97.1	88.6	12.1	25	0.1	0.1	26.0	3.1	472.	272.		502.					56.
(treated)	115786			0.5							0.2		31.0		432.	142.		505.					64.
Hampshire	111401	D		0.4	0.0	1.0	47.6	54.3	9.7	22	0.2	1.0	3.0	5.1	272.	176.		302.	7.8	11.	X		52.5
•Hanover	108631	S		0.8	0.0	0.1	0.7	47.4	32.9	16	0.1	1.0	2.0	22.4	228.	254.	26.	263.	7.5	18.			58.6
Hardin	115899	D		0.1	0.1	Tr.	20.2	126.5	42.0	28	0.1	15.3	23.0	69.7	416.	490.	74.	568.					57.
Harmon	112899	D		2.5	0.1	0.3	16.1	120.2	55.8	20	0.1	0.1	36.0	218.0	288.	530.	242.	682.					53.
Hartford	116680	D	ILC1	10.3	0.6	0.3	11.7	131.6	32.9	36	0.2	0.5	13.0	114.8	352.	464.	112.	566.					57.
(treated)	116681			0.1							0.4		15.0		88.	204.	116.	255.					
Hartsburg	118251	D	Z	0.1	0.0	Tr.	21.6	126.2	55.8	32	0.1	123.0	32.0	131.0	312.	545.	233.	694.					58.
(treated)	118391			Tr.							0.2	75.8	33.0		320.	58.		640.					
Harvard	111090	D		0.1	Tr.	Tr.	3.9	119.0	52.3	20	0.0	10.6	38.0	141.5	312.	513.	201.	589.	7.2	52.			51.3
Havana	113476	D		0.2	0.1	Tr.	2.5	48.5	15.6	17	0.1	7.5	6.0	39.3	136.	186.	50.	232.					56.5
Hebron	110980	D		0.8		1.0	22.1	51.5	30.8	18	0.2	1.7	3.0	1.0*	300.	256.		288.	7.9	10.			51.2
Hennepin	109926	L		2.0	0.0	1.1	1104.5	15.8	5.6	12	3.5	0.3	1180.0	190.7	604.	63.		2865.					
Henry	108854	D		Tr.	0.0	Tr.	12.7	82.3	35.6	22	0.2	36.2	16.0	58.0	268.	353.	85.	436.					55.
Herscher	112753	S		0.2	0.1	1.2	344.1	70.9	35.8	11	2.5	0.2	330.0	348.4	248.	325.	77.	1298.	7:5	20.		X	56.
Heyworth	115894	D	I	3.3	0.0	5.2	107.2	71.6	29.3	21	0.3	0.4	96.0	3.3	408.	300.		590.	7.4	42.			53.5
Hillside	106442	LS	C1	0.4			23.9	109.1	59.2				9.0	196.2	352.	520.	168.	604.	7.1	83.			52.5
Hinckley	112 097			1.0	0.0	Tr.	13.3	55.8	36.0	25	0.3	3.3	3.0	6.0	304.	288.		325.	7.7	16.			51.5
Hinsdale	110514	L	IL	1.6	0.0	0.1	20.7	136.9	39.7	24	0.1	3.3	6.0	181.2	352.	506.	154.	631.	7.1	69.			
(treated)	110885			0.1							0.2		5.0		40.	107.	67.	293.	9.5	Tr.			53.5
Homer	116703	D	I	1.5	Tr.	Tr.	65.1	64.3	24.7	25	0.5	9.1	17.0	19.5	352.	263.		437.	7.2	57.	X		54.
Homewood	107163	L	IZ	0.4	0.0	0.7	45.0	127.6	61.1	23	0.5	1.4	12.0	268.6	368.	570.	202.	755.	7.0	107.			52.
(treated)	107221			0.1				11.0	3.5				54.0	304.8	352.	42.		884.	7.3	50.			54.8
Hoopeston	116551	D		2.1	0.0	1.8	23.5	66.5	34.9	19	0.3	0.5	2.0	6.2	356.	310.		361.	7.5	29.			54.5
Hopedale	1.09153	D		3.1	0.8	1.9	20.7	72.3	30.8	23	0.2	1.3	3.0	0.8	352.	308.		371.					54.5
Hull	114127	D	I	5.5	2.7	0.1	20.5	69.7	17.6	41	0.8	0.2	24.0	82.5	172.	247.	75.	358.					56.
Huntley	111119	D		1.3	Tr.	0.1	6.0	86.8	43.2	24	0.1	1.9	12.0	67.5	320.	395.	75.	447.	7.4	34.		X	
Hutsonville	114507	D	C1	0.1	0.0	Tr.	10.4	100.6	19.4	19	0.1	33.6	10.0	62.7	248.	332.	84.	394.	7.5	21.			51.5
Ill. Soldiers & Sailors Childrens Home	116116	D	C1	0.9	Tr.	1.8	25.1	64.2	31.5	23	0.4	0.5	1.0	7.2	340.	290.		335.	7.5	28.	X		53.
Ill. St. Pen. - Joliet Branch	115477	S	C1	1.9	0.1	0.9	7.8	61.3	20.7	12	1.4	0.2	52.0	100.4	276.	239.		520.	7.2	43.			59.6
Ill. St. Pen. - Stateville Branch	65384	S		0.2	0.0	0.6	74.1	49.7	19.9	12		0.3	23.0	65.2	268.	206.		427.					
Illiopolis	115606	D	ILC1	5.1	0.3	0.2	5.8	98.5	38.4	22	0.3	0.3	11.0	94.0	304.	400.	96.	480.	7.0	73.			
(treated)	115783			0.1							0.1		8.0		24.	123.	99.	161.	9.6				64.5

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) ---(as $CaCO_3$)---	Total Hardness	Non-Carbonate Hardness	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Ipava	113373	S	C1	0.3	0.0	1.9	770.7	158.4	60.8	13	4.0	Tr.	780.0	967.8	220.	646.	426.	2953.					69.5
Itasca	110329	L		0.2	0.0	0.6	31.3	69.3	38.7	22	0.4	0.7	3.0	189.7	200.	333.	133.	593.	7.2	33.			52,5
Jerseyville	115900	S		0.3	0.0	Tr.	0.5	91.8	19.4	15	0.1	11.0	6.0	20.2	272.	310.	38.	339.					55.
Joliet	108174	S	C1	0.5	Tr.	0.9	67.9	69.8	21.5	12	1.1	0.3	31.0	105.3	260.	263.	3.	475.	7.1	48.			62.2
Jonesboro	113348	L	IZC1	0.6	0.0	Tr.	27.6	98.3	19.4	25	0.1	11.2	67.0	17.9	264.	326.	62.	432.	6.5	205.			58.
Joy	108246	L		0.2	0.0	1.6	166.8	42.5	15.6	13	0.6	0.9	38.0	80.4	400.	171.		593.				X	55.2
Kansas	115045	D	IZ	3.1	Tr.	8.1	21.4	93.1	34.9	28	0.1	Tr.	6.0	8.6	428.	377.		423.	7.2	68.	X		55.
Keithsburg	108245	D		0.1	0.0	0.5	40.7	128.4	30.4	31	0.1	44.0	35.0	164.6	280.	446.	166.	658.					56.6
Kempton	116251	D		2.1	0.1	1.6	240.8	162.4	79.6	12	0.9	0.5	21.0	1049.2	140.	734.	594.	1688.	7.6	9.			54.6
Kewanee	108625	S	C1	0.3	0.0	2.1	474.0	96.9	35.5	14	0.8	0.9	640.0	278.3	232.	389.	157.	1700.					70.
Kinderhook	114128	D	C1	Tr.	0.0	Tr.	15.4	81.2	23.4	25	0.1	33.1	17.0	65.4	214.	299.	85.	380.					55.5
Kingston	112251	L		0.4	Tr.	Tr.	0.2	83.6	45.0	24	0.2	1.3	10.0	64.8	312.	394.	82.	417.	7.4	33.			50.5
Kinsman	112586	S		0.7	0.1	0.9	214.6	55.3	32.1	20	0.6	0.1	184.0	161.7	312.	271.		854.				X	53.
Kirkland	112033	S		0.6	0.0	0.1	1.6	84.3	39.0	21	0.2	1.8	3.0	13.4	356,	372.	16.	381.	7.1	74.			51.1
Kirkwood	108091	L		1.7	0.1	1.0	26.9	99.9	44.7	20	0.2	0.5	Tr.	21.6	472.	434.		503.					54.
Knoxville	109760	S		0.7	0.0	1.2	306.6	49.0	23.0	14	2.6	0.9	190.0	375.4	228.	217.		1101.					68.5
Lacon	108928	D		0.1	0.0	Tr.	15.0	86.7	36.4	24	0.2	24.8	21.0	51.4-	296.	367.	71.	457.					55.7
Ladd	120221	D		2.7	0.0	Tr.	12.2	73.9	30.1	30	0.4	5.7	4.0	1.2	324.	309.		357.					
La Grange	106408	L	ILZC1	2.0	0.1	0.3	9.7	206.2	83.9	18	0.2	Tr.	16.0	457.5	384.	861.	477.	1038.	6.8	174.			56.3
(treated)	106441			Tr.									18.0		64.	87.	23.	734.					56.5
Lake Bluff	107458	S		0.5	Tr.	0.3	27.4	117.0	20.0	13	1.1	0.0	13.0	169.5	240.	374.	134.	512.	7.0	56.			62.5
Lake Villa	107531	D		0.4	0.0	0.1	50.6	29.5	21.9	21	1.0	0.0	5.0	91.3	172.	164.		324.	7.4	28.			51.5
Lake Zurich	107476	D		0.3	0.0	0.8	131.1	183.8	109.9	24	0.8	2.2	9.0	1071.3	68.	910.	842.	1599.	7.4	7.			52.
La Moille	111801	D	I	1.9	0.0	Tr.	23.0	50.8	22.8	25	0.5	4.7	1.0	1.2	264.	221.		291.					53.
Lanark	108671	S		0.1	Tr.	Tr.	2.3	65.2	29.9	18	0.2	0.6	1.0	27.8	260.	286.	26.	300.	7.3	34.			52.5
La Salle	110982	D	C1	0.1	0.4	2.2	25.1	140.1	51.9	21	0.4	11.0	24.0	262.5	308.	564.	256.	751.					55.
Latham	115839	D	I	0.8	0.1	1.7	179.6	51.7	26.5	25	0.7	0.4	240.0	6.6	288.	239.		712.	7.4	29.			54.7
Lawrenceville	114409	D	C1	0.3	Tr.	Tr.	0.9	61.3	11.6	16	0.1	11.6	7.0	26.5	156.	201.	45	227.	7.1	35.			56.
Leaf River	112651	S		Tr.	Tr.	Tr.	13.3	58.8	25.2	22	0.1	9.4	2.0	4.9	264.	251.		291.					51.
Lebanon	116490	D	LC1	1.6	0.2	0.2	7.8	126.5	40.6	25	0.3	0.2	12.0	80.6	400.	484.	84.	541.					
(treated)	116487			0.1							0.3		12.0		76.	132.	56.	193.					
Lee	112126	D		0.4	0.0	0.4	38.9	29.5	18.1	15	0.6	0.8	2.0	2.5	228.	149.		240.	7.8	10.			52.
Leland	118247	L		0.9	0.0	Tr.	2.8	75.4	30.0	19	0.1	2.5	1.0	7.0	308.	312.	4.	328.					54.5
Lemont	117088	S		1.8	0.1	1.3	61.6	76.6	20.7	12	1.1	0.3	46.0	78.0	268.	277.	9.	472.					55.4
Lena	112579	LS		0.0	0.0	Tr.	4.8	103.7	49.9	17	0.1	0.1	18.0	82.3	364.	465.	101.	528.					51.8
Leonore	110702	D		0.7	0.0	1.4	25.8	74.9	42.7	20	0.5	1.8	6.0	79.7	392.	363.		433.					
Leroy	115895	D	IZ	6.0	0.0	9.5	13.8	101.0	42.2	34	0.3	1.2	5.0	2.5	472.	426.		473.	7.0	136.			53.5
(treated)	116035			0.1							0.3		3.0		468.	66.		491.	8.1	9.			54.5
Lewistown	113442	D	C1	0.2	0.4	Tr.	3.7	93.5	41.0	20	0.3	2.6	8.0	127.9	264.	403.	139.	470.					55.
Lexington	116020	D	L	1.2	Tr.	Tr.	41.2	76.4	26.8	25	0.5	10.8	1.0	40.5	340.	301.		416.	7.3	50.			54.
(treated)	116038			0.2							0.5		2.0		152.	113.		228.	9.1				57.

Libertyville	83847	D	C1	0.4	0.0	0.3	31.7	73.6	40.8	20		Tr.	4.0	221.0	186.	352.	166.	494.					
Lidice	104564	S	C1	0.9	0.0	1.0	60.3	62.0	19.0	12		1.5	24.0	76.5	252.	233.		413.					61.4
Lincoln	118252	D	C1	1.0	0.3	Tr.	0.9	76.4	29.4	9	0.1	1.3	9.0	62.0	236.	312.	76.	323.					
Lisle	110556	L	C1	0.1	0.0	Tr.	26.2	134.2	63.9	19	0.2	3.3	25.0	293.1	312..	598.	286.	779.		41.			51.9
Little York	108056	L		3.1	Tr.	4.1	77.1	96.2	31.7	15	0.1	0.0	16.0	25.9	500.	371.		580.					53.8
Lockport	107964	S	C1	0.1	Tr.	1.0	92.9	62.4	18.7	11	1.3	0.3	35.0	92.6	276.	233.		463.	7.2	44.			59.5
Loda	116415	D		1.6	Tr.	1.7	56.4	131.4	67.0	23	0.3	0.1	3.0	364.3	348.	604.	256.	891.	7.2	56.			54.
Log Cabin Arbor	112386	S		0.1	0.0	Tr.	0.2	82.4	40.6	2.3	0.1	16.2	7.0	25.3	324.	373.	49.	386.					53.
Lombard	110414	S		0.3	Tr.	0.6	71.1	61.3	17.1	12	1.8	1.2	24.0	70.1	272.	224..		439.	7.3	33.			61.0
London Mills	113287	D		Tr.	Tr.	Tr.	3.2	75.8	25.0	23	0.1	14.8	7.0	55.3	220.	293.	73.	336.					54.
Lostant	110652	D		0.4	Tr.	Tr.	114.1	33.7	13.5	24	1.0	3.3	24.0	33.9	316.	140.		440.					53.5
Lovington	115189	D	IZ	3.3	0.0	7.9	33.1	98.1	42.2	30	0.1	0.2	15.0	0.0	492.	419.		507.	7.3	63.			56.
Lowpoint	109511	D		0.2	0.0	Tr.	23.0	75.3	38.1	20	0.3	7.5	8.0	43.8	332.	345.	13.	417.					
Ludlow	116170	D		2.3									3.0	1.9	360.	274.		390.					
McHenry	110958	D		0.1	0.0	Tr.	0.0	76.8	36.8	20	0.2	9.5	8.0	77.3	244.	344.	100.	373.				X	51.9
McLean	115896	D		1.0	0.3	0.1	0.5	94.6	34.4	20	0.2	3.7	5.0	63.4	304.	378.	74.	411.	7.4	30.	X		55.5
McNabb.	109927	D		1.6	0.0	6.5	58.7	81.6	31.3	30	0.5	0.5	7.0	0.0	468.	333.		494.					53.5
Mackinaw	109152	D	Z	0.1	0.0	0.1	24.4	106.3	41.4	23	0.1	29.1	37.0	105.5	304.	436.	132.	537.					53.
Macon	115652	D	IZ	5.7	0.0	31.9	60.2	121.4	46.1	33	0.2	5.5	20.0	4.9	676.	493.		694.	6.7	339.			55.5
(treated)	115787			0.1							0.1		23.0		684.	9.		752.					57.5
Mahomet	116781	D	I	2.6	0.1	0.1	9.4	116.4	51.2	20	0.1	0.6 .	21.0	100.4	388.	502.	114.	545.	7.1	97.			53.5
Malta	112032	S		0.5	Tr.	Tr.	22.5	39.6	22.7	15	0.5	1.8	1.0	2.5	236..	193.		245.	7.6	16.			52.2
Manhattan	107912	L		0.4	Tr.	0.0	12.0	93.0	45.4	21	0.3	0.1	4.0	57.6	380.	420.	40.	469.	7.1	89.			52.
Manito	113466	D	Z	0.1	0.1	Tr.	3.2	71.7	25.3	17	0.1	19.5	9.0	87.0	172.	284.	112.	349.					56.
(treated)	83303			0.0	0.0	Tr.	81.5	23.2	9.4	15		8.8	4.5	73.2	184.	97.		339.					
Manlius	111478	D		4.9	0.2	0.1	9.0	89.8	34.7	33	0.3	7.2	1.0	0.0	380.	368.		415.					56.
Mansfield	115724	D		1.2	Tr.	1.6	39.8	70.2	28.5	25	0.3	0.2	11.0	3.9	364.	293.					X		54.5
Manteno	112779	L	C1	0.2	0.1	Tr.	15.9	106.6	50.8	13	0.1	8.7	14.0	165.0	312.	476.	164.	392.	7.2	52.			52.5
Manteno St. Hosp.				from	Kankakee																		
Maple Park	111419	D		2.4	0.0	Tr.	10.8	68.0	38.2	28	0.4	4.3	2.0	0.2	344.	327.		351.					51.3
Marengo	111091	D		0.2	Tr.	Tr.	4.4	90.7	36.7	18	Tr.	12.6	21.0	69.1	276.	378.	102.	412.	7.4	30.			51.
Maroa	115662	D	IL	0.8	0.0	2.9	74.1	63.7	40.4	16	0.3	0.5	60.0	5.3	404.	326.		522.			X		55.5
(treated)	115785			Tr.							0.1		61.0		144.	58.		371.					58.5
Marquette Heights	112687	D		0.2	Tr.	Tr.	0.5	98.0	40.0	22	0.1	8.7	6.0	87.0	304.	409.	105.	445.					53.
Marseilles	110856	S	C1	0.1	0.0	Tr.	56.1.	70.3	31.8	12	0.1	2.5	57.0	59.4	284.	307.	23.	449.					
Marshall	114961	D	C1	0.1	Tr.	Tr..	1.6	80.7	22.5	13	0.1	6.0	8.0	40.1	240.	295.	55.	338.	7.4	24.			56.2
Martinsville	114963	D	IZC1	1.7	0.0	4.3	68.3	73.3	33.1	18	0.5	0.4	78.0	1.4	368.	320.		500.	7.1	14.			57.5
Mason City	113474	D		0.7	0.8	Tr.	12.2	81.2	32.8	16	0.3	10.0	13.0	43.6	292.	338.	46.	381.					55.2
Matteson	107032	L	C1	0.4	0.0	0.7	20.7	123.5	43.8	19		1.2	3.0 .	160.7	364.	489.	125.	589.	7.5	30.			51.6
Mattoon	115070	D	ILC1	3.8	Tr.	5.9	2.3	93.6	37.0	22	0.2	1.6	4.0	58.2	340.	386.	46.	440.	7.4	34.	X		55.6
Mazon	112585	D		0.2	0.2	Tr.	2.3	64.1	27.7	16	0.2	8.0	2.0	109.6	156.	275.	119.	324.					54.5
Media	107984	L		0.0	0.0	Tr..	4.6	61.9	24.5	18	0.3	9.5	5.0	49.0	200.	256.	56.	290.					
Melvin	116241	D		0.6	0.0	2.0	33.4	77.6	34.3	24	0.6	0.4	2.0	20.6	388.	335.		427.	7.3	49.			55.
Mendota	110767	L	IC1	1.7	Tr.	1.3	24.4	69.2	22.1	24	0.4	3.1	4.0	0.0	312.	264.		325.					52.5
Metamora	109510	D	C1	1.3	0.0	0.8	3.9	89.7	37.2	22	0.2	0.6	1.0	9.7	376.	378.	2.	396.					52.
Metropolis	113290	D		0.3	Tr.	Tr.	3.7	66.9	6.7	14	0.3	Tr.	5.0	19.1	176.	195.	19.	235.					60.
Middletown	115828	D	I	1.6	0.0	1.3	11.5	62.9	24.8	31	0.0	0.4	8.0	0.4	276.	260.		294.	7.4	28.			55.6
Milan	112244	L		0.3	Tr.	Tr.	22.5	86.1	37.5	18	0.2	4.0	15.0	48.3	344.	370.	26.	444.					
Milford	116471	D	C1	2.5	Tr.	0.8	23.2	99.1	47.6	20	0.2	0.1	7.0	165.2	316.	444.	128.	575.	7.2	56.			55.
Milledgeville	108672	S		0.1	Tr.	0.1	1.6	70.1	34.4	14	0.2	1.0	1.0	21.6	296.	317.	21.	324.	7.3	38.			53.

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) ---(as $CaCO_3$)---	Total Hardness	Non-Carbonate Hardness	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Millstadt	116488	S		0.4	0.1	2.0	20.0	72.0	25.6	14	0.4	0.3.	4.0	4.5.	324.	285.		343.					58.5
Minier	109155	D		4.1	0.0	2.5	8.1	75.4	35.1	25	0.2	0.9	5.0	1.4	348.	333.		372.					54.5
Minonk	109531	S		0.2	0.0	1.7	559.6	59.5	21.9	15	2.4	0.3	685.0	202.2	284.	239.		1703.					71.5
Minooka	112587	S		0.6	Tr.	0.8	167.0	44.8	19.5	17	0.8	Tr.	186.0	41.3	252.	193.		643.	7.6	18.			54.7
Mokena	107915	L		1.5	0.0	0.5	18.6	107.7	54.2	23	0.3	1.2	2.0	117.2	408.	492.	84.	567.					51.5
Momence	112720	L	C1	Tr.	0.0	0.1	13.1	63.5	34.2	12	0.1	5.1	6.0	84.5	228.	300.	72.	362.	7.3	42.			54.2
Monee	107911	L	Z	0.5	Tr.	0.8	23.7	167.3	47.4	19	0.3	1.5	2.0	310.6	340.	614.	274.	776.	7.1	80.			52.
(treated)	108816			0.5							0.3		13.0		388.	40.		852.	7.4				52.7
Monmouth	108092	S	C1	0.2	0.0	1.4	240.8	63.2	28.8	14	4.0	Tr.	113.0	411.8	216.	277.	61.	1018.					70.4
Montgomery	111417	L	C1	0.3	Tr.	0.1	115.0	49.5	26.2	19	0.9	2.4	11.0	112.3	348.	232.		538.				X	53.
Monticello	115726	D	IZ	1.7	0.1	0.5	38.4	55.5	26,9	17	0.1	0.4	8.0	2.5	320.	250.		341.					55.
(treated)	115784			0.1							0.1		6.0		304.	66.		322.					57.3
Morris	112558	S	A	1.3	0.1	0.7	50.4	64.5	25.4	13	0.4	Tr.	38.0	34.6	288.	266.		411.	7.4	31.		X	61.
Morrison	112154	S		0.5	0.0	Tr.	1.6	64.6	32.7	14	0.1	0.8	8.0	23.2	264.	296.	32.	292.					65.
Morrisonville	115383	D	I	1.7	0.1	0.1	20.2	65.0	20.5	21	0.2	1.9	8.0	40.7	236.	247.	11.	336.	7.2	42.			54.5
Morton	109234	D	IZ	2.9	0.0	4.0	35.0	76.1	37.9	22	0.2	0.9	12.0	0.2	416.	347.		443.					54.5
(treated)	109236			0.6							0.1		12.0		420.	58.		466,					
Mound City	113261	L	C1	1.0	Tr.	0.2	34.7	48.0	12.9	14	0.5	0.1	*55.0	15.0	156.	173.	17.	278.	7.7	7.			62.
Mounds	113262	L		0.1	Tr.	0.3	47.2	37.7	10.7	12	0.9	Tr.	65.0	14.0	136.	139.	3.	269.	7.5	10.			63.5
Mt. Auburn	115421	D	IZ	2.5	0.3	0.7	1.6	96.4	33.0	18	0.3	0.2	14.0	36.8	324.	377.	53.	417.	7.1	65.			54.6
Mt. Carroll	108718	S		0.1	0.0	0.2	1.2	66.1	38.2	13		1.3	5.0	28.6	288.	323.	35.	339.					58.7
Mt. Morris	112798	S		0.1	0.0	Tr.	0.2	61.5	35.4	15	0.1	3.0	5.0	17.9	272.	300.	28.	317.					56.
Mt. Prospect	106246	S	C1	0.2	0.1	0.5	40.3	89.2	24.5	10	0.9	1.2	18.0	132.7	248.	324.	76.	474.					57.5
Mt. Pulaski	115792	D		0.1	Tr.	Tr.	26.5	141.5	65.8	24	0.1	83.5	59.0	211.5	312.	624.	312.	809.	6.9	99.			55.
Moweaga	115263	D	IC1	1.5	0.2	0.4	0.7	96.5	34.8	15	0.2	0.4	5.0	115.2	260.	385.	125.	435.	7.0	65.			54.7
Mulberry Grove	116362	D	IC1	21.5	0.7	1.0	19.6	91.4	30.9	26	0.7	0.4	8.0	181.8	200.	356.	156.	486.					54.5
Mundelein	107478	L		0.1	0.0	0.4	67.6	40.9	26.6	22	0.6	1.5	7.0	181.6	160.	212.	52.	444.	7.6	11.			52.
Naperville	110530	L	ZC1	0.2	0.0	Tr.	4.1	101.2	49.2	17	0.1	0.5	7.0	160.9	286.	455.	169.	513.					51.5
(treated)	110889			0.2							0.5		10.0		272.	136.		504.	7.7	16.			52.1
Neoga	114926	D	IZC1	1.5	0.2	0.3	88.6	83.7	23.8	27	0.2	0.1	117.0	46.1	288.	308.	20.	547.	7.2	51.			54.8
(treated)	115177			0.2							0.1		126.0		276.	81.		586.	7.2	49.			55.
Neponset	113401	L		3.7	Tr.	1.3	220.8	23.1	19.1	12	0.6	0.1	29.0	106.6	468.	137.		699.					59.6
New Baden	113939	S		0.1	Tr.	Tr.	442.8	5.9	1.2	12	1.5	2.5	315.0	0.4	536.	20.		1091.	8.7	3.			58.2
New Haven	113566	D	IZ	2.6	0.3	Tr.	6.1	82.3	25.1	24	0.1	0.4	4.0	31.5	284.	309.	25.	335.	7.2				
New Holland	115830	D		0.3	0.0	0.0	14.7	129.4	59.6	30	0.0	66.0	33.0	135.8	360.	569.	209.	708.	6.8	143.			55.
New Lenox	108175	L	C1	1.7	Tr.	0.6	33.4	172.8	46.7	16	0.4	0.8	1.0	384.7	296.	624.	328.	842.	6.9	96.			53.
Newman	118843	D	IL	3.9	0.0	16.6	343.4	62.9	23.7	23	0.3	3.0	370.0	0.0	524.	255.		1162.			X		
(treated)	118848			0.6							0.1		460.0		388.	144.		1110.					
New Windsor	108247	L		0.5	0.0	1.8	20.0	99.6	28.8	33	0.2	0.8	3.0	7.0	404.	368.		444.					52.7
Niantic	115663	D	IZ	2.7	0.0	2.9	19.8	70.4	27.5	20	0.3	1.7	14.0	18.3	300.	289.		349.					53.5
(treated)	115788			Tr.							0.1		12.0		272.	189.		329.					61.5
Noble	109676	S		0.6									11.0		488.	388.		591.					57.6
Nokomis	115295	D	ILC1	5.5	0.4	0.1	65.8	136.0	38.7	25	0.3	1.8	60.0	254.2	292.	499.	207.	776.	6.6	184.			55.
(treated)	115508			0.1							0.2		59.0		24.	111.	87.	459.	10.4				58.

Normal	116141	D	1ZC1	1.8	0.2	0.3	6.9	109.1	37.7	15	0.3	0.6	10.0	120.5	304.	428.	124.	475.	6.9	98.	X		54.
(treated)	116352			0.3							0.5		15.0		396.	94.		474.	7.7	20.			55.5
North Aurora	111525	S		0.2							0.9		6.0		288.	253.		367.	7.8	12.			54.
N. Chillicothe	108930	D		0.1	0.0	0.1	7.8	71.7	27.4	17	0.3	13.8	15.0	97.5	176.	292.	116.	351.					57.
N. Lake. Village	108814	S	C1	1.5	0.0	0.6	42.6	97.9	55.5	19	0.5	0.9	6.0	278.9	268.	473.	205.	670.					50.6
North Utica	110852	S		0.2	0.0	0.5	91.1	98.0	34.4	15	0.5	1.2	170.0	20.8	324.	387.	63.	627.					55.5
Oak Forest	107220	L		1.2	0.0	0.5	14.7	140.1	66.0	24	0.3	1.6	8.0	255.5	376.	472.	96.	760.					51.2
Oakwood	119115	DI		3.1	Tr	1.7	48.5	83.2	34.1	21	0.3	0.3	25.0	18.1	404.	348.		465.					55.
Odell	110310	LS	A	0.4	0.0	1.2	892.6	37.4	13.4	13	3.5	0.6	1200.0	38.7	360.	149.		2389.				X	65.
Oglesby	110979	S	I	0.8	0.0	1.0	207.2	88.4	24.1	16	0.8	9.9	272.0	74.9	304.	320.	16.	878.				X	75.
Ohio	111798	D		2.3	0.0	1.5	45.8	37.2	17.1	19	0.0	1.6	1.0	0.0	264.	164.		288.					54.
Okawville	113887	D	LL	4.8	0.4	0.3	31.7	140.4	34.2	26	0.1	0.2	19.0	206.1	320.	492.	172.	674.	7.1	72.			56.2
(treated)	114108			0.5							0.1		16.0		184.	265.	81.	467.	8.3	3.			58.
Olmsted	113337	L	A	0.5	Tr.	0.2	30.6	40.3	11.8	14	0.3	Tr.	52.0	14.2	128.	150.	22.	257.	7.7	6.			66.
Olympia Fields	107162	L	C1	0.2	0.0	0.6	27.6	130.6	50.6	15	0.5	0.9	1.0	244.0	340.	535.	195.	681.					51.6
Omaha	106470	L		0.5	0.0	3.6	275.1	13.9	9.8	15		Tr.	117.0	2.3	516.	76.		751.					58.
Onarga	116359	D	C1	2.0	0.1	1.6	55.9	151.0	55.0	20	0.3	0.5	8.0	397.8	304.	604.	300.	891.	7.4	35.			54.
Oneida	104729	L		1.0	0.0	0.7	306.6	11.3	7.9	12	1.8	3.0	110.0	49.8	532.	61.		842.	7.8				62.2
Opheim	108505	L		2.4	Tr.	1.9	139.4	36.0	18.6	14	0.8	1.3	16.0	76.5	372.	167.		517.				X	54.
Oquawka	108142	D		0.0	0.0	0.0	1.6	61.6	16.7	35	0.0	43.2	8.0	37.8	140.	223.	83.	281.					55.
Orangeville	112576	L		0.0	0.0	Tr.	.6.4	71.4	36.8	15	0.1	17.6	4.0	27.4	296.	330.	34.	355.					51.
Oregon	112800	S		0.3	0.0	0.1	0.0	60.0	34.5	12	2.0	Tr.	6.0	15.2	268.	292.	24.	286.					57.3
Orient	113652		C1	1.1	Tr.	2.4	76.6	85.3	29.4	20	0.1	5.7	31.0	18.3	436.	335.		518	7.8	17.			57.3
Orion	108553	L		0.3	0.0	2.8	108.3	43.6	17.1	13	0.4	0.4	1.0	20.4	400.	180.		463.				X	56.5
Orland Park	106884	L		2.0	0.0	0.8	14.3	101.1	64.0	29	0.6	2.2	3.0	144.8	392.	516.	124.	603.	7.2	76.			51.3
Osco	108555	D		0.1	Tr.	0.1	87.9	58.6	25.6	12	0.6	2.3	1.0	22.4	416.	252.		479.					
Oswego	112162	S		0.0	0.0	Tr.	82.3	51.8	26.3	14	1.1	4.8	24.0	125.3	248.	238.		472.	7.4	28.			54.6
Ottawa	111050	S		0.1	Tr.	Tr.	42.1	72.9	28.1	13	0.7	2.9	76.0	11.3	268.	298.	30.	429.					59.
Palatine	106282	L		0.2	0.0	0.8	65.1	71.4	56.6	18	0.7	0.4	5.0	400.7	130.	411.	281.	723.					51.2
Paw Paw	113131	S		0.2	0.0	0.6	19.6	40.3	23.2	15	0.4	0.1	1.0	2.3	236.	196.		238.					54.2
Paxton	116219	D		1.0	0.0	6.0	48.8	72.2	34.3	24	0.3	0.2	1.0	56.8	384.	322.		482.	7.4	38.			54.5
Payson	113934	L		0.1	0.0	Tr.	11.5	71.1	14.6	20	0.1	43.8	24.0	24.9	168.	239.	71.	296.					55.8
Pearl	114727	S	C1	0.0	0.0	Tr.	1.2	62.5	12.0	32	0.1	9.1	4.0	18.7	176.	206.	30.	236.					54.5
Pearl City	112577	S		0.6	0.0	Tr.	13.3	93.8	47.3	15	0.1	3.2	13.0	58.6	376.	429.	53.	472.					53.5
Pecatonica	112380	S	C1	0.1	0.0	Tr.	0.5	53.2	36.4	13	0.1	22.6	5.0	32.7	224.	282.	58.	306.	7.4	23.			53.5
Pekin	111415	D	C1	0.1	0.0	Tr.	9.2	81.7	34.1	23	0.1	18.9	10.0	99.4	232.	345.	113.	425.					
Peoria	117179	D	C1	Tr.	0.4	0.2	13.6	91.4	40.3	22	0.3	0.3	16.0	51.2	348.	394.	46.	410.					54.
Peoria Heights	91058	D	C1	0.0				58.3	28.1				19.0	12.1	386.	262.		458.					
Peotone	107858	L		0.8	0.0	0.6	23.2	117.5	37.6	16	0.4	0.0	2.0	194.4	296.	449.	153.	605.	7.3	43.			52.5
Pere Marquette State Park	116056	D	ILC1	4.0	0.1	0.8	89.9	95.9	48.9	25	0.1	0.3	146.0	54.1	376.	441.	65.	684.					58.
(treated)	116054			0.1							0.1		149.0		68.	76.	8.	465.					
Percy	113728	S		0.3	Tr.	0.4	39.8	60.5	14.9	14	0.1	0.1	18.0	17.7	256.	213.		322.	7.2	39.			61.3
Peru	111360	S	ILC1	0.9	0.0	0.7	167.2	87.5	29.7	15	0.6	1.9	236.0	50.2	320.	341.	21.	792.					74.5
(treated)	110978			0.1							0.5		245.0		110.	100.		673.					
Petersburg	113599	D	ZC1	0.4	0.3	0.2	27.6	105.0	40.0	18	0.2	14.2	34.0	169.3	252.	427.	175.	582.					59.5
(treated)	113598			0.1							0.2		41.0		298.	50.		626.					
Philo	116746	D	I	1.9	0.1	0.1	3.9	72.7	27.2	16	0.1	0.6	7.0	81.5	208.	294.	86.	351.	7.2	34.			53.7
Piper City	116250	D		1.3	0.1	4.9	13.1	93.0	39.4	27	0.3	0.3	2.0	0.8	432.	394.		450.	7.4	44.			54.
Plainfield	107951	D	C1	0.1	0.0	0.3	24.6	78.7	40.4	12	0.5	1.3	6.0	107.8	296.	363.	67.	455.	7.4	31.			51.5

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity (bicarbonates) ---(as $CaCO_3$)---	Total Hardness	Non-Carbonate Hardness	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Piano	112159	D		Tr.	Tr.	Tr.	4.8	79.2	34.3	22	0.0	11.4	6.0	61.7	268.	339.	71.	384.	7.5	22.			52.2 .
Pleasant Hill	114725	D	I	0.9	1.5	Tr.	2.3	73.3	21.8	39	0.6	3.5	13.0	35.4	220.	274.	54.	322.					56.5
Polo	112654	S		0.3	Tr.	0.1	3.5	66.4	33.3	15	0.1	Tr.	1.0	16.9	292.	303.	11.	309.					55.
Poplar Grove	108433	D		0.5	0.0	0.1	2.8	80.2	34.7	21	0.2	1.3	7.0	49.0	288.	344.	56.	360.					50.5
Port Byron	112242	S		1.0	Tr.	Tr.	628.1	171.0	46.8	14	0.9	7.2	940.0	424.8	212.	620.	408.	2410.	7.0	50.			63.
Prairie Du Rocher	113826	D	IZ	21.5	0.3	Tr.	8.7	119.4	32.7	66	0.1	10.0	3.0	0.0	440.	433.		497-	6.8	171.			57.5
(treated)	114109			0.1						74	0.2		5.0		440.	66.		462.	7.1	86.			57.
Princeton	111592	D	ILC1	2.8	0.0	Tr.	32.7	53.2	24.2	24	0.5	4.3	3.0	0.0	290.	233.		323.			X		53.2
(treated	111591			0.2							0.3		7.0		148.	92.		182.					
Princeville	109020	S		0.7	0.0	1.2	412.4	82.3	32.2	14	2.4	2.7	185.0	730.0	216.	339.	123.	1604.				X	68.
Prophetstown	112155	L		0.3	0.3	Tr.	0.7	70.9	25.9	28	0.1	1.5	1.0	3.1	280.	284.	4.	306.					52.
Ramsey	114758	D	I	1.6	0.2	Tr.	14.7	181.1	65.4	20	0.1	1.4	17.0	412.4	300.	722.	422.	901.	7.7	15.			55.7
Rankin	116552	D		1.8	Tr.	2.3	35.4	71.6	30.5	21	Tr.	0.4	10.0	1.2	372.	305.		395.	7.4	37.			55.
Ransom	110857	S		0.3	0.0	0.3	213.7	39.8	9.2	22	0.3	0.9	35.0	8.2	544.	137.		645.			X		54.5
Rantoul	116797	D	I	2.8	0.1	2.8	14.0	59.8	36.6	17	0.3	0.1	2.0	3.3	332.	300.		322.	7.3	43.	X		54.
Raymond	115294	D		Tr.	0.0	Tr.	28.1	76.1	23.5	25	0.1	0.4	11.0	34.6	296.	287.		374.	7.1	60.			54.
Red Bud	119224	S		0.2	0.0	0.1	54.7	98.6	33.7	16	0.1	8.0	22.0	164.6	296.	385.	89.	602.					
Richmond	110981	D	I	1.7				66.4	33.7		0.2		3.0	8.2	296.	305.	9.	314.	7.5	25.			51.
Ridge Farm	116583	D		0.6	0.1	0.2	.3.2	78.8	32.7	18	0.3	0.2	15.0	44.2	272.	332.	60.	347.	7.3	35.			54.
Ridgway	113567	D	IZ	3.7	0.1	2.8	33.1	71.7	28.8	18	0.1	0.1	7.0	0.0	368.	298.		384.	7.4	36.			59.3
(treated)	114102			0.1							0.3		10.0		380.	52.		418.	7.9	11.			60.
Riverside	106407	S		0.1			185.4	72.7	29.1		1.4	0.8	162.0	146.0	324.	303.		828.	7.1	63.			.61.2
Roanoke	109531	D	I	0.6	0.1	0.7	36.3	114.3	42.7	17	0.1	1.5	14.0	79.0	440.	462.	22.	567.					54.
Roberts	116240	D		2.3	0.0	2.4	45.8	113.4	38.0	23	0.4	0.2	5.0	229.8	300.	440.	140.	632.	7.4	31.			54.2
Robien Subdivn.	119387	D	I	1.6	0.1	0.1	7.1	92.7	31.6	21	0.1	0.1	4.0	4.5	368.	362.		375.					53.
Robinson	114506	D		0.1	0.0	Tr.	15.9	82.4	11.8	19	0.1	14.8	10.0	46.1	216.	255.	39.	336.	7.2	38.			57.3
Rochelle	112801	S		3.9	0.0	0.2	3.7	73.3	34.8	15	0.1	0.1	2.0	11.3	320.	327.	7.	325.					51.5
Rockdale	107987	S	C1	0.2	0.0	0.9	84.9	61.4	20.4	12	1.1	Tr.	34.0	104.1	268.	238.		473.	7.3	36.			60.6
Rockford	78640	S	C1	0.7	0.0		2.5	67.7	37.7	10		1.8	4.0	16.2	306.	325.	19.	325.					
Rockton	112326	S	C1	0.3	Tr.	Tr.	2.3	65.6	38.9	15	0.1	1.6	2.0	7.8	312.	324.	12.	327.	7.3	40.			53.2
Roodhouse	116394	L	C1	0.1	Tr.	Tr.	10.4	87.1	28.2	20	0.2	3.4	7.0	30.6	312.	334.	22.						54.5
Roselle	110475	L		0.5	0.0	0.6	25.3	68.3	37.9	25	0.5	0.6	1.0	162.7	212.	327.	115.	441.	7.4	22.			51.1
Roseville	107559	D		0.2	Tr.	0.2	4.8	32.9	15.9	31	0.2	53.8	11.0	45.7	52.	148.	96.	235.	6.6	33.			54.8
Rossville	116584	D		2.9	Tr.	1.4	17.3	70.8	42.3	21	0.2	0.2	3.0	11.9	376.	351.		384.	7.3	48.			54.
Round Lake	107669	L		0.1	0.0	0.4	69.2	34.2	19.3	18	1.2	Tr.	4.0	206.5	96.	165.	69.	434.	7.8	3.			53.
Round Lake Park	107780	L		0.4	0.0	0.5	67.9	39.6	21.9	16	1.1	0.0	5.0	214.3	108.	189.	81.	426.					53.
Roxana	116651	D	I	4.8	0.5	0.1	7.6	87.0	25.0	31	0.6	0.2	19.0	105.9	200.	321.	121.	410.					57.5
Rushville	114068	D	C1	5.0	0.2	0.7	10.1	90.3	32.7	16	0.2	4.0	5.0	25.5	348.	361.	13.	382.					56.
Rutland	110651	D	IZ	0.4	0.1	Tr.	131.1	179.7	58.5	20	0.9	5.5	20.0	729.0	184.	690.	506.	1255.					56.
St. Anne	112697	L		1.8	0.0	Tr.	45.7	100.6	41.8	15	0.3	4.2	5.0	280.8	220.	423.	203.	659.	7.3	28.			53.5

St. Charles	111561	S		0.4	0.0	0.1	63.5	74.3	25.8	14	1.1	2.4	108.0	30.9	244.	292.	48.	469.				59.5
St. Francisville	114430	S		0.2	0.4	Tr.	5.1	80.3	18.2	27	0.2	2.3	10.0	33.5	236.	276.	40.	324.	7.5	18.		58.
St. Joseph	116713	D	I	2.0	Tr.	1.8	22.8	78.5	31.1	29	0.2	0.6	4.0	1.0	372.	325.		388.	7.1	76.		54.5
Sandwich	112145	S	IZC1	1.3	0.0	Tr.	0.2	89.8	42.9	23	0.1	0.3	11.0	51.4	332.	401.	69.	437.	7.3	43.		52.9
San Jose	113465	D		0.8	0.1	Tr.	6.4	100.0	41.3	22	0.1	34.6	21.0	96.1	276.	420.	144.	505.				
Saunemin	110182	D		1.2	0.0	4.9	141.7	20.0	11.7	14		0.7	12.0	1.9	400.	98.		474.				54.
Savanna	104679	S	C1	0.8	Tr.	0.1	0.0	54.5	37.6	13		1.2	7.0	22.6	256.	291.	35.	286.	7.3	31.		58.5
Saybrook	115950	D		0.1	0.1	Tr.	17.0	124.0	46.7	19	0.1	28.7	24.0	132.5	344.	502.	158.	620.	7.0	99.		53.
Seaton	108248	L		0.1	0.0	3.3	187.0	27.3	8.3	13	0.7	0.9	29.0	15.6	460.	103.		562.				
Secor	109422	D		5.5	Tr.	11.9	10.4	106.2	46.5	31	0.3	0.6	1.0	2.9	508.	457.		493.				
Shabbona	112127	D		2.0	0.0	0.6	11.0	74.0	36.0	26	0.3	1.1	2.0	9.9	344.	333.		357.	7.5	29.		51.6
Shannon	108715	L	C1	0.4	0.0	0.1	3.7	75.4	41.3	19	0.2	46.7	14.0	51.6	256.	358.	102.	403.				
Shawneetown	113565	D	IC1	2.3	0.1	0.1	4.8	86.3	35.9	28	0.1	0.1	3.0	12.1	358.	364.	6.	373.	7.1	75.		52.2
Sheffield	111807	D		2.2	Tr.	0.1	17.0	111.8	58.0	26	0.4	4.9	22.0	154.5	360.	518.	158.	603.				54.
Shelbyville	115262	D	C1	0.2	0.2	Tr.	1.4	73.1	27.3	14	0.1	5.4	10.0	50.0	228.	296.	68.	314.	7.3	27.		63.3
Sheldon	116416	D		0.9		0.6	56.4	42.2	14.3	18	0.8	0.2	3.0	3.7	280.	165.		302.	7.6	20.		54.
Sibley	116216	D		0.8	0.0	0.7	12.0	62.2	28.5	20	0.4	0.5	2.0	8.6	288.	273.		310.	7.4	29.		53.5
Sidell	116652	S	C1	0.3	0.1	0.2	127.7	140.0	57.1	18	0.0	5.8	360.0	222.0	320.	585.	265.	1177.	7.1	62.		56.5
Sidney	116738	D	I	3.1	0.0	7.2	77.3	55.3	21.6	24	0.6	0.5	24.0	4.9	376.	228.		435.	7.1	86.		54.2
Silvis	112246	S	C1	0.2	0.0	0.1	439.1	106.6	48.3	14	0.9	7.7	620.0	315.9	212.	465.	253.	1709.				63.
Somonauk	112144	S		1.4	0.0	Tr.	0.7	79.8	35.9	22	0.2	1.5	4.0	13.6	328.	347.	19.	343.	7.3	49.		52.7
S. Beloit	112321	S	C1	0.2	0.5	Tr.	7.6	59.4	36.8	18	0.1	14.2	2.0	9.1	292.	300.	8.	311.	7.5	24.		53.2
S. Chicago Hts.	109008	L		0.4	0.0	0.5	11.5	93.0	49.1	21	0.2	0.6	2.0	55.1	400.	435.	35.	479.				52.5
S. Elgin	111558	S	IZ	0.7	0.0	0.6	22.0	66.4	26.2	13	0.6	0.9	4.0	23.4	292.	274.		343.	7.6	18.	X	54.6
S. Pekin	109276	D		0.1	Tr.	Tr.	8.5	100.9	34.8	21	0.2	8.6	17.0	156.5	220.	396.	176.	496.				55.2
S. Wilmington	112658	D	C1	0.4	0.0	Tr.	32.7	99.0	50.1	21	0.3	3.1	23.0	155.3	328.	454.	126.	581.	7.4	23.		53.7
Sparland	1088.53	D	Z	0.0	0.0	0.1	16.8	125.0	77.3	17	0.3	7.2	11.0	355.5	276.	631.	355.	797.				54.
(treated)	82550			0.4	0.0	Tr.	330.0	4.7	7.0	18		17.3	9.0	428.0	282.	40.		975.				
Spring Valley	111560	D	C1	0.2	1.8	0.1	40.9	168.6	71.0	20	1.0	2.7	34.0	412.4	324.	714.	390.	973.				56.
Standard	109929	S		2.2	0.0	2.0	1187.5	57.0	22.9	13	1.5	1.1	1675.0	143.4	312.	237.		3279.				62.5
Stanford	115979	D		2.3	0.1	8.7	77.1	84.2	37.8	26	0.2	0.6	55.0	0.0	480.	366.		578.	7.4	51.		54.5
Starved Rock State Park	110853	S	C1	0.0									91.0	24.1	328.	394.	66.	534.				53.2
St. Reformatory for Women	121063	S	AZC1	0.1									340.0	253.3	296.	353.	57.	1226.			X	
St. Training School-Sheridan	111093	S	C1	0.2	Tr.	Tr.	12.4	75.6	30.2	16	0.2	2.1	8.0	3.1	324.	313.		339.				55.5
Steeleville	113726	S		0.1	Tr.	0.6	57.0	47.7	13.7	15	0.1	0.1	22.0	13.4	256.	176.		342.	7.5	20.		59.
Steger	107861	L		0.6	0.0	0.5	6.9	90.2	45.5	15	0.2	0.4	2.0	51.2	372.	413.	41.	432.	7.2	62.		52.
Sterling	118205	S	C1	0.5	0.0	Tr.	11.5	58.3	33.7	12	0.3	0.2	23.0	19.5	256.	284.	28.	340.				
Steward	112900	D		0.8	0.0	0.2	5.3	65.3	25.3	25	0.2	0.1	2.0	7.6	268.	267.		292.				
Stillman Valley	112797	S		1.1	Tr.	Tr.	0.0	70.6	30.7	18	0.1	0.1	1.0	8.4	292.	303.	11.	303.				56.
Stockton	108628	S		0.4	0.0	0.1	3.2	60.5	38.9	13	0.1	1.0	3.0	17.1	296.	312.	16.	305.	7.1	59.		56.1
Stone Park	106699	L	C1	1.3	0.1	0.3	59.1	158.4	74.5	14	0.1	2.6	44.0	395.1	356.	702.	346.	959.	7.0	94.		51.2
Stonington	115422	D	IZC1	1.6	0.2	Tr.	33.1	99.6	33.1	23	0.3	5.3	44.0	90.7	296.	385.	89.	505.	7.2	53.		55.5
(treated)	115509			0.1							0.2		41.0		296.	37.		489.	8.2	5.		59.5
Strawn	110082	D		6.6	Tr.	0.2	7.8	88.9	38.8	17	0.5	0.2	13.0	104.9	272.	382.	110.	444.				54.5
Stronghurst	107985	L	IZ	2.1	0.0	1.1	6.2	72.8	31.0	19	0.1	0.3	4.0	23.7	296.	310.	14.	333.				53.
Sublette	112898	S		2.5	0.0	1.1	6.0	62.6	28.8	19	0.2	0.1	1.0	1.6	288.	275.		306.				53.6
Sugar Grove	111526			0.4	0.0	2.0	103.3	27.2	12.6	12	1.6	3.9	5.0	6.0	328.	120.		371.	8.0	9.		51.2

City	Laboratory Number	Source	Treatment	Iron Fe	Manganese Mn	Ammonium NH_4	Sodium Na	Calcium Ca	Magnesium Mg	Silica SiO_2	Fluoride F	Nitrate NO_3	Chloride Cl	Sulfate SO_4	Alkalinity ---(as	Total Hardness $CaCO_3$)	Non-Carbonate Hardness ---	Total Dissolved Solids	pH	Carbon Dioxide CO_2	Methane CH_4	Hydrogen Sulfide H_2S	Temperature °F.
Sullivan	115142	D	ILC1	3.2	Tr.	0.4	10.4	78.4	33.7	20	0.1	3.4	5.0	4.1	344.	335.		349.	7.3	49.			55.5
(treated)	115184			0.2							0.1		6.0		112.	126.	14.	156.					57.
Sycamore	111944	S		1.4	Tr.	Tr.	3.7	72.2	37.7	25	0.4	2.1	6.0	16.7	316.	336.	20.	352.	7.7	17.			52.5
Tampico	112513	D		0.3	0.2	Tr.	14.7	64.0	21.7	16	0.2	6.5	4.0	83.5	184.	250.	66.	334.					53.5
Taylorville	115442	D		2.2	0.3	0.1	45.1	178.3	62.6.	26	0.3	22.5	42.0	381.6	328.	704.	376.	1019.	7.1	63.			58.2
Teutopolis	114726	D	ILC1	1.0	Tr.	Tr.	57.7	83.9	28.3	30	0.3	4.5	24.0	21.6	392.	327.		473.	7.3	50.			55.7
(treated)	114786			0.4				Tr.	21.3		0.2		24.0		128.	91.		268.	9.7				57.7
Thompson	108673	D	C1	0.9	0.1	0.1	0.5	43.0	14.4	28	0.4	41.0	1.0	36.6	96.	167.	71.	233.	7.6	7.			53.2
Thornton	106966	L	C1	0.1	0.0	0.5	52.2	87.2	47.8	18	0.7	2.8	14.0	145.4	356.	415.	59.	576.	7.3	53.			52.6
Tinley Park	106885	L		0.5	0.0	0.1	3.9	103.1	49.7	17	0.3	1.2	5.0	72.4	388.	463.	75.	501.	6.9	135.			52.5
Tiskilwa	111943	D		2.3	Tr.	0.1	26.5	82.0	36.5	29	0.5	7.6	7.0	43.4	352.	355.	3.	455.					53.5
Toledo	114918	D	IZC1	2.0	0.2	0.4	36.3	57.2	21.1	24	0.3	1.1	16.0	32.7	252.	230.		337.	7.3	33.			52.5
(treated)	115175			0.2							0.1		15.0		260.	74.		328.	7.8	10.			59.
Tolono	116737	D		5.2	0.0	13.3	113.2	109.6	38.9	30	0.4	0.5	8.0	1.0	704.	434.		736.	6.8	287.			54.
Toluca	108881	S		4.0	0.0	1.9	822.9	50.4	17.9	14	3.0	0.8	1080.0	183.1	280.	200.		2322.					70.
Tonica	110701	D		3.3	0.0	4.3	103.5	41.7	24.7	16	0.8	1.0	41.0	0.0	384.	206.		482.					53.
Toulon	108720	S		0.1	0.0	1.6	561.7	29.0	13.5	10	1.9	0.9	490.0	263.5	388.	128		1623.					59.8
Tremont	109154	D		2.3	0.0	1.6	33.4	75.9	47.1	24	6.2	1.8	3.0	2.7	452.	384.		463.					54.2
Trenton	113938	S		0.1	Tr.	0.3	344.1	35.5	1.9	12	0.7	2.3	215.0	0.6	540.	97.		967.	8.8	2.			58.
Tuscola	112250	L	AC1	0.5	0.0	2.1	66.9	55.3	26.1	16	0.1	0.1	25.0	5.6	356.	246.		412.				X	59.4
Union	111047	D		0.1	0.1	0.9	25.8	42.3	25.3	14	0.4	1.0	2.0	0.6	264.	210.		280.	7.5	22.			52.3
Valmeyer	113886	D	IZC1	6.8	0.4	Tr	39.8	134.0	23.9	35	0.2	2.3	91.0	112.7	272.	433.	161.	594.	7.0	67.			57.5
Van Orin	111799	D		1.6	0.0	0.6	22.8	55.1	25.3	25	0.5	0.3	2.0	1.4	288.	242.		310.					52.5
Varna	108900	D		0.7	Tr.	0.6	80.7	72.0	28.8	24	0.4	0.3	6.0	125. 9	336.	299.		532.					54.5
Villa Grove	115110	L	ALC1	0.1	0.0	0.5	115.9	51.7	24.5	15	0.2	0.1	79.0	11.5	360.	230.		510.	7.4	34.		X	63.5
(treated)	115183			0.1							0.1		95.0		168.	74.		381.					66.2
Villa Park	110371	L	C1	1.3	0.0	Tr.	6.0	102.3	43.9	21	0.2	2.1	5.0	85.8	352.	437.	85.	478.	6.8	14.			53.
Viola	108243	S		0.1	0.0	1.7	317.2	50.4	20.4	13	2.4	0.2	260.0	297.9	228.	210.		1104.					61.2
Walnut	111477	D	I	4.4	0.1	1.2	6.2	71.7	27.6	35	0.2	0.9	1.0	0.0	308.	293.		321.					53.
Warren	108582	S		0.1	0.0	Tr.	6.2	82.8	51.1	18	0.2	1.8	18.0	65.0	336.	417.	81.	451.	7.1	70.			51.8
Warrensburg	115661	D	IZ	6.0	0.0	4.2	48.5	78.6	34.4	25	0.3	0.1	8.0	0.0	444.	338.		468.					55.1
(treated)	115789			0.5							0.2		8.0		452.	38.		482.					58.5
Washburn	109512	D		1.8	0.0	2.4	37.3	69.5	32.3	24	0.6	1.0	17.0	1.6	368.	307.							54.
Washington	109251	D		1.4	0.3	0.9	1.6	67.6	29.4	23	0.2	1.0	2.0	0.0	292.	290.		299.				X	54.5
Waterman	112084	D		0.8	Tr.	0.1	3.7	56.4	37.7	24	0.4	2.8	1.0	4.1	296.	296.		307.	7.5	28.			55.
Watseka	116317	D	C1	0.8	Tr.	3.6	66.0	39.9	13.4	18	0.4	0.3	5.0	9.3	292.	156.		306.	7.5	24.			55.
Wauconda	107499	L		1.3	0.0	0.9	1.4	68.1	48.2	40	0.4	0.4	3.0	12.8	356.	369.	13.	382.	7.3	46.		X	52.5
Waynesville	115702	D		3.3	0.0	4.3	67.2	95.6	52.6	28	0.2	0.2	4.0	15.6	592.	456.		634.					54.6
Wedron	111092	S		1.5							0.1		6.0	146.9	296.	465.	169.	490.					54.
Weldon	115683	D		1.8	0.0	3.1	62.1	68.1	23.9	23	0.5	0.1	6.0	0.0	404.	269.		445.			X		55.3
Wenona	108901	S		1.5	0.0	1.7	438.8	61.0	25.1	15	1.4	0.6	490.0	253.4	260.	256.		1437.					70.
W. Brooklyn	113202	D		1.6	Tr.	1.1	18.9	71.7	27.7	27	0.3	Tr.	1.0	0.0	336.	2,94.		338.					
W. Chicago	110809	L	C1	1.4	0.0	Tr.	20.2	105.4	54.4	17	0.5	1.0	38.0	158.0	312.	487.	175.	600.					51.6

W. Dundee	111399	S	C1	Tr.	0.0	Tr.	2.8	73.7	38.3	21	0.1	15.1	9.0	72.4	248.	342.	94.	387.	8.1	5.			51.
W. Springs	106409	L	ILC1	2.9	0.2	0.5	8.1	274.3	102.2	20	0.3	0.0	18.0	672.2	400.	1107.	707.	1374.	6.8	167.			51.6
(treated)	106433			0.0									20.0		56.	195.	139.	978.					55.
Westfield	114982	S		2.5	0.0	1.3	80.7	18.1	12.1	14	0.9	Tr.	7.0	0.4	264.	96.		282'.	8.2	4.			57.
Westmont	110352	L	IZ	1.5	0.0	0.8	27.1	138.6	37.3	23	0.4	0.3	3.0	177.7	372.	500.	128.	620.	7.2	59.			51.8
(treated)	110884			0.3							0.4		4. 0		340.	25.		610.	7.5	26.			56.5
Wheaton	110473	L	A	0.5	0.0	0.4	11.3	70.9	38.5	24	0.3	0.5	3.0	81.9	272.	336.	64.	405.	7.2	45.		X	51.5
Wheaton Farms	110604	L		1.2	0.0	Tr.	15.2	82.9	39.2	25	0.3	2.5	6.0	141.3	244.	369.	125.	456.		17.			50.5
Wheeling	106248	L	C1	0.1	Tr.	0.4	63.0	44.2	33.2	16	0.5	1.0	7.0	178.9	188.	247.	59.	460.					52.7
White Pines																							
Forest St. Park	112652	S		0.2	Tr.	Tr.	9.2	59.9	25.3	17	0.1	0.1	2.0	22.2	248.	254.	6.	277.					
Williamsfield	107735	L	A	5.4	0.2	1.1	699.9	21.7	6.8	14	4.0	0.4	570.0:	175.7	620	83,		1882.				X	63. 5
Williamsville	108197	D		0.4	0.1	0.1	1.6	85.7	36.3	17	0.2	0.1	3.0	84.3	276.	364.	88.	405.					
Willisville	113696	S	C1	0.4	Tr.	0.6	43.9	52.0	12.8	14	0.1	0.1	12.0	10.1	252.	183		291.	7.5	19.			63.
Wilmington	107910	S	C1	0.1	Tr.	1.0	251.4	110.2	39.7	12	1.2	0.7	295.0	322.9	236.	439.	203.	1188.	7.4	26.			59.5
Winchester	113693	D	ILC1	2.9	0.1	0.9	8.3	82.2	33.9	23	0.3	0.3	9.0	19.5	332.	345.	13.	367.					55.
(treated)	113694			0.3							0.3		9.0		80.	72.		117.					
Windsor	115143	D	IC1	5.4	0.0	13.4	90.2	71.7	36.7	29	0.2	0.2	3.0	0.0	560.	331.		573.	6.9	177.	X		55.7
Winfield	110476	L	C1	1.2	Tr.	0.3	18.4	130.3	69.2	23	0.2	0.4	24.0	250.5	356.	610.	254.	755.	6.7	152.			50.7
Winslow	112584	S		0.1	0.0	Tr.	2.3	61.2	40.0	15	0.1	Tr.	2.0	15.0	304.	318.	14.	311.				X	52.4
Winthrop Harbor	107585	L		0.2	0.0	0.1	54.7	23.1	9.0	20	0.9	2.3	7.0	56.4	144.	95.		262.	7.5	38.			51.7
Witt	115293	D		5.3	0.2	0.1	44.2	69.3	20.0	26	0.2	Tr.	15.0	60.7	268.	256.		388.	7.1	60			55.
Woodhull	108504	S		0.6	0.0	1.4	268.0	35.5	16.1	12	2.6	1.1	144.0	235.9	292.	155.		895.					60.5
Woodland	116472	D		0.5	Tr.	7.9	39.3	96.8	38.2	20	0.3	2.1	10.0	33.7	456.	399.		498.	7.5				
Wood River	116712	D	C1	0.4	0.2	Tr.	2.8	64.2	20.6	27	0.3	0.6	5.0	65.2	176.	246.	70.	304.					57.5
Woodstock	111019	D	ILC1	1.3	Tr.	1.8	0.7	78.0	42.2	31	0.3	1.1	4.0	8.0	360.	369.	9.	382.	7.5	34.			51.2
(treated)	112417			0.1							0.3		3.0		70.	75.	5.	102.	9.6	Tr.			54.5
Worden	112303	D											8.0	2.3	184.	175.		221.					
Wyanet	111809	D	I	6.0	0.6	2.8	15.6	87.3	36.0	33	0.5	0.6	7.0	1.9	396.	367.		414.					53.
Wyoming	109136	L		0.1	0.0	1.7	341.3	42.8	18.1	14	2.4	0.6	270.0	303.4	232.	182.		1136.	7.6	14.		X	66.4
Yates City	109798	D	Z	Tr.	0.0	Tr.	0.5	74.8	29.2	22	0.1	16.5	6.0	32.5	252.	307.	55.	329.					53.8
(treated)	109795			0.1							0.3		6.0		264.	37.		339.					
Yorkville	112158	S	C1	0.2	0.0	Tr.	21.9	60.4	27.1	13	0.5	2.7	9.0	34.4	260.	263.	3.	339.	7.3	38.			53.6
Zion	107588	S	Z	0.9	0.0	0.1	56.1	92.0	21.7	12	1.6	0.5	23.0	151.0	252.	320.	68.	520.	7.2	39.			59.4