

WATER QUALITY OF LAKE ARLINGTON ON VILLAGE CREEK, NORTH-CENTRAL TEXAS 1973 TO 1981

By Freeman L. Andrews and Willard J. Gibbons

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WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
649 Federal Building
300 E. Eighth Street
Austin, TX 78701

For sale by:

Open-File Services Section
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U.S. Geological Survey
Box 25425, Federal Center
Denver, CO 80225
(Telephone: (303) 234-5888)

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METRIC CONVERSIONS

Factors for converting inch-pound units to metric equivalents are given in the following table:

From	Multiply by	To obtain
acre	4,047	square meter
acre-foot	0.001233	cubic hectometer
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second
foot	0.3048	meter
micromho per centimeter (³ mho/cm)	1.000	microsiemens per centimeter
mile	1.609	kilometer
square mile	2.590	square kilometer

Temperature data in this report are in degrees Celsius (°C) and may be converted to degrees Fahrenheit (°F) by the following formula:

$$^{\circ}\text{F} = 1.8(^{\circ}\text{C}) + 32.$$

National Geodetic Vertical Datum of 1929 (NGVD of 1929): A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called mean sea level.

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U.S. Geological Survey

ABSTRACT

Water in Lake Arlington on Village Creek in north-central Texas had volume-weighted average concentrations of less than 240 milligrams per liter of dissolved solids, less than 30 milligrams per liter of dissolved chloride, and less than 40 milligrams per liter of dissolved sulfate between January 29, 1973, and August 20, 1981. The water was moderately hard (hardness greater than 60 but less than 120 milligrams per liter as calcium carbonate). The concentrations of each of these constituents were usually greatest during winter, especially during the first few years of the study, but decreased significantly as discharges of municipal wastes were systematically and progressively diverted to treatment facilities downstream from the reservoir.

Thermal stratification in Lake Arlington usually begins during March or April and persists until October. Thermal stratification has resulted in significant seasonal and areal variations in the concentration of dissolved oxygen, dissolved iron, dissolved manganese, total inorganic nitrogen, and total phosphorus. Oxygen utilized in the decay of organic matter is not replenished during periods of summer stagnation, and water below depths of 30 to 40 feet usually contains less than 2 milligrams per liter of dissolved oxygen during stagnation. Even though heated effluent from an electrical generating plant is returned to the reservoir at site C_C and causes an elevation of water temperature, average dissolved oxygen levels at this site are not significantly different from levels at other sites.

During summer stagnation, reducing conditions result in the dissolution of iron and manganese from bottom deposits at deep sites in the reservoir. At site A_C, a deep site near Arlington Dam, dissolved iron concentrations in water near the bottom during summer stagnation ranged from less than 10 to 1,100 micrograms per liter and averaged about 640 micrograms per liter. Dissolved manganese concentrations near the bottom at site A_C during summer stagnation ranged from 20 to 2,700 micrograms per liter and averaged about 1,500 micrograms per liter. The concentrations of dissolved iron and dissolved manganese in water throughout the reservoir during winter circulation and in water near the reservoir surface during summer stagnation averaged less than 50 micrograms per liter.

Seasonal temperature and dissolved oxygen cycles resulted in the recycling of dissolved iron and dissolved manganese between the water and bottom sediments. However, no significant accumulation of these constituents within the reservoir was detected during the study.

The concentrations of total inorganic nitrogen and total phosphorus are greatest during summer stagnation in water near the bottom at deep sites. At

site A_C during the summer, the concentrations of total inorganic nitrogen in the hypolimnion averaged about 0.9 milligram per liter, and the concentration of total phosphorus near the bottom averaged about 0.2 milligram per liter. The concentrations of total inorganic nitrogen in the epilimnion at site A_C averaged about 0.1 milligram per liter; the concentrations of total phosphorus averaged less than 0.1 milligram per liter.

The densities and composition of algal populations varied seasonally. At site A_C, total algae counts ranged from 200 to 240,000 cells per milliliter and averaged about 50,000 cells per milliliter. At site F_C, total algae counts ranged from 1,000 to 290,000 cells per milliliter and averaged about 56,000 cells per milliliter. Algal densities were greatest during the summer with blue-green algae being the predominant phyla.

INTRODUCTION
Purpose and Scope

The U.S. Geological Survey has made comprehensive water-quality surveys of Lake Arlington in north-central Texas seasonally since January 29, 1973, in cooperation with the City of Arlington and the Texas Department of Water Resources. Data collected during each reservoir survey at eight sites have included onsite measurements of specific conductance, dissolved oxygen, water temperature, and pH. Based on the results of these onsite measurements, water samples were collected and analyzed for the major dissolved chemical constituents, total nutrients, dissolved iron, and dissolved manganese. During the 1978 water year, the data-collection program was expanded to include the collection and analyses of samples for additional dissolved trace elements and phytoplankton. The purpose of this report is to describe and explain the historical, seasonal, and areal variations in the water quality of Lake Arlington between January 29, 1973, and August 20, 1981.

Description of Lake Arlington and Its Environment

Lake Arlington is located on Village Creek in Tarrant County, Texas, near the western edge of the city of Arlington and the southeastern edge of the city of Fort Worth (fig. 1). The drainage basin of 143 square miles is a rapidly urbanizing area that is now about 20 percent urban and 80 percent rural. The multipurpose reservoir is owned and operated by the City of Arlington to conserve water for municipal and industrial supply and for recreational use.

Lake Arlington is formed by a rolled earthfilled dam 6,482 feet long. Deliberate impoundment began March 31, 1957. The reservoir has a storage capacity of 45,710 acre-feet at the top of the conservation pool at an elevation of 550 feet NGVD of 1929. Other data concerning the reservoir (Dowell and Petty, 1973) are given in the following table:

	Elevation (feet above NGVD of 1929)	Capacity (acre-feet)
Top of dam	572.0	--
Crest of spillway	559.7	70,140
Crest of drop inlet (top of conservation pool)	550.0	45,710
Lowest gated outlet (invert)	505.0	180

Since July 1973, natural inflows to Lake Arlington have been supplemented by water diverted (into Village Creek) from Cedar Creek Reservoir, about 70 miles southeast of Lake Arlington. Total yearly diversions to Lake Arlington are given in the following table (Ray Minatra, Tarrant County Water Control and Improvement District No. 1, written commun., 1982):

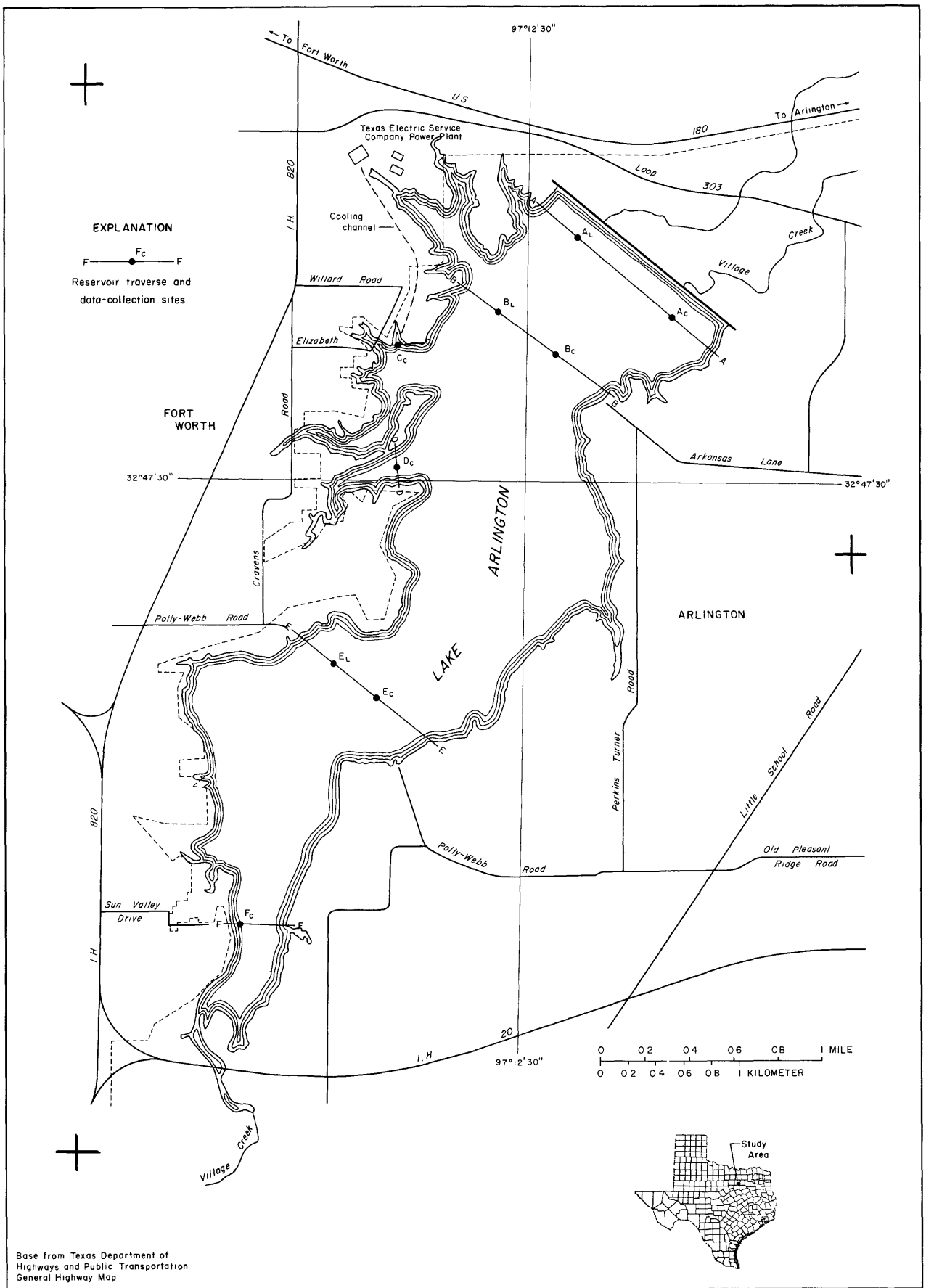


FIGURE 1.—Location of water-quality data-collection sites on Lake Arlington

Year	Total diversion (acre-feet)
1973	1,240
1974	571
1975	5,430
1976	14,240
1977	25,140
1978	50,440
1979	23,760
1980	47,750
1981	32,950

Until December 1976, Lake Arlington received discharges of secondary effluent from several municipal wastewater-treatment plants. During 1967-76, these discharges were progressively and systematically diverted to the Village Creek regional wastewater-treatment facility located downstream from Lake Arlington. A list of the municipal plants and the beginning date of effluent diversion to the regional wastewater plant are given in the following table (Charles F. Anderson, Jr., Assistant Director of Utilities, City of Arlington, written commun., 1982):

Municipal treatment plant	Date effluent diverted to regional plant
Everman	Mar. 1967
Forest Hill	May 1971
Burleson	Aug. 1974
Crowley	Sept. 1974
Kennedale	Dec. 1976

Since 1973, an annual average of approximately 28,600 acre-feet of water has been withdrawn from the reservoir for municipal and industrial water supply. Texas Electric Service Company operates an electrical generating plant adjacent to the reservoir and withdraws water from the reservoir for cooling purposes and returns heated water to the reservoir.

WATER QUALITY Thermal Stratification

Impoundment of water in a lake or reservoir may result in significant changes in the quality of the water. Some of the changes may be beneficial; other changes may be detrimental. Many of the detrimental changes can be related to thermal stratification--layering of the water due to temperature-induced density differences.

The following table (Weast, 1975, p. F5) shows that pure water reaches its maximum density at a temperature of about 4°C and that the difference in density per 1°C is much greater at warmer temperatures than at cooler temperatures.

Temperature (degrees Celsius)	Density (grams per milliliter)
0.0	0.999868
4.0	1.000000
5.0	.999992
10.0	.999728
15.0	.999129
20.0	.998234
25.0	.997075
30.0	.995678
35.0	.994063

For example, a 1° change in temperature from 29° to 30°C results in a change in density of about 0.0003 g/mL (gram per milliliter). A 1° change in temperature from 10° to 11°C results in a density change of about 0.0001 g/mL. Stable stratification is common in lakes and reservoirs where the density of the upper and lower strata of water differs by as little as 0.001 to 0.002 g/mL. Thus, temperature differences of 3° to 4°C resulting from warming of inflows and of water at the reservoir surface during the summer, may result in stable stratification.

Thermal stratification may assume many patterns, depending on the geographical location, climatological conditions, depth, surface area, and configuration of the lake or reservoir. During the winter, many deep lakes or reservoirs in the temperate zone characteristically are isothermal--that is, the water has a uniform temperature and density and circulates freely. With the onset of spring, solar heating warms the incoming water and the water at the lake or reservoir surface causing a decrease in density. This warm surface water floats on the colder more dense water. As the surface water becomes progressively warmer, the density gradient increases and the depth to which wind can mix the water is decreased. Thus, water in the lake or reservoir commonly is separated into three fairly distinct strata:

- (1) The epilimnion--a warm, freely circulating surface stratum;
- (2) The metalimnion--a middle stratum characterized by a rapid decrease in temperature with increases in depth; and
- (3) The hypolimnion--a cold, stagnant lower stratum.

Thermal stratification in deep lakes or reservoirs usually persists until fall, when a decrease in atmospheric temperature cools both the surface water in the lake or reservoir and the inflow from streams. When the temperatures and densities of the epilimnion and metalimnion are similar to those of the hypolimnion, the resistance to mixing is decreased and complete mixing or overturn of the water occurs.

Lake Arlington shows this classical stratification pattern in its deepest area along the old (drowned) Village Creek channel. In the upstream reaches of the reservoir and in areas outside the old channel where depths are shallower, the pattern commonly is less pronounced. Water-temperature data for Lake Arlington during water-quality surveys are shown in figure 2 and in tables 1-27. These data, along with monthly-mean air temperature data for the Dallas-Fort Worth Regional Airport, which is located 15 miles north of Lake Arlington, indicate that fall overturn usually occurs during October. The water in the reservoir is nearly isothermal from November through February.

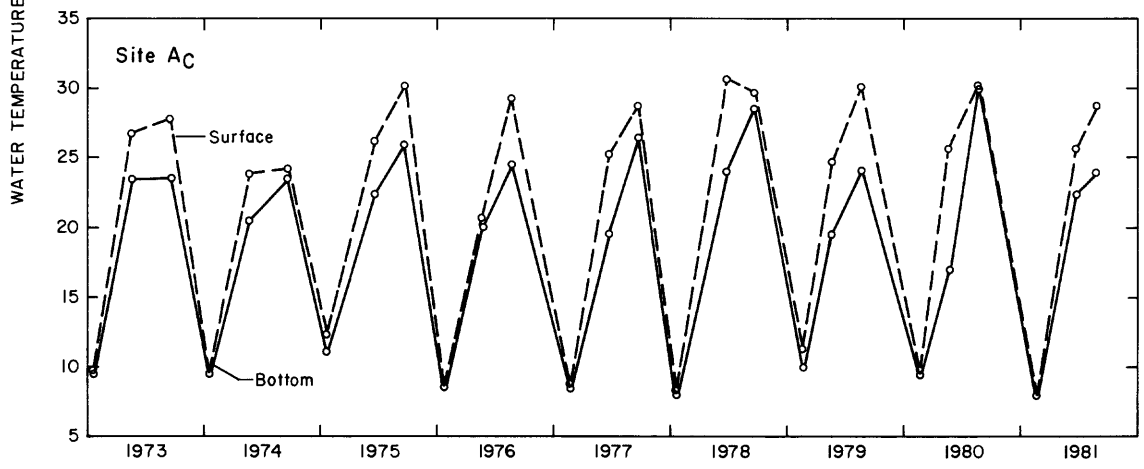
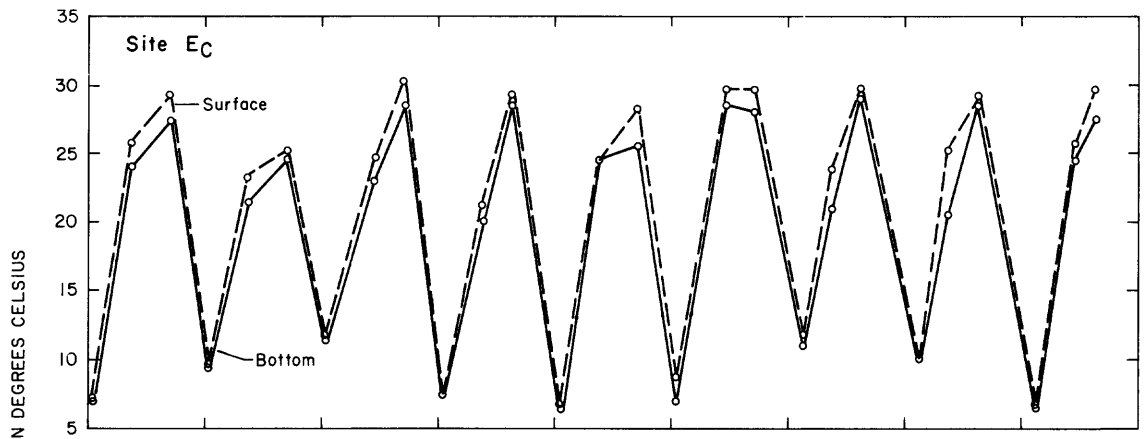
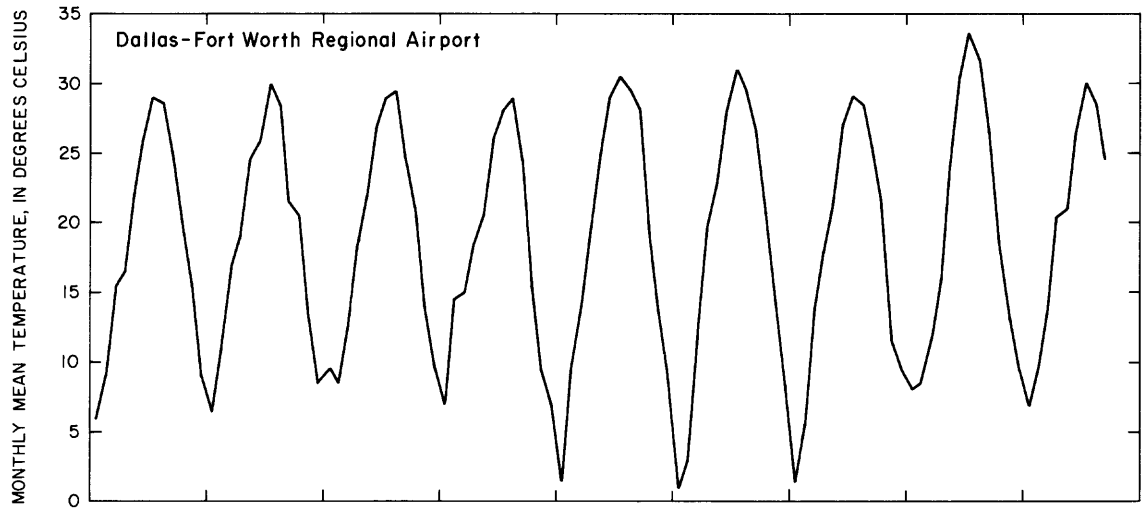


FIGURE 2.- Variations in air and water temperature at selected sites, January 1973-August 1981

During March, April, and May, warming takes place resulting in a gradual change in temperature throughout the reservoir. Between June and September, the surface waters are warm enough to produce three fairly distinct layers in deep areas of the lake.

A large volume of water from Lake Arlington is used by the Texas Electric Service Company for cooling. This heated effluent, which is returned to the reservoir at site C_C, increases the water temperature at this point. This water commonly is 5° to 10°C warmer than the water at other sites on the reservoir. Statistical analysis shows a significant difference at the 95-percent confidence level for the average water temperature at site C_C as compared to water temperatures at sites A_C, E_C, and F_C. Winter, spring, and summer bottom water temperatures at site C_C differed from bottom water temperatures at sites A_C, E_C, and F_C by about 4.5°C, 4.0°C, and 3.5°C, respectively. The greatest difference between water temperature at site C_C and sites A_C, E_C, and F_C was noted for surface temperatures during the summer. The average surface temperature for site C_C was 36°C, whereas summer surface temperatures at sites A_C, E_C, and F_C were less than 29°C.

Dissolved Oxygen

Dissolved-oxygen concentrations are of primary importance in any aquatic ecosystem. Fish and other aquatic life require adequate concentrations of dissolved oxygen for egg and larvae development and for normal growth and activity. No single dissolved-oxygen concentration is favorable to all aquatic species and ecosystems; however, low dissolved-oxygen concentrations are unfavorable to most aquatic organisms. Dissolved-oxygen concentrations affect variations in the concentrations of some of the chemical constituents dissolved in water and are one of the most important factors that affect the quality of water in a reservoir.

Oxygen dissolves in water at a rate determined primarily by temperature, atmospheric pressure, and salinity. Much of the oxygen in a lake or reservoir enters at the air-water interface by absorption from the atmosphere. A significant quantity of oxygen also may be produced as a by-product of photosynthesis.

Water entering a lake or reservoir contains organic material from natural sources and from man's activities. Bacterial stabilization of this organic material requires oxygen. An oxygen demand also is exerted by decaying vegetation and other oxidizable material present when the reservoir was impounded and by decaying algae and other organic material produced within the reservoir since impoundment.

The distribution of dissolved oxygen in a lake or reservoir is related to thermal stratification. During winter circulation, water throughout the lake or reservoir is exposed to the atmosphere repeatedly, and dissolved oxygen used in the decomposition of organic matter is replenished. However, during spring and summer, thermal stratification results in a decrease of vertical circulation of the water. Oxygen utilized in the decomposition of organic material is not replaced in the deep stratum of the lake or reservoir, and a vertical dissolved-oxygen gradient develops.

Dissolved-oxygen data in figures 3 and 4 and in tables 1-27 show that the concentration of dissolved oxygen in Lake Arlington varies seasonally and areally. These data show that the dissolved oxygen gradient begins to develop during spring and usually is greatest at deep sites during summer stagnation when algal growth in the near-surface stratum is prolific. Although the gradients at all sites decrease greatly after the fall overturn, a slight gradient sometimes persists into the winter.

The depth-averaged concentration of dissolved oxygen at most sites in the downstream one-half of the reservoir was less than 5 mg/L (milligrams per liter) during summer stagnation and more than 10 mg/L during winter circulation. The depth-averaged concentration of dissolved oxygen at sites in the headwaters of the lake was about 6 mg/L during the summer and more than 10 mg/L during the winter. The uniformly large dissolved-oxygen concentrations throughout the reservoir during winter indicates that excessive deoxygenation by oxygen-demanding wastes is prevented by winter circulation. However, oxygen used in the stabilization of unoxidized material from upstream sources, decaying algae, and organic material along the bottom of the reservoir is not replaced in deeper areas of the reservoir during summer stagnation; and water below depths of 30 to 40 feet usually contains less than 2 mg/L of dissolved oxygen.

Site C_C on a tributary arm of the reservoir is the return point for water used by the Texas Electric Service Company for cooling. Although heat reduces the capacity of water to absorb oxygen, the return flow of heated effluent at site C_C has resulted in no significant differences between either the average concentration or percent saturation of dissolved oxygen at site C_C as compared to values for sites A_C, E_C, and F_C. The shallow depths and turbulent flow causes the water at this site to be well mixed and the concentration of dissolved oxygen to remain uniformly large.

Dissolved Trace Elements

Trace elements include those constituents, mostly cations, whose concentrations usually do not exceed 1 mg/L or 1,000 µg/L (micrograms per liter), although in exceptional waters one or more trace element may be present in comparatively large concentrations and may be a major component for that particular water. For the purpose of this report, trace elements include arsenic, barium, cadmium, chromium, copper, iron, lead, manganese, mercury, selenium, silver, and zinc.

The occurrence of most of these trace elements in water is a matter of concern to water users and planners alike because of the potentially harmful effects of excessive concentrations on man and aquatic life. Undesirable concentrations of trace elements in water may render it unsuitable as a public water supply. Many trace elements also may be concentrated at successive steps in the aquatic food chain, making fish and other aquatic life undesirable for human consumption.

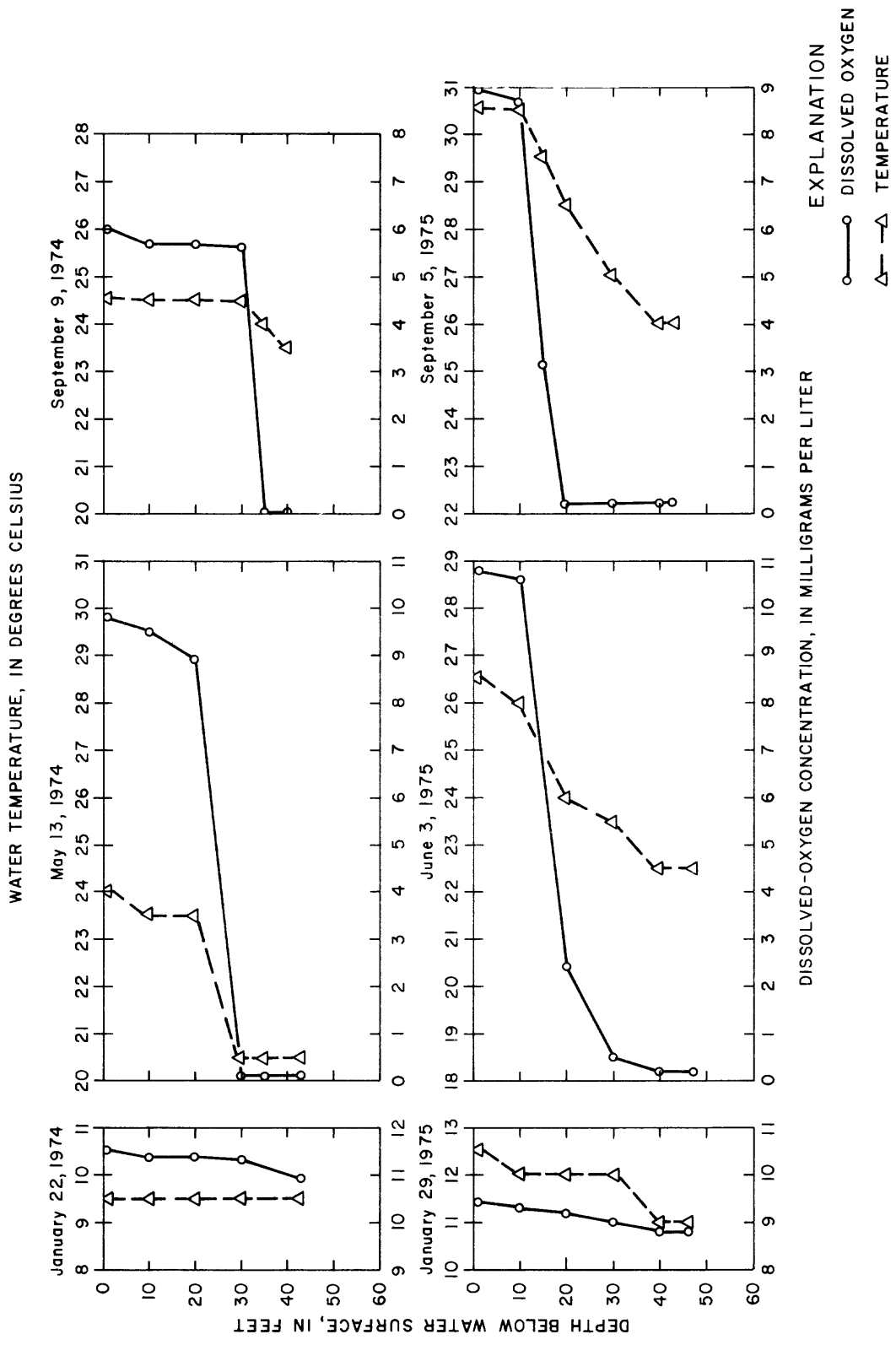


FIGURE 3.-Seasonal profiles of water temperature and dissolved oxygen at site AC

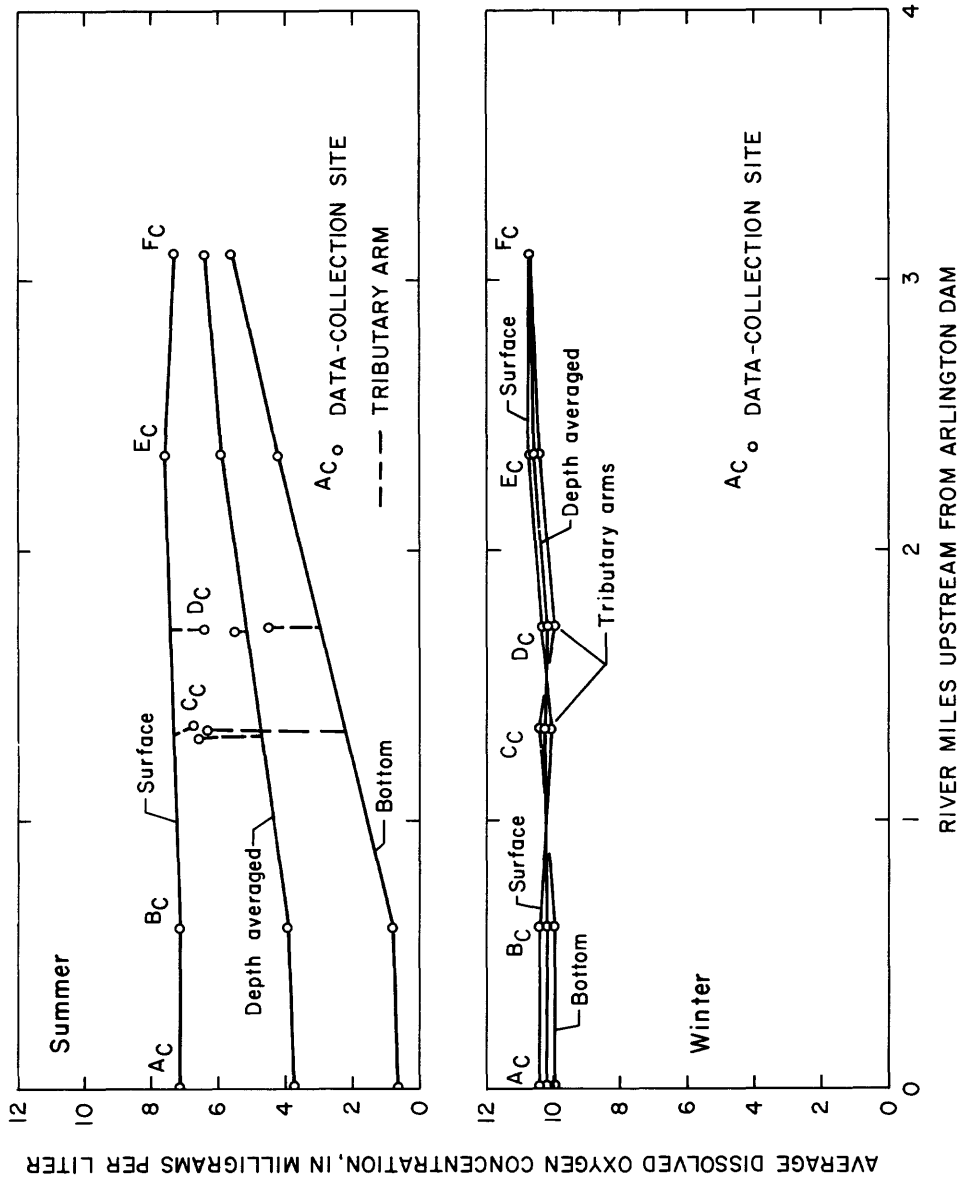


FIGURE 4.-Variations of concentrations of dissolved oxygen during summer and winter surveys

Dissolved Iron and Dissolved Manganese

The occurrence and distribution of dissolved iron and dissolved manganese in Lake Arlington are related to dissolved-oxygen concentrations (fig. 5). Summer stratification prevents replenishment of dissolved oxygen used in organic decomposition in the hypolimnion. During these periods when dissolved-oxygen concentrations are small, reducing conditions commonly result in the dissolution of iron and manganese from sediments at the bottom of the deep sites in the reservoir.

During winter circulation, dissolved-oxygen concentrations are high (fig. 5) and dissolved-iron and dissolved-manganese concentrations in water throughout the reservoir usually average less than 50 $\mu\text{g/L}$ as shown in figures 6 and 7. The concentrations of both constituents in waters near the reservoir surface usually average less than 30 $\mu\text{g/L}$ throughout the year. However, during summer stagnation, the concentrations of both constituents in the hypolimnion usually increase in response to decreased dissolved-oxygen concentrations. Similarly, the concentrations of both constituents in the hypolimnion usually increase in the downstream direction in response to increase in depth and decreased dissolved-oxygen concentrations.

Dissolved-iron concentrations near the bottom at site F_C , a shallow site in the headwaters of the lake, ranged from about 10 to 80 $\mu\text{g/L}$ during the summer and averaged about 30 $\mu\text{g/L}$. Dissolved-manganese concentrations near the bottom at site F_C ranged from less than 10 to 120 $\mu\text{g/L}$ and averaged about 30 $\mu\text{g/L}$.

At site A_C , a deep site near Arlington Dam, the concentrations of dissolved iron in the water near the bottom during the summer ranged from about 10 to 1,100 $\mu\text{g/L}$ and averaged about 640 $\mu\text{g/L}$. Dissolved-manganese concentrations near the bottom ranged from 20 to 2,700 $\mu\text{g/L}$ and averaged about 1,500 $\mu\text{g/L}$ (fig. 8).

Manganese is more easily reduced than iron (Hutchinson, 1957, p. 808). Consequently, the concentrations of dissolved manganese usually increase significantly by late spring shortly after the onset of thermal stratification, whereas concentrations of dissolved iron generally increase later during the period of summer stagnation. Although seasonal-temperature and dissolved-oxygen cycles resulted in the recycling of iron and manganese between the water and bottom sediments, no significant accumulation of these constituents within the reservoir was detected during the study.

Other Dissolved Trace Elements

Results of 22 analyses for other dissolved trace elements in water samples collected from the surface and bottom strata at site A_C during the surveys from June 1978 through August 1981 are given in tables 17-27 and are summarized in the following table:

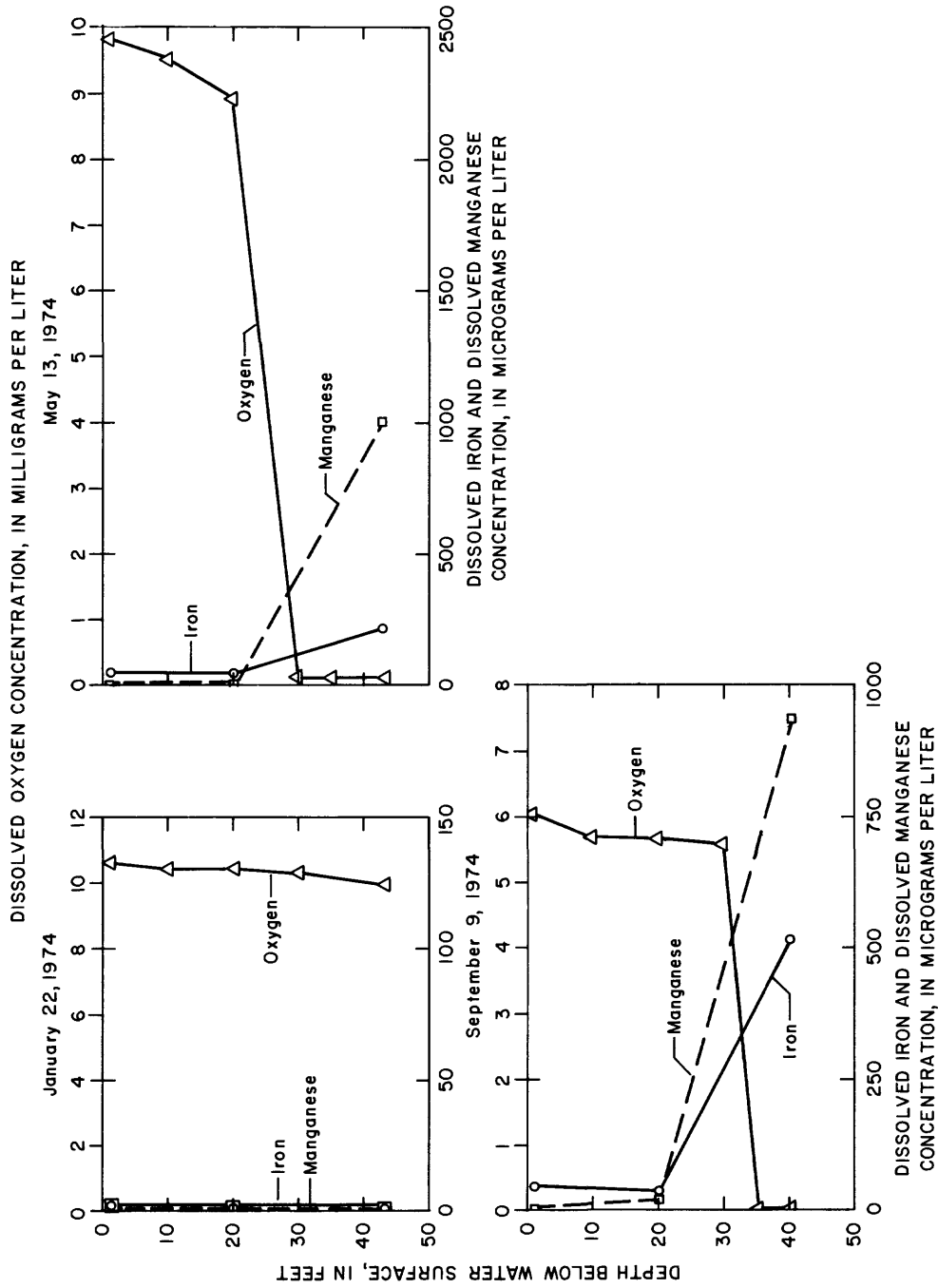


FIGURE 5.-Seasonal profiles of concentrations of dissolved oxygen, dissolved iron, and dissolved manganese at site A_C

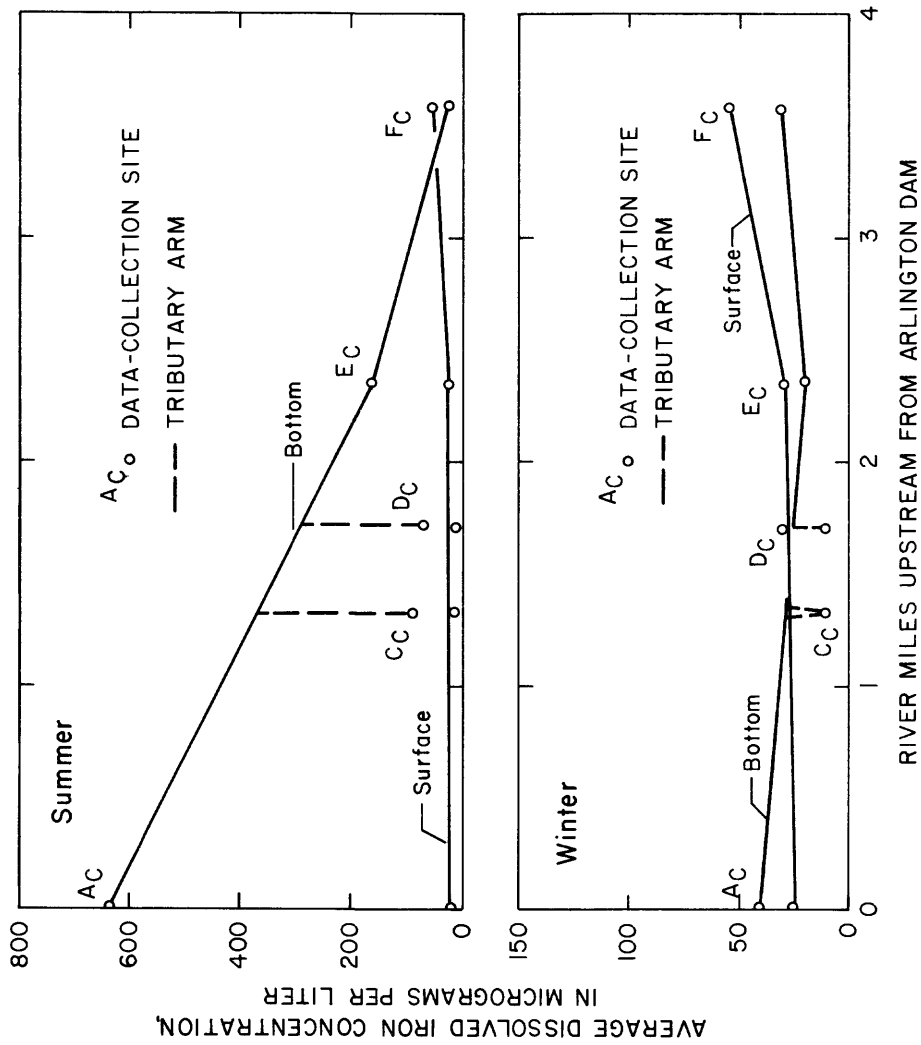


FIGURE 6.-Variations of concentrations of dissolved iron during summer and winter surveys

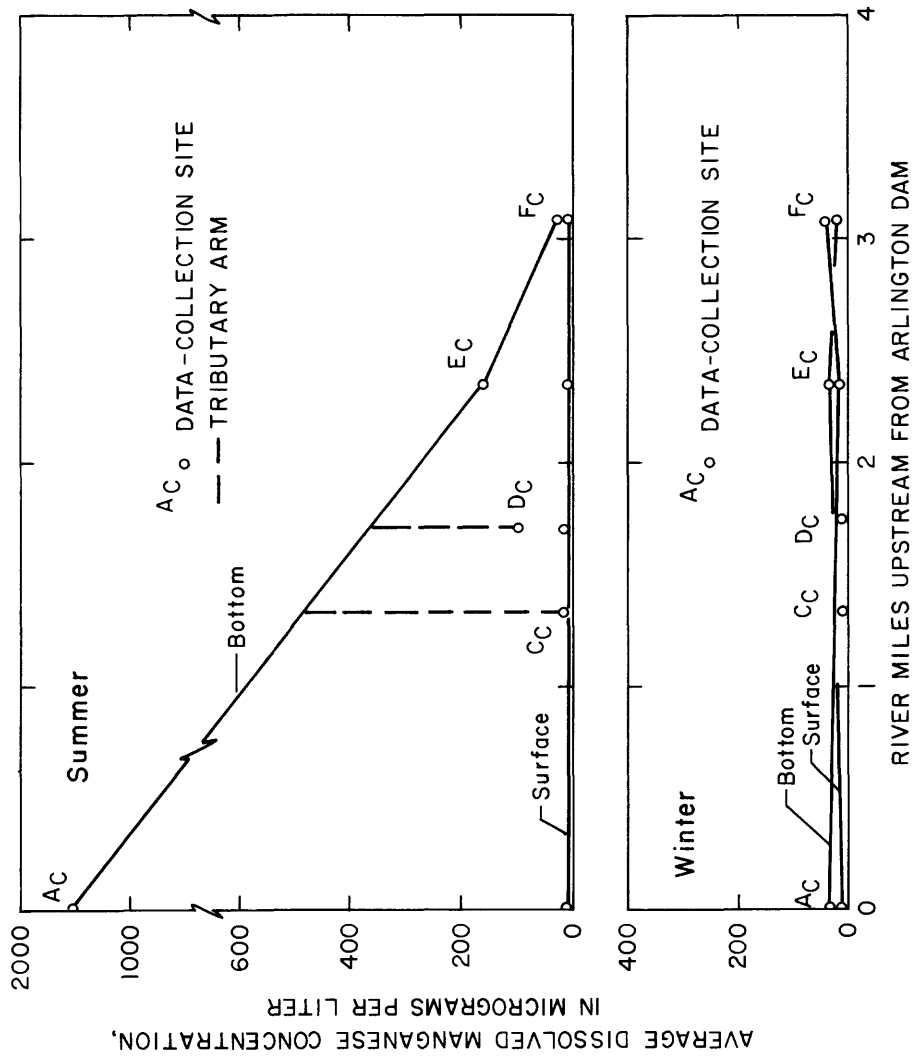


FIGURE 7.-Variations of concentrations of dissolved manganese during summer and winter surveys

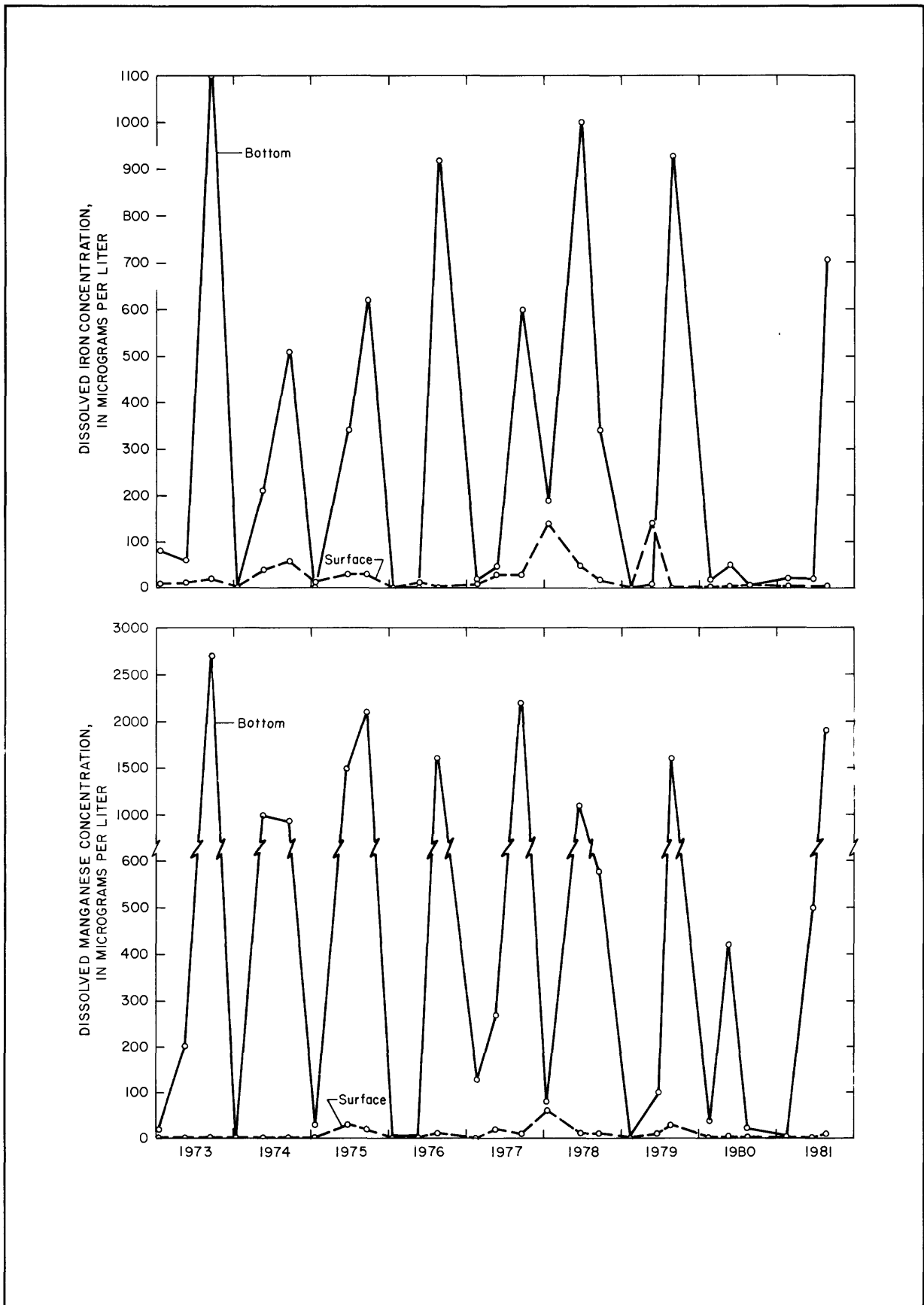


FIGURE 8.-Variations of concentrations of dissolved iron and dissolved manganese at site A_C, January 1973-August 1981

Dissolved constituent	Minimum	Maximum	Mean
	Micrograms per liter		
Arsenic (As)	0	9	2
Barium (Ba)	0	200	80
Cadmium (Cd)	0	1	.7
Chromium (Cr)	0	20	4
Copper (Cu)	0	<10	4
Lead (Pb)	0	11	3
Mercury (Hg)	.0	.2	.06
Selenium (Se)	0	0	0
Silver (Ag)	0	0	0
Zinc (Zn)	0	19	9

These data for 22 samples show that dissolved selenium and dissolved silver were not detected, and that the maximum concentration of dissolved cadmium was 1 µg/L and of dissolved mercury was 0.2 µg/L. The maximum concentration of none of the other elements exceeded 20 µg/L except dissolved barium, which was 200 µg/L. Concentrations of most of these trace elements during many of the reservoir surveys were near or less than the limits of detection. Generally, concentrations in water near the reservoir surface were not significantly greater than concentrations of bottom water; and seasonal variations were insignificant. These data confirm the results of a study by the City of Arlington, Texas Water Utilities, and The University of Texas at Arlington (1980) that the concentrations of most of the trace elements are being retained in the sediments with little release to the water column.

Total Nitrogen and Total Phosphorus

According to a literature review by Greeson (1971, p. 75), at least 21 elements in some chemical combination are essential nutrients in the biological productivity in waters of a lake or reservoir. Among these nutrients, nitrogen and phosphorus are the most dominant in controlling productivity in most lakes and reservoirs because their concentrations are more likely to be in limited supply.

Sources that may contribute nitrogen and phosphorus to a reservoir include runoff from urban and agricultural areas, sewage effluent, industrial wastes, precipitation, decomposing plant and animal debris, and bottom sediments. Both total nitrogen and total phosphorus in the inflow to a reservoir may consist of four major components, dissolved and particulate inorganic forms, and dissolved and particulate organic forms.

As the water enters the reservoir, most of the particulate nitrogen and phosphorus eventually settle to the bottom, but part of the dissolved fractions are utilized by algae and other aquatic organisms as primary sources of energy. Eventually, these organisms die and settle to the bottom of the reservoir carrying their cellular nitrogen and phosphorus with them.

During summer stagnation, decay of aquatic organisms and chemical reduction of bottom sediments decreases the concentration of dissolved oxygen and release nitrogen and phosphorus to the hypolimnion. They may remain there until fall overturn, at which time they are recirculated.

Analyses of samples collected from Lake Arlington during the 1973-79 water years included total nitrite plus nitrate nitrogen and ammonia nitrogen (tables 1-21); thereafter, analyses included total nitrite plus nitrate nitrogen and total ammonia plus organic nitrogen (tables 22-27). Because many of the analyses did not include organic nitrogen, most of the following discussion is limited to interpretations of the data for total inorganic nitrogen (sum of total ammonia, nitrite, and nitrate nitrogen) and total phosphorus.

The concentrations of total inorganic nitrogen and total phosphorus in Lake Arlington vary seasonally and areally (figs. 9-12). During winter circulation, average concentrations of both constituents usually are largest in the headwaters and decrease progressively toward Arlington Dam. During the winter at site F_C in the headwaters of the reservoir, the concentrations of total inorganic nitrogen averaged about 0.5 mg/L and of total phosphorus averaged about 0.2 mg/L. At site A_C near Arlington Dam, concentrations of both constituents during the winter averaged less than 0.2 mg/L.

The total-inorganic-nitrogen and total-phosphorus concentrations in water near the bottom at deep sites near Arlington Dam are usually largest during summer stagnation when the decay of aquatic organism and organic debris in the bottom sediments releases nutrients to the overlying water (figs. 10-12). The seasonal variation of total phosphorus in water near the surface at these sites is insignificant. The concentration of total inorganic nitrogen at site A_C averaged about 0.1 mg/L in the epilimnion and about 0.9 mg/L in the hypolimnion. The concentrations of total phosphorus at site A_C averaged less than 0.1 mg/L in the epilimnion during the summer, whereas concentrations in the hypolimnion averaged more than 0.2 mg/L. The concentrations of total inorganic nitrogen and phosphorus at shallow sites near the headwaters of the reservoir do not vary significantly with depth. For example, the concentration of both constituents in the epilimnion and the hypolimnion at site F_C averaged about 0.1 mg/l during the summer.

Although seasonal-temperature and dissolved-oxygen cycles have resulted in the recycling of total inorganic nitrogen and total phosphorus between the water and bottom materials (sediments and organic debris), no significant accumulation of these constituents within the reservoir was detected during the study. On the contrary, a significant decreasing trend with time was noted for the concentration of total phosphorus (fig. 12). The most significant decrease occurred during 1977-81, after the cessation of discharge of secondary effluent into the reservoir by several municipal wastewater-treatment plants. A statistical analysis shows a significant difference at the 95-percent confidence level between the average concentration of total phosphorus for samples collected before and after 1976.

Smaller decreases in concentrations of total inorganic nitrogen during 1977-79 also is indicated in figure 12. However, a trend cannot be shown thereafter because chemical analyses separating inorganic and organic nitrogen in samples collected from the reservoir were not performed.

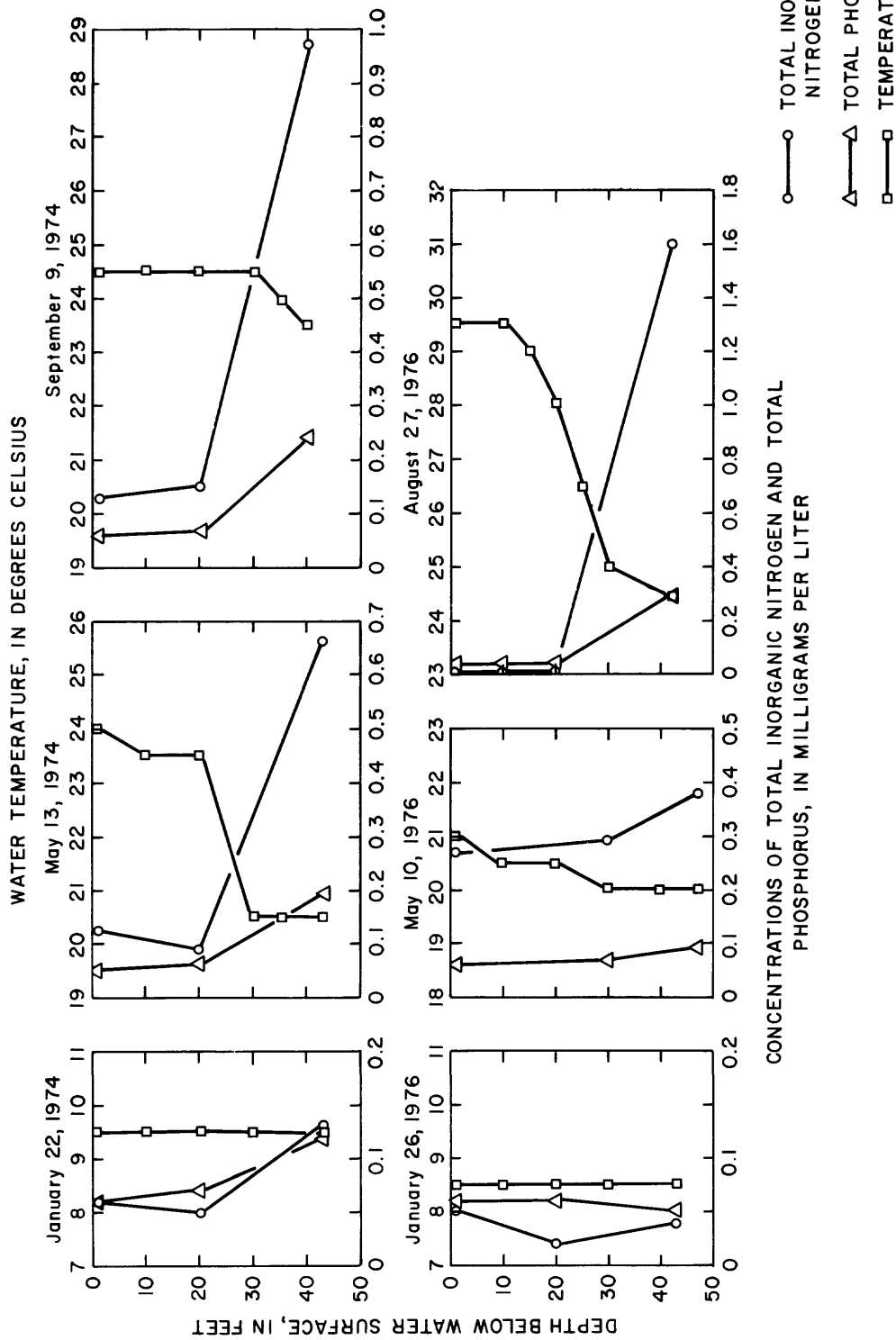


FIGURE 9a.-Seasonal profiles of concentrations of total inorganic nitrogen, total phosphorus, and of water temperature at site A_C

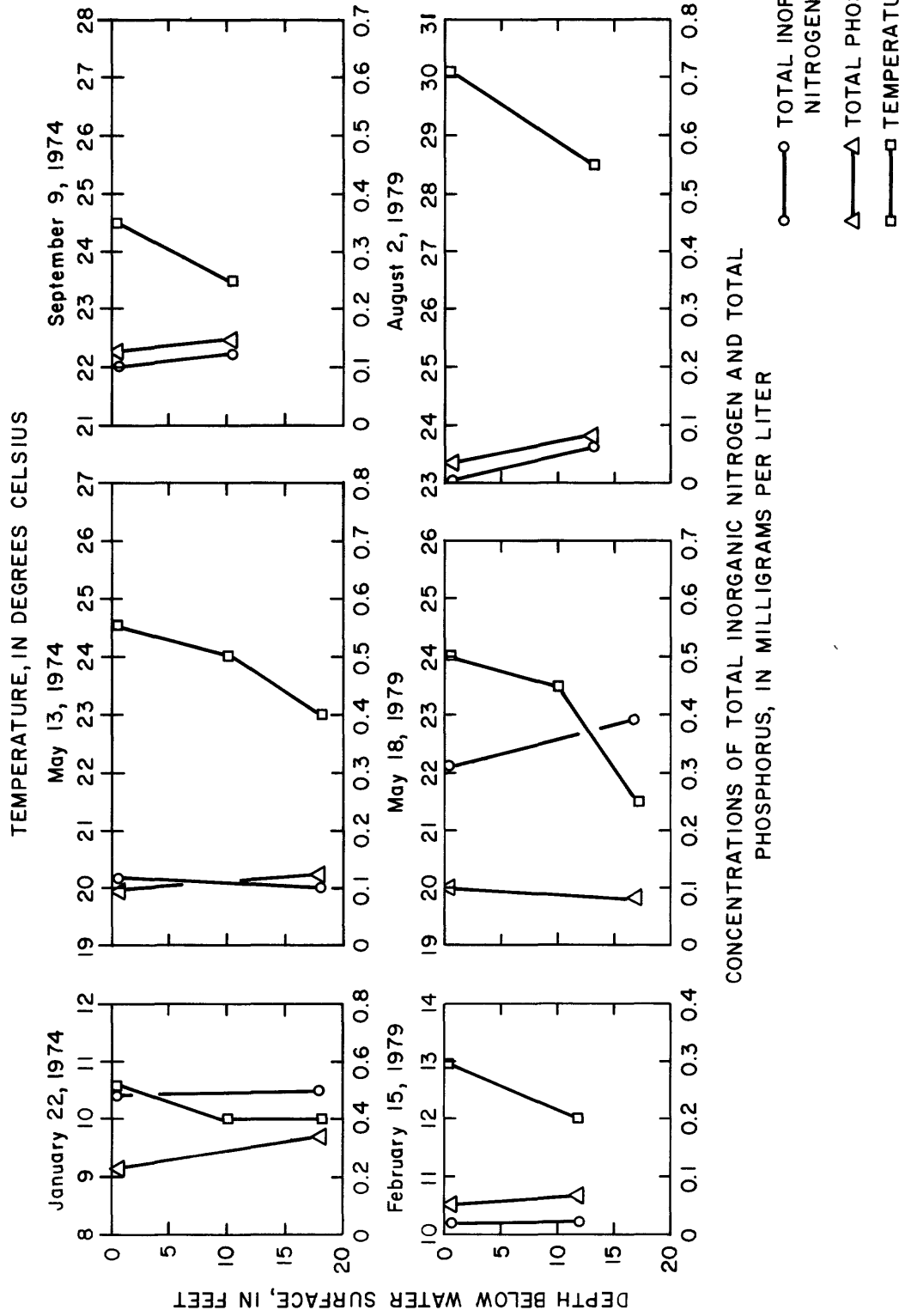


FIGURE 9b.-Seasonal profiles of concentrations of total inorganic nitrogen, total phosphorus, and of water temperature at site FC

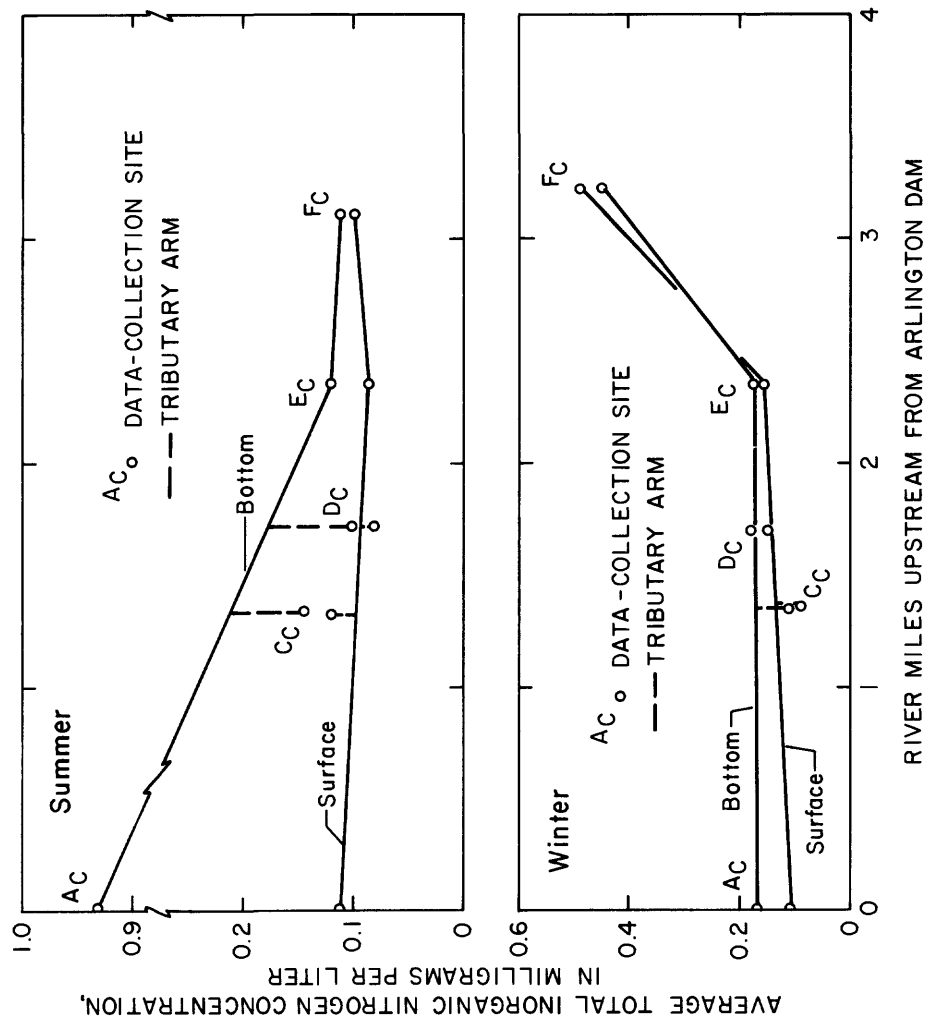


FIGURE 10.-Variations of concentrations of total inorganic nitrogen during summer and winter surveys, January 1973-August 1979

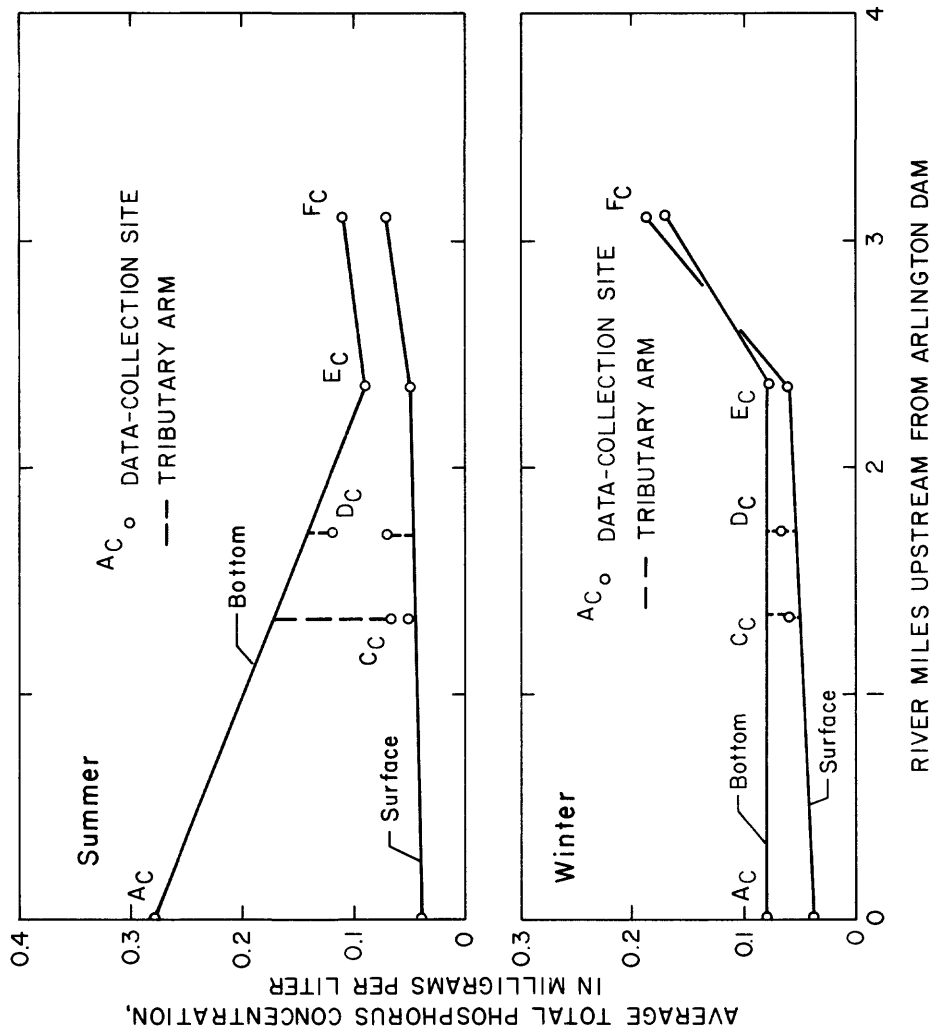


FIGURE 11.-Variations of concentrations of total phosphorus during summer and winter surveys, January 1973-August 1979

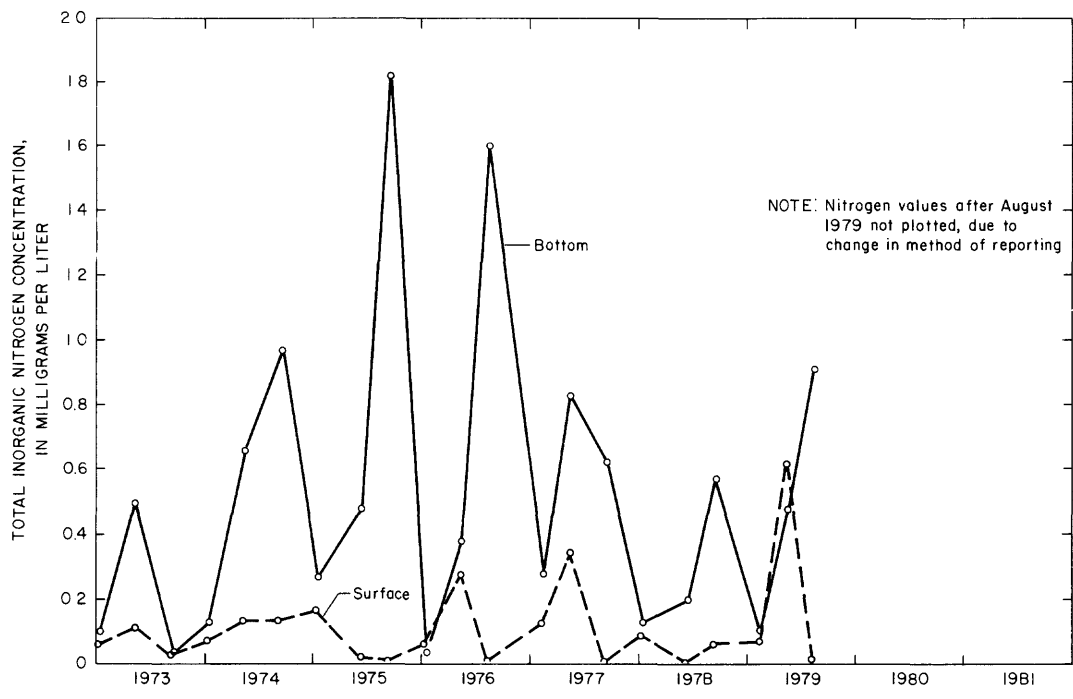
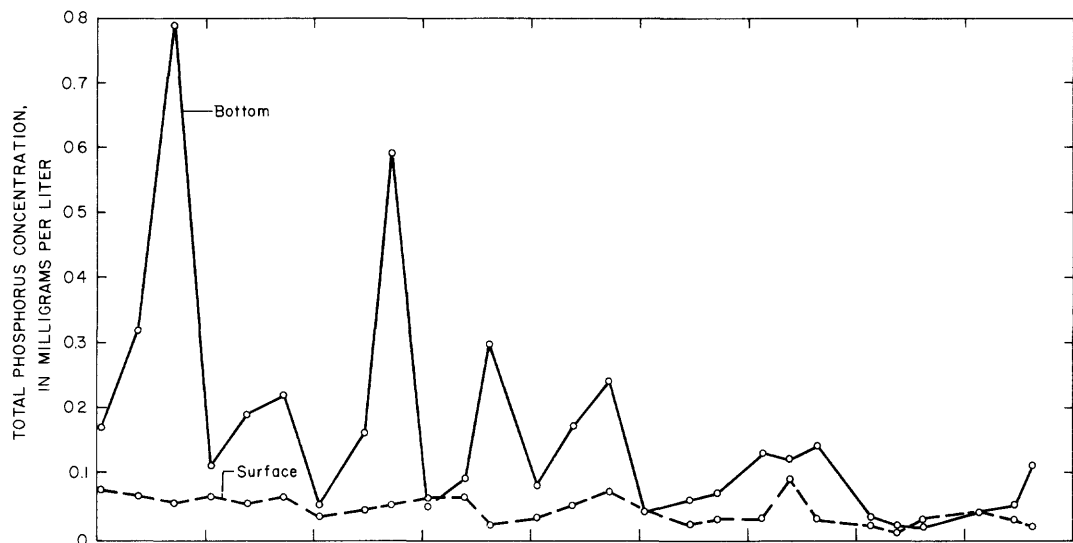


FIGURE 12.-Variations of concentrations of total inorganic nitrogen and total phosphorus at site A_C, January 1973-August 1979

Dissolved Solids, Dissolved Chloride, Dissolved Sulfate, and Hardness

Some of the more important properties or constituents that affect the utility of a reservoir as a water supply include dissolved solids, dissolved chloride, dissolved sulfate, and hardness. Because the concentrations of these constituents or properties and specific conductance of a water are directly related, onsite measurements of specific conductance can be used to estimate concentrations of some constituents in a reservoir. During each reservoir survey, the specific conductance of water at each data-collection site was determined at depth intervals of 5 to 10 feet. These data and results of analyses for dissolved solids, dissolved chloride, dissolved sulfate, and hardness of samples collected near the surface and bottom at selected sites were used to estimate concentrations of dissolved constituents during each of the reservoir surveys and to compute volume-weighted average concentrations of selected dissolved constituents within the reservoir (fig. 13).

Data in figure 13 show that during the 1973-81 water years, the volume-weighted average concentration of dissolved solids (sum of dissolved constituents) was less than 240 mg/L, of dissolved chloride was less than 30 mg/L, and of dissolved sulfate was less than 40 mg/L in water in Lake Arlington. The water was moderately hard (hardness greater than 60 but less than 120 mg/L as calcium carbonate) (Hem, 1970). A trend of decreasing concentrations for each of these constituents or properties during the study also is shown in figure 13. The most significant decrease occurred during the 1977-81 water years, after the cessation of discharge of municipal wastewater effluent into the reservoir. Average concentrations of dissolved solids, dissolved chloride, dissolved sulfate, and hardness before 1976 were compared with average concentrations after 1976. A statistical analysis showed a significant difference at the 95-percent confidence level between concentrations during the two periods. Volume-weighted average concentrations of dissolved solids, dissolved chloride, dissolved sulfate, and hardness for the 1973-76 water years differed from averages for the 1977-81 water years by about 20 mg/L for dissolved solids, 5 mg/L for dissolved chloride and dissolved sulfate, and 10 mg/L for hardness.

The concentrations of dissolved solids, dissolved chloride, dissolved sulfate, and hardness during the first few years of the study were greatest during winter. After the cessation of discharges of municipal wastewater into the reservoir, the greatest concentrations usually occurred during the spring or early summer (May or June) following the onset of thermal stratification.

During winter circulation, concentrations of these dissolved constituents do not vary significantly with depth (fig. 14 and tables 1-27). However, during summer stagnation when the water is thermally stratified at deep sites, the concentrations of each of the constituents except dissolved sulfate usually are slightly greater at the bottom than at the surface. For example, the concentration of dissolved solids at site A_C averaged about 10-20 mg/L greater in the hypolimnion than in the epilimnion. Dissolved sulfate at deep sites commonly varies from this stratification pattern due to its reduction to hydrogen sulfide in the hypolimnion. Consequently, during periods when the hypolimnion is nearly devoid of dissolved oxygen, the concentration of dissolved sulfate usually is greater in the epilimnion than the hypolimnion.

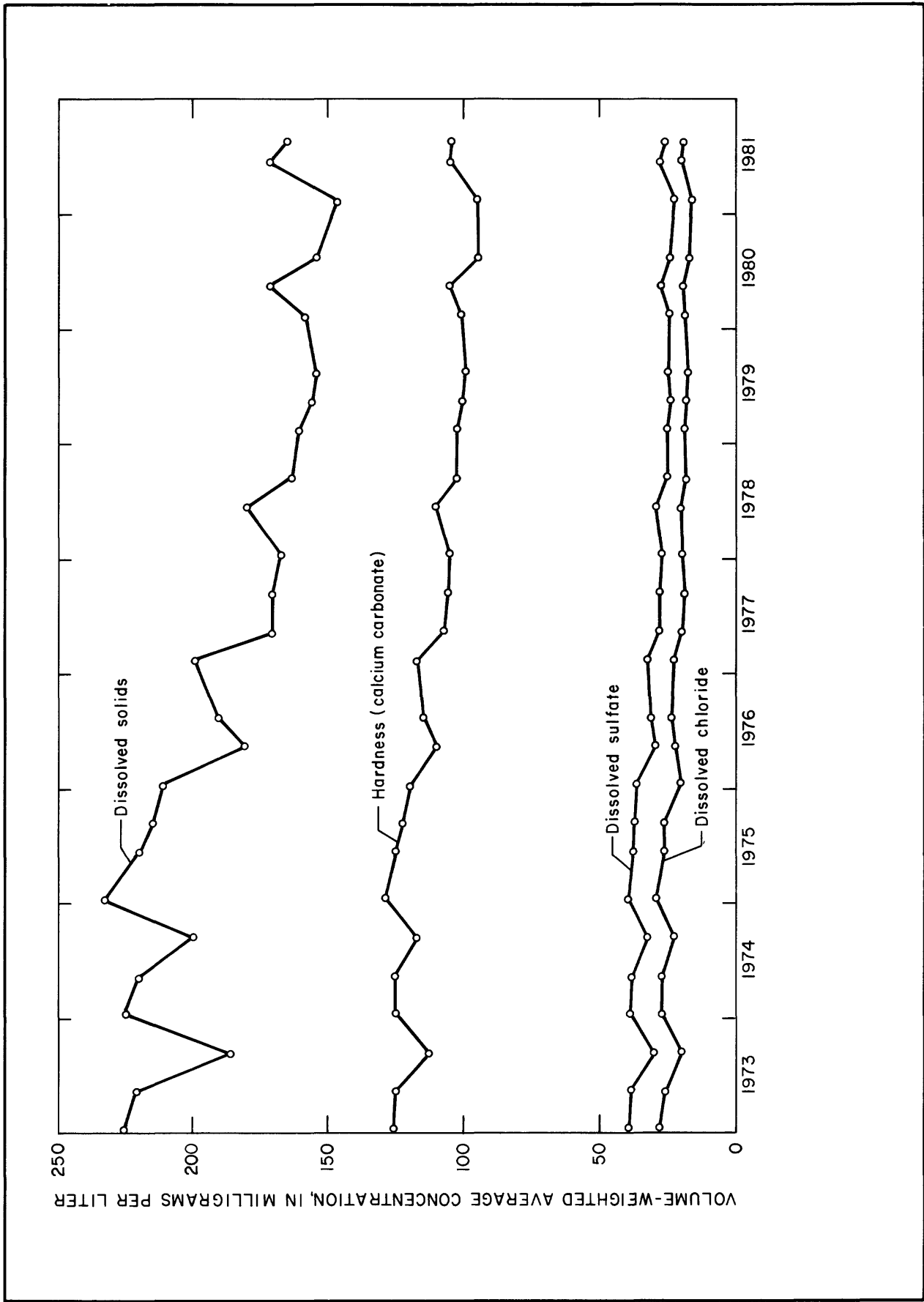


FIGURE 13.-Variations in volume-weighted average concentrations of dissolved solids, dissolved sulfate, dissolved chloride, and hardness, January 1973-August 1981

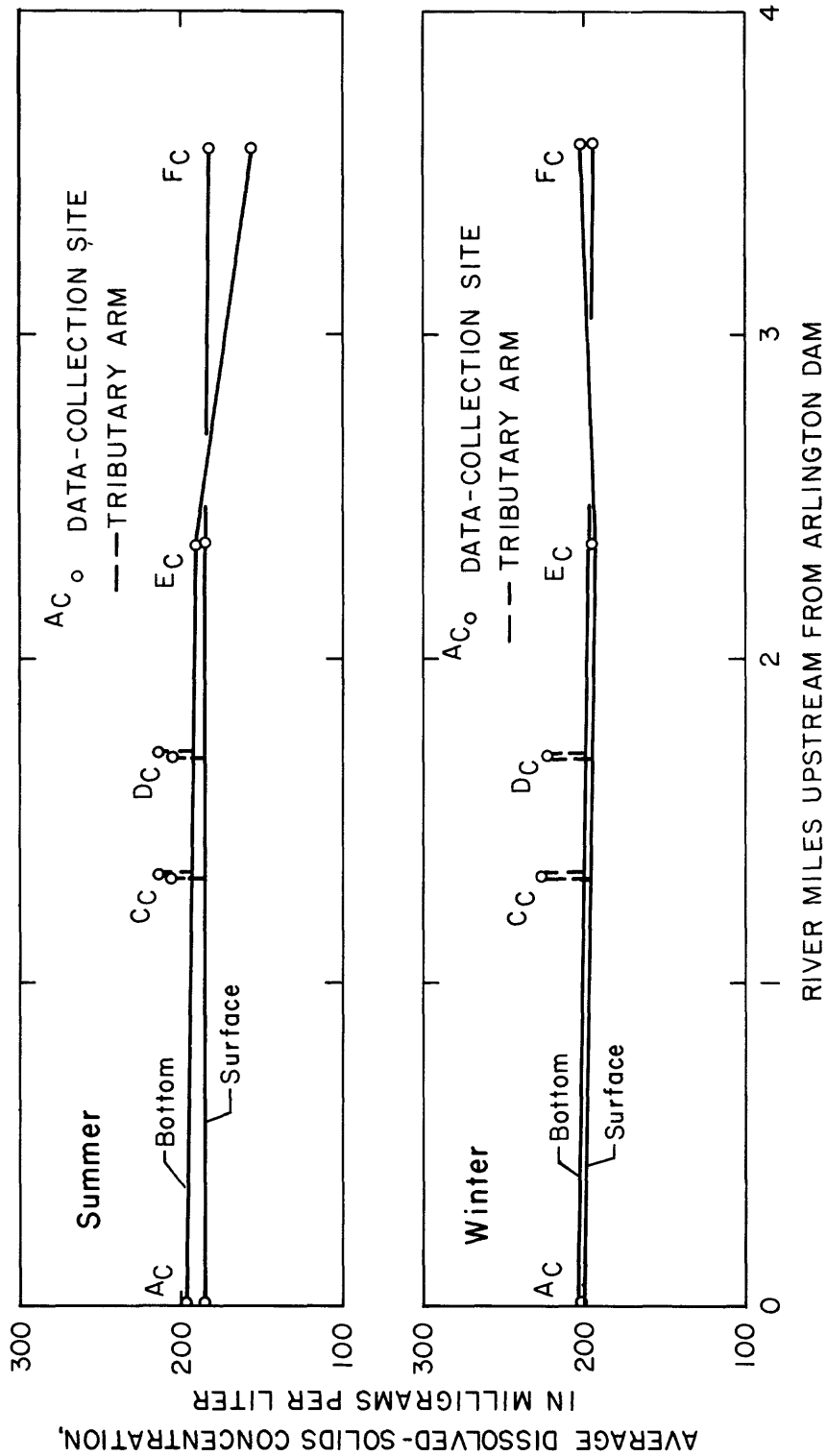


FIGURE 14.-Variations of concentrations of dissolved solids during summer and winter surveys, January 1973-August 1981

Phytoplankton

Phytoplankton is the community of suspended or floating aquatic plants that drift passively with water currents. The most common freshwater phytoplankton and those considered in this study are the algae. Algae are common and normal inhabitants of water in lakes and reservoirs and are important sources of food and dissolved oxygen for fish and other aquatic animals. However, massive densities of blooms (algae), especially the blue-green algae, may clog filters of water-treatment plants and may cause undesirable tastes, odors, and other problems in water supplies (Palmer, 1977). The respiration and decay of algae during and after blooms may cause oxygen depletion in a lake or reservoir and may result in fish kills or mortality of other aquatic organisms.

Some of the more important factors that affect the population of algae in a lake or reservoir include light, temperature, and available nutrients (Wetzel, 1975). Generally, algal productivity is greater in clear water than in turbid water and greater in warm water than in cold water. According to Ferguson (1968), the rate of algal growth doubles with each 11° increase in water temperature between 0° and 32°C.

The density and composition of an algal population in a lake or reservoir may fluctuate rapidly during the course of a year in response to changes in light, temperature, and available nutrients. Blooms generally are associated with warm summer weather but also may occur during winter.

During the 1978 water year, seasonal water-quality surveys of Lake Arlington were expanded to include the collection and analysis of samples for phytoplankton (algae) at site A_C near the dam and site F_C in the headwaters. All samples were collected at depths equivalent to one-half the depth of light penetration, as determined by measurements with Secchi disks. The data (figs. 15-16 and tables 1-27) show that the density and composition of algal populations at both sites varied seasonally. At site A_C, total algae counts ranged from 220 to 240,000 cells/mL (cells per milliliter) and averaged about 50,000 cells/mL. At site F_C algae counts ranged from 1,000 to 290,000 cells/mL and averaged about 56,000 cells/mL. The total algal population at both sites usually were minimum during the winter or spring and were usually maximum during the summer when water temperatures and nutrient concentrations stimulated growth. The predominant algae during summer surveys were the blue-green (figs. 15-16). The predominant blue-green algae during summer surveys at both sites usually were Oscillatoria, Anabaena, and Anacystis (figs. 17 and 18).

SUITABILITY OF WATER AS A PUBLIC SUPPLY

The suitability of a water for public supply depends to a large extent on the concentrations of chemical constituents that may have a significant impact on the health of the consumer and to a lesser extent on the concentrations of constituents that may affect the esthetic qualities and discourage the use of the water by the public. A summary of regulations for selected constituents is presented in table 28. A comparison of these regulations with data in tables 1-27 shows that the concentrations of most chemical constituents in

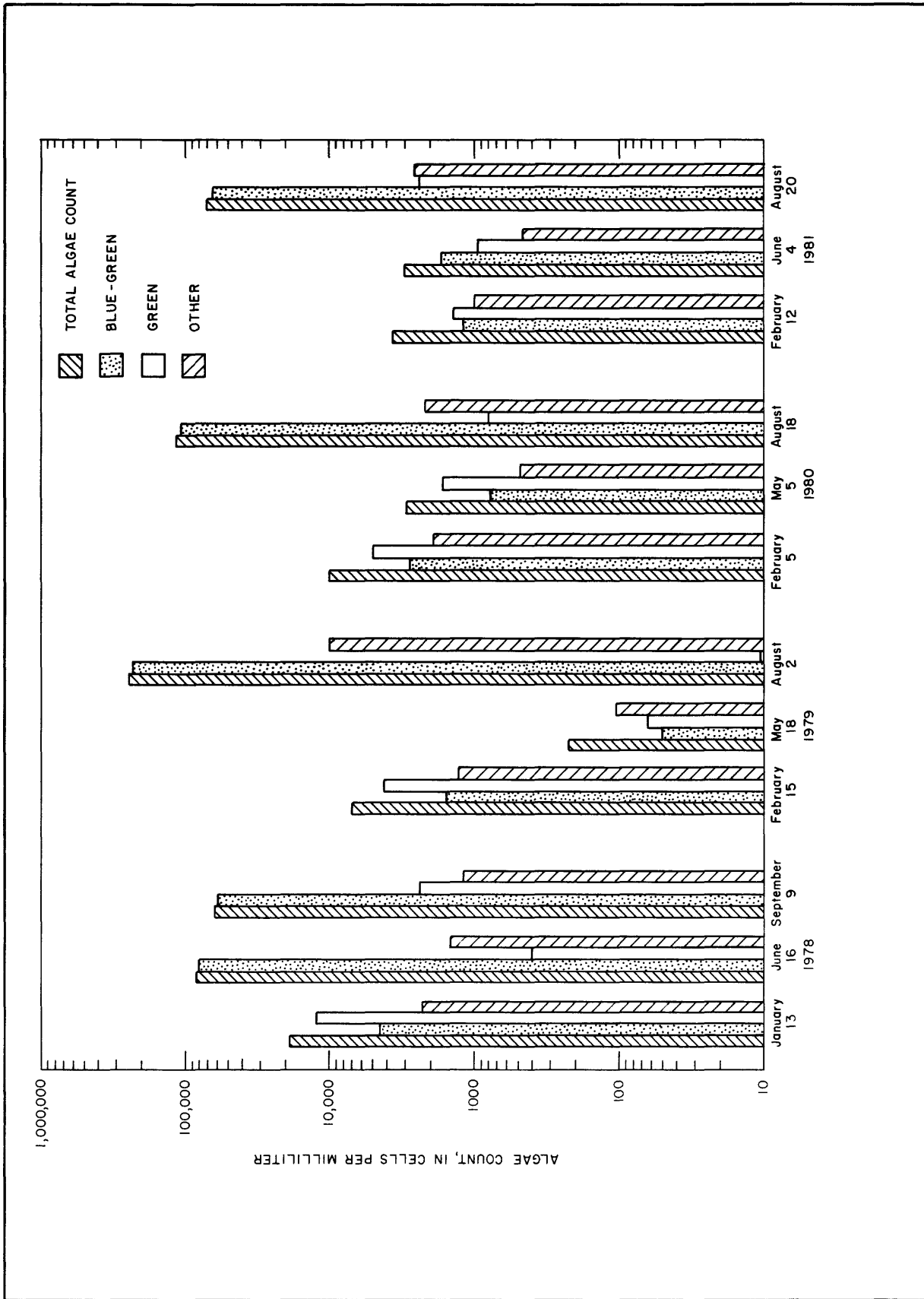


FIGURE 15.-Seasonal variations of algal densities at site A_C, January 1978 - August 1981

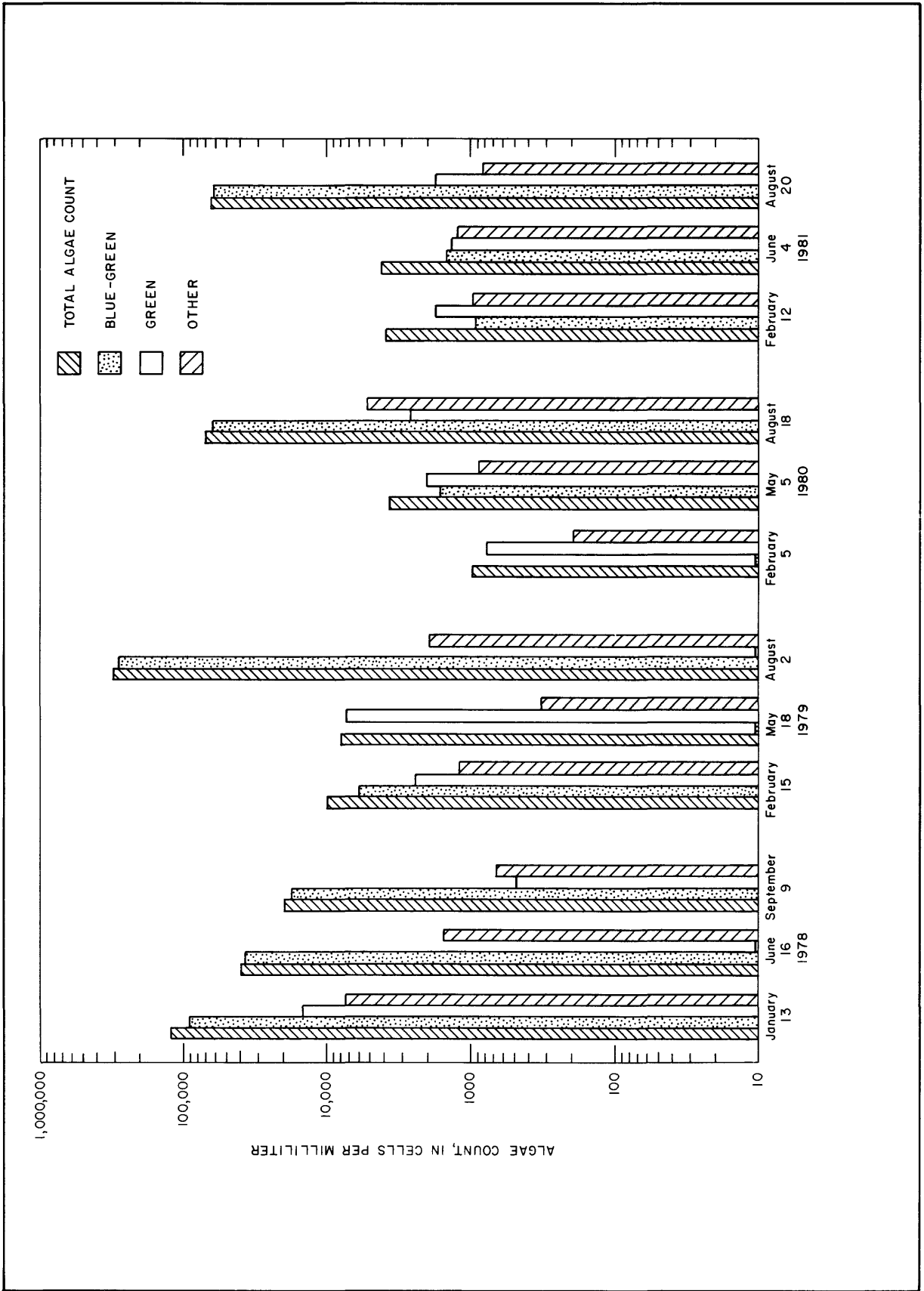


FIGURE 16.-Seasonal variations of algal densities at site F_C, January 1978-August 1981

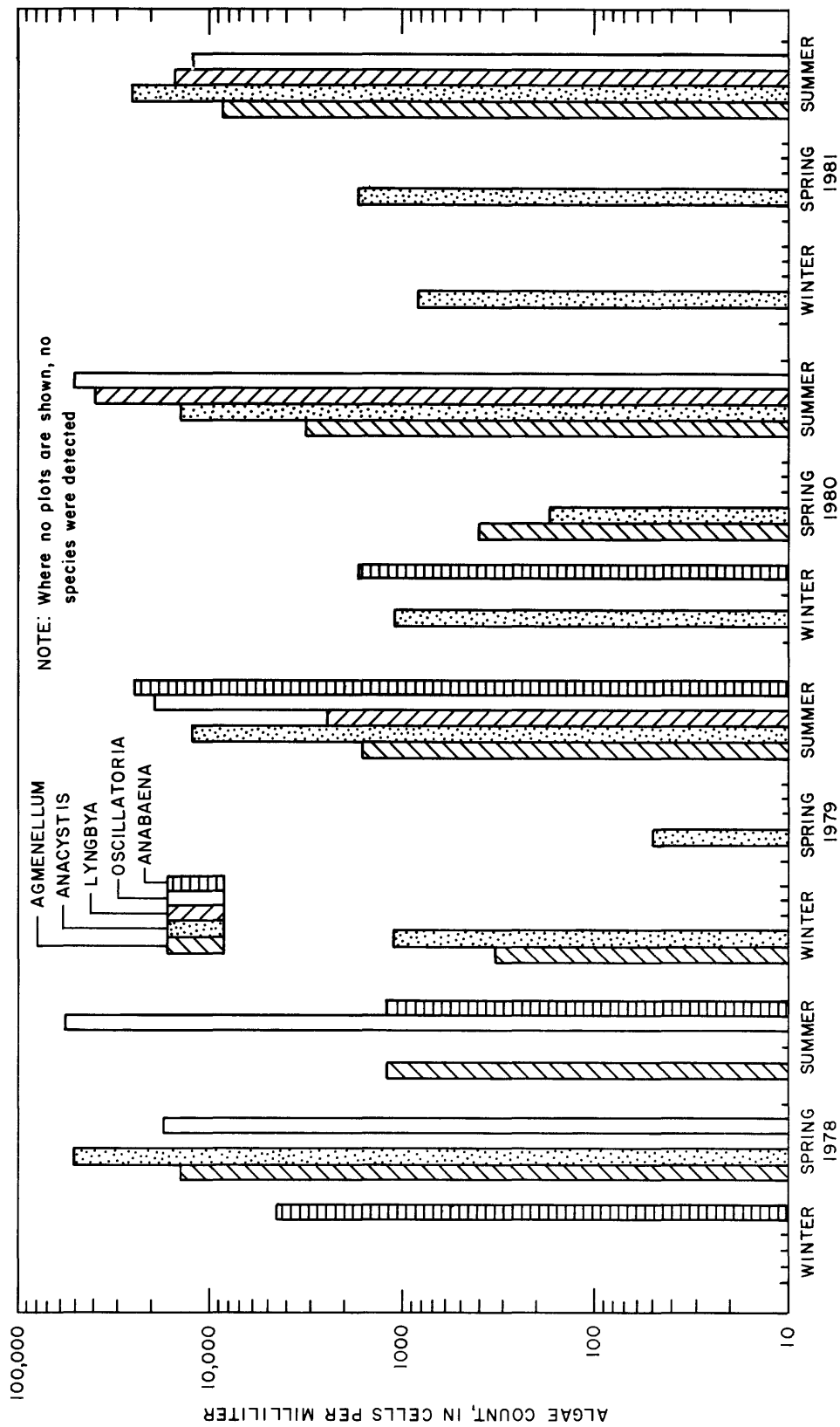


FIGURE 17.-Seasonal variation of selected blue-green algae genera at site A.C, January 1978-August 1981

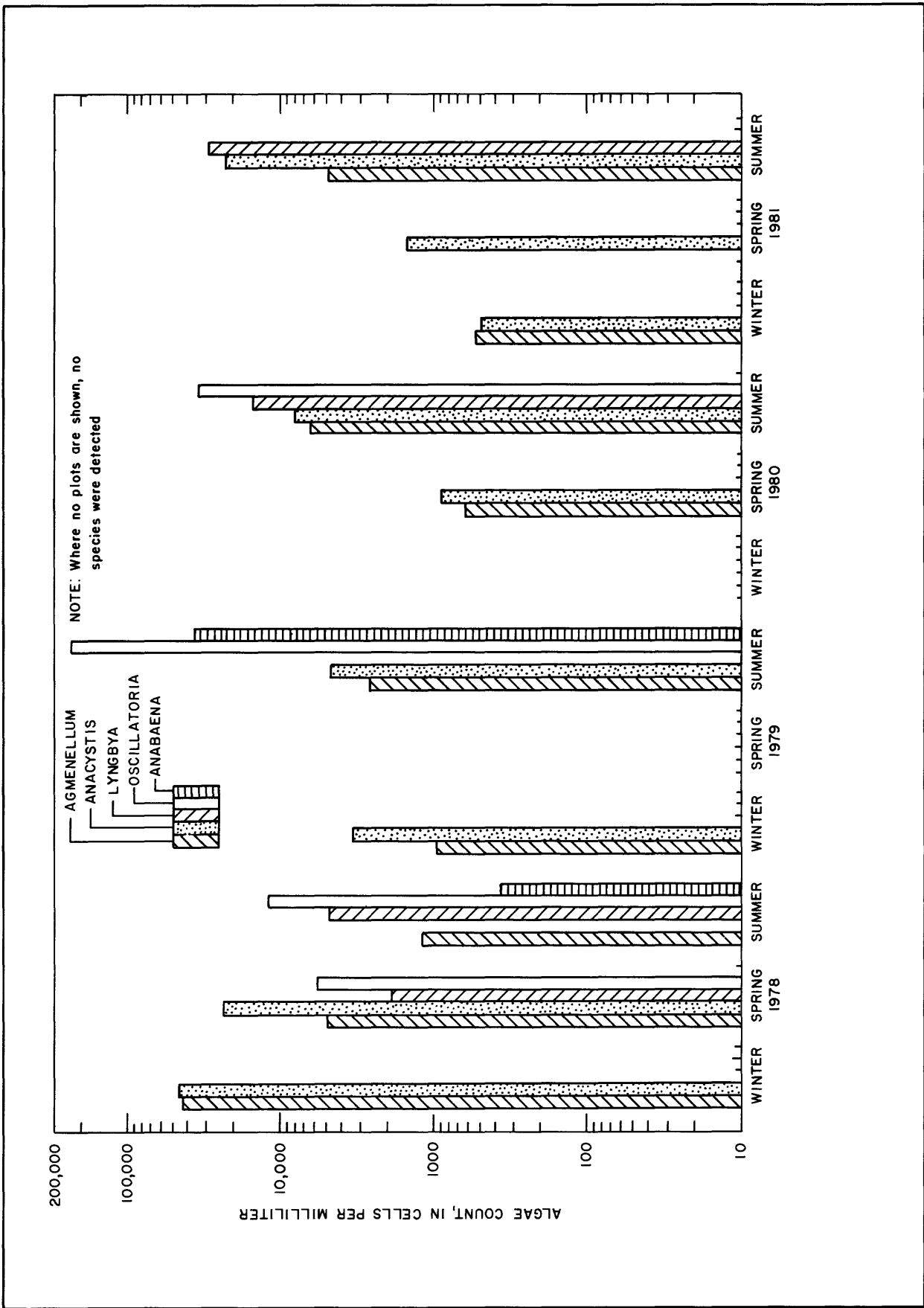


FIGURE 18.-Seasonal variation of selected blue-green algae genera at site Fc, January 1978-August 1981

the waters of Lake Arlington are less than the maximum contaminant level or secondary maximum contaminant level set by the U.S. Environmental Protection Agency (1977a,b). The concentrations of dissolved iron and dissolved manganese are exceptions to this generalization. At site A_C near Arlington Dam, the concentrations of dissolved iron and dissolved manganese in the hypolimnion often exceed the secondary maximum contaminant levels of 300 µg/L of dissolved iron and 50 µg/L of dissolved manganese. However, the concentration of neither constituents poses a significant problem.

SUMMARY OF CONCLUSIONS

Thermal stratification in Lake Arlington, which usually begins to develop during March or April and persists until October, results in three fairly distinct layers during June through September in the deeper waters: (1) The epilimnion, a warm, freely circulating surface layer; (2) the metalimnion, a middle layer characterized by a rapid decrease in temperature with increase in depth; and (3) the hypolimnion, a cold, stagnant lower layer. The concentrations of dissolved oxygen, dissolved iron, dissolved manganese, total inorganic nitrogen, total phosphorus, and some of the other constituents are related to this pattern of thermal stratification.

The depth-averaged concentration of dissolved oxygen at most sites in the downstream one-half of the reservoir was less than 5 mg/L during summer stratification and more than 10 mg/L during winter circulation. In the headwaters, the depth-averaged concentration of dissolved oxygen was about 6 mg/L during the summer and more than 10 mg/L during the winter. Below depths of 30 to 40 feet, the concentration of dissolved oxygen usually was less than 2 mg/L during the summer.

The occurrence and distribution of dissolved iron and manganese are related to dissolved-oxygen concentration. Water throughout the reservoir during winter circulation and near the surface during summer stagnation usually contained less than 50 µg/L of each constituent. At site F_C, a shallow headwaters site, dissolved-iron concentrations near the bottom during the summer ranged from about 10 to 80 µg/L and averaged about 30 µg/L. Dissolved-manganese concentrations at this site ranged from about 10 to 120 µg/L and averaged about 30 µg/L. At site A_C, a deep site near Arlington Dam, dissolved-iron concentrations near the bottom in summer ranged from about 10 to 1,100 µg/L and averaged 640 µg/L. Dissolved-manganese concentrations ranged from 20 to 2,700 µg/L and averaged about 1,500 µg/L.

The concentrations of other trace elements (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc) during many of the reservoir surveys from June 1978 through August 1981, were near or less than the limits of detection. Generally, concentrations in water near the reservoir surface were not significantly greater than concentrations in bottom waters; and seasonal variations were insignificant.

The total inorganic nitrogen and total phosphorus concentrations in Lake Arlington varied seasonally and areally. Concentrations usually were greatest in the hypolimnion at deep sites during summer stagnation when the decay of aquatic organisms and organic debris in the bottom sediments release nutrients to the overlying water. At site A_C near the bottom, the concentrations of

total inorganic nitrogen averaged about 0.9 mg/L and the concentrations of total phosphorus averaged more than 0.2 mg/L during summer stagnation. The concentrations of both nutrients in water near the surface during the summer averaged 0.1 mg/L or less throughout the reservoir. During winter circulation, the variation of nutrient concentrations with depth was insignificant; but the concentrations of both total inorganic nitrogen and total phosphorus were greatest in the headwaters and decreased progressively toward Arlington Dam. A significant downward trend was noted for the concentration of total phosphorus. This took place after the cessation of discharge of secondary effluent into the reservoir.

During the 1973-81 water years, the concentrations of dissolved solids averaged less than 240 mg/L, of dissolved chloride averaged less than 30 mg/L, and of dissolved sulfate averaged less than 40 mg/L. During summer periods of thermal stratification, the concentrations of dissolved solids at deep sites averaged 10 to 20 mg/L greater in the hypolimnion than in the epilimnion. A statistical analysis shows a significant difference at the 95-percent confidence level for the average concentrations of dissolved solids, dissolved chloride, dissolved sulfate, and hardness for the periods before and after 1976.

The density and composition of algal populations varied seasonally. At site A_C, total algae counts ranged from 220 to 240,000 cells/mL and averaged about 50,000 cells/mL. At site F_C, algae counts ranged from 1,000 to 290,000 cells/mL and averaged about 56,000 cells/mL. Algal densities usually were greatest during the summer when bluegreen algae were the predominant phyla.

The concentrations of most chemical constituents other than dissolved iron and dissolved manganese in the waters of Lake Arlington were less than maximum contaminant levels or secondary maximum contaminant levels set by the U.S. Environmental Protection Agency (1977a,b) for public water systems.

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Table 1.--Chemical-quality survey of Lake Arlington, January 29, 1973

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micromhos per liter)

324304097113601 SITE AC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION
JAN								
29...	0920	1.00	432	8.4	10.0	.52	10.4	92
29...	0925	10.0	432	8.4	10.0	--	10.4	92
29...	0927	20.0	432	8.4	9.5	--	10.1	89
29...	0929	25.0	432	8.4	9.5	--	10.1	89
29...	0931	30.0	432	8.5	9.5	--	10.1	89
29...	0933	40.0	436	8.5	9.5	--	10.2	89

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JAN									
29...	120	0	38	5.8	42	1.7	119	44	31
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	120	0	38	5.8	44	1.8	121	45	31

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN								
29...	.4	.5	233	.05	<.010	.072	<10	<10
29...	--	--	--	--	--	--	<10	<10
29...	--	--	--	.06	<.010	.072	<10	<10
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	<10	<10
29...	.4	1.5	239	.10	<.010	.170	80	20

324320097121101 SITE AL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION
JAN							
29...	0940	1.00	432	8.4	10.0	10.2	90
29...	0942	10.0	432	8.4	10.0	10.2	90
29...	0944	20.0	432	8.3	10.0	10.1	89
29...	0946	29.0	432	8.3	9.5	10.0	88

324253097121801 SITE BC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION
JAN							
29...	1010	1.00	432	8.3	10.0	10.0	88
29...	1012	10.0	432	8.3	10.0	9.8	87
29...	1014	20.0	432	8.3	9.5	9.6	84
29...	1016	32.0	432	8.3	9.5	9.5	83

Table 1.--Chemical-quality survey of Lake Arlington, January 29, 1973--Continued

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JAN 30...	1030	1.00	433	8.1	17.0	9.7	100	120	0	37	5.9	46
30...	1032	6.00	433	8.0	16.5	10.1	103	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 30...	1.9	125	46	30	.4	1.0	242	.08	<.010	.090	<10	<10
30...	--	--	--	--	--	--	--	.07	<.010	.100	<10	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JAN 30...	1045	1.00	435	8.2	16.0	9.8	98	120	0	38	5.8	44
30...	1047	9.00	435	8.2	15.5	9.6	95	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 30...	1.8	122	46	31	.4	.8	239	.08	<.010	.100	<10	<10
30...	--	--	--	--	--	--	--	.08	<.010	.084	<10	<10

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANSPAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CACO3)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 30...	1100	1.00	429	8.3	7.5	.30	88	10.6	10.6	88	30	30
30...	1105	10.0	429	8.3	7.5	--	87	10.4	10.4	87	30	30
30...	1107	20.0	429	8.2	7.0	--	84	10.2	10.2	84	30	30

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 30...	120	0	38	5.7	42	1.7	120	45	30
30...	--	--	--	--	--	--	--	--	--
30...	120	2	41	5.6	41	1.6	123	46	29

Table 1.--Chemical-quality survey of Lake Arlington, January 29, 1973--Continued

324143097132201 SITE EC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN								
30...	.3	1.1	235	.21	<.010	.150	20	<10
30...	--	--	--	.21	<.010	.150	170	20
30...	.3	4.2	243	.31	<.010	.230	60	50

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
JAN							
30...	1120	1.00	428	8.3	7.5	10.6	90
30...	1122	7.00	428	8.3	7.5	10.8	88

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	HARDNESS, AS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM, DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JAN												
30...	1135	1.00	421	7.8	6.0	10.0	80	130	13	45	5.1	33
30...	1137	10.0	421	7.8	6.0	9.9	79	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	ALKALINITY (MG/L AS CACO3)	SULFATE, DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN												
30...	1.2	121	45	23	.3	9.5	240	1.6	.540	.720	100	30
30...	--	--	--	--	--	--	--	1.5	.580	.740	180	30

Table 2.--Chemical-quality survey of Lake Arlington, May 21, 1973
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY									
21...	0920	1.00	410	8.2	27.0	.61	10.2	126	
21...	0925	10.0	410	8.1	26.0	--	10.0	122	
21...	0927	15.0	410	7.8	26.0	--	8.4	102	
21...	0929	20.0	411	7.6	24.0	--	6.5	76	
21...	0931	25.0	415	7.4	24.0	--	5.3	62	
21...	0933	30.0	416	7.2	23.5	--	3.6	42	
21...	0935	39.0	421	7.0	23.5	--	3.0	35	

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY									
21...	120	6	41	5.6	34	1.3	120	41	26
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	130	6	44	5.6	34	1.3	127	40	26

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
21...	.3	.6	221	.11	.040	.060	<10	<10
21...	--	--	--	--	--	--	<10	<10
21...	--	--	--	--	--	--	--	--
21...	--	--	--	.30	.040	.060	20	<10
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	40	20
21...	.3	2.0	231	.50	.220	.320	60	200

324320097121101 SITE AL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY								
21...	0940	1.00	412	8.3	27.5	11.2	140	
21...	0942	10.0	412	8.1	26.5	9.5	116	
21...	0944	20.0	412	7.5	24.0	6.0	71	
21...	0946	30.0	415	7.2	23.5	2.6	30	
21...	0948	38.0	417	7.1	23.5	.9	10	

Table 2.--Chemical-quality survey of Lake Arlington, May 21, 1973--Continued

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
MAY							
21...	1010	1.00	412	8.2	27.0	9.2	114
21...	1012	10.0	412	8.1	26.5	9.2	112
21...	1014	15.0	412	7.9	25.5	7.2	87
21...	1016	20.0	418	7.6	24.0	6.0	71
21...	1018	30.0	418	7.3	24.0	4.0	47
21...	1020	35.0	447	7.1	23.5	1.7	20

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
MAY							
21...	1030	1.00	411	8.3	27.5	9.6	120
21...	1032	10.0	411	8.2	27.0	9.1	112
21...	1034	23.0	415	7.5	25.0	5.6	67

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAY												
21...	1045	1.00	411	8.2	34.5	8.4	117	120	0	40	5.6	40
21...	1047	11.0	413	8.1	34.5	8.4	117	--	--	--	--	--
DATE	SODIUM ADSORPTION RATIO	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY												
21...	1.6	129	42	26	.3	.5	232	.20	.020	.055	<10	<10
21...	--	--	--	--	--	--	--	.20	.080	.060	<10	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	
MAY									
21...	1050	1.00	410	8.1	28.5	.50	8.1	104	
21...	1052	10.0	410	8.1	25.5	--	7.4	89	
21...	1054	17.0	415	7.6	26.5	--	6.2	76	
DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
MAY									
21...	120	0	40	5.6	40	1.6	128	41	26
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--

Table 2.--Chemical-quality survey of Lake Arlington, May 21, 1973--Continued

324228097130301 SITE DC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY 21...	.4	.5	232	.30	.040	.050	20	<10
21...	--	--	--	--	--	--	--	--
21...	--	--	--	.30	.160	.080	<10	20

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (PERCENT)
MAY 21...	1100	1.00	419	8.1	26.0	.30	8.6	105
21...	1105	5.00	419	8.1	26.0	--	8.6	105
21...	1107	10.0	419	7.8	24.0	--	5.6	66
21...	1109	20.0	427	7.7	24.0	--	4.7	55
21...	1111	28.0	448	7.5	24.0	--	1.8	21

DATE	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	ALKALINITY FIELD AS (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SU4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
MAY 21...	130	0	42	5.7	37	1.4	127	42	26
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	150	5	49	5.8	36	1.3	141	42	27

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY 21...	.2	.5	230	.20	.050	.074	20	<10
21...	--	--	--	--	--	--	--	--
21...	--	--	--	.30	.260	.130	--	--
21...	--	--	--	--	--	--	--	--
21...	.3	2.3	249	.30	.260	.120	20	100

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (PERCENT)
MAY 21...	1120	1.00	425	8.2	27.0	9.5	117
21...	1122	10.0	425	7.8	25.5	8.1	98
21...	1124	15.0	426	7.6	24.5	4.2	50

Table 2.--Chemical-quality survey of Lake Arlington, May 21, 1973--Continued

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY									
21...	1135	1.00	422	8.3	26.5	.20	9.4		115
21...	1140	10.0	442	7.6	24.5	--	4.3		51
21...	1142	18.0	478	7.3	24.5	--	2.2		26

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY									
21...	130	4	43	5.6	37	1.4	126	43	27
21...	--	--	--	--	--	--	--	--	--
21...	150	9	51	6.6	37	1.3	146	48	28

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
21...	.3	.5	233	.20	.080	.060	<10	<10
21...	--	--	--	.20	.210	.100	20	90
21...	.3	2.2	263	.30	.350	.130	<10	260

Table 3.--Chemical-quality survey of Lake Arlington, September 10, 1973
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)
SEP								
10...	0915	1.00	354	8.1	28.0	1.10	8.3	105
10...	0920	10.0	354	7.3	27.0	--	7.8	96
10...	0922	20.0	354	7.2	27.0	--	3.9	48
10...	0924	25.0	354	7.2	27.0	--	3.0	37
10...	0926	30.0	346	7.0	26.0	--	.2	2
10...	0928	39.0	304	6.7	23.5	--	.2	2

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
10...	110	3	36	5.3	28	1.2	108	31	22
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	110	0	38	4.3	20	.8	118	6.0	23

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CON-STI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
10...	.3	3.5	191	.02	<0.010	.050	20	<10
10...	--	--	--	--	--	--	60	<10
10...	--	--	--	.02	<.010	.060	60	20
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	70	860
10...	0	9.1	176	.03	.210	.790	1100	2700

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)
SEP							
10...	0940	1.00	354	7.9	28.0	8.0	101
10...	0942	10.0	354	7.3	27.5	5.9	74
10...	0944	20.0	354	7.2	27.0	5.0	62
10...	0946	30.0	348	6.8	26.5	.2	2

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)
SEP							
10...	1010	1.00	354	8.2	28.0	8.0	103
10...	1012	10.0	354	7.5	27.5	5.6	70
10...	1014	20.0	354	7.1	27.5	3.8	48
10...	1016	34.0	354	7.1	27.0	.2	2

Table 3.--Chemical-quality survey of Lake Arlington, September 10, 1973--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP							
10...	1030	1.00	353	8.2	29.0	8.0	103
10...	1032	10.0	353	7.2	27.5	4.1	51
10...	1034	23.0	355	7.1	28.5	3.1	39

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP								
10...	1045	1.00	357	7.8	31.0	.70	6.0	80
10...	1050	10.0	357	7.2	27.5	--	4.4	55
10...	1052	18.0	385	7.1	27.5	--	2.8	35

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
10...	110	0	36	5.2	29	1.2	112	31	22
10...	--	--	--	--	--	--	--	--	--
10...	130	0	43	5.4	31	1.2	132	31	22

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
10...	.3	3.6	195	<.10	.480	.070	<10	<10
10...	--	--	--	--	--	--	--	--
10...	.3	4.0	216	.04	<.010	.120	20	120

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP								
10...	1100	1.00	352	8.4	29.5	1.00	9.2	119
10...	1105	10.0	358	8.1	28.5	--	7.7	99
10...	1107	20.0	384	7.5	27.5	--	4.2	52

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
10...	110	0	35	5.3	30	1.2	110	32	22
10...	--	--	--	--	--	--	--	--	--
10...	120	3	40	5.6	29	1.1	120	32	23

Table 3.--Chemical-quality survey of Lake Arlington, September 10, 1973--Continued

324143097132201 SITE EC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
SEP								
10...	.3	3.9	195	.02	<.010	.072	20	<10
10...	--	--	--	.01	<.010	.070	60	<10
10...	.3	3.6	206	.01	<.010	.100	20	<10

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)
SEP							
10...	1120	1.00	349	8.2	29.5	9.5	123
10...	1122	10.0	354	8.1	28.5	8.0	103
10...	1124	18.0	382	7.4	27.5	5.0	62

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)
SEP								
10...	1135	1.00	357	8.2	29.5	.60	8.5	110
10...	1140	12.0	385	7.8	28.5	--	7.4	95

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
SEP									
10...	110	2	36	5.4	29	1.2	110	32	22
10...	120	4	40	5.6	31	1.2	119	35	24

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
SEP								
10...	.3	3.2	194	<.10	<.010	.072	40	<10
10...	.3	3.8	211	<.10	<.010	.120	40	<10

Table 4.--Chemical-quality survey of Lake Arlington, January 22, 1974

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION
JAN								
22...	0800	1.00	398	8.0	9.5	.90	10.5	92
22...	0805	10.0	398	8.0	9.5	--	10.4	91
22...	0807	20.0	398	8.0	9.5	--	10.4	91
22...	0811	30.0	398	7.9	9.5	--	10.3	90
22...	0813	43.0	398	7.9	9.5	--	9.9	87

DATE	HARD-NESS (MG/L AS CAC03)	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
22...	130	2	41	6.0	32	1.2	125	35	25
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	130	4	42	6.1	32	1.2	126	35	25

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+N03 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
22...	.3	1.6	216	.06	<.010	.060	<10	<10
22...	--	--	--	--	--	--	--	--
22...	--	--	--	.05	--	.070	<10	<10
22...	--	--	--	--	--	--	--	--
22...	.4	1.7	219	.13	<.010	.120	<10	<10

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION
JAN							
22...	0820	1.00	398	8.0	9.5	10.5	92
22...	0822	10.0	398	8.0	9.5	10.4	91
22...	0824	20.0	398	8.0	9.5	10.4	91
22...	0826	30.0	398	8.0	9.5	10.4	91
22...	0828	39.0	398	8.0	9.5	10.2	89

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION
JAN							
22...	0850	1.00	398	8.0	9.5	10.4	91
22...	0852	10.0	398	8.0	9.5	10.4	91
22...	0854	20.0	398	8.0	9.5	10.4	91
22...	0856	30.0	398	8.0	9.5	10.4	91
22...	0858	40.0	398	8.0	9.5	10.2	89

Table 4.--Chemical-quality survey of Lake Arlington, January 22, 1974--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
22...	0915	1.00	398	8.0	9.5	10.4	91
22...	0917	10.0	398	8.0	9.5	10.4	91
22...	0919	20.0	398	8.0	9.5	10.4	91
22...	0921	31.0	398	8.0	9.5	10.2	89

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-CENT SATUR-ATION	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
JAN												
22...	0935	1.00	398	8.0	12.0	10.3	95	130	2	41	5.9	33
22...	0937	10.0	398	8.0	12.0	10.2	94	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN												
22...	1.3	125	35	25	.3	.8	216	.05	<.010	.070	<10	<10
22...	--	--	--	--	--	--	--	.05	<.010	.070	<10	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRAN-SPAR-ENCY (SECCHI DISK (M))	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-CENT SATUR-ATION
JAN								
22...	0940	1.00	398	8.0	9.5	.70	10.2	89
22...	0942	10.0	398	8.0	9.5	--	10.2	89
22...	0944	17.0	398	7.9	9.5	--	9.9	87

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
22...	130	4	42	5.9	31	1.2	125	35	25
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
22...	.3	1.4	216	.07	.160	.080	<10	<10
22...	--	--	--	--	--	--	--	--
22...	--	--	--	.06	.200	.090	<10	<10

Table 4.--Chemical-quality survey of Lake Arlington, January 22, 1974--Continued

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN								
22...	1000	1.00	416	8.0	10.0	.40	10.2	90
22...	1005	10.0	416	8.0	10.0	--	10.2	90
22...	1007	20.0	416	8.0	10.0	--	10.1	89
22...	1009	24.0	404	8.0	9.5	--	10.0	88

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
22...	140	7	44	6.1	32	1.2	128	39	26
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	130	5	43	6.0	31	1.2	127	36	25

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
22...	.3	1.2	226	.12	.260	.150	<10	<10
22...	--	--	--	.12	.210	.150	<10	<10
22...	--	--	--	--	--	--	--	--
22...	.4	1.7	220	.09	.250	.130	<10	<10

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
22...	1020	1.00	416	8.0	10.0	10.2	90
22...	1022	10.0	416	8.0	10.0	10.2	90
22...	1024	13.0	416	8.0	9.5	10.0	88

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN								
22...	1035	1.00	435	7.9	10.5	.30	9.8	88
22...	1040	10.0	435	7.9	10.0	--	9.7	86
22...	1042	17.0	435	7.8	10.0	--	9.6	85

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
22...	140	11	46	6.4	34	1.2	130	42	28
22...	--	--	--	--	--	--	--	--	--
22...	140	11	46	6.3	34	1.2	130	43	28

Table 4.--Chemical-quality survey of Lake Arlington, January 22, 1974--Continued

324041097134601 SITE FC--Continued

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN								
22...	.4	2.0	238	.22	.280	.220	<10	<10
22...	--	--	--	--	--	--	--	--
22...	.4	.4	238	.23	.250	.330	30	130

Table 5.--Chemical-quality survey of Lake Arlington, May 13, 1974
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY									
13...	0930	1.00	395	7.8	24.0	.90	9.8	115	
13...	0935	10.0	395	7.8	23.5	--	9.5	110	
13...	0937	20.0	395	7.8	23.5	--	8.9	103	
13...	0939	30.0	395	6.9	20.5	--	.1	1	
13...	0941	35.0	381	6.9	20.5	--	.1	1	
13...	0943	43.0	381	6.9	20.5	--	.1	1	

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAY									
13...	120	4	39	5.9	32	1.3	5.1	117	45
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	120	2	41	5.2	28	1.1	4.9	121	35

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
13...	27	4.9	229	<.10	.120	.050	40	<10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	<.10	.090	.060	40	<10
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	24	1.4	214	.23	.430	.190	210	1000

324320097121101 SITE AL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY								
13...	1000	1.00	395	7.8	24.0	9.8	115	
13...	1002	10.0	395	7.8	24.0	9.5	112	
13...	1004	20.0	395	7.7	23.5	8.6	100	
13...	1006	25.0	395	7.7	23.5	8.4	98	
13...	1008	30.0	395	6.8	21.0	.5	6	
13...	1010	37.0	381	6.8	21.0	.1	1	

324253097121801 SITE BC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY								
13...	1025	1.00	395	7.9	24.0	9.5	112	
13...	1026	10.0	395	7.9	23.5	9.5	110	
13...	1028	20.0	395	7.6	23.0	7.0	80	
13...	1030	30.0	395	6.9	21.0	.1	1	
13...	1032	41.0	381	6.9	20.5	.1	1	

Table 5.--Chemical-quality survey of Lake Arlington, May 13, 1974--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
13...	1040	1.00	395	7.8	23.5	8.5	99
13...	1042	10.0	395	7.8	23.5	8.3	97
13...	1044	20.0	395	7.7	23.5	7.9	92
13...	1046	25.0	395	6.9	21.5	.8	9
13...	1048	29.0	395	6.9	21.0	.5	6

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY								
13...	1100	1.00	401	7.7	25.5	.50	8.3	100
13...	1105	10.0	398	7.7	25.5	--	8.3	100
13...	1107	15.0	398	7.8	25.5	--	8.3	100

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS (MG/L CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY									
13...	120	0	37	5.9	33	1.3	5.2	116	45
13...	--	--	--	--	--	--	--	--	--
13...	120	3	39	5.9	32	1.3	5.1	119	41

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY								
13...	28	6.2	230	<.10	.140	.060	20	<10
13...	--	--	--	--	--	--	--	--
13...	26	.4	221	<.10	.140	.060	20	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY								
13...	1115	1.00	400	7.6	24.0	.70	7.5	88
13...	1120	10.0	400	7.6	23.5	--	7.5	87
13...	1122	17.0	400	7.6	23.5	--	6.5	76

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS (MG/L CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY									
13...	120	2	39	5.9	33	1.3	5.2	120	45
13...	--	--	--	--	--	--	--	--	--
13...	130	2	41	6.0	32	1.2	5.2	125	45

Table 5.--Chemical-quality survey of Lake Arlington, May 13, 1974--Continued

324228097130301 SITE DC--Continued

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY								
13...	28	4.8	233	<.10	.140	.060	<10	<10
13...	--	--	--	<.10	.080	.050	20	<10
13...	28	5.4	238	<.10	.080	.060	40	<10

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
MAY								
13...	1200	1.00	410	7.6	23.5	.40	7.3	85
13...	1205	10.0	410	7.5	23.0	--	6.5	75
13...	1207	20.0	410	6.9	22.0	--	1.7	19
13...	1209	27.0	417	6.9	21.5	--	1.0	11

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY									
13...	130	6	42	5.9	32	1.2	5.1	123	45
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	130	5	44	5.9	31	1.2	4.9	130	43

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY								
13...	28	.5	232	.01	.070	.070	20	<10
13...	--	--	--	.02	.130	.060	20	<10
13...	--	--	--	--	--	--	--	--
13...	27	2.2	236	.12	.150	.090	20	100

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
MAY							
13...	1215	1.00	410	7.8	24.0	8.1	95
13...	1217	15.0	410	7.6	23.5	7.5	87

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
MAY								
13...	1225	1.00	411	7.7	24.5	.40	7.7	92
13...	1230	10.0	411	7.6	24.0	--	6.5	76
13...	1232	18.0	420	7.2	23.0	--	4.3	49

Table 5.--Chemical-quality survey of Lake Arlington, May 13, 1974--Continued

324041097134601 SITE FC--Continued

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAY									
13...	130	5	42	5.9	32	1.2	5.1	125	43
13...	--	--	--	--	--	--	--	--	--
13...	130	0	41	5.9	32	1.2	5.1	128	45

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
13...	27	.4	230	<.10	.110	.090	20	<10
13...	--	--	--	--	--	--	--	--
13...	27	.5	234	.02	.080	.120	40	50

Table 6.--Chemical-quality survey of Lake Arlington, September 9, 1974

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
SEP								
09...	0930	1.00	378	7.5	24.5	.80	6.0	71
09...	0934	10.0	378	7.4	24.5	--	5.7	68
09...	0936	20.0	378	7.6	24.5	--	5.7	68
09...	0938	30.0	378	7.6	24.5	--	5.6	67
09...	0940	35.0	390	7.1	24.0	--	.0	0
09...	0942	40.0	397	7.2	23.5	--	.0	0

DATE	HARDNESS (MG/L AS CAC03)	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP									
09...	100	0	32	5.7	35	1.5	5.4	104	40
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--
09...	120	3	37	6.4	43	1.7	5.7	116	40

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
SEP								
09...	31	4.2	216	<.10	.130	.060	60	<10
09...	--	--	--	--	--	--	--	--
09...	--	--	--	<.10	.150	.070	40	20
09...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
09...	32	3.2	238	<.10	.970	.240	510	940

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
SEP							
09...	1000	1.00	378	7.6	24.5	5.4	64
09...	1002	10.0	378	7.6	24.5	5.2	62
09...	1004	20.0	378	7.6	24.5	5.2	62
09...	1006	28.0	378	7.6	24.5	4.7	56

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
SEP							
09...	1020	1.00	378	7.7	25.5	6.8	82
09...	1022	10.0	378	7.7	25.0	6.8	81
09...	1024	20.0	378	7.7	25.0	6.7	80
09...	1026	34.0	378	7.3	24.5	4.6	55

Table 6.--Chemical-quality survey of Lake Arlington, September 9, 1974--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP							
09...	1045	1.00	378	7.7	25.5	6.8	82
09...	1047	10.0	378	7.7	25.0	6.7	80
09...	1049	23.0	378	7.6	25.0	6.4	76

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK (M))	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP								
09...	1105	1.00	379	7.7	31.0	.60	7.0	93
09...	1110	5.00	379	7.8	31.0	--	7.0	93
09...	1112	13.0	379	7.8	31.0	--	7.0	93

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP									
09...	110	3	32	6.3	31	1.3	5.5	103	39
09...	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
09...	29	2.2	207	<.10	.130	.060	20	<10
09...	--	--	--	--	--	--	--	--
09...	--	--	--	<.10	.080	.070	20	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK (M))	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP								
09...	1130	1.00	379	7.7	29.0	.60	7.0	90
09...	1135	5.00	379	7.7	29.0	--	6.9	88
09...	1137	12.0	377	8.0	25.5	--	6.6	80

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP									
09...	100	0	32	5.8	32	1.4	5.5	103	39
09...	--	--	--	--	--	--	--	--	--
09...	100	0	31	5.8	33	1.4	5.4	102	41

Table 6.--Chemical-quality survey of Lake Arlington, September 9, 1974--Continued

324228097130301 SITE DC--Continued

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
SEP								
09...	29	2.2	208	.01	.110	.070	20	<10
09...	--	--	--	--	--	--	--	--
09...	31	4.8	213	.01	.100	.080	20	<10

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
SEP								
09...	1200	1.00	372	8.2	25.5	.50	7.8	94
09...	1205	10.0	372	8.1	25.0	--	7.4	88
09...	1207	21.0	376	8.0	24.5	--	6.8	81

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP									
09...	97	0	29	5.9	32	1.4	5.7	99	39
09...	--	--	--	--	--	--	--	--	--
09...	100	0	31	5.7	32	1.4	5.5	102	41

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
SEP								
09...	29	2.2	203	<.10	.080	.090	40	<10
09...	--	--	--	<.10	.070	.080	50	<10
09...	29	2.2	208	<.10	.110	.140	80	90

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
SEP							
09...	1215	1.00	372	8.2	25.5	7.8	94
09...	1217	10.0	372	8.2	25.5	7.6	92
09...	1219	15.0	372	8.1	25.0	7.1	85

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
SEP												
09...	1230	1.00	372	8.2	24.5	7.7	92	100	2	30	6.1	32
09...	1232	11.0	372	8.1	23.5	7.4	86	--	--	--	--	--

Table 6.--Chemical-quality survey of Lake Arlington, September 9, 1974--Continued

324041097134601 SITE FC--Continued

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP												
09...	1.4	5.4	98	41	29	2.3	205	<.10	.100	.120	20	<10
09...	--	--	--	--	--	--	--	<.10	.120	.140	50	<10

Table 7.--Chemical-quality survey of Lake Arlington, January 29, 1975
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	HARDNESS (MG/L AS CaCO3)
JAN									
29...	0900	1.00	418	7.9	12.5	1.00	9.4	88	130
29...	0905	10.0	416	7.8	12.0	--	9.3	86	--
29...	0907	20.0	416	7.8	12.0	--	9.2	85	--
29...	0909	30.0	416	7.8	12.0	--	9.0	83	--
29...	0911	40.0	416	7.6	11.0	--	8.8	79	--
29...	0913	46.0	416	7.6	11.0	--	8.8	79	130

DATE	HARDNESS, NONCARBONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)
JAN									
29...	7	41	6.4	32	1.2	5.1	121	45	29
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--
29...	9	42	6.5	32	1.2	5.3	123	44	29

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)
JAN								
29...	.3	2.7	234	.13	.040	.030	<10	<10
29...	--	--	--	--	--	--	--	--
29...	--	--	--	.12	.040	.010	30	<10
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
29...	.3	3.1	236	.12	.150	.050	<10	30

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
JAN							
29...	0920	1.00	416	8.0	12.5	8.9	83
29...	0922	10.0	416	8.0	12.0	8.8	81
29...	0924	20.0	416	7.9	12.0	8.6	80
29...	0926	31.0	416	7.9	11.5	8.6	78

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
JAN							
29...	0940	1.00	416	7.9	12.5	9.8	92
29...	0942	10.0	416	7.9	12.0	9.6	89
29...	0944	20.0	416	7.9	11.5	9.4	85
29...	0946	30.0	416	7.7	11.0	8.5	77
29...	0948	40.0	416	7.6	11.0	8.5	77

Table 7.--Chemical-quality survey of Lake Arlington, January 29, 1975--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
29...	0955	1.00	416	7.9	12.0	10.0	93
29...	0957	10.0	416	7.9	12.0	10.0	93
29...	0959	20.0	416	7.9	11.5	9.8	89
29...	1001	26.0	416	7.9	11.5	9.5	86

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JAN									
29...	1015	1.00	415	7.8	20.0	.70	9.2	100	130
29...	1020	5.00	415	7.8	18.5	--	9.9	105	--
29...	1022	13.0	416	7.8	14.0	--	10.2	98	120

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	ChLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
29...	5	40	6.1	32	1.2	5.2	120	43	28
29...	--	--	--	--	--	--	--	--	--
29...	4	40	6.0	32	1.2	5.3	121	46	28

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
29...	.3	2.7	229	.13	.030	.030	<10	<10
29...	--	--	--	--	--	--	--	--
29...	.3	2.9	233	.13	.090	.030	<10	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JAN									
29...	1030	1.00	416	7.9	15.0	.90	10.3	101	130
29...	1035	5.00	416	7.9	14.0	--	10.4	100	--
29...	1037	10.0	416	7.9	12.0	--	10.4	96	130
29...	1039	19.0	418	7.8	11.5	--	10.2	93	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
29...	8	41	6.3	32	1.2	5.5	121	46	28
29...	--	--	--	--	--	--	--	--	--
29...	9	42	6.5	32	1.2	5.3	123	46	28
29...	7	42	6.1	32	1.2	5.1	123	46	28

Table 7.--Chemical-quality survey of Lake Arlington, January 29, 1975--Continued

324228097130301 SITE DC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN								
29...	.3	2.8	234	.13	.060	.030	40	<10
29...	--	--	--	--	--	--	--	--
29...	.3	2.7	237	.12	.060	.020	<10	<10
29...	.3	2.9	236	.13	.090	.050	<10	<10

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, PERCENT SATURATION	HARDNESS (MG/L AS CaCO3)
JAN									
29...	1050	1.00	419	7.9	12.0	.90	9.7	90	130
29...	1055	10.0	419	7.9	12.0	--	9.6	89	130
29...	1057	20.0	420	7.9	11.5	--	9.4	85	--
29...	1059	27.0	420	7.8	11.5	--	8.7	79	130

DATE	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)
JAN									
29...	7	41	6.2	32	1.2	4.8	122	43	28
29...	6	41	6.0	32	1.2	5.2	121	45	28
29...	--	--	--	--	--	--	--	--	--
29...	5	41	6.1	33	1.3	5.1	122	43	29

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN								
29...	.3	2.7	231	.12	.040	.020	<10	<10
29...	.3	2.7	233	.13	.040	.030	<10	<10
29...	--	--	--	--	--	--	--	--
29...	.3	2.9	234	.12	.080	.050	<10	<10

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, PERCENT SATURATION
JAN							
29...	1110	1.00	420	8.1	12.0	9.8	91
29...	1112	10.0	420	8.0	11.5	10.0	91
29...	1114	21.0	420	7.9	11.5	9.8	89

Table 7.--Chemical-quality survey of Lake Arlington, January 29, 1975--Continued

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS (MG/L AS CACO3)
JAN									
29...	1120	1.00	435	8.2	12.5	.70	10.4	97	130
29...	1125	10.0	435	8.1	12.0	--	10.6	98	--
29...	1127	17.0	435	8.0	12.0	--	10.6	98	140

DATE	HARD- NESS, NONCAR- BONATE (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JAN									
29...	6	42	6.5	34	1.3	5.3	125	48	30
29...	--	--	--	--	--	--	--	--	--
29...	10	44	6.2	33	1.2	4.8	125	45	30

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN								
29...	.3	2.4	244	.08	.030	.030	20	<10
29...	--	--	--	--	--	--	--	--
29...	.3	2.4	241	.09	.080	.140	<10	30

Table 8.--Chemical-quality survey of Lake Arlington, June 3, 1975

(UMHOS - micromhos per centimeter at 25° Celsius; D&G C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (D&G C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)
JUN									
03...	0910	1.00	383	8.1	26.5	1.10	10.8	132	120
03...	0915	10.0	383	8.1	26.0	--	10.6	129	--
03...	0917	20.0	383	7.2	24.0	--	2.4	28	--
03...	0919	30.0	405	7.2	23.5	--	.5	6	--
03...	0921	40.0	427	7.2	22.5	--	.2	2	--
03...	0923	47.0	427	7.2	22.5	--	.2	2	140

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN									
03...	16	37	6.5	30	1.2	4.7	103	43	27
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	11	46	7.1	33	1.2	4.6	133	43	29

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN								
03...	.3	.3	211	.01	.010	.040	30	30
03...	--	--	--	--	--	--	--	--
03...	--	--	--	.07	<.010	.040	110	110
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	.3	5.1	250	.01	.470	.160	340	1500

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (D&G C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
03...	0930	1.00	383	8.2	26.5	10.8	132
03...	0932	10.0	383	8.2	26.0	10.6	129
03...	0934	20.0	400	7.4	24.0	4.6	54
03...	0936	30.0	410	7.1	23.5	.8	9
03...	0938	37.0	415	7.1	23.5	.2	2

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (D&G C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
03...	0950	1.00	383	8.2	26.5	11.2	137
03...	0952	10.0	383	8.2	26.0	11.0	134
03...	0954	20.0	395	7.2	24.0	2.6	31
03...	0956	30.0	400	7.1	23.5	.8	9
03...	0958	41.0	415	7.1	23.0	.2	2

Table 8.--Chemical-quality survey of Lake Arlington, June 3, 1975--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN 03...	1010	1.00	383	8.2	26.5	10.8	132
03...	1012	10.0	383	8.2	26.0	10.4	127
03...	1014	20.0	400	7.3	24.0	3.6	42
03...	1016	30.0	415	7.1	24.0	.8	9

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JUN 03...	1025	1.00	398	7.7	34.5	.80	6.8	94	120
03...	1030	5.00	398	7.7	31.0	--	6.8	91	--
03...	1032	12.0	397	7.5	28.5	--	5.7	73	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN 03...	13	40	6.0	31	1.2	4.7	112	45	29
03...	--	--	--	--	--	--	--	--	--
03...	15	40	6.2	29	1.1	4.6	111	42	27

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN 03...	.3	.5	224	.01	.020	.030	20	<10
03...	--	--	--	--	--	--	--	--
03...	.3	.9	217	.03	.020	.040	40	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JUN 03...	1045	1.00	392	7.8	30.0	.80	7.5	99	120
03...	1050	10.0	392	8.1	25.5	--	8.8	106	--
03...	1052	20.0	402	7.5	24.5	--	4.4	52	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN 03...	13	38	6.5	28	1.1	4.6	108	42	28
03...	--	--	--	--	--	--	--	--	--
03...	7	40	6.1	30	1.2	4.6	118	43	26

Table 8.--Chemical-quality survey of Lake Arlington, June 3, 1975--Continued

324228097130301 SITE DC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JUN								
03...	.3	.9	213	.02	<.010	.030	30	<10
03...	--	--	--	.01	<.010	.040	30	<10
03...	.3	.9	222	.05	<.010	.050	120	40

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PERCENT SATURATION)	HARDNESS (MG/L AS CACO3)
JUN									
03...	1105	1.00	389	8.2	25.0	1.00	8.8	105	130
03...	1110	10.0	400	7.8	24.5	--	6.0	71	--
03...	1112	15.0	389	8.2	25.0	--	8.6	102	--
03...	1114	20.0	405	7.3	24.0	--	2.3	27	--
03...	1116	28.0	505	7.3	23.0	--	1.4	16	180

DATE	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
JUN									
03...	17	40	6.1	29	1.1	4.6	105	43	28
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	26	58	8.5	33	1.1	4.6	154	50	33

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JUN								
03...	.3	.6	217	.01	<.010	.050	190	20
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	--	--	--	.03	.020	.070	170	90
03...	.3	9.7	290	.11	.230	.120	60	370

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PERCENT SATURATION)
JUN							
03...	1130	1.00	389	8.3	25.5	9.0	108
03...	1132	10.0	389	8.2	25.0	8.6	102
03...	1134	20.0	405	7.4	24.5	3.6	43

Table 8.--Chemical-quality survey of Lake Arlington, June 3, 1975--Continued

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JUN									
03...	1145	1.00	399	8.0	25.5	.70	6.9	83	140
03...	1150	5.00	399	8.0	25.0	--	6.7	80	--
03...	1152	10.0	420	7.5	24.5	--	3.8	45	--
03...	1154	17.0	596	7.4	23.5	--	1.3	15	210

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN									
03...	27	43	7.2	31	1.2	4.6	110	45	28
03...	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--
03...	26	67	10	39	1.2	4.5	182	63	38

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN								
03...	.3	.9	226	.01	<.010	.040	120	30
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
03...	.3	12	344	.17	.100	.160	240	270

Table 9.--Chemical-quality survey of Lake Arlington, September 5, 1975

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	HARD-NESS (MG/L AS CaCO3)
SEP									
05...	0910	1.00	372	8.5	30.5	2.00	8.9	117	110
05...	0915	10.0	372	8.4	30.5	--	8.6	113	--
05...	0917	15.0	388	7.6	29.5	--	3.1	40	--
05...	0919	20.0	395	7.3	28.5	--	.2	3	--
05...	0921	30.0	410	7.0	27.0	--	.2	2	--
05...	0923	40.0	420	7.0	26.0	--	.2	2	--
05...	0925	43.0	420	6.9	26.0	--	.2	2	140

DATE	HARD-NESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)
SEP									
05...	8	34	6.0	29	1.2	5.3	102	39	26
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	0	44	6.3	28	1.0	5.3	153	19	28

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)
SEP								
05...	.3	3.9	205	<.10	<.010	.050	30	20
05...	--	--	--	--	--	--	--	--
05...	--	--	--	.01	<.010	.050	170	410
05...	--	--	--	--	--	--	--	--
05...	.3	7.9	233	.04	1.80	.590	620	2100

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
SEP							
05...	0935	1.00	372	8.3	31.0	8.1	108
05...	0937	10.0	372	8.3	31.0	8.0	107
05...	0939	20.0	395	7.2	28.5	.2	3
05...	0941	31.0	410	7.0	27.0	.2	2

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
SEP							
05...	0955	1.00	372	8.4	31.0	8.2	109
05...	0957	10.0	372	8.3	30.5	8.2	108
05...	0959	20.0	395	7.3	28.5	.2	3
05...	1001	30.0	410	7.1	27.0	.2	2
05...	1003	39.0	420	6.9	26.0	.2	2

Table 9.--Chemical-quality survey of Lake Arlington, September 5, 1975--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP							
05...	1015	1.00	372	8.4	31.0	8.5	113
05...	1017	10.0	372	8.4	31.0	8.4	112
05...	1019	20.0	395	7.3	28.5	.2	3
05...	1021	31.0	410	7.0	27.0	.2	2

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)
SEP									
05...	1030	1.00	378	8.2	38.5	.94	6.7	99	120
05...	1035	5.00	378	8.2	38.5	--	6.7	99	--
05...	1037	10.0	378	8.2	38.5	--	6.7	99	120

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
05...	11	36	6.3	29	1.2	5.3	105	40	26
05...	--	--	--	--	--	--	--	--	--
05...	11	36	6.3	29	1.2	5.2	105	39	26

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
05...	.3	3.9	210	.01	<.010	.050	<10	<10
05...	--	--	--	--	--	--	--	--
05...	.3	3.9	209	<.10	<.010	.060	160	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)
SEP									
05...	1050	1.00	380	8.0	34.5	.50	6.8	94	110
05...	1055	5.00	380	8.0	33.5	--	6.1	85	--
05...	1057	10.0	380	7.6	30.0	--	4.0	53	--
05...	1059	15.0	397	7.3	29.5	--	.2	3	120

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
05...	10	36	6.0	29	1.2	5.2	105	38	26
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	8	39	6.3	29	1.1	5.3	116	39	26

Table 9.--Chemical-quality survey of Lake Arlington, September 5, 1975--Continued

324228097130301 SITE DC--Continued

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP								
05...	.3	3.9	208	.02	<.010	.070	20	<10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<.10	.130	.060	130	20
05...	.3	4.1	219	<.10	.040	.150	150	170

324143097132201 SITE EC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
SEP									
05...	1110	1.00	378	8.3	30.5	1.10	7.6	100	110
05...	1115	5.00	378	8.3	30.0	--	7.4	97	--
05...	1117	10.0	380	7.4	29.5	--	1.6	21	--
05...	1119	15.0	380	7.2	29.0	--	.2	3	--
05...	1121	20.0	388	7.2	28.5	--	.2	3	--
05...	1123	23.0	388	7.2	28.5	--	.2	3	110

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
SEP									
05...	8	35	6.3	29	1.2	5.3	105	40	26
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	0	37	5.1	30	1.2	6.9	116	37	24

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP								
05...	.3	4.0	209	.01	.030	.070	30	<10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	<.10	<.010	.080	30	50
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	.3	5.2	216	.08	.070	.150	50	440

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SEP							
05...	1130	1.00	378	8.3	30.5	8.6	113
05...	1132	10.0	378	7.5	30.0	2.6	34
05...	1134	15.0	378	7.2	29.5	.2	3

Table 9.--Chemical-quality survey of Lake Arlington, September 5, 1975--Continued

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
SEP									
05...	1150	1.00	380	8.2	30.5	.70	6.5	86	110
05...	1155	5.00	380	7.8	30.0	--	4.2	55	--
05...	1157	10.0	380	7.5	29.0	--	3.2	41	--
05...	1159	14.0	363	7.4	28.0	--	3.2	41	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
05...	8	36	5.6	29	1.2	5.7	106	38	27
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	4	35	5.2	28	1.2	6.4	105	34	24

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
05...	.3	4.1	210	.01	<.010	.080	130	<10
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	.3	4.2	200	.08	<.010	.210	<10	120

Table 10.--Chemical-quality survey of Lake Arlington, January 26, 1976
 (UMHOS - micromhos per centimeter at 25° Celsius; D&G C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)
JAN									
26...	0905	1.00	386	8.0	8.5	.70	11.0	93	120
26...	0910	10.0	399	8.0	8.5	--	11.0	93	--
26...	0912	20.0	399	8.0	8.5	--	11.0	93	--
26...	0914	30.0	399	8.0	8.5	--	11.0	93	--
26...	0916	43.0	399	8.0	8.5	--	11.0	92	120

DATE	TIME	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN										
26...	11	38	6.0	28	1.1	4.6	108	40	29	
26...	--	--	--	--	--	--	--	--	--	
26...	--	--	--	--	--	--	--	--	--	
26...	--	--	--	--	--	--	--	--	--	
26...	11	38	6.2	29	1.2	4.8	109	42	30	

DATE	TIME	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN									
26...		.3	1.1	213	<.10	.050	.060	<10	<10
26...		--	--	--	--	--	--	--	--
26...		--	--	--	<.10	.020	.060	<10	<10
26...		--	--	--	--	--	--	--	--
26...		.4	1.5	217	<.10	.040	.050	<10	<10

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
26...	0930	1.00	399	8.0	8.5	11.0	93
26...	0932	10.0	399	8.0	8.5	11.0	93
26...	0934	20.0	399	8.0	8.5	11.0	93
26...	0936	30.0	399	8.0	8.5	11.0	93

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
26...	0950	1.00	395	8.0	8.5	10.9	92
26...	0952	10.0	395	8.0	8.5	10.8	92
26...	0954	20.0	395	8.0	8.5	10.8	92
26...	0956	30.0	395	8.0	8.5	10.8	92
26...	0958	37.0	395	8.0	8.5	10.8	92

Table 10.--Chemical-quality survey of Lake Arlington, January 26, 1976--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN 26...	1010	1.00	395	8.0	8.5	10.8	92
26...	1012	10.0	395	8.0	8.5	10.8	92
26...	1014	20.0	395	8.0	8.5	10.8	92
26...	1016	28.0	395	8.0	8.5	10.8	92

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CAC03)
JAN 26...	1025	1.00	400	8.0	9.0	.60	10.8	93
26...	1030	5.00	400	8.0	9.0	--	10.8	93
26...	1032	10.0	400	7.9	8.5	--	10.8	90

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 26...	19	42	6.1	29	1.1	4.8	111	43	30
26...	--	--	--	--	--	--	--	--	--
26...	13	39	6.3	28	1.1	4.8	110	43	30

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN 26...	.3	1.3	223	.01	.040	.050	<10	<10
26...	--	--	--	--	--	--	--	--
26...	.4	1.3	219	.02	.040	.040	<10	<10

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	HARD-NESS (MG/L AS CAC03)
JAN 26...	1045	1.00	388	8.1	8.0	.60	11.3	95
26...	1050	10.0	388	8.1	8.0	--	11.3	95
26...	1052	14.0	388	8.1	8.0	--	11.2	94

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN 26...	12	38	6.2	28	1.1	4.8	108	38	27
26...	--	--	--	--	--	--	--	--	--
26...	15	39	6.3	28	1.1	4.8	108	38	28

Table 10.--Chemical-quality survey of Lake Arlington, January 26, 1976--Continued

324228097130301 SITE DC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN								
26...	.3	1.4	209	<.10	.010	.060	60	<10
26...	--	--	--	<.10	.030	.050	<10	<10
26...	.3	1.5	211	<.10	.030	.050	<10	<10

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (PERCENT)	HARDNESS (MG/L AS CACO3)
JAN									
26...	1105	1.00	371	8.1	7.5	.50	11.3	94	110
26...	1110	10.0	371	8.1	7.5	--	11.3	94	--
26...	1112	21.0	371	8.1	7.5	--	11.3	94	110

DATE	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
JAN									
26...	12	36	5.8	26	1.1	4.8	102	38	27
26...	--	--	--	--	--	--	--	--	--
26...	12	36	5.9	26	1.1	4.8	102	39	27

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
JAN								
26...	.3	1.3	200	<.10	.020	.060	<10	<10
26...	--	--	--	<.10	<.010	.060	<10	<10
26...	.3	1.3	201	<.10	.020	.060	40	<10

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (PERCENT)	HARDNESS (MG/L AS CACO3)
JAN								
26...	1120	1.00	371	8.1	7.5	11.3	94	
26...	1122	10.0	371	8.1	7.5	11.3	94	
26...	1124	15.0	371	8.0	7.5	11.2	93	

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (PERCENT)	HARDNESS (MG/L AS CACO3)
JAN									
26...	1140	1.00	299	8.0	7.5	.50	11.4	95	95
26...	1145	5.00	299	8.0	7.0	--	11.4	93	--
26...	1147	13.0	299	8.0	7.0	--	11.4	93	93

Table 10.--Chemical-quality survey of Lake Arlington, January 26, 1976--Continued

324041097134601 SITE FC--Continued									
DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JAN									
26...	16	30	4.8	21	.9	4.3	79	32	23
26...	--	--	--	--	--	--	--	--	--
26...	14	29	4.9	21	.9	4.3	79	32	23
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
JAN									
26...	.2	1.4	164	.03	.020	.070	<10	<10	
26...	--	--	--	--	--	--	--	--	
26...	.2	1.4	163	.03	.010	.070	<10	<10	

Table 11.--Chemical-quality survey of Lake Arlington, May 10, 1976

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)	HARD-NESS (MG/L AS CAC03)
MAY									
10...	0910	1.00	321	7.8	21.0	.52	7.5	83	110
10...	0915	10.0	321	7.8	20.5	--	7.5	82	--
10...	0917	20.0	321	7.8	20.5	--	7.4	81	--
10...	0919	30.0	321	7.6	20.0	--	6.2	67	--
10...	0921	40.0	321	7.6	20.0	--	5.7	62	--
10...	0923	47.0	321	7.5	20.0	--	5.3	58	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAY									
10...	12	35	4.8	20	.8	4.3	95	30	19
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	11	35	4.9	20	.8	4.3	97	30	20

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY								
10...	.3	3.3	174	.20	.070	.060	<10	<10
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	.20	.090	.070	70	<10
10...	--	--	--	--	--	--	--	--
10...	.3	3.6	176	.24	.140	.090	<10	<10

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)
MAY							
10...	0935	1.00	321	7.8	21.0	7.6	84
10...	0937	10.0	321	7.8	20.5	7.5	83
10...	0939	20.0	321	7.8	20.0	7.3	80
10...	0941	30.0	321	7.7	20.0	6.4	70
10...	0943	37.0	321	7.6	20.0	5.7	62

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATUR-ATION (%)
MAY							
10...	0956	1.00	321	7.7	21.0	7.3	81
10...	0958	10.0	321	7.6	20.5	7.2	79
10...	1000	20.0	321	7.6	20.0	6.6	72
10...	1002	30.0	321	7.5	19.5	6.0	65
10...	1004	42.0	321	7.4	19.5	4.7	51

Table 11.--Chemical-quality survey of Lake Arlington, May 10, 1976--Continued

324301097123301 SITE BL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (PERCENT)
MAY							
10...	1016	1.00	321	7.8	21.0	7.4	82
10...	1018	10.0	321	7.8	20.5	7.3	80
10...	1020	20.0	321	7.7	20.0	6.6	72
10...	1022	30.0	321	7.6	20.0	6.0	65
10...	1024	35.0	321	7.6	20.0	5.6	61

324257097130301 SITE CC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (PERCENT)	HARDNESS (MG/L AS CaCO3)
MAY									
10...	1035	1.00	321	7.9	28.5	.60	7.1	91	110
10...	1040	5.00	321	7.8	27.0	--	6.6	81	--
10...	1042	10.0	321	7.7	22.0	--	5.8	66	--
10...	1044	15.0	321	7.6	21.0	--	5.6	62	110

DATE	HARDNESS, NONCARBONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)
MAY									
10...	14	35	5.0	20	.8	4.5	94	32	20
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	12	35	4.9	20	.8	4.3	95	30	19

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)
MAY								
10...	.3	3.1	176	.17	.050	.060	190	<10
10...	--	--	--	--	--	--	--	--
10...	--	--	--	.15	.100	.070	30	<10
10...	.3	3.5	174	.25	.160	.080	<10	<10

324228097130301 SITE DC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (PERCENT)	HARDNESS (MG/L AS CaCO3)
MAY									
10...	1055	1.00	321	7.9	23.5	.61	6.9	80	110
10...	1100	10.0	321	7.9	21.0	--	6.9	77	--
10...	1102	19.0	321	7.8	21.0	--	6.4	71	110

DATE	HARDNESS, NONCARBONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS Cl)
MAY									
10...	13	35	4.1	20	.9	4.1	95	31	20
10...	--	--	--	--	--	--	--	--	--
10...	12	35	4.8	20	.8	4.3	95	30	19

Table 11.--Chemical-quality survey of Lake Arlington, May 10, 1976--Continued

324228097130301 SITE DC--Continued

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY								
10...	.3	3.2	176	.13	.050	.060	<10	<10
10...	--	--	--	.14	.050	.050	60	<10
10...	.3	3.4	174	.17	.060	.060	<10	<10

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANS-PARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	HARDNESS (MG/L AS CAC03)
MAY									
10...	1115	1.00	326	7.9	21.5	.55	7.6	85	110
10...	1120	10.0	326	7.7	21.0	--	7.0	78	--
10...	1122	20.0	326	7.6	20.5	--	5.9	65	--
10...	1124	28.0	410	7.5	20.0	--	2.6	28	140

DATE	HARDNESS, NONCARBONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)
MAY									
10...	13	36	4.9	21	.9	4.3	97	32	20
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	17	45	6.3	25	.9	4.4	121	42	25

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
MAY								
10...	.3	3.1	180	.17	.050	.060	90	<10
10...	--	--	--	--	--	--	--	--
10...	--	--	--	.12	.080	.070	<10	<10
10...	.4	4.8	226	.08	.160	.130	<10	<10

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)
MAY							
10...	1130	1.00	326	7.9	21.5	7.6	85
10...	1132	10.0	326	7.8	21.0	6.9	77
10...	1134	18.0	326	7.7	21.0	6.0	67

Table 11.--Chemical-quality survey of Lake Arlington, May 10, 1976--Continued

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
MAY										
10...	1150	1.00	330	7.8	21.5	.52	7.6		85	110
10...	1155	10.0	345	7.5	20.5	--	5.6		62	--
10...	1157	18.0	560	7.4	20.0	--	2.8		30	200

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY									
10...	14	36	5.0	20	.8	4.3	97	31	20
10...	--	--	--	--	--	--	--	--	--
10...	37	63	9.4	38	1.2	4.5	159	67	36

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
10...	.3	3.3	178	.20	.070	.070	<10	<10
10...	--	--	--	.22	.120	.080	20	<10
10...	.4	6.4	320	.10	.190	.130	<10	<10

Table 12.--Chemical-quality survey of Lake Arlington, August 27, 1976
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
AUG									
27...	0905	1.00	336	8.2	29.5	1.60	6.9	91	110
27...	0910	10.0	336	8.2	29.5	--	6.8	89	--
27...	0912	15.0	336	8.2	29.0	--	6.8	89	--
27...	0914	20.0	336	7.2	28.0	--	.2	3	--
27...	0916	25.0	362	7.1	26.5	--	.2	3	--
27...	0918	30.0	362	7.0	25.0	--	.2	2	--
27...	0920	42.0	362	7.0	24.5	--	.2	2	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
AUG									
27...	10	36	5.2	22	.9	4.8	102	30	20
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	0	43	5.6	23	.9	4.6	142	15	22

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
AUG								
27...	.3	3.7	183	<.10	<.010	.020	<10	<10
27...	--	--	--	<.10	.010	.020	<10	40
27...	--	--	--	--	--	--	--	--
27...	--	--	--	<.10	.010	.030	20	270
27...	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--
27...	--	8.3	209	<.10	1.60	.300	920	1600

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
27...	0934	1.00	336	8.2	29.5	6.6	87
27...	0936	10.0	336	8.1	29.5	6.4	84
27...	0938	20.0	336	7.2	29.0	.4	5
27...	0940	30.0	362	7.0	26.0	.2	3

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
27...	0956	1.00	336	8.1	30.0	6.4	85
27...	0958	10.0	336	8.1	29.5	6.3	83
27...	1000	20.0	336	7.2	28.5	.2	3
27...	1002	30.0	362	7.0	25.0	.2	2
27...	1004	37.0	362	7.0	25.0	.2	2

Table 12.--Chemical-quality survey of Lake Arlington, August 27, 1976--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
AUG							
27...	1016	1.00	336	8.2	30.5	6.6	88
27...	1018	10.0	336	8.1	30.0	6.2	83
27...	1020	20.0	336	7.3	29.0	.4	5
27...	1022	29.0	362	7.1	26.0	.2	3

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
AUG							
27...	1036	1.00	336	8.1	31.5	6.6	89
27...	1038	10.0	336	8.1	31.5	6.6	89
27...	1040	19.0	336	8.1	31.5	6.6	89

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
AUG							
27...	1056	1.00	336	8.0	31.0	6.1	82
27...	1058	10.0	336	7.7	29.5	5.0	66
27...	1100	15.0	336	7.4	29.0	2.4	32

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
AUG																	
27...	1115	1.00	334	8.0	29.5	.90	6.2	82									
27...	1120	10.0	334	7.6	29.0	--	4.0	53									
27...	1122	15.0	334	7.3	29.0	--	1.6	21									
27...	1124	22.0	349	7.1	28.5	--	.2	3									
27...	110	12	37	5.1	21	.9	4.6	102	30								
27...	--	--	--	--	--	--	--	--	--								
27...	--	--	--	--	--	--	--	--	--								
27...	120	9	39	5.4	21	.8	4.8	111	29								

Table 12.--Chemical-quality survey of Lake Arlington, August 27, 1976--Continued

324143097132201 SITE EC--Continued

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
AUG								
27...	20	21	183	<.10	.010	.040	<10	<10
27...	--	--	--	<.10	.020	.040	<10	20
27...	--	--	--	--	--	--	--	--
27...	20	4.6	191	<.10	.070	.080	80	510

324133097130601 SITE EL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PERCENT SATURATION)
AUG							
27...	1130	1.00	334	8.1	29.5	6.4	84
27...	1132	10.0	334	8.1	29.0	6.2	82
27...	1134	14.0	334	7.7	29.0	4.1	54

324041097134601 SITE FC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PERCENT SATURATION)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
AUG																	
27...	1145	1.00	335	8.1	29.0	.73	6.6	87									
27...	1150	5.00	335	8.0	29.0	--	6.2	82									
27...	1152	12.0	340	7.7	28.0	--	4.8	62									

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
AUG								
27...	20	3.8	185	<.10	.010	.040	60	<10
27...	--	--	--	--	--	--	--	--
27...	20	3.8	185	<.10	.010	.080	80	20

Table 13.--Chemical-quality survey of Lake Arlington, February 1, 1977
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
FEB									
01...	0905	1.00	355	8.2	9.0	.82	10.4	93	120
01...	0910	10.0	355	8.2	9.0	--	10.4	93	--
01...	0912	20.0	355	8.2	9.0	--	10.3	92	--
01...	0914	30.0	355	8.2	8.5	--	10.2	90	--
01...	0916	40.0	355	7.9	8.5	--	8.4	74	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS (MG/L CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
FEB									
01...	12	41	5.2	24	.9	4.7	112	30	23
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
01...	18	43	5.3	25	1.0	4.8	112	30	23

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB								
01...	.3	1.8	197	.05	.070	.030	<10	<10
01...	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--
01...	--	--	--	.05	.070	.030	<10	50
01...	.3	2.1	201	.05	.230	.080	20	130

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
FEB							
01...	0930	1.00	355	8.2	8.5	10.3	91
01...	0932	10.0	355	8.1	8.5	10.3	91
01...	0934	20.0	355	8.1	8.5	10.4	92
01...	0936	26.0	355	8.1	8.0	10.4	90

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
FEB							
01...	0956	1.00	355	8.3	9.0	10.4	93
01...	0958	10.0	355	8.3	9.0	10.4	93
01...	1000	20.0	355	8.3	9.0	10.3	92
01...	1002	30.0	355	8.3	9.0	10.2	91
01...	1004	37.0	355	8.2	8.5	10.0	88

Table 13.--Chemical-quality survey of Lake Arlington, February 1, 1977--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
01...	1016	1.00	355	8.3	9.0	10.4	93
01...	1018	10.0	355	8.3	9.0	10.4	93
01...	1020	20.0	355	8.3	9.0	10.3	92
01...	1022	28.0	355	8.2	9.0	10.2	91

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
01...	1040	1.00	355	8.2	13.5	10.1	100
01...	1042	13.0	355	8.2	13.5	10.0	99

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
FEB							
01...	1100	1.00	355	8.3	11.0	10.2	95
01...	1102	10.0	355	8.3	9.0	10.0	89
01...	1104	13.0	355	8.2	9.0	9.9	88

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK (M))	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)	HARD-NESS, NONCAR-BONATE (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)
FEB																	
01...	1115	1.00	355	8.5	7.0	.73	11.1	94									
01...	1120	10.0	355	8.5	6.5	--	11.1	93									
01...	1122	21.0	355	8.4	6.5	--	11.1	93									

DATE	TIME	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
FEB									
01...	23		1.5	196	.05	.040	.030	20	200
01...	--	--	--	--	--	--	--	--	--
01...	23		1.4	196	.05	.030	.030	<10	20

Table 13.--Chemical-quality survey of Lake Arlington, February 1, 1977--Continued

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
01...	1144	1.00	355	8.4	7.0	11.1	94
01...	1146	12.0	355	8.4	6.5	11.2	94

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB								
01...	1155	1.00	355	8.5	5.0	.80	11.9	96
01...	1200	5.00	355	8.5	5.0	--	11.9	96
01...	1202	10.0	587	8.3	4.0	--	13.2	104

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
FEB									
01...	120	17	40	5.3	25	1.0	4.5	105	32
01...	--	--	--	--	--	--	--	--	--
01...	180	22	61	7.8	44	1.4	3.9	162	63

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
01...	24	1.3	195	.05	.030	.040	<10	50
01...	--	--	--	--	--	--	--	--
01...	42	1.4	321	.18	.040	.050	<10	70

Table 14.--Chemical-quality survey of Lake Arlington, May 20, 1977
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
MAY									
20...	0855	1.00	317	8.3	25.5	.91	7.1	89	110
20...	0900	10.0	317	8.3	25.5	--	7.1	89	--
20...	0902	20.0	315	8.0	24.5	--	5.2	63	--
20...	0904	30.0	315	7.5	22.0	--	.3	4	--
20...	0906	40.0	306	7.4	19.5	--	.3	3	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS (MG/L CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
MAY									
20...	16	39	4.2	18	.7	4.0	98	32	17
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	6	39	3.8	15	.6	3.8	107	25	14

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
MAY								
20...	.2	4.1	178	.28	.060	.050	30	20
20...	--	--	--	--	--	--	--	--
20...	--	--	--	.36	.040	.060	20	30
20...	--	--	--	.51	.090	.110	20	200
20...	.2	6.4	172	.14	.690	.170	50	270

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
MAY							
20...	0916	1.00	317	8.2	26.0	7.0	88
20...	0918	10.0	317	8.2	26.0	7.0	88
20...	0920	20.0	315	8.1	26.0	6.9	86
20...	0922	30.0	315	7.4	23.0	1.2	14
20...	0924	38.0	306	7.4	20.5	.2	2

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
MAY							
20...	0944	1.00	316	8.2	26.0	7.2	90
20...	0946	10.0	316	8.1	26.0	7.2	90
20...	0948	20.0	321	8.1	25.5	6.8	85
20...	0950	30.0	321	7.4	22.5	.6	7
20...	0952	35.0	321	7.4	20.5	.3	3

Table 14.--Chemical-quality survey of Lake Arlington, May 20, 1977--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
20...	1006	1.00	316	8.2	26.0	7.1	89
20...	1008	10.0	316	8.2	26.0	7.1	89
20...	1010	21.0	316	8.2	26.0	7.1	89

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
20...	1020	1.00	316	8.1	30.0	7.1	95
20...	1022	10.0	316	8.1	30.0	7.0	93

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
20...	1036	1.00	316	8.1	28.0	6.6	85
20...	1038	10.0	316	8.1	26.0	6.5	81
20...	1040	18.0	316	7.9	25.5	6.0	75

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK (M))	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY								
20...	1055	1.00	331	8.2	24.5	.24	7.1	87
20...	1100	10.0	331	8.2	24.5	--	7.0	85
20...	1102	20.0	331	8.2	24.5	--	6.9	84
20...	1104	25.0	332	7.9	24.5	--	5.3	65

DATE	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY									
20...	120	14	41	4.4	18	.7	4.0	107	34
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	120	13	41	4.3	18	.7	4.0	107	33

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)
MAY								
20...	18	3.8	187	.30	.080	.070	<10	<10
20...	--	--	--	--	--	--	--	--
20...	--	--	--	.26	.080	.070	30	20
20...	18	4.2	187	.28	.130	.120	20	90

Table 14.--Chemical-quality survey of Lake Arlington, May 20, 1977--Continued

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
20...	1116	1.00	331	8.1	24.5	7.2	88
20...	1118	10.0	331	8.1	24.5	7.2	88
20...	1120	16.0	331	8.1	24.5	7.1	87

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY								
20...	1135	1.00	348	8.1	24.5	.24	6.8	83
20...	1140	10.0	348	8.0	24.5	--	6.7	82
20...	1142	16.0	346	7.9	24.5	--	6.4	78

DATE	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
MAY									
20...	130	12	43	4.7	19	.7	4.0	115	35
20...	--	--	--	--	--	--	--	--	--
20...	130	11	43	4.6	19	.7	4.0	115	35

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)
MAY								
20...	18	3.8	197	.24	.100	.090	20	5
20...	--	--	--	--	--	--	--	--
20...	18	4.0	197	.29	.110	.110	20	30

Table 15.--Chemical-quality survey of Lake Arlington, September 22, 1977

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CAC03)
SEP									
22...	0900	1.00	335	8.5	29.0	1.10	9.5	125	120
22...	0905	10.0	335	8.5	29.0	--	9.2	121	--
22...	0907	20.0	337	8.4	28.5	--	6.8	88	--
22...	0909	30.0	340	7.4	27.5	--	.6	8	--
22...	0911	38.0	352	7.4	26.5	--	.2	3	130

DATE	HARD-NESS, NONCAR-BONATE (MG/L CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L CAC03)	SULFATE DIS-SOLVED (MG/L AS S04)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
SEP									
22...	14	38	5.1	20	.8	4.6	98	30	21
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
22...	11	45	5.3	19	.7	4.7	123	24	21

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP								
22...	.2	5.8	186	<.10	<.010	.070	30	<10
22...	--	--	--	--	--	--	--	--
22...	--	--	--	.04	<.010	.040	20	<10
22...	--	--	--	.01	.130	.110	20	300
22...	.2	6.6	203	.02	.060	.240	600	2200

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
SEP							
22...	0930	1.00	335	8.5	29.0	7.4	97
22...	0932	10.0	335	8.4	29.0	7.2	95
22...	0934	20.0	337	8.4	28.5	7.0	91
22...	0936	31.0	349	7.5	28.0	.3	4

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
SEP							
22...	0950	1.00	335	8.5	29.0	8.2	108
22...	0952	10.0	335	8.4	28.5	7.6	99
22...	0954	20.0	337	7.9	28.5	4.9	64
22...	0956	34.0	320	7.6	27.0	2.4	30

Table 15.--Chemical-quality survey of Lake Arlington, September 22, 1977--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP 22...	1010	1.00	335	8.5	29.0	8.0	105
22...	1012	10.0	335	8.4	29.0	7.8	103
22...	1014	18.0	335	8.3	29.0	7.1	93

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP 22...	1020	1.00	336	8.4	35.5	7.5	107
22...	1022	15.0	336	8.4	35.5	7.4	106

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP 22...	1045	1.00	337	8.4	32.5	7.7	105
22...	1047	11.0	337	8.2	28.5	6.2	81

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
SEP 22...	1100	1.00	327	8.6	28.5	.43	9.0	117
22...	1105	10.0	327	8.3	26.5	--	7.3	92
22...	1107	17.0	321	7.8	25.5	--	5.2	65

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP 22...	110	8	36	5.3	19	.8	4.6	107	30
22...	--	--	--	--	--	--	--	--	--
22...	140	37	39	5.1	19	.8	4.7	98	29

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
SEP 22...	21	5.3	183	<.10	<.010	.070	<10	<10
22...	--	--	--	<.10	<.010	.060	260	80
22...	21	5.2	184	<.10	.050	.150	1200	310

Table 15.--Chemical-quality survey of Lake Arlington, September 22, 1977--Continued

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SEP									
22...	1115	1.00	230	8.5	28.0	.40	8.1	104	
22...	1120	7.00	268	8.2	25.5	--	6.5	81	

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP									
22...	82	18	27	3.6	14	.7	3.9	64	20
22...	99	20	33	4.0	15	.7	4.1	79	23

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP								
22...	17	3.2	127	.06	.010	.060	<10	<10
22...	18	3.8	148	.01	.010	.120	<10	<10

Table 16.--Chemical-quality survey of Lake Arlington, January 13, 1978

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JAN									
13...	1240	1.00	310	8.2	8.5	.70	10.4	93	110
13...	1242	10.0	310	8.1	8.5	--	10.4	92	--
13...	1245	20.0	310	8.1	8.5	--	10.4	92	--
13...	1247	30.0	310	8.1	8.5	--	10.4	92	--
13...	1250	41.0	310	8.1	8.0	--	10.4	90	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JAN									
13...	19	35	5.2	18	.8	4.5	90	30	25
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
13...	19	35	5.2	18	.8	4.5	90	30	25

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JAN								
13...	.2	1.9	174	.03	.070	.040	140	60
13...	--	--	--	--	--	--	--	--
13...	--	--	--	.03	.070	.050	<10	<10
13...	--	--	--	--	--	--	--	--
13...	.2	1.9	174	.04	.090	.040	190	80

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
13...	1220	1.00	310	8.3	8.0	10.4	90
13...	1222	10.0	310	8.2	8.0	10.4	90
13...	1224	20.0	310	8.2	8.0	10.2	89
13...	1226	28.0	310	8.2	8.0	10.1	88

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JAN							
13...	1305	1.00	310	8.2	8.5	10.6	94
13...	1307	10.0	310	8.2	8.5	10.5	93
13...	1308	20.0	310	8.1	8.0	10.2	89
13...	1309	30.0	310	8.1	8.0	10.2	89
13...	1311	37.0	310	8.0	8.0	10.0	87

Table 16.--Chemical-quality survey of Lake Arlington, January 13, 1978--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
JAN							
13...	1317	1.00	310	8.2	8.5	10.5	93
13...	1319	10.0	310	8.2	8.0	10.4	90
13...	1320	20.0	310	8.2	8.0	10.2	89
13...	1322	27.0	310	8.1	8.0	10.2	89

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
JAN							
13...	1340	1.00	310	8.2	11.0	10.5	98
13...	1342	10.0	310	8.2	11.0	10.5	98
13...	1344	14.0	310	8.1	11.0	10.4	97

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
JAN							
13...	1358	1.00	310	8.2	10.0	10.8	99
13...	1400	10.0	310	8.1	8.5	10.2	90
13...	1402	13.0	310	8.0	8.5	10.2	90

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCARBONATE (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JAN																	
13...	1414	1.00	310	8.2	9.0	.70	11.1	94									
13...	1416	10.0	310	8.2	8.5	--	11.0	97									
13...	1419	23.0	301	8.1	7.0	--	11.0	98									
JAN																	
13...	110	18	35	5.1	19	.8	4.7	90	31								
13...	--	--	--	--	--	--	--	--	--								
13...	110	17	35	4.8	18	.8	4.4	90	30								
DATE	TIME	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)								
JAN																	
13...	25	1.9	176	.03	.070	.040	170	70									
13...	--	--	--	--	--	--	--	--									
13...	25	1.8	173	.03	.040	.040	<10	<10									

Table 16.--Chemical-quality survey of Lake Arlington, January 13, 1978--Continued

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JAN 13...	1427	1.00	298	8.2	8.5	10.9	96
13...	1430	12.0	301	8.1	7.0	11.0	93

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JAN 13...	1450	1.00	221	7.9	8.0	.70	10.5	91
13...	1452	10.0	229	7.9	7.5	--	10.1	87

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
JAN 13...	69	14	21	3.9	13	.7	4.0	55	23
13...	70	12	21	4.2	14	.7	3.9	58	23

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JAN 13...	17	1.6	117	.05	.070	.050	180	80
13...	19	1.6	122	.04	.060	.050	20	<10

Table 17.--Chemical-quality survey of Lake Arlington, June 16, 1978

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)
JUN												
16...	0915	1.00	317	8.0	31.0	1.20	7.2	99	110	12	37	4.7
16...	0916	2.00	--	--	--	--	--	--	--	--	--	--
16...	0917	10.0	317	8.0	30.5	--	7.2	97	--	--	--	--
16...	0919	20.0	317	8.0	30.0	--	7.4	100	--	--	--	--
16...	0921	30.0	335	7.0	25.0	--	.1	1	--	--	--	--
16...	0923	40.0	343	7.0	24.0	--	.2	2	130	14	43	5.1

DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
JUN													
16...	19	.8	4.6	98	32	22	.2	2.7	182	<.10	<.010	.020	
16...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	.01	<.010	.020	
16...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	20	.8	4.5	115	27	20	.2	4.6	196	<.10	.200	.060	

DATE	TIME	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)	ARSENIC DIS-SOLVED (UG/L AS As)	BARIUM, DIS-SOLVED (UG/L AS Ba)	CADMIUM DIS-SOLVED (UG/L AS Cd)	CHRO-MIUM, DIS-SOLVED (UG/L AS Cr)	COPPER, DIS-SOLVED (UG/L AS Cu)	LEAD, DIS-SOLVED (UG/L AS Pb)	MERCURY DIS-SOLVED (UG/L AS Hg)	SELE-NIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	ZINC, DIS-SOLVED (UG/L AS Zn)
JUN													
16...	50	<10	1	200	ND	ND	4	3	<.1	<1	ND	5	
16...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	40	50	--	--	--	--	--	--	--	--	--	--	
16...	--	--	--	--	--	--	--	--	--	--	--	--	
16...	1000	1100	6	200	ND	ND	ND	5	<.1	<1	ND	5	

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
16...	0945	1.00	317	8.0	31.0	7.1	97
16...	0947	10.0	317	8.0	31.0	7.1	97
16...	0949	20.0	317	8.0	30.5	7.1	96
16...	0951	26.0	317	8.0	30.5	7.1	96

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
16...	1000	1.00	317	8.0	30.5	7.2	97
16...	1002	10.0	317	8.0	30.5	7.1	96
16...	1004	20.0	317	8.0	30.0	7.1	96
16...	1006	30.0	335	7.1	25.0	.1	1
16...	1008	41.0	342	7.0	25.0	.2	2

Table 17.--Chemical-quality survey of Lake Arlington, June 16, 1978--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
16...	1020	1.00	317	8.0	30.5	7.1	96
16...	1022	10.0	317	8.0	30.5	7.2	97
16...	1024	20.0	317	8.0	30.0	7.1	96
16...	1026	29.0	335	7.1	27.0	.2	3

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
16...	1032	1.00	317	8.0	31.0	7.2	99
16...	1034	10.0	317	8.1	31.0	7.2	99
16...	1036	15.0	317	8.0	31.0	7.2	99

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN							
16...	1055	1.00	317	7.9	32.0	6.5	90
16...	1057	10.0	317	7.8	30.0	5.9	80
16...	1059	16.0	317	7.4	29.5	3.6	48

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
JUN								
16...	1115	1.00	317	8.0	30.0	.60	6.6	89
16...	1117	10.0	317	8.0	29.5	--	6.6	88
16...	1119	22.0	317	7.1	28.5	--	.2	3

DATE	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUN									
16...	110	11	36	4.7	19	.8	4.6	98	31
16...	--	--	--	--	--	--	--	--	--
16...	110	13	37	4.6	18	.7	4.4	98	29

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN								
16...	19	2.9	176	.01	<.010	.020	<10	<10
16...	--	--	--	<.10	.010	.020	<10	<10
16...	18	3.8	174	.01	.030	.060	20	410

Table 17.--Chemical-quality survey of Lake Arlington, June 16, 1978--Continued

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
JUN 16...	1135	1.00	317	8.1	29.5	7.2	96
16...	1137	12.0	317	8.1	29.0	7.0	93

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
JUN 16...	1154	.70	--	--	--	--	--	--
16...	1155	1.00	320	8.0	30.0	.40	7.0	95
16...	1157	10.0	320	7.8	29.5	--	6.1	81
16...	1159	13.0	320	7.8	29.5	--	6.0	80

DATE	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
JUN 16...	--	--	--	--	--	--	--	--	--
16...	110	10	36	4.6	19	.8	4.6	98	31
16...	--	--	--	--	--	--	--	--	--
16...	110	10	36	4.6	18	.8	4.6	98	31

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)
JUN 16...	--	--	--	--	--	--	--	--
16...	23	2.9	180	.01	<.010	.030	110	<10
16...	--	--	--	--	--	--	--	--
16...	23	3.0	179	<.10	<.010	.040	<10	<10

Table 18.--Chemical-quality survey of Lake Arlington, September 9, 1978
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
SEP												
09...	0923	1.00	324	8.2	30.0	1.20	6.2	84	110	9	34	5.0
09...	0924	2.00	--	--	--	--	--	--	--	--	--	--
09...	0925	10.0	324	7.6	29.5	--	3.2	43	--	--	--	--
09...	0927	20.0	324	7.3	29.5	--	.9	12	--	--	--	--
09...	0929	31.0	332	7.1	28.5	--	.2	3	110	7	37	5.2

DATE	TIME	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
SEP													
09...	20	.8	4.8	96	29	24	.2	3.8	179	.02	.040	.030	
09...	--	--	--	--	--	--	--	--	--	--	--	--	
09...	--	--	--	--	--	--	--	--	--	.02	.040	.030	
09...	--	--	--	--	--	--	--	--	--	.01	.040	.030	
09...	19	.8	4.8	107	25	25	--	5.0	186	.02	.530	.070	

DATE	TIME	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
SEP													
09...	20	<10	1	<100	ND	ND	4	ND	<.1	<1	ND	ND	
09...	--	--	--	--	--	--	--	--	--	--	--	--	
09...	130	120	--	--	--	--	--	--	--	--	--	--	
09...	160	420	--	--	--	--	--	--	--	--	--	--	
09...	340	580	5	<100	ND	ND	<2	ND	<.1	<1	ND	<20	

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
SEP							
09...	0945	1.00	324	8.3	30.0	6.5	87
09...	0947	10.0	324	8.3	30.0	6.3	85
09...	0949	20.0	327	7.3	29.5	1.0	13
09...	0951	32.0	332	7.2	28.5	.3	4

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
SEP							
09...	0957	1.00	324	8.2	30.0	5.9	80
09...	0959	10.0	324	8.2	30.0	5.7	77
09...	1001	20.0	324	7.8	29.5	4.2	56
09...	1003	30.0	340	7.1	28.5	.2	3
09...	1005	35.0	345	7.1	28.0	.3	4

Table 18.--Chemical-quality survey of Lake Arlington, September 9, 1978--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
SEP 09...	1009	1.00	324	8.3	30.5	6.3	85
09...	1011	10.0	324	8.3	30.5	6.2	84
09...	1013	18.0	324	7.9	30.0	4.3	58

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
SEP 09...	1029	1.00	322	8.3	33.5	6.2	87

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
SEP 09...	1035	1.00	322	8.3	33.0	6.5	92
09...	1037	10.0	322	8.2	31.5	6.0	82

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
SEP 09...	1050	1.00	322	8.2	30.0	1.00	6.2	84
09...	1052	10.0	298	8.3	28.5	--	6.2	82
09...	1054	21.0	292	8.1	28.0	--	5.9	77

DATE	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
SEP 09...	110	11	35	5.4	19	.8	4.6	98	30
09...	--	--	--	--	--	--	--	--	--
09...	110	23	34	4.9	17	.7	4.5	82	29

DATE	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)
SEP 09...	22	3.8	179	.01	.030	.030	50	<10
09...	--	--	--	.04	.050	.050	20	<10
09...	25	3.4	167	.05	.050	.060	20	20

Table 18.--Chemical-quality survey of Lake Arlington, September 9, 1978--Continued

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SEP								
09...	1113	1.00	245	7.8	27.0	.50	6.6	85
09...	1114	.90	--	--	--	--	--	--
09...	1115	7.00	245	7.8	27.0	--	6.5	83

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
SEP									
09...	71	7	22	4.0	15	.8	4.0	64	24
09...	--	--	--	--	--	--	--	--	--
09...	74	10	23	4.0	15	.8	4.0	64	24

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
SEP								
09...	21	2.7	131	.11	.040	.050	20	20
09...	--	--	--	--	--	--	--	--
09...	22	2.6	133	.12	.050	.050	30	20

Table 19.--Chemical-quality survey of Lake Arlington, February 15, 1979
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)
FEB												
15...	0945	1.00	309	8.0	11.5	.50	10.6	102	120	27	39	4.8
15...	0946	.80	--	--	--	--	--	--	--	--	--	--
15...	0947	10.0	309	8.0	11.0	--	10.6	101	--	--	--	--
15...	0949	20.0	309	8.0	11.0	--	10.7	102	--	--	--	--
15...	0951	30.0	309	8.0	10.5	--	10.6	100	--	--	--	--
15...	0953	42.0	310	7.9	10.0	--	10.5	98	120	29	40	4.8

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
FEB												
15...	19	.8	4.3	90	31	27	.2	1.0	181	.06	.010	.030
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	.05	.010	.030
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	19	.8	4.1	90	31	27	--	1.1	181	.05	.050	.130

DATE	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)	ARSENIC DIS-SOLVED (UG/L AS As)	BARIUM, DIS-SOLVED (UG/L AS Ba)	CADMIUM DIS-SOLVED (UG/L AS Cd)	CHRO-MIUM, DIS-SOLVED (UG/L AS Cr)	COPPER, DIS-SOLVED (UG/L AS Cu)	LEAD, DIS-SOLVED (UG/L AS Pb)	MERCURY DIS-SOLVED (UG/L AS Hg)	SELE-NIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	ZINC, DIS-SOLVED (UG/L AS Zn)
FEB												
15...	<10	<10	1	<100	ND	<20	4	ND	<.1	<1	ND	<20
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	<10	<10	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
15...	<10	<10	<1	<100	ND	<20	3	ND	<.1	<1	ND	<20

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
FEB							
15...	1015	1.00	309	8.1	11.0	10.6	101
15...	1017	10.0	309	8.1	11.0	10.6	101
15...	1019	20.0	309	8.1	11.0	10.5	100
15...	1021	30.0	309	8.0	11.0	10.5	100

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
FEB							
15...	1035	1.00	309	8.1	11.0	10.6	101
15...	1037	10.0	309	8.1	11.0	10.6	101
15...	1039	20.0	309	8.1	11.0	10.6	101
15...	1041	30.0	309	8.1	10.5	10.6	100
15...	1043	35.0	309	8.1	10.5	10.6	100

Table 19.--Chemical-quality survey of Lake Arlington, February 15, 1979--Continued

324301097123301 SITE BL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
FEB							
15...	1055	1.00	309	8.1	11.5	10.6	102
15...	1057	10.0	309	8.1	11.0	10.6	101
15...	1059	20.0	309	8.1	11.0	10.3	98
15...	1101	28.0	309	8.1	11.0	10.4	99

324257097130301 SITE CC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
FEB							
15...	1110	1.00	313	8.0	11.5	10.6	102
15...	1112	10.0	313	8.1	11.0	10.6	101
15...	1114	20.0	313	8.1	11.0	10.4	99

324228097130301 SITE DC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
FEB							
15...	1125	1.00	313	8.1	13.0	10.4	104
15...	1127	10.0	313	8.1	10.5	10.5	99
15...	1129	15.0	313	8.0	10.5	10.4	98

324143097132201 SITE EC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATURATION)
FEB								
15...	1140	1.00	304	8.2	12.0	.50	10.6	104
15...	1142	10.0	304	8.2	11.5	--	10.6	102
15...	1144	23.0	307	8.1	11.0	--	10.4	99

DATE	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
FEB									
15...	100	20	33	4.7	19	.8	4.0	82	31
15...	--	--	--	--	--	--	--	--	--
15...	100	12	33	4.8	19	.8	4.0	90	31

DATE	CHLORIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 (MG/L AS N)	NITROGEN, AMMONIA (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)
FEB								
15...	24	.8	166	.04	.010	.040	20	<10
15...	--	--	--	--	--	--	--	--
15...	23	.9	170	.04	.010	.040	<10	<10

Table 19.--Chemical-quality survey of Lake Arlington, February 15, 1979--Continued

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
FEB 15...	1200	1.00	304	8.2	13.0	10.6	106
15...	1202	13.0	304	8.1	11.0	10.3	98

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)
FEB 15...	1220	1.00	290	8.3	13.0	.30	10.5	105
15...	1221	.50	--	--	--	--	--	--
15...	1222	12.0	269	8.2	12.0	--	10.0	98

DATE	HARDNESS (MG/L AS CACO3)	HARDNESS, NONCARBONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
FEB 15...	96	16	31	4.5	18	.8	3.8	80	30
15...	--	--	--	--	--	--	--	--	--
15...	88	14	28	4.4	18	.8	3.8	74	29

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)
FEB 15...	22	.5	158	.01	.010	.050	<10	<10
15...	--	--	--	--	--	--	--	--
15...	22	.6	150	.01	.010	.070	20	<10

Table 20.--Chemical-quality survey of Lake Arlington, May 18, 1979
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)	HARDNESS (MG/L AS CaCO3)	HARDNESS, NONCARBONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)
MAY												
18...	1029	.40	--	--	--	--	--	--	--	--	--	--
18...	1030	1.00	269	7.7	25.0	.30	7.3	89	100	12	35	3.7
18...	1032	10.0	269	7.7	24.5	--	7.3	88	--	--	--	--
18...	1034	20.0	269	7.7	24.0	--	7.3	87	--	--	--	--
18...	1036	30.0	280	7.4	21.0	--	5.0	56	--	--	--	--
18...	1038	35.0	300	7.4	20.5	--	3.8	42	--	--	--	--
18...	1040	40.0	330	7.3	20.0	--	1.3	14	--	--	--	--
18...	1042	47.0	363	7.2	19.5	--	.2	2	140	21	46	5.0

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)
MAY												
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	14	.6	4.3	90	24	15	.3	3.8	155	.54	.070	.090
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	.24	.050	.090
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	.60	.120	.130
18...	19	.7	4.4	115	34	19	--	5.6	202	.33	.150	.120

DATE	IRON, DIS-SOLVED (UG/L AS Fe)	MANGANESE, DIS-SOLVED (UG/L AS Mn)	ARSENIC, DIS-SOLVED (UG/L AS As)	BARIUM, DIS-SOLVED (UG/L AS Ba)	CADMIUM, DIS-SOLVED (UG/L AS Cd)	CHROMIUM, DIS-SOLVED (UG/L AS Cr)	COPPER, DIS-SOLVED (UG/L AS Cu)	LEAD, DIS-SOLVED (UG/L AS Pb)	MERCURY, DIS-SOLVED (UG/L AS Hg)	SELENIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	ZINC, DIS-SOLVED (UG/L AS Zn)
MAY												
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	140	<10	1	<100	<2	ND	4	ND	<.1	<1	ND	<20
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	<10	<10	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	<10	40	--	--	--	--	--	--	--	--	--	--
18...	<10	100	1	<100	<2	ND	3	ND	<.1	<1	ND	<20

324320097121101 SITE AL

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED SATURATION (%)
MAY							
18...	1125	1.00	269	7.7	25.0	7.3	89
18...	1127	10.0	269	7.7	25.0	7.3	89
18...	1129	20.0	269	7.7	24.5	7.3	88
18...	1131	30.0	280	7.4	21.0	4.6	52
18...	1133	39.0	300	7.3	20.0	.8	9

Table 20.--Chemical-quality survey of Lake Arlington, May 18, 1979--Continued

324253097121801 SITE BC								
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
MAY								
18...	1140	1.00	269	7.6	25.0	7.1	87	
18...	1141	10.0	269	7.6	25.0	7.1	87	
18...	1142	20.0	269	7.4	21.5	5.9	67	
18...	1143	30.0	300	7.4	21.0	3.6	40	
18...	1144	42.0	300	7.3	20.0	1.4	16	
324301097123301 SITE BL								
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
MAY								
18...	1145	1.00	269	7.6	25.0	7.1	87	
18...	1147	10.0	269	7.6	25.0	7.1	87	
18...	1149	20.0	269	7.4	21.5	5.6	64	
18...	1151	33.0	310	7.3	20.5	1.5	17	
324257097130301 SITE CC								
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
MAY								
18...	1220	1.00	271	7.5	29.5	7.1	93	
18...	1222	5.00	271	7.5	29.5	7.1	93	
18...	1224	10.0	271	7.5	29.5	7.1	93	
324228097130301 SITE DC								
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
MAY								
18...	1200	1.00	272	7.6	26.0	6.9	85	
18...	1202	10.0	272	7.5	23.5	6.4	75	
18...	1204	20.0	272	7.4	21.5	4.7	53	
324143097132201 SITE EC								
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY								
18...	1245	1.00	274	7.7	24.0	.30	7.1	85
18...	1247	10.0	274	7.6	23.5	--	6.9	82
18...	1249	20.0	284	7.4	22.0	--	4.9	56
18...	1251	27.0	342	7.2	21.0	--	2.3	26

Table 20.--Chemical-quality survey of Lake Arlington, May 18, 1979--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAY									
18...	100	12	35	3.6	14	.6	4.2	90	25
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	120	6	41	4.4	16	.6	4.3	115	31

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
18...	15	4.1	155	.38	.060	.100	20	<10
18...	--	--	--	--	--	--	--	--
18...	--	--	--	.22	.050	.100	<10	<10
18...	17	5.5	188	.63	.270	.110	20	60

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY							
18...	1300	1.00	274	7.7	24.0	7.2	86
18...	1302	10.0	274	7.7	23.5	7.1	85
18...	1304	20.0	300	7.4	21.5	3.9	44

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY								
18...	1310	.30	--	--	--	--	--	--
18...	1311	1.00	278	7.7	24.0	.20	7.1	85
18...	1313	10.0	278	7.6	23.5	--	6.6	79
18...	1315	17.0	378	7.2	21.5	--	2.8	32

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
MAY									
18...	--	--	--	--	--	--	--	--	--
18...	110	15	36	3.7	14	.6	4.3	90	25
18...	--	--	--	--	--	--	--	--	--
18...	150	24	49	5.9	22	.8	4.2	123	38

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
18...	--	--	--	--	--	--	--	--
18...	15	2.0	154	.31	.050	.100	<10	<10
18...	--	--	--	--	--	--	--	--
18...	23	5.9	222	.39	.120	.080	<10	150

Table 21.--Chemical-quality survey of Lake Arlington, August 2, 1979
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
AUG												
02...	1610	1.00	288	8.6	30.5	.90	7.8	105	110	15	35	4.3
02...	1611	1.50	--	--	--	--	--	--	--	--	--	--
02...	1612	10.0	288	8.6	30.5	--	7.8	105	--	--	--	--
02...	1614	20.0	288	8.6	29.5	--	7.8	104	--	--	--	--
02...	1616	30.0	324	7.4	26.0	--	.1	1	--	--	--	--
02...	1618	40.0	334	7.3	24.0	--	.1	1	--	--	--	--
02...	1620	45.0	334	7.3	24.0	--	.1	1	130	0	43	5.8

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)
AUG												
02...	16	.7	4.4	90	27	16	.2	1.6	159	<.10	.010	.030
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	<.10	.010	.030
02...	--	--	--	--	--	--	--	--	--	<.10	.510	.040
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	15	.6	4.2	131	25	23	--	9.0	128	<.10	.910	.140

DATE	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG												
02...	<10	30	1	<100	ND	20	3	ND	<.1	<1	ND	<3
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	<10	140	--	--	--	--	--	--	--	--	--	--
02...	60	1800	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	930	1600	9	<100	ND	<20	ND	ND	<.1	<1	ND	<3

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
AUG							
02...	1645	1.00	288	8.7	30.5	8.1	109
02...	1647	10.0	288	8.6	30.5	8.1	109
02...	1649	20.0	288	8.6	30.5	8.1	109
02...	1651	31.0	288	8.6	28.5	7.6	100

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
AUG							
02...	1715	1.00	288	8.6	30.5	7.4	100
02...	1717	10.0	288	8.5	30.0	7.3	99
02...	1719	20.0	288	8.5	30.0	7.2	97
02...	1721	30.0	300	7.4	28.0	.1	1
02...	1723	35.0	334	7.4	25.5	.1	1

Table 21.--Chemical-quality survey of Lake Arlington, August 2, 1979--Continued

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
02...	1700	1.00	288	8.6	30.5	7.6	103
02...	1702	10.0	288	8.6	30.5	7.6	103
02...	1704	19.0	288	8.5	30.0	7.1	96

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
02...	1730	1.00	292	8.3	33.5	6.8	97
02...	1732	10.0	292	8.2	30.0	5.6	76
02...	1734	16.0	292	8.0	30.0	4.8	65

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
02...	1750	1.00	288	8.4	37.5	6.6	100
02...	1752	13.0	288	8.2	32.0	6.2	86

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG								
02...	1810	1.00	285	8.7	30.0	.60	8.4	114
02...	1812	10.0	285	8.7	30.0	--	8.3	112
02...	1814	22.0	286	7.7	29.0	--	3.2	42

DATE	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
AUG									
02...	100	18	35	4.2	16	.7	4.4	87	28
02...	--	--	--	--	--	--	--	--	--
02...	100	12	34	4.3	15	.6	4.3	90	27

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)
AUG								
02...	17	1.7	159	<.10	.010	.030	<10	<10
02...	--	--	--	<.10	.010	.030	<10	<10
02...	17	2.6	159	.02	.040	.070	<10	70

Table 21.--Chemical-quality survey of Lake Arlington, August 2, 1979--Continued

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG 02...	1830	1.00	285	8.7	30.5	8.5	115
02...	1832	14.0	285	8.7	30.5	8.4	114

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG 02...	1842	.90	--	--	--	--	--	--
02...	1843	1.00	287	8.7	30.0	.60	8.2	111
02...	1845	13.0	272	7.7	28.5	--	3.9	51

DATE	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
AUG 02...	--	--	--	--	--	--	--	--	--
02...	110	12	35	4.5	17	.7	4.3	94	28
02...	87	5	28	4.1	24	1.1	4.1	82	26

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)
AUG 02...	--	--	--	--	--	--	--	--
02...	17	1.6	164	<.10	.010	.030	<10	<10
02...	17	2.7	106	.06	.010	.070	<10	30

Table 22.--Chemical-quality survey of Lake Arlington, February 5, 1980

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
FEB										
05...	1250	1.00	284	8.0	10.0	.80	10.2	91	100	3
05...	1251	1.30	--	--	--	--	--	--	--	--
05...	1252	10.0	284	8.0	10.0	--	10.2	91	--	--
05...	1253	20.0	284	8.0	10.0	--	10.2	91	--	--
05...	1254	30.0	284	8.0	10.0	--	10.0	89	--	--
05...	1255	43.0	284	7.9	9.5	--	9.5	84	100	4

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
FEB									
05...	34	3.9	16	.7	4.2	98	27	15	.2
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	34	4.2	16	.7	4.2	98	27	15	--

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ARSENIC DIS-SOLVED (UG/L AS AS)
FEB									
05...	1.9	161	.10	.46	.56	.020	<10	<1	1
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	.13	.56	.69	.020	20	0	--
05...	2.0	162	.08	.59	.67	.030	20	40	1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SELLE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
FEB									
05...	40	<1	0	0	0	.0	0	0	<3
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	40	<1	0	0	0	.0	0	0	<3

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
FEB							
05...	1315	1.00	284	8.0	9.5	10.2	90
05...	1316	10.0	284	8.0	9.5	10.1	89
05...	1317	20.0	284	8.0	9.5	10.0	88
05...	1318	32.0	284	8.0	9.5	9.8	87

Table 22.--Chemical-quality survey of Lake Arlington, February 5, 1980--Continued

324253097121801 SITE BC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB									
05...	1325	1.00	284	8.0	10.0	10.2	91		
05...	1326	10.0	284	8.0	10.0	10.2	91		
05...	1327	20.0	284	8.0	10.0	10.2	91		
05...	1328	30.0	284	8.0	9.5	10.1	89		
05...	1329	38.0	284	8.0	9.5	10.0	88		
324301097123301 SITE BL									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB									
05...	1335	1.00	284	8.1	10.5	10.2	93		
05...	1336	10.0	284	8.0	10.0	10.2	91		
05...	1337	20.0	284	8.0	10.0	10.2	91		
05...	1338	30.0	284	8.0	9.5	10.0	88		
324257097130301 SITE CC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB									
05...	1345	1.00	286	7.9	14.0	9.4	92		
05...	1346	12.0	286	7.9	14.0	9.4	92		
324228097130301 SITE DC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
FEB									
05...	1400	1.00	284	7.9	13.5	9.5	92		
05...	1401	10.0	284	8.0	11.5	9.8	91		
05...	1402	15.0	284	8.0	10.0	9.6	86		
324143097132201 SITE EC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CaCO3)
FEB									
05...	1415	1.00	284	8.2	10.0	.40	10.5	94	100
05...	1418	10.0	284	8.2	10.0	--	10.5	94	--
05...	1419	23.0	284	8.1	10.0	--	10.4	93	110

Table 22.--Chemical-quality survey of Lake Arlington, February 5, 1980--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
FEB									
05...	6	35	4.2	16	.7	4.3	98	27	16
05...	--	--	--	--	--	--	--	--	--
05...	7	35	4.3	16	.7	4.2	98	27	16

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
05...	1.9	164	.08	.51	.59	.040	20	<1
05...	--	--	--	--	--	--	--	--
05...	2.0	164	.07	.59	.66	.050	20	<1

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
05...	1435	1.00	284	8.2	10.0	10.5	94
05...	1436	10.0	284	8.2	10.0	10.4	93
05...	1437	15.0	284	8.2	10.0	10.2	91

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
FEB									
05...	1500	1.00	296	8.1	10.5	.30	10.1	92	110
05...	1501	.50	--	--	--	--	--	--	--
05...	1505	12.0	296	8.1	10.5	--	10.1	92	110

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
FEB									
05...	10	36	4.5	17	.7	4.2	98	29	17
05...	--	--	--	--	--	--	--	--	--
05...	7	35	4.4	16	.7	4.1	98	29	17

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
05...	2.5	169	.08	.61	.69	.040	40	5
05...	--	--	--	--	--	--	--	--
05...	2.5	167	.12	.57	.69	.050	30	7

Table 23.--Chemical-quality survey of Lake Arlington, May 5, 1980
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAK-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CaCO3)	HARD-NESS, NONCAR-BONATE (MG/L AS CaCO3)
MAY										
05...	1400	1.00	300	8.4	26.0	.80	8.9	111	110	13
05...	1401	1.30	--	--	--	--	--	--	--	--
05...	1402	10.0	300	8.2	24.0	--	8.4	101	--	--
05...	1404	20.0	305	7.9	20.5	--	6.4	72	--	--
05...	1408	30.0	317	7.6	18.0	--	2.4	26	--	--
05...	1410	35.0	324	7.5	17.0	--	.8	8	--	--
05...	1412	42.0	324	7.5	17.0	--	.4	4	120	11

DATE	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS Cl)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
MAY									
05...	35	4.7	17	.7	3.9	94	27	15	.2
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	39	4.8	17	.7	4.0	110	28	15	--

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS Fe)	MANGA-NESE, DIS-SOLVED (UG/L AS Mn)	ARSENIC DIS-SOLVED (UG/L AS As)
MAY									
05...	1.5	161	.03	.99	1.0	.010	<10	2	1
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	.08	.83	.91	.010	40	10	--
05...	--	--	.29	.98	1.3	.010	40	40	--
05...	--	--	--	--	--	--	--	--	--
05...	3.3	176	.37	.74	1.1	.020	50	420	1

DATE	BARIUM, DIS-SOLVED (UG/L AS Ba)	CADMIUM DIS-SOLVED (UG/L AS Cd)	CHRO-MIUM, DIS-SOLVED (UG/L AS Cr)	COPPER, DIS-SOLVED (UG/L AS Cu)	LEAD, DIS-SOLVED (UG/L AS Pb)	MERCURY DIS-SOLVED (UG/L AS Hg)	SELE-NIUM, DIS-SOLVED (UG/L AS Se)	SILVER, DIS-SOLVED (UG/L AS Ag)	ZINC, DIS-SOLVED (UG/L AS Zn)
MAY									
05...	50	<1	0	3	0	.0	0	0	<3
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	50	1	0	2	0	.2	0	0	<3

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
MAY							
05...	1420	1.00	300	8.3	26.0	9.0	112
05...	1422	10.0	300	8.2	24.0	8.2	99
05...	1424	20.0	305	7.9	20.5	6.3	71
05...	1426	30.0	318	7.6	18.0	2.8	30

Table 23.--Chemical-quality survey of Lake Arlington, May 5, 1980--Continued

324253097121801 SITE BC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
MAY									
05...	1435	1.00	300	8.4	25.5	8.8	109		
05...	1436	10.0	300	8.3	22.5	8.3	97		
05...	1437	20.0	308	7.8	20.0	5.3	59		
05...	1438	30.0	319	7.6	17.5	1.8	19		
05...	1439	40.0	325	7.6	17.0	.4	4		
324301097123301 SITE BL									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
MAY									
05...	1445	1.00	302	8.3	26.0	8.8	110		
05...	1446	10.0	302	8.3	22.5	8.1	94		
05...	1448	20.0	310	7.7	20.0	4.7	52		
05...	1450	32.0	322	7.5	18.0	1.2	13		
324257097130301 SITE CC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
MAY									
05...	1500	1.00	310	7.8	32.5	6.8	94		
05...	1501	5.00	310	7.8	30.5	6.8	92		
05...	1502	11.0	310	7.9	24.5	6.7	82		
324228097130301 SITE DC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
MAY									
05...	1515	1.00	304	8.2	27.0	8.1	103		
05...	1516	10.0	304	8.2	22.5	7.7	90		
05...	1517	19.0	310	7.6	21.5	5.0	57		
324143097132201 SITE EC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRAN- PAR- ENCY (SECCHI DISK (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
MAY									
05...	1525	1.00	301	8.4	25.5	.70	8.8	109	100
05...	1526	10.0	301	8.2	22.0	--	7.3	85	--
05...	1527	20.0	312	7.6	20.5	--	3.7	42	--
05...	1528	24.0	316	7.5	20.5	--	1.7	19	100

Table 23.--Chemical-quality survey of Lake Arlington, May 5, 1980--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD AS (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY									
05...	11	34	4.7	16	.7	4.0	94	27	15
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	5	34	4.6	17	.7	3.9	98	27	16

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
05...	1.4	158	.01	.71	.72	.030	10	<3
05...	--	--	.03	.81	.84	.020	50	20
05...	--	--	--	--	--	--	--	--
05...	3.0	165	.06	.69	.75	.020	40	40

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
MAY							
05...	1540	1.00	301	8.4	26.0	8.8	110
05...	1541	10.0	301	8.2	22.0	7.6	88
05...	1542	18.0	311	7.8	21.5	5.5	63

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS AS CACO3)
MAY									
05...	1600	1.00	300	8.6	24.0	.79	9.2	111	100
05...	1601	1.30	--	--	--	--	--	--	--
05...	1602	10.0	307	7.9	21.5	--	5.5	63	--
05...	1604	15.0	321	7.5	21.0	--	3.0	34	100

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD AS (MG/L CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
MAY									
05...	9	34	4.6	16	.7	4.0	95	27	15
05...	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--
05...	6	34	4.7	19	.8	3.8	98	28	16

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAY								
05...	1.4	159	.01	.76	.77	.030	10	<3
05...	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--
05...	3.1	168	.06	1.00	1.1	.030	30	20

Table 24.--Chemical-quality survey of Lake Arlington, August 18, 1980
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
AUG										
18...	1315	1.00	319	8.0	30.5	1.00	6.6	89	110	9
18...	1316	1.60	--	--	--	--	--	--	--	--
18...	1317	10.0	319	8.0	30.5	--	6.5	88	--	--
18...	1319	20.0	319	8.0	30.5	--	6.5	88	--	--
18...	1321	29.0	319	8.0	30.0	--	6.0	80	110	11

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
AUG									
18...	35	4.9	19	.8	4.9	98	29	20	.3
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	36	4.7	19	.8	4.7	98	29	20	--

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ARSENIC DIS- SOLVED (UG/L AS AS)
AUG									
18...	4.0	176	.00	.49	.49	.030	<10	2	2
18...	--	--	--	--	--	--	--	--	--
18...	--	--	.00	.65	.65	.020	10	0	--
18...	--	--	.00	.63	.63	.020	10	0	--
18...	4.1	177	.00	.45	.45	.020	<10	20	2

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	CADIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG									
18...	30	<1	0	2	0	.0	0	0	5
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	30	<1	0	1	0	.0	0	0	10

324320097121101 SITE AL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED CENT SATUR- ATION
AUG							
18...	1250	1.00	319	8.0	30.0	6.3	84
18...	1252	10.0	319	8.0	30.0	6.2	83
18...	1254	20.0	319	7.9	30.0	6.2	83
18...	1256	24.0	319	7.9	30.0	6.1	81

Table 24.--Chemical-quality survey of Lake Arlington, August 18, 1980--Continued

324253097121801 SITE BC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
AUG									
18...	1410	1.00	319	8.0	30.5	6.6	89		
18...	1412	10.0	319	8.0	30.5	6.3	85		
18...	1414	20.0	319	7.9	30.0	5.8	77		
18...	1416	25.0	323	7.4	29.5	3.0	39		
18...	1418	31.0	355	7.1	25.0	.1	1		
324301097123301 SITE BL									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
AUG									
18...	1605	1.00	319	8.0	31.0	6.9	93		
18...	1607	10.0	319	8.0	30.5	6.4	86		
18...	1609	20.0	319	7.8	30.0	5.6	75		
18...	1611	24.0	319	7.7	30.0	5.2	69		
324257097130301 SITE CC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
AUG									
18...	1450	1.00	319	7.9	36.0	6.5	94		
18...	1452	10.0	319	7.9	36.0	6.5	94		
18...	1454	15.0	319	7.9	36.5	6.5	96		
324228097130301 SITE DC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)		
AUG									
18...	1505	1.00	319	7.9	33.0	6.4	89		
18...	1507	5.00	319	7.8	32.0	6.1	84		
18...	1509	11.0	319	7.8	30.0	5.3	71		
324143097132201 SITE EC									
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CaCO3)
AUG									
18...	1525	1.00	312	8.2	29.5	.40	7.5	99	110
18...	1526	.70	--	--	--	--	--	--	--
18...	1527	10.0	310	8.1	28.5	--	6.9	90	--
18...	1529	16.0	310	8.1	28.5	--	6.7	87	100

Table 24.--Chemical-quality survey of Lake Arlington, August 18, 1980--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG									
18...	8	35	4.7	19	.8	4.8	98	29	20
18...	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--
18...	6	34	4.7	19	.8	4.7	98	29	20

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
AUG								
18...	4.0	176	.00	.65	.65	.080	<10	1
18...	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--
18...	4.0	175	.00	.71	.71	.050	<10	2

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
AUG							
18...	1545	1.00	312	8.2	29.0	7.7	101
18...	1547	8.00	312	8.2	29.0	7.5	99

Table 25.--Chemical-quality survey of Lake Arlington, February 12, 1981
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)
FEB										
12...	1405	1.00	284	7.6	8.0	.60	11.0	92	110	16
12...	1406	1.00	--	--	--	--	--	--	--	--
12...	1407	10.0	286	7.6	8.0	--	11.0	92	--	--
12...	1409	20.0	286	7.6	8.0	--	11.0	92	--	--
12...	1411	30.0	286	7.6	8.0	--	11.0	92	--	--
12...	1413	34.0	286	7.6	8.0	--	11.0	92	110	16

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
FEB									
12...	34	4.9	19	.8	4.3	89	33	18	.2
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	34	4.9	19	.8	4.3	89	33	18	--

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	ARSENIC DIS- SOLVED (UG/L AS AS)
FEB									
12...	1.8	169	.07	.71	.78	.040	<10	<1	1
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	.07	.81	.88	.040	20	0	--
12...	--	--	--	--	--	--	--	--	--
12...	1.9	169	.07	.71	.78	.040	20	1	1

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB									
12...	60	1	0	<10	<10	.0	0	0	4
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	60	1	0	<10	<10	.0	0	0	8

324320097121101 SITE AL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION
FEB							
12...	1430	1.00	284	7.7	9.0	10.8	92
12...	1432	10.0	284	7.7	9.0	10.8	92
12...	1434	20.0	284	7.7	9.0	10.8	92
12...	1436	30.0	284	7.7	9.0	10.8	92

Table 25.--Chemical-quality survey of Lake Arlington, February 12, 1981--Continued

324253097121801 SITE BC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
12...	1445	1.00	284	7.6	8.0	10.6	88
12...	1447	10.0	284	7.6	8.0	10.6	88
12...	1449	20.0	284	7.6	8.0	10.6	88
12...	1451	31.0	284	7.6	8.0	10.6	88

324301097123301 SITE BL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
12...	1455	1.00	284	7.7	10.0	10.6	92
12...	1457	10.0	284	7.7	9.5	10.6	91
12...	1459	20.0	284	7.7	9.0	10.5	91
12...	1501	26.0	284	7.7	8.5	10.6	90

324257097130301 SITE CC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
12...	1510	1.00	288	7.7	13.0	10.4	97
12...	1512	10.0	288	7.7	13.0	10.4	97

324228097130301 SITE DC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
12...	1525	1.00	288	7.6	12.5	10.5	97
12...	1527	10.0	284	7.6	8.5	10.3	87
12...	1529	16.0	284	7.6	8.5	10.3	87

324143097132201 SITE EC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CaCO3)
FEB									
12...	1540	1.00	280	7.8	7.0	.40	11.4	93	100
12...	1542	10.0	280	7.8	7.0	--	11.4	93	--
12...	1544	20.0	280	7.8	6.5	--	11.4	92	100

Table 25.--Chemical-quality survey of Lake Arlington, February 12, 1981--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
FEB									
12...	17	34	4.8	19	.8	4.4	88	33	18
12...	--	--	--	--	--	--	--	--	--
12...	16	33	4.9	19	.8	4.4	87	34	18

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
12...	1.9	168	.07	.75	.82	.040	<10	<1
12...	--	--	--	--	--	--	--	--
12...	2.0	168	.07	.92	.99	.050	20	<1

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPE- RATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
FEB							
12...	1555	1.00	278	7.8	6.0	11.5	91
12...	1557	10.0	278	7.8	6.0	11.5	91

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)
FEB									
12...	1610	1.00	274	7.9	4.5	.50	12.0	92	100
12...	1611	.80	--	--	--	--	--	--	--
12...	1612	10.0	274	7.9	4.5	--	12.0	92	100

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
FEB									
12...	16	32	4.8	19	.8	4.3	84	33	18
12...	--	--	--	--	--	--	--	--	--
12...	19	33	4.9	19	.8	4.3	84	33	18

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
12...	2.1	164	.03	.76	.79	.050	10	<1
12...	--	--	--	--	--	--	--	--
12...	2.1	165	.03	1.40	1.4	.060	20	2

Table 26.--Chemical-quality survey of Lake Arlington, June 4, 1981
 (UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius;
 MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (UMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TRANSPARANCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, SATURATION (%)	HARDNESS AS CaCO3 (MG/L)	HARDNESS, NONCARBONATE (MG/L CaCO3)
JUN										
04...	0945	1.00	305	8.4	26.0	1.50	7.0	88	110	17
04...	0946	2.50	--	--	--	--	--	--	--	--
04...	0948	10.0	305	8.4	26.0	--	7.0	88	--	--
04...	0949	20.0	305	8.3	25.5	--	6.8	84	--	--
04...	0950	25.0	316	7.4	23.5	--	1.5	18	--	--
04...	0951	30.0	318	7.3	23.0	--	.8	9	--	--
04...	0952	35.0	319	7.3	23.0	--	.6	7	--	--
04...	0953	42.0	321	7.3	22.5	--	.2	2	110	16

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY FIELD AS CaCO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)
JUN									
04...	36	4.6	18	.8	4.5	92	29	19	.2
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	38	4.7	19	.8	4.4	98	29	19	--

DATE	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC (MG/L AS N)	NITROGEN, TOTAL (MG/L AS N)	PHOSPHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGANESE, DIS-SOLVED (UG/L AS MN)	ARSENIC, DIS-SOLVED (UG/L AS AS)
JUN									
04...	1.7	168	.02	.82	.84	.030	20	2	1
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	.03	.74	.77	.030	0	20	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	.26	1.00	1.3	.050	20	140	--
04...	--	--	--	--	--	--	--	--	--
04...	2.8	176	.25	.93	1.2	.050	20	500	1

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN									
04...	90	<1	0	<10	<10	.1	0	0	3
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	100	<1	0	<10	11	.1	0	0	8

Table 26.--Chemical-quality survey of Lake Arlington, June 4, 1981--Continued

324320097121101 SITE AL							
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN							
04...	1020	1.00	305	8.6	26.0	7.0	88
04...	1021	10.0	305	8.5	26.0	6.9	86
04...	1022	20.0	306	8.4	26.0	6.6	82
04...	1023	30.0	317	7.1	23.0	1.1	13
04...	1024	35.0	319	7.4	23.0	.3	4
324253097121801 SITE BC							
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN							
04...	1030	1.00	304	8.5	26.0	6.9	86
04...	1031	10.0	304	8.4	26.0	6.7	84
04...	1032	20.0	312	7.7	25.0	3.5	43
04...	1033	30.0	320	7.4	23.0	.7	8
04...	1034	38.0	320	7.4	23.0	.2	2
324301097123301 SITE BL							
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN							
04...	1040	1.00	304	8.6	26.0	6.9	86
04...	1041	10.0	304	8.4	26.0	6.6	82
04...	1042	20.0	319	7.9	25.5	4.7	58
04...	1043	32.0	320	7.4	23.5	.5	6
324257097130301 SITE CC							
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN							
04...	1200	1.00	306	8.4	30.0	6.8	92
04...	1201	10.0	306	8.4	30.0	6.8	92
04...	1202	14.0	306	8.3	29.5	6.7	89
324228097130301 SITE DC							
DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
JUN							
04...	1215	1.00	304	8.4	28.0	6.8	88
04...	1216	10.0	304	8.4	26.5	6.5	81
04...	1217	18.0	305	8.2	26.5	6.1	76

Table 26.--Chemical-quality survey of Lake Arlington, June 4, 1981--Continued

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JUN									
04...	1100	1.00	306	8.5	26.0	.90	6.9	86	110
04...	1101	10.0	306	8.4	25.0	--	6.6	80	--
04...	1102	20.0	310	8.1	24.5	--	5.1	62	--
04...	1103	23.0	315	7.7	24.5	--	3.2	39	110

DATE	TIME	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)
JUN										
04...	13	35	4.5	16	.7	4.4	93	29	19	--
04...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
04...	13	37	4.6	18	.7	4.2	98	29	20	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)
JUN								
04...	1.9	166	.03	.95	.98	.040	<10	<1
04...	--	--	--	--	--	--	--	--
04...	--	--	.05	.90	.95	.060	50	20
04...	2.5	174	.12	.87	.99	.060	<10	40

324133097130601 SITE EL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
JUN							
04...	1110	1.00	306	8.6	26.0	6.8	85
04...	1111	10.0	306	8.4	25.0	6.6	80
04...	1112	18.0	309	8.1	25.0	5.4	66

324041097134601 SITE FC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)
JUN									
04...	1130	1.00	305	8.3	24.5	.60	6.9	84	110
04...	1131	1.00	--	--	--	--	--	--	--
04...	1132	10.0	280	7.7	23.5	--	4.6	55	--
04...	1133	14.0	276	7.7	23.5	--	4.4	52	98

Table 26.--Chemical-quality survey of Lake Arlington, June 4, 1981--Continued

324041097134601 SITE FC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SOKP- TION KATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUN									
04...	12	35	4.3	16	.7	4.3	93	29	18
04...	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--
04...	2	33	3.7	17	.7	4.0	96	26	15

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
JUN								
04...	2.3	165	.02	.98	1.0	.050	<10	<1
04...	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--
04...	3.6	160	.07	1.10	1.2	.110	10	8

Table 27.--Chemical-quality survey of Lake Arlington, August 20, 1981

(UMHOS - micromhos per centimeter at 25° Celsius; DEG C - degrees Celsius; MG/L - milligrams per liter; UG/L - micrograms per liter)

324304097113601 SITE AC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)
AUG										
20...	1020	1.00	309	8.0	29.0	1.20	4.6	60	110	16
20...	1021	2.00	--	--	--	--	--	--	--	--
20...	1022	10.0	309	7.9	28.5	--	4.5	58	--	--
20...	1023	20.0	309	7.9	28.5	--	4.2	54	--	--
20...	1024	25.0	320	7.5	28.0	--	.2	3	--	--
20...	1025	30.0	344	7.2	25.0	--	.2	2	--	--
20...	1026	39.0	353	7.2	24.0	--	.2	2	130	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY FIELD (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)
AUG									
20...	37	4.6	17	.7	4.9	95	27	20	.3
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	43	5.0	18	.7	4.8	140	5.0	25	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	PHOS-PHORUS, TOTAL (MG/L AS P)	IRON, DIS-SOLVED (UG/L AS FE)	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	ARSENIC DIS-SOLVED (UG/L AS AS)
AUG									
20...	3.8	172	.00	.86	.86	.020	<10	9	2
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	.00	.71	.71	.020	40	50	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	.00	1.90	1.9	.060	630	2000	--
20...	7.5	192	.00	2.80	2.8	.110	710	1900	7

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY DIS-SOLVED (UG/L AS HG)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
AUG									
20...	38	<1	0	<10	<10	.0	0	0	19
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--
20...	57	<1	0	<10	<10	.0	0	0	6

324320097121101 SITE AL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATUR-ATION)
AUG							
20...	1100	1.00	309	7.9	29.0	4.3	56
20...	1101	10.0	309	7.8	29.0	3.9	51
20...	1102	20.0	309	7.6	28.5	.2	3
20...	1103	30.0	309	7.3	26.5	.2	2

Table 27.--Chemical-quality survey of Lake Arlington, August 20, 1981--Continued

324253097121801 SITE BC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
20...	1110	1.00	312	8.5	29.5	7.3	96
20...	1111	10.0	314	8.2	29.0	5.9	77
20...	1112	20.0	316	7.9	28.5	4.3	55
20...	1113	30.0	348	7.2	26.0	.2	2
20...	1114	34.0	356	7.2	25.0	.2	2

324301097123301 SITE BL

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
20...	1120	1.00	314	8.4	29.5	6.9	91
20...	1121	10.0	314	8.3	29.0	6.5	84
20...	1122	20.0	317	8.0	29.0	4.2	55
20...	1123	27.0	313	7.6	28.0	.6	8

324257097130301 SITE CC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
20...	1135	1.00	298	8.1	33.5	6.2	86
20...	1136	5.00	298	8.1	33.5	6.2	86
20...	1137	10.0	298	8.1	33.5	6.2	86
20...	1138	13.0	298	8.1	33.5	6.2	86

324228097130301 SITE DC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)
AUG							
20...	1155	1.00	305	8.1	31.5	6.4	86
20...	1156	10.0	305	8.2	29.5	6.1	80
20...	1157	15.0	305	8.1	29.5	5.2	68

324143097132201 SITE EC

DATE	TIME	SAM-PLING DEPTH (FEET)	SPE-CIFIC CON-DUCT-ANCE (UMHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (M)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS (MG/L AS CaCO3)
AUG									
20...	1215	1.00	308	8.4	30.0	1.00	7.1	95	100
20...	1216	10.0	304	8.4	28.5	--	6.9	88	--
20...	1217	20.0	307	8.3	27.5	--	6.3	80	110

Table 27.--Chemical-quality survey of Lake Arlington, August 20, 1981--Continued

324143097132201 SITE EC--Continued

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG									
20...	11	34	4.8	18	.8	4.7	94	28	21
20...	--	--	--	--	--	--	--	--	--
20...	12	34	4.9	18	.8	4.7	93	30	21

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
AUG								
20...	3.6	171	.00	1.00	1.0	.020	<10	<1
20...	--	--	.00	.88	.88	.030	30	0
20...	3.7	172	.00	1.10	1.1	.040	<10	6

324133097130601 SITE EL

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
AUG							
20...	1225	1.00	308	8.4	30.0	7.2	96
20...	1226	10.0	295	8.4	28.5	7.3	94
20...	1227	14.0	297	8.4	28.5	6.5	83

324041097134601 SITE FC

DATE	TIME	SAM- PLING DEPTH (FEET)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (UNITS)	TEMPER- ATURE (DEG C)	TRANS- PAR- ENCY (SECCHI DISK) (M)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS AS (MG/L CACO3)
AUG									
20...	1300	1.00	268	8.3	28.0	.40	7.2	92	88
20...	1301	.60	--	--	--	--	--	--	--
20...	1302	10.0	237	8.1	27.0	--	6.0	75	76

DATE	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY FIELD (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
AUG									
20...	8	28	4.3	16	.8	4.5	80	25	17
20...	--	--	--	--	--	--	--	--	--
20...	8	24	4.0	14	.7	4.4	68	17	15

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
AUG								
20...	3.8	147	.00	.95	.95	.050	<10	<1
20...	--	--	--	--	--	--	--	--
20...	3.9	123	.03	.98	1.0	.070	<10	8

Table 28.--Summary of regulations for selected water-quality constituents and properties for public water systems

(µg/L - micrograms per liter; mg/L - milligrams per liter)

DEFINITIONS

Contaminant.--Any physical, chemical, biological, or radiological substance or matter in water.

Public water system.--A system for the provision of piped water to the public for human consumption, if such system has at least 15 service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

Maximum contaminant level.--The maximum permissible level of a contaminant in water which is delivered to the free-flowing outlet of the ultimate user of a public water system. Maximum contaminant levels are those levels set by the U.S. Environmental Protection Agency (1977a) in the National Interim Primary Drinking Water Regulations. These regulations deal with contaminants that may have a significant direct impact on the health of the consumer and are enforceable by the Environmental Protection Agency.

Secondary maximum
to the free-flowing outlet of the ultimate user of a public water system. Secondary maximum contaminant levels are those levels proposed by the Environmental Protection Agency (1977b) in the National Secondary Drinking Water Regulations. These regulations deal with contaminants that may not have a significant direct impact on the health of the consumer, but their presence in excessive quantities may affect the esthetic qualities and discourage the use of a drinking-water supply by the public.

INORGANIC CHEMICALS AND RELATED PROPERTIES

<u>Contaminant</u>	<u>Maximum contaminant level</u>	<u>Secondary maximum contaminant level</u>
Arsenic (As)	50 µg/L	--
Barium (Ba)	1,000 µg/L	--
Cadmium (Cd)	10 µg/L	--
Chloride (Cl)	--	250 mg/L
Chromium (Cr)	50 µg/L	--
Copper (Cu)	--	1,000 µg/L
Iron (Fe)	--	300 µg/L
Lead (Pb)	50 µg/L	--
Manganese (Mn)	--	50 µg/L
Mercury (Hg)	2 µg/L	--
Nitrate (as N)	10 mg/l	--
pH	--	6.5 - 8.5
Selenium (Se)	10 µg/L	--
Silver (Ag)	50 µg/L	--
Sulfate (SO ₄)	--	250 mg/L
Zinc (Zn)	--	5,000 µg/L
Dissolved solids	--	500 mg/l

Fluoride.--The maximum contamination level for fluoride depends on the annual average of the maximum daily air temperatures for the location in which the community water system is situated. A range of annual averages of maximum daily air temperatures and corresponding maximum contamination level for fluoride are given in the following tabulation.

<u>Average of maximum daily air temperatures</u> <u>(degrees Celsius)</u>	<u>Maximum contaminant level for fluoride</u> <u>(mg/L)</u>
12.0 and below	2.4
12.1 - 14.6	2.2
14.7 - 17.6	2.0
17.7 - 21.4	1.8
21.5 - 26.2	1.6
26.3 - 32.5	1.4