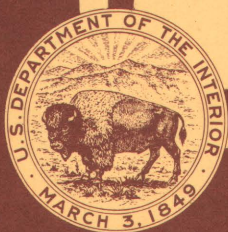
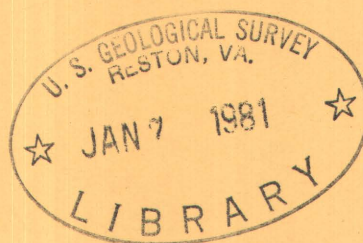


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Water Resources Data for Ohio

Part 2. Water Quality Records



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

Prepared in cooperation with the State of Ohio
and with other agencies

CALENDAR FOR WATER YEAR 1973

1972

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

NOVEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
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DECEMBER

S	M	T	W	T	F	S
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3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
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31						

1973

JANUARY

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

FEBRUARY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
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25	26	27	28			

MARCH

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
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APRIL

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

MAY

S	M	T	W	T	F	S
		1	2	3	4	5
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20	21	22	23	24	25	26
27	28	29	30	31		

JUNE

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
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JULY

S	M	T	W	T	F	S
1	2	3	4	5	6	7
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22	23	24	25	26	27	28
29	30	31				

AUGUST

S	M	T	W	T	F	S
			1	2	3	4
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19	20	21	22	23	24	25
26	27	28	29	30	31	

SEPTEMBER

S	M	T	W	T	F	S
						1
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

1973

Water Resources Data

for

Ohio

Part 2. Water Quality Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of Ohio
and with other agencies

Prepared in cooperation with

Ohio Department of Natural Resources

Ohio Department of Health

Ohio Environmental Protection Agency

Miami Conservancy District

Three Rivers Watershed District

Corps of Engineers, U.S. Army

Environmental Protection Agency

Water resources records, 1973, for Ohio are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for Ohio
Part 1. Surface Water Records
2. Water Resources Data for Ohio
Part 2. Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
975 West Third Avenue
Columbus, Ohio 43212

1974

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WATER RESOURCES DATA FOR OHIO, 1973

Part 2. Water Quality Records

INTRODUCTION

Water resources data for the 1973 water year for Ohio include records of data for the chemical and physical characteristics of surface- and ground water. Data on the quality of surface water (chemical, temperature, and sediment) were collected from designated sampling sites at predetermined intervals such as once daily, weekly, monthly or less frequently, and at some sites data were recorded continuously either on a strip chart or on punched paper tape at 60-minute intervals. Records are given for 244 sampling stations of which 69 are continuous record stations, and 175 are partial-record stations. Records of chemical analyses also are given for 16 ground-water sites. Locations of surface water-quality stations, excluding partial-record stations are shown in Figure 1. The records were collected by the Water Resources Division of the U.S. Geological Survey under the direction of J. J. Molloy, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Ohio.

The Geological Survey has published records of chemical quality, water temperatures, and sediment since 1941 in an annual series of water-supply papers entitled, "Quality of Surface Waters of the United States." Beginning with the 1964 water year, water-quality records have been released by the Geological Survey in annual reports on a State-boundary basis. These reports are for limited distribution and are designed primarily for rapid release of data shortly after the end of the water year. These records will be published later in Geological Survey water-supply papers.

COOPERATION

This report was prepared by the U.S. Geological Survey under cooperative agreement with the following organizations:

Ohio Department of Natural Resources, W. B. Nye,
director, Roy Winkle, chief, Division of Water,
and H. R. Collins, chief, Division of Geological Survey.

Ohio Environmental Protection Agency, I. L. Whitman,
director, and Ernie Neal, chief, Division of Surveillance.

Miami Conservancy District, L. B. Coy, general manager
and secretary.

WATER RESOURCES DATA FOR OHIO, 1973

Three Rivers Watershed District, G. H. Watkins,
secretary-treasurer.

Agencies furnishing assistance were:

Corps of Engineers, U.S. Army.

Environmental Protection Agency.

DEFINITION OF TERMS

Terms related to water-quality and hydrologic data, as used in this report are defined as follows:

Bed material is the shifting portion of fragmented alluvial material of which the streambed is composed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Cfs-day is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

Chemical oxygen demand (COD) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate or delayed incubation membrane filter method.

Cubic foot per second (cfs,CFS) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids) that passes a given point within a given period of time.

Mean discharge is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is a physical-chemical characteristic attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per liter ($\mu\text{g/l}$, UG/L) is a unit expressing the concentration of chemical constituents in solution as weight (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/l , MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one-thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1, page 5. Concentration of suspended sediment also is expressed in mg/l , and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million (ppm) by using the factors in table 2, page 5.

Odor is reported in terms of the threshold number which is the dilution ratio at which odor is just detectable.

Partial-record station is a particular site where limited streamflow or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemical dispersed) or in native water (the river water at the time and point of sampling) (Guy, 1969).

Particle-size classification, used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.....	0.00024 - 0.004	Sedimentation.
Silt.....	.004 - .062	Sedimentation.
Sand.....	.062 - 2.0	Sedimentation or sieve.
Gravel.....	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis (Guy, 1969).

Sediment is solid material that originates mostly from disintegrated rocks and is transformed by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment discharge is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight, or by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

Table 1.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter.

<u>Ion</u>	<u>Multi- ply by</u>	<u>Ion</u>	<u>Multi- ply by</u>
Aluminum (Al^{+3})*...	0.11119	Hydroxide (OH^{-1})..	0.05880
Ammonia as NH^+105544	Iodide (I^{-1}).....	.00788
Arsenic (As^{+3}).....	.04004	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})	.01639	Lithium (Li^{+1})*...	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2})..	.08226
Cadmium (Cd^{+2}).....	.01779	Manganese (Mn^{+2})*.	.03640
Calcium (Ca^{+2}).....	.04990	Nickel (Ni^{+2})*.....	.03406
Carbonate (CO_3^{-2})..	.03333	Nitrate (NO_3^{-1})...	.01613
Chloride (Cl^{-1}).....	.02821	Nitrite (NO_2^{-1})...	.02174
Chromium (Cr^{+6})*...	.11539	Phosphate (PO_4^{-3})..	.03159
Cobalt (Co^{+2})*.....	.03394	Potassium (K^{+1})...	.02557
Copper (Cu^{+2})*.....	.03148	Sodium (Na^{+1}).....	.04350
Cyanide (CN^{-1}).....	.03844	Strontium (Sr^{+2})*.	.02283
Fluoride (F^{-1}).....	.05264	Sulfate (SO_4^{-2})...	.02082
Hydrogen (H^{+1}).....	.99209	Zinc (Zn^{+2})*.....	.03060

*Constituent reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 2.--Factors for conversion of sediment concentration in milligrams per liter to parts per million*
(All values calculated to three significant figures)

Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by	Range of concentration in 1000 mg/l	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/ml and a specific gravity of sediment of 2.65.

Total sediment discharge or total sediment load is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or by volume, that is discharged during a given time (Colby and Hembree, 1955).

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/l).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff." Streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph or a digital mechanism that automatically records water temperature on paper tape.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per day is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour day.

Turbidity is the reduction of transparency of a liquid due to the presence of suspended particulate matter.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Radiochemical program is a network of regularly sampled water-quality stations where additional samples are collected twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotope forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are those of uranium in micrograms per liter, radium as radium-226 in picocuries per liter, gross beta radiation as strontium/yttrium-90 in picocuries per liter, and gross alpha radiation as micrograms of uranium equivalent per liter.

A picocurie (PC/L, pCi/l) is one millionth of the amount of radioactivity represented by a microcurie, which is the quantity

of radiation represented by one millionth of a gram of radium-226. A picocurie of radium results in 2.22 disintegration per minute.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of water-quality stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each water-quality station, gaging station, and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record and continuous-record stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station. Gaps are left in the numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 03276600 which appears just to left of the station name includes the two-digit part number "03" plus the six-digit downstream order number "276600". In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 3 (Ohio River basin) and Part 4 (St. Lawrence River basin). All records for a drainage basin encompassing more than one State could be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

WELL NUMBER

The well numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote the degrees, minutes, and seconds of longitude, and the last 2 digits is a sequential number for wells within a 1-second grid. The

system provides the geographic location of the well and a unique number for each well.

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads. Discharge records for streams in Ohio have been released in the report, "Water Resources Data for Ohio, 1973, Part 1. Surface Water Records."

The data in this report include a description of the sampling station and tabulations of the samples analyzed. The description of the sampling station gives the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks, in a format similar to that used for streamflow gaging stations. For ground-water sampling stations, no descriptive statements are given. However, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of ground water.

Water-quality information is presented for chemical quality, biological, microbiological, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, specific conductance, and pH. The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms. Water-temperature data represent once-daily observations except for stations where a continuous temperature recorder furnishes information from which daily minimums and maximums are obtained. Fluvial-sediment information is given for suspended-sediment discharges and concentrations and for particle-size distribution of suspended sediment and bed material.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the U.S. Geological Survey began reporting data for chemical constituents and concentrations of suspended sediment in milligrams per liter (mg/l), and water temperatures in degrees Celsius (centigrade, °C). In waters with a density of 1.000 g/ml (grams per milliliter), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/ml, values in parts per million

should be multiplied by the density to convert to milligrams per liter. (See table 2 on page 5.) Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using the following table:

Table 3.--Degrees Celsius (°C) to degrees Fahrenheit (°F) *
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
8.0	46	18.0	64	28.0	82	38.0	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F} - 32) \text{ or } ^{\circ}\text{F} = 9/5 (^{\circ}\text{C}) + 32.$$

In October 1968 the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. (See "Definitions of Terms," p. 4) and table for converting English units to SI units, p. 17.

Solutes

The methods of collecting and analyzing water samples for determining the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge depending on the source of material and the turbulence and the mixing of the stream. Some must be sampled at several verticals across the channel to determine accurately the solute load.

For stations at which samples were collected once each day, analyses were made of the samples having the maximum, minimum, and median dissolved-solids content each month, as indicated by measurements of the specific conductance of each daily sample. Samples collected at weekly or monthly intervals and at partial-record stations were analyzed individually.

For chemical-quality stations equipped with noncontinuous-digital water-quality recorders, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S. Geological Survey district office at the address given on the back of the title page of this report.

Ground water does not change significantly during short periods of time; infrequent sampling and analysis of ground water adequately defines ground-water quality at a given site. Water samples from wells are analyzed individually.

Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for surface-water stations. For daily stations, the water temperatures are taken at about the same time each day when the sample is collected. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day and the monthly averages.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross-section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the sub-divided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the sub-divided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

WATER-SUPPLY PAPERS

The annual series of water-supply papers that give information on quality of surface waters in Ohio are shown in the following table.

Table 4.--Water-supply paper numbers and parts,
water years 1941-71

<u>Water year</u>	<u>WSP No.</u>	<u>Water year</u>	<u>Parts 3-4</u>	<u>WSP No.</u>
1941	942	1958	-----	1571
1942	950	1959	-----	1642
1943	970	1960	-----	1742
1944	1022	1961	-----	1882
1945	1030	1962	-----	1942
1946	1050	1963	-----	1948
1947	1102	1964	-----	1955
1948	1132	1965	-----	1962
1949	1162	1966	-----	1992
1950	1186	1967	-----	2012
1951	1197	1968	Part 3	2093
1952	1251		Part 4	2094
1953	1290	A1969	Part 3	2143
1954	1350		Part 4	2144
1955	1400	B1970	Part 3	2153
1956	1451		Part 4	2154
1957	1520	B1971	Part 3	2163
			Part 4	2164

A In press

B In preparation

SELECTED REFERENCES

American Public Health Association, and others, 1971, Standard methods for the examination of water and wastewater, 13th ed.: Am. Public Health Assoc., New York, 874 p.

Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.

Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurement of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.

- Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U.S. Geol. Survey Water-Supply Paper 1357, 187 p.
- Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.
- Goerlitz, D. F., and Brown, Eugene, 1972, Methods for analysis of organic substances in water: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5 chap. A3, 40 p.
- Guy, H. P., 1970, Fluvial sediment concepts: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C1, 55 p.
- _____, 1969, Laboratory theory and methods for sediment analysis: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C1, 58 p.
- Guy, H. P., and Norman, V. W., 1970, Field methods for measurement of fluvial sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C2, 59 p.
- Hem, J. D., 1970, Study and interpretation of the chemical characteristics of natural water, revised edition: U.S. Geol. Survey Water-Supply Paper 1473, 363 p.
- Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.
- Porterfield, George, 1972, Computations of fluvial-sediment discharge: U.S. Geol. Survey Techniques of Water Resources Inv., book 3, chap. C3, 66 p.
- Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C3, 33 p.
- Rose, Arthur and Elizabeth, 1966, The condensed chemical dictionary: Reinhold Pub. Corp., New York, 7th ed., p. 257.

U.S. Inter-Agency Committee on Water Resources, Subcommittee on Sedimentation, A study of methods used in measurement and analysis of sediment loads in streams. Published by the St. Anthony Falls Hydraulic Laboratory, Minneapolis, Minn.

-----1941, Methods of analyzing sediment samples: Rept. 4.

-----1953, Accuracy of sediment size analyses made by the bottom-withdrawal-tube method: Rept. 10.

-----1957, The development and calibration of visual accumulation tube: Rept. 11.

-----1957, Some fundamentals of particle-size analysis: Rept. 12.

-----1959, Federal Inter-agency sedimentation instruments and reports: Rept. AA.

-----1961, The single stage sampler for suspended sediment: Rept. 13.

-----1963, Determinations of fluvial sediment discharge: Rept. 14.

Table 5.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
<i>Length</i>		
inches (in)	25.4	millimeters (mm)
	.0254	meters (m)
feet (ft)	.3048	meters (m)
yards (yd)	.9144	meters (m)
rods	5.0292	meters (m)
miles (mi)	1.609	kilometers (km)
<i>Area</i>		
acres	4047	square meters (m ²)
	.4047	*hectares (ha)
	.4047	square hectometer (hm ²)
	.004047	square kilometers (km ²)
square miles (mi ²)	2.590	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785	**liters (l)
	3.785	cubic decimeters (dm ³)
	3.785x10 ⁻³	cubic meters (m ³)
million gallons (10 ⁶ gal)	3785	cubic meters (m ³)
	3.785x10 ⁻³	cubic hectometers (hm ³)
cubic feet (ft ³)	28.32	cubic decimeters (dm ³)
	.02832	cubic meters (m ³)
cfs-day (ft ³ /s-day)	2447	cubic meters (m ³)
	2.447x10 ⁻³	cubic hectometers (hm ³)
acre-feet (acre-ft)	1233	cubic meters (m ³)
	1.233x10 ⁻³	cubic hectometers (hm ³)
	1.233x10 ⁻⁶	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	28.32	liters per second (l/s)
	28.32	cubic decimeters per second (dm ³ /s)
	.02832	cubic meters per second (m ³ /s)
gallons per minute (gpm)	.06309	liters per second (l/s)
	.06309	cubic decimeters per second (dm ³ /s)
	6.309x10 ⁻⁵	cubic meters per second (m ³ /s)
million gallons per day (mgd)	43.81	cubic decimeters per second (dm ³ /s)
	.04381	cubic meters per second (m ³ /s)
<i>Mass</i>		
ton (short)	.9072	tonne (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.

WATER QUALITY RECORDS

BEAVER RIVER BASIN

03092090 WEST BRANCH MAHONING RIVER NEAR RAVENNA, OHIO

LOCATION.--Lat 41°09'41", long 81°11'50", in T.3 N., R.8 W., Portage County, at gaging station on left bank at downstream side of bridge on Newton Falls Road, 2.5 mi (4.0 km) east of Ravenna.

DRAINAGE AREA.--21.8 mi² (56.5 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1967-73 (partial-record station).
Water temperatures: October 1965 to September 1973.

EXTREMES.--1972-73:

Water temperatures: Maximum, 25.5°C Aug. 28; minimum, freezing point on many days during January to March.

EXTREMES.--Period of record:

Water temperatures: Maximum, 28.0°C Aug. 24, 1968; minimum, freezing point on many days during winter periods.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT., 1972											
12...	1525	2.9	--	--	--	--	--	--	--	--	--
NOV.											
14...	1030	416	--	--	--	--	--	--	--	--	--
DEC.											
15...	0905	35	--	--	--	--	49	25	--	--	--
FEB., 1973											
13...	1455	14	--	--	--	--	57	39	--	--	--
APR.											
10...	1025	128	--	--	--	--	--	--	--	--	--
JUNE											
11...	1015	8.0	29	9.5	--	--	35	17	--	--	.00
AUG.											
08...	1450	1.7	42	13	196	0	48	32	--	.4	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT., 1972										
12...	--	--	--	--	--	468	--	--	--	12.0
NOV.										
14...	--	--	--	--	--	206	--	--	--	6.5
DEC.										
15...	1.4	--	--	110	--	287	7.6	--	--	.5
FEB., 1973										
13...	1.2	--	--	160	--	406	7.7	--	--	.5
APR.										
10...	--	--	--	--	--	236	--	--	--	5.5
JUNE										
11...	--	.66	--	--	--	322	8.5	--	--	20.5
AUG.										
08...	--	.01	.14	--	--	499	7.8	--	319	23.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

[illegible]

BEAVER RIVER BASIN

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OHIO

LOCATION.--Lat 41°14'22", long 80°52'56", Trumbull County, on left bank 10 ft (3 m) upstream from Ohio Edison Company diversion dam, 30 ft (9 m) upstream from Duck Creek, and 330 ft (101 m) upstream from gaging station at bridge on Leavitt Road in Leavittsburg.

DRAINAGE AREA.--542 mi² (1,404 km²).

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1953, July 1967 to September 1968 (published as "at Leavittsburg"), October 1968 to September 1973.
Water temperatures: October 1949 to September 1968 (published as "at Leavittsburg"), October 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 475 micromhos Sept. 28; minimum, 179 micromhos Mar. 16.

Dissolved oxygen: Maximum, 15.0 mg/l Dec. 31, Jan. 1-3; minimum, 4.5 mg/l Aug. 2.

Water temperatures: Maximum, 26.0°C Sept. 3; minimum, freezing point on several days during January.

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 700 micromhos Nov. 12, 13, 1969; minimum, 143 micromhos April 16, 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	ALKA- LILITY AS CACO ₃ (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)
OCT.											
03...	1030	935	--	--	84	0	69	94	22	.3	--
05...	1500	684	--	--	--	--	72	--	28	--	--
11...	0830	352	--	--	92	0	75	100	25	.3	--
27...	0900	--	--	--	--	--	--	--	--	--	--
NOV.											
08...	1230	666	--	--	--	--	74	--	30	--	--
14...	0740	1300	--	--	82	0	67	88	21	.2	--
25...	0800	1140	--	--	95	0	78	98	23	.3	--
DEC.											
02...	0810	1100	--	--	95	0	78	100	24	.2	--
06...	1500	1290	--	--	--	--	66	--	29	--	--
14...	1055	1480	--	--	52	0	43	60	22	.2	--
JAN.											
04...	1300	1810	--	--	--	--	57	--	24	--	--
06...	0830	1440	--	--	61	0	50	71	21	.2	--
20...	0800	406	--	--	90	0	74	92	24	.2	--
FEB.											
01...	1400	454	--	--	--	--	64	--	28	--	--
03...	0805	1520	--	--	74	0	61	61	19	.1	--
27...	1750	304	--	--	84	2	72	94	32	.2	--
MAR.											
01...	1400	390	--	--	--	--	74	--	36	--	--
01...	1430	394	--	--	100	0	82	98	31	.2	--
17...	1100	1520	--	--	48	0	39	60	16	.2	--
APR.											
04...	1230	1620	--	--	--	--	51	--	24	--	--
07...	0710	1740	--	--	77	0	63	71	20	.2	--
24...	0615	930	--	--	76	0	62	88	23	.2	--
MAY											
02...	1430	366	--	--	--	--	61	--	23	--	--
08...	1635	742	--	--	72	0	59	86	21	.2	--
26...	0715	1220	--	--	62	0	51	53	14	.1	--
30...	1745	--	--	--	--	--	--	--	--	--	--
JUNE											
05...	0745	1360	--	--	72	0	59	46	20	.2	--
07...	1415	815	--	--	--	--	64	--	24	--	--
23...	0700	290	--	--	104	0	85	80	28	.3	--
JULY											
24...	1200	318	--	--	90	0	74	93	20	.3	--
28...	1030	442	--	--	90	0	74	73	21	.3	--
AUG.											
13...	1635	282	--	--	150	0	123	96	21	--	.1
20...	1530	310	41	14	104	0	85	100	24	--	.1
SEP.											
08...	0745	349	45	14	101	0	83	96	21	--	.1
23...	0805	366	45	15	104	0	85	110	25	--	.1

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OHIO--Continued

EXTREMES.--Period of record--Continued

pH (1970-71): Maximum, 8.0 Apr. 13-15, 17, 1971; minimum, 6.2 Dec. 26, 27, 1970, Jan. 4, 1971.

Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher Dec. 31, 1972, Jan. 1-3, 1973; minimum, 4.2 mg/l June 12, 13, 1971.

Water temperatures (1949-67, 1969-73): Maximum, 18.0°C June 29, 30, 1952; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since July 1967. Maximum recorded specific conductance value of 780 micromhos occurred May 27, 1969. Maximum recorded pH of 8.5 occurred Aug. 5, 1968. Minimum recorded pH of 5.2 occurred Jan. 8, 1973. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. A special sample was collected monthly during the period, October to June, as part of the Environmental Protection Agency national network. Additional samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Mahoning River at Leavittsburg, Ohio (station 03094000, drainage area 575 mi² (1,489 km²)).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT.											
03...	.90	--	--	--	--	160	91	398	256	--	16.5
05...	--	--	.11	.89	.13	190	--	435	--	--	17.5
11...	.80	--	--	--	--	190	64	446	282	--	13.5
27...	--	--	--	--	--	--	--	--	--	--	9.5
NOV.											
08...	--	--	.06	.25	.15	190	--	420	--	--	9.0
14...	1.0	--	--	--	--	160	93	387	234	--	8.5
25...	1.0	--	--	--	--	180	100	428	264	--	4.0
DEC.											
02...	1.3	--	--	--	--	190	110	441	284	--	3.5
06...	--	--	1.1	.25	.18	180	--	375	--	--	5.0
14...	1.0	--	--	--	--	110	68	296	186	--	3.0
JAN.											
04...	--	--	.00	.70	.13	140	--	360	--	--	2.0
06...	1.3	--	--	--	--	130	80	326	206	--	1.5
20...	1.6	--	--	--	--	180	110	418	276	--	2.0
FEB.											
01...	--	--	.03	.70	.11	160	--	405	--	--	1.5
03...	1.0	--	--	--	--	120	60	300	174	--	3.5
27...	.90	--	--	--	--	170	98	456	260	--	2.0
MAR.											
01...	--	--	.03	.43	.16	190	--	470	--	--	2.0
01...	1.3	--	--	--	--	180	98	458	258	--	2.0
17...	1.2	--	--	--	--	100	60	272	172	--	10.0
APR.											
04...	--	--	.02	.61	.08	140	--	330	--	--	8.5
07...	1.0	--	--	--	--	120	57	314	202	--	9.0
24...	1.1	--	--	--	--	160	98	382	238	--	14.5
MAY											
02...	--	--	.21	.98	.14	140	--	340	--	--	14.0
08...	1.1	--	--	--	--	160	100	375	216	--	15.0
26...	.80	--	--	--	--	110	59	262	156	--	14.5
30...	--	--	--	--	--	--	--	--	--	--	17.5
JUNE											
05...	.70	--	--	--	--	103	44	250	148	--	19.5
07...	--	--	.28	.93	.20	130	--	315	--	--	20.5
23...	1.1	--	--	--	--	160	75	382	240	--	23.0
JULY											
24...	.80	--	--	--	--	170	96	404	258	--	23.0
28...	.80	--	--	--	--	150	76	367	226	--	22.0
AUG.											
13...	--	.68	--	--	--	--	--	434	--	322	24.5
20...	--	.73	--	--	--	--	--	454	--	350	22.0
SEP.											
08...	--	.62	--	--	--	--	--	430	--	341	23.0
23...	--	.50	--	--	--	--	--	464	--	373	--

BEAVER RIVER BASIN

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OHIO--CONTINUED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

[illegible]

BEAVER RIVER BASIN

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSTOWN, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.2	6.6	6.3	6.2	---	---	---	---	7.2	6.6	7.6	6.7
2	6.9	6.6	6.4	6.2	---	---	---	---	6.6	6.4	7.7	7.1
3	7.2	6.8	6.6	6.3	---	---	---	---	---	---	7.7	6.5
4	7.2	7.0	7.3	6.5	---	---	7.1	6.3	---	---	6.9	6.2
5	7.3	7.1	7.3	6.8	---	---	6.5	6.1	---	---	7.1	6.9
6	7.1	7.0	7.0	6.2	---	---	6.5	6.2	---	---	7.0	6.6
7	7.1	7.0	6.7	6.6	---	---	6.5	5.9	---	---	7.1	6.5
8	7.1	6.9	7.0	6.7	---	---	6.7	5.2	---	---	7.3	7.6
9	7.4	7.0	---	---	---	---	6.6	6.6	---	---	7.4	6.8
10	7.3	7.0	---	---	---	---	6.9	6.4	---	---	7.4	6.9
11	7.2	6.9	---	---	---	---	6.9	6.3	---	---	7.4	7.4
12	7.1	7.0	---	---	---	---	6.8	6.2	---	---	7.6	7.4
13	7.1	7.1	---	---	---	---	6.5	5.9	---	---	7.5	7.4
14	7.7	7.1	---	---	---	---	6.5	6.2	7.1	6.6	7.5	7.2
15	7.5	7.1	---	---	---	---	6.4	6.2	7.6	7.1	7.2	6.7
16	7.3	7.2	---	---	---	---	7.0	6.4	7.8	7.6	7.1	6.7
17	7.2	7.1	---	---	---	---	7.1	6.6	7.8	6.8	7.2	7.1
18	7.3	6.9	---	---	---	---	7.2	6.5	7.7	6.7	7.3	7.2
19	7.2	7.1	---	---	---	---	7.5	7.0	7.1	6.7	7.4	7.2
20	7.3	6.8	---	---	---	---	7.6	7.5	7.0	6.8	7.5	7.1
21	7.8	7.7	---	---	---	---	7.7	7.2	7.4	6.9	7.5	7.2
22	7.8	7.5	---	---	---	---	7.3	6.9	7.5	7.2	7.6	7.4
23	7.6	7.3	---	---	---	---	7.6	7.3	7.4	6.9	7.7	7.2
24	7.5	7.3	---	---	---	---	7.7	7.4	7.5	6.6	7.7	6.7
25	7.3	7.1	---	---	---	---	7.5	6.9	7.3	5.9	7.7	7.4
26	7.2	6.7	---	---	---	---	7.1	6.4	7.4	6.7	7.6	7.4
27	7.1	6.0	---	---	---	---	7.3	7.0	7.6	5.8	7.8	7.0
28	6.4	6.1	---	---	---	---	7.5	7.3	7.6	6.0	7.9	7.6
29	6.4	6.2	---	---	---	---	7.7	7.5	---	---	8.1	7.8
30	6.5	6.3	---	---	---	---	7.6	7.2	---	---	8.1	7.9
31	6.4	6.1	---	---	---	---	7.3	7.0	---	---	8.0	7.8
MONTH	7.8	6.0	---	---	---	---	7.7	5.2	---	---	8.1	6.2

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.1	7.7	7.0	6.9	7.5	7.3	7.4	7.1	---	---	7.6	7.3
2	7.7	7.3	7.0	6.9	7.5	7.1	7.4	7.1	---	---	7.6	7.4
3	7.5	7.2	7.1	7.0	7.4	6.9	7.4	7.1	---	---	7.5	7.3
4	7.5	7.3	7.2	7.1	---	---	7.6	7.2	---	---	7.5	7.2
5	7.3	6.8	7.4	7.1	6.9	6.7	7.6	7.2	---	---	7.5	7.3
6	7.4	6.8	7.7	7.3	6.8	6.7	7.5	7.1	---	---	7.4	7.1
7	7.7	7.2	7.6	7.4	7.1	6.7	7.4	7.1	---	---	7.2	7.1
8	7.7	7.5	7.6	7.4	7.2	7.0	7.4	7.1	---	---	7.4	7.3
9	7.7	7.4	7.2	6.9	7.2	7.0	7.5	7.0	---	---	7.7	7.3
10	7.5	7.3	7.2	7.0	7.2	7.0	7.4	7.1	---	---	7.5	7.3
11	7.3	7.1	7.0	7.0	7.1	6.9	7.2	7.0	---	---	7.4	7.3
12	7.5	7.2	7.2	6.9	7.2	6.9	7.2	6.9	---	---	7.5	7.3
13	7.6	7.4	7.3	7.1	7.1	6.9	7.5	7.1	---	---	7.5	7.3
14	7.6	7.3	7.4	7.2	7.2	7.0	7.4	7.1	---	---	7.5	7.3
15	7.6	7.4	7.4	7.2	7.2	7.0	---	---	---	---	7.5	7.3
16	7.6	7.5	7.4	7.3	7.2	6.8	---	---	7.0	6.8	7.5	7.4
17	7.7	6.9	7.4	7.3	7.1	6.9	---	---	7.0	6.9	7.8	7.4
18	7.7	6.9	7.4	7.3	7.0	6.9	---	---	7.1	6.8	7.5	7.4
19	7.5	7.0	7.4	7.3	7.0	6.8	---	---	7.2	6.9	7.6	7.4
20	7.5	7.3	7.3	7.0	6.9	6.8	---	---	7.3	7.1	7.6	7.5
21	7.5	7.4	7.3	7.2	7.0	6.8	---	---	7.2	7.1	7.7	7.5
22	7.6	7.3	7.3	6.8	7.1	6.9	---	---	7.3	7.2	7.7	7.0
23	7.3	7.2	---	---	7.2	6.8	---	---	7.4	7.2	7.7	6.3
24	7.4	7.1	---	---	7.1	7.0	---	---	7.4	7.2	7.8	7.5
25	7.4	7.2	---	---	7.3	7.0	---	---	7.3	7.3	7.8	7.5
26	7.2	6.9	---	---	7.3	7.1	---	---	7.4	7.2	7.8	7.6
27	7.1	7.0	---	---	7.3	7.1	---	---	7.9	6.9	7.7	7.5
28	7.0	6.7	---	---	7.2	7.0	---	---	8.1	7.3	7.5	6.9
29	6.8	6.7	---	---	7.2	7.0	---	---	8.0	7.6	7.2	6.8
30	6.9	6.6	---	---	7.3	7.1	---	---	7.9	7.5	7.4	6.9
31	---	---	7.4	6.9	---	---	---	---	7.8	7.3	---	---
MONTH	8.1	6.6	---	---	7.5	6.7	---	---	---	---	7.8	6.3

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DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03093800 MAHONING RIVER ABOVE DUCK CREEK, AT LEAVITTSBURG, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.5	14.5	8.0	7.5	2.5	2.0	3.5	3.0	2.5	1.0	3.0	2.0
2	16.0	14.5	9.0	7.5	2.5	1.5	3.0	2.0	2.5	2.5	3.5	2.5
3	17.0	15.5	9.5	8.5	2.0	2.0	2.0	1.5	---	---	3.5	3.0
4	17.0	16.5	9.5	9.0	2.5	2.0	2.5	1.0	---	---	4.0	3.0
5	17.5	17.0	9.0	7.5	2.0	2.0	1.0	0.0	---	---	5.0	3.5
6	17.5	17.0	8.5	7.0	4.5	2.0	1.5	1.0	---	---	6.5	4.5
7	17.5	16.5	8.5	7.5	3.5	2.5	1.0	0.0	---	---	7.5	6.5
8	16.5	15.0	9.0	8.5	4.0	3.0	1.0	0.5	---	---	8.5	7.5
9	15.5	14.5	8.5	7.5	4.0	3.0	---	---	---	---	9.0	8.0
10	15.0	13.0	8.0	7.5	5.0	3.5	1.0	0.0	---	---	10.0	8.0
11	14.0	12.5	8.5	8.0	4.0	3.0	0.5	0.0	---	---	10.5	9.5
12	15.0	14.0	8.5	7.5	2.5	2.0	1.0	0.0	---	---	10.5	9.5
13	15.0	14.5	8.0	7.5	4.0	2.5	0.5	0.0	---	---	9.5	8.5
14	14.5	13.0	7.5	6.5	3.5	2.5	0.5	0.0	1.0	1.0	9.5	8.5
15	13.5	12.0	6.5	4.0	3.0	2.0	0.5	0.0	1.0	1.0	12.0	9.5
16	12.5	12.0	4.0	3.5	4.0	3.0	1.5	0.5	1.0	0.5	12.0	11.0
17	12.0	11.5	5.5	4.0	---	---	1.5	0.5	1.0	0.5	11.0	7.5
18	12.5	11.0	6.0	5.5	---	---	1.5	1.0	1.0	1.0	7.5	3.5
19	11.0	10.0	6.0	5.5	---	---	3.0	1.5	1.0	1.0	4.0	3.5
20	10.5	8.5	5.5	5.0	---	---	3.0	2.5	1.0	1.0	4.5	4.0
21	9.5	8.5	5.0	4.5	---	---	2.5	1.0	1.0	1.0	4.5	4.0
22	9.0	8.5	5.0	4.0	1.0	1.0	2.0	1.0	1.0	1.0	5.0	4.5
23	10.5	9.0	4.5	4.0	2.0	1.0	3.5	2.0	1.5	1.0	5.5	4.5
24	11.0	10.5	4.0	3.5	2.0	2.0	3.5	1.5	1.5	1.0	6.0	5.0
25	11.0	10.5	3.5	3.0	2.0	2.0	1.5	1.0	2.0	1.0	6.0	5.5
26	10.5	9.5	4.0	3.0	2.0	1.5	2.0	1.0	2.0	1.5	7.0	6.0
27	10.0	7.5	3.5	3.0	1.5	1.5	3.5	2.0	2.5	1.5	7.5	6.0
28	8.5	7.5	3.0	2.5	1.5	1.0	4.0	3.5	2.5	1.5	7.5	7.0
29	9.5	8.5	2.5	2.0	1.5	1.0	3.5	2.0	---	---	8.5	7.5
30	9.5	9.0	2.5	2.0	1.5	1.0	2.0	1.0	---	---	9.5	8.5
31	9.0	8.0	---	---	3.0	2.0	1.0	0.5	---	---	9.5	9.0
MONTH	17.5	7.5	9.5	2.0	5.0	1.0	4.0	0.0	---	---	12.0	2.0

[illegible]

BEAVER RIVER BASIN

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OHIO

LOCATION.--Lat 41°01'53", long 80°31'10", Mahoning County, on left bank 800 ft (244 m) upstream from Ohio-Pennsylvania State line, just below Lowellville, 0.9 mi (1.4 km) downstream from gaging station at Lowellville, and 3.9 mi (6.3 km) downstream from Yellow Creek.

DRAINAGE AREA.--1,075 mi² (2,784 km²).

PERIOD OF RECORD.--Chemical analyses: January 1967 to September 1973.
Water temperatures: January 1967 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 956 micromhos Feb. 23; minimum, 219 micromhos Dec. 24.
pH: Maximum, 8.2 Nov. 25; minimum, 6.0 Dec. 31.
Dissolved oxygen: Maximum, 13.8 mg/l Jan. 8; minimum, 0.8 mg/l July 5.
Water temperatures: Maximum, 38.5°C Aug. 30, Sept. 4; minimum, 4.0°C Dec. 17, 18.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	ALKA- LINITY AS CACO3 (MG/L)
OCT.											
03...	1425	1330	--	--	--	--	--	--	48	0	39
05...	0930	684	--	--	56	--	14	--	--	--	57
23...	1310	545	--	--	--	--	--	--	76	0	62
26...	1700	--	--	--	--	--	--	--	--	--	--
NOV.											
01...	1155	510	--	--	--	--	--	--	58	0	48
08...	0930	1190	50	350	67	--	10	--	--	--	59
17...	1620	2040	--	--	--	--	--	--	52	0	43
DEC.											
06...	1100	2680	80	110	51	--	21	--	--	--	88
08...	1105	2320	--	--	--	--	--	--	69	0	57
20...	1108	2290	--	--	--	--	--	--	76	0	62
JAN.											
04...	1000	2930	100	240	54	--	13	--	--	--	77
05...	1104	3130	--	--	--	--	--	--	68	0	56
22...	1105	916	--	--	--	--	--	--	108	0	89
FEB.											
01...	0930	925	220	350	55	--	17	--	--	--	49
07...	1100	1030	--	--	--	--	--	--	50	0	41
23...	1105	713	--	--	--	--	--	--	60	0	49
MAR.											
01...	1000	784	--	--	66	--	15	--	57	0	80
01...	1400	808	930	520	--	--	--	--	--	--	--
16...	1105	6770	--	--	--	--	--	--	68	0	56
APR.											
04...	0815	3310	200	200	45	--	9.7	--	--	--	57
06...	1107	4970	--	--	--	--	--	--	61	0	50
27...	1110	800	--	--	--	--	--	--	73	0	60
MAY											
02...	1000	970	30	270	50	--	11	--	--	--	70
04...	1115	1210	--	--	--	--	--	--	79	0	65
25...	1102	3030	--	--	--	--	--	--	84	0	69
30...	1410	--	--	--	--	--	--	--	--	--	--
JUNE											
04...	1615	3400	--	--	--	--	--	--	74	0	61
07...	0930	1800	40	300	43	--	11	--	--	--	62
27...	1240	524	--	--	--	--	--	--	72	0	59
JULY											
06...	1232	492	--	--	--	--	--	--	66	0	54
19...	1500	290	80	560	--	--	--	--	--	--	--
JULY											
27...	1206	1020	--	--	--	--	--	--	61	0	50
AUG.											
17...	1205	872	--	--	--	42	--	11	64	0	53
29...	1210	552	--	--	--	47	--	15	80	0	66
SEP.											
06...	1445	760	--	--	--	47	--	12	78	0	64
28...	1230	456	--	--	--	63	--	16	620	0	51

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OHIO

EXTREMES.--Period of record:

Specific conductance (1968-73): Maximum, 1,480 micromhos Feb. 5, 1971; minimum, 219 micromhos Dec. 24, 1972.

pH (1968-73): Maximum, 9.9 Jan. 26, 1969; minimum, 5.3 Mar. 11, 1969, Jan. 13, 14, 1970.

Dissolved oxygen (1968-69, 1970-73): Maximum, 13.8 mg/l Jan. 8, 1973; minimum, 0.4 mg/l Apr. 8, 1969, June 1, 2, 1971.

Water temperatures: Maximum, 39.0°C June 29, 1971; minimum, 2.0°C Feb. 21, 1971.

REMARKS.--Water-quality recorder operated since January 1967. Minimum recorded pH of 3.0 occurred Jan. 24, 1967. Maximum recorded dissolved oxygen concentration of 14.2 mg/l occurred Mar. 25, 1970. Minimum recorded dissolved oxygen concentration of 0.2 mg/l occurred Feb. 3, 1967, Dec. 15-19, 1969, Jan. 13-17, 1970. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. A special sample was collected monthly during the period, October to June, as part of the Environmental Protection Agency national network. Determinations for trace metals were made on quarterly composites of the special monthly samples. Additional samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Mahoning River at Lowellville, Ohio, station 03099500, drainage area 1,073 mi² (2,779 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL ACIDITY AS CACO ₃ (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
OCT.											
03...	--	110	31	.4	--	--	3.2	--	--	--	--
05...	2	--	--	--	--	--	--	.80	3.3	1.5	1.0
23...	--	130	69	.6	--	--	6.4	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV.											
01...	--	140	65	.6	--	--	5.8	--	--	--	--
08...	5	--	--	--	--	--	--	.80	3.9	1.5	1.9
17...	--	94	32	.3	--	--	2.6	--	--	--	--
DEC.											
06...	10	--	--	--	--	--	--	1.3	.09	2.1	2.3
08...	--	95	35	.4	--	--	2.0	--	--	--	--
20...	--	100	61	.3	--	--	2.5	--	--	--	--
JAN.											
04...	5	--	--	--	--	.06	--	--	.11	.16	.44
05...	--	100	33	.3	--	--	2.2	--	--	--	--
22...	--	130	73	.8	--	--	3.8	--	--	--	--
FEB.											
01...	10	--	--	--	--	--	--	1.5	4.2	1.2	.66
07...	--	120	54	.6	--	--	3.5	--	--	--	--
23...	--	150	100	.8	--	--	5.2	--	--	--	--
MAR.											
01...	27	150	88	.7	--	--	6.0	.90	4.1	1.5	.48
01...	--	--	--	--	--	--	--	--	--	--	--
16...	--	70	23	.4	--	--	.40	--	--	--	--
APR.											
04...	7	--	--	--	--	--	--	.90	.56	1.0	.38
06...	--	76	26	.3	--	--	1.6	--	--	--	--
27...	--	130	55	.6	--	--	4.8	--	--	--	--
MAY											
02...	17	--	--	--	--	--	--	.90	3.5	1.9	.83
04...	--	100	43	.5	--	--	2.6	--	--	--	--
25...	--	78	24	.4	--	--	1.2	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
JUNE											
04...	--	75	18	.5	--	--	.90	--	--	--	--
07...	0	--	--	--	--	--	--	.90	1.8	1.7	.52
27...	--	130	72	.9	--	--	5.4	--	--	--	--
JULY											
06...	--	130	59	1.4	--	--	4.6	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JULY											
27...	--	120	44	.8	--	--	2.7	--	--	--	--
AUG.											
17...	--	110	43	--	.8	.00	--	3.3	--	--	--
29...	--	140	72	--	1.6	.00	--	5.0	--	--	--
SEP.											
06...	--	110	45	--	.8	.00	--	4.6	--	--	--
28...	--	140	61	--	1.1	.00	--	6.0	--	--	--

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OHIO--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TEMPER- ATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	TUR- BID- ITY (JTU)	COLOR (PLAT- INUM- COBALT UNITS)	OIL- GREASE (SEVER- ITY)
OCT.											
03...	160	120	442	284	--	--	21.0	--	--	--	--
05...	--	--	540	358	420	62	23.5	15.5	20	10	1
23...	220	160	684	416	--	--	23.0	--	--	--	--
26...	--	--	--	--	--	--	23.5	--	--	--	--
NOV.											
01...	200	150	653	398	--	--	21.0	--	--	--	--
08...	210	--	550	368	456	88	17.5	9.5	20	10	1
17...	150	110	414	266	--	--	11.0	--	--	--	--
DEC.											
06...	210	--	480	314	808	494	10.5	4.0	70	10	1
08...	160	100	437	276	--	--	7.0	--	--	--	--
20...	190	130	553	352	--	--	6.0	--	--	--	--
JAN.											
04...	190	--	480	300	424	124	6.0	4.5	40	10	1
05...	170	110	434	274	--	--	5.0	--	--	--	--
22...	220	130	691	394	--	--	12.0	--	--	--	--
FEB.											
01...	210	--	615	348	410	62	11.0	2.5	25	40	1
07...	180	140	533	350	--	--	12.0	--	--	--	--
23...	230	180	817	478	--	--	15.0	--	--	--	--
MAR.											
01...	230	180	770	444	500	56	15.0	5.0	25	40	2
01...	--	--	470	--	--	--	15.0	12.0	--	--	0
16...	130	74	342	210	--	--	12.0	--	--	--	--
APR.											
04...	150	--	400	247	343	96	12.0	8.0	40	40	2
06...	130	80	353	214	--	--	8.0	--	--	--	--
27...	210	150	612	368	--	--	22.0	--	--	--	--
MAY											
02...	170	--	490	320	352	32	21.0	18.0	15	15	2
04...	180	120	501	314	--	--	20.0	--	--	--	--
25...	150	81	383	242	--	--	17.0	--	--	--	--
30...	--	--	--	--	--	--	22.5	--	--	--	--
JUNE											
04...	140	80	360	210	--	--	22.0	--	--	--	--
07...	150	--	405	263	338	75	24.0	18.0	15	20	1
27...	220	160	648	392	--	--	33.0	--	--	--	--
JULY											
06...	200	150	639	376	--	--	32.0	--	--	--	--
19...	--	--	--	--	--	--	36.0	--	--	--	--
JULY											
27...	190	140	530	334	--	--	32.0	--	--	--	--
AUG.											
17...	--	--	504	--	410	--	30.0	--	--	--	--
29...	--	--	622	--	458	--	35.0	--	--	--	--
SEP.											
06...	--	--	549	--	410	--	33.5	--	--	--	--
28...	--	--	649	--	485	--	33.0	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

[illegible]

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	510	473	656	606	543	464	465	294	633	578	779	720
2	509	411	654	539	563	504	441	302	681	572	728	626
3	473	396	596	546	521	449	488	300	572	485	654	572
4	534	468	582	569	564	441	464	305	---	---	572	423
5	609	525	---	---	527	497	459	407	467	443	492	339
6	587	560	624	597	513	438	416	395	536	458	485	329
7	615	584	624	593	506	450	446	413	582	533	444	248
8	629	590	602	525	533	417	489	437	668	551	483	266
9	618	599	534	489	456	431	504	462	665	552	534	474
10	642	599	527	453	474	440	506	461	620	596	578	509
11	648	627	507	486	515	458	539	476	642	597	555	531
12	665	635	512	459	764	495	584	518	675	630	540	518
13	648	620	540	450	567	465	614	560	714	665	551	515
14	680	638	506	401	474	410	617	593	719	687	540	387
15	654	624	443	378	452	396	630	590	767	653	459	381
16	660	615	378	342	449	348	639	606	672	638	381	303
17	650	621	414	365	443	368	641	620	678	624	396	323
18	654	620	455	396	504	360	647	615	690	653	426	396
19	653	614	464	437	581	455	842	635	750	690	474	417
20	672	653	470	432	579	486	755	657	779	725	464	434
21	681	642	474	459	507	423	698	659	777	704	443	417
22	666	639	476	440	464	333	783	663	891	590	417	405
23	684	627	480	434	429	264	671	639	956	650	423	399
24	627	602	492	426	374	219	671	638	857	612	428	407
25	651	621	489	456	344	221	639	617	816	650	410	393
26	660	624	486	428	465	251	644	606	774	518	414	393
27	675	624	495	417	452	323	662	605	717	464	399	384
28	656	629	501	462	471	311	662	596	783	503	422	381
29	662	593	507	450	441	374	644	569	---	---	455	416
30	644	584	503	468	441	290	623	551	---	---	474	447
31	633	597	---	---	428	297	602	573	---	---	459	443
MONTH	684	396	656	342	764	219	842	294	956	443	779	248
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	459	362	456	438	449	422	605	558	627	582	645	599
2	390	365	562	446	472	430	656	530	635	567	624	567
3	374	348	560	514	493	448	647	608	635	578	609	576
4	410	348	550	500	453	354	646	598	629	578	602	575
5	410	377	542	476	379	351	641	613	635	579	608	531
6	377	347	529	496	400	347	638	607	629	576	585	428
7	419	368	572	506	432	384	635	607	624	590	603	584
8	421	386	593	535	459	408	626	590	629	581	622	589
9	431	401	550	473	475	436	604	577	648	593	616	580
10	425	406	476	412	462	434	600	551	602	575	599	558
11	428	407	444	410	495	436	585	556	576	515	593	564
12	422	398	410	372	488	458	599	562	584	507	602	566
13	443	401	378	366	463	392	617	573	582	564	603	564
14	475	422	408	375	471	426	628	600	587	539	626	612
15	467	434	411	386	499	450	625	496	561	483	657	624
16	490	449	417	396	493	395	564	553	548	474	677	623
17	473	447	428	393	468	425	575	532	537	428	663	617
18	506	425	453	411	505	405	630	569	512	440	648	585
19	497	473	510	441	497	443	585	562	545	507	680	570
20	501	471	515	431	548	474	599	521	558	414	669	636
21	507	480	509	473	591	548	521	312	537	423	659	632
22	510	492	504	479	595	573	525	452	551	522	656	635
23	533	485	506	482	661	601	585	513	587	537	---	---
24	528	500	482	456	663	588	581	560	612	573	634	589
25	555	504	456	374	670	585	600	554	614	563	623	596
26	594	546	398	369	654	610	573	539	620	585	641	605
27	617	498	411	374	661	619	576	527	633	518	668	638
28	534	437	452	387	654	609	543	480	669	606	687	648
29	437	381	452	428	633	590	599	524	663	627	674	389
30	441	380	443	421	648	578	611	542	657	633	543	500
31	---	---	444	418	---	---	602	569	641	602	---	---
MONTH	617	347	593	366	670	347	656	312	669	414	687	389
YEAR	956	219										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

BEAVER RIVER BASIN

03099510 MAHONING RIVER AT OHIO-PENNSYLVANIA STATE LINE, BELOW LOWELLVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	4.6	3.9	7.5	6.0	8.2	6.9	8.9	7.7	6.4	5.2
2	---	---	5.9	4.6	6.5	6.2	8.2	7.5	10.0	8.0	7.4	5.3
3	6.2	4.4	5.7	5.0	6.8	6.4	8.3	7.3	10.6	9.9	7.0	6.3
4	4.9	4.1	5.0	4.7	7.1	6.4	12.8	8.2	---	---	7.0	6.4
5	5.2	4.0	---	---	7.9	7.0	12.8	12.4	10.2	9.3	9.4	6.1
6	5.1	4.0	5.8	5.1	10.1	7.9	12.8	12.4	9.6	8.4	9.3	8.2
7	4.2	3.8	5.2	4.1	10.1	9.3	12.9	12.7	8.4	7.8	9.5	8.3
8	4.5	3.6	4.4	3.2	10.7	9.8	13.8	12.6	8.3	7.7	9.0	8.7
9	4.7	3.9	6.0	4.3	10.4	10.1	13.4	13.0	9.1	8.3	8.7	7.6
10	5.3	4.7	6.1	5.3	10.5	9.5	13.4	12.8	9.1	8.5	8.0	7.4
11	5.4	4.5	5.7	4.8	10.5	9.9	13.2	12.4	8.7	7.9	7.5	7.1
12	4.9	4.2	5.2	4.5	10.1	8.8	12.6	11.3	7.9	6.2	8.1	6.9
13	5.1	4.3	5.4	4.8	9.7	8.9	11.8	10.4	7.0	5.6	7.5	6.2
14	5.5	4.8	5.9	5.2	9.9	8.9	10.8	10.4	7.6	5.0	7.5	5.2
15	5.8	4.7	6.4	5.2	9.0	8.2	10.5	9.6	6.7	5.8	7.8	6.4
16	5.4	4.4	6.6	6.3	8.9	8.2	9.9	9.3	9.1	5.8	8.2	7.8
17	5.2	4.4	6.7	6.1	9.3	8.8	9.7	8.7	9.9	8.8	9.4	8.2
18	5.7	4.7	6.4	6.4	9.5	8.8	8.7	7.4	8.9	8.0	10.4	9.4
19	6.1	5.1	6.9	6.2	9.8	9.3	9.1	8.4	8.4	7.1	10.8	10.4
20	6.1	5.3	6.7	6.0	10.0	8.3	9.3	8.4	8.4	6.3	10.8	10.5
21	6.1	5.4	6.2	5.8	8.3	7.6	9.1	8.0	6.7	5.7	11.0	10.5
22	5.9	5.3	6.3	5.5	8.4	7.3	9.9	8.0	6.8	5.6	11.1	10.7
23	5.5	4.5	6.0	5.6	8.3	7.5	9.7	9.0	6.9	5.5	11.1	10.7
24	5.7	4.5	6.9	5.4	8.0	7.5	10.0	9.0	6.7	6.3	11.0	10.7
25	5.6	3.2	6.3	5.9	7.7	7.2	9.6	7.8	6.4	5.5	10.7	10.1
26	4.4	3.4	6.4	6.1	8.3	6.6	8.0	7.2	7.0	5.2	10.6	10.2
27	4.3	3.5	7.7	5.6	8.3	7.8	7.2	6.5	6.7	5.7	10.3	9.8
28	3.6	2.9	7.5	7.1	8.3	5.5	7.3	6.7	6.3	4.7	10.2	9.6
29	3.5	2.9	8.9	7.3	8.3	7.8	9.4	7.2	---	---	9.6	8.9
30	4.9	3.3	7.3	5.3	8.0	7.1	9.3	8.2	---	---	9.3	8.8
31	5.2	3.8	---	---	7.2	7.0	8.7	7.5	---	---	9.1	8.4
MONTH	6.2	2.9	8.9	3.2	10.7	5.5	13.8	6.5	10.6	4.7	11.1	5.2
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.6	7.8	6.7	4.4	7.1	5.9	3.2	2.7	3.4	2.6	2.5	1.6
2	9.1	8.5	5.7	4.0	6.5	5.1	3.4	1.9	3.4	2.8	2.5	1.9
3	9.1	8.7	---	---	5.9	4.8	2.6	1.5	3.5	2.7	3.0	2.0
4	9.5	8.8	5.1	4.7	6.9	4.6	2.2	1.1	3.9	3.3	2.7	2.1
5	9.9	9.5	5.1	4.2	6.8	6.0	1.5	0.8	4.0	3.1	3.0	1.3
6	10.3	9.6	6.3	4.7	6.3	5.3	1.9	0.9	4.2	2.8	3.4	1.7
7	9.6	9.1	5.5	4.0	5.9	4.9	---	---	3.9	3.1	3.4	2.9
8	9.1	7.4	6.7	5.2	5.6	4.0	---	---	3.7	2.4	3.6	2.9
9	9.5	6.3	6.6	5.2	4.8	3.9	---	---	3.6	2.8	3.4	2.9
10	9.0	7.9	6.9	4.6	4.8	3.9	---	---	4.4	2.8	3.8	2.8
11	10.1	7.6	7.7	6.9	4.6	4.2	---	---	4.2	2.5	3.5	2.6
12	10.0	9.5	7.6	7.3	4.6	3.2	---	---	3.7	3.1	3.5	3.2
13	9.7	9.1	7.6	7.4	5.2	3.4	---	---	4.1	3.2	3.6	3.1
14	9.3	8.1	8.0	6.9	4.5	3.8	---	---	4.0	3.2	4.0	2.9
15	8.1	5.6	7.0	6.2	4.7	3.6	---	---	4.1	2.9	3.9	3.0
16	8.7	5.4	7.2	6.0	4.6	3.9	---	---	4.0	3.0	3.4	3.1
17	8.5	7.5	7.1	6.5	5.1	4.3	---	---	3.7	2.8	3.5	2.1
18	8.6	7.0	7.1	6.2	5.1	4.5	---	---	4.1	3.3	3.0	2.7
19	7.6	6.0	6.2	5.5	5.3	4.3	4.0	2.7	3.3	2.7	3.4	2.8
20	7.6	6.2	6.5	5.2	4.8	3.1	3.4	2.7	4.0	2.3	3.4	2.3
21	7.2	5.3	6.8	5.3	3.1	2.2	5.8	2.2	5.0	3.9	3.8	2.9
22	6.6	5.6	6.4	5.4	3.4	1.8	4.9	4.3	4.5	3.5	3.3	1.6
23	7.2	5.6	6.0	5.1	3.0	2.4	4.4	3.6	3.7	3.0	---	---
24	5.6	4.4	6.2	5.4	3.2	2.9	4.0	3.3	3.7	2.8	3.2	2.5
25	5.3	4.1	7.1	5.7	3.6	2.7	4.2	3.2	3.7	3.1	3.2	2.7
26	4.8	3.4	7.2	6.5	2.8	1.9	4.0	3.2	3.6	3.1	4.1	2.0
27	5.5	3.5	7.6	6.6	3.0	1.7	4.0	3.3	3.3	2.8	2.8	1.9
28	6.2	2.5	7.4	5.8	2.6	2.0	4.2	3.4	2.8	2.2	2.3	1.7
29	7.5	6.2	6.6	5.2	3.7	2.8	3.8	3.4	3.2	2.1	4.2	1.4
30	8.4	6.6	7.4	6.0	3.3	2.5	3.9	2.8	2.9	2.2	5.5	4.2
31	---	---	7.1	6.3	---	---	3.6	2.8	2.9	1.8	---	---
MONTH	10.3	2.5	8.0	4.0	7.1	1.7	---	---	5.0	1.8	5.5	1.3
YEAR	13.8	0.8										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	21.0	19.5	22.0	20.0	9.0	8.0	8.5	7.5	13.0	10.5	16.5	15.0
2	19.5	19.0	22.5	20.0	9.5	8.5	8.0	7.0	13.0	8.5	16.0	14.0
3	21.5	19.0	20.0	18.0	8.5	7.5	7.5	6.5	8.5	7.0	14.0	9.5
4	24.0	21.0	19.0	18.5	9.5	7.5	7.5	6.0	---	---	9.5	8.5
5	25.0	23.0	---	---	10.0	8.5	6.0	5.5	10.5	9.0	9.0	8.0
6	25.5	24.0	18.0	16.5	10.5	8.5	5.5	4.5	12.5	10.0	10.5	8.5
7	25.5	23.5	19.0	17.0	8.5	7.5	5.0	4.5	14.5	12.0	11.5	10.0
8	24.0	23.0	19.0	16.0	7.5	7.0	6.0	4.5	14.5	11.0	13.5	11.5
9	23.0	22.0	16.0	14.5	8.0	7.5	6.0	5.5	11.0	9.5	15.5	13.0
10	23.5	21.0	14.5	13.5	7.5	7.0	6.5	5.5	11.0	9.0	16.5	14.5
11	25.0	23.0	15.0	14.0	8.5	7.0	7.0	5.5	10.5	9.0	16.0	14.5
12	25.5	25.0	14.5	14.0	9.5	8.0	9.5	6.5	13.0	9.5	15.0	14.5
13	25.0	24.0	15.5	14.0	8.5	7.5	11.0	8.5	15.0	12.0	16.0	15.0
14	24.5	23.5	14.5	10.5	7.5	7.0	11.0	10.0	17.0	15.0	16.5	13.5
15	24.0	21.5	10.5	9.0	7.5	6.5	13.0	11.0	15.0	12.0	13.5	11.0
16	23.5	21.5	9.0	8.0	6.5	4.5	13.0	12.0	12.0	8.5	13.0	11.5
17	23.5	22.5	10.5	9.0	4.5	4.0	14.5	13.0	9.0	6.5	13.0	10.5
18	22.5	21.5	10.5	9.5	6.0	4.0	15.0	13.5	10.5	7.5	10.5	8.0
19	22.0	21.5	10.5	10.0	7.5	6.0	15.5	14.5	12.5	10.5	8.0	7.5
20	23.0	20.5	10.0	9.5	7.5	6.5	15.0	12.5	15.0	12.0	8.0	7.0
21	22.0	20.5	10.5	9.5	6.5	6.0	13.0	11.0	15.5	14.0	8.0	7.0
22	21.5	20.5	10.5	9.5	6.0	6.0	12.5	11.5	14.5	13.0	7.5	7.0
23	23.5	21.0	10.0	9.0	6.5	6.0	13.0	11.5	14.5	13.5	8.5	7.0
24	23.0	20.5	9.5	8.5	6.5	6.5	11.5	10.5	15.0	14.0	8.5	7.5
25	22.5	21.0	8.5	8.0	7.0	6.5	12.5	10.0	14.5	13.0	8.0	7.5
26	23.5	22.0	8.5	7.5	7.5	6.5	14.0	12.0	15.0	13.5	9.0	8.0
27	23.0	21.0	9.0	7.5	7.5	6.5	14.5	13.0	16.0	13.5	10.0	8.5
28	24.0	22.0	9.0	8.0	7.5	7.0	14.0	11.5	16.5	14.5	11.0	9.5
29	23.5	20.5	9.5	8.0	7.5	6.5	11.5	8.5	---	---	12.5	11.0
30	22.0	20.0	9.5	8.0	8.0	7.0	9.5	7.5	---	---	13.0	12.5
31	21.0	19.5	---	---	8.5	8.0	11.5	9.0	---	---	13.0	12.5
MONTH	25.5	19.0	22.5	7.5	10.5	4.0	15.5	4.5	17.0	6.5	16.5	7.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	12.5	20.5	17.0	23.5	21.0	32.5	30.5	35.0	34.0	37.0	35.5
2	12.5	12.0	22.5	20.0	24.0	22.0	34.5	31.5	35.5	34.0	36.5	35.0
3	12.0	11.5	22.5	20.5	24.5	22.5	35.0	33.0	35.0	34.0	37.0	35.0
4	12.0	10.0	21.0	19.0	23.0	20.5	36.0	33.5	34.5	33.0	38.5	35.5
5	10.0	8.5	19.5	17.5	24.5	22.0	36.0	34.0	34.0	31.5	37.0	33.0
6	10.5	8.5	19.5	17.0	25.0	23.0	36.0	32.5	36.0	32.5	34.5	30.0
7	11.5	10.5	22.0	19.0	26.5	24.0	37.0	34.0	35.5	32.0	34.0	32.5
8	11.5	11.0	22.5	21.0	28.0	25.0	37.0	33.5	37.0	34.0	33.0	31.5
9	12.0	11.0	22.0	21.0	28.5	26.5	36.5	33.5	37.5	35.5	32.0	30.0
10	11.5	10.5	21.0	18.5	29.5	27.0	35.5	34.0	35.5	34.5	32.5	30.0
11	10.5	10.0	18.5	17.0	31.0	28.0	35.5	34.0	36.5	33.5	32.0	30.5
12	10.5	9.5	18.0	17.0	33.0	30.0	34.0	32.5	33.5	31.5	32.0	30.5
13	11.5	10.0	17.0	16.0	30.5	28.5	36.5	33.0	36.0	32.0	31.0	29.5
14	12.5	10.5	18.0	15.5	30.5	27.0	36.5	34.5	34.5	32.0	32.5	31.0
15	13.5	11.0	18.0	17.0	30.0	27.0	35.0	32.5	32.0	29.5	32.5	31.0
16	15.0	12.5	19.0	16.5	30.0	25.5	34.0	31.5	29.5	28.0	32.0	30.0
17	16.0	14.5	18.5	17.0	28.0	27.0	35.5	32.0	31.5	27.5	30.5	29.0
18	16.0	15.0	19.5	17.0	27.5	25.5	37.0	33.0	29.5	28.0	30.5	29.5
19	18.5	16.0	20.5	18.0	28.5	25.5	37.5	34.0	30.5	29.0	31.0	29.0
20	19.5	17.5	20.0	16.5	31.5	27.0	36.5	33.5	31.0	27.0	30.5	29.5
21	21.5	18.5	19.5	16.5	32.5	30.0	33.5	25.5	28.0	26.5	31.0	28.5
22	21.0	20.0	21.0	19.0	34.0	31.5	30.0	27.5	29.5	27.0	31.0	29.0
23	21.0	20.0	22.0	20.0	34.0	32.5	32.5	29.5	30.0	27.5	---	---
24	22.0	20.5	21.5	20.0	33.0	31.5	33.5	31.5	31.0	29.0	30.0	28.5
25	21.5	20.0	20.0	17.5	34.5	30.5	34.0	32.5	32.5	30.0	31.0	29.0
26	23.5	20.5	18.5	17.5	35.5	32.5	33.5	32.0	33.5	31.0	32.5	30.5
27	23.0	18.0	19.0	17.5	35.0	33.0	33.5	32.5	35.0	32.0	34.0	30.5
28	18.0	13.0	20.5	18.0	33.0	31.5	32.5	31.0	36.5	34.0	35.0	33.5
29	13.5	12.0	21.5	20.0	32.0	30.0	32.0	31.0	37.5	35.0	34.5	25.5
30	17.0	13.5	22.5	21.0	32.5	31.0	35.0	31.0	38.5	36.0	25.5	24.5
31	---	---	22.5	20.5	---	---	34.5	32.5	37.0	35.0	---	---
MONTH	23.5	8.5	22.5	15.5	35.5	20.5	37.5	25.5	38.5	26.5	38.5	24.5
YEAR	38.5	4.0										

MUSKINGUM RIVER BASIN

03117100 TUSCARAWAS RIVER AT NAVARRE, OHIO

LOCATION.--Lat 40°43'36", long 81°31'47", Stark County, on left bank at Navarre water treatment plant, 800 ft (244 m) upstream from bridge on Elton Road at Navarre, 3.5 mi (5.6 km) downstream from gaging station at Massillon, 1.2 mi (1.9 km) downstream from Pigeon Run, and just upstream from Wolf Creek.

DRAINAGE AREA.--534 mi² (1,383 km²).

PERIOD OF RECORD.--Chemical analyses: March 1968 to September 1973.
Water temperatures: March 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 9,600 micromhos Feb. 14; minimum, 450 micromhos Aug. 23.

pH: Maximum, 9.3 Feb. 26, Apr. 10; minimum, 6.3 Nov. 9, Dec. 14, 21.

Dissolved oxygen: Maximum, 12.5 mg/l Feb. 17; minimum, 0.0 mg/l on many days during August.

Water temperatures: Maximum, 28.0°C July 9, Aug. 28-30, Sept. 1, 2; minimum, freezing point Dec. 8, 16-19.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	0910	1940	--	--	132	0	70	240	.4	--	--
21...	1400	240	--	--	174	0	120	1400	.8	--	--
30...	1500	--	--	--	--	--	--	--	--	--	--
NOV.											
15...	1000	2530	--	--	106	0	67	190	.4	--	--
29...	1400	530	--	--	160	0	110	850	.7	--	--
DEC.											
19...	1500	572	--	--	156	0	110	840	.4	--	--
23...	1600	1300	--	--	116	0	84	320	.4	--	--
JAN.											
14...	1445	295	--	--	153	0	150	1500	.8	--	.00
17...	0900	295	--	--	142	0	100	1500	.8	--	--
30...	1000	772	--	--	122	0	90	500	.6	--	--
FEB.											
05...	1300	1400	--	--	106	0	81	390	.2	--	--
23...	1000	472	--	--	132	0	100	2500	1.7	--	--
MAR.											
02...	0900	740	--	--	140	0	97	710	.7	--	--
19...	1100	2460	--	--	102	0	69	250	.2	--	--
APR.											
05...	1152	1420	--	--	119	0	77	350	.8	--	--
27...	0900	363	--	--	161	0	110	840	1.0	--	--
MAY											
11...	1330	1170	--	--	100	0	80	310	.6	--	--
23...	0900	472	--	--	166	0	95	800	1.2	--	--
JUNE											
08...	1300	--	--	--	--	--	--	--	--	--	--
12...	1400	240	--	--	80	0	98	1000	.9	--	--
18...	1315	822	--	--	148	0	74	280	.4	--	--
JULY											
20...	1400	135	--	--	166	0	100	1320	2.3	--	--
27...	1200	575	--	--	138	0	64	310	1.2	--	--
AUG.											
14...	1400	207	300	19	162	0	100	970	--	1.0	.01
30...	1125	115	--	--	193	0	150	1800	--	1.1	.01
SEP.											
12...	0840	87	660	23	267	1	97	2000	--	1.4	.01
24...	1435	135	410	19	188	7	110	1400	--	.9	.00

MUSKINGUM RIVER BASIN

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03117100 TUSCARAWAS RIVER AT NAVARRE, OHIO

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 16,700 micromhos Jan. 27, 1970; minimum, 450 micromhos June 13, 1970, Aug. 23, 1973.

pH (1968-69, 1970-73): Maximum, 10.7 Oct. 27, 1971; minimum, 4.6 Aug. 17, 1969.

Dissolved oxygen (1970-73): Maximum, 12.5 mg/l Feb 17, 1973; minimum, 0.0 mg/l on many days during 1971 to 1973.

Water temperatures (1968-69, 1970-73): Maximum, 30.0°C June 27, 28, 1969; minimum, freezing point on several days during winter periods.

REMARKS.--Water-quality recorder operated since March 1968. Minimum recorded specific conductance value of 240 micromhos occurred July 5, 1969. Minimum recorded pH of 3.9 occurred Oct. 26, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Tuscarawas River at Massillon, Ohio, station 03117000, drainage area 518 mi² (1,342 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG)
OCT.										
03...	2.2	--	300	190	1120	736	--	15.0	--	--
21...	2.3	--	1300	1200	4800	2940	--	11.0	--	--
30...	--	--	--	--	--	--	--	12.0	1.0	<.5
NOV.										
15...	2.6	--	280	190	917	596	--	8.0	--	--
29...	2.6	--	790	660	3000	1870	--	6.0	--	--
DEC.										
19...	3.0	--	600	470	2580	1660	--	5.0	--	--
23...	2.8	--	390	290	1370	914	--	6.0	--	--
JAN.										
14...	--	4.1	1400	1200	4840	--	3560	3.0	--	--
17...	3.5	--	1300	1200	4610	2820	--	6.0	--	--
30...	3.3	--	460	360	1860	1160	--	3.0	--	--
FEB.										
05...	2.8	--	450	360	1550	984	--	6.0	--	--
23...	3.5	--	2100	2000	7260	4660	--	5.0	--	--
MAR.										
02...	3.6	--	630	520	2490	1600	--	6.0	--	--
19...	2.0	--	310	230	1110	732	--	5.0	--	--
APR.										
05...	2.4	--	370	270	1350	924	--	8.0	--	--
27...	2.3	--	720	590	2870	1900	--	14.0	--	--
MAY										
11...	2.3	--	360	280	1290	842	--	16.0	--	--
23...	2.5	--	770	630	2840	1830	--	16.0	--	--
JUNE										
08...	--	--	--	--	--	--	--	22.5	3.0	<.5
12...	1.5	--	930	860	3460	2300	--	26.0	--	--
18...	3.3	--	380	260	1270	890	--	22.0	--	--
JULY										
20...	4.6	--	1140	1000	4360	2610	--	24.0	--	--
27...	3.4	--	400	290	1330	782	--	24.0	--	--
AUG.										
14...	--	3.5	--	--	3520	--	2320	24.0	--	--
30...	--	3.1	--	--	5830	--	3820	24.5	--	--
SEP.										
12...	--	5.5	--	--	6300	--	4300	18.0	--	--
24...	--	4.0	--	--	4550	--	2890	20.0	--	--

MUSKINGUM RIVER BASIN

03117100 TUSCARAWAS RIVER AT NAVARRE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	720	690	4040	3080	3510	3090	2640	2190	2760	2340	2840	2210
2	840	720	3080	1280	3780	2850	3270	2430	2370	990	1660	1680
3	1320	840	1580	1130	3810	2840	3480	2400	1170	840	1830	1470
4	1620	1320	2150	1580	3690	2910	3000	1230	1320	960	1660	1450
5	2190	1470	2270	1730	4680	2520	1530	1230	1740	1320	1720	1270
6	2550	2070	2990	2090	2670	990	1950	1440	1890	1590	1370	1190
7	3150	1770	3680	1940	1080	870	2370	1740	2250	1440	1730	1160
8	2670	2190	2090	1040	1410	990	3330	2340	2820	2040	2000	1520
9	4260	2280	1160	920	1590	1140	---	---	4140	2700	2010	1740
10	5250	4080	1370	1100	1680	1350	---	---	4410	2910	2490	1740
11	6210	4410	1670	1280	1770	1500	3600	3150	4470	3690	2020	1600
12	5910	4500	2030	1400	2550	1710	4590	3330	5400	4110	1870	1480
13	5280	2820	2780	1940	3030	990	4950	3720	6240	4620	2230	1690
14	3750	2730	2270	740	1320	930	4770	3990	9600	4890	2350	760
15	4200	3300	950	800	1830	1290	4890	3870	7590	1800	2440	460
16	4530	3630	1130	950	1890	1350	4680	3900	2280	1860	2410	1060
17	4830	4140	1400	1070	2610	1860	4680	3930	3240	2190	1060	940
18	4890	4380	2000	1400	2970	2010	4830	3420	2820	2460	1150	1060
19	5040	4260	2300	1640	3030	2340	3990	3330	3060	2670	1210	1090
20	5040	4410	1850	1340	2820	1800	4320	2850	3540	2820	1300	1180
21	5640	4140	1700	1490	1800	1380	3510	3240	3840	3030	1450	1240
22	5970	4980	2090	1670	1500	1200	3810	3120	3300	2700	1480	1270
23	5670	4590	---	---	1350	1080	3780	2250	8100	2850	1630	1420
24	6180	3720	2750	2030	1470	1170	2640	2100	8460	7770	1660	1330
25	4260	3690	3110	2750	1860	1470	2700	2310	8610	3270	1510	1330
26	5820	3600	3020	2750	2100	1740	3270	2610	3720	3090	1450	1090
27	4350	3450	2750	2150	2310	1800	3750	2580	3350	2870	1660	1150
28	4740	4020	2270	2120	2760	2040	3270	1680	3240	2550	1810	1600
29	5940	4290	---	---	2760	2280	1860	1470	---	---	1990	1780
30	6150	4080	---	---	2940	2400	2070	1440	---	---	1930	1450
31	4590	3630	---	---	2610	2220	2550	2040	---	---	1870	1360
MONTH	6210	690	4040	740	4680	870	4950	1230	9600	840	2840	460

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2080	1780	1840	1600	1510	1060	3980	3290	4410	3690	4980	3180
2	1960	1840	1890	1560	1930	1390	3860	3260	7780	2410	3510	3150
3	2200	1930	2970	1500	---	---	5000	3500	3330	1980	4440	3480
4	2230	1870	2180	1940	---	---	4190	3740	3330	2760	4620	3180
5	1900	1180	2140	2020	---	---	4190	3350	4220	3290	4740	3150
6	1300	1060	2370	2040	2230	2080	4370	2910	4610	3620	6000	3450
7	1660	1300	2570	2240	2710	2230	3780	2760	4930	3580	4950	4050
8	2170	1630	2950	2300	2830	2320	4100	3530	5410	2170	4830	3120
9	2200	1540	3450	1470	2590	2350	4210	3370	5940	2970	5010	3450
10	1900	1270	1660	1150	3580	2560	4540	3460	4860	3720	5250	2820
11	1480	1240	1290	1050	3880	3220	4560	3360	5240	3860	6030	3180
12	1660	1240	1830	1170	4150	1960	4090	2800	4640	2240	5820	3360
13	1900	1450	1890	1590	4060	1990	3920	3380	5560	4240	5070	4530
14	2140	1630	2490	1680	3850	2620	4310	3530	4160	3080	5550	4470
15	2290	1780	2640	1530	3390	2730	4740	2940	3860	2030	6030	2970
16	2380	2140	2550	2160	3300	2190	4830	3660	3680	2570	5730	4890
17	2840	2060	3120	2130	2970	1110	4040	3230	4160	2480	5910	4140
18	2240	1700	2720	2240	1620	1080	4190	3860	5850	3980	5940	4140
19	2880	1830	3020	1670	1890	1500	4460	3740	5680	4150	5850	3750
20	2190	1860	3020	2570	2190	1590	4630	3580	6680	3800	6450	3870
21	2280	2100	2900	1700	2340	1530	4330	1330	4530	2520	6090	3840
22	2350	1150	2780	1430	2760	1890	2120	1430	4260	900	6120	3900
23	2320	1570	3110	1430	3540	2700	2810	2090	2520	450	4620	1620
24	2530	1150	1770	926	3960	1770	4750	2590	2970	1050	3990	690
25	2920	2200	1290	1110	2310	1680	7470	3300	3810	2280	4260	2700
26	2810	2330	1290	1200	2640	2100	8240	800	5070	3810	4680	3870
27	3020	2060	1420	1290	3420	2340	2110	850	4980	4290	5190	4230
28	2200	1840	1540	1420	3780	2640	2850	2110	5180	4280	5280	4290
29	---	---	1910	1460	3110	2570	3100	2800	6310	3520	5550	3780
30	---	---	2060	1640	3500	3110	3450	3090	6180	4840	5400	3840
31	---	---	1820	1010	---	---	3820	3250	5670	2910	---	---
MONTH	3020	1060	3450	926	4150	1060	8240	800	7780	450	6450	690

YEAR	9600	450
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03117100 TUSCARAWAS RIVER AT NAVARRE. OHIO--Continued

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN	
1	6.0	5.8		4.7	4.1		9.1	8.8		9.7	9.3		10.4	10.2		10.6	10.2	
2	5.9	5.6		5.4	4.4		9.1	8.8		10.2	9.6		10.4	10.2		10.6	10.3	
3	5.7	5.7		5.7	5.2		9.2	8.8		10.4	9.8		10.6	10.6		10.6	10.3	
4	5.6	5.0		6.1	5.5		9.2	9.0		11.0	10.0		10.9	10.7		10.5	9.7	
5	5.3	4.3		6.3	5.9		9.2	8.8		11.0	11.0		10.9	10.7		10.3	9.7	
6	4.6	3.4		6.5	5.9		10.1	8.6		11.3	11.1		10.8	10.5		10.1	9.6	
7	4.6	3.3		7.2	6.0		10.2	9.8		11.3	10.5		11.2	10.7		9.6	8.8	
8	5.1	4.7		7.4	6.9		9.8	9.6		10.8	10.2		11.2	10.7		9.3	8.8	
9	5.4	4.7		7.5	7.0		9.9	9.6		---	---		11.6	11.2		9.3	8.5	
10	5.0	4.2		7.3	6.8		9.9	9.8		---	---		11.6	11.2		9.0	7.9	
11	4.6	3.5		6.8	6.5		10.0	9.7		10.9	10.5		11.3	10.9		9.0	8.0	
12	3.8	3.5		6.8	6.5		9.8	9.3		10.8	9.6		11.1	11.0		8.3	7.7	
13	3.3	3.3		6.7	6.7		11.0	9.5		9.6	9.2		11.2	11.0		8.0	7.7	
14	3.3	3.7		7.7	6.7		10.9	10.5		9.8	8.6		11.4	11.2		8.2	7.9	
15	3.8	3.5		7.8	7.7		10.7	10.3		9.0	8.4		12.2	11.3		7.9	6.8	
16	4.2	3.0		7.8	7.4		10.4	10.0		8.9	8.3		12.3	11.9		6.8	5.6	
17	4.0	2.9		7.5	7.2		10.2	10.0		8.6	7.8		12.5	11.8		5.8	4.9	
18	3.2	3.1		7.2	7.0		10.3	10.0		8.0	6.4		12.3	12.0		5.8	5.1	
19	4.9	3.1		7.3	6.9		10.6	10.0		6.8	6.4		12.0	11.4		7.9	6.4	
20	4.9	3.8		7.8	7.3		11.1	10.6		10.3	6.6		11.4	11.1		6.4	5.8	
21	5.6	3.0		7.8	7.5		11.2	11.0		9.6	8.4		11.6	11.0		5.8	5.0	
22	5.2	4.4		7.6	7.2		11.2	10.9		8.9	8.2		11.4	11.0		7.5	4.6	
23	4.7	3.4		7.7	7.2		11.1	10.8		9.0	8.0		11.4	10.8		8.6	7.5	
24	4.1	3.4		7.7	7.2		11.0	10.5		9.1	8.6		11.2	10.8		9.0	7.5	
25	4.8	3.5		7.4	7.1		10.7	10.2		11.0	9.0		11.0	10.6		8.6	7.7	
26	5.1	4.0		7.4	7.2		10.7	8.6		10.1	9.5		11.0	10.4		7.9	7.3	
27	5.4	4.2		7.7	7.4		10.7	10.6		9.6	9.2		10.9	10.3		7.5	6.4	
28	4.3	3.4		7.9	7.7		10.9	10.6		10.2	9.5		10.6	10.1		6.8	5.6	
29	4.3	3.5		---	---		10.7	10.3		11.0	10.2		---	---		5.8	5.0	
30	4.8	4.0		---	---		10.4	9.9		11.3	10.8		---	---		6.5	5.4	
31	5.1	4.4		---	---		9.9	9.2		10.8	10.2		---	---		7.3	5.7	
MONTH	6.0	2.5		7.9	4.1		11.2	8.6		11.3	6.2		12.5	10.1		10.6	4.6	

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	13.0	11.0	10.0	6.0	5.5	7.0	6.0	7.5	5.5	9.0	4.0
2	14.0	13.0	12.5	11.0	7.0	4.5	6.0	4.5	7.0	5.0	9.0	6.0
3	15.0	13.5	12.5	11.0	6.5	5.0	4.5	4.0	7.0	4.0	8.0	5.5
4	15.5	14.5	11.5	10.5	7.0	6.0	5.0	4.0	4.0	2.5	9.5	6.5
5	16.5	15.0	10.5	9.5	9.5	7.0	4.5	3.0	6.5	3.5	10.5	8.5
6	17.0	16.0	12.0	8.5	12.0	8.0	3.0	3.0	8.0	6.0	13.5	9.5
7	16.5	15.0	11.0	9.5	8.0	1.0	3.0	2.5	8.0	6.5	15.0	12.0
8	15.5	13.5	10.0	9.5	1.5	0.0	3.0	2.5	---	---	16.0	12.0
9	15.0	12.5	9.5	8.5	3.5	1.5	---	---	---	---	15.0	11.5
10	14.5	12.5	9.5	8.5	4.0	2.5	---	---	---	---	16.0	11.5
11	14.0	13.5	9.5	9.0	2.5	1.0	3.0	1.0	---	---	16.0	13.0
12	14.5	13.5	10.0	9.0	4.5	1.0	4.0	0.5	---	---	14.0	11.0
13	14.5	13.5	9.5	9.0	5.5	3.0	5.0	1.0	---	---	11.0	10.0
14	14.5	12.5	9.0	7.0	2.5	1.0	5.5	3.0	6.0	3.0	12.5	10.0
15	14.0	11.5	7.0	6.0	1.5	0.5	7.5	5.5	6.0	2.0	14.0	12.0
16	12.5	11.5	6.0	5.5	0.5	0.0	9.5	6.5	---	---	13.5	12.5
17	13.0	11.0	6.0	5.0	0.0	0.0	11.0	6.5	---	---	12.5	8.0
18	11.0	11.0	6.5	6.0	0.0	0.0	13.5	8.0	---	---	8.0	4.0
19	11.0	9.0	6.5	6.0	2.5	0.0	13.5	11.0	6.5	4.5	4.0	3.0
20	10.5	8.0	6.5	6.0	4.0	2.0	11.0	7.5	4.5	4.0	5.0	3.5
21	9.5	8.5	6.5	6.0	3.5	2.0	8.0	5.5	7.0	4.5	5.5	4.5
22	11.5	9.5	6.5	6.0	3.5	3.0	12.0	7.0	4.5	2.5	5.5	4.5
23	13.5	11.5	---	---	4.5	3.0	10.5	8.0	5.5	2.5	7.5	5.0
24	12.5	12.0	6.0	4.5	5.5	4.0	8.5	6.5	8.0	3.5	9.0	6.5
25	12.0	11.0	5.5	5.0	6.0	5.0	10.0	4.5	8.5	4.0	8.5	7.5
26	12.5	10.5	6.0	5.5	5.5	4.0	12.5	7.0	7.5	6.0	8.5	8.0
27	12.0	9.0	6.0	5.0	4.5	3.5	13.5	11.0	9.5	3.5	10.0	7.5
28	13.0	11.0	6.0	5.0	4.5	4.5	12.0	8.0	9.0	3.5	11.0	9.0
29	13.0	12.0	---	---	5.0	4.5	8.0	2.5	---	---	12.0	10.0
30	12.0	11.0	---	---	6.5	5.0	3.0	1.0	---	---	13.0	11.5
31	11.0	9.5	---	---	7.5	6.5	5.5	1.5	---	---	13.0	11.5
MONTH	17.0	8.0	12.5	4.5	12.0	0.0	13.5	0.5	---	---	16.0	3.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	12.0	17.0	14.5	20.5	17.0	24.0	20.0	24.5	23.0	28.0	24.0
2	14.0	12.5	17.5	16.0	22.5	18.5	25.0	21.5	26.0	22.5	28.0	23.5
3	12.5	11.0	16.5	14.0	22.5	20.5	26.5	23.0	24.5	21.5	27.5	23.5
4	11.0	9.0	14.0	11.0	23.5	20.0	26.0	23.0	25.5	21.5	27.0	23.0
5	9.0	7.0	15.0	10.0	24.5	21.0	25.5	22.5	26.5	22.0	26.0	23.5
6	9.5	6.5	16.5	12.0	23.0	21.5	25.5	22.0	25.5	21.5	25.5	23.0
7	11.5	9.5	19.0	14.5	23.5	20.0	27.0	22.5	26.0	22.0	24.0	20.5
8	12.0	10.5	18.0	16.5	24.5	21.5	27.5	23.0	26.5	22.5	23.0	19.5
9	10.5	9.0	20.5	16.5	26.0	22.0	28.0	24.0	27.5	23.5	22.0	19.5
10	9.0	7.0	19.0	17.5	27.0	22.0	26.0	24.5	25.5	23.5	21.5	17.0
11	7.5	6.0	17.5	15.5	27.5	23.0	25.5	23.0	26.5	22.5	20.5	17.5
12	8.5	7.0	17.5	15.5	26.5	24.0	23.5	21.0	25.5	22.0	21.0	17.5
13	10.0	7.5	15.5	15.0	26.0	22.5	26.0	20.5	26.0	23.0	20.0	16.5
14	11.5	8.0	18.0	14.0	25.5	21.0	27.0	22.5	24.5	23.0	20.5	17.0
15	13.5	9.0	17.0	15.0	25.0	20.5	26.5	23.5	23.0	21.5	21.0	17.5
16	14.0	11.5	18.0	14.0	23.5	21.5	26.0	22.5	24.5	21.5	20.5	18.0
17	14.0	13.0	15.5	14.0	24.0	22.0	25.5	21.5	24.5	21.5	20.5	17.5
18	14.5	13.0	16.5	13.0	23.5	21.5	26.5	21.0	24.0	21.5	20.0	16.5
19	17.0	14.0	15.5	14.0	25.5	22.0	26.5	21.5	25.5	21.0	18.0	14.5
20	19.0	15.5	15.0	14.0	25.0	23.0	24.5	23.0	23.5	21.5	17.0	15.0
21	19.0	17.0	18.0	13.0	25.0	22.5	23.5	22.0	22.0	20.5	18.5	14.5
22	19.5	18.5	17.0	15.5	25.5	22.5	23.5	21.5	22.5	19.0	20.0	15.0
23	18.5	16.5	17.5	15.5	25.5	22.0	24.5	22.0	22.5	18.0	21.0	17.5
24	19.0	15.5	16.0	15.5	24.5	21.5	25.0	22.5	22.5	20.0	21.5	18.0
25	15.5	14.0	16.5	15.5	24.0	20.5	25.5	23.5	24.0	19.5	21.5	18.0
26	16.0	13.0	18.5	16.0	25.5	22.5	26.0	23.0	25.5	21.0	22.0	18.5
27	14.5	12.0	17.5	16.5	24.0	22.5	25.5	22.5	26.5	22.5	22.5	18.5
28	11.5	10.5	20.0	17.0	22.5	20.0	25.5	23.0	28.0	23.5	22.0	20.0
29	11.5	9.5	19.5	18.5	22.0	19.0	25.0	22.5	28.0	24.5	21.5	20.0
30	15.0	11.0	19.5	18.0	22.0	19.5	25.5	21.0	28.0	24.0	21.0	18.5
31	---	---	19.5	17.5	---	---	24.5	22.5	26.5	23.0	---	---
MONTH	19.5	6.0	20.5	10.0	27.5	17.0	28.0	20.0	28.0	18.0	28.0	14.5
YEAR	28.0	0.0										

MUSKINGUM RIVER BASIN

03129000 TUSCARAWAS RIVER AT NEWCOMERSTOWN, OHIO

LOCATION.--Lat 40°15'41", long 81°36'33", in T.5 N., R.3 W., Tuscarawas County, at gaging station on right bank 150 ft (46 m) upstream from highway bridge, 0.2 mi (0.3 km) south of Newcomerstown, 2 mi (3 km) upstream from Buckhorn Creek, and 4 mi (6 km) downstream from Dunlap Creek.

DRAINAGE AREA.--2,443 mi² (6,327 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1949-48, 1955-57, 1960-73 (partial-record station).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV., 1972											
13...	1130	3660	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1200	3470	--	--	--	--	180	160	--	--	--
MAR.											
05...	1215	3450	--	--	--	--	150	160	--	--	--
MAY											
08...	1120	3380	--	--	--	--	--	--	--	--	--
JULY											
13...	1215	1060	580	31	--	--	270	240	--	--	.00
SEP.											
10...	1135	540	120	22	135	0	190	430	--	.6	.00

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
NOV., 1972										
13...	--	--	--	--	--	897	--	--	--	9.0
JAN., 1973										
09...	1.9	--	--	360	--	900	7.7	--	--	.0
MAR.										
05...	2.4	--	--	330	--	976	7.6	--	--	8.5
MAY										
08...	--	--	--	--	--	872	--	--	--	14.5
JULY										
13...	--	1.6	--	--	--	1370	8.4	--	--	23.0
SEP.										
10...	--	2.2	.14	--	--	1970	7.2	--	1260	19.0

MUSKINGUM RIVER BASIN

03131100 ROCKY FORK NEAR LUCAS, OHIO

LOCATION.--Lat 40°44'02", long 82°24'15", in E 1/2 sec. 33, T.23 N., R.17 W., Richland County, on left bank on Mount Zion Road, 0.2 mi (0.3 km) west of junction with Smart Road and 2.2 mi (3.5 km) northeast of Lucas.

DRAINAGE AREA.--63.7 mi² (165 km²).

PERIOD OF RECORD.--Chemical analyses: May to September 1973.
Water temperatures: May to September 1973.

REMARKS.--Water-quality recorder operated since May 1973. Maximum recorded specific conductance value of 960 micromhos occurred Sept. 1, 1973. Minimum recorded specific conductance value of 212 micromhos occurred June 19, 1973. Maximum recorded pH value of 8.5 occurred June 2, 1973. Minimum recorded pH value of 6.1 occurred May 5, 1973. Maximum recorded dissolved oxygen value of 9.5 mg/l occurred Aug. 7, 1973. Minimum recorded dissolved oxygen value of 1.5 mg/l occurred Sept. 5, 6, 1973. Maximum recorded water temperature of 27.0°C occurred Aug. 28, 1973. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected once during the period to further define the quality of water. Outflow from the city of Mansfield sewage treatment plant enters the stream 5.0 mi (8.0 km) upstream from the station. Water is diverted from Clear Creek for the city of Mansfield water supply.

CHEMICAL ANALYSES, MAY TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MAY										
08...	1010	--	--	188	0	96	60	.4	--	--
26...	1414	--	--	114	0	47	25	.2	--	--
30...	1100	--	--	--	--	--	--	--	--	--
JUNE										
15...	1020	--	--	202	8	86	67	.6	--	--
20...	1130	--	--	116	0	45	27	.4	--	--
JULY										
18...	1130	--	--	207	0	90	94	1.7	--	--
22...	1435	--	--	176	0	66	35	.4	--	--
AUG.										
03...	1012	94	23	223	0	89	74	--	.5	.00
21...	1100	57	15	163	0	63	44	--	.4	.00
SEP.										
03...	1450	--	--	210	9	80	54	--	.3	.00
11...	0930	56	19	198	0	98	78	--	.5	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
MAY										
08...	3.1	--	260	110	671	422	--	14.5	--	--
26...	2.3	--	140	46	366	250	--	24.0	--	--
30...	--	--	--	--	--	--	--	17.0	3.5	1.5
JUNE										
15...	4.6	--	280	100	738	478	--	22.5	--	--
20...	2.4	--	150	55	365	242	--	20.5	--	--
JULY										
18...	5.8	--	280	110	850	524	--	21.0	--	--
22...	1.7	--	210	66	526	334	--	27.0	--	--
AUG.										
03...	--	4.8	--	--	776	--	545	24.0	--	--
21...	--	3.4	--	--	540	--	406	20.5	--	--
SEP.										
03...	--	3.6	--	--	664	--	467	30.0	--	--
11...	--	4.4	--	--	778	--	527	19.0	--	--

MUSKINGUM RIVER BASIN

03131100 ROCKY FORK NEAR LUCAS, OHIO--CONTINUED

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), MAY TO SEPTEMBER 1973

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	714	651	727	627	810	678	960	675
2	---	---	654	617	776	701	723	645	824	726	761	645
3	---	---	705	611	756	519	711	395	840	704	737	615
4	---	---	726	660	684	518	575	314	929	699	759	620
5	---	---	896	671	672	437	591	448	872	677	927	759
6	---	---	777	657	689	423	641	591	740	681	800	771
7	---	---	711	651	651	464	757	595	788	720	822	752
8	---	---	767	684	704	597	687	606	800	687	765	747
9	---	---	698	614	782	678	677	609	840	681	818	738
10	---	---	695	300	746	683	739	602	791	699	767	693
11	---	---	602	320	749	669	742	640	801	704	828	771
12	---	---	639	540	815	728	827	718	785	447	827	720
13	---	---	633	591	828	648	766	706	830	569	824	747
14	---	---	677	629	770	719	845	706	701	227	815	743
15	---	---	747	636	788	717	818	677	513	294	872	800
16	---	---	720	681	786	440	---	---	681	522	---	---
17	---	---	765	612	621	359	---	---	726	653	723	714
18	---	---	665	528	660	470	845	722	795	677	723	668
19	---	---	673	482	734	212	816	720	717	683	875	762
20	---	---	554	401	458	267	770	320	758	638	855	765
21	---	---	637	532	620	456	494	324	688	530	816	762
22	---	---	703	631	716	620	597	482	829	688	783	713
23	---	---	783	612	814	655	647	597	764	726	---	---
24	---	---	632	381	690	371	717	635	764	708	704	632
25	---	---	662	551	686	548	723	533	896	695	742	688
26	---	---	---	---	758	662	729	629	845	666	766	671
27	---	---	---	---	814	585	707	659	759	674	756	690
28	---	---	---	---	701	336	771	674	788	692	766	691
29	---	---	---	---	576	425	759	675	749	680	896	291
30	---	---	593	587	862	584	734	671	783	698	787	421
31	---	---	689	458	---	---	797	737	764	696	---	---
MONTH	---	---	896	300	862	212	845	314	929	227	960	291

PH (UNITS), MAY TO SEPTEMBER 1973

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	7.8	7.4	8.0	7.6	7.8	7.6	8.0	7.8
2	---	---	7.8	7.5	8.5	7.4	8.0	7.7	7.8	7.5	8.0	7.7
3	---	---	7.6	7.4	7.6	7.6	7.9	7.5	7.8	7.5	8.3	7.6
4	---	---	7.7	7.2	7.7	7.5	8.0	7.6	7.9	7.6	8.2	7.6
5	---	---	7.8	6.1	7.7	7.3	7.9	7.7	7.9	7.6	7.8	7.5
6	---	---	8.0	7.4	7.7	7.1	7.9	7.6	7.9	7.6	7.7	7.6
7	---	---	8.1	7.7	7.7	7.5	8.1	7.7	8.2	7.6	7.8	7.4
8	---	---	7.8	7.6	7.8	7.5	8.0	7.7	8.2	7.6	7.9	7.5
9	---	---	8.0	7.6	7.8	7.1	8.1	7.7	8.2	7.7	7.6	7.4
10	---	---	7.9	7.4	8.0	7.6	8.1	7.8	7.8	7.6	7.7	7.3
11	---	---	7.8	7.4	8.0	7.6	7.8	7.6	7.9	7.3	7.9	7.5
12	---	---	7.7	7.5	7.9	7.6	7.7	7.4	7.5	7.3	7.9	7.5
13	---	---	7.8	7.5	7.7	7.5	7.8	7.6	7.8	7.4	7.9	7.4
14	---	---	7.9	7.5	7.8	7.3	8.2	7.4	7.6	7.3	8.2	7.6
15	---	---	7.8	7.5	7.8	7.4	7.6	7.3	7.6	7.4	8.0	7.1
16	---	---	7.8	7.4	7.8	7.3	---	---	7.8	7.4	7.7	7.5
17	---	---	7.7	7.4	7.9	7.3	---	---	7.9	7.5	8.0	7.5
18	---	---	7.9	7.3	8.0	7.7	7.8	7.5	7.9	7.2	7.5	7.3
19	---	---	7.7	7.2	8.0	7.7	7.9	7.4	7.8	7.6	7.7	7.3
20	---	---	7.9	7.4	7.7	7.6	7.6	7.2	7.6	7.5	7.7	7.4
21	---	---	8.1	7.4	7.8	7.5	7.3	6.9	7.6	7.2	7.7	7.4
22	---	---	7.8	7.4	7.8	7.6	7.8	7.3	7.7	7.4	7.7	7.0
23	---	---	7.7	7.5	7.8	7.0	7.8	7.7	7.8	7.4	7.6	7.3
24	---	---	7.6	7.4	7.7	7.3	7.8	7.7	7.7	7.5	7.9	7.4
25	---	---	7.8	7.5	7.9	7.5	7.7	7.5	7.8	7.4	8.0	7.7
26	---	---	7.6	7.0	7.8	7.6	7.7	7.4	7.8	7.6	7.9	7.7
27	---	---	7.7	7.4	7.7	7.5	7.7	7.6	7.9	7.6	8.0	7.6
28	---	---	7.8	7.5	7.7	7.4	7.7	7.6	8.1	7.7	7.8	7.5
29	---	---	7.7	7.4	7.7	7.4	7.6	7.5	8.2	7.5	7.8	7.2
30	---	---	7.7	7.0	7.8	7.1	7.7	7.4	8.0	7.7	7.6	7.2
31	---	---	7.7	7.3	---	---	7.8	7.6	8.0	7.7	---	---
MONTH	---	---	8.1	6.1	8.5	7.0	8.2	6.9	8.2	7.2	8.3	7.0

03131100 ROCKY FORK NEAR LUCAS, OHIO--CONTINUED

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, MAY TO SEPTEMBER 1973

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	5.1	3.2	6.9	4.3	2.9	2.2	7.7	2.8
2	---	---	8.5	7.4	4.9	2.9	6.8	4.1	4.9	2.2	8.3	2.6
3	---	---	8.6	7.3	4.4	3.1	6.0	3.5	7.1	3.9	9.4	2.7
4	---	---	9.3	7.9	5.0	3.3	5.2	4.1	7.3	4.0	9.0	2.7
5	---	---	9.4	7.2	4.3	3.0	6.6	4.3	8.4	3.9	7.0	1.5
6	---	---	9.3	7.2	5.0	3.7	6.9	3.6	8.5	3.6	6.1	1.5
7	---	---	9.1	6.8	5.2	4.1	6.5	3.5	9.5	3.8	8.3	1.7
8	---	---	8.0	6.4	4.9	3.4	6.7	3.5	8.0	2.5	9.1	3.6
9	---	---	8.7	6.1	4.4	2.7	7.2	3.5	7.9	2.6	7.7	3.7
10	---	---	8.0	5.8	5.3	3.2	6.2	3.4	5.8	2.8	8.7	3.7
11	---	---	8.4	6.9	5.5	3.4	6.2	3.8	6.7	1.9	7.9	3.6
12	---	---	8.0	6.8	5.4	3.6	6.2	3.9	4.7	2.6	8.7	3.9
13	---	---	8.3	6.8	5.2	3.7	6.5	3.6	5.3	3.3	9.1	3.8
14	---	---	8.9	6.8	5.5	3.7	6.2	3.3	4.4	3.4	5.3	3.0
15	---	---	8.6	6.6	5.3	3.4	5.9	3.4	5.2	4.1	6.7	3.4
16	---	---	8.5	6.5	3.9	3.1	---	---	6.1	4.7	7.0	3.8
17	---	---	7.9	5.7	5.7	3.2	---	---	6.4	4.7	7.4	3.5
18	---	---	8.7	6.1	6.3	4.9	7.4	3.9	6.3	4.6	6.5	3.1
19	---	---	7.0	5.7	5.9	3.4	7.4	3.7	6.0	4.0	8.0	4.2
20	---	---	7.6	5.3	8.6	5.8	5.0	2.3	4.9	4.0	7.7	4.1
21	---	---	8.5	4.8	6.5	5.6	5.8	4.7	6.4	3.9	8.3	3.5
22	---	---	7.7	4.1	6.4	5.2	6.0	4.8	9.1	4.8	7.6	1.6
23	---	---	7.1	4.2	6.2	5.1	6.1	4.5	6.9	4.6	6.0	4.5
24	---	---	7.1	5.1	6.6	4.7	5.7	4.1	6.0	3.6	5.8	3.6
25	---	---	7.2	5.6	6.8	4.9	4.7	3.7	6.0	3.6	6.3	3.4
26	---	---	6.9	4.2	6.2	4.3	4.5	3.2	7.1	3.3	6.2	3.4
27	---	---	7.1	5.8	6.2	4.4	4.4	3.1	7.6	3.0	6.4	3.2
28	---	---	7.1	5.6	6.7	5.1	4.3	2.8	7.5	2.8	5.6	2.8
29	---	---	6.6	5.4	7.0	5.5	4.4	2.4	8.5	2.9	4.3	2.8
30	---	---	8.7	5.1	6.7	5.0	4.0	2.0	8.5	3.2	6.0	4.1
31	---	---	5.2	3.2	---	---	3.0	2.1	7.7	3.1	---	---
MONTH	---	---	9.4	3.2	8.6	2.7	7.4	2.0	9.5	1.9	9.4	1.5

TEMPERATURE (°C) OF WATER, MAY TO SEPTEMBER 1973

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	22.5	16.5	24.0	19.0	23.5	21.5	26.0	23.0
2	---	---	17.5	16.0	23.0	17.5	25.5	20.5	24.0	21.0	26.5	22.5
3	---	---	16.0	12.0	22.5	18.5	25.5	21.5	24.0	20.5	25.5	22.5
4	---	---	11.5	10.0	23.5	19.5	23.0	21.0	24.0	20.0	25.0	22.0
5	---	---	16.5	9.5	24.5	19.5	24.5	19.5	25.0	20.5	24.5	22.0
6	---	---	16.0	11.0	21.5	20.0	24.5	19.5	24.0	21.0	24.5	22.0
7	---	---	17.5	13.5	23.0	18.0	25.5	21.0	24.0	21.5	22.0	19.0
8	---	---	17.0	15.0	25.0	18.5	26.0	21.0	25.0	21.0	22.0	19.0
9	---	---	20.5	15.0	25.5	21.0	25.5	22.0	26.0	22.5	21.0	18.5
10	---	---	19.0	15.0	26.5	21.0	24.5	22.5	24.5	22.0	21.0	17.0
11	---	---	18.0	13.5	26.5	21.5	24.5	21.0	24.0	21.0	20.5	18.0
12	---	---	17.0	14.5	25.0	22.5	23.0	18.5	23.5	20.5	21.0	17.5
13	---	---	15.0	13.0	25.5	21.0	26.0	20.0	24.0	21.5	20.5	16.5
14	---	---	18.0	12.5	25.0	19.0	25.5	22.0	23.0	20.5	20.0	18.5
15	---	---	17.0	13.0	25.0	19.0	24.5	21.5	23.0	20.0	21.0	17.5
16	---	---	17.5	12.0	24.5	21.5	---	---	24.0	19.5	20.5	18.0
17	---	---	16.0	12.5	23.0	20.0	---	---	24.5	21.5	20.0	17.5
18	---	---	18.0	12.0	25.5	20.0	24.5	21.0	24.0	21.0	19.0	16.0
19	---	---	16.5	14.0	25.5	21.0	24.5	20.5	23.5	20.5	18.0	14.5
20	---	---	16.5	13.0	22.5	19.5	24.0	22.0	23.0	21.0	18.5	16.5
21	---	---	20.0	13.0	24.0	20.0	22.0	21.0	22.5	19.5	19.0	15.5
22	---	---	19.0	15.5	24.0	20.0	24.0	20.5	21.0	18.0	22.0	18.5
23	---	---	18.0	16.0	24.5	20.0	24.5	21.0	21.0	17.0	21.0	18.0
24	---	---	17.5	16.0	22.5	18.5	24.0	22.0	22.0	19.5	20.5	17.5
25	---	---	18.5	16.0	24.5	19.0	25.0	22.0	23.5	19.5	21.5	18.0
26	---	---	19.0	14.0	24.5	21.0	25.0	22.5	24.5	21.0	22.5	20.0
27	---	---	18.0	16.5	23.0	20.0	25.5	22.0	26.5	23.0	22.5	19.0
28	---	---	21.0	17.0	20.5	18.5	25.0	22.0	27.0	23.5	22.5	21.0
29	---	---	19.5	16.5	22.0	17.0	23.5	20.5	26.0	23.5	22.5	19.5
30	---	---	19.0	17.5	22.5	18.0	24.0	19.5	25.5	23.0	20.5	18.0
31	---	---	21.0	15.5	---	---	23.5	21.5	25.5	22.5	---	---
MONTH	---	---	21.0	9.5	26.5	16.5	26.0	18.5	27.0	17.0	26.5	14.5

MUSKINGUM RIVER BASIN

03131500 BLACK FORK AT LOUDONVILLE, OHIO

LOCATION.--Lat 40°38'09", long 82°14'22", in NW 1/4 sec. 1, T.19 N., R.16 W., Ashland County, at gaging station on right bank on upstream side of bridge at Loudonville, 1.5 mi (2.4 km) downstream from Big Run. Water-quality recorder located just downstream from the gaging station, at Loudonville water treatment plant.

DRAINAGE AREA.--349 mi² (904 km²).

PERIOD OF RECORD.--Chemical analyses: October 1957 to September 1958, April 1968 to September 1973.
Water temperatures: April 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 767 micromhos Feb. 16; minimum, 254 micromhos Mar. 15.

pH: Maximum, 10.7 June 4; minimum, 6.0 Aug. 14.

Dissolved oxygen: Maximum, 14.9 mg/l Feb. 28; minimum, 1.9 mg/l July 31.

Water temperatures: Maximum, 25.0°C June 11, July 8-10; minimum, 0.5°C Dec. 16-18, Jan. 12, Feb. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
04...	1140	930	--	--	140	0	70	15	.2	--	--
31...	1200	225	--	--	216	0	69	23	.2	--	--
31...	1400	--	--	--	--	--	--	--	--	--	--
NOV.											
06...	0600	648	--	--	184	6	69	20	.2	--	--
21...	1100	1090	--	--	134	2	70	17	.2	--	--
DEC.											
11...	0800	921	--	--	150	2	69	22	.2	--	--
20...	1135	865	--	--	148	4	70	68	.2	--	--
JAN.											
05...	0800	847	--	--	156	0	61	23	.2	--	--
15...	0800	333	--	--	200	0	68	42	.2	--	--
FEB.											
05...	0800	902	--	--	152	0	63	26	.2	--	--
28...	1300	321	--	--	205	0	72	49	.2	--	--
MAR.											
05...	0800	462	--	--	190	0	68	41	.2	--	--
22...	1300	1200	--	--	123	0	49	21	.2	--	--
APR.											
05...	1355	924	--	--	142	0	55	25	.2	--	--
25...	1600	336	--	--	192	0	62	25	.2	--	--
MAY											
19...	--	249	--	--	194	4	72	32	.3	--	--
26...	1600	868	--	--	148	0	52	24	.3	--	--
JUNE											
08...	1550	--	--	--	--	--	--	--	--	--	--
17...	0930	571	--	--	185	0	59	37	.3	--	--
25...	1600	993	--	--	135	0	39	16	.3	--	--
JULY											
18...	0600	183	--	--	192	0	56	23	.4	--	--
26...	0600	462	--	--	163	0	50	20	.4	--	--
AUG.											
12...	0900	385	--	--	186	9	60	41	--	.4	.00
20...	1600	376	--	--	167	4	66	19	--	.2	.00
SEP.											
16...	1900	95	51	18	203	0	73	30	--	.3	.00
24...	0800	121	--	--	174	5	42	22	--	.3	.00

MUSKINGUM RIVER BASIN

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03131500 BLACK FORK AT LOUDONVILLE, OHIO--Continued

EXTREMES--Period of record:

Specific conductance (1970-73): Maximum, 1,030 micromhos Feb. 3, 1972; minimum, 84 micromhos Aug. 18, 1972.

pH (1971-73): Maximum, 10.7 June 4, 1973; minimum, 6.0 Aug. 14, 1973.

Dissolved oxygen (1971-73): Maximum, 14.9 mg/l Feb. 28, 1973; minimum, 1.7 mg/l Oct. 7, 1972.

Water temperatures (1971-73): Maximum, 25.5°C July 21, 22, 1972; minimum, 0.5°C Jan. 27, 29, Feb. 4, 5, 8, Dec. 16-18, 1972, Jan. 12, Feb. 17, 1973.

REMARKS--Water-quality recorder operated since April 1968. Maximum recorded pH of 10.9 occurred Mar. 15, 1971; minimum recorded pH of 4.7 occurred June 30, July 1, 1971. Minimum recorded dissolved oxygen concentration of 0.0 mg/l occurred July 30, 1970. Maximum recorded water temperature value of 28.0°C occurred July 12, 1969. Minimum recorded water temperature value of freezing point occurred Feb. 12-14, 17, 1970. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
04...	1.7	--	180	66	367	260	--	14.0	--	--
31...	1.6	--	240	63	523	330	--	10.0	--	--
31...	--	--	--	--	--	--	--	10.0	2.0	<.5
NOV.										
06...	1.5	--	230	69	493	312	--	9.0	--	--
21...	2.2	--	180	66	383	246	--	5.5	--	--
DEC.										
11...	2.0	--	190	64	424	278	--	3.0	--	--
20...	2.5	--	200	72	582	358	--	3.0	--	--
JAN.										
05...	1.9	--	200	72	443	270	--	4.0	--	--
15...	1.9	--	260	96	572	334	--	3.0	--	--
FEB.										
05...	2.2	--	200	76	455	274	--	4.0	--	--
28...	1.9	--	270	100	612	380	--	4.0	--	--
MAR.										
05...	1.4	--	250	94	554	372	--	7.0	--	--
22...	2.1	--	160	59	367	256	--	6.0	--	--
APR.										
05...	2.2	--	180	64	416	252	--	8.0	--	--
25...	1.4	--	230	72	484	300	--	13.5	--	--
MAY										
19...	1.3	--	240	74	513	324	--	13.0	--	--
26...	.20	--	180	59	384	244	--	17.0	--	--
JUNE										
08...	--	--	--	--	--	--	--	22.0	2.0	<.5
17...	1.9	--	220	68	515	310	--	22.0	--	--
25...	2.1	--	160	50	342	202	--	23.0	--	--
JULY										
18...	1.8	--	220	62	478	270	--	20.0	--	--
26...	1.2	--	190	56	415	242	--	23.0	--	--
AUG.										
12...	--	3.4	--	--	453	--	594	21.0	--	--
20...	--	1.5	--	--	447	--	393	23.0	--	--
SEP.										
16...	--	3.9	--	--	584	--	414	17.0	--	--
24...	--	1.6	--	--	450	--	308	17.0	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	294	270	547	397	577	478	501	444	580	505	623	578	
2	411	267	484	295	556	511	459	444	618	447	665	551	
3	405	363	466	370	535	517	474	405	465	423	590	551	
4	363	351	496	466	517	499	444	342	461	434	614	557	
5	366	351	526	496	559	511	435	414	461	446	578	542	
6	363	354	496	493	523	337	444	414	449	428	557	500	
7	389	354	496	451	469	400	441	429	428	419	515	491	
8	384	369	469	358	508	469	441	399	443	419	497	482	
9	387	354	445	418	598	478	447	384	563	434	485	473	
10	405	360	463	439	478	439	---	---	512	491	530	470	
11	450	393	454	394	439	409	477	438	497	479	512	455	
12	510	420	508	388	448	415	486	474	479	470	509	464	
13	435	411	421	379	469	469	492	483	500	479	479	458	
14	456	435	379	274	439	421	504	492	515	497	470	311	
15	465	453	406	343	448	436	552	501	585	510	353	254	
16	483	453	415	400	442	421	594	507	767	536	416	353	
17	498	468	415	397	444	423	588	540	635	572	413	359	
18	495	477	397	388	428	419	561	534	593	551	371	344	
19	501	477	388	370	448	421	543	525	569	542	413	359	
20	495	480	463	370	624	442	576	534	590	557	461	374	
21	501	486	391	382	513	453	555	525	650	563	395	359	
22	507	489	397	385	471	444	663	486	662	593	367	343	
23	537	480	421	394	465	447	552	501	653	605	362	353	
24	534	492	424	415	468	450	516	504	653	614	380	278	
25	504	498	424	418	450	432	522	504	629	599	377	365	
26	513	501	448	418	450	423	522	507	626	587	404	356	
27	522	501	490	442	579	429	591	489	692	587	407	386	
28	516	504	447	490	486	450	543	468	662	596	407	359	
29	537	507	493	469	462	447	516	435	---	---	413	401	
30	534	495	490	475	474	447	630	516	---	---	431	404	
31	526	504	---	---	501	459	531	492	---	---	413	410	
MONTH	537	267	547	274	624	337	663	342	767	419	665	254	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	428	413	476	434	384	372	429	408	463	433	519	504	
2	452	428	458	434	405	384	426	414	463	448	513	501	
3	458	446	452	413	438	402	477	408	511	463	507	492	
4	479	437	455	428	432	399	483	387	511	493	501	492	
5	476	416	467	446	447	402	444	411	502	487	510	492	
6	455	431	473	446	450	387	442	420	496	487	546	498	
7	464	455	473	440	468	408	451	436	508	487	543	528	
8	464	434	485	410	447	411	454	436	520	502	549	528	
9	440	395	482	428	450	441	439	430	532	487	543	513	
10	467	377	479	353	447	432	445	418	520	508	560	528	
11	494	419	---	---	432	414	469	442	523	469	560	542	
12	524	428	---	---	426	417	460	442	598	424	570	549	
13	461	395	---	---	453	426	493	460	462	433	570	561	
14	452	419	---	---	438	429	499	478	618	354	565	547	
15	452	431	468	459	447	438	499	487	411	315	565	547	
16	455	425	471	456	468	441	496	466	447	411	581	557	
17	479	443	489	468	507	267	478	466	438	423	587	566	
18	485	455	492	459	438	342	493	466	435	423	570	552	
19	491	452	510	483	444	375	508	475	435	429	579	552	
20	491	470	513	450	453	261	511	445	432	417	570	555	
21	518	461	471	444	423	396	559	343	480	423	575	554	
22	488	458	480	465	420	372	445	409	441	414	575	539	
23	485	455	480	450	384	351	430	421	468	441	625	406	
24	500	467	504	372	390	324	436	430	471	453	504	435	
25	506	470	444	417	336	324	451	427	477	465	535	504	
26	503	455	537	333	357	336	460	382	489	468	544	529	
27	521	437	435	396	381	357	436	388	492	474	548	539	
28	440	371	441	420	396	369	421	415	495	474	555	534	
29	467	377	423	378	459	354	427	418	507	486	555	516	
30	473	437	384	366	408	393	430	424	510	492	607	442	
31	---	---	402	360	---	---	433	424	531	492	---	---	
MONTH	524	371	537	333	507	261	559	343	618	315	625	406	
YEAR	767	254											

03131500 BLACK FORK AT LOUDONVILLE, OHIO--Continued
 PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY				MARCH			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.4	8.0	7.6	7.7	7.2	---	---	7.9	7.6	8.3	8.2	---	---	7.9	7.6	8.3	8.2	---	---	8.2	7.9	8.2	7.9
2	7.7	7.5	7.7	7.5	7.8	7.2	---	---	7.6	6.9	7.9	6.9	---	---	7.6	6.9	7.9	6.9	---	---	7.8	7.9	7.8	7.8
3	7.6	7.6	8.1	7.5	7.7	7.6	---	---	7.7	7.5	7.7	7.5	---	---	7.7	7.5	7.7	7.5	---	---	7.8	7.9	7.8	7.8
4	7.6	6.4	8.1	7.5	7.6	7.5	---	---	7.8	7.8	8.1	7.8	---	---	7.8	7.7	8.1	7.8	---	---	8.1	7.8	8.0	8.0
5	7.3	6.5	8.2	7.5	7.6	7.5	---	---	---	---	---	---	---	---	7.9	7.8	8.2	8.0	---	---	8.2	8.0	---	---
6	7.4	6.9	8.0	7.2	7.7	7.1	---	---	7.9	7.6	8.2	7.6	---	---	7.9	7.6	8.2	8.1	---	---	8.1	7.7	7.6	7.6
7	7.7	7.7	8.0	7.7	7.8	7.4	---	---	7.7	7.4	8.1	7.6	---	---	7.6	7.4	8.1	7.7	---	---	7.7	7.9	7.6	7.3
8	7.7	7.7	7.7	7.5	7.8	7.7	---	---	7.7	7.7	7.9	7.7	---	---	7.6	7.4	7.9	7.6	---	---	7.7	7.9	7.6	7.3
9	7.7	7.7	7.8	7.7	7.7	7.7	---	---	---	---	---	---	---	---	8.0	7.4	7.7	7.4	---	---	7.7	7.9	7.6	7.3
10	7.9	7.8	7.9	7.8	7.7	7.5	---	---	---	---	---	---	---	---	8.1	7.9	7.9	7.4	---	---	7.7	7.7	7.3	7.3
11	7.6	7.7	7.8	7.7	7.7	7.6	---	---	---	---	---	---	---	---	8.1	7.9	7.9	7.6	---	---	7.4	7.7	7.4	7.8
12	7.7	6.1	7.7	7.6	7.7	7.5	---	---	---	---	---	---	---	---	8.0	7.9	7.9	7.4	---	---	7.8	7.8	7.5	7.8
13	7.8	7.1	7.7	7.6	7.5	7.0	---	---	---	---	---	---	---	---	8.0	7.9	7.9	7.9	---	---	7.9	7.9	7.8	7.8
14	7.8	7.3	7.6	7.5	7.6	7.2	---	---	---	---	---	---	---	---	7.9	7.7	7.9	7.7	---	---	7.9	7.9	7.8	7.8
15	7.9	7.7	7.6	7.3	7.6	7.5	---	---	---	---	---	---	---	---	8.6	7.6	8.6	7.6	---	---	8.0	7.7	7.7	7.7
16	8.1	7.8	7.9	7.8	7.6	7.5	---	---	---	---	---	---	---	---	8.8	8.6	8.8	8.6	---	---	8.1	7.8	7.8	7.8
17	7.9	7.7	7.7	7.4	7.6	7.5	---	---	---	---	---	---	---	---	8.8	8.3	8.7	8.4	---	---	8.0	8.0	8.1	8.0
18	7.9	7.8	7.8	7.7	7.7	7.4	---	---	---	---	---	---	---	---	8.8	8.3	8.7	8.4	---	---	8.3	8.3	8.2	8.2
19	8.0	7.9	7.8	7.7	7.7	7.4	---	---	---	---	---	---	---	---	8.7	8.5	8.7	8.5	---	---	8.4	8.4	8.3	8.3
20	8.0	7.9	7.8	7.7	7.7	7.4	---	---	7.7	7.4	7.7	7.4	---	---	8.5	8.4	8.4	8.4	---	---	8.4	8.4	8.4	8.4
21	8.0	7.9	7.8	7.7	7.4	7.4	---	---	7.4	7.4	7.8	7.6	---	---	8.5	8.4	8.4	8.4	---	---	8.4	8.4	8.3	8.3
22	8.0	7.9	7.8	7.8	7.4	7.1	---	---	7.7	7.4	7.7	7.4	---	---	8.6	8.4	8.7	8.4	---	---	8.1	8.1	8.1	8.0
23	7.9	7.7	7.8	7.7	---	---	---	---	7.5	7.4	7.5	7.4	---	---	8.5	8.4	8.7	8.5	---	---	8.0	8.0	7.9	7.9
24	7.8	7.6	7.8	7.0	---	---	---	---	7.6	7.5	7.5	7.4	---	---	8.5	8.4	8.6	8.4	---	---	7.9	7.9	7.8	7.8
25	7.9	7.3	7.7	7.0	---	---	---	---	7.7	7.5	7.7	7.5	---	---	8.6	8.4	8.4	8.4	---	---	8.4	8.4	8.2	8.2
26	8.0	7.2	7.8	7.0	---	---	---	---	7.5	7.4	7.5	7.4	---	---	8.5	8.3	8.2	8.3	---	---	8.2	8.1	8.0	8.0
27	8.0	7.9	7.8	7.8	---	---	---	---	7.3	7.2	7.3	7.2	---	---	8.6	8.3	8.1	8.1	---	---	8.0	8.0	8.1	8.0
28	7.9	7.7	7.8	7.7	---	---	---	---	7.5	7.3	7.5	7.3	---	---	8.4	8.2	8.0	8.0	---	---	7.9	7.9	7.8	7.8
29	7.8	7.6	7.8	7.7	---	---	---	---	7.9	7.3	7.9	7.3	---	---	---	---	---	---	---	---	7.8	7.8	7.6	7.6
30	7.9	7.5	7.8	7.7	---	---	---	---	8.0	7.8	7.9	7.8	---	---	---	---	---	---	---	---	7.8	7.8	7.6	7.6
31	8.1	7.5	---	---	---	---	---	---	8.0	7.9	---	---	---	---	---	---	---	---	---	---	7.7	7.7	7.4	7.4
MONTH	8.1	6.1	8.2	7.0	---	---	---	---	---	---	---	---	---	---	8.8	6.9	8.7	7.0	---	---	8.7	7.0	---	---
YEAR	10.7	6.0	8.9	6.7	10.7	6.3	---	---	---	---	---	---	---	---	8.0	6.0	8.1	6.5	---	---	---	---	---	---

APRIL

MAY

JUNE

JULY

AUGUST

SEPTEMBER

MONTH

YEAR

03131500 BLACK PORK AT LOUDONVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.1	8.4	9.0	7.7	12.9	12.7	12.0	10.7	13.5	12.8	14.2	11.3
2	9.1	8.7	8.8	5.9	12.9	12.5	12.0	11.8	12.8	12.1	11.3	10.0
3	8.9	8.6	10.7	8.3	12.5	12.1	12.0	11.4	13.1	12.1	10.7	9.6
4	8.8	8.1	11.6	10.2	12.6	12.2	11.5	10.1	13.1	12.9	11.7	9.6
5	8.2	8.0	12.7	11.5	12.5	12.3	11.9	11.0	13.5	12.8	12.2	10.6
6	8.2	8.0	12.5	11.7	12.3	9.3	11.9	11.5	12.8	12.4	12.7	11.6
7	8.4	7.9	11.7	11.0	13.5	12.2	12.1	11.8	12.5	12.2	11.9	10.8
8	8.3	8.1	11.7	10.6	13.4	13.1	12.0	11.7	12.6	12.0	11.6	10.5
9	9.0	8.2	12.2	11.7	13.1	12.8	11.8	11.5	13.1	12.5	11.3	10.2
10	9.5	8.8	12.4	11.7	13.3	12.8	---	---	13.4	12.7	10.5	9.8
11	9.4	8.7	12.3	11.9	13.6	13.3	13.3	13.0	14.0	12.6	10.4	9.2
12	8.7	7.3	12.3	12.0	13.8	12.6	13.4	12.8	13.5	12.7	10.3	9.1
13	9.0	7.8	12.5	12.2	13.1	12.1	13.4	12.7	13.5	12.5	10.8	9.9
14	9.5	8.4	12.5	11.9	13.2	13.0	12.9	12.2	12.8	12.0	10.4	7.2
15	9.6	8.4	13.2	12.0	13.4	12.8	12.5	12.2	12.1	11.3	8.6	7.3
16	9.6	7.6	13.3	13.1	13.6	13.0	12.7	12.2	13.7	12.1	9.5	6.8
17	9.6	8.2	13.1	12.1	13.7	13.2	12.7	12.1	14.0	12.8	10.4	8.1
18	9.4	8.8	13.3	12.8	13.6	13.2	12.7	12.0	14.1	12.7	10.9	10.4
19	9.9	8.9	13.3	12.7	12.8	12.2	12.1	11.9	13.9	12.7	11.1	10.8
20	10.3	9.4	12.9	12.5	12.2	11.6	12.8	11.9	13.1	12.4	11.0	9.7
21	9.6	8.9	13.3	12.9	11.8	11.4	13.2	12.6	13.4	12.3	10.1	9.7
22	9.5	8.4	13.0	12.8	11.5	11.3	12.7	11.8	13.9	12.6	11.4	9.8
23	9.6	7.5	13.3	13.0	11.6	11.4	12.8	12.0	13.5	12.5	10.5	9.1
24	8.6	7.3	13.5	13.2	11.8	11.5	13.2	12.7	13.7	12.2	10.6	9.0
25	9.5	8.3	13.3	12.9	11.7	11.5	13.3	12.6	13.8	12.3	10.4	8.6
26	10.0	8.4	12.9	12.7	11.8	11.5	13.0	12.2	13.4	11.8	10.1	8.7
27	10.1	8.7	13.5	12.9	11.6	11.5	12.2	11.5	13.7	12.1	9.9	8.9
28	8.9	7.9	13.5	13.2	11.6	11.5	12.5	12.0	14.9	12.1	10.4	9.1
29	8.6	7.2	13.7	13.3	12.2	11.5	13.8	12.4	---	---	9.8	9.4
30	10.8	7.4	13.3	12.9	11.7	11.2	14.2	13.5	---	---	10.3	9.1
31	10.7	9.0	---	---	11.1	10.6	14.0	13.3	---	---	10.0	9.2
MONTH	10.8	7.2	13.7	5.9	13.8	9.3	14.2	10.1	14.9	11.3	14.2	6.8
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.7	8.8	8.6	6.8	7.9	7.2	7.6	6.9	7.1	5.8	6.9	5.4
2	9.1	8.5	8.0	7.0	7.8	7.1	7.8	7.1	8.1	5.9	6.9	5.4
3	8.7	7.9	7.8	6.4	7.8	7.0	7.4	6.1	7.8	6.4	7.1	5.4
4	9.2	8.2	8.5	6.3	7.8	6.6	7.3	5.4	8.4	5.9	8.7	5.8
5	10.7	8.7	9.2	7.7	7.9	6.7	7.8	6.2	8.3	5.5	8.6	6.4
6	11.3	10.3	9.1	7.2	7.3	6.0	8.8	6.9	8.1	6.1	8.3	6.1
7	11.0	8.6	8.7	7.0	7.5	7.0	8.3	6.7	7.4	5.8	9.3	6.5
8	10.0	8.3	7.0	5.9	8.4	7.1	8.0	6.3	7.0	5.2	8.9	7.0
9	9.2	8.2	6.8	5.7	8.5	6.5	8.4	6.2	6.1	4.9	8.4	7.0
10	8.6	7.3	6.7	5.4	7.6	6.2	7.4	6.1	5.5	4.1	8.4	7.3
11	9.6	7.8	6.7	4.7	7.0	5.9	7.4	5.7	5.8	4.4	7.9	6.3
12	9.4	8.6	9.3	5.6	6.3	5.7	7.9	6.3	5.2	4.0	8.1	6.3
13	9.6	8.2	7.9	6.2	6.5	5.3	7.9	6.3	7.2	4.9	8.9	6.6
14	9.4	7.8	7.7	5.9	7.3	6.0	8.4	6.2	6.6	3.6	7.3	6.4
15	9.2	8.1	7.0	5.7	7.7	5.6	8.9	6.5	6.0	3.4	7.9	6.0
16	8.5	7.7	7.0	5.8	6.1	5.3	10.2	7.1	7.3	6.0	6.9	5.4
17	7.9	7.3	6.8	5.5	6.7	4.2	9.3	6.8	7.7	5.7	7.8	5.8
18	7.9	7.3	7.4	6.1	6.4	5.9	10.2	6.6	7.7	6.1	7.4	6.2
19	8.3	6.8	6.4	5.9	6.4	5.8	10.0	6.1	7.7	6.1	8.1	6.5
20	8.5	6.6	6.2	5.5	5.9	2.0	7.2	5.9	7.8	6.0	7.9	6.6
21	7.9	6.1	7.4	6.1	6.5	5.5	5.9	2.6	7.1	6.0	8.7	6.9
22	7.4	5.7	6.9	6.1	6.9	6.2	6.4	5.0	8.0	6.6	8.0	6.5
23	7.0	5.4	6.7	5.8	6.8	6.5	7.9	5.7	8.7	6.8	---	---
24	7.9	5.8	6.4	4.8	6.8	6.5	7.3	6.3	8.5	6.6	8.0	6.6
25	10.2	5.9	7.4	6.3	7.2	6.8	6.9	6.0	8.3	6.9	8.1	6.1
26	8.7	6.2	6.9	3.9	7.1	6.6	7.2	5.7	8.2	6.0	7.9	5.4
27	7.3	5.6	7.4	6.6	6.9	6.6	8.1	5.7	7.8	4.6	8.3	5.6
28	8.2	6.5	7.8	6.6	7.0	6.8	8.7	6.4	8.1	4.8	7.7	5.6
29	9.4	6.9	7.6	6.6	7.3	6.0	8.5	6.4	7.6	5.7	6.3	5.5
30	9.2	7.5	7.7	7.0	7.7	7.1	9.0	6.5	7.4	5.5	6.1	3.4
31	---	---	7.6	6.9	---	---	6.9	1.9	7.3	5.4	---	---
MONTH	11.3	5.4	9.3	3.9	8.5	2.0	10.2	1.9	8.7	3.4	9.3	3.4
YEAR	14.9	1.9										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	13.5	10.5	9.5	4.0	3.5	6.0	4.0	4.5	3.0	6.5	3.5
2	15.5	14.0	13.5	10.5	4.5	3.5	4.0	3.0	5.5	4.5	8.0	6.0
3	15.0	14.0	12.0	10.5	5.0	4.5	3.5	2.5	5.0	3.0	8.0	7.0
4	14.5	14.0	10.5	10.0	4.5	4.0	4.5	3.5	4.0	2.5	7.5	7.0
5	15.5	14.5	10.0	9.0	5.5	4.5	3.5	3.0	4.0	3.5	7.5	6.5
6	15.5	15.0	9.5	8.0	8.0	4.5	3.0	1.5	4.5	4.0	8.0	5.5
7	15.5	9.5	9.5	9.0	4.5	3.0	1.5	1.0	4.5	4.0	9.0	7.0
8	15.0	13.5	10.0	9.0	3.5	3.0	1.5	1.0	4.5	3.0	9.5	7.5
9	14.0	12.5	8.5	8.5	4.0	3.5	1.5	1.0	3.0	2.0	9.5	8.5
10	13.0	12.0	8.5	8.0	3.5	2.5	---	---	2.0	1.0	11.5	9.0
11	13.5	11.5	8.5	8.0	2.5	2.0	1.5	1.0	2.5	1.5	12.0	10.5
12	14.0	13.0	8.0	7.5	3.5	2.0	2.0	0.5	3.0	1.0	12.0	10.0
13	13.5	12.5	7.5	7.0	4.0	3.0	2.5	1.0	4.0	1.5	10.5	10.0
14	13.0	12.0	7.5	7.0	3.0	2.5	3.5	2.0	4.5	4.0	12.0	10.0
15	13.0	11.5	7.0	6.0	2.5	1.5	4.0	3.0	4.5	2.5	13.5	12.0
16	12.0	11.5	6.5	6.0	1.5	0.5	4.0	3.5	2.5	1.5	12.5	10.5
17	12.0	11.0	6.0	5.5	1.0	0.5	5.0	3.5	2.5	0.5	10.5	7.5
18	10.5	9.0	5.5	5.5	2.0	0.5	6.0	4.5	3.5	1.0	7.5	6.0
19	9.0	8.5	5.5	5.0	2.5	2.0	6.0	5.0	4.5	3.0	7.0	6.0
20	9.0	7.5	5.5	5.0	3.5	2.5	5.0	3.5	4.0	3.5	7.0	5.5
21	9.0	8.0	5.0	4.5	3.5	3.0	4.0	2.5	4.0	3.0	6.5	5.5
22	11.0	9.0	5.0	4.5	4.0	3.5	5.5	4.0	3.0	2.0	6.0	5.0
23	12.0	11.0	4.5	4.0	4.0	3.5	5.0	3.5	4.0	3.0	6.5	4.5
24	12.0	10.5	4.0	3.5	3.5	3.5	4.0	3.0	4.5	3.0	7.5	5.5
25	10.0	9.5	4.0	3.5	3.5	3.5	4.5	3.0	4.5	3.0	6.5	6.5
26	10.0	8.5	4.0	3.5	3.5	3.0	5.5	4.0	4.5	3.5	7.0	6.5
27	10.0	8.0	4.0	3.5	3.5	3.0	6.0	5.5	4.0	3.0	8.5	6.5
28	11.5	10.0	4.0	3.5	3.5	3.0	5.5	4.0	4.5	2.5	8.5	7.0
29	11.5	10.5	3.5	3.0	4.0	3.0	4.0	1.5	---	---	9.5	8.0
30	10.5	9.5	4.0	3.0	5.5	4.0	2.0	1.0	---	---	10.0	9.0
31	9.5	9.0	---	---	6.5	5.5	3.0	1.0	---	---	10.5	9.5
MONTH	15.5	7.5	13.5	3.0	8.0	0.5	6.0	0.5	5.5	0.5	13.5	3.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	10.0	13.5	12.5	20.0	17.5	22.0	19.5	22.0	21.0	23.5	22.0
2	11.5	10.5	14.0	13.0	20.5	18.5	23.0	20.5	22.0	20.5	23.5	21.5
3	11.0	10.5	14.0	12.0	20.5	18.5	23.5	21.0	21.0	19.5	23.0	21.0
4	10.5	9.0	12.0	10.5	21.5	18.5	23.5	23.0	21.5	19.0	22.5	21.5
5	9.0	7.5	13.0	9.5	22.5	20.5	23.5	21.5	21.5	19.5	22.0	21.0
6	10.0	7.0	13.0	10.5	21.0	20.0	24.0	21.5	21.5	19.5	21.5	20.5
7	10.0	8.5	14.5	12.0	22.0	19.0	24.5	22.5	22.0	19.5	20.5	18.5
8	9.5	8.5	14.5	13.0	23.0	20.0	25.0	22.0	22.5	20.0	19.5	17.5
9	9.0	8.0	17.0	13.5	23.5	21.0	25.0	24.0	23.0	21.0	18.0	17.0
10	8.0	7.0	16.5	15.0	24.5	23.0	25.0	24.0	22.0	21.0	18.0	15.5
11	8.0	6.0	16.0	13.5	25.0	23.0	24.0	22.5	22.0	20.0	17.0	16.0
12	8.0	6.0	18.5	14.5	24.5	23.5	23.0	20.5	22.5	20.5	17.5	15.5
13	9.0	6.5	15.5	13.5	24.5	22.5	23.0	20.0	22.0	20.5	16.5	14.5
14	10.0	6.5	16.0	13.0	24.0	21.5	23.5	21.5	21.5	20.5	17.0	16.0
15	11.0	7.0	15.5	13.5	24.0	21.5	22.5	21.5	22.0	20.5	17.5	15.0
16	11.0	9.0	15.5	12.5	23.5	21.5	22.0	20.0	23.0	20.5	17.5	16.0
17	11.5	10.5	14.5	13.0	23.0	21.0	21.5	19.0	24.5	22.5	17.5	15.5
18	12.0	11.0	14.5	11.5	23.5	20.5	22.5	19.5	24.5	23.5	17.0	14.5
19	14.0	11.5	14.0	12.5	23.5	22.0	22.5	20.0	24.0	23.0	15.0	13.0
20	16.0	12.0	14.0	12.5	22.5	20.0	21.5	20.5	23.5	22.5	15.0	13.5
21	16.5	14.0	16.5	12.5	24.5	22.5	21.0	20.5	23.0	20.5	15.5	13.5
22	16.0	15.5	16.0	14.5	24.0	23.0	22.5	20.5	20.5	19.0	18.0	15.0
23	15.5	14.0	15.5	14.5	24.0	23.0	23.0	21.0	20.0	18.0	19.0	17.0
24	16.0	13.0	15.5	15.0	23.5	22.0	23.0	22.0	20.0	19.0	18.0	16.5
25	15.0	13.0	16.5	15.5	23.5	21.5	23.5	21.5	21.0	18.5	18.0	16.0
26	14.5	12.0	17.5	15.0	23.0	22.0	23.5	23.0	22.0	19.5	19.0	17.5
27	14.0	11.0	17.5	17.0	22.0	21.5	24.0	22.0	23.0	20.5	19.0	17.0
28	11.0	9.5	19.0	17.0	21.5	20.5	24.0	22.5	24.0	21.5	19.0	18.0
29	11.0	9.0	18.0	17.0	21.0	19.0	23.5	22.0	24.0	22.0	18.5	18.0
30	13.5	10.5	18.0	17.5	21.0	19.0	23.5	21.0	23.5	22.0	18.5	17.5
31	---	---	19.0	17.0	---	---	22.5	21.5	23.5	21.5	---	---
MONTH	16.5	6.0	19.0	9.5	25.0	17.5	25.0	19.0	24.5	18.0	23.5	13.0
YEAR	25.0	0.5										

MUSKINGUM RIVER BASIN

03140600 MUSKINGUM RIVER AT CONESVILLE, OHIO

LOCATION.--Lat 40°11'08", long 81°53'07", Coshocton County, on left bank 150 ft (46 m) downstream from NY, Chicago and St. Louis Railroad Bridge, 0.4 mi (0.6 km) upstream from Columbus and Southern Ohio Power Co. outlet, 0.4 mi (0.6 km) east of Conesville and 3.2 mi (5.1 km) upstream from Wills Creek.

DRAINAGE AREA.--4,878 mi² (12,634 km²).

PERIOD OF RECORD.--Chemical analyses: June to September 1973.
Water temperatures: June to September 1973.

REMARKS.--Water-quality recorder operated since June 1973. Maximum recorded specific conductance value of 1,600 micromhos occurred Sept. 25, 1973. Minimum recorded specific conductance value of 386 micromhos occurred June 21, 1973. Maximum recorded pH value of 9.1 occurred Aug. 1, 1973. Minimum recorded pH value of 6.1 occurred Aug. 17, 1973. Maximum recorded dissolved oxygen value of 12.7 mg/l occurred July 19, 1973. Minimum recorded dissolved oxygen value of 0.9 mg/l occurred Aug. 16, 1973. Maximum recorded water temperature of 27.5°C occurred July 9, 1973. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder samples were collected by a local observer on an approximate once-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected once during the period to further define the quality of water.

CHEMICAL ANALYSES, JUNE TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
JUNE										
18...	1315	--	--	122	0	93	64	.2	--	--
JULY										
19...	1200	--	--	113	0	130	160	.6	--	--
AUG.										
01...	1310	69	18	157	0	110	90	--	.3	.00
SEP.										
26...	1230	150	23	417	0	160	310	--	.7	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
JUNE										
18...	1.8	--	230	130	596	396	--	21.5	12	<.5
JULY										
19...	1.7	--	330	240	942	594	--	24.0	--	--
AUG.										
01...	--	1.9	--	--	786	--	603	22.5	--	--
SEP.										
26...	--	2.2	--	--	1551	--	1160	21.0	--	--

03140600 MUSKINGUM RIVER AT CONESVILLE, OHIO--CONTINUED

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), JUNE TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	615	600	856	727	738	705	1100	1010
2	---	---	---	---	671	606	757	724	825	738	1180	1100
3	---	---	---	---	662	608	802	751	888	825	1280	1170
4	---	---	---	---	692	651	786	765	978	888	1290	1210
5	---	---	---	---	1500	633	782	740	1060	972	1280	1060
6	---	---	---	---	1500	1500	786	755	1190	1050	1140	1040
7	---	---	---	---	1500	1500	851	772	1220	954	1090	999
8	---	---	---	---	1500	1500	907	850	957	855	1250	1050
9	---	---	---	---	1500	1410	943	907	948	879	1360	1250
10	---	---	---	---	1460	677	934	929	1030	921	1370	987
11	---	---	---	---	801	737	934	732	1080	1030	1110	975
12	---	---	---	---	744	723	903	808	1140	1080	1160	1090
13	---	---	---	---	737	641	903	840	1140	1040	1120	1080
14	---	---	---	---	827	689	863	803	1100	924	1110	1070
15	---	---	---	---	905	831	964	871	945	723	1160	980
16	---	---	---	---	866	822	1000	913	891	711	1220	1130
17	---	---	---	---	860	710	913	838	954	771	1260	1210
18	---	---	---	---	728	564	993	846	810	723	1310	1250
19	---	---	---	---	717	548	1060	891	831	735	1330	1210
20	---	---	---	---	627	390	1070	915	855	816	1250	1210
21	---	---	---	---	434	386	1100	923	894	852	1300	1230
22	---	---	---	---	572	434	1500	860	1090	885	1280	1240
23	---	---	---	---	595	544	1500	977	1340	1090	1290	1210
24	---	---	---	---	614	584	1210	924	1330	936	1520	1220
25	---	---	---	---	649	588	945	716	999	942	1600	1510
26	---	---	---	---	844	649	741	677	1050	972	1530	1250
27	---	---	---	---	983	711	711	516	987	906	1250	1100
28	---	---	---	---	726	648	1070	650	1030	975	1210	1150
29	---	---	---	---	710	682	1060	572	1010	969	1260	1220
30	---	---	---	---	843	705	603	584	1010	969	1280	1040
31	---	---	---	---	---	---	641	603	1050	1010	---	---
MONTH	---	---	---	---	1500	386	1500	516	1340	705	1600	976

PH (UNITS), JUNE TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	7.2	7.0	8.0	7.7	9.1	8.0	8.0	6.9
2	---	---	---	---	7.2	7.0	8.2	7.8	8.8	7.7	8.1	6.8
3	---	---	---	---	7.6	7.1	8.4	7.9	8.0	7.2	8.2	6.9
4	---	---	---	---	7.5	7.0	8.3	7.9	8.0	7.2	8.1	6.8
5	---	---	---	---	7.8	7.2	8.4	7.8	7.9	7.1	7.8	6.9
6	---	---	---	---	7.7	7.5	8.5	7.7	7.8	7.0	7.3	6.9
7	---	---	---	---	7.6	7.5	8.7	7.7	7.9	6.9	7.4	7.0
8	---	---	---	---	7.7	7.5	8.5	7.7	8.0	7.2	7.5	7.1
9	---	---	---	---	7.8	7.6	8.1	7.7	8.1	7.2	7.7	6.9
10	---	---	---	---	7.9	7.7	8.3	7.5	8.0	7.1	8.1	7.0
11	---	---	---	---	8.1	7.7	8.0	7.6	8.0	7.2	8.0	7.1
12	---	---	---	---	8.0	7.8	8.0	7.7	7.9	7.0	8.0	7.1
13	---	---	---	---	7.8	7.7	8.7	7.6	7.4	6.9	7.9	7.1
14	---	---	---	---	8.0	7.6	8.7	7.6	7.2	6.5	7.8	7.1
15	---	---	---	---	8.5	7.8	8.5	7.5	7.1	6.2	7.8	7.1
16	---	---	---	---	8.5	8.3	8.4	7.5	6.9	6.3	7.7	7.1
17	---	---	---	---	8.1	7.9	8.4	7.5	6.9	6.1	7.7	7.0
18	---	---	---	---	7.9	7.5	8.5	7.6	7.2	6.6	7.6	7.0
19	---	---	---	---	7.6	7.5	8.6	7.7	7.5	6.8	7.6	7.1
20	---	---	---	---	7.6	7.5	8.2	7.5	7.7	6.8	7.6	7.2
21	---	---	---	---	7.6	7.5	7.6	7.4	7.7	7.4	7.7	7.3
22	---	---	---	---	7.7	7.6	8.0	7.4	7.7	7.3	7.8	7.4
23	---	---	---	---	7.7	7.7	8.3	7.5	7.6	7.1	8.0	7.5
24	---	---	---	---	7.9	7.7	8.1	7.6	7.5	7.1	8.0	7.5
25	---	---	---	---	7.9	7.7	8.2	7.6	7.8	7.1	8.1	7.7
26	---	---	---	---	8.0	7.8	8.1	7.6	7.8	7.2	8.0	7.8
27	---	---	---	---	7.9	7.7	7.8	7.5	7.8	7.0	8.5	7.8
28	---	---	---	---	7.8	7.7	7.7	7.5	7.9	6.9	8.3	7.5
29	---	---	---	---	8.0	7.7	7.6	7.4	7.8	7.1	7.7	6.7
30	---	---	---	---	7.9	7.7	8.1	7.5	7.5	7.0	8.2	7.5
31	---	---	---	---	---	---	8.0	7.7	7.9	6.9	---	---
MONTH	---	---	---	---	8.5	7.0	8.7	7.4	9.1	6.1	8.5	6.7

MUSKINGUM RIVER BASIN

03140600 MUSKINGUM RIVER AT CONESVILLE, OHIO---CONTINUED

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, JUNE TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	8.5	7.5	6.2	5.1	7.3	6.0	9.3	4.5
2	---	---	---	---	8.4	6.5	9.2	6.0	8.7	5.0	9.6	3.6
3	---	---	---	---	7.2	6.5	8.6	5.5	7.1	4.8	9.7	3.6
4	---	---	---	---	7.0	6.9	7.5	5.1	7.7	4.1	9.2	2.6
5	---	---	---	---	7.0	6.0	7.1	4.6	7.7	3.9	7.0	2.5
6	---	---	---	---	6.1	5.4	8.0	4.9	6.4	3.5	4.4	2.4
7	---	---	---	---	5.8	5.3	9.5	4.8	6.8	3.2	4.9	3.2
8	---	---	---	---	6.6	5.4	8.6	5.5	6.6	3.2	5.3	3.2
9	---	---	---	---	7.2	6.0	5.6	3.7	6.9	3.2	7.6	4.5
10	---	---	---	---	7.5	5.7	4.3	3.0	5.8	3.4	10.5	5.1
11	---	---	---	---	7.5	5.4	6.5	2.9	6.1	2.7	9.2	5.5
12	---	---	---	---	7.2	5.4	6.5	5.2	5.7	2.8	11.1	5.2
13	---	---	---	---	7.1	5.8	9.5	5.5	3.8	2.3	10.7	5.6
14	---	---	---	---	8.1	6.3	9.9	5.2	2.9	1.7	8.8	5.1
15	---	---	---	---	7.3	6.4	8.6	4.5	2.3	1.2	10.0	4.8
16	---	---	---	---	7.6	6.9	8.9	4.4	1.2	0.9	9.0	5.1
17	---	---	---	---	8.9	7.0	9.0	4.7	2.0	1.0	8.9	4.9
18	---	---	---	---	7.0	6.1	10.1	4.8	3.1	1.9	8.2	5.2
19	---	---	---	---	6.5	5.8	12.7	5.3	4.6	2.7	9.5	5.7
20	---	---	---	---	6.6	5.8	10.8	5.2	6.4	3.1	8.6	6.5
21	---	---	---	---	6.9	6.6	5.6	4.7	6.8	4.8	9.8	6.4
22	---	---	---	---	6.9	6.7	7.5	4.0	7.1	4.6	9.5	7.2
23	---	---	---	---	6.8	6.2	9.7	5.7	6.5	4.4	9.5	7.1
24	---	---	---	---	7.0	6.1	8.4	6.0	5.3	3.9	9.9	7.8
25	---	---	---	---	6.8	6.4	8.1	5.7	6.0	3.7	10.0	8.0
26	---	---	---	---	7.2	6.6	8.1	6.7	5.9	3.4	9.2	8.5
27	---	---	---	---	6.5	5.6	7.3	5.5	6.8	2.7	---	---
28	---	---	---	---	5.7	5.1	6.4	4.7	7.6	3.7	---	---
29	---	---	---	---	6.5	5.5	5.4	4.3	7.1	3.5	---	---
30	---	---	---	---	6.0	5.2	7.1	4.9	7.2	3.9	---	---
31	---	---	---	---	---	---	6.2	4.8	9.7	4.2	---	---
MONTH	---	---	---	---	8.9	5.1	12.7	2.9	9.7	0.9	11.1	2.4

TEMPERATURE (°C) OF WATER, JUNE TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	18.5	18.0	23.0	20.5	23.0	22.5	27.0	25.0
2	---	---	---	---	19.5	18.0	24.5	22.0	24.0	22.0	27.0	25.5
3	---	---	---	---	20.0	19.0	25.5	23.0	23.5	22.0	27.0	25.5
4	---	---	---	---	20.5	20.0	26.0	24.0	24.0	22.0	27.0	25.5
5	---	---	---	---	22.0	20.0	26.0	24.0	24.5	22.5	26.5	25.0
6	---	---	---	---	22.0	21.0	25.5	23.5	24.5	23.0	25.5	24.5
7	---	---	---	---	21.5	20.0	26.5	23.5	25.0	23.5	24.5	22.5
8	---	---	---	---	22.0	20.0	26.5	24.5	25.5	24.0	23.0	22.0
9	---	---	---	---	23.5	21.5	27.5	25.5	26.0	24.5	22.5	20.5
10	---	---	---	---	24.5	22.5	27.0	25.0	25.5	24.5	21.0	19.0
11	---	---	---	---	25.5	23.5	25.5	24.5	25.5	24.0	20.5	19.0
12	---	---	---	---	25.0	24.5	24.5	22.5	26.0	24.5	20.5	18.5
13	---	---	---	---	24.5	23.0	25.0	22.0	25.0	24.0	19.5	18.0
14	---	---	---	---	24.0	22.0	26.0	23.5	24.0	23.0	20.5	19.0
15	---	---	---	---	25.0	21.5	26.0	25.0	23.0	22.0	20.5	18.5
16	---	---	---	---	26.5	24.0	25.5	24.0	22.5	21.5	20.5	19.0
17	---	---	---	---	24.0	23.0	25.5	23.5	23.0	22.0	20.0	18.5
18	---	---	---	---	23.0	22.0	25.5	23.5	23.5	22.0	19.5	17.5
19	---	---	---	---	23.5	22.0	25.0	24.0	24.0	22.0	17.5	16.0
20	---	---	---	---	23.5	22.5	24.5	24.0	23.5	22.5	17.0	15.5
21	---	---	---	---	23.0	21.5	24.0	22.5	23.0	21.5	17.5	15.5
22	---	---	---	---	23.5	22.0	23.0	22.0	22.0	20.0	19.0	17.0
23	---	---	---	---	23.5	22.5	24.5	22.0	21.5	19.5	20.5	18.5
24	---	---	---	---	23.5	22.5	24.0	23.5	21.5	20.0	20.5	19.0
25	---	---	---	---	24.0	22.5	24.0	23.0	22.5	20.5	20.5	19.5
26	---	---	---	---	24.5	22.5	24.5	23.5	23.5	22.0	21.0	19.5
27	---	---	---	---	24.0	22.5	24.5	23.0	25.0	23.0	21.5	19.5
28	---	---	---	---	22.5	21.0	24.5	23.5	26.0	24.5	21.5	20.5
29	---	---	---	---	22.0	20.0	24.0	23.5	27.0	25.0	21.0	20.5
30	---	---	---	---	22.0	20.5	24.5	22.0	27.0	26.0	20.5	19.5
31	---	---	---	---	---	---	24.0	23.0	27.0	25.0	---	---
MONTH	---	---	---	---	26.5	18.0	27.5	20.5	27.0	19.5	27.0	15.5

03144500 MUSKINGUM RIVER AT DRESDEN, OHIO

LOCATION.--Lat 40°07'13", long 81°59'59", Muskingum County, at gaging station on left bank 70 ft (21 m) downstream from bridge on State Highway 208, 0.5 mi (0.8 km) east of Dresden, and 0.5 mi (0.8 km) downstream from Wakatomika Creek.

DRAINAGE AREA.--5,993 mi² (15,522 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966, 1969-1973 (partial-record station).
Water temperatures: October 1952 to September 1961, October 1963 to September 1973.
Sediment records: October 1952 to September 1973.

EXTREMES.--1972-73:

Water temperatures: Maximum, 28.0°C on several days during July to September; minimum, freezing point on several days during December to February.
Sediment concentrations: Maximum daily, 601 mg/l Mar. 15; minimum daily, 12 mg/l Oct. 22.
Sediment discharges: Maximum daily, 25,600 tons (23,200 tonnes) Mar. 15; minimum daily, 42 tons (38 tonnes) Sept. 28.

EXTREMES.--Period of record:

Water temperatures (1952-60, 1964-72): Maximum, 31.0°C Aug. 4, 1955; minimum, freezing point on many days during 1952-59, 1965, 1967-73.
Sediment concentrations: Maximum daily, 1,600 mg/l Jan. 22, 1959; minimum daily, 1 mg/l on several days during 1952, 1954, 1956, and 1960.
Sediment discharges: Maximum daily, 160,000 tons (145,000 tonnes) Jan. 22, 1959; minimum daily, 2.7 tons (2.4 tonnes) Dec. 17, 1960.

REMARKS.--Flow is regulated by 15 flood control reservoirs at points 15 mi (24 km) to 105 mi (169 km) upstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT., 1972											
02...	1300	11900	--	--	--	--	--	--	--	--	--
DEC.											
01...	1140	8490	--	--	--	--	130	78	--	--	--
FEB., 1973											
01...	1250	9740	--	--	--	--	--	--	--	--	--
APR.											
02...	1415	15000	--	--	--	--	100	53	--	--	--
JUNE											
01...	1235	11400	--	--	--	--	120	56	--	--	--
AUG.											
01...	1040	3030	--	--	--	--	--	--	--	--	--

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT., 1972										
02...	--	--	--	--	--	641	--	--	--	17.0
DEC.										
01...	1.6	--	--	270	--	683	7.1	--	--	5.0
FEB., 1973										
01...	--	--	--	--	--	580	--	--	--	3.0
APR.										
02...	1.6	--	--	230	--	560	7.4	--	--	12.0
JUNE										
01...	1.2	--	--	250	--	597	8.2	--	--	19.0
AUG.										
01...	--	--	--	--	--	714	--	--	--	24.0

MUSKINGUM RIVER BASIN

03144500 MUSKINGUM RIVER AT DRESDEN, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT BETWEEN 0700 AND 1200)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	10.5	4.0	5.0	2.0	4.5	11.5	12.0	18.0	21.0	24.0	28.0
2	13.5	12.0	4.5	5.0	5.0	5.5	11.5	13.5	18.5	22.0	24.0	27.0
3	14.5	11.5	5.0	3.5	5.0	7.0	11.0	13.5	19.5	24.0	24.0	27.0
4	15.0	11.0	5.0	4.0	4.5	8.0	10.0	12.0	20.0	24.0	24.0	27.0
5	15.0	10.5	6.0	3.0	4.5	8.0	8.5	10.5	21.0	24.5	25.0	28.0
6	16.0	9.5	6.0	2.5	5.0	9.0	8.0	11.0	21.0	24.0	24.5	28.0
7	16.0	10.0	---	1.0	5.0	10.0	8.5	12.5	20.5	24.0	26.0	25.0
8	14.5	9.0	---	0.0	4.0	10.5	9.0	14.0	21.0	25.0	26.5	25.0
9	13.0	8.5	4.0	0.0	3.0	11.0	9.0	15.0	22.0	26.5	27.0	23.5
10	13.0	8.5	4.0	---	2.0	11.5	8.0	16.0	23.0	28.0	27.0	20.5
11	13.0	9.0	3.0	---	1.5	12.0	7.0	16.0	24.0	25.0	26.0	22.0
12	14.0	8.5	3.0	0.0	---	12.0	6.5	15.0	24.0	23.0	26.5	22.0
13	13.0	8.0	4.0	---	---	11.0	7.0	15.0	24.0	23.0	26.5	22.0
14	13.0	8.0	4.0	1.0	---	11.5	7.0	14.0	22.0	25.0	25.0	23.0
15	12.5	7.5	3.5	2.0	3.5	13.0	8.0	14.5	22.0	25.0	22.5	22.0
16	12.0	7.0	1.0	2.0	---	12.5	10.0	13.5	23.0	24.0	23.0	22.0
17	12.0	6.0	0.0	3.0	---	11.0	11.0	14.0	24.0	23.5	23.0	22.0
18	11.0	6.0	0.0	---	0.0	8.0	12.0	13.0	23.0	24.0	23.0	20.0
19	10.0	5.5	1.0	5.0	---	7.5	12.0	13.5	22.0	25.0	24.0	18.0
20	9.0	5.5	5.0	---	2.0	6.0	13.0	13.5	23.0	26.0	24.0	17.0
21	9.0	5.0	3.5	3.0	---	5.0	15.0	13.0	22.0	24.5	24.0	17.0
22	10.0	5.0	4.0	4.0	---	5.0	16.0	15.0	22.5	23.5	21.5	19.0
23	11.5	5.0	5.0	4.0	2.0	5.0	16.0	15.5	23.0	23.0	21.0	22.0
24	12.0	4.5	5.0	---	---	5.5	15.0	16.0	23.0	24.5	22.0	22.0
25	11.0	4.0	5.0	3.0	3.0	7.0	14.0	16.0	22.5	24.0	23.0	21.5
26	10.0	4.5	5.0	3.0	4.0	7.5	13.0	16.0	23.0	24.5	24.0	22.0
27	9.5	4.5	4.0	4.0	4.0	7.5	13.0	17.0	23.5	24.5	25.0	22.0
28	11.0	---	3.5	5.0	3.5	8.0	11.0	18.0	22.0	24.0	27.0	24.0
29	11.5	4.0	3.5	---	---	9.0	10.0	18.0	21.0	24.0	28.0	23.5
30	11.0	4.0	5.0	---	---	10.0	10.0	18.0	20.5	23.0	28.0	22.0
31	10.0	---	6.0	1.0	---	10.0	---	18.0	---	24.0	27.0	---
MONTH	12.5	7.5	4.0	---	---	8.5	10.5	14.5	22.0	24.0	24.5	23.0
YEAR	MAX	28.0	MIN	0.0	MEAN	13.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	10800	286	8340	3300	17	151	8510	24	551
2	11800	190	6050	4590	69	855	8290	19	425
3	10400	176	4940	12400	284	9510	8170	20	441
4	8900	146	3510	15300	201	8300	7990	19	388
5	8070	122	2660	15600	135	5690	8410	27	613
6	7310	107	2110	11300	95	2900	10200	46	1270
7	6250	85	1430	9300	93	2340	14500	197	7710
8	5240	65	920	14500	241	9440	17100	184	8500
9	4530	53	648	17600	154	7320	20500	126	6970
10	3990	41	442	18200	126	6190	20700	92	5140
11	3490	36	339	17400	97	4560	19500	73	3840
12	3170	29	248	15300	78	3220	17900	62	3000
13	3400	34	312	12700	62	2130	16900	57	2600
14	4020	39	423	14200	112	4290	16800	68	3080
15	3760	41	416	19400	154	8070	17100	61	2820
16	3380	27	246	20200	122	6650	17500	54	2550
17	3140	20	170	19800	91	4860	16300	44	1940
18	3020	18	147	17800	63	3030	14600	37	1460
19	2900	15	117	16100	51	2220	13200	41	1460
20	2840	14	107	14600	45	1770	12800	36	1240
21	2760	15	112	14200	47	1800	13800	42	1560
22	2520	12	82	14400	44	1710	15300	49	2020
23	2480	15	100	13200	43	1530	16000	44	1900
24	2540	18	123	11700	37	1170	15300	40	1650
25	2930	18	142	10200	32	881	14000	34	1290
26	3290	20	178	9360	28	708	12700	33	1130
27	3230	17	148	9320	27	679	11900	37	1190
28	3150	17	145	9850	30	798	11300	28	854
29	2870	19	147	10000	28	756	10400	24	674
30	2840	18	138	9210	27	671	9670	27	705
31	3030	14	115	---	---	---	9270	31	776
TOTAL	142050	--	35005	401030	--	104199	426610	--	69747

MUSKINGUM RIVER BASIN

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03144500 MUSKINGUM RIVER AT DRESDEN, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	9210	27	671	9800	52	1380	5420	18	263
2	9140	25	617	11200	84	2620	5470	23	340
3	8810	22	523	16600	235	10500	6250	31	523
4	11400	172	5650	19600	174	9210	7150	41	792
5	14900	198	7970	19800	115	6150	7810	58	1220
6	17000	123	5650	17400	83	3900	9430	98	2500
7	15000	100	4050	15900	71	3050	11200	109	3300
8	11700	64	2020	15400	68	2830	11200	107	3240
9	9140	39	962	14900	57	2290	9850	83	2210
10	8010	38	822	13400	44	1590	8750	69	1630
11	7370	32	637	11400	40	1230	8830	65	1550
12	6760	25	456	9410	36	915	9410	82	2080
13	5910	22	351	7970	29	624	9630	87	2260
14	5490	18	267	7870	33	701	9080	89	2180
15	5220	15	211	8550	40	923	14900	601	25600
16	4970	15	201	10400	63	1770	20300	455	24900
17	4810	18	234	10900	63	1850	21700	267	15600
18	4700	20	254	9360	43	1090	22300	158	9510
19	4830	19	248	8630	37	862	22100	107	6380
20	5240	20	283	8010	28	606	22200	94	5630
21	5420	22	322	7770	27	566	21500	76	4410
22	5690	39	599	7750	28	586	20100	65	3530
23	7410	61	1220	7610	27	555	19000	62	3180
24	9650	72	1880	7090	22	421	18000	57	2770
25	9450	62	1580	6140	20	332	17300	64	2990
26	8190	43	951	5740	18	279	16200	89	3890
27	7870	31	659	5600	19	287	17700	142	6790
28	8630	37	862	5490	17	252	18500	111	5540
29	10800	76	2220	--	--	--	16200	119	5210
30	12300	88	2920	--	--	--	15000	101	4090
31	11600	74	2320	--	--	--	15000	98	3970
TOTAL	266620	--	47610	299690	--	57369	437480	--	158078

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14300	93	3590	18100	98	4790	11400	137	4220
2	13100	83	2940	15800	74	3160	10400	96	2700
3	12000	67	2170	13900	53	1990	9010	94	2290
4	11500	63	1960	12800	47	1620	8090	104	2270
5	14200	109	4180	12200	42	1380	8370	129	2920
6	16900	109	4970	11200	38	1150	8920	111	2670
7	16900	85	3880	9870	36	959	10600	121	3460
8	15300	71	2930	9010	33	803	9890	125	3340
9	14500	62	2430	9010	33	803	8210	78	1730
10	15400	74	3080	10800	84	2450	7190	58	1130
11	17400	84	3950	13500	319	12600	6170	50	833
12	17700	73	3490	17100	258	11900	5580	58	874
13	17700	58	2770	15600	149	6280	6380	125	2150
14	16500	48	2140	12900	104	3620	6060	109	1780
15	14600	40	1580	11000	80	2380	5090	61	838
16	13000	40	1400	9690	63	1650	4590	46	570
17	11600	44	1380	8920	54	1300	4750	44	564
18	14900	195	7800	8370	48	1080	8970	466	12300
19	16200	196	8570	7810	45	949	11500	252	7820
20	14500	95	3720	7550	44	897	10000	180	4860
21	12600	67	2280	7550	40	815	12000	205	6640
22	10600	52	1490	7530	51	1040	11200	124	3750
23	9650	50	1300	6910	64	1190	9340	103	2600
24	10100	53	1450	6740	59	1070	6740	105	1910
25	10700	62	1790	10400	228	6400	6100	88	1450
26	10800	57	1660	12500	183	6180	5830	93	1460
27	10900	63	1850	13500	146	5320	5330	73	1050
28	15200	372	16300	13000	138	4840	4710	58	738
29	19300	233	12100	12500	112	3780	4530	53	648
30	19400	140	7330	12100	99	3230	4950	59	789
31	--	--	--	12100	160	5230	--	--	--
TOTAL	427450	--	116480	349960	--	100856	231900	--	80354

MUSKINGUM RIVER BASIN

03144500 MUSKINGUM RIVER AT DRESDEN, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	4320	54	630	3000	62	502	1530	28	116
2	3800	38	390	2780	41	308	1660	43	193
3	3520	39	371	2550	37	255	1540	48	200
4	3680	62	616	2400	38	246	1400	35	132
5	3700	43	430	2230	40	241	1340	43	156
6	3700	48	480	2020	33	180	1430	58	224
7	3460	43	402	1880	28	142	1760	72	342
8	3180	41	352	1790	25	121	1790	59	285
9	2940	34	270	1710	24	111	1540	66	274
10	2780	31	233	1640	26	115	1420	54	207
11	3440	72	669	1690	29	132	1340	25	90
12	3650	58	572	1790	30	145	1290	25	87
13	3240	39	341	2480	40	268	1270	28	96
14	2780	27	203	2690	52	378	1230	22	73
15	2480	31	208	4630	318	3980	1200	21	68
16	2330	36	226	5040	167	2270	1190	22	71
17	2240	33	200	4070	98	1080	1150	21	65
18	2120	39	223	3440	62	576	1140	23	71
19	2020	40	218	2990	43	347	1110	27	81
20	1920	37	192	2760	38	283	1120	22	67
21	2070	34	190	2580	38	265	1120	20	60
22	3150	94	870	2550	36	248	1120	21	64
23	3780	112	1140	2760	38	283	1120	24	73
24	3540	57	545	2450	32	212	1550	26	109
25	3750	114	1150	2170	26	152	1790	27	130
26	3620	105	1030	1960	24	127	1480	19	76
27	5490	238	3530	1810	23	112	1300	16	56
28	6150	292	4850	1690	20	91	1200	13	42
29	4950	178	2380	1620	22	96	1200	16	52
30	3830	131	1350	1550	25	105	1350	19	69
31	3180	94	807	1540	26	108	--	--	--
TOTAL	104810	--	25068	76260	--	13479	40680	--	3629
TOTAL DISCHARGE FOR YEAR (CFS-DAYS)									3204540
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)									811874

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP- ERA- TURE (°C)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
MAR. 15...	0830	13.0	14500	875	34300	36	51	64	79	91	95	97	98	100	--	--
APR. 18...	1800	12.0	15500	350	14600	41	49	62	76	88	94	96	98	100	--	--
MAY 11...	1330	16.0	14500	626	24500	44	53	70	83	95	98	99	100	--	--	--

MUSKINGUM RIVER BASIN

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03146000 NORTH FORK LICKING RIVER AT UTICA, Ohio

LOCATION.--Lat 40°13'41", long 82°27'06", in T.4 N., R.12 W., Licking County, at gaging station on left bank at upstream side of bridge on State Highway 13 at south edge of Utica, 0.2 mi (0.3 km) downstream from unnamed right bank tributary, and 2.0 mi (3.2 km) upstream from Lake Fork.

DRAINAGE AREA.--116 mi² (300 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1970-73 (partial-record station).

Water temperatures: November 1970 to April 1973 (discontinued).

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--Period of record:

Water temperatures: Maximum, 28.5°C June 30, July 9, 1971; minimum, freezing point on several days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Special samples were also collected twice a year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT., 1972											
24...	1045	117	--	--	245	0	58	16	.2	--	--
DEC.											
15...	1400	210	--	--	--	--	48	16	--	--	--
FEB., 1973											
05...	1330	200	--	--	--	--	--	--	--	--	--
APR.											
06...	1430	278	--	--	--	--	41	8.8	--	--	--
JUNE											
07...	1400	460	--	--	--	--	29	10	--	--	--
JULY											
27...	1340	82	--	--	--	--	--	--	--	--	--
SEP.											
12...	1115	6.8	--	--	222	6	50	14	--	.3	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT., 1972										
24...	1.0	--	.05	270	68	513	8.0	314	--	11.0
DEC.										
15...	3.0	--	--	220	--	432	8.2	--	--	3.0
FEB., 1973										
05...	--	--	--	--	--	408	--	--	--	3.5
APR.										
06...	2.9	--	--	190	--	372	7.0	--	--	7.0
JUNE										
07...	4.5	--	--	160	--	323	7.5	--	--	20.0
JULY										
27...	--	--	--	--	--	433	--	--	--	26.0
SEP.										
12...	--	.88	.02	--	--	485	8.4	--	331	20.5

MUSKINGUM RIVER BASIN

03146000 NORTH FORK LICKING RIVER AT UTICA, OHIO--CONTINUED

TEMPERATURE (°C) OF WATER, OCTOBER 1972 TO APRIL 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	11.5	8.5	8.5	2.5	2.5	7.0	4.5	2.0	1.0	5.5	3.0
2	14.5	12.0	12.0	8.5	3.5	2.5	4.5	2.0	5.0	2.0	6.0	4.5
3	14.5	13.0	12.0	9.0	4.5	3.5	2.5	1.0	5.0	3.5	6.5	6.0
4	14.5	14.0	10.5	9.5	4.5	4.0	3.5	1.0	4.5	2.0	8.0	6.0
5	15.0	14.0	9.5	8.0	4.5	4.0	3.5	2.0	5.0	3.5	9.5	8.0
6	15.0	15.0	9.0	6.0	8.0	4.5	3.0	1.0	5.5	5.0	9.5	7.0
7	15.0	14.5	8.0	8.0	5.0	1.0	1.0	0.5	5.5	5.0	11.0	9.5
8	14.5	13.0	8.0	7.5	2.5	2.0	0.5	0.0	5.0	3.5	11.0	9.0
9	13.5	12.0	7.5	7.5	3.0	2.0	1.0	0.5	3.5	1.5	11.0	9.0
10	13.0	11.0	8.0	7.0	3.5	3.0	1.5	0.0	2.0	1.0	11.0	8.5
11	11.5	10.5	8.5	8.0	3.5	2.0	1.0	0.5	1.5	1.0	12.0	11.0
12	13.5	11.0	8.0	7.5	2.0	1.0	2.0	0.0	1.5	0.0	12.0	10.0
13	13.5	12.0	8.0	7.0	4.0	2.5	1.0	0.0	1.5	0.0	10.0	8.5
14	13.0	11.0	7.0	6.0	3.0	2.5	0.5	0.0	3.0	1.5	12.0	9.0
15	11.5	11.0	7.0	5.5	2.5	2.0	0.5	0.0	3.0	1.5	13.5	11.0
16	11.0	10.5	5.5	5.0	2.0	0.5	1.0	0.0	2.0	1.0	13.5	10.5
17	11.0	10.5	5.5	4.5	0.5	0.0	1.0	0.0	3.0	0.5	10.0	5.0
18	11.0	9.5	5.0	5.0	0.0	0.0	2.5	1.0	1.5	0.5	4.5	3.0
19	9.0	8.5	5.5	5.0	0.5	0.0	4.0	2.5	1.0	0.5	5.0	3.0
20	8.5	6.5	5.0	4.5	1.0	0.0	3.5	2.0	1.5	1.0	5.5	3.5
21	8.0	6.5	5.0	4.5	2.5	1.0	2.0	1.0	2.0	1.5	5.5	3.5
22	9.5	8.0	5.0	5.0	3.5	3.0	2.5	1.0	2.0	1.0	5.5	4.5
23	11.5	9.5	5.0	4.0	4.0	3.5	2.5	2.0	2.0	1.0	6.5	3.5
24	10.5	10.5	4.0	3.0	4.0	4.0	2.0	1.0	3.5	1.5	8.5	5.0
25	10.0	8.5	3.5	3.0	5.0	5.0	2.0	1.0	3.5	1.5	8.5	7.0
26	8.5	8.0	3.5	3.0	5.0	3.5	2.5	1.0	3.5	3.5	7.0	7.0
27	8.5	7.0	3.5	3.0	3.5	2.0	3.0	2.5	3.5	3.0	9.5	5.5
28	9.5	8.0	3.5	3.0	2.5	2.0	4.0	3.0	4.5	2.0	9.5	7.0
29	10.0	9.5	3.5	1.0	2.5	2.5	4.0	1.5	---	---	10.0	8.5
30	10.0	9.5	2.5	2.0	4.5	2.5	1.5	0.5	---	---	10.5	9.0
31	9.5	8.0	---	---	7.0	5.0	1.0	0.5	---	---	10.5	9.0
MONTH	15.0	6.5	12.0	1.0	8.0	0.0	7.0	0.0	5.5	0.0	13.5	3.0

[illegible]

03146000 NORTH FORK LICKING RIVER AT UTICA, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV.					
03...	1445	910	11.5	79	194
14...	1105	3520	7.5	223	2120
APR.					
06...	1415	278	7.0	19	14
10...	0955	736	5.5	200	397
18...	1235	3570	--	399	3850
JUNE					
07...	1400	460	20.0	194	241
18...	1300	4200	22.0	372	4220
SEP.					
18...	1430	54	17.0	18	2.6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
NOV.											
14...	1105	48	58	66	73	80	85	91	94	98	100
APR.											
10...	0955	70	82	88	92	97	98	99	100	--	--
18...	1235	60	73	78	83	90	93	97	99	100	--
JUNE											
18...	1300	63	80	83	86	91	93	95	97	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAMPLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
18...	1	0	1	2	4	6	8	13	22	36	56	100

MUSKINGUM RIVER BASIN

03146500 LICKING RIVER NEAR NEWARK, OHIO

LOCATION.--Lat 40°03'33", long 82°20'23", in SW 1/4 T.2 N., R.11 W., Licking County, at gaging station on right bank at downstream side of Stadden Bridge, 1.0 mi (1.6 km) downstream from Shawnee Run, 1.5 mi (2.4 km) upstream from Equality Run, and 3.5 mi (5.6 km) east of Newark.

DRAINAGE AREA.--537 mi² (1,391 km²).

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: June 1962 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,150 micromhos Sept. 20; minimum, 144 micromhos Nov. 14.

pH: Maximum, 9.8 Aug. 1; minimum, 6.4 Dec. 6.

Dissolved oxygen: Maximum, 14.7 mg/l Dec. 8; minimum, 1.3 mg/l Sept. 6.

Water temperatures: Maximum, 27.5°C Aug. 28, 29, Sept. 1, 2; minimum, freezing point on several days during December, January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
02...	1400	859	--	--	172	2	52	19	.2	--	--
19...	1245	--	--	--	--	--	--	--	--	--	--
20...	1000	232	--	--	234	4	77	57	.3	--	--
NOV.											
02...	1600	4140	--	--	160	0	37	12	.2	--	--
27...	1600	744	--	--	202	0	62	27	.2	--	--
DEC.											
07...	1600	1850	--	--	136	0	41	15	.2	--	--
28...	1800	630	--	--	210	0	66	27	.2	--	--
JAN.											
04...	1555	4000	--	--	93	0	32	9.9	.1	--	--
15...	1610	280	--	--	220	12	79	66	.3	--	--
FEB.											
05...	1600	964	--	--	174	0	55	18	.2	--	--
26...	1600	285	--	--	218	10	76	45	.3	--	--
MAR.											
01...	1600	290	--	--	226	0	76	45	.2	--	--
15...	1600	3720	--	--	112	0	37	14	.2	--	--
APR.											
05...	1555	2320	--	--	113	0	39	11	.2	--	--
26...	1600	762	--	--	200	0	59	20	.2	--	--
MAY											
25...	1600	285	--	--	223	0	74	57	.3	--	--
31...	1600	756	--	--	181	0	52	21	.2	--	--
JUNE											
15...	1315	--	--	--	--	--	--	--	--	--	--
18...	1445	6640	--	--	104	0	21	11	.1	--	--
28...	1600	360	--	--	240	0	71	28	.1	--	--
JULY											
19...	1335	156	--	--	240	0	90	37	.4	--	--
23...	1600	978	--	--	124	0	43	16	.3	--	--
AUG.											
03...	0815	504	45	18	157	0	55	29	--	.4	.00
30...	1555	110	74	25	241	0	95	110	--	.3	.00
SEP.											
03...	1605	105	75	24	222	11	94	43	--	.4	.00
20...	1555	102	76	26	215	10	100	170	--	.6	.01

03146500 LICKING RIVER NEAR NEWARK, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 1,650 micromhos Feb. 4, 1971; minimum, 144 micromhos Nov. 14, 1972.
pH (1971-73): Maximum, 9.8 Aug. 1, 1973; minimum, 5.6 July 11, 1972.

Dissolved oxygen (1971-73): Maximum, 14.7 mg/l Dec. 8, 1972; minimum, 1.3 mg/l Sept. 6, 1973.

Water temperatures (1962-68, 1969-70, 1972-73): Maximum, 29.0°C Aug. 16, 17, 1965, Aug. 1, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since July 1968. Minimum recorded specific conductance value of 100 micromhos occurred Aug. 18, 1969. Maximum recorded pH value of 10.0 occurred Sept. 3, 10, 1969. Minimum recorded pH value of 4.5 occurred May 24, 1970. Minimum recorded dissolved oxygen concentrations of 0.0 mg/l occurred Aug. 30 to Sept. 1, 1970. Maximum recorded temperature value of 31.5°C occurred July 14, 15, 1972. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	3.0	--	210	66	439	286	--	14.0	--	--
19...	--	--	--	--	--	--	--	9.0	1.0	<.5
20...	3.6	--	300	100	702	466	--	6.5	--	--
NOV.										
02...	3.1	--	190	59	344	210	--	13.0	--	--
27...	2.9	--	250	84	523	338	--	5.0	--	--
DEC.										
07...	2.8	--	160	48	345	190	--	4.0	--	--
28...	2.9	--	260	88	535	346	--	5.0	--	--
JAN.										
04...	2.3	--	120	44	255	174	--	3.5	--	--
15...	4.4	--	310	110	740	452	--	4.0	--	--
FEB.										
05...	2.7	--	220	78	444	248	--	6.0	--	--
26...	2.7	--	290	94	665	386	--	5.0	--	--
MAR.										
01...	3.0	--	290	100	661	380	--	8.0	--	--
15...	2.7	--	140	48	304	208	--	14.0	--	--
APR.										
05...	2.5	--	140	48	301	168	--	7.0	--	--
26...	2.5	--	240	76	489	274	--	12.0	--	--
MAY										
25...	3.5	--	260	77	671	426	--	16.0	--	--
31...	3.2	--	210	62	461	302	--	19.0	--	--
JUNE										
15...	--	--	--	--	--	--	--	22.0	4.0	<.5
18...	3.2	--	120	35	260	184	--	21.0	--	--
28...	3.7	--	290	93	601	388	--	19.0	--	--
JULY										
19...	4.2	--	310	110	675	438	--	22.0	--	--
23...	3.2	--	150	48	342	214	--	23.0	--	--
AUG.										
03...	--	3.0	--	--	476	--	386	25.0	--	--
30...	--	5.8	--	--	940	--	632	25.0	--	--
SEP.										
03...	--	6.9	--	--	502	--	535	26.0	--	--
20...	--	9.5	--	--	1170	--	759	20.0	--	--

03136500 LICKING RIVER NEAR NEWARK, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	378	258	684	486	430	361	465	414	655	511	691	640
2	486	378	539	278	473	413	520	428	544	265	667	607
3	553	486	338	248	496	448	558	426	346	271	664	547
4	598	553	419	320	506	443	441	255	409	346	607	544
5	659	598	487	397	542	429	396	291	466	409	562	502
6	705	659	526	466	588	363	462	396	535	466	502	466
7	694	616	528	234	---	---	507	462	544	496	514	484
8	682	664	248	212	---	---	537	501	589	541	529	508
9	686	650	391	245	441	384	585	540	571	529	571	520
10	725	680	486	391	---	---	606	579	610	541	583	484
11	758	695	426	405	---	---	690	603	604	574	505	469
12	776	623	478	412	---	---	765	690	622	592	532	475
13	637	553	502	391	---	---	771	666	619	586	557	532
14	610	562	375	144	---	---	777	750	607	583	614	428
15	649	601	341	167	---	---	797	716	586	496	444	297
16	655	625	493	341	---	---	813	735	499	481	415	340
17	682	649	523	415	---	---	768	678	568	502	368	302
18	687	666	592	505	498	486	744	717	580	553	393	324
19	699	636	595	517	585	498	741	672	604	565	427	391
20	730	682	505	361	498	336	690	615	592	571	438	408
21	756	672	366	297	378	327	642	603	625	571	449	425
22	672	637	475	331	420	378	618	387	601	589	469	439
23	638	590	513	336	438	414	399	357	604	586	493	463
24	596	568	582	372	459	438	462	381	625	595	511	481
25	634	565	644	582	474	450	506	455	634	610	511	487
26	642	576	611	542	504	474	527	503	685	616	490	355
27	624	591	568	427	531	507	536	401	706	679	358	298
28	618	558	427	349	555	534	401	365	703	607	433	358
29	575	563	434	377	570	552	404	356	---	---	463	433
30	629	575	503	425	570	531	485	404	---	---	466	331
31	697	617	---	---	534	477	520	475	---	---	424	343
MONTH	776	258	684	144	---	---	813	255	706	265	691	297

[illegible]

03146500 LICKING PIVER NEAR NEWARK. OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN	
1	7.7	7.6		7.5	7.2		7.5	7.3		7.9	7.7		7.6	7.0		7.9	7.3	
2	7.7	7.5		7.6	7.1		7.3	7.2		7.7	7.6		7.6	7.5		7.7	7.5	
3	7.5	7.5		7.3	7.2		7.4	7.3		7.6	7.2		7.6	7.6		7.6	7.3	
4	7.5	7.5		7.3	7.2		7.3	7.3		7.3	6.6		7.7	7.6		8.1	7.4	
5	7.6			7.5	7.3		7.3	6.7		7.4	7.3		7.7	7.6		8.0		
6	7.6	7.5		7.8	7.3		7.7	6.4		7.6	7.4		7.7	7.6		8.0	7.4	
7	7.6	7.5		7.5	7.2		7.9	7.3		7.7	7.4		7.7	7.6		8.1	7.6	
8	7.6	7.5		7.2	7.1		7.7	7.5		7.8	7.5		7.8	7.7		8.3	7.8	
9	7.6	7.5		7.5	7.2		7.7	7.6		7.5	7.4		7.8	7.7		8.3	7.8	
10	7.7	7.6		7.5	7.2		7.9	7.6		7.5	7.4		7.8	7.6		8.4	7.8	
11	7.6	7.5		7.4	7.3		7.9	7.8		7.5	7.4		7.8	7.7		8.1	7.6	
12	7.7	7.4		7.4	7.3		7.9	7.8		7.5	7.4		7.8	7.6		8.2	7.6	
13	7.6	7.5		7.5	7.3		8.2	7.8		7.5	7.4		7.7	7.6		8.3	7.7	
14	7.7	7.4		7.4	7.2		7.9	7.8		7.5	7.3		7.7	7.5		8.3	7.6	
15	7.6	7.4		7.3	7.2		7.9	7.8		7.5	7.3		7.8	7.6		7.6	7.8	
16	7.6	7.3		7.5	7.3		8.0	7.9		7.5	7.4		7.8	7.4		7.7	7.5	
17	7.8	7.5		7.4	7.3		8.0	7.8		7.4	7.3		7.8	7.2		7.7	7.6	
18	7.6	7.5		7.4	7.3		7.8	7.2		7.4	7.3		7.2	7.0		7.7	7.6	
19	7.7	7.5		7.4	7.3		7.6	7.1		7.5	7.3		7.1	6.8		7.7	7.5	
20	7.6	7.4		7.5	7.3		7.4	6.8		7.7	7.4		7.2	7.1		7.8	7.6	
21	7.5	7.3		7.3	7.3		7.5	6.8		7.7	7.4		7.4	7.0		7.9	7.7	
22	7.5	7.2		7.4	7.3		7.7	7.5		7.6	7.2		7.5	7.0		7.8	7.7	
23	7.5	7.1		7.4	7.3		7.7	7.6		7.3	7.2		7.4	7.2		7.8	7.7	
24	7.6	7.4		7.4	7.3		7.8	7.7		7.3	7.2		7.4	7.1		7.7	7.1	
25	7.7	7.4		7.4	7.2		7.8	7.7		7.4	7.2		7.4	7.2		7.7	6.9	
26	7.7	7.4		7.4	7.2		7.8	7.8		7.3	7.2		7.7	7.2		7.8	6.9	
27	7.6	7.3		7.4	7.3		7.8	7.8		7.3	7.2		7.7	7.4		7.8	7.6	
28	7.5	7.2		7.4	7.3		7.8	7.8		7.3	7.2		7.7	7.0		7.7	7.6	
29	7.7	7.3		7.3	7.3		7.9	7.7		7.5	7.2		7.7	7.7		7.8	7.7	
30	7.9	7.3		7.3	7.3		7.8	7.7		7.3	7.2		7.7	7.3		7.8	7.7	
31	7.7	7.4		---	---		7.9	7.7		7.3	7.1		---	---		7.8	7.6	
MONTH	7.9	7.1		7.8	6.9		8.2	6.4		7.9	6.6		7.8	6.8		8.4	6.9	

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN	
1	7.9	7.7		8.0	7.8		7.8	7.6		8.0	7.9		9.8	8.3		9.1	8.7	
2	7.9	7.8		8.2	7.8		7.8	7.5		8.0	7.8		8.4	9.0		9.2	8.9	
3	7.9	7.7		8.2	7.9		7.9	7.5		8.0	7.6		8.4	7.8		9.2	9.0	
4	8.0	7.8		8.2	8.0		8.6	7.4		9.0	7.6		8.5	7.8		9.2	8.9	
5	7.8	7.7		8.3	7.9		8.7	7.4		7.9	7.8					9.0	8.9	
6	7.8	7.7		8.3	7.9		7.9	7.5		7.9	7.8		8.1	7.6		9.5	8.7	
7	7.9	7.7		8.4	7.8		8.3	7.6		8.0	7.8		8.3	7.6		9.1	8.9	
8	9.0	7.8		8.3	7.6		7.9	7.8		8.0	7.8		8.2	7.6		9.1	8.9	
9	7.8	7.7		8.3	7.7		8.1	7.8		8.1	7.7		7.9	7.5		9.0	8.9	
10	7.8	7.7		8.3	7.7		8.1	7.8		8.1	7.8		7.9	7.5		9.0	8.9	
11	7.8	7.7		8.3	7.7		8.0	7.7		7.9	7.7		8.0	7.3		9.0	8.8	
12	7.8	7.7		8.1	7.7		7.9	7.7		7.9	7.6		8.3	7.2		9.0	8.9	
13	7.8	7.7		8.2	7.7		7.9	7.7		8.1	7.3		8.3	7.5		9.0	8.9	
14	7.8	7.6		8.2	7.7		8.1	7.7		8.0	7.8		8.2	7.5		8.9	8.7	
15	7.7	7.3		8.2	7.7		8.1	7.7		8.0	7.8		8.2	7.5		8.9	8.7	
16	7.9	7.6		7.9	7.7		8.2	7.7		8.1	7.7		8.1	7.5		9.0	8.8	
17	7.9	7.7		8.1	7.5		8.0	7.8		8.1	7.7		8.1	7.5		9.0	8.8	
18	7.8	7.7		8.1	7.6		8.3	7.8		8.1	7.8		---	---		8.9	8.7	
19	7.8	7.6		7.9	7.6		8.0	7.8		7.9	7.6		---	---		8.9	8.7	
20	7.9	7.7		8.0	7.5		8.2	8.0		7.6	7.4		8.4	7.4		9.0	8.8	
21	8.2	7.8		8.2	7.6		8.1	8.0		8.0	7.4		9.0	8.3		8.9	8.7	
22	8.2	7.8		8.0	7.6		8.1	8.0		9.4	8.2		9.0	8.8		8.9	8.7	
23	7.9	7.8		8.0	7.5		8.1	7.9		9.1	8.3		8.9	8.7		9.0	8.7	
24	7.9	7.8		7.9	7.5		8.1	8.0		---	---		8.9	8.3		8.9	8.8	
25	7.9	7.8		8.0	7.6		8.0	7.9		---	---		8.8	8.3		7.6	7.3	
26	7.9	7.8		8.0	7.5		8.0	7.9		---	---		8.8	8.1		7.8	7.5	
27	7.9	7.8		7.8	7.5		7.9	7.8		9.2	7.8		9.0	8.0		7.9	7.5	
28	7.9	7.8		8.3	7.6		8.3	7.8		8.4	7.8		9.1	8.5		7.7	7.7	
29	7.9	7.8		8.2	7.6		8.1	7.7		8.0	7.7		9.0	8.5		7.8	7.8	
30	8.0	7.8		8.2	7.6		8.1	7.9		8.4	7.7		9.1	8.6		8.0	7.7	
31	---	---		---	7.6		---	---		9.3	7.9		9.1	8.7		---	---	
MONTH	8.2	7.3		8.4	7.5		8.7	7.4		9.4	7.4		9.8	7.3		9.5	6.8	
YEAR	9.8	6.4																

03146500 LICKING RIVER NEAR NEWARK, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	9.8	9.7	8.4	12.6	12.0	12.5	11.5	12.6	11.0	14.5	12.4
2	10.2	9.1	10.2	8.6	12.0	11.4	12.9	12.5	12.3	11.7	12.8	9.0
3	9.4	8.3	10.2	9.6	11.5	11.1	13.3	12.4	11.9	11.6	10.6	8.9
4	8.7	7.7	10.1	9.8	11.6	11.0	14.2	6.5	12.0	11.2	11.2	8.9
5	8.6	7.2	10.7	9.8	11.5	11.4	14.2	13.0	12.0	11.1	11.0	8.6
6	8.1	7.4	11.0	10.2	8.7	5.8	13.3	13.1	11.5	11.1	12.0	8.7
7	8.0	7.3	10.7	9.7	14.6	8.7	13.4	13.0	12.4	11.1	12.0	9.6
8	8.6	7.5	12.2	9.9	14.7	13.8	13.6	13.1	12.7	11.3	13.3	9.5
9	9.9	7.4	12.5	12.2	14.5	13.9	13.3	12.8	13.3	12.7	14.0	9.8
10	10.1	7.8	12.4	8.8	13.9	12.8	13.1	12.7	13.6	13.0	14.0	9.3
11	9.6	8.0	10.6	9.8	13.0	12.0	12.9	12.6	13.7	13.0	11.7	9.2
12	8.2	6.7	10.6	9.7	12.5	11.4	12.8	12.3	13.6	13.1	12.6	9.0
13	8.5	7.5	12.0	9.6	11.4	10.8	12.8	12.1	13.6	12.5	14.0	9.8
14	10.0	7.5	12.6	9.4	11.9	11.2	12.4	11.8	12.7	12.4	13.7	8.4
15	10.1	7.5	12.6	12.4	11.7	11.2	12.1	11.7	13.5	12.4	10.4	8.7
16	9.6	7.3	13.1	12.2	12.0	11.2	11.9	11.3	14.1	13.5	10.2	9.2
17	9.5	8.3	13.1	12.6	12.1	11.7	11.9	11.2	14.2	13.4	11.6	9.6
18	10.7	9.4	12.6	12.1	12.5	5.1	12.0	11.2	13.8	12.7	12.7	11.3
19	11.5	9.0	12.3	11.9	7.0	5.6	11.6	11.1	12.8	11.7	12.9	11.6
20	11.6	8.7	12.9	11.9	7.3	7.0	12.3	11.6	12.8	12.3	12.0	11.3
21	10.0	8.5	12.8	12.2	10.8	7.3	12.6	11.9	13.2	12.3	12.1	11.6
22	10.2	7.9	12.2	11.9	11.6	10.8	12.6	11.6	13.9	13.1	11.9	11.0
23	9.1	7.1	13.0	11.9	11.7	11.5	12.8	12.6	13.5	12.8	11.4	10.6
24	9.6	7.6	13.0	12.3	11.8	11.5	13.5	12.8	13.3	11.1	11.2	9.2
25	9.9	8.1	12.7	12.1	11.7	11.2	13.0	12.1	13.3	11.9	10.5	9.3
26	11.0	8.4	12.2	12.0	11.5	11.2	12.5	11.6	13.9	11.9	10.8	9.2
27	10.9	8.2	12.4	12.0	11.6	11.4	11.9	11.5	14.0	12.7	11.0	9.9
28	9.6	7.3	12.5	12.1	11.8	11.5	12.1	11.8	13.6	12.0	10.6	9.9
29	9.9	7.4	13.0	12.2	11.9	11.5	12.8	12.1	---	---	10.8	9.4
30	11.2	7.9	12.8	12.3	11.7	11.2	12.8	12.2	---	---	10.5	9.6
31	11.1	8.6	---	---	11.4	11.1	12.7	11.6	---	---	10.3	9.3
MONTH	11.6	6.7	13.1	8.4	14.7	5.1	14.2	6.5	14.2	11.0	14.5	8.4

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

MUSKINGUM RIVER BASIN

03147500 LICKING RIVER BELOW DILLON DAM, NEAR DILLON FALLS, OHIO

LOCATION.--Lat 39°59'18", long 82°04'50", in T.1 N., R.8 W., Muskingum County, at gaging station on left bank 500 ft (152 m) downstream from Dillon Dam, 2.0 mi (3.2 km) northwest of Dillon Falls, and 5.8 mi (9.3 km) upstream from mouth.

DRAINAGE AREA.--742 mi² (1,922 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1965-73 (partial-record station).
Water temperatures: October 1961 to September 1973.

EXTREMES.--1972-73:

Water temperatures: Maximum, 29.0°C July 23, 24; minimum, 1.0°C Dec. 19-21.

EXTREMES.--Period of record:

Water temperatures: Maximum, 29.0°C July 23, 24, 1973; minimum, freezing point Feb. 7-12, 1967.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT., 1972											
18...	1125	271	--	--	167	0	50	29	.2	--	--
DEC.											
18...	1715	1420	--	--	--	--	47	24	--	--	--
FEB., 1973											
07...	1130	840	--	--	--	--	42	18	--	--	--
JUNE											
08...	1000	1390	--	--	--	--	43	28	--	--	--
SEP.											
19...	1400	90	--	--	181	0	70	52	--	.4	.01

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
OCT., 1972										
18...	2.0	--	.06	200	63	459	7.7	268	--	13.5
DEC.										
18...	2.5	--	--	180	--	397	7.5	--	--	1.5
FEB., 1973										
07...	2.6	--	--	160	--	357	7.6	--	--	5.5
JUNE										
08...	2.6	--	--	200	--	416	8.3	--	--	22.0
SEP.										
19...	--	2.6	.10	--	--	594	7.1	--	398	21.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

[illegible]

03149200 MUSKINGUM RIVER AT PHILO, OHIO

LOCATION.--Lat 39°51'51"N, long 81°54'22"W, Muskingum County, on diversion canal on right bank of Muskingum River, 2,000 ft (610 m) downstream from canal headgates of Ohio Power Company Generating Division at Philo.

DRAINAGE AREA.--7,196 mi² (18,638 km²).

PERIOD OF RECORD.--Chemical analyses: April 1965 to September 1973.
Water temperatures: April 1965 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,420 micromhos Sept. 29, 30; minimum, 360 micromhos Mar. 17, 18.
pH: Maximum, 8.7 July 7; minimum, 5.9 May 5.
Dissolved oxygen: Maximum, 15.0 mg/l on many days during November through May; minimum, 4.0 July 15, Aug. 6.
Water temperatures: Maximum, 29.5°C Sept. 1; minimum, 1.0°C on several days during December, January and February.

EXTREMES.--Period of record:

Specific conductance: Maximum, 2,130 micromhos Oct. 19, 1970; minimum, 170 micromhos Apr. 28, 1965.
pH (1965-71, 1972-73): Maximum, 10.0 Jan. 1, 1969; minimum, 2.4 Sept. 24, 1971.
Dissolved oxygen (1965-67, 1970-73): Maximum, 15.0 mg/l or higher on many days during 1966, 1967, 1970, 1971, 1972, and 1973; minimum, 1.9 mg/l Aug. 10, 11, 1971.
Water temperatures (1965-69, 1970-73): Maximum, 32.0°C July 26, 1969; minimum, freezing point on many days in 1967 to 1969.

REMARKS.--Water-quality recorder operated since April 1965. Minimum recorded dissolved oxygen concentration of 1.5 mg/l occurred May 30, 1970. The recorder is located in the basement of the generating plant. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on a daily basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. No discharge available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TEMPERATURE (DEG C)
OCT.											
02...	118	0	80	57	.2	2.0	200	100	534	336	16.0
30...	151	0	160	190	.2	1.6	390	270	1110	722	13.0
NOV.											
02...	111	0	230	110	.4	1.4	380	290	949	628	12.0
13...	100	0	88	33	.2	2.1	190	110	454	300	9.0
DEC.											
04...	123	0	130	67	.2	1.8	270	170	658	446	6.0
11...	74	0	110	43	.2	1.8	200	140	488	302	5.0
JAN.											
08...	91	0	100	40	.2	2.0	200	120	485	274	1.5
22...	120	0	160	100	.3	2.0	320	220	828	504	4.5
FEB.											
05...	81	0	87	45	.2	2.2	190	120	445	282	5.5
MAR.											
01...	110	0	160	190	.3	1.7	380	290	1070	698	5.0
22...	80	0	86	38	.2	1.9	170	100	437	270	6.5
APR.											
09...	73	0	130	32	.2	1.9	200	140	465	284	9.5
26...	80	0	150	45	.3	1.4	250	180	582	362	14.0
MAY											
03...	75	0	130	31	.3	1.5	220	160	501	326	14.5
24...	105	0	180	67	.4	1.3	290	200	716	480	16.5
JUNE											
22...	96	0	90	26	.3	2.8	180	100	418	244	23.5
28...	134	0	140	99	.4	1.6	310	200	794	496	23.0
JULY											
19...	111	0	150	120	.4	.80	320	230	877	566	25.0
26...	99	0	120	59	.5	1.4	240	160	596	384	24.0
AUG.											
02...	123	0	130	50	.4	1.5	270	170	630	398	24.5
30...	142	0	150	130	.5	.80	340	220	921	572	29.0
TOTAL ORGANIC CARBON (C) (MG/L)											
TOTAL MERCURY (MG/L)											
TEMPERATURE (DEG C)											
OCT. 25...						11.5	2.0	<.5			
JUNE 14...						23.5	.0	<.5			

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03149200 MUSKINGUM RIVER AT PHILO, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	6.9	7.6	7.2	8.2	8.0	7.5	7.3	7.9	7.7	7.5	7.2
2	7.4	7.3	7.7	7.0	8.2	8.1	7.5	7.4	7.8	7.5	7.4	7.3
3	7.3	7.3	7.7	7.3	8.2	8.1	7.6	7.2	7.8	7.3	7.4	7.3
4	7.3	7.1	7.6	7.5	8.2	8.0	7.5	6.9	7.5	7.4	7.3	7.0
5	7.3	7.2	7.6	7.5	8.2	8.0	7.4	7.3	7.5	7.4	7.2	7.0
6	7.2	7.1	7.6	7.5	8.0	7.6	7.5	7.4	7.6	7.4	7.2	7.0
7	7.2	7.1	7.6	7.5	7.9	7.6	7.5	7.5	7.4	7.2	7.2	7.1
8	7.4	7.2	7.5	7.1	7.9	7.6	7.9	7.5	7.3	7.2	7.1	6.9
9	7.5	7.3	7.7	7.5	7.7	7.6	7.7	7.4	7.4	7.2	7.1	6.9
10	7.5	7.2	7.7	7.6	7.7	7.5	7.5	7.4	7.5	7.4	7.1	7.0
11	7.5	7.4	7.7	7.6	7.9	7.5	7.6	7.4	7.7	7.4	7.0	6.9
12	7.5	7.1	7.8	7.7	8.0	7.8	7.7	7.3	7.6	7.5	7.0	6.9
13	7.4	7.0	7.7	7.6	8.0	7.0	7.8	7.5	7.8	7.5	7.0	6.8
14	7.3	7.2	7.7	7.3	7.9	7.0	7.9	7.6	7.6	7.5	7.0	6.9
15	7.5	7.3	7.7	7.5	8.1	7.9	7.8	7.7	7.6	7.2	7.0	6.6
16	7.4	7.4	7.9	7.7	8.1	7.7	7.7	7.4	7.5	7.2	6.9	6.7
17	7.5	7.3	7.9	7.8	8.2	8.0	7.5	7.3	7.6	7.5	6.7	6.6
18	7.4	7.3	8.0	7.7	8.4	8.1	7.4	7.2	7.9	7.5	7.0	6.7
19	7.5	7.4	8.0	7.9	8.4	8.3	7.2	7.0	7.9	7.6	7.1	6.3
20	7.6	7.5	7.9	7.5	8.3	8.0	7.1	6.9	7.6	7.5	7.2	6.2
21	7.6	7.5	7.9	7.7	8.3	8.1	7.3	7.0	7.6	7.5	7.3	7.2
22	7.7	6.9	8.0	7.9	8.2	7.9	7.3	6.9	7.6	7.4	7.3	6.2
23	7.6	7.5	8.0	7.9	7.9	7.9	7.2	6.9	7.6	7.5	7.3	6.7
24	7.5	7.4	8.1	8.0	7.9	7.7	7.5	7.2	7.5	7.4	7.4	6.6
25	7.5	7.5	8.1	7.9	7.8	7.7	7.8	7.4	7.6	7.4	7.5	6.6
26	7.7	7.5	8.1	7.9	7.8	7.2	7.8	7.4	7.5	7.3	7.5	7.1
27	7.8	7.6	8.0	7.9	7.3	7.0	7.7	7.2	7.4	7.2	7.4	7.2
28	7.7	7.7	8.0	7.9	7.5	7.0	7.5	7.2	7.4	7.1	7.4	7.2
29	7.7	7.5	8.0	7.9	7.4	7.0	7.5	7.3	---	---	7.3	7.1
30	7.6	7.4	8.1	8.0	7.7	7.0	7.6	7.4	---	---	7.1	7.0
31	7.6	7.5	---	---	7.7	7.5	7.9	7.6	---	---	7.1	7.0
MONTH	7.8	6.9	8.1	7.0	8.4	7.0	7.9	6.9	7.9	7.1	7.5	6.2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	PRECIP	MAX	MIN	PRECIP	MAX	MIN	PRECIP	MAX	MIN	PRECIP	MAX	MIN	PRECIP	MAX	MIN	PRECIP
1	7.1	6.8	7.0	6.9	6.8	7.4	7.2	7.1	7.8	7.2	7.8	7.2	7.8	7.2	7.8	8.3	7.4	7.8
2	6.9	6.8	6.8	6.7	6.5	7.2	7.1	6.9	7.7	7.4	7.8	7.4	7.8	7.6	7.8	7.9	7.8	7.8
3	6.9	6.9	6.7	6.7	6.5	7.1	7.1	6.9	7.7	7.4	7.8	7.4	7.8	7.6	7.8	7.9	7.7	7.9
4	7.0	6.6	6.8	6.8	6.0	6.9	6.7	6.7	7.6	7.6	8.1	7.5	8.3	7.7	7.7	7.7	7.6	7.6
5	7.0	6.6	6.9	6.9	5.9	6.4	6.4	6.4	8.1	8.1	8.1	7.5	8.1	7.8	7.7	7.7	7.6	7.6
6	7.2	7.0	7.0	6.8	6.8	6.9	6.5	6.5	8.5	8.5	8.5	7.3	8.3	7.8	7.7	7.7	7.6	7.6
7	7.2	6.7	6.9	6.7	6.7	6.9	6.9	6.9	8.7	8.7	8.7	7.9	8.6	7.5	7.7	7.6	7.5	7.5
8	7.2	6.7	6.9	6.7	6.7	6.9	6.7	6.7	8.1	8.1	8.1	7.7	8.4	7.7	7.7	7.9	7.4	7.4
9	7.1	6.8	6.7	6.7	6.2	6.7	6.6	6.6	7.9	7.9	7.9	7.6	7.9	7.7	7.9	7.9	7.7	7.7
10	7.0	6.8	6.8	6.8	6.2	6.8	6.6	6.6	7.9	7.9	7.9	7.6	7.9	7.7	7.9	7.9	7.7	7.7
11	7.2	7.0	6.8	6.9	6.9	6.9	6.6	6.6	8.2	8.2	8.2	7.8	8.2	7.8	7.9	7.9	7.8	7.8
12	7.2	7.1	6.8	6.7	6.7	6.9	6.6	6.6	8.3	8.3	8.3	7.8	8.3	7.8	7.9	7.9	7.8	7.8
13	7.2	7.0	6.8	6.7	6.7	6.8	6.6	6.6	8.2	8.2	8.2	7.6	8.0	7.7	7.7	8.2	7.8	7.8
14	7.2	7.1	6.8	6.7	6.7	6.8	6.7	6.7	8.1	8.1	8.1	7.4	8.1	7.6	7.7	8.2	7.8	7.8
15	7.2	7.1	6.8	6.7	6.7	6.8	6.7	6.7	8.1	8.1	8.1	7.4	8.1	7.6	7.7	7.9	7.8	7.8
16	7.1	7.0	7.5	7.1	7.1	7.9	7.5	7.5	7.6	7.6	7.6	7.2	8.1	7.7	7.7	7.8	7.6	7.6
17	7.1	7.0	7.4	7.1	7.1	7.9	7.4	7.4	8.0	8.0	8.0	7.2	8.1	7.7	7.7	8.2	7.5	7.5
18	7.1	6.9	7.6	7.3	7.8	7.8	7.4	7.4	8.1	8.1	8.1	7.9	7.9	7.8	7.9	7.8	7.3	7.3
19	7.1	6.0	7.6	7.3	7.8	7.8	7.4	7.4	8.5	8.5	8.5	7.3	7.9	7.8	7.5	7.3	7.3	7.3
20	7.0	6.0	7.6	7.1	7.8	7.8	7.4	7.4	7.4	7.4	7.4	7.1	7.9	7.7	8.0	7.3	7.3	7.3
21	6.9	6.0	7.5	7.1	7.1	---	---	---	7.4	7.4	7.4	6.6	7.9	7.7	8.0	7.5	7.5	7.5
22	6.9	6.8	7.7	7.5	7.5	7.6	7.5	7.5	7.5	7.5	7.5	6.6	7.9	7.7	8.0	7.5	7.5	7.5
23	6.8	6.3	7.7	7.5	8.0	8.0	7.5	7.5	7.5	7.5	7.5	7.4	8.6	7.9	7.9	7.7	7.7	7.7
24	6.6	6.3	7.7	7.3	8.0	7.4	7.4	7.4	7.8	7.8	7.8	7.5	8.5	8.1	7.7	7.0	7.0	7.0
25	6.7	6.6	7.7	7.3	7.8	7.8	7.4	7.4	7.8	7.8	7.8	7.3	8.5	7.9	7.4	7.0	7.0	7.0

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.3	11.6	10.8	14.8	14.5	15.0	13.0	14.2	13.9	15.0	13.2
2	7.5	7.2	11.8	8.3	15.0	14.5	15.0	13.7	13.9	12.8	15.0	12.0
3	7.7	7.4	9.1	7.6	15.0	14.5	15.0	12.8	13.0	12.7	13.1	11.6
4	8.3	7.5	8.8	7.4	15.0	14.4	15.0	15.0	13.1	13.0	15.0	12.5
5	8.2	7.9	11.7	7.5	15.0	14.3	15.0	14.0	13.1	12.9	15.0	11.3
6	8.1	7.9	11.8	11.3	14.2	13.7	15.0	13.9	13.2	13.0	14.5	11.2
7	8.0	7.8	12.7	11.4	14.4	13.9	15.0	15.0	13.4	12.9	14.4	10.8
8	8.2	7.8	12.1	11.0	14.6	14.1	15.0	15.0	13.0	12.9	10.8	10.5
9	8.4	7.9	12.4	12.1	14.4	14.0	15.0	15.0	13.4	13.0	11.7	10.5
10	9.0	8.2	15.0	12.4	14.6	14.2	15.0	15.0	13.9	13.4	10.9	10.5
11	9.2	8.7	15.0	13.1	15.0	14.6	15.0	15.0	14.0	13.7	15.0	10.7
12	9.4	8.9	15.0	13.2	15.0	15.0	15.0	14.2	14.1	13.8	15.0	13.2
13	9.2	8.8	15.0	15.0	15.0	13.9	15.0	15.0	14.1	13.8	15.0	11.0
14	9.4	9.0	15.0	13.5	15.0	15.0	15.0	15.0	13.9	13.4	13.5	10.3
15	9.6	9.1	13.5	13.3	15.0	14.7	15.0	15.0	13.4	12.9	13.3	10.2
16	9.8	9.5	13.7	13.5	15.0	14.7	15.0	15.0	13.5	12.5	11.5	9.8
17	10.1	9.3	15.0	13.7	15.0	15.0	15.0	15.0	14.0	13.5	12.1	7.2
18	10.0	9.8	15.0	14.1	15.0	15.0	15.0	15.0	15.0	14.0	12.6	10.2
19	10.8	10.0	15.0	14.5	15.0	15.0	15.0	15.0	15.0	13.9	12.6	11.2
20	11.1	10.8	15.0	14.1	15.0	15.0	15.0	15.0	13.9	13.5	11.9	11.4
21	11.4	10.7	15.0	14.3	15.0	15.0	15.0	13.7	13.5	13.1	12.1	11.8
22	11.7	11.3	15.0	14.1	15.0	14.6	15.0	15.0	13.4	13.1	12.8	11.9
23	11.7	11.3	14.9	14.3	15.0	14.3	15.0	13.4	13.4	13.1	14.3	12.0
24	11.6	11.2	15.0	14.4	15.0	14.2	15.0	14.1	13.4	13.0	13.9	13.0
25	11.5	11.4	15.0	14.4	14.8	14.1	15.0	15.0	13.5	13.0	13.5	11.8
26	12.0	11.5	15.0	15.0	15.0	14.1	15.0	14.6	15.0	13.2	12.8	11.4
27	12.3	11.9	15.0	14.0	15.0	13.6	15.0	14.1	15.0	13.3	13.4	11.5
28	12.3	11.8	15.0	14.3	15.0	13.7	15.0	13.5	15.0	15.0	11.5	11.3
29	11.9	11.5	15.0	14.6	15.0	13.7	15.0	13.2	---	---	11.3	11.1
30	12.3	11.4	15.0	14.7	15.0	13.4	13.8	13.4	---	---	11.1	10.9
31	11.5	11.1	---	---	15.0	13.1	14.2	13.8	---	---	10.9	10.7
MONTH	12.3	7.2	15.0	7.4	15.0	13.1	15.0	12.8	15.0	12.5	15.0	7.2
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.7	10.4	14.6	11.3	9.5	9.0	8.6	7.1	5.7	4.8	6.5	5.7
2	10.4	10.3	14.9	12.3	9.4	8.8	7.1	6.2	6.0	4.1	---	---
3	10.6	10.4	15.0	14.4	9.2	8.6	6.5	6.0	7.5	4.6	---	---
4	13.0	10.6	15.0	12.6	10.4	8.2	7.0	6.3	5.2	4.3	---	---
5	11.0	10.6	14.9	11.4	8.7	7.8	8.8	6.4	4.8	4.3	---	---
6	11.3	10.6	15.0	11.6	8.0	6.8	8.2	5.7	6.3	4.0	---	---
7	11.2	11.0	15.0	10.5	7.3	6.5	8.2	5.8	6.4	5.5	---	---
8	12.1	10.9	10.5	10.1	6.7	6.1	8.3	6.9	5.6	5.5	---	---
9	15.0	10.8	10.1	9.6	6.6	5.7	8.4	7.8	---	---	---	---
10	11.5	10.7	10.1	9.5	7.3	5.6	8.4	7.8	---	---	---	---
11	11.9	11.5	10.1	9.3	7.8	5.5	8.0	6.9	---	---	---	---
12	12.1	11.8	9.8	9.3	7.0	5.0	7.3	6.4	---	---	6.0	5.4
13	12.1	11.9	---	---	6.2	4.8	6.5	5.8	6.0	5.5	5.5	4.2
14	12.2	11.9	---	---	8.8	5.5	5.9	5.2	5.8	5.3	7.6	5.5
15	11.9	11.6	---	---	9.0	7.8	5.6	4.0	---	---	6.5	5.5
16	13.4	11.3	11.1	10.0	8.9	7.5	5.6	4.8	6.0	4.9	6.4	5.6
17	13.1	12.7	10.9	10.2	8.6	7.0	5.8	4.1	6.3	5.2	8.2	6.0
18	13.8	11.4	11.3	10.5	7.7	6.6	7.6	5.1	7.1	5.3	7.0	5.9
19	12.5	10.7	11.4	10.5	7.6	6.8	7.0	5.1	7.7	5.8	---	---
20	12.2	10.5	11.0	10.2	---	---	6.2	5.0	6.4	4.7	---	---
21	12.5	10.4	11.0	10.6	---	---	5.8	4.5	6.2	5.4	---	---
22	13.0	9.9	11.5	10.3	8.2	7.1	5.0	4.5	6.0	5.3	---	---
23	12.4	9.7	11.0	10.0	8.8	7.7	5.9	4.5	6.3	5.2	---	---
24	10.1	9.7	10.5	9.8	8.8	7.9	6.3	5.4	5.8	5.5	---	---
25	10.2	9.8	10.4	9.8	8.2	7.6	5.5	4.7	6.8	5.3	---	---
26	15.0	10.0	10.0	8.9	8.0	7.3	5.7	4.6	6.2	5.3	---	---
27	15.0	13.3	9.8	9.4	8.8	7.8	5.5	4.2	6.0	5.2	---	---
28	14.8	13.0	9.5	9.2	8.2	7.5	5.3	4.6	7.5	6.0	---	---
29	14.8	10.9	9.6	9.0	7.6	5.5	5.0	4.8	7.3	5.1	---	---
30	14.5	10.9	9.7	9.0	7.4	5.4	5.3	4.4	5.7	5.4	---	---
31	---	---	9.8	9.1	---	---	5.5	4.5	6.2	4.8	---	---
MONTH	15.0	9.7	15.0	8.9	10.4	4.8	8.8	4.0	7.7	4.0	---	---
YEAR	15.0	4.0										

MUSKINGUM RIVER BASIN

03149200 MUSKINGUM RIVER AT PHILO, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	16.5	11.5	11.5	4.5	4.0	6.5	6.0	4.0	3.0	6.0	4.5
2	16.5	15.5	12.5	11.5	5.5	4.5	6.0	5.0	5.5	4.0	7.0	6.0
3	16.0	15.0	12.5	12.0	5.5	5.0	5.0	4.5	5.5	5.0	8.0	7.0
4	16.0	15.5	12.5	12.0	6.0	5.0	5.0	4.5	5.5	5.0	8.5	8.0
5	16.5	16.0	12.0	11.5	7.0	5.5	5.0	4.0	5.5	5.5	9.5	8.5
6	16.5	16.5	11.5	11.0	7.0	6.5	4.0	3.5	6.0	5.5	10.5	9.0
7	16.5	16.5	11.0	10.5	7.0	6.0	3.5	2.0	6.0	5.5	11.0	10.0
8	16.5	16.0	10.5	10.0	6.0	5.0	2.0	1.5	6.0	5.0	12.0	11.0
9	16.0	15.0	10.0	9.5	5.5	5.0	1.5	1.0	5.0	4.0	12.0	11.0
10	15.0	14.5	10.5	9.0	5.5	5.0	1.0	1.0	4.0	3.0	13.0	11.5
11	14.5	14.0	10.0	9.5	5.0	4.0	1.5	1.0	3.0	2.0	13.0	12.5
12	14.5	14.5	9.5	9.0	4.5	4.0	4.0	1.0	3.0	2.0	13.0	12.5
13	14.5	14.5	9.5	9.0	---	---	1.5	1.0	3.0	2.0	13.0	12.0
14	14.5	14.0	9.0	8.5	---	---	2.0	1.5	3.5	3.0	13.0	12.0
15	14.5	14.0	8.5	8.0	4.5	4.0	2.0	2.0	4.0	3.5	14.0	13.0
16	14.0	13.5	8.0	7.0	4.0	2.0	3.0	2.0	3.5	2.5	14.0	13.0
17	13.5	13.0	7.0	6.5	2.0	1.0	3.5	3.0	2.5	1.5	13.0	11.0
18	13.0	12.0	6.5	6.5	1.0	1.0	4.0	3.5	1.5	1.0	11.0	8.5
19	12.0	11.0	6.5	6.5	2.0	1.0	4.5	4.0	2.5	1.5	8.5	7.5
20	11.0	10.5	6.5	6.5	3.5	2.0	4.5	4.5	3.0	2.0	8.0	7.0
21	10.5	10.5	6.5	6.0	4.0	3.5	4.5	3.5	3.5	3.0	7.0	6.5
22	11.0	10.5	6.0	6.0	4.5	4.0	4.5	4.0	3.5	3.0	6.5	6.5
23	11.5	11.0	6.0	5.5	5.0	4.5	4.5	4.5	3.5	3.0	7.0	6.5
24	11.5	11.5	5.5	5.0	5.5	5.0	4.5	4.0	4.0	3.0	7.0	6.5
25	11.5	11.5	5.5	5.0	5.5	5.5	4.0	3.5	4.5	3.5	7.5	6.5
26	11.5	11.5	5.5	5.0	5.5	5.5	4.0	3.5	4.5	4.5	8.5	7.5
27	11.5	11.0	5.5	4.5	5.5	4.5	5.5	4.0	4.5	4.5	9.0	8.0
28	12.0	11.5	5.5	5.0	4.5	4.5	5.5	5.0	5.0	4.0	9.5	8.5
29	12.5	12.0	5.0	4.5	4.5	4.5	5.5	4.0	---	---	10.5	9.5
30	12.0	12.0	4.5	4.0	5.5	4.5	4.0	3.0	---	---	11.0	10.5
31	12.0	11.5	---	---	6.5	5.5	3.0	2.0	---	---	11.5	11.0
MONTH	18.0	10.5	12.5	4.0	7.0	1.0	6.5	1.0	6.0	1.0	14.0	4.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	11.5	13.0	11.5	19.5	18.0	24.5	20.0	25.0	23.5	29.5	25.5
2	12.0	12.0	14.0	13.0	20.0	18.5	25.5	22.0	25.0	24.5	28.5	24.0
3	12.0	11.0	14.5	14.0	21.0	19.5	26.0	24.0	25.0	22.0	28.5	23.5
4	11.0	10.0	14.0	12.5	21.0	20.5	25.5	23.5	24.5	21.5	28.0	24.0
5	10.0	9.0	13.0	12.0	22.0	20.5	25.5	23.5	24.5	22.0	28.0	22.0
6	10.0	9.0	13.5	12.0	21.5	21.0	26.0	24.5	26.0	22.0	26.0	24.0
7	10.0	9.0	14.0	13.0	22.0	20.5	26.0	25.0	27.0	23.0	24.5	20.5
8	10.0	9.5	15.0	14.0	23.0	20.5	27.0	23.5	27.0	25.0	25.0	21.5
9	10.0	9.0	16.5	15.0	23.5	21.5	27.0	25.0	---	---	24.0	20.5
10	10.0	8.5	17.0	16.0	24.0	22.5	27.0	25.0	---	---	24.0	20.5
11	8.5	8.0	17.0	16.5	25.5	23.0	25.0	23.5	---	---	24.0	21.0
12	8.5	7.5	16.5	16.0	25.5	24.0	25.5	18.5	---	---	23.5	21.5
13	8.0	7.0	---	---	24.0	23.0	25.5	22.0	27.0	26.0	23.0	21.5
14	8.5	7.0	---	---	24.0	21.0	26.5	24.0	26.5	25.5	23.0	22.0
15	10.0	8.0	---	---	24.0	21.5	26.0	24.0	25.5	24.5	23.5	21.0
16	11.0	9.5	16.0	15.0	24.0	23.5	25.5	21.5	24.5	24.0	23.5	22.0
17	11.5	11.0	16.0	15.5	24.0	23.0	24.5	20.5	24.5	24.0	23.0	21.5
18	12.0	11.5	16.0	15.0	24.0	23.0	25.5	19.5	25.0	24.0	23.0	21.0
19	13.0	12.0	16.0	15.5	24.0	23.0	26.0	21.0	25.5	22.0	21.5	20.0
20	14.0	13.0	16.0	15.5	25.5	21.5	25.5	24.5	25.5	23.5	21.5	20.0
21	15.0	13.5	16.0	15.0	---	---	25.5	24.0	24.0	22.5	21.0	20.0
22	16.5	15.0	16.5	15.5	25.0	23.0	24.5	23.5	23.0	20.0	23.0	20.5
23	16.5	15.0	18.0	16.5	24.0	21.0	25.5	23.0	23.5	20.0	23.0	21.5
24	15.5	14.0	18.0	17.5	24.5	20.0	25.5	24.0	23.5	22.0	23.0	20.5
25	15.5	14.0	18.5	18.0	25.0	21.0	25.0	23.5	24.5	23.5	24.0	20.0
26	14.0	13.5	19.0	18.0	25.5	22.0	24.5	23.5	26.0	23.5	23.0	21.0
27	14.0	12.0	19.5	19.0	24.0	21.5	25.5	24.0	27.0	24.5	24.5	21.0
28	12.0	11.0	20.0	19.0	23.5	22.0	26.0	24.0	27.5	25.5	24.5	22.0
29	12.0	11.0	20.0	18.5	23.0	20.0	24.5	23.5	28.5	26.0	24.5	22.5
30	12.0	11.0	19.5	19.0	23.5	19.5	25.0	21.0	29.0	26.0	23.0	20.5
31	---	---	19.5	18.5	---	---	25.0	21.5	29.0	26.0	---	---
MONTH	16.5	7.0	20.0	11.5	25.5	18.0	27.0	18.5	29.0	20.0	29.5	20.0
YEAR	29.5	1.0										

03150000 MUSKINGUM RIVER AT McCONNELLSVILLE, OHIO

LOCATION.--Lat 39°38'42", long 89°51'00", in SE 1/4 sec. 11, T.10 N., R.12 W., Morgan County, at gaging station on left bank just upstream from Dam 7, at McConnellsville, and 3.5 mi (5.6 km) downstream from Oil Spring Run. Water-quality recorder located on left bank, 1.0 mi (1.6 km) upstream from gaging station, 240 ft (73 m) upstream from bridge on State Highways 37 and 78.

DRAINAGE AREA.--7,422 mi² (19,223 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1950-72 (partial-record station), October 1972 to September 1973.

Water temperatures: October 1950 to September 1951, July 1954 to September 1963, June to September 1965, February to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED POTASSIUM (K) (MG/L)
OCT. 25...	1225	--	--	--	--	--	--	--	--	--	--
JAN. 23...	1430	10000	8.0	10	3600	1200	1300	85	23	43	4.3
FEB. 21...	1130	9180	9.4	--	--	--	--	86	12	36	3.1
MAR. 14...	1200	10400	6.7	--	--	--	--	77	16	32	3.6
APR. 03...	1425	14300	7.0	30	2200	280	460	62	14	21	2.7
MAY 09...	1140	13500	6.1	--	--	--	--	85	14	21	2.6
JUNE 13...	1300	--	--	--	--	--	--	--	--	--	--
13...	1330	9620	7.9	--	--	--	--	61	21	24	3.6
JULY 11...	1400	3650	4.6	--	--	--	--	85	24	46	4.4
AUG. 15...	1045	4410	.2	30	1100	430	800	97	27	62	6.1
SEP. 05...	1200	1540	--	--	--	--	--	--	--	--	--

DATE	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	TOTAL ORGANIC CARBON (C) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL PHYTOPLANKTON (CELLS PER ML)
OCT. 25...	--	10.0	--	--	--	2.0	--	--	--	--
JAN. 23...	492	9.0	50	12.4	110	9.0	2700	1300	800	9
FEB. 21...	440	7.0	20	13.4	110	--	1300	500	380	--
MAR. 14...	414	12.5	30	10.2	95	--	2200	770	190	--
APR. 03...	323	11.0	35	--	--	6.5	13000	1400	600	--
MAY 09...	362	15.0	45	--	--	--	--	--	--	--
JUNE 13...	--	24.0	--	--	--	.0	--	--	--	--
13...	364	24.0	100	--	--	--	15000	2200	4000	--
JULY 11...	496	27.5	25	--	--	--	78000	100	120	--
AUG. 15...	614	26.5	30	5.5	68	--	86000	350	40	--
SEP. 05...	--	29.0	--	5.0	64	8.0	860	16	0	--

03150000 MUSKINGUM RIVER AT McCONNELSVILLE, OHIO--Continued

REMARKS.--Prior to January 1973, sampling site was at gaging station. Water-quality recorder operated since February 1973. Maximum recorded specific conductance value of 1,250 micromhos occurred Sept. 30, 1973. Minimum recorded specific conductance value of 342 micromhos occurred June 22, 1973. Maximum recorded pH value of 8.9 occurred Aug. 29, 1973. Minimum recorded pH value of 5.4 occurred Apr. 15, 1973. Maximum recorded dissolved oxygen value of 14.1 mg/l occurred Aug. 29, 1973. Minimum recorded dissolved oxygen value of 3.5 mg/l occurred Aug. 12, 1973. Maximum recorded temperature of 33.5°C occurred Aug. 8, 1973. Minimum recorded temperature of 3.5°C occurred Feb. 28, 1973. Interruptions in the record were due to malfunctions of the instrument. Samples were collected each month to define the quality of water as part of the National Stream Quality Accounting Network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT. 25...	--	--	--	--	--	--	--	--	--	--	--
JAN. 23...	106	0	150	100	.3	1.4	1.0	.16	310	220	778
FEB. 21...	101	0	130	78	.3	2.1	.70	.11	270	180	670
MAR. 14...	104	0	110	80	.2	1.5	.30	.19	260	170	635
APR. 03...	100	0	100	53	.3	2.5	.65	.17	210	130	532
MAY 09...	102	0	150	56	.2	.90	.91	.16	270	190	578
JUNE 13...	--	--	--	--	--	--	--	--	--	--	--
13...	112	0	110	56	.4	2.0	1.7	.30	240	150	580
JULY 11...	136	0	140	110	.4	.50	1.1	.12	310	200	800
AUG. 15...	112	0	160	160	.5	.20	1.9	.20	350	260	942
SEP. 05...	--	--	--	--	--	.20	1.4	.10	--	--	--

MUSKINGUM RIVER BASIN

03150000 MUSKINGUM RIVER AT McCONNELLSVILLE, OHIO--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DATE	TIME	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED CADMIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)
OCT. 25...	1225	--	--	--	--	--	--	--	--	--
JAN. 23...	1430	5	7	1	1	0	9	7	9	11
APR. 03...	1425	2	3	1	1	0	20	3	5	12
JUNE 13...	1300	--	4	--	--	--	--	--	--	--
AUG. 15...	1045	3	3	0	0	0	0	2	2	19

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DIS-CHARGE (T/DAY)	TOTAL KJEL. NITROGEN IN BOTTOM DEP. (MG/KG)	TOTAL PHOSPHORUS IN BOTTOM DEPOSITS (MG/KG)	TOTAL ARSENIC IN BOTTOM DEPOSITS (UG/G)	TOTAL CADMIUM IN BOTTOM DEPOSITS (UG/G)	TOTAL CHROMIUM IN BOTTOM DEPOSITS (UG/G)
JAN. 23...	1430	10000	84	2270	--	--	--	--	--
FEB. 21...	1130	9180	23	570	--	--	--	--	--
MAR. 14...	1200	10400	54	1520	--	--	--	--	--
APR. 03...	1425	14300	84	3240	800	44	7	1	8
MAY 09...	1150	10600	103	2950	--	--	--	--	--
JUNE 13...	1150	9890	221	5900	--	--	--	--	--
JULY 11...	1400	3650	33	325	--	--	--	--	--
AUG. 15...	1045	4410	50	595	--	--	--	--	--
SEP. 05...	1200	1540	15	62	--	--	--	--	--

MUSKINGUM RIVER BASIN

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03150000 MUSKINGUM RIVER AT McCONNELLSVILLE, OHIO--Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DATE	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT. 25...	--	--	--	--	<.5	--	--	--	--
JAN. 23...	20	0	31	<.5	<.5	1	1	70	90
APR. 03...	19	10	33	<.5	<.5	1	1	60	80
JUNE 13...	--	--	--	--	<.5	--	--	--	--
AUG. 15...	54	8	23	<.5	<.5	0	0	90	90

DATE	TOTAL COBALT IN BOTTOM DE- POSITS (UG/G)	TOTAL COPPER IN BOTTOM DE- POSITS (UG/G)	TOTAL IRON IN BOTTOM DE- POSITS (UG/G)	TOTAL LEAD IN BOTTOM DE- POSITS (UG/G)	TOTAL MANGA- NESE IN BOTTOM DE- POSITS (UG/G)	TOTAL MERCURY IN BOTTOM DE- POSITS (UG/G)	TOTAL SELE- NIUM IN BOTTOM DE- POSITS (UG/G)	TOTAL ZINC IN BOTTOM DE- POSITS (UG/G)
JAN. 23...	--	--	--	--	--	--	--	--
FEB. 21...	--	--	--	--	--	--	--	--
MAR. 14...	--	--	--	--	--	--	--	--
APR. 03...	14	17	7100	20	790	.0	0	68
MAY 09...	--	--	--	--	--	--	--	--
JUNE 13...	--	--	--	--	--	--	--	--
JULY 11...	--	--	--	--	--	--	--	--
AUG. 15...	--	--	--	--	--	--	--	--
SEP. 05...	--	--	--	--	--	--	--	--

MUSKINGUM RIVER BASIN

03150000 MUSKINGUM RIVER AT McCONNELLSVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), FEBRUARY TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	1170	1140
2	---	---	---	---	---	---	---	---	---	---	1160	837
3	---	---	---	---	---	---	---	---	---	---	845	837
4	---	---	---	---	---	---	---	---	---	---	837	818
5	---	---	---	---	---	---	---	---	---	---	818	779
6	---	---	---	---	---	---	---	---	---	---	779	699
7	---	---	---	---	---	---	---	---	---	---	701	638
8	---	---	---	---	---	---	---	---	---	---	663	636
9	---	---	---	---	---	---	---	---	---	---	653	599
10	---	---	---	---	---	---	---	---	---	---	611	594
11	---	---	---	---	---	---	---	---	---	---	656	611
12	---	---	---	---	---	---	---	---	---	---	656	629
13	---	---	---	---	---	---	---	---	---	---	647	626
14	---	---	---	---	---	---	---	---	---	---	666	611
15	---	---	---	---	---	---	---	---	---	---	626	576
16	---	---	---	---	---	---	---	---	---	---	576	461
17	---	---	---	---	---	---	---	---	---	---	479	392
18	---	---	---	---	---	---	---	---	---	---	503	371
19	---	---	---	---	---	---	---	---	---	---	500	434
20	---	---	---	---	---	---	---	---	---	---	438	431
21	---	---	---	---	---	---	---	---	---	---	456	438
22	---	---	---	---	---	---	---	---	---	---	461	452
23	---	---	---	---	---	---	---	---	---	---	473	461
24	---	---	---	---	---	---	---	---	---	---	495	473
25	---	---	---	---	---	---	---	---	---	---	504	486
26	---	---	---	---	---	---	---	---	---	---	521	504
27	---	---	---	---	---	---	---	---	882	792	537	518
28	---	---	---	---	---	---	---	---	1170	858	524	500
29	---	---	---	---	---	---	---	---	---	---	500	476
30	---	---	---	---	---	---	---	---	---	---	516	483
31	---	---	---	---	---	---	---	---	---	---	525	507
MONTH	---	---	---	---	---	---	---	---	---	---	1170	371

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	548	516	488	434	557	545	---	---	758	608	965	939
2	551	527	465	434	606	555	---	---	627	603	941	924
3	552	527	490	463	617	578	---	---	639	579	983	932
4	572	552	522	490	618	563	---	---	672	590	978	944
5	557	537	549	522	594	578	---	---	728	672	957	944
6	539	497	554	547	615	575	---	---	792	722	981	953
7	518	501	561	549	609	588	---	---	816	782	1000	981
8	501	468	580	555	588	543	---	---	845	810	1080	1000
9	482	474	597	562	572	543	---	---	921	842	1130	1070
10	494	476	596	575	594	563	---	---	950	867	1160	1120
11	503	482	604	575	629	584	---	---	930	878	1120	1030
12	496	477	626	495	665	629	---	---	940	880	1030	1000
13	506	467	505	472	666	491	---	---	880	830	1010	990
14	490	463	514	493	641	495	---	---	864	836	1010	978
15	507	464	531	497	644	603	---	---	971	864	1100	1010
16	518	508	564	531	678	615	---	---	963	815	1130	1100
17	538	518	560	539	728	680	---	---	815	702	1140	1040
18	548	533	609	560	702	539	---	---	803	729	1040	960
19	544	460	653	609	572	500	---	---	761	722	1030	963
20	525	471	653	638	540	474	---	---	855	740	1040	1030
21	506	472	651	611	818	369	---	---	839	756	1030	1020
22	513	472	659	638	411	342	---	---	761	749	1030	989
23	522	480	698	656	---	---	---	---	803	761	1050	1020
24	523	483	699	671	---	---	---	---	810	800	1120	1060
25	548	523	674	659	---	---	---	---	846	810	1160	1120
26	589	548	738	659	---	---	---	---	923	846	1160	1160
27	573	510	659	522	---	---	557	524	1060	929	1190	1160
28	510	456	522	488	---	---	554	506	1140	1060	1190	1190
29	501	483	524	495	---	---	563	485	1070	909	1200	1150
30	507	488	534	524	---	---	707	567	920	911	1250	1200
31	---	---	551	533	---	---	819	707	948	920	---	---
MONTH	589	456	738	434	---	---	---	---	1140	579	1250	924

03150000 MUSKINGUM RIVER AT MCCONNELLSVILLE, OHIO--Continued

PH (UNITS), FEBRUARY TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	6.9	6.9	6.0	7.4	7.2	7.9	7.8	8.0	7.7	8.0	7.7
2	7.5	7.5	7.3	6.9	7.4	7.2	7.9	7.8	7.9	7.8	7.9	7.6
3	7.8	7.7	7.7	7.3	7.4	7.3	7.9	7.8	7.9	7.9	8.5	7.7
4	7.8	7.7	7.8	7.7	7.5	7.2	7.9	7.8	7.9	7.7	8.0	7.5
5	7.7	7.5	7.9	7.3	7.5	7.1	7.9	7.8	7.9	7.8	7.7	7.4
6	7.7	6.8	7.9	7.1	7.4	7.1	8.0	7.9	7.9	7.6	7.6	7.4
7	7.7	7.2	7.6	6.8	7.5	7.2	8.0	7.9	7.6	7.6	7.7	7.4
8	7.5	7.4	7.6	7.3	7.5	7.3	8.0	8.0	7.6	7.5	7.7	7.4
9	7.6	7.2	7.6	7.1	7.4	7.3	8.1	7.8	7.8	7.4	7.7	7.3
10	7.7	7.2	7.7	7.2	7.6	7.2	7.9	7.7	7.7	7.5	7.5	7.3
11	7.3	6.9	7.9	7.6	7.6	7.4	7.7	7.6	7.7	7.6	7.7	7.4
12	7.1	6.5	7.9	7.4	7.6	7.4	7.7	7.6	7.7	7.9	7.7	7.7
13	7.1	6.3	7.8	7.6	7.5	7.2	7.7	7.3	7.7	8.5	7.7	7.5
14	7.1	5.7	7.8	7.4	7.8	7.2	7.6	7.5	7.7	8.0	7.4	7.4
15	7.1	5.4	7.9	7.5	7.7	7.6	7.7	7.5	7.7	8.0	7.8	7.8
16	6.9	6.1	8.0	7.8	7.7	7.4	8.0	7.3	8.0	8.0	7.7	7.7
17	6.8	6.6	7.3	7.1	7.9	7.6	8.0	7.6	7.7	8.1	7.7	7.7
18	7.0	6.6	7.4	7.2	7.6	7.7	8.0	7.7	7.7	7.7	7.5	7.5
19	7.0	6.5	7.3	7.1	7.6	7.4	7.9	7.6	7.9	7.6	7.4	7.4
20	7.1	6.5	7.3	7.1	7.6	7.4	7.9	7.5	7.7	7.7	7.4	7.4
21	7.2	6.5	7.4	6.9	7.9	7.2	7.9	7.6	7.7	7.6	7.7	7.4
22	7.3	7.0	7.5	7.1	7.4	7.2	7.8	7.5	7.7	7.7	7.7	7.5
23	7.5	7.2	7.4	7.1	7.4	7.2	7.9	7.5	7.9	7.6	7.7	7.5
24	7.6	6.8	7.3	7.1	7.4	7.2	7.9	7.5	7.9	7.8	7.9	7.5
25	7.1	7.1	7.3	7.1	7.1	7.4	8.1	7.8	7.9	7.8	8.0	7.5
26	7.3	7.1	7.3	7.1	7.1	7.4	8.3	7.9	8.3	8.0	8.3	7.5
27	7.4	7.2	7.2	7.1	7.6	7.5	8.3	7.9	8.3	7.7	8.3	7.5
28	7.3	6.9	7.3	7.1	7.6	7.4	8.5	8.1	8.5	7.8	7.8	7.2
29	7.4	6.8	7.3	7.0	7.7	7.7	8.9	8.1	8.9	7.4	7.4	7.3
30	6.6	6.0	7.3	7.2	7.8	7.8	8.7	7.9	8.7	7.7	7.7	7.2
31	---	---	7.3	7.2	7.8	7.8	8.6	7.8	7.6	---	---	---
MONTH	7.8	5.4	8.0	6.0	---	---	8.9	7.3	---	8.5	7.2	---

03150000 MUSKINGUM RIVER AT McCONNELSVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, FEBRUARY TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	10.3	10.2
16	---	---	---	---	---	---	---	---	---	---	10.2	10.0
17	---	---	---	---	---	---	---	---	---	---	10.0	9.8
18	---	---	---	---	---	---	---	---	---	---	10.1	9.8
19	---	---	---	---	---	---	---	---	---	---	11.1	10.1
20	---	---	---	---	---	---	---	---	---	---	11.6	11.1
21	---	---	---	---	---	---	---	---	---	---	11.7	11.6
22	---	---	---	---	---	---	---	---	---	---	11.9	11.7
23	---	---	---	---	---	---	---	---	---	---	12.0	11.9
24	---	---	---	---	---	---	---	---	---	---	12.2	11.9
25	---	---	---	---	---	---	---	---	---	---	12.2	12.0
26	---	---	---	---	---	---	---	---	---	---	12.0	11.5
27	---	---	---	---	---	---	---	---	---	---	11.5	11.3
28	---	---	---	---	---	---	---	---	---	---	11.4	11.3
29	---	---	---	---	---	---	---	---	---	---	11.4	11.2
30	---	---	---	---	---	---	---	---	---	---	11.2	11.0
31	---	---	---	---	---	---	---	---	---	---	11.0	10.8
MONTH	---	---	---	---	---	---	---	---	---	---	10.8	10.6

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.6	10.4	10.4	10.1	8.2	8.1	---	---	7.0	6.6	8.4	5.9
2	10.4	10.2	10.1	9.6	8.2	8.0	---	---	6.9	6.4	6.6	5.0
3	10.4	10.2	9.6	9.4	8.0	7.9	---	---	7.0	6.3	7.9	4.7
4	10.6	10.4	9.5	9.3	7.9	7.7	---	---	6.8	6.0	6.6	3.9
5	11.0	10.6	10.0	9.4	7.8	7.7	---	---	6.8	5.7	6.0	4.6
6	11.2	11.0	9.9	9.7	7.8	7.7	---	---	6.6	5.4	5.5	3.7
7	11.2	11.1	9.7	9.4	7.8	7.7	---	---	6.3	5.2	5.4	3.9
8	11.1	10.9	9.4	8.7	7.9	7.7	---	---	6.1	5.0	5.3	4.4
9	11.0	10.9	8.7	8.5	7.8	7.5	---	---	5.8	4.8	5.5	5.0
10	11.3	10.9	8.5	8.3	7.7	7.5	---	---	5.5	4.6	6.2	4.9
11	12.2	11.3	8.3	8.1	7.9	7.5	---	---	5.0	3.8	6.9	5.9
12	12.3	12.1	8.2	8.0	7.8	7.3	---	---	4.6	3.5	7.6	6.6
13	12.4	12.2	8.3	8.1	7.3	6.9	---	---	4.5	3.8	12.0	6.9
14	12.4	11.7	8.4	8.3	7.7	7.0	---	---	7.2	4.3	8.6	6.7
15	12.3	11.8	8.5	8.3	7.7	7.6	---	---	7.4	5.5	8.2	6.7
16	11.7	11.2	8.4	8.2	7.6	5.9	---	---	10.3	7.1	7.9	7.2
17	11.2	10.9	8.5	8.4	7.6	7.0	---	---	9.8	7.9	8.9	7.2
18	10.9	10.7	8.8	8.4	7.2	6.2	---	---	9.9	8.2	7.5	6.3
19	10.7	10.6	8.6	8.4	7.0	6.1	---	---	9.2	7.9	6.5	5.4
20	10.6	10.3	8.6	8.3	7.1	5.9	---	---	9.8	7.7	7.5	5.6
21	10.3	10.0	9.0	8.5	7.4	6.6	---	---	9.7	8.1	7.3	6.1
22	10.0	9.4	8.8	8.5	7.1	6.5	---	---	9.4	7.4	7.3	6.4
23	9.4	9.1	8.6	8.3	---	---	---	---	9.9	7.7	6.7	6.0
24	9.4	9.1	8.3	8.0	---	---	---	---	9.9	7.8	8.9	5.5
25	9.4	9.2	8.4	8.0	---	---	---	---	9.3	7.1	8.3	5.6
26	9.6	9.3	8.2	7.6	---	---	---	---	9.3	7.6	9.5	6.0
27	9.7	9.4	8.0	7.7	---	---	7.9	7.3	9.7	8.4	8.8	7.1
28	10.1	9.6	7.9	7.6	---	---	8.0	7.3	11.3	8.3	9.2	6.4
29	10.5	10.1	8.0	7.8	---	---	7.4	7.1	14.1	9.3	6.4	4.3
30	10.4	10.4	8.0	7.9	---	---	7.7	6.9	13.5	8.2	7.1	3.9
31	---	---	8.2	8.0	---	---	7.3	6.6	12.4	7.5	---	---
MONTH	12.4	9.1	10.4	7.6	---	---	---	---	14.1	3.5	12.0	3.7

MUSKINGUM RIVER BASIN

83

03150000 MUSKINGUM RIVER AT McCONNELLSVILLE, OHIO--Continued

TEMPERATURE (°C) OF WATER, FEBRUARY TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	5.0	4.5
2	---	---	---	---	---	---	---	---	---	---	7.0	6.0
3	---	---	---	---	---	---	---	---	---	---	8.0	7.0
4	---	---	---	---	---	---	---	---	---	---	9.0	8.0
5	---	---	---	---	---	---	---	---	---	---	10.0	9.0
6	---	---	---	---	---	---	---	---	---	---	10.5	9.5
7	---	---	---	---	---	---	---	---	---	---	11.5	10.5
8	---	---	---	---	---	---	---	---	---	---	12.0	11.0
9	---	---	---	---	---	---	---	---	---	---	12.5	11.5
10	---	---	---	---	---	---	---	---	---	---	12.5	12.0
11	---	---	---	---	---	---	---	---	---	---	13.0	12.5
12	---	---	---	---	---	---	---	---	---	---	13.0	12.5
13	---	---	---	---	---	---	---	---	---	---	12.5	12.0
14	---	---	---	---	---	---	---	---	---	---	12.5	10.0
15	---	---	---	---	---	---	---	---	---	---	13.5	12.5
16	---	---	---	---	---	---	---	---	---	---	14.0	13.5
17	---	---	---	---	---	---	---	---	---	---	13.5	13.0
18	---	---	---	---	---	---	---	---	---	---	13.0	10.0
19	---	---	---	---	---	---	---	---	---	---	10.0	8.0
20	---	---	---	---	---	---	---	---	---	---	8.5	7.5
21	---	---	---	---	---	---	---	---	---	---	7.5	7.0
22	---	---	---	---	---	---	---	---	---	---	7.5	7.0
23	---	---	---	---	---	---	---	---	---	---	7.0	6.0
24	---	---	---	---	---	---	---	---	---	---	7.0	6.0
25	---	---	---	---	---	---	---	---	---	---	7.5	7.0
26	---	---	---	---	---	---	---	---	---	---	8.0	7.5
27	---	---	---	---	---	---	---	---	---	---	9.0	8.0
28	---	---	---	---	---	---	---	4.5	3.5	---	9.5	9.0
29	---	---	---	---	---	---	---	---	---	---	10.0	9.5
30	---	---	---	---	---	---	---	---	---	---	11.0	10.0
31	---	---	---	---	---	---	---	---	---	---	11.0	11.0
MONTH	---	---	---	---	---	---	---	---	---	---	14.0	4.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	11.0	11.5	9.5	19.0	18.0	---	---	27.5	26.5	29.5	28.0
2	12.5	11.5	13.0	11.5	19.0	18.5	---	---	27.5	26.0	29.5	29.0
3	12.5	11.5	14.0	13.0	19.5	19.0	---	---	28.0	25.5	30.0	29.5
4	11.5	10.5	14.0	12.5	20.5	19.5	---	---	29.5	26.5	30.5	29.0
5	10.5	9.5	12.5	11.5	21.0	20.0	---	---	30.0	26.0	29.5	28.5
6	9.5	8.0	12.0	11.0	21.5	21.0	---	---	32.0	26.5	29.0	28.0
7	9.0	8.0	12.5	11.5	21.5	21.0	---	---	33.0	28.0	28.5	27.5
8	9.0	8.5	13.5	12.5	22.0	21.0	---	---	33.5	28.5	28.0	27.0
9	9.5	8.5	15.0	14.0	22.0	21.5	---	---	32.0	29.0	27.5	26.5
10	9.5	9.0	16.0	15.0	23.0	22.0	---	---	30.5	28.5	26.5	25.5
11	8.0	7.0	16.5	16.0	24.0	23.0	---	---	31.0	27.5	26.0	24.5
12	7.0	6.0	16.5	15.5	25.5	24.0	---	---	31.5	28.5	25.0	24.0
13	6.5	6.0	16.0	15.0	25.0	23.0	---	---	30.0	28.0	24.5	24.0
14	7.0	6.0	15.0	14.5	24.5	23.0	---	---	28.5	27.0	24.0	23.5
15	8.0	6.5	15.5	15.0	24.5	23.5	---	---	27.5	26.5	24.0	23.5
16	9.0	8.0	15.0	14.5	24.0	23.5	---	---	26.5	25.0	24.0	23.5
17	10.0	9.0	15.5	15.0	24.0	23.5	---	---	25.0	24.0	24.0	23.5
18	10.5	10.0	15.5	14.5	24.0	22.5	---	---	25.5	24.5	23.5	23.0
19	11.0	10.5	15.0	14.5	24.0	22.5	---	---	25.5	25.0	23.0	22.5
20	12.0	11.0	14.5	14.0	23.5	22.5	---	---	25.5	25.0	22.5	21.5
21	13.0	12.0	14.5	14.0	24.5	23.0	---	---	25.5	25.0	22.5	21.5
22	14.5	13.0	15.0	14.5	23.5	22.5	---	---	25.0	24.5	22.5	22.0
23	15.0	14.5	16.0	15.0	---	---	---	---	25.0	23.5	22.5	22.0
24	14.5	13.5	16.5	16.0	---	---	---	---	24.5	24.0	24.0	22.0
25	14.0	13.5	16.5	16.0	---	---	---	---	24.5	23.0	23.0	22.5
26	13.5	12.5	16.5	16.0	---	---	---	---	24.5	24.0	23.0	22.5
27	12.5	11.5	17.0	16.5	---	---	---	---	25.5	24.0	23.5	22.0
28	11.5	10.5	17.5	16.5	---	---	25.0	24.5	26.5	25.0	24.0	23.0
29	10.5	9.0	18.5	17.0	---	---	26.5	25.0	27.5	26.0	24.0	23.5
30	9.5	9.0	18.5	18.0	---	---	27.0	25.0	27.0	27.0	25.0	24.0
31	---	---	18.5	18.0	---	---	27.5	25.5	29.5	28.0	---	---
MONTH	15.0	6.0	18.5	9.5	---	---	---	---	33.5	23.0	30.5	21.5

HOCKING RIVER BASIN

03159510 HOCKING RIVER BELOW ATHENS, OHIO

LOCATION.--Lat 39°19'39", long 82°00'18", Athens County, at Harmony Lane Bridge, 5.5 mi (8.8 km) downstream from gaging station at Athens.

DRAINAGE AREA.--957 mi² (2,479 km²).

PERIOD OF RECORD.--Chemical analyses: May 1966 to September 1973.
Water temperatures: May 1966 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,100 micromhos Sept. 29; minimum, 204 micromhos Aug. 22.

pH: Maximum, 8.3 Sept. 29; minimum, 6.0 July 20.

Dissolved oxygen: Maximum, 15.0 mg/l Jan. 31, Feb. 1, 16-20; minimum, 4.6 mg/l July 20.

Water temperatures: Maximum, 30.5°C Sept. 6; minimum, freezing point on several days during January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
02...	1200	994	--	--	104	0	130	67	.3	--	--
20...	1245	--	--	--	--	--	--	--	--	--	--
30...	0900	254	--	--	140	0	240	100	.3	--	--
NOV.											
05...	1000	1670	--	--	78	0	100	45	.2	--	--
27...	1300	1400	--	--	82	0	140	51	.2	--	--
DEC.											
10...	1700	8880	--	--	34	0	77	21	.2	--	--
31...	1100	1160	--	--	80	0	160	53	.2	--	--
JAN.											
14...	1600	680	--	--	96	0	200	56	.2	--	--
28...	1500	2860	--	--	49	0	120	40	.2	--	--
FEB.											
05...	1230	2230	--	--	60	0	110	31	.2	--	--
26...	1000	730	--	--	74	0	190	49	.2	--	--
MAR.											
01...	1130	690	--	--	70	0	190	53	.3	--	--
19...	1000	2730	--	--	62	0	99	33	.2	--	--
APR.											
11...	1305	4370	--	--	54	0	94	25	.2	--	--
23...	1100	1130	--	--	71	0	170	43	.2	--	--
MAY											
20...	1300	890	--	--	59	0	240	56	.3	--	--
28...	2000	1600	--	--	50	0	160	32	.2	--	--
JUNE											
19...	1140	3260	--	--	70	0	69	20	.4	--	--
19...	1500	--	--	--	--	--	--	--	--	--	--
27...	0800	426	--	--	100	0	200	56	.3	--	--
JULY											
17...	0900	250	--	--	100	0	290	74	.3	--	--
29...	1000	678	--	--	94	0	140	31	.3	--	--
AUG.											
20...	1200	314	57	25	116	0	190	51	--	.4	.00
SEP.											
17...	0900	123	79	31	35	0	360	63	--	.3	.00
19...	1050	115	90	38	106	1	320	88	--	.4	.00

03159510 HOCKING RIVER BELOW ATHENS, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1966-67, 1968-69, 1972-73): Maximum, 1,500 micromhos or higher July 12, 1966, Oct. 3, 1968; minimum, 140 micromhos July 13, 1966, Mar. 5, 1967.

pH (1972-73): Maximum, 8.3 Sept. 29, 1973; minimum, 6.0 July 20, 1973.

Dissolved oxygen (1968-69, 1972-73): Maximum, 15.0 mg/l or higher Jan. 31, Feb. 1, 16-20, 1973; minimum, 2.6 mg/l Jan. 27, 1969.

Water temperatures (1966-69, 1972-73): Maximum, 32.0°C Aug. 5, 30, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since May 1966. Minimum recorded dissolved oxygen concentration of 0.4 mg/l occurred June 9, 1966. Dissolved oxygen concentrations listed as 15.0 mg/l represents concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Hocking River at Athens, Ohio, station 03159500, drainage area 943 mi² (2,442 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
02...	1.4	--	230	140	602	412	--	14.5	--	--	--
20...	--	--	--	--	--	--	--	7.5	1	.0	<.5
30...	1.3	--	370	260	944	624	--	12.0	--	--	--
NOV.											
05...	1.9	--	200	140	481	326	--	12.0	--	--	--
27...	1.4	--	230	160	583	402	--	4.5	--	--	--
DEC.											
10...	1.2	--	120	92	303	200	--	5.0	--	--	--
31...	1.4	--	260	190	621	416	--	6.0	--	--	--
JAN.											
14...	1.6	--	310	230	729	460	--	.0	--	--	--
28...	1.2	--	180	140	459	270	--	.5	--	--	--
FEB.											
05...	1.4	--	190	140	441	294	--	5.0	--	--	--
26...	1.3	--	290	230	673	418	--	.5	--	--	--
MAR.											
01...	1.3	--	280	220	684	442	--	5.0	--	--	--
19...	1.4	--	170	120	424	270	--	.5	--	--	--
APR.											
11...	1.4	--	150	110	368	208	--	6.5	--	--	--
23...	1.0	--	250	190	584	352	--	17.0	--	--	--
MAY											
20...	1.1	--	310	260	717	518	--	14.0	--	--	--
28...	1.2	--	220	180	525	372	--	19.0	--	--	--
JUNE											
19...	2.6	--	150	92	331	202	--	22.0	--	--	--
19...	--	--	--	--	--	--	--	23.0	2	3.0	<.5
27...	1.4	--	330	250	739	416	--	22.0	--	--	--
JULY											
17...	1.0	--	410	330	960	666	--	23.0	--	--	--
29...	1.5	--	240	160	533	350	--	24.0	--	--	--
AUG.											
20...	--	1.2	--	--	734	--	610	22.0	--	--	--
SEP.											
17...	--	1.0	--	--	952	--	720	21.0	--	--	--
19...	--	1.5	--	--	1070	--	799	17.0	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	767	597	958	682	588	552	627	600	572	505	713	659
2	672	596	752	505	600	565	606	572	587	448	717	675
3	687	619	511	465	618	588	609	567	454	392	725	676
4	704	632	467	449	627	604	567	423	422	391	697	654
5	717	654	537	467	610	426	446	354	485	422	707	599
6	753	693	567	501	462	291	441	371	520	477	634	593
7	785	742	569	474	364	278	495	440	573	498	654	591
8	842	785	474	329	319	307	605	555	582	509	663	606
9	857	808	363	334	---	---	---	---	550	499	654	621
10	922	841	424	363	---	---	618	579	553	523	631	592
11	930	881	491	424	402	360	680	587	574	541	646	607
12	892	552	545	491	446	401	744	657	595	565	668	614
13	722	453	583	529	467	446	786	743	610	556	675	631
14	617	481	576	391	---	---	764	723	628	546	707	639
15	680	603	391	297	---	---	791	740	555	448	721	676
16	728	649	380	328	---	---	771	735	487	453	725	614
17	754	694	469	380	---	---	758	719	480	442	618	469
18	792	738	525	461	---	---	755	716	522	454	469	393
19	839	776	557	524	---	---	752	665	552	505	447	399
20	866	794	548	461	555	507	675	633	571	537	475	434
21	892	826	474	417	540	425	665	611	593	555	478	445
22	893	850	477	428	431	402	643	444	623	567	488	461
23	896	859	538	473	479	429	501	421	640	598	533	470
24	922	874	565	522	482	476	455	401	658	624	566	505
25	965	897	585	552	---	---	469	436	678	637	571	542
26	979	901	571	554	548	528	526	464	713	653	595	508
27	1010	896	602	561	555	533	553	466	720	613	527	439
28	975	904	595	564	557	528	491	440	713	667	468	415
29	947	908	591	553	579	545	449	427	---	---	509	452
30	981	921	585	553	599	575	472	431	---	---	534	504
31	993	950	---	---	623	590	512	457	---	---	536	478
MONTH	1010	453	958	297	---	---	791	354	720	391	725	393
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	513	480	426	393	646	599	811	789	717	624	938	742
2	522	498	497	423	661	622	842	794	732	687	968	521
3	552	510	513	474	685	641	836	769	768	708	990	835
4	544	324	474	450	707	671	871	824	795	734	1020	882
5	376	318	488	449	702	353	853	794	798	734	1050	925
6	388	333	539	485	387	316	833	722	824	773	1040	937
7	439	387	573	537	441	387	758	707	866	824	1020	963
8	447	423	581	554	508	441	793	677	875	822	1020	974
9	439	381	558	521	593	514	901	806	882	792	974	932
10	390	358	555	471	633	584	916	854	882	699	976	929
11	393	358	533	525	678	626	937	848	665	365	---	---
12	437	390	632	597	732	675	940	889	930	329	---	---
13	468	422	651	603	749	707	940	913	951	722	---	---
14	446	414	662	626	768	736	958	902	935	749	---	---
15	485	428	692	656	777	700	943	901	939	665	---	---
16	519	479	703	665	778	739	959	908	665	575	---	---
17	551	516	732	695	798	591	---	---	668	563	---	---
18	576	537	748	714	550	333	924	869	630	584	---	---
19	578	548	754	712	471	304	999	828	677	606	1030	998
20	608	560	737	698	539	463	849	644	717	560	1040	1030
21	602	570	730	515	605	533	816	422	827	704	1070	1030
22	624	597	594	536	655	601	806	350	842	204	1070	1040
23	647	503	669	583	654	566	569	375	991	362	1040	944
24	509	258	692	647	689	640	540	321	968	881	1060	921
25	360	288	685	643	728	650	572	363	909	835	1070	1020
26	408	360	658	497	764	680	554	240	911	867	1060	1000
27	419	309	612	537	774	734	419	356	960	901	1060	935
28	314	269	567	525	796	751	509	413	995	938	1060	953
29	345	273	560	535	820	789	567	489	999	913	1100	912
30	393	345	602	530	859	802	635	450	958	929	1030	834
31	---	---	611	581	---	---	671	618	977	914	---	---
MONTH	647	258	754	393	859	304	999	240	999	204	---	---
YEAR	1100	204										

HOCKING RIVER BASIN

03159510 HOCKING RIVER BELOW ATHENS, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	6.9	8.4	7.3	12.2	11.9	10.2	9.6	15.0	13.8	13.1	11.8
2	7.3	6.8	7.4	6.6	11.9	11.4	10.7	9.6	14.0	13.1	12.9	11.5
3	7.2	6.7	7.0	6.9	11.4	11.0	11.4	10.4	13.6	13.3	11.8	11.0
4	7.1	6.5	7.0	6.9	11.0	10.4	11.4	10.6	14.1	13.6	11.3	10.4
5	7.0	6.3	7.6	7.0	10.4	9.9	11.5	10.9	14.8	14.1	10.9	10.1
6	7.0	6.2	7.9	7.6	10.3	9.6	11.7	11.2	14.2	11.3	10.7	9.6
7	6.9	6.2	7.8	7.6	10.6	7.0	12.2	11.6	13.6	12.0	10.1	9.6
8	7.1	6.4	7.8	7.4	11.9	7.0	12.6	11.9	12.8	11.8	10.0	9.2
9	7.2	6.5	8.1	7.6	---	---	---	---	14.1	12.8	10.0	9.3
10	7.4	6.9	8.2	8.0	---	---	---	---	14.7	14.1	9.8	8.7
11	7.6	7.1	8.0	7.9	12.6	11.3	12.5	10.1	14.5	13.9	9.1	8.7
12	7.4	6.5	8.0	7.9	11.6	10.8	12.0	11.0	14.2	13.3	9.9	9.0
13	6.8	6.6	8.1	8.0	---	---	11.9	11.2	14.0	13.3	10.0	9.1
14	7.4	6.8	8.6	8.1	---	---	11.6	11.3	14.4	13.2	9.8	8.5
15	8.0	6.8	11.0	8.6	---	---	11.9	11.6	14.4	13.9	9.0	8.4
16	8.0	7.1	11.6	10.3	---	---	12.2	11.6	15.0	14.4	9.1	8.9
17	8.1	7.1	11.9	10.7	---	---	12.7	11.3	15.0	15.0	11.3	9.0
18	8.1	7.3	12.0	11.7	---	---	12.1	10.8	15.0	14.9	13.3	11.3
19	8.5	7.4	11.8	11.4	---	---	11.4	10.9	15.0	14.8	13.8	12.9
20	8.9	8.2	12.1	11.3	12.3	11.3	11.9	11.4	15.0	14.6	13.6	13.2
21	9.0	8.2	12.1	11.4	13.6	11.0	12.9	11.9	14.9	14.4	13.9	13.0
22	8.7	8.0	11.7	11.3	---	---	12.4	12.0	15.0	14.7	14.0	13.5
23	8.5	7.5	11.6	11.4	---	---	12.5	12.3	15.0	14.3	14.0	12.7
24	8.0	7.4	11.8	11.5	---	---	13.2	12.5	14.6	13.7	13.6	11.6
25	8.3	7.4	11.9	11.6	---	---	13.6	13.0	14.4	13.4	12.6	11.6
26	8.5	7.7	11.9	11.5	11.4	10.0	13.7	12.7	14.3	13.5	11.9	11.1
27	8.6	7.9	11.8	11.2	11.1	10.5	12.8	12.2	13.8	12.9	11.6	11.2
28	8.4	7.5	11.5	11.1	11.6	10.9	12.5	12.1	13.3	12.6	11.7	11.0
29	8.1	7.3	12.3	11.5	11.5	11.1	13.5	12.4	---	---	11.3	10.7
30	8.5	7.3	12.4	12.1	11.4	10.2	14.8	13.8	---	---	10.9	10.6
31	8.5	7.5	---	---	10.5	10.0	15.0	14.6	---	---	11.0	9.9
MONTH	9.0	6.2	12.4	6.6	---	---	15.0	9.6	15.0	11.3	14.0	8.4
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.9	9.4	8.6	7.5	8.5	8.2	7.1	6.7	8.1	6.2	7.1	5.6
2	10.4	9.9	8.0	5.6	8.3	8.0	7.4	6.5	8.0	6.4	6.3	5.0
3	10.8	10.4	8.5	7.8	8.0	7.7	7.1	6.2	8.3	6.5	6.5	5.5
4	12.0	10.8	9.1	8.3	7.7	7.4	7.1	6.0	9.0	6.5	7.0	6.5
5	12.5	12.0	9.7	7.6	8.0	6.9	6.8	5.8	9.5	6.6	7.0	6.1
6	12.6	11.7	9.4	7.5	8.2	8.0	6.4	6.0	9.6	6.7	6.8	5.8
7	11.7	11.0	8.7	6.4	8.3	8.0	6.3	5.9	9.5	6.9	6.4	5.8
8	11.2	11.0	8.5	6.9	8.1	7.8	6.1	5.8	9.3	6.8	7.9	5.9
9	11.1	10.1	7.8	6.6	7.8	7.4	6.1	5.8	8.8	6.7	7.7	5.8
10	10.7	10.0	8.0	6.9	7.4	7.1	6.0	5.6	8.0	6.2	8.3	6.8
11	12.4	9.4	7.7	7.1	7.2	6.9	6.9	5.4	8.0	6.4	---	---
12	12.9	12.3	9.3	9.1	7.1	6.7	7.0	6.1	7.9	6.5	---	---
13	13.2	12.4	9.6	9.3	7.3	6.8	6.9	6.1	7.2	5.3	---	---
14	13.0	11.8	9.7	9.2	7.3	6.9	6.7	5.7	8.2	6.3	---	---
15	12.5	11.3	9.6	9.3	7.4	7.0	6.4	5.2	7.9	6.7	---	---
16	11.5	10.6	9.8	9.1	7.3	6.8	6.3	5.9	7.9	7.0	---	---
17	11.2	10.3	9.4	9.2	7.4	6.7	---	---	7.7	6.6	---	---
18	10.4	10.1	9.6	9.0	7.1	6.8	7.0	6.0	7.7	6.4	---	---
19	10.2	9.9	9.4	8.8	7.1	6.4	6.4	5.7	7.6	6.5	7.8	7.2
20	10.2	9.6	9.5	8.9	6.5	6.1	5.8	4.6	7.6	6.2	7.9	7.2
21	9.9	9.4	9.8	9.4	6.4	6.1	6.5	5.0	8.4	6.3	7.9	7.1
22	9.5	9.1	9.5	8.7	6.6	6.3	6.9	5.6	7.6	6.4	7.7	6.9
23	10.9	9.1	8.7	8.2	6.7	6.3	6.9	6.4	7.4	6.7	7.2	6.1
24	11.6	9.2	8.4	8.3	6.7	6.3	6.9	5.9	7.4	6.6	7.4	6.2
25	11.5	9.9	8.5	8.3	6.8	6.2	6.9	6.3	7.3	6.7	7.4	6.4
26	11.2	10.6	8.5	8.1	6.8	6.2	6.9	6.7	7.2	6.5	7.1	6.2
27	11.7	10.5	8.3	8.1	7.1	6.3	6.8	6.7	6.9	6.3	7.1	6.2
28	11.9	11.1	8.2	8.0	7.0	6.4	6.8	6.6	6.6	6.0	7.0	5.6
29	12.0	7.5	8.3	8.2	7.2	6.6	7.0	6.4	6.6	5.8	7.1	5.9
30	8.6	8.0	8.4	8.2	7.2	6.7	7.6	6.5	6.8	5.7	6.7	5.2
31	---	---	8.4	8.3	---	---	7.9	6.5	7.0	5.7	---	---
MONTH	13.2	7.5	9.8	5.6	8.5	6.1	7.9	4.6	9.6	5.3	---	---
YEAR	15.0	4.6										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.0	15.0	12.0	11.5	4.0	3.0	7.0	5.5	3.5	1.5	7.5	4.0
2	15.0	13.5	12.5	12.0	5.5	3.5	5.5	4.0	5.5	3.5	8.0	5.0
3	17.0	13.5	13.5	12.0	5.5	4.5	4.0	3.0	5.5	5.5	8.5	7.0
4	16.0	14.0	13.0	12.0	6.5	5.0	4.0	3.5	6.0	5.0	10.5	8.0
5	17.5	15.0	12.5	10.5	8.0	6.5	4.0	3.5	5.5	4.5	12.0	9.0
6	17.5	15.5	11.5	9.5	8.5	7.5	3.5	2.0	6.0	5.0	13.5	10.5
7	16.5	15.5	10.0	9.5	7.5	5.5	1.5	0.5	6.5	6.0	13.5	11.5
8	17.5	13.5	10.0	9.5	7.0	3.5	0.5	0.0	6.0	4.0	14.5	11.5
9	17.5	13.5	9.5	9.0	---	---	---	---	4.0	2.5	14.5	11.5
10	15.5	11.5	9.5	8.5	---	---	0.5	0.0	2.5	1.0	15.5	12.5
11	15.0	12.0	9.5	9.5	4.0	3.5	0.5	0.0	2.0	0.5	15.0	13.5
12	15.0	13.5	10.5	9.0	6.5	3.5	1.0	0.0	2.5	0.0	14.0	12.5
13	14.0	13.0	9.5	9.0	8.0	6.5	1.0	0.0	3.0	0.5	14.5	12.0
14	15.0	12.5	9.5	8.5	---	---	1.0	0.0	3.0	1.5	16.0	12.0
15	14.5	12.0	8.5	7.0	---	---	1.0	0.5	3.0	2.5	17.0	14.0
16	13.0	11.5	7.0	6.0	---	---	2.0	0.5	2.5	0.5	15.0	14.5
17	13.5	11.5	6.5	5.5	---	---	3.0	0.5	1.5	0.0	14.5	10.0
18	13.0	10.0	6.0	5.5	---	---	5.0	1.5	0.5	0.0	10.0	6.0
19	10.5	9.5	6.0	6.0	---	---	4.5	3.5	2.5	0.0	7.0	5.0
20	10.5	6.5	6.5	6.0	3.5	3.0	3.5	3.0	2.5	1.0	6.5	5.5
21	10.5	7.5	6.5	6.0	5.5	3.5	3.5	2.0	3.0	2.0	7.0	5.0
22	12.0	9.0	6.0	5.5	6.0	5.0	4.5	3.0	2.5	1.0	6.0	5.0
23	12.0	10.5	6.0	5.0	---	---	4.0	4.0	3.5	2.0	8.0	4.5
24	12.0	10.5	6.0	4.5	---	---	4.0	3.0	5.0	2.5	9.5	5.5
25	11.5	11.0	4.5	4.0	---	---	4.0	2.5	5.0	2.5	9.0	7.0
26	12.5	10.0	4.5	4.0	6.0	5.5	4.0	2.5	5.0	4.0	10.0	8.5
27	12.5	9.0	5.0	4.0	5.5	4.0	5.0	3.5	5.0	4.5	11.0	9.0
28	13.5	11.5	5.0	4.5	4.0	3.5	5.5	5.0	6.5	4.5	11.0	9.0
29	13.5	12.5	4.5	3.0	4.0	3.0	5.0	3.5	---	---	11.5	10.0
30	13.0	11.5	3.0	3.0	5.5	4.0	3.0	1.5	---	---	11.5	10.5
31	12.5	10.5	---	---	7.0	5.5	2.5	0.5	---	---	12.0	10.5
MONTH	17.5	6.5	13.5	3.0	---	---	7.0	0.0	6.5	0.0	17.0	4.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	11.0	17.5	9.0	21.0	16.5	25.5	20.5	25.0	23.0	28.0	26.0
2	12.5	11.5	20.5	12.5	22.0	17.5	27.0	21.5	25.5	22.5	28.5	26.0
3	11.5	10.5	12.5	10.5	23.5	19.0	28.5	23.0	26.0	22.0	28.5	26.0
4	10.5	8.5	10.5	9.5	24.5	20.0	28.5	23.5	26.5	22.5	28.0	26.0
5	8.5	7.5	14.0	7.5	22.0	20.0	28.0	24.0	27.0	22.5	27.5	26.0
6	9.0	7.5	15.5	9.0	20.5	19.5	28.0	23.5	27.0	22.5	30.5	24.5
7	9.5	8.5	18.0	12.5	21.5	19.0	29.0	23.0	27.0	23.5	24.5	23.0
8	9.5	9.0	20.0	16.0	23.0	19.5	29.5	23.5	28.0	24.5	24.5	21.5
9	9.5	8.5	20.5	16.0	25.0	20.5	30.0	25.5	28.0	24.5	24.0	20.5
10	9.0	7.5	21.0	16.5	26.5	22.0	30.0	26.0	28.5	25.0	20.5	19.0
11	7.5	6.0	19.5	17.5	27.5	23.0	28.0	25.0	27.5	24.5	---	---
12	6.5	5.5	17.5	16.0	26.0	24.0	27.5	23.0	27.5	25.0	---	---
13	7.0	5.5	16.5	15.0	26.5	23.0	28.5	23.0	27.5	24.0	---	---
14	8.5	6.5	17.0	14.0	27.0	22.0	28.5	24.5	25.5	23.5	---	---
15	10.5	7.5	16.0	14.0	27.0	21.0	28.0	24.0	25.0	23.0	---	---
16	11.5	9.5	17.0	13.0	26.0	22.5	25.5	23.5	25.0	22.0	---	---
17	12.5	11.0	15.5	14.0	25.5	22.0	---	---	25.5	22.5	---	---
18	13.5	12.0	16.5	13.0	24.0	22.0	27.0	23.5	26.0	22.5	---	---
19	14.5	13.0	15.5	13.5	24.5	22.0	27.5	23.5	26.0	22.5	17.5	17.0
20	15.5	13.5	15.0	14.0	26.5	23.0	26.5	23.5	25.5	22.5	18.5	17.0
21	18.0	14.5	16.5	13.0	26.5	23.5	24.5	23.0	25.5	22.5	18.5	17.5
22	18.0	16.0	18.5	14.0	26.0	23.5	24.0	22.5	24.0	21.0	20.0	18.5
23	16.5	15.0	18.5	16.0	26.5	22.5	24.0	22.0	24.5	20.0	21.0	20.0
24	15.0	13.5	18.0	17.0	27.0	22.5	24.5	22.5	24.5	20.5	22.0	19.5
25	14.0	13.0	19.0	17.0	27.5	22.0	23.5	22.5	25.5	21.0	22.5	19.0
26	13.0	11.5	20.5	17.5	28.0	22.5	23.5	22.5	26.0	22.5	22.5	20.5
27	11.5	11.0	19.5	18.0	25.5	22.5	24.0	22.5	27.0	24.0	22.0	20.0
28	11.0	10.0	20.5	18.5	24.5	21.5	26.0	23.0	27.5	25.0	23.0	21.0
29	13.5	10.0	21.0	18.5	24.5	21.0	25.5	23.5	28.0	26.0	24.0	21.0
30	16.5	13.0	19.5	18.5	25.5	20.0	26.5	22.5	28.5	26.0	22.0	21.0
31	---	---	20.0	17.5	---	---	25.5	22.5	28.0	25.5	---	---
MONTH	18.0	5.5	21.0	7.5	28.0	16.5	30.0	20.5	28.5	20.0	---	---
YEAR	30.5	0.0										

RACCOON CREEK BASIN

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OHIO

LOCATION.--Lat 39°21'45", long 82°18'47", in NW 1/4 SW 1/4 sec. 11, T.11 N., R.16 W., Vinton County, at gaging station on right bank, 250 ft (76 m) upstream from Big Four Hollow Creek, 150 ft (46 m) downstream from Morgan Hollow Creek, 2.5 mi (4.0 km) southwest of Carbondale, and 3.7 mi (6.0 km) northeast of Lake Hope.

DRAINAGE AREA.--0.98 mi² (2.54 km²).

PERIOD OF RECORD.--Chemical analyses: April 1970 to September 1973.
Water temperatures: January 1971 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 2,940 micromhos Sept. 22; minimum, 123 micromhos Apr. 27.

pH: Maximum, 6.8 Nov. 1; minimum, 1.9 Apr. 10.

Water temperatures: Maximum, 33.5°C Aug. 2; minimum, freezing point on several days during January and February.

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 3,100 micromhos Oct. 21, 22, 1971; minimum, 123 micromhos Apr. 27, 1973.

pH (1971-73): Maximum, 7.5 Dec. 6, 1971; minimum, 1.9 Apr. 10, 1973.

Water temperatures: Maximum, 33.5°C Aug. 2, 1973; minimum, freezing point on several days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since January 1971. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected on an approximate bi-weekly basis and partial analyses were made on these samples.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	HARDNESS (CA,MG) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TEMPERATURE (DEG C)
OCT.											
04...	1145	.22	34000	3900	580	740	4.4	1360	3.0	840	14.5
17...	1530	.18	25000	3900	530	350	4.2	1240	3.1	796	12.0
NOV.											
01...	1115	8.4	1800	490	92	93	.4	233	5.6	164	11.0
14...	1135	4.8	3900	1300	130	100	.7	332	4.1	196	10.5
29...	1145	1.4	6700	1200	200	150	1.2	541	3.4	294	2.5
DEC.											
15...	1050	3.9	2400	1400	250	170	1.8	702	3.3	368	5.0
27...	1130	1.0	6700	1500	230	160	1.6	618	3.7	320	2.0
JAN.											
17...	1335	.54	17000	1700	310	230	2.2	848	3.2	452	3.0
22...	1105	4.4	5500	660	130	120	.8	363	4.0	204	3.5
FEB.											
13...	1225	.86	2300	1500	290	190	2.1	750	3.2	424	2.0
28...	1015	.56	19000	1900	310	220	2.2	822	3.1	458	3.5
MAR.											
12...	1015	.50	13000	2000	310	200	2.2	820	3.1	474	9.5
20...	1130	2.4	9000	990	200	150	1.2	522	3.5	290	6.0
APR.											
13...	1200	3.8	2800	930	110	110	.5	282	4.6	170	7.5
17...	1330	1.4	9000	1100	200	150	1.4	562	3.3	300	12.0
30...	1220	2.8	4800	520	150	110	1.0	415	3.6	244	11.0
MAY											
16...	1530	.34	34000	2400	450	290	3.4	1120	3.0	666	18.0
30...	1430	1.2	5200	1100	210	160	1.2	544	3.5	324	15.0
JUNE											
14...	1200	.12	13000	3000	470	230	3.8	1190	2.9	710	16.5
26...	1350	.08	37000	5500	780	300	6.8	1700	2.9	1240	22.0
JULY											
16...	1100	.04	45000	7300	1000	880	8.0	1980	2.8	1510	17.5
AUG.											
07...	1100	.06	13000	5200	1000	620	9.2	2070	2.8	1380	19.5
16...	1315	.07	47000	2300	810	500	7.5	1790	2.8	1310	21.0
SEP.											
05...	1145	.04	88000	11000	1500	980	13	2560	2.6	2240	19.5
21...	1450	.04	59000	1200	1400	960	13	2500	2.6	2100	17.0

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

RACCUON CREEK BASIN

03201600 SANDY RUN ABOVE BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OHIO--Continued

PH (UNITS), WATER YEAP OCTOBFER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.0	2.8	6.8	3.8	4.1	3.7	3.4	2.6	3.7	2.9	3.5	2.8
2	3.0	2.9	5.9	4.6	4.6	3.8	3.1	2.4	4.7	3.0	3.6	2.9
3	2.9	2.6	5.7	4.0	4.5	3.7	4.8	2.4	4.7	3.1	4.1	3.1
4	3.0	2.6	4.1	3.8	3.9	3.3	4.4	3.9	3.5	2.3	4.2	3.0
5	2.8	2.7	4.2	3.9	3.7	3.3	3.9	3.3	3.0	2.3	3.7	3.0
6	2.8	2.7	4.2	3.6	5.9	3.2	4.0	3.1	3.2	2.6	3.7	2.8
7	2.8	2.7	6.7	3.6	6.0	2.9	4.5	3.6	3.2	2.7	3.3	2.9
8	2.7	2.6	5.5	4.4	4.9	2.6	4.3	3.5	3.3	2.8	3.4	2.9
9	2.7	2.5	4.4	3.6	---	---	4.3	3.5	3.6	2.5	3.3	2.8
10	2.7	2.5	3.6	3.3	---	---	---	---	3.4	2.9	3.3	2.7
11	2.7	2.6	3.5	3.4	---	---	---	---	3.6	3.0	3.1	2.7
12	5.7	2.6	3.4	3.1	---	---	---	---	3.5	3.0	3.3	3.0
13	3.5	3.1	3.1	2.9	---	---	---	---	3.5	3.1	3.7	2.7
14	3.2	3.0	4.4	3.1	---	---	---	---	4.4	2.6	3.4	2.7
15	3.3	3.1	4.1	3.1	---	---	---	---	4.3	3.3	3.2	2.9
16	3.1	2.8	3.5	2.9	---	---	---	---	4.3	2.7	5.0	3.1
17	3.1	2.8	3.8	3.0	---	---	3.7	2.3	4.8	3.2	5.2	3.5
18	3.3	3.1	3.7	3.1	---	---	3.2	2.4	3.6	2.8	5.4	4.5
19	3.5	3.0	4.7	2.9	---	---	3.9	2.6	3.2	2.9	5.2	3.8
20	3.8	3.3	5.6	4.8	---	---	4.3	3.6	3.7	3.1	4.0	3.2
21	3.7	3.3	5.0	3.8	---	---	4.0	3.2	3.8	2.9	3.6	3.0
22	3.4	3.2	5.0	4.1	---	---	5.2	3.6	4.3	3.4	3.3	2.9
23	3.3	3.2	5.4	3.8	---	---	5.0	4.1	4.3	2.9	3.2	2.9
24	3.5	3.3	4.8	3.7	---	---	5.0	4.0	---	---	3.1	2.6
25	3.8	3.5	4.9	3.4	---	---	5.4	3.9	---	---	2.8	2.6
26	3.8	3.3	4.3	3.6	---	---	4.2	3.7	---	---	2.9	2.8
27	4.4	3.5	4.5	3.0	3.5	2.8	5.2	3.8	3.8	3.3	---	---
28	3.8	3.3	4.3	3.2	3.7	3.0	---	---	3.8	3.3	3.2	3.1
29	3.4	3.3	4.2	3.2	3.6	2.6	---	---	---	---	3.9	3.0
30	3.7	3.4	4.1	3.5	3.0	2.5	---	---	---	---	3.9	2.8
31	3.8	3.4	---	---	3.3	2.7	3.7	3.2	---	---	3.0	2.7
MONTH	5.7	2.5	6.8	2.9	---	---	---	---	4.8	2.3	5.4	2.6
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.3	2.8	3.5	3.2	4.1	3.1	3.1	2.8	2.7	2.7	2.6	2.5
2	3.1	2.9	3.2	3.1	3.9	3.1	3.0	2.8	2.7	2.7	2.6	2.5
3	3.0	2.8	4.5	3.1	3.6	3.0	3.2	2.8	2.8	2.7	2.6	2.5
4	3.6	2.8	4.2	3.6	4.4	3.1	3.1	2.8	2.8	2.6	2.6	2.5
5	3.5	2.9	3.6	3.2	4.5	3.6	2.9	2.7	2.8	2.6	2.6	2.4
6	3.1	2.8	3.3	3.0	4.1	3.5	2.9	2.7	2.8	2.6	2.4	2.4
7	3.0	2.6	3.1	2.9	3.6	3.3	2.9	2.7	2.9	2.6	2.5	2.4
8	2.8	2.5	3.1	2.9	3.3	3.1	2.8	2.7	2.9	2.7	2.5	2.4
9	2.6	2.4	3.2	2.9	3.1	2.9	2.8	2.6	2.8	2.7	2.5	2.5
10	2.6	1.9	3.0	2.8	3.0	2.9	2.8	2.7	2.8	2.7	2.5	2.4
11	---	---	3.1	2.8	2.9	2.8	2.8	2.7	2.8	2.7	2.6	2.4
12	---	---	3.0	2.9	2.9	2.8	2.8	2.7	2.8	2.7	2.5	2.4
13	4.3	3.4	3.0	2.9	2.9	2.8	2.8	2.6	2.8	2.7	2.4	2.3
14	3.6	2.7	3.3	3.0	3.0	2.8	3.0	2.6	5.4	2.8	2.7	2.4
15	3.5	2.7	3.6	3.0	2.8	2.6	3.0	2.7	3.1	2.8	2.5	2.4
16	3.6	3.3	3.3	2.6	3.6	2.8	2.8	2.7	2.9	2.8	2.6	2.4
17	3.9	3.2	3.1	2.7	3.0	2.9	2.8	2.6	2.8	2.8	---	---
18	3.8	3.5	3.0	2.6	2.9	2.9	2.8	2.6	2.8	2.7	---	---
19	3.8	3.5	5.3	2.7	---	---	2.7	2.6	2.8	2.7	---	---
20	3.9	3.6	5.8	3.5	---	---	2.8	2.6	3.3	2.8	---	---
21	3.8	3.6	3.7	2.9	---	---	2.7	2.7	2.9	2.8	2.6	2.5
22	3.7	3.4	3.3	2.7	---	---	2.7	2.7	2.9	2.7	2.7	2.5
23	4.4	3.4	3.0	2.8	---	---	2.7	2.7	2.9	2.7	3.2	2.5
24	4.4	3.7	3.9	2.8	---	---	2.7	2.7	2.8	2.7	2.7	2.5
25	---	---	5.0	2.7	---	---	2.7	2.7	2.8	2.7	2.6	2.4
26	---	---	5.1	3.2	2.9	2.8	2.7	2.7	2.8	2.6	2.6	2.4
27	---	---	3.9	2.9	3.0	2.8	2.7	2.6	2.7	2.6	2.6	2.4
28	---	---	4.5	3.6	3.0	2.9	2.7	2.6	2.7	2.6	2.5	2.4
29	---	---	3.8	3.1	2.9	2.8	2.7	2.6	2.6	2.6	4.0	2.4
30	---	---	3.5	3.1	2.9	2.8	2.7	2.7	2.6	2.5	2.8	2.5
31	---	---	3.7	3.4	---	---	2.7	2.7	2.6	2.5	---	---
MONTH	---	---	5.8	2.6	---	---	3.2	2.6	5.4	2.5	4.0	2.3
YEAR	6.8	1.9										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	16.5	10.0	11.5	9.0	6.0	4.0	5.5	2.0	4.5	1.0	9.5	1.0	
2	18.0	9.5	13.0	10.5	7.5	3.5	3.5	0.5	6.5	4.0	10.0	2.0	
3	18.5	10.5	13.0	9.5	8.0	4.0	7.5	0.5	4.0	3.0	9.0	6.0	
4	15.5	12.5	10.0	8.5	8.0	6.5	8.5	7.0	7.5	2.5	12.0	5.0	
5	19.5	15.5	11.0	6.5	9.5	7.5	7.0	5.5	8.0	2.0	13.5	7.0	
6	18.0	13.5	11.5	5.0	10.0	5.0	5.5	2.5	6.5	5.0	14.5	5.5	
7	15.5	11.0	10.0	7.0	5.0	2.5	4.0	2.5	6.0	5.0	13.0	8.0	
8	16.0	8.5	10.0	8.5	6.0	4.0	5.0	1.5	5.5	1.0	14.0	5.0	
9	12.5	8.0	9.5	8.5	---	---	3.5	1.5	3.0	0.0	13.5	6.0	
10	12.0	7.0	11.0	7.5	---	---	---	---	2.0	0.0	16.0	7.5	
11	13.5	8.0	10.0	8.5	---	---	---	---	4.0	0.5	13.5	9.5	
12	15.0	11.5	10.5	7.5	---	---	---	---	5.5	1.0	13.5	9.0	
13	14.0	10.5	9.5	7.0	---	---	---	---	4.5	1.0	15.5	7.0	
14	15.0	9.0	12.5	7.0	---	---	---	---	1.5	0.5	17.0	9.0	
15	14.0	9.0	7.0	6.0	---	---	---	---	2.0	0.0	17.5	11.5	
16	12.0	9.5	7.0	4.5	---	---	---	---	0.0	0.0	12.0	11.0	
17	12.5	9.0	7.5	4.0	---	---	3.0	1.0	0.5	0.0	11.0	4.0	
18	8.5	7.0	7.5	5.5	---	---	4.0	0.5	0.5	0.0	7.5	4.5	
19	8.5	5.0	7.5	5.5	---	---	2.5	1.5	2.0	0.0	11.5	4.5	
20	8.0	2.5	7.5	6.5	---	---	1.5	0.5	2.5	0.0	7.5	4.5	
21	9.5	5.5	7.5	6.0	---	---	3.5	0.0	2.0	0.0	14.0	3.5	
22	12.5	8.0	7.0	5.0	---	---	5.5	3.5	2.0	0.0	13.5	10.0	
23	13.0	10.0	6.5	4.0	---	---	3.5	2.0	---	---	---	---	
24	10.0	8.5	6.5	2.5	---	---	4.0	0.5	---	---	---	---	
25	9.5	8.0	6.0	2.5	---	---	5.0	0.0	---	---	---	---	
26	11.0	7.0	6.0	4.5	---	---	6.0	0.5	---	---	---	---	
27	10.0	5.5	7.0	4.5	5.0	3.5	5.0	4.0	4.0	2.5	---	---	
28	13.0	9.5	5.5	3.0	5.5	2.5	6.5	2.5	8.5	2.0	11.5	8.5	
29	12.5	10.5	5.5	1.5	6.5	2.0	2.5	0.0	---	---	13.5	7.5	
30	10.5	7.5	5.0	3.5	9.0	5.5	---	---	---	---	14.5	9.0	
31	9.5	7.5	---	---	9.0	5.0	2.0	1.0	---	---	15.0	9.0	
MONTH	19.5	2.5	13.0	1.5	---	---	---	---	8.5	0.0	17.5	1.0	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	17.5	10.5	18.0	10.0	20.0	10.0	23.0	15.0	32.5	28.0	23.0	19.0	
2	12.5	10.0	18.0	13.5	22.0	11.0	24.5	16.0	33.5	21.0	23.0	18.5	
3	12.5	10.0	17.0	15.5	23.5	13.5	26.0	18.0	22.5	16.5	22.5	18.0	
4	14.5	11.5	17.0	14.0	23.0	14.0	24.5	17.5	22.5	16.5	22.5	17.5	
5	14.0	13.0	---	---	28.0	19.5	23.5	16.5	23.5	16.5	22.5	18.5	
6	18.5	10.5	---	---	22.0	18.5	23.0	15.5	23.5	16.0	21.5	19.0	
7	17.0	13.5	---	---	---	---	24.0	15.5	23.0	17.5	19.5	15.5	
8	16.0	15.0	---	---	---	---	25.0	16.5	23.5	18.0	19.0	14.5	
9	17.0	13.0	---	---	---	---	25.0	18.0	24.0	18.0	18.0	15.5	
10	14.0	8.0	---	---	---	---	23.0	18.0	22.5	18.5	17.5	13.0	
11	---	---	---	---	---	---	22.5	18.0	23.0	19.0	17.5	12.0	
12	---	---	---	---	---	---	20.0	14.5	23.5	19.0	17.5	13.5	
13	10.5	5.5	---	---	---	---	23.5	14.0	22.0	19.0	17.5	13.5	
14	14.0	4.0	17.5	11.5	24.0	15.5	22.5	16.5	23.5	17.5	20.5	15.5	
15	16.5	4.5	15.0	9.5	24.0	13.0	22.0	18.0	23.0	17.5	18.5	14.5	
16	13.0	7.5	19.0	7.0	22.5	16.0	21.5	16.5	23.0	17.0	17.0	14.0	
17	15.0	10.5	13.5	9.5	24.0	16.0	21.0	15.5	22.5	17.5	---	---	
18	14.5	11.0	17.0	6.5	25.5	17.0	21.5	15.0	22.5	16.5	---	---	
19	15.0	10.5	14.0	9.5	26.5	16.0	22.0	16.0	22.0	16.0	---	---	
20	18.5	10.5	15.0	11.0	24.5	16.5	31.0	17.5	23.5	16.5	---	---	
21	20.0	10.0	20.5	8.5	24.5	17.0	30.0	29.0	19.5	17.0	---	---	
22	23.0	14.0	20.0	10.5	24.5	16.0	32.0	28.5	19.5	15.5	18.0	15.0	
23	---	---	18.0	13.0	24.0	15.0	32.5	28.5	19.5	13.0	20.0	16.0	
24	---	---	16.0	10.0	24.5	14.0	32.0	29.0	18.5	15.5	18.5	14.5	
25	---	---	22.0	13.5	24.5	15.0	32.0	29.0	21.5	15.0	19.0	14.5	
26	---	---	21.0	13.0	25.0	15.5	31.5	28.5	22.5	16.5	19.0	15.5	
27	10.5	10.0	17.0	13.5	20.0	16.5	32.5	29.0	22.5	17.5	19.0	14.5	
28	---	---	20.0	14.0	23.5	15.5	33.0	27.0	23.0	18.5	20.0	16.0	
29	---	---	19.0	13.0	20.0	14.5	32.0	27.5	23.0	18.5	21.0	16.5	
30	---	---	17.5	12.0	22.5	14.0	31.5	24.5	23.5	19.0	20.0	17.0	
31	---	---	18.0	12.0	---	---	30.5	26.0	23.0	18.5	---	---	
MONTH	---	---	---	---	---	---	33.0	14.0	33.5	13.0	23.0	12.0	
YEAR	33.5	0.0											

RACCOON CREEK BASIN

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OHIO

LOCATION.--Lat 39°21'48", long 82°18'51", in SE 1/4 NE 1/4 sec.11 T.11 N., R.16 W., Vinton County, at gaging station on right bank, 200 ft (61 m) upstream from State Route 278 crossing, 300 ft (91 m) upstream from Sandy Run, 2.5 mi (4.0 km) southwest of Carbondale, and 3.7 mi (6.0 km) northeast of Lake Hope.

DRAINAGE AREA.--1.01 mi² (2.62 km²).

PERIOD OF RECORD.--Chemical analyses: April 1970 to September 1973.

Water temperatures: January 1971 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 3,530 micromhos Sept. 13; minimum, 126 micromhos Apr. 27.

pH: Maximum, 6.2 Feb. 22; minimum, 2.2 Aug. 19, 29, Sept. 14.

Water temperatures: Maximum, 34.5°C Aug. 12; minimum, freezing point on many days during December to March.

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 3,530 micromhos Sept. 13, 1973; minimum, 126 micromhos Apr. 27, 1973.

pH (1971-73): Maximum, 6.2 Feb. 22, 1973; minimum, 2.1 on several days during October and December 1971, February and March 1972.

Water temperatures (1971-73): Maximum, 34.5°C Aug. 12, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since January 1971. In addition to the water-quality recorder, samples were collected on an approximate bi-weekly basis and partial analyses were made on these samples.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	HARD-NESS (CA,MG) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TEMPER-ATURE (DEG C)
OCT.											
05...	1300	.39	19000	5100	320	480	2.6	838	3.1	474	16.0
17...	1405	.27	17000	5000	340	240	2.8	894	3.2	540	14.0
NOV.											
02...	1100	5.4	1800	1100	100	110	.4	254	4.7	178	12.5
15...	1245	2.1	5400	1400	150	120	.8	404	3.7	228	7.0
29...	1400	1.5	4000	1800	150	130	.6	358	3.8	216	2.5
DEC.											
14...	1140	2.1	9300	1500	160	120	1.0	450	3.6	232	5.0
27...	1400	1.3	8900	2000	190	150	1.2	530	3.7	298	4.0
JAN.											
16...	1415	.70	10000	3100	220	180	1.5	596	3.4	308	1.0
22...	1345	4.6	2600	1000	100	98	.5	269	4.3	158	5.0
FEB.											
13...	1105	.88	1300	2000	210	150	1.3	553	3.3	302	1.0
28...	1130	.52	14000	2800	230	170	1.6	638	3.3	358	3.5
MAR.											
12...	1110	.52	13000	2800	260	170	3.5	696	3.2	400	9.5
20...	1400	2.1	9000	1300	160	130	.9	423	3.5	242	6.5
APR.											
13...	1230	3.7	2100	410	110	110	.4	285	4.2	172	8.5
18...	1100	1.3	8400	1600	170	140	1.1	472	3.4	262	12.0
MAY											
01...	1200	2.0	5300	1200	130	110	.6	318	3.6	220	15.0
16...	1130	.56	14000	2100	250	200	1.8	705	3.1	394	13.0
31...	1300	1.2	5400	1700	190	140	.9	450	3.5	280	19.5
JUNE											
14...	1400	.22	14000	3100	350	240	3.0	965	3.0	536	22.5
27...	1515	.07	34000	4400	490	470	4.6	1250	2.9	836	21.5
JULY											
16...	1245	.05	70000	7200	780	520	7.8	1760	2.7	1240	21.0
AUG.											
08...	1200	.04	79000	6400	940	410	8.7	1760	2.6	1290	20.5
16...	1425	.07	31000	1900	520	300	4.5	1250	3.1	760	25.0
SEP.											
05...	1415	.01	35000	11000	720	600	6.1	1580	2.7	1090	24.5
21...	1350	.01	11000	1300	740	710	13	2340	2.6	1800	18.5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03201700 BIG FOUR HOLLOW CREEK NEAR LAKE HOPE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER				NOVEMBER				DECEMBER				JANUARY				FEBRUARY				MARCH			
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN		
1	3.3	3.0	5.7	3.5	4.2	3.7	3.6	3.1	5.2	3.4	3.6	3.1	5.2	3.4	4.0	3.1	5.2	3.4	3.7	3.0	4.0	3.1		
2	3.1	2.9	4.9	4.2	4.1	3.4	3.6	3.1	4.2	3.4	3.6	3.1	3.9	3.6	3.7	3.0	4.3	3.6	3.7	3.0	3.7	3.0		
3	2.9	2.7	---	---	4.2	3.1	3.8	3.1	3.6	3.2	5.4	3.9	4.1	3.3	3.4	3.3	4.1	3.3	3.7	3.0	3.4	3.0		
4	2.9	2.7	---	---	---	---	3.6	3.2	---	---	5.4	3.9	5.4	3.3	3.4	3.3	4.2	3.1	3.4	2.9	3.4	3.0		
5	3.1	2.7	---	---	---	---	3.6	3.2	---	---	---	---	---	---	---	---	4.2	3.1	3.4	3.2	3.4	3.0		
6	3.2	3.0	---	---	---	---	4.9	3.3	4.5	4.0	4.5	3.7	4.0	3.1	3.2	3.0	4.0	3.1	3.2	3.0	3.6	3.0		
7	3.2	3.1	---	---	---	---	4.3	3.6	4.5	3.2	4.5	3.2	3.9	2.9	3.3	3.0	3.9	2.9	3.3	3.0	3.6	3.0		
8	3.5	3.1	---	---	---	---	5.4	3.0	---	---	---	---	4.4	3.0	3.4	3.0	4.4	3.0	3.4	3.0	3.6	3.0		
9	3.5	3.1	4.2	3.8	3.6	3.0	3.6	3.0	---	---	---	---	4.7	2.9	3.4	2.8	4.7	2.9	3.4	3.0	3.6	3.0		
10	3.5	3.1	4.2	3.8	3.9	3.0	3.9	3.0	---	---	---	---	---	---	---	---	4.5	2.8	3.3	3.0	3.6	2.9		
11	3.5	3.1	3.9	3.9	4.1	3.3	4.1	3.3	---	---	---	---	---	---	---	---	4.0	2.8	3.3	3.0	3.6	3.0		
12	3.5	3.1	3.9	3.7	4.4	3.3	4.5	3.3	---	---	---	---	---	---	---	---	4.4	2.6	3.4	3.1	3.6	3.0		
13	3.9	3.5	3.8	3.6	4.4	3.3	4.4	3.3	---	---	---	---	---	---	---	---	4.1	3.1	3.5	2.9	3.7	2.9		
14	3.9	3.3	4.9	3.6	4.4	3.4	4.4	3.4	---	---	---	---	---	---	---	---	5.5	3.0	3.7	2.9	3.7	2.9		
15	3.7	3.3	3.9	3.5	5.1	3.6	5.1	3.6	---	---	---	---	---	---	---	---	4.9	3.7	3.3	3.3	3.7	2.9		
16	3.7	3.4	3.9	3.5	4.8	3.9	3.4	3.9	3.4	3.5	3.4	3.0	4.5	3.7	4.8	3.3	4.5	3.7	4.6	3.3	3.7	3.0		
17	3.5	3.1	3.9	3.0	4.2	3.3	4.2	3.3	4.5	3.3	4.5	3.3	4.5	3.6	4.6	3.3	4.8	3.6	4.6	3.3	3.7	3.0		
18	3.6	3.3	3.5	2.7	4.1	3.2	4.7	3.5	4.7	3.5	4.7	3.5	5.6	3.9	4.6	4.4	5.6	3.9	4.6	4.4	3.7	3.0		
19	3.7	3.4	4.8	3.2	4.1	3.4	4.1	3.4	5.2	4.0	5.2	3.9	4.9	3.4	4.3	3.3	4.9	3.4	4.3	3.3	3.7	3.0		
20	3.9	3.2	5.4	3.9	5.1	3.6	5.1	3.6	5.0	3.9	5.0	3.9	3.8	3.0	4.1	3.3	3.8	3.0	4.1	3.3	3.7	3.0		
21	3.8	3.3	4.6	3.6	4.7	3.4	4.7	3.4	5.6	3.1	4.0	3.0	4.0	3.0	4.2	3.3	4.0	3.0	4.2	3.3	3.7	3.0		
22	3.5	3.1	4.7	3.2	3.7	3.2	4.5	3.2	5.5	3.2	5.5	3.2	4.2	2.5	4.1	3.3	4.2	2.5	4.1	3.3	3.7	3.0		
23	3.3	3.0	4.3	3.2	3.6	3.2	4.9	3.2	4.9	3.4	4.9	3.4	4.4	2.7	4.3	3.3	4.4	2.7	4.3	3.3	3.7	3.0		
24	3.2	3.1	4.4	3.3	3.5	3.2	4.9	3.4	3.9	3.4	3.9	3.4	3.9	2.8	4.5	3.4	3.9	2.8	4.5	3.4	3.7	3.0		
25	3.3	3.0	4.5	3.2	3.5	3.2	5.2	3.4	4.2	3.4	4.2	3.4	4.2	3.0	4.2	3.4	4.2	3.0	4.2	3.4	3.7	3.0		
26	3.4	2.9	4.3	3.4	3.9	3.4	3.9	3.4	4.6	3.0	4.6	3.0	4.4	3.0	5.2	3.3	4.4	3.0	5.2	3.3	3.7	3.0		
27	3.4	3.0	3.8	2.9	4.0	3.6	4.0	3.6	5.0	3.3	4.6	3.3	4.4	2.8	4.1	3.4	4.4	2.8	4.1	3.4	3.7	3.0		
28	3.3	3.0	3.6	3.2	4.3	3.4	4.3	3.4	4.7	3.2	4.7	3.2	3.8	2.7	4.2	3.3	3.8	2.7	4.2	3.3	3.7	3.0		
29	3.3	3.0	4.2	3.2	4.1	3.3	5.1	3.3	5.1	3.9	5.1	3.9	---	---	---	---	---	---	---	---	---	---		
30	3.6	3.2	4.2	3.7	4.3	3.4	3.4	3.4	3.4	3.8	3.4	3.8	---	---	---	---	---	---	---	---	---	---		
31	3.7	3.3	---	---	4.0	3.3	4.0	3.3	---	---	5.5	3.7	---	---	---	---	---	---	---	---	---	---		
MONTH	5.5	2.7	5.7	2.7	5.4	3.0	---	---	---	---	---	---	6.2	2.6	5.2	2.6	---	---	---	---	5.2	2.6		

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER			
	MAX	MIN	WJ	MAX	MIN	WJ	MAX	MIN	WJ	MAX	MIN	WJ	MAX	MIN	WJ	MAX	MIN	WJ	
1	3.8	3.6	4.2	3.6	3.6	3.2	3.7	3.0	3.6	2.8	2.6	---	---	---	---	2.4	2.4	2.4	
2	3.7	3.5	3.8	3.7	3.6	3.5	3.4	3.0	3.0	2.7	2.7	---	---	---	---	2.4	2.4	2.4	
3	3.7	3.4	3.9	3.7	3.6	3.8	3.1	2.9	2.9	2.7	2.7	---	---	---	---	2.5	2.5	2.5	
4	5.4	3.6	4.2	3.9	3.8	3.5	3.7	2.9	3.7	---	---	---	---	---	---	2.5	2.5	2.5	
5	4.4	4.1	3.9	---	---	---	3.8	---	---	---	---	---	---	---	---	---	---	---	
6	4.3	3.6	3.8	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
7	5.2	3.7	---	---	---	---	3.7	3.2	3.6	---	---	---	---	---	---	---	---	---	
8	2.7	3.8	---	---	---	---	3.7	3.0	3.2	---	---	---	---	---	---	---	---	---	
9	5.5	3.9	---	---	---	---	3.2	2.8	2.6	2.6	2.6	---	---	---	---	2.4	2.4	2.4	
10	5.5	4.2	---	---	---	---	3.0	---	---	---	---	---	---	---	---	2.5	2.5	2.5	
11	4.4	4.0	---	---	---	---	2.9	2.7	2.7	2.7	2.6	---	---	---	---	---	---	---	
12	4.8	3.8	---	---	---	---	2.8	2.7	2.7	2.7	2.6	---	---	---	---	2.4	2.4	2.4	
13	4.0	3.9	---	---	---	---	2.8	2.7	3.1	3.1	2.5	---	---	---	---	2.4	2.4	2.4	
14	4.5	3.8	---	---	---	---	2.8	2.6	2.6	2.9	2.7	---	---	---	---	2.5	2.5	2.5	
15	3.8	3.6	---	---	---	---	2.8	2.6	---	---	---	---	---	---	---	2.6	2.6	2.6	
16	4.1	3.7	3.2	3.2	3.1	3.2	2.9	2.6	2.7	2.6	2.6	---	---	---	---	2.6	2.6	2.6	
17	3.9	3.6	3.5	3.5	3.2	3.2	2.8	2.6	2.7	2.5	2.5	---	---	---	---	2.8	2.8	2.8	
18	4.0	3.8	3.5	3.5	3.0	3.0	2.8	2.7	2.7	2.5	2.4	---	---	---	---	2.6	2.6	2.6	
19	3.9	3.8	3.4	3.4	3.1	3.1	2.7	2.6	2.6	2.5	2.4	---	---	---	---	2.2	2.2	2.2	
20	3.9	3.7	4.7	4.7	3.3	3.3	2.7	2.6	2.6	4.3	2.4	---	---	---	---	2.7	2.7	2.7	
21	3.8	3.6	3.7	3.7	3.2	3.2	3.0	2.6	2.6	4.6	3.4	---	---	---	---	2.8	2.8	2.8	
22	3.7	3.6	3.5	3.5	3.2	3.2	2.7	2.6	2.6	3.5	3.2	---	---	---	---	2.4	2.4	2.4	
23	5.8	3.6	3.3	3.3	3.2	3.2	---	---	---	3.7	3.1	---	---	---	---	2.5	2.5	2.5	
24	5.7	4.2	3.7	3.7	3.2	3.2	---	---	---	3.6	3.1	---	---	---	---	2.4	2.4	2.4	
25	5.2	4.1	4.0	4.0	3.2	3.2	---	---	---	3.5	3.3	---	---	---	---	2.5	2.5	2.5	
26	4.5	4.0	5.2	5.2	3.9	3.9	---	---	---	---	---	---	---	---	---	---	---	---	
27	5.8	4.0	4.4	4.4	3.6	3.6	2.8	2.6	2.7	3.3	3.1	---	---	---	---	2.4	2.4	2.4	
28	5.5	4.1	5.3	5.3	3.8	3.8	2.7	2.6	2.6	3.0	2.9	---	---	---	---	2.5	2.5	2.5	
29	4.3	4.0	3.9	3.9	3.5	3.5	2.7	2.6	2.6	2.4	2.8	---	---	---	---	2.4	2.4	2.4	
30	4.3	4.0	3.8	3.8	3.5	3.5	2.6	2.4	2.4	---	---	---	---	---	---	2.3	2.3	2.3	
31	---	---	3.9	3.9	3.4	3.4	---	---	---	---	---	---	---	---	---	2.6	2.6	2.6	
MONTH	5.8	3.4	---	---	---	---	5.8	2.4	2.4	---	---	---	4.1	2.2	---	3.1	2.2	2.2	
YEAR	6.2	2.2																	

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	11.5	14.0	10.5	6.5	4.0	6.0	1.5	4.5	1.0	9.0	0.0
2	17.0	10.5	13.5	11.5	7.5	4.0	4.5	0.0	6.5	4.5	9.5	1.5
3	17.5	11.0	13.0	10.0	8.0	4.5	6.5	0.5	5.0	3.5	8.5	5.5
4	15.0	13.0	10.5	9.0	8.5	6.5	8.0	6.5	7.0	3.0	11.5	5.5
5	18.0	14.0	11.5	7.0	12.5	8.0	7.5	4.0	7.5	2.0	13.0	7.0
6	16.5	15.5	11.5	5.5	14.5	7.0	4.5	0.0	6.0	5.0	15.0	5.5
7	17.5	13.0	10.0	7.0	7.0	5.0	3.5	0.0	5.5	5.0	13.0	8.0
8	17.5	10.5	10.0	8.5	9.5	5.5	---	---	5.0	1.0	15.0	5.5
9	16.0	10.0	9.5	8.5	9.5	9.0	---	---	3.0	0.0	14.5	6.0
10	15.0	11.5	11.0	7.0	9.0	6.0	---	---	1.0	0.0	17.5	7.5
11	14.0	10.0	10.0	8.5	7.0	5.5	---	---	1.5	0.0	14.0	10.5
12	15.0	13.0	10.0	7.0	10.5	6.0	---	---	1.5	0.0	10.5	8.5
13	14.0	12.0	9.0	7.0	11.0	7.0	---	---	1.5	0.0	15.0	6.5
14	15.0	11.0	10.0	7.0	7.0	5.0	---	---	1.5	0.5	16.5	8.0
15	14.5	9.5	7.5	6.0	5.0	3.0	---	---	2.5	0.5	16.5	11.5
16	12.0	8.5	7.0	4.5	3.0	0.5	2.0	1.0	0.5	0.0	11.5	10.5
17	14.5	9.5	7.5	4.0	1.0	0.0	3.0	1.0	0.5	0.0	10.5	3.0
18	10.0	8.5	7.5	5.5	2.5	0.5	3.5	1.0	0.5	0.0	6.5	3.5
19	11.0	6.0	7.0	5.5	4.0	2.5	2.5	1.5	1.5	0.0	10.5	3.5
20	11.5	5.0	7.5	6.5	6.0	4.0	2.0	1.0	2.5	0.0	6.5	3.5
21	9.5	7.0	7.5	6.0	6.5	5.0	3.0	1.0	2.5	0.0	8.0	4.0
22	13.5	9.0	7.0	5.0	7.0	6.0	6.0	3.5	1.0	0.0	6.5	3.0
23	13.5	10.5	6.5	4.0	7.0	6.5	3.0	1.5	5.0	0.5	12.0	1.5
24	11.0	10.0	6.5	2.5	8.0	6.0	3.5	0.0	7.0	0.0	13.5	2.0
25	11.0	9.5	5.0	2.0	7.0	6.5	4.0	0.0	5.0	0.0	9.0	5.5
26	14.5	8.0	6.0	4.5	6.5	4.5	5.0	0.0	6.0	2.5	10.5	7.0
27	12.5	7.0	7.0	4.5	4.0	2.5	5.0	3.5	3.5	2.0	14.5	6.0
28	14.0	11.0	5.5	3.0	5.0	2.0	5.5	2.5	7.5	1.5	12.0	5.5
29	14.0	12.0	5.5	1.5	5.5	2.0	3.0	0.5	---	---	13.5	7.5
30	12.0	9.5	5.0	3.0	8.0	4.5	1.0	0.0	---	---	13.0	8.0
31	10.5	9.0	---	---	8.0	4.5	1.5	0.0	---	---	13.5	7.5
MONTH	18.0	5.0	14.0	1.5	14.5	0.0	---	---	7.5	0.0	17.5	0.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	8.5	15.5	10.0	21.5	11.0	24.5	16.0	---	---	28.0	21.0
2	10.0	8.0	14.5	11.5	22.5	12.0	25.5	17.5	---	---	28.0	19.5
3	9.5	8.0	12.5	9.5	23.5	14.5	22.5	19.0	---	---	27.0	19.5
4	8.5	7.0	10.0	7.5	24.0	15.0	---	---	---	---	26.5	19.0
5	8.0	6.5	17.0	6.0	21.5	14.5	---	---	---	---	27.5	20.5
6	14.5	5.0	15.0	7.0	17.5	15.5	---	---	---	---	---	---
7	9.0	6.0	---	---	22.5	15.0	---	---	27.5	22.0	---	---
8	9.0	6.5	---	---	23.5	13.5	---	---	27.5	19.0	---	---
9	13.0	6.5	---	---	24.5	15.5	28.0	21.5	29.5	19.0	20.0	18.5
10	7.0	4.5	---	---	26.0	16.5	27.0	20.5	29.5	22.0	21.5	14.5
11	8.0	4.0	---	---	25.5	17.0	26.5	18.5	34.0	28.5	---	---
12	7.0	2.0	---	---	23.5	18.0	25.0	15.0	34.5	29.5	---	---
13	10.0	3.0	---	---	23.5	18.0	32.0	15.5	33.0	29.5	22.5	13.0
14	13.0	2.5	---	---	24.5	15.5	26.5	19.5	26.5	20.0	23.0	17.0
15	15.5	3.5	---	---	24.5	14.5	---	---	25.5	19.5	23.0	15.0
16	12.0	6.5	20.0	13.0	23.0	18.0	28.0	20.5	26.5	19.0	23.0	14.0
17	11.5	9.0	13.5	10.0	25.0	17.5	27.0	17.0	25.5	19.0	23.0	14.5
18	14.5	9.0	18.5	7.0	25.5	19.0	30.0	21.0	26.0	18.0	20.0	15.5
19	15.0	10.0	14.0	10.0	27.0	18.0	31.5	22.5	29.0	19.0	17.0	11.0
20	17.5	10.5	14.0	11.0	26.0	18.5	28.5	20.0	26.5	19.5	17.5	11.0
21	20.0	10.0	21.0	8.5	27.5	19.5	21.5	18.5	23.5	21.5	22.0	14.5
22	17.5	12.0	20.5	11.0	23.0	20.5	25.0	19.0	23.5	19.0	---	---
23	13.0	10.5	18.0	13.5	---	---	24.0	19.5	23.5	17.0	24.5	17.0
24	16.0	9.0	16.0	10.5	---	---	25.0	20.0	22.5	19.5	24.0	15.0
25	11.0	9.5	21.0	13.5	---	---	23.0	20.0	23.5	15.0	24.0	15.5
26	11.5	9.5	20.0	13.5	---	---	25.0	19.5	24.5	18.5	23.5	16.0
27	10.0	9.0	17.0	13.5	21.0	18.0	26.0	20.5	25.5	18.5	24.0	15.0
28	13.0	7.5	20.0	14.0	23.0	17.5	28.0	19.0	26.5	16.5	25.0	18.0
29	14.5	6.5	20.5	13.0	23.5	16.0	---	---	27.0	21.0	23.0	19.0
30	12.0	9.0	17.0	12.5	24.0	15.5	---	---	27.0	21.5	22.0	18.5
31	---	---	19.5	13.0	---	---	---	---	28.0	20.5	---	---
MONTH	20.0	2.0	---	---	27.5	11.0	---	---	34.5	15.0	28.0	11.0
YEAR	34.5	0.0										

RACCOON CREEK BASIN

03201800 SANDY RUN NEAR LAKE HOPE, OHIO

LOCATION.--Lat 39°20'01"N, long 82°19'56"W, in T.11 N., R.16 W., Vinton County, at gaging station on right bank at upstream side of bridge on King Hollow Trail, 1,200 ft (366 m) downstream from Harbargar Hollow, 2.6 mi (4.2 km) upstream from spillway of Lake Hope, and 5.0 mi (8.0 km) northeast of Zaleski.

DRAINAGE AREA.--4.99 mi² (12.9 km²).

PERIOD OF RECORD.--Chemical analyses: December 1959 to September 1961, April 1970 to September 1973.
Water temperatures: December 1970 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,440 micromhos July 11, 12; minimum, 96 micromhos Dec. 8.

pH: Maximum, 5.6 Apr. 28; minimum, 2.8 Sept. 29, 30.

Dissolved oxygen: Maximum, 15.0 mg/l on several days during January and February; minimum, 2.0 mg/l Aug. 29, 30.

Water temperatures: Maximum, 28.0°C July 9; minimum, freezing point Jan. 7, 14, Feb. 19.

EXTREMES.--Period of record:

Specific conductance (1970-73): Maximum, 1,440 micromhos July 11, 12, 1973; minimum, 89 micromhos Mar. 7, 1971.

pH (1970-73): Maximum, 5.6 Apr. 28, 1973; minimum, 2.1 Mar. 25, 1971, Aug. 31, 1972.

Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher on many days during January, November and December 1971, January and February 1973; minimum, 2.0 mg/l Aug. 29, 30, 1973.

Water temperatures: Maximum, 28.0°C July 9, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since December 1970. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected on an approximate bi-weekly basis and partial analyses were made on these samples. Special samples were also collected twice a year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	HARD- NESS (CA,MG) (MG/L)	TOTAL ACIDITY AS H+ (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)
OCT.											
06...	1130	.88	2300	3000	250	210	1.6	610	3.6	610	15.0
17...	1110	1.1	3600	3500	260	220	1.8	634	3.7	422	10.5
NOV.											
02...	1145	13	1600	1100	110	110	.6	285	4.4	184	12.0
13...	1325	5.2	3000	1300	160	120	1.0	445	3.7	258	8.5
30...	1145	7.6	2400	1100	130	100	.7	356	3.8	190	4.0
DEC.											
15...	1400	14	3100	740	110	90	.6	284	3.9	166	5.0
29...	1130	3.9	1600	1100	110	93	.5	313	4.1	156	3.0
JAN.											
17...	1440	3.9	2000	1200	130	110	.8	365	3.9	210	1.0
22...	1300	27	1100	590	70	68	.2	192	4.8	112	4.0
FEB.											
13...	1335	5.3	3500	1200	130	100	.8	369	3.7	208	1.0
28...	1330	2.7	2100	2500	130	120	.7	372	3.7	216	5.0
MAR.											
12...	1155	3.1	3100	1200	160	120	1.0	451	3.6	260	10.0
21...	1300	10	2400	710	120	92	.7	303	3.7	172	6.0
APR.											
13...	1330	19	740	590	70	68	.2	184	4.8	110	8.0
18...	1200	7.3	1700	640	100	86	.6	279	4.0	164	11.0
30...	1315	16	1600	850	76	66	.4	207	4.6	146	11.0
MAY											
16...	1430	2.7	1900	850	130	110	.8	372	3.7	226	12.5
30...	1145	6.7	910	830	100	86	.4	262	4.3	176	14.0
JUNE											
14...	1500	.98	440	1600	160	140	.8	439	3.8	262	21.0
26...	1120	.29	640	2400	180	160	.8	468	4.3	302	19.0
JULY											
09...	1200	.10	4500	2800	200	170	.6	491	4.1	340	24.0
AUG.											
08...	1400	.15	1700	5400	200	160	.8	515	4.0	320	22.0
16...	1200	.23	1200	8800	240	190	1.2	613	3.9	384	20.5
SEP.											
06...	1400	.00	220	2000	79	76	.2	212	4.7	116	--

DATE	TIME	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.				
17...	1200	--	1.5	<.5
MAY				
30...	1315	14.0	3.0	<.5

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03201800 SANDY RUN NEAR LAKE HOPE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.8	3.5	4.5	3.3	3.7	3.7	4.1	4.0	4.1	3.9	3.7	3.6
2	3.6	3.3	4.4	4.1	3.7	3.6	4.1	4.1	4.9	4.1	3.6	3.6
3	3.5	3.3	4.3	3.7	3.7	3.4	5.1	4.0	4.6	4.4	3.6	3.6
4	3.4	3.3	3.7	3.5	3.7	3.6	5.1	4.9	4.4	4.0	3.7	3.6
5	3.3	3.2	3.5	3.4	3.8	3.7	4.9	4.4	4.0	3.9	3.6	3.6
6	3.3	3.3	3.5	3.3	4.8	3.7	4.4	4.3	4.1	3.9	3.7	3.6
7	3.3	3.3	4.5	3.3	4.8	4.2	4.3	4.2	4.1	3.9	3.6	3.5
8	3.4	3.2	4.5	4.0	5.1	4.0	4.2	3.9	4.4	3.8	3.7	3.6
9	3.5	3.3	4.0	3.6	4.2	4.0	4.1	3.9	4.8	4.0	3.7	3.5
10	3.5	3.3	3.6	3.4	4.0	3.9	4.0	3.9	4.1	3.8	3.6	3.5
11	3.5	3.4	3.6	3.5	4.0	3.9	3.9	3.8	4.0	3.7	3.6	3.4
12	4.1	3.4	3.6	3.5	3.9	3.9	3.9	3.8	3.9	3.6	3.7	3.4
13	3.7	3.5	3.6	3.5	4.3	3.9	3.9	3.8	3.9	3.6	3.8	3.7
14	3.5	3.3	4.6	3.5	4.2	3.9	3.8	3.7	4.8	3.8	3.7	3.5
15	3.4	3.3	4.4	4.0	4.5	3.8	3.7	3.6	4.9	4.8	3.6	3.5
16	3.4	3.4	4.0	3.7	4.5	4.2	3.8	3.7	4.8	4.4	4.4	3.6
17	3.3	3.2	3.7	3.7	4.2	4.0	3.9	3.5	4.5	4.0	4.8	4.4
18	3.4	3.3	3.7	3.6	4.0	3.7	3.9	3.7	4.1	3.8	4.9	4.7
19	3.4	3.4	4.3	3.6	3.8	3.7	4.3	3.8	3.9	3.7	5.0	4.5
20	3.4	3.4	4.9	4.3	4.5	3.8	4.3	4.1	3.9	3.7	4.7	4.1
21	3.4	3.4	4.7	4.0	4.3	4.0	4.2	3.9	3.9	3.7	4.1	4.0
22	3.4	3.3	4.0	3.9	4.0	3.9	5.0	4.0	3.8	3.7	4.1	4.0
23	3.4	3.2	3.9	3.8	4.0	3.9	4.5	4.3	3.7	3.6	4.0	3.9
24	3.3	3.3	3.8	3.7	3.9	3.8	4.3	4.1	3.8	3.7	3.9	3.7
25	3.4	3.3	3.7	3.6	3.8	3.7	4.1	3.8	3.9	3.6	4.1	3.7
26	3.4	3.3	3.8	3.6	3.8	3.7	3.9	3.8	3.7	3.6	4.7	4.1
27	3.4	3.3	3.9	3.8	3.9	3.7	4.8	3.8	3.7	3.6	4.4	4.2
28	3.4	3.3	4.1	3.8	3.8	3.7	4.6	4.1	3.7	3.7	4.2	3.9
29	3.3	3.2	4.4	4.0	4.2	3.8	4.5	4.3	---	---	4.0	3.9
30	3.3	3.2	4.0	3.7	4.1	4.0	4.4	3.9	---	---	4.3	4.0
31	3.4	3.3	---	---	4.0	3.9	4.0	3.7	---	---	4.1	3.9
MONTH	4.1	3.2	4.9	3.3	5.1	3.4	5.1	3.5	4.9	3.6	5.0	3.3
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.2	3.9	4.0	3.7	3.6	3.4	3.5	3.5	3.6	3.5	---	---
2	4.1	4.0	3.8	3.6	3.4	3.3	3.5	3.5	3.5	3.4	---	---
3	4.1	4.0	5.0	3.6	3.4	3.2	3.6	3.4	3.6	3.5	---	---
4	4.3	4.0	4.6	4.3	4.5	3.2	3.5	3.4	3.7	3.5	---	---
5	4.1	3.9	4.3	3.8	4.7	4.0	3.5	3.4	3.7	3.6	---	---
6	3.9	3.3	3.9	3.7	4.2	3.9	3.5	3.4	3.8	3.6	---	---
7	4.0	3.2	3.7	3.5	3.9	3.6	3.6	3.5	3.8	3.7	---	---
8	4.6	4.1	3.6	3.5	3.6	3.3	3.6	3.5	3.8	3.7	---	---
9	4.4	3.8	3.7	3.6	3.4	3.2	3.7	3.3	3.9	3.7	---	---
10	4.4	4.2	3.6	3.5	3.3	2.9	3.6	3.6	3.8	3.8	---	---
11	4.2	4.1	3.9	3.3	3.2	3.2	3.6	3.6	3.9	3.8	---	---
12	4.1	3.7	3.7	3.6	3.2	3.2	3.7	3.6	3.9	3.8	---	---
13	4.3	4.1	3.7	3.6	---	---	3.8	3.7	3.9	3.8	---	---
14	4.6	4.0	3.6	3.5	3.4	3.4	4.0	3.6	4.0	3.3	---	---
15	4.3	3.9	3.6	3.5	3.4	3.4	3.6	3.5	3.5	3.1	---	---
16	4.1	4.0	3.6	3.5	3.4	3.3	3.7	3.5	3.8	3.6	---	---
17	4.3	4.1	3.6	3.5	3.3	3.2	3.8	3.5	3.8	3.7	---	---
18	4.5	4.0	3.5	3.4	3.4	3.3	3.9	3.5	3.8	3.7	---	---
19	4.1	4.0	3.5	3.4	3.4	3.3	3.9	3.6	3.8	3.7	---	---
20	4.0	3.9	4.2	3.4	3.4	3.4	4.2	3.4	4.0	3.7	---	---
21	4.0	3.8	3.7	3.4	3.5	3.3	4.2	3.4	3.8	3.7	---	---
22	3.9	3.8	3.5	3.3	3.4	3.3	3.6	3.3	3.9	3.7	---	---
23	5.4	3.8	3.3	3.2	3.4	3.4	4.4	3.3	3.9	3.7	4.5	3.4
24	5.3	4.8	3.3	3.2	3.5	3.4	4.2	3.5	3.9	3.8	3.6	3.4
25	5.1	4.7	3.5	3.3	3.5	3.4	4.0	3.4	3.9	3.8	3.5	3.4
26	5.1	4.8	4.7	3.3	3.5	3.4	3.4	3.3	4.0	3.8	3.5	3.4
27	5.6	4.7	4.0	3.5	3.5	3.4	3.4	3.3	4.0	3.9	---	---
28	5.6	5.0	4.7	3.6	3.5	3.5	3.5	3.3	4.1	3.9	---	---
29	5.0	4.6	4.0	3.6	3.5	3.5	3.5	3.4	4.2	4.0	3.8	2.8
30	4.6	3.4	3.6	3.5	3.5	3.5	3.6	3.4	4.2	4.1	3.2	2.8
31	---	---	3.8	---	---	---	3.6	3.5	---	---	---	---
MONTH	5.6	3.2	5.0	3.2	4.7	2.9	4.4	3.3	4.2	3.1	---	---
YEAR	5.6	2.8										

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

RACCOON CREEK BASIN

03201800 SANDY RUN NEAR LAKE HOPE, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.5	12.0	9.5	5.5	4.0	6.0	3.0	4.5	1.5	6.5	1.5
2	13.5	10.0	13.5	11.0	6.5	4.0	3.0	1.0	6.5	4.0	7.5	3.0
3	14.5	11.0	12.5	10.0	7.0	4.0	4.5	0.5	5.0	3.5	8.0	6.0
4	14.0	12.5	10.5	9.5	8.0	6.5	5.5	4.5	6.5	3.0	10.0	6.0
5	16.0	13.5	10.0	7.5	9.0	8.0	5.0	3.0	7.0	2.5	12.0	8.0
6	15.5	15.0	9.0	5.5	10.0	5.0	3.0	0.5	6.0	4.5	12.5	6.5
7	15.5	12.5	10.5	7.5	5.0	3.0	1.0	0.0	5.5	5.0	12.0	9.0
8	14.0	10.5	10.5	9.0	6.5	3.0	1.0	0.5	5.0	1.5	12.0	6.5
9	12.5	9.5	9.5	8.5	7.5	6.5	0.5	0.5	1.5	0.5	12.0	6.5
10	11.5	7.5	10.5	7.5	7.0	4.5	0.5	0.5	0.5	0.5	14.5	9.0
11	12.0	8.5	10.0	8.5	4.5	3.5	0.5	0.5	1.0	0.5	14.0	11.5
12	14.0	11.5	9.5	7.5	7.5	3.5	0.5	0.5	1.0	0.5	11.5	9.0
13	13.5	11.0	9.0	6.5	8.0	5.0	0.5	0.5	1.0	0.5	13.0	7.5
14	12.5	9.0	10.5	8.0	5.0	4.5	0.5	0.0	2.0	0.5	15.0	9.0
15	12.0	9.5	8.0	6.5	4.5	3.5	0.5	0.5	3.0	1.5	16.5	12.5
16	10.5	9.0	7.0	5.0	3.5	0.5	1.0	0.5	1.5	0.5	14.0	11.5
17	12.0	9.5	7.0	4.5	1.0	0.5	1.0	0.5	0.5	0.0	11.5	4.0
18	9.5	7.5	7.0	5.5	2.0	0.5	1.0	0.5	0.5	0.5	7.0	4.0
19	8.0	5.5	7.5	6.0	4.0	2.5	1.5	9.5	1.0	0.0	10.5	4.0
20	7.5	4.0	8.0	7.0	5.5	4.0	1.5	1.0	2.0	0.5	6.5	4.0
21	7.5	4.5	8.0	6.5	6.5	5.0	2.0	0.5	2.5	1.0	8.0	3.5
22	11.0	7.5	7.0	6.0	6.5	6.0	5.0	1.5	1.5	0.5	6.0	3.5
23	12.0	10.0	6.5	4.5	6.5	6.0	4.0	2.5	3.5	1.0	9.5	1.5
24	10.5	9.5	5.5	3.0	7.5	6.0	3.5	1.0	5.0	1.0	11.0	2.5
25	10.0	8.5	5.0	2.5	6.5	6.5	3.5	0.5	4.0	0.5	8.5	5.5
26	11.0	7.5	6.0	5.0	6.5	4.5	4.5	0.5	5.0	3.0	10.5	7.5
27	9.5	6.0	7.0	5.0	4.5	3.5	5.0	4.0	3.5	2.5	14.0	6.5
28	12.0	9.0	6.0	4.0	5.0	3.5	5.5	3.5	6.5	2.5	11.0	5.5
29	12.5	11.5	4.5	2.0	5.0	3.0	3.0	0.5	---	---	12.0	8.0
30	11.5	9.0	4.5	3.0	7.5	5.0	0.5	0.5	---	---	12.0	9.0
31	9.5	8.0	---	---	8.5	6.0	1.5	0.5	---	---	13.0	8.0
MONTH	16.0	4.0	13.5	2.0	10.0	0.5	6.0	0.0	7.0	0.0	16.5	1.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	9.0	16.0	10.5	18.5	12.0	22.0	17.0	21.0	18.5	---	---
2	10.5	8.5	14.5	12.0	18.5	13.0	23.0	17.5	22.0	18.5	---	---
3	9.5	8.0	13.0	10.5	20.5	16.0	24.5	20.0	21.5	16.5	---	---
4	9.0	7.5	10.5	8.5	20.5	17.0	25.0	20.0	22.5	17.0	---	---
5	8.0	7.0	16.0	6.0	20.5	15.5	24.5	19.5	22.5	16.5	---	---
6	14.5	5.0	13.0	7.0	17.5	16.0	24.0	17.5	22.5	16.5	---	---
7	9.0	6.5	15.0	10.0	21.0	15.5	26.0	14.5	22.5	18.0	---	---
8	9.0	7.5	16.5	12.5	20.5	15.0	27.0	19.0	23.0	19.0	---	---
9	13.0	6.5	19.5	13.0	22.0	17.5	28.0	20.5	25.0	19.0	---	---
10	8.0	6.0	17.5	13.5	23.0	18.5	26.5	21.5	23.0	20.0	---	---
11	9.0	4.5	17.0	12.5	23.5	20.5	27.0	20.5	25.5	20.0	---	---
12	7.0	3.0	16.5	12.0	23.0	21.0	23.5	16.0	25.0	19.5	---	---
13	10.0	3.5	14.5	11.5	---	---	26.5	16.5	22.5	20.0	---	---
14	13.0	3.0	16.0	11.0	21.5	19.5	26.0	19.0	22.0	19.5	---	---
15	15.0	4.0	14.0	11.0	21.5	19.5	22.0	12.5	22.0	19.5	---	---
16	11.5	7.0	16.0	8.5	21.5	19.0	24.5	18.5	22.5	18.5	---	---
17	11.5	9.5	13.5	11.0	23.0	19.0	26.0	15.5	22.5	19.0	---	---
18	14.0	9.5	14.0	8.0	24.0	20.0	26.0	15.5	23.5	18.5	---	---
19	14.5	11.0	13.0	11.0	24.5	19.0	25.0	18.0	22.5	18.0	---	---
20	17.0	11.0	13.5	12.0	24.5	19.5	21.5	19.5	22.0	19.0	---	---
21	18.5	11.0	17.0	10.0	23.0	20.0	20.0	19.0	20.0	18.5	---	---
22	17.0	12.5	17.5	12.0	23.0	19.5	21.5	19.0	22.0	16.5	---	---
23	15.5	11.5	17.5	14.5	23.0	18.0	20.5	18.5	21.0	14.0	20.5	16.5
24	16.0	10.0	16.0	15.0	23.0	17.0	21.0	19.5	19.0	16.5	22.0	14.5
25	15.0	10.0	18.0	14.5	23.5	17.5	20.5	19.0	23.0	16.5	22.0	15.0
26	11.5	10.0	19.0	14.0	24.0	18.0	21.0	19.0	24.0	18.0	18.5	16.5
27	10.5	9.5	16.5	14.5	20.5	18.5	22.0	19.5	26.0	19.0	---	---
28	13.5	8.5	19.0	14.5	21.0	18.5	22.5	18.5	27.5	20.0	---	---
29	14.5	6.5	17.5	13.5	21.5	17.0	21.0	18.5	27.5	20.5	22.0	19.5
30	12.0	11.0	16.0	13.5	22.5	16.0	21.5	16.0	23.0	20.5	20.5	18.5
31	---	---	17.0	13.5	---	---	19.5	17.0	---	---	---	---
MONTH	18.5	3.0	19.5	6.0	24.5	12.0	28.0	12.5	27.5	14.0	---	---
YEAR	28.0	0.0										

RACCOON CREEK BASIN

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO

LOCATION.--Lat 38°52'25", long 82°21'22", in SE 1/4 sec.26, T.6 N., R.16 W., Gallia County, at gaging station on left bank at downstream side of U.S. Highway 35 bridge at Adamsville, 1.3 mi (2.1 km) upstream from Ryan Run, and 1.4 mi (2.3 km) downstream from Indian Creek.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--Chemical analyses: October 1951 to September 1954, October 1964 to September 1973.
 Water temperatures: October 1951 to September 1954, October 1964 to September 1973.
 Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 960 micromhos Oct. 4; minimum, 130 micromhos Apr. 24.

pH: Maximum, 6.2 Nov. 1, Jan. 4; minimum, 3.2 Sept. 27, 28.

Dissolved oxygen: Maximum, 13.8 mg/l Jan. 22; minimum, 2.9 mg/l June 15.

Water temperatures: Maximum, 24.5°C July 9, 10; minimum, 0.5°C Dec. 18, Feb. 12, 13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
11...	1200	--	--	0	0	240	56	.5	--	--
24...	1255	--	--	0	0	220	92	.5	--	--
24...	1330	--	--	--	--	--	--	--	--	--
NOV.										
03...	1450	--	--	0	0	170	26	.3	--	--
24...	1700	--	--	2	0	100	20	.2	--	--
DEC.										
09...	1645	--	--	3	0	59	6.6	.1	--	--
28...	1140	--	--	1	0	120	17	.2	--	--
JAN.										
04...	1130	--	--	4	0	84	12	.1	--	--
22...	1530	--	--	4	0	120	25	.2	--	--
FEB.										
05...	1750	--	--	2	0	92	10	.1	--	--
28...	1150	--	--	1	0	130	18	.2	--	--
APR.										
17...	1800	--	--	2	0	100	10	.2	--	--
23...	1145	--	--	3	0	110	12	.2	--	--
MAY										
01...	1500	--	--	6	0	74	6.5	.1	--	--
24...	1700	--	--	0	0	140	17	.3	--	--
JUNE										
12...	1000	--	--	2	0	120	22	.2	--	--
20...	1400	--	--	--	--	--	--	--	--	--
25...	1245	--	--	2	0	140	29	.2	--	--
JULY										
05...	1100	--	--	2	0	130	18	.5	--	--
30...	1100	--	--	0	0	200	41	.4	--	--
AUG.										
15...	1600	44	14	0	0	160	20	--	.2	.01
31...	1030	51	17	0	0	180	51	--	.1	.01
SEP.										
05...	1050	49	17	0	0	180	61	--	.3	.01
25...	1315	59	20	0	0	240	70	--	.3	.01

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV.					
14...	1200	606	9.5	41	67
15...	1415	815	8.0	25	55
DEC.					
09...	1615	4440	6.0	89	1070
JAN.					
05...	1210	1590	5.0	72	309
FEB.					
27...	1400	441	5.5	18	21
APR.					
23...	1120	816	15.5	121	267
SEP.					
17...	1330	86	19.5	1	.23

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance: Maximum, 2,930 micromhos Nov. 20, 1964; minimum, 115 micromhos Mar. 23, 1952.

pH (1969-70, 1971-73): Maximum, 8.8 Feb. 16, 1972; minimum, 2.0 May 6, 1972.

Dissolved oxygen (1971-73): Maximum, 13.9 mg/l Feb. 14, 1972; minimum, 2.5 mg/l May 6, 1972.

Water temperatures: Maximum, 29.0°C June 16, 1952; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since May 1967. Maximum recorded dissolved oxygen concentrations of 15.0 mg/l or higher occurred on several days during 1968-69, 1971. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
11...	1.0	--	260	260	680	478	--	13.5	--	--
24...	1.0	--	220	220	748	488	--	--	--	--
24...	--	--	--	--	--	--	--	10.0	.0	<.5
NOV.										
03...	1.5	--	160	160	454	296	--	13.0	--	--
24...	1.0	--	110	110	309	210	--	7.0	--	--
DEC.										
09...	1.6	--	61	58	174	120	--	5.5	--	--
28...	.90	--	140	140	326	208	--	9.5	--	--
JAN.										
04...	.90	--	86	83	247	142	--	4.5	--	--
22...	.70	--	130	130	349	204	--	3.0	--	--
FEB.										
05...	.60	--	92	90	259	168	--	5.0	--	--
28...	.60	--	120	120	354	232	--	5.0	--	--
APR.										
17...	.40	--	100	98	269	158	--	9.5	--	--
23...	.60	--	110	110	288	176	--	15.5	--	--
MAY										
01...	.20	--	74	69	199	116	--	13.0	--	--
24...	.20	--	130	130	367	226	--	15.0	--	--
JUNE										
12...	.40	--	130	130	332	206	--	21.0	--	--
20...	--	--	--	--	--	--	--	22.0	.0	<.5
25...	.30	--	160	160	393	244	--	22.0	--	--
JULY										
05...	1.2	--	130	130	369	244	--	21.0	--	--
30...	.80	--	190	190	574	380	--	20.5	--	--
AUG.										
15...	--	.64	--	--	508	--	360	22.0	--	--
31...	--	.61	--	--	637	--	443	24.5	--	--
SEP.										
05...	--	.85	--	--	662	--	468	24.0	--	--
25...	--	.24	--	--	799	--	564	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
14...	1200	43	55	68	82	92	97	99	100	--	--
DEC.											
09...	1615	44	57	66	75	81	84	88	94	97	100
JAN.											
05...	1210	40	53	66	80	91	96	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
17...	3	1	2	5	76	95	97	99	100	--	--	--

RACCOON CREEK BASIN

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C). WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	660	600	660	210	400	380	380	380	340	325	400	390
2	740	640	480	300	400	380	400	380	330	300	400	380
3	880	740	540	450	400	380	400	320	340	300	390	360
4	960	880	640	540	400	360	320	270	330	290	360	360
5	950	830	650	420	380	340	370	305	310	259	360	340
6	830	760	440	420	360	310	---	---	280	280	340	320
7	800	760	440	320	380	320	---	---	310	280	360	340
8	840	760	340	270	380	170	---	---	310	280	360	350
9	840	760	410	330	200	170	---	---	320	280	370	350
10	760	720	440	340	210	200	---	---	330	320	350	340
11	740	700	380	300	200	200	---	---	345	330	350	340
12	720	630	375	320	210	200	---	---	360	340	340	330
13	650	620	400	370	280	200	---	---	360	350	350	340
14	650	620	410	340	290	280	---	---	360	280	350	340
15	670	620	420	340	300	270	---	---	300	250	350	340
16	710	640	460	400	310	270	---	---	330	300	350	300
17	780	690	420	380	330	310	---	---	330	320	300	260
18	820	780	380	360	340	320	---	---	340	320	320	290
19	820	790	390	300	340	330	---	---	340	320	310	300
20	840	780	340	290	330	300	---	---	340	320	320	300
21	780	640	400	340	350	300	---	---	350	340	300	290
22	660	610	400	360	320	300	380	360	360	350	300	300
23	770	660	400	300	330	310	390	360	370	360	300	300
24	820	740	340	300	310	310	380	340	380	360	320	300
25	820	790	360	340	320	310	380	340	380	380	320	300
26	790	705	350	330	330	320	340	330	380	380	310	260
27	705	700	380	340	350	330	330	320	380	380	310	270
28	700	640	380	345	360	350	340	310	390	380	310	280
29	640	620	400	360	380	360	340	320	---	---	320	300
30	630	620	410	385	380	380	360	330	---	---	320	300
31	650	630	---	---	380	380	340	330	---	---	300	300
MONTH	960	600	660	210	400	170	---	---	390	250	400	260

[illegible]

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO--Continued

PH (UNITS) , WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.3	3.9	6.2	4.4	4.9	4.8	4.9	4.9	4.8	4.8	4.8	4.7
2	3.9	3.7	5.6	4.3	4.9	4.9	4.9	5.2	4.9	4.9	4.8	4.8
3	3.7	3.6	4.5	4.2	4.9	4.9	5.0	5.1	4.6	4.6	5.2	4.8
4	3.7	3.6	4.4	4.3	5.0	4.9	6.2	5.3	4.8	4.7	5.2	5.0
5	3.7	3.6	4.4	4.3	5.3	5.0	5.3	4.9	4.8	4.7	5.4	4.9
6	4.1	3.7	4.5	4.4	5.5	5.2	---	---	4.8	4.7	5.3	5.0
7	3.8	3.8	5.1	4.5	5.8	5.0	---	---	4.8	4.8	5.0	4.9
8	4.0	3.7	5.7	4.8	5.8	4.9	---	---	5.4	4.8	5.0	4.9
9	3.8	3.7	4.8	4.2	5.9	5.3	---	---	5.4	4.8	5.2	5.0
10	3.7	3.7	4.7	4.6	5.3	5.1	---	---	4.9	4.8	5.0	5.0
11	3.7	3.7	4.8	4.6	5.1	5.0	---	---	4.9	4.8	5.0	4.9
12	4.1	3.7	4.8	4.6	5.0	4.9	---	---	4.9	4.8	5.3	4.9
13	4.1	4.0	4.6	4.6	5.0	4.8	---	---	4.9	4.8	5.2	5.0
14	4.0	4.0	5.3	4.6	5.0	4.8	---	---	5.7	4.8	5.0	5.0
15	4.0	3.8	5.2	4.5	5.3	5.0	---	---	5.6	4.8	5.0	5.0
16	4.0	3.8	4.7	4.3	5.1	4.7	---	---	4.8	4.7	5.6	4.9
17	4.0	4.0	4.7	4.6	4.8	4.6	---	---	4.8	4.7	5.4	5.4
18	4.0	4.0	4.7	4.7	4.8	4.8	---	---	4.7	4.7	5.4	5.0
19	4.7	4.7	5.7	4.7	4.8	4.7	---	---	4.7	4.7	5.4	5.0
20	4.2	4.2	5.8	5.1	5.0	4.8	---	---	4.7	4.7	5.0	5.0
21	4.3	4.2	5.1	4.5	4.9	4.6	---	---	4.7	4.6	5.1	5.0
22	4.3	4.3	4.8	4.7	5.0	4.8	5.4	5.2	4.7	4.6	5.2	4.8
23	4.3	4.3	4.8	4.7	4.8	4.7	5.2	4.9	4.7	4.6	4.8	4.7
24	4.5	4.3	4.9	4.8	4.8	4.7	5.0	4.8	4.7	4.6	4.8	4.7
25	4.4	4.3	5.0	4.8	4.8	4.7	4.8	4.7	4.6	4.5	4.9	4.7
26	4.4	4.3	5.4	5.0	4.8	4.7	4.9	4.8	4.6	4.5	5.6	4.9
27	4.5	4.4	5.3	5.0	4.8	4.8	5.1	4.8	4.7	4.6	5.2	4.7
28	4.5	4.3	5.3	4.9	4.9	4.8	5.1	4.9	4.7	4.7	4.9	4.8
29	4.5	4.5	5.4	5.0	4.9	4.9	5.1	4.7	---	---	4.9	4.7
30	4.5	4.5	5.0	4.8	4.9	4.9	4.9	4.8	---	---	4.7	4.7
31	4.5	4.4	---	---	4.9	4.9	4.9	4.8	---	---	4.8	4.7
MONTH	4.5	3.6	6.2	4.2	5.9	4.6	---	---	5.7	4.5	5.7	4.7

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	4.8	4.6	4.6	4.4	4.5	4.3	4.5	4.4	4.5	4.0	---	---
2	4.9	4.7	4.6	4.4	4.4	4.3	4.5	4.4	4.5	4.1	---	---
3	4.7	4.7	5.2	4.4	4.4	4.3	5.8	4.4	4.1	4.0	---	---
4	5.6	4.7	5.4	4.8	4.9	4.2	5.2	4.6	4.0	4.0	---	---
5	5.5	4.5	4.4	4.3	4.9	4.2	6.1	4.6	4.4	4.0	4.1	4.1
6	4.8	4.7	4.2	4.2	5.0	4.1	4.6	4.4	4.0	4.0	---	---
7	4.8	4.7	4.2	4.2	4.4	4.1	4.3	4.2	4.1	3.9	---	---
8	5.1	4.8	4.8	4.2	4.4	4.3	4.3	4.2	4.0	4.0	---	---
9	5.0	4.7	5.0	4.5	4.4	4.3	4.2	4.2	3.9	3.9	---	---
10	5.1	4.7	4.5	4.3	4.5	4.3	4.2	4.2	3.9	3.9	---	---
11	4.7	4.7	4.4	4.3	4.3	4.3	4.6	3.7	4.0	3.9	---	---
12	4.7	4.6	4.3	4.2	4.7	4.3	3.9	3.7	4.0	4.0	---	---
13	4.7	4.5	4.2	4.2	5.6	4.5	4.0	3.8	4.3	4.0	---	---
14	4.6	4.5	4.2	4.2	5.0	4.1	4.1	3.6	4.3	3.9	---	---
15	4.6	4.5	4.2	4.1	4.6	4.3	4.0	3.6	4.2	3.9	---	---
16	4.5	4.5	4.2	4.1	4.8	4.2	4.0	3.7	4.2	4.0	---	---
17	4.5	4.4	4.3	4.2	5.0	4.6	3.9	3.7	4.1	4.0	---	---
18	4.4	4.3	4.3	4.2	4.6	3.8	3.9	3.9	4.1	4.1	3.6	3.7
19	4.3	4.1	4.4	4.2	4.0	3.8	3.9	3.7	4.1	4.0	4.2	4.0
20	4.3	4.1	4.4	4.2	4.3	4.0	3.9	3.8	---	---	4.1	4.0
21	4.4	4.3	4.3	3.9	4.3	4.0	4.0	3.8	4.1	4.1	4.0	3.9
22	4.3	4.3	4.3	3.9	4.6	4.3	4.2	3.6	4.1	4.1	4.0	3.9
23	5.2	4.2	4.3	4.2	4.3	4.3	3.7	3.5	4.2	4.1	4.0	3.9
24	4.6	4.6	4.2	4.1	4.5	4.3	3.9	3.8	4.2	4.1	3.9	3.8
25	4.6	4.4	4.2	4.1	4.5	4.3	4.3	3.9	4.2	4.1	3.6	3.4
26	4.4	4.4	4.6	4.1	4.3	4.2	4.2	4.0	4.2	4.1	3.4	3.3
27	5.2	4.4	4.4	4.1	4.2	4.1	4.0	3.9	4.1	4.1	3.3	3.2
28	5.2	4.6	5.3	4.4	4.2	4.1	3.9	3.8	---	---	3.4	3.2
29	4.8	4.6	4.8	4.2	4.5	4.2	3.9	3.8	---	---	3.4	3.3
30	4.7	4.6	4.7	4.4	4.4	4.3	4.0	3.9	---	---	3.4	3.4
31	4.7	4.6	4.7	4.4	---	---	4.1	4.0	---	---	---	---
MONTH	5.6	4.1	5.3	3.9	5.6	3.8	6.1	3.5	4.5	3.9	---	---
YEAR	6.2	3.2	5.3	3.9	5.6	3.8	6.1	3.5	4.5	3.9	---	---

RACCOON CREEK BASIN

03202000 RACCOON CREEK AT ADAMSVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	6.8	9.4	8.8	11.7	11.6	11.2	11.0	13.1	13.0	10.5	10.3
2	7.9	7.5	9.3	7.5	11.7	11.4	11.6	11.2	13.1	12.6	10.3	10.1
3	8.2	7.9	9.6	9.3	11.5	11.3	11.6	11.5	12.6	12.4	10.1	9.6
4	8.1	7.9	9.7	9.5	11.3	10.9	11.8	11.5	12.7	12.5	9.6	9.0
5	8.0	7.7	10.1	9.8	11.0	10.7	11.7	11.5	12.5	12.2	9.0	7.3
6	7.7	7.5	10.4	10.1	10.7	10.3	---	---	12.3	11.5	---	---
7	7.8	7.4	10.4	10.2	11.1	10.7	---	---	11.6	11.5	---	---
8	8.0	7.5	10.5	10.2	12.0	10.9	---	---	11.9	11.6	---	---
9	8.2	7.6	10.6	10.4	12.0	11.7	---	---	12.5	11.8	---	---
10	8.7	8.0	10.6	10.4	11.7	11.4	---	---	12.9	12.5	---	---
11	8.9	8.3	10.5	10.5	11.7	11.5	---	---	13.2	12.7	---	---
12	8.4	7.9	10.6	10.5	11.6	11.4	---	---	13.2	12.7	---	---
13	8.5	7.8	10.7	10.5	11.4	11.0	---	---	13.1	10.8	---	---
14	8.6	7.9	10.5	10.2	11.1	10.7	---	---	13.4	12.8	---	---
15	8.5	8.0	10.7	10.3	11.3	10.6	---	---	13.4	12.9	---	---
16	8.6	8.3	10.9	10.7	11.9	11.3	---	---	13.2	13.0	---	---
17	8.9	8.4	10.9	10.9	12.6	11.9	---	---	13.5	13.1	---	---
18	9.3	8.7	11.2	10.9	12.8	12.5	---	---	13.3	13.1	---	---
19	9.8	9.1	11.2	11.0	13.2	12.3	---	---	13.2	12.9	---	---
20	10.3	9.8	11.1	11.0	12.3	11.8	---	---	12.9	12.8	---	---
21	10.5	10.1	11.1	11.1	11.8	11.6	---	---	12.7	12.1	---	---
22	10.6	10.0	11.1	11.1	11.6	11.3	13.8	12.7	12.2	11.7	---	---
23	10.0	9.7	11.1	11.0	11.3	11.0	12.8	12.7	12.5	11.3	---	---
24	9.9	9.6	11.3	11.0	11.0	10.8	12.9	12.7	12.2	11.9	---	---
25	10.0	9.5	11.3	11.2	11.0	10.8	13.0	12.9	12.1	11.3	---	---
26	10.3	9.7	11.2	11.1	11.1	10.7	12.9	12.7	11.9	11.4	---	---
27	10.4	9.8	11.3	11.1	11.2	10.9	12.8	12.4	11.5	10.4	---	---
28	10.1	9.5	11.4	11.1	11.6	11.2	12.4	12.2	10.6	10.4	---	---
29	9.5	9.0	11.8	11.4	11.8	11.6	12.5	12.2	---	---	---	---
30	9.4	8.9	11.8	11.6	11.6	11.3	12.9	12.5	---	---	---	---
31	9.5	9.1	---	---	11.3	11.0	13.2	12.8	---	---	---	---
MONTH	10.6	6.8	11.8	7.5	13.2	10.3	---	---	13.5	10.4	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	5.7	5.5	5.0	4.6	6.0	3.6	---	---
2	---	---	---	---	5.6	5.4	4.9	4.2	6.1	3.8	---	---
3	---	---	---	---	5.5	5.1	4.4	3.9	6.2	5.7	---	---
4	---	---	---	---	5.2	4.9	4.2	3.7	6.2	5.8	---	---
5	---	---	---	---	5.1	4.8	4.1	3.4	6.3	5.8	5.5	4.0
6	---	---	---	---	5.2	4.9	4.0	3.7	6.2	4.2	---	---
7	---	---	---	---	5.3	5.1	4.0	3.5	6.2	5.7	---	---
8	---	---	---	---	5.4	5.2	4.3	3.5	6.0	5.6	---	---
9	---	---	---	---	5.2	5.0	4.4	3.6	5.9	5.5	---	---
10	---	---	---	---	5.1	4.8	4.3	3.6	5.8	5.3	---	---
11	---	---	---	---	4.9	4.7	4.5	3.7	5.7	4.0	---	---
12	---	---	---	---	4.8	4.6	4.7	4.4	5.7	3.8	---	---
13	---	---	---	---	5.8	4.8	4.7	4.4	5.6	3.3	---	---
14	---	---	---	---	5.2	5.0	4.9	4.6	5.7	3.5	---	---
15	---	---	---	---	5.1	2.9	4.8	4.5	5.8	3.7	---	---
16	---	---	---	---	4.7	4.5	5.1	4.7	6.1	3.8	---	---
17	---	---	---	---	4.7	4.5	5.2	4.7	6.0	5.7	6.4	4.0
18	---	---	---	---	5.0	4.6	5.4	4.8	6.2	5.8	6.1	5.8
19	---	---	6.7	6.5	5.1	4.7	5.5	4.9	6.1	5.8	6.7	4.5
20	---	---	6.6	6.6	4.9	4.3	5.3	4.9	---	---	6.8	4.1
21	---	---	7.0	6.6	4.8	4.7	5.4	4.7	6.1	4.2	6.8	4.2
22	---	---	6.8	6.5	4.8	4.6	5.2	4.7	6.3	4.0	---	4.1
23	---	---	6.5	5.4	5.0	4.6	5.3	5.1	6.5	4.3	6.5	3.9
24	---	---	6.0	5.6	5.0	4.8	5.5	3.3	6.5	4.3	6.3	3.9
25	---	---	5.7	5.5	5.1	4.5	5.4	5.1	6.6	4.1	6.3	5.6
26	---	---	5.7	5.4	5.0	4.7	5.5	3.4	6.5	4.0	6.1	5.1
27	---	---	5.7	5.5	4.9	4.6	5.6	3.5	6.0	4.0	6.3	5.2
28	---	---	5.6	5.3	4.8	4.5	5.6	3.5	6.0	5.4	6.4	5.3
29	---	---	5.4	5.3	4.8	4.1	5.8	3.6	---	---	5.8	5.1
30	---	---	5.6	5.4	4.9	4.3	5.9	3.8	---	---	5.5	4.7
31	---	---	5.6	5.4	---	---	5.9	3.9	---	---	---	---
MONTH	---	---	---	---	5.8	2.9	5.9	3.3	6.6	3.3	---	---

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.5	16.0	13.5	11.5	6.0	5.5	5.5	5.0	3.0	1.5	4.5	3.5
2	16.5	15.5	13.5	13.0	6.0	5.5	5.0	4.0	4.0	2.5	5.0	4.0
3	16.0	15.0	13.5	13.0	7.0	6.0	4.0	3.5	4.5	4.0	6.5	5.0
4	15.5	15.5	13.5	12.0	7.5	6.5	5.0	4.0	4.5	4.0	8.0	6.5
5	16.0	15.5	12.0	11.0	8.5	7.0	4.5	4.0	4.5	4.5	9.5	8.0
6	16.5	16.0	11.0	10.0	9.0	7.5	---	---	5.0	4.5	10.0	8.5
7	16.0	15.5	10.5	10.5	7.5	6.5	---	---	5.5	4.5	10.5	10.0
8	15.5	14.5	10.5	10.0	6.5	5.0	---	---	5.0	4.5	10.5	9.5
9	15.5	14.5	10.0	9.5	5.5	5.0	---	---	4.5	3.0	11.0	9.5
10	14.5	13.0	9.5	9.0	5.5	5.0	---	---	3.0	1.5	12.0	10.0
11	14.0	13.0	9.5	9.5	5.0	4.0	---	---	1.5	1.0	12.0	11.5
12	14.0	13.5	9.5	9.0	4.5	4.0	---	---	1.5	0.5	12.0	11.0
13	14.5	14.0	9.0	8.5	5.0	4.5	---	---	1.5	0.5	11.5	10.0
14	14.0	13.5	9.5	9.0	4.5	4.5	---	---	2.0	1.0	13.0	10.5
15	14.0	13.5	10.0	9.0	4.5	4.5	---	---	3.0	2.0	14.0	12.5
16	13.5	13.0	9.5	8.5	4.5	2.5	---	---	2.0	1.5	13.5	13.0
17	13.5	13.0	9.0	9.0	2.5	1.0	---	---	1.5	1.0	13.5	9.5
18	13.0	11.5	9.0	8.5	1.0	0.5	---	---	1.0	1.0	9.5	8.0
19	11.5	10.5	8.5	8.0	1.5	1.0	---	---	1.5	1.0	8.0	6.5
20	10.5	9.5	8.5	8.5	3.0	1.5	---	---	2.0	1.5	7.0	6.0
21	10.0	9.5	8.5	8.0	3.5	3.0	---	---	3.0	1.5	6.0	5.5
22	11.0	10.0	8.0	8.0	4.5	3.5	3.0	2.0	2.0	1.5	6.0	5.0
23	12.0	11.0	8.0	8.0	5.0	4.5	3.0	3.0	3.0	1.5	6.0	4.5
24	12.0	10.0	8.0	7.0	5.5	5.0	2.5	2.0	3.0	2.0	6.5	4.5
25	10.0	10.0	7.0	6.5	6.0	5.5	2.5	2.0	3.5	2.0	7.0	6.0
26	10.5	9.5	7.0	6.5	6.0	5.5	2.5	2.0	4.0	3.5	8.5	7.0
27	10.0	9.0	7.0	6.5	5.5	4.5	3.5	2.5	4.5	4.0	9.5	8.0
28	11.5	10.0	7.0	6.5	4.5	4.0	4.5	3.5	4.0	3.5	9.5	9.0
29	12.0	11.5	6.5	6.0	4.0	3.5	4.0	3.0	---	---	10.0	9.5
30	12.0	11.5	6.0	5.5	5.0	4.0	3.0	2.0	---	---	10.5	9.5
31	12.0	11.5	---	---	6.0	5.0	2.0	1.5	---	---	11.0	10.0
MONTH	17.5	9.0	13.5	5.5	9.0	0.5	---	---	5.5	0.5	14.0	3.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.5	10.0	13.0	11.0	17.0	15.5	21.0	20.5	21.5	20.5	---	---
2	11.0	10.5	13.5	12.0	17.0	16.0	22.0	20.0	21.5	20.5	---	---
3	10.5	10.0	13.5	13.0	18.0	17.0	23.0	21.0	21.5	20.0	---	---
4	13.5	8.5	13.0	11.5	19.0	18.0	23.0	22.0	21.5	20.0	---	---
5	8.5	7.5	11.5	10.5	19.5	18.5	23.5	22.0	21.5	20.0	23.5	23.0
6	8.5	7.0	14.0	13.5	19.5	19.0	23.5	22.0	21.5	20.5	---	---
7	8.0	8.0	14.5	13.5	19.5	18.5	24.0	21.5	21.5	20.5	---	---
8	8.0	8.0	14.0	11.5	19.5	18.0	24.0	22.5	22.5	21.0	---	---
9	9.0	8.0	14.5	13.5	20.0	19.0	24.5	23.0	23.0	21.5	---	---
10	8.5	7.0	15.0	14.5	21.0	19.5	24.5	24.0	23.0	22.0	---	---
11	7.0	6.5	15.0	14.5	21.5	20.5	23.0	21.5	23.0	21.5	---	---
12	6.5	6.0	15.0	14.5	21.5	21.0	21.5	20.5	23.0	22.0	---	---
13	6.0	5.5	15.0	14.0	21.0	19.5	21.5	20.0	23.0	21.5	---	---
14	6.5	5.5	14.5	13.5	19.5	19.0	22.0	20.5	22.0	21.5	---	---
15	8.0	6.0	14.0	13.5	20.0	19.0	22.0	21.5	21.5	21.0	---	---
16	9.0	8.0	14.0	12.5	21.0	19.5	22.5	21.5	21.5	20.5	---	---
17	11.5	8.5	14.0	13.0	21.0	20.0	22.5	21.0	21.5	21.0	18.0	18.0
18	13.0	11.0	13.5	12.0	21.0	20.5	22.5	21.0	22.0	21.0	18.0	16.5
19	13.0	11.0	13.5	13.0	21.5	20.5	22.5	21.5	21.5	20.5	16.5	16.0
20	13.0	12.5	13.5	13.5	22.5	21.0	22.5	21.0	---	---	16.0	14.5
21	14.0	12.5	14.5	13.0	23.0	22.0	22.5	22.0	20.5	20.0	16.0	15.5
22	15.0	14.0	14.5	13.5	22.5	22.0	22.5	22.0	20.0	19.5	17.0	16.0
23	15.0	13.5	15.5	14.5	22.5	21.5	22.5	21.5	20.0	18.5	18.5	17.0
24	13.5	12.0	15.5	15.0	22.5	21.5	23.0	21.5	19.5	18.5	18.5	18.0
25	13.5	13.0	16.5	15.5	23.0	21.5	22.0	21.5	20.0	18.5	19.0	18.0
26	13.0	11.5	17.0	16.0	23.0	21.5	22.0	21.5	20.5	19.5	19.0	18.0
27	11.5	10.5	17.0	16.5	23.0	22.0	23.0	21.5	21.5	20.0	19.0	17.5
28	10.5	10.0	18.0	16.5	22.0	21.0	23.0	22.0	21.0	21.0	19.0	18.0
29	11.5	9.5	18.0	17.0	20.5	20.5	22.0	21.5	---	---	19.5	19.0
30	11.5	11.0	17.0	16.5	21.0	20.0	22.0	20.5	---	---	19.5	19.0
31	---	---	17.0	16.0	---	---	21.5	21.0	---	---	---	---
MONTH	15.0	5.5	18.0	10.5	23.0	15.5	24.5	20.0	23.0	18.5	---	---
YEAR	24.5	0.5										

03220000 MILL CREEK NEAR BELLEPOINT, OHIO

LOCATION.--Lat 40°14'54", long 83°10'26", Delaware County, at gaging station on left bank at upstream side of county road bridge, 1.2 mi (1.9 km) west of Bellepoint, 1.5 mi (2.4 km) upstream from mouth, and 2.3 mi (3.7 km) downstream from Blues Creek.

DRAINAGE AREA.--178 mi² (461 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-69 (partial-record station), July 1970 to June 1971; water years 1971-73 (partial-record station).
Water temperatures: July 1970 to July 1973 (discontinued).

EXTREMES.--Period of record:

Water temperatures: Maximum, 30.5°C July 23, 1972; minimum, freezing point on many days during 1971 and 1972.

REMARKS.--Diurnal fluctuation caused by stone quarry upstream from station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO JULY 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT., 1972											
12...	1430	36	--	--	--	--	--	--	--	--	--
DEC.											
13...	1150	890	--	--	--	--	--	--	--	--	--
JAN., 1973											
26...	1500	130	--	--	--	--	99	23	--	--	--
MAR.											
21...	1325	313	--	--	--	--	65	14	--	--	--
MAY											
16...	1045	53	--	--	--	--	--	--	--	--	--
JUNE											
20...	1010	1510	--	--	--	--	39	22	--	--	--
JULY											
10...	0955	27	--	--	--	--	--	--	--	--	--
SEP.											
05...	1115	18	85	31	252	0	130	32	--	.7	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT., 1972										
12...	--	--	--	--	--	807	--	--	--	14.0
DEC.										
13...	--	--	--	--	--	508	--	--	--	3.0
JAN., 1973										
26...	4.0	--	--	270	--	556	7.6	--	--	2.0
MAR.										
21...	2.6	--	--	220	--	441	7.5	--	--	5.0
MAY										
16...	--	--	--	--	--	636	--	--	--	12.0
JUNE										
20...	6.9	--	--	160	--	347	7.1	--	--	21.0
JULY										
10...	--	--	--	--	--	612	--	--	--	24.5
SEP.										
05...	--	1.3	.32	--	--	730	7.6	--	451	24.5

03220000 MILL CREEK NEAR BELLEPOINT, OHIO--CONTINUED

TEMPERATURE (°C) OF WATER, OCTOBER 1972 TO JULY 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	14.0	10.5	10.0	3.0	2.0	7.5	4.5	2.0	0.5	5.0	1.5
2	14.0	13.0	13.0	10.5	4.0	3.0	4.5	3.0	4.0	2.0	6.0	3.5
3	16.0	14.0	13.0	12.0	4.5	4.0	3.0	2.0	4.0	3.5	6.5	5.5
4	15.0	14.0	12.0	11.0	4.5	4.0	3.0	2.5	4.0	3.0	8.0	6.5
5	16.0	15.0	11.0	9.5	5.5	4.5	3.0	2.0	5.0	3.5	9.5	7.0
6	16.0	16.0	9.5	8.0	6.5	4.5	2.0	1.0	5.0	4.5	10.5	8.0
7	16.0	14.0	9.5	9.5	4.5	2.5	1.0	1.0	5.5	4.5	11.5	10.0
8	16.0	13.0	9.5	9.0	2.5	2.0	1.0	0.5	4.5	2.0	11.5	9.5
9	14.0	12.0	9.0	9.0	3.0	2.0	1.0	0.5	2.0	1.0	11.0	9.5
10	13.0	11.0	9.0	8.5	3.0	2.5	1.0	0.5	1.0	0.5	13.0	9.5
11	13.0	11.0	9.0	9.0	2.5	2.0	1.0	0.5	1.0	0.5	13.0	11.0
12	14.5	13.0	9.0	8.5	2.5	1.5	1.0	0.5	1.0	0.5	13.0	10.5
13	14.0	13.0	8.5	7.5	3.0	2.5	1.0	0.5	1.0	0.5	11.0	10.0
14	13.0	12.0	7.5	6.5	2.5	1.5	0.5	0.5	1.0	0.5	13.0	10.5
15	13.0	11.5	6.5	5.0	1.5	1.0	0.5	0.5	1.0	0.5	14.5	12.0
16	12.0	11.0	5.5	5.0	1.0	1.0	0.5	0.5	1.0	0.5	14.5	10.5
17	12.0	10.5	5.5	4.5	1.0	0.5	0.5	0.5	1.0	0.5	10.5	4.5
18	11.0	8.5	5.5	5.0	1.0	0.5	1.0	0.5	1.0	0.5	4.5	3.0
19	9.0	8.0	5.5	5.0	0.5	0.5	1.0	1.0	1.0	0.5	4.0	3.0
20	8.0	6.0	5.5	5.0	0.5	0.5	1.0	1.0	1.0	0.5	5.0	3.5
21	8.5	7.0	5.0	5.0	1.5	0.5	1.0	0.5	1.0	0.5	5.0	3.0
22	10.0	8.5	5.0	5.0	2.0	1.5	2.0	0.5	1.0	0.5	4.0	4.0
23	13.0	10.0	5.0	4.0	3.0	2.0	2.0	1.5	1.0	0.5	7.0	3.0
24	12.0	11.0	4.0	3.0	4.0	3.0	1.5	1.0	2.0	0.5	8.0	5.0
25	11.0	9.5	3.5	3.5	4.0	4.0	2.0	1.0	2.0	0.5	8.0	7.0
26	10.0	8.5	3.5	3.5	4.0	3.5	3.0	1.5	2.0	1.5	8.0	7.0
27	10.0	8.0	3.5	3.5	3.5	2.5	4.5	3.0	2.0	1.0	8.0	6.0
28	11.0	10.0	3.5	3.0	3.0	2.5	4.5	3.0	2.0	1.0	8.0	7.0
29	11.5	11.0	3.0	2.0	3.0	2.5	3.0	1.0	---	---	10.0	8.0
30	11.0	10.5	2.5	2.0	6.0	3.0	1.0	0.5	---	---	11.0	9.0
31	10.5	9.5	---	---	7.5	6.0	0.5	0.5	---	---	11.0	10.0
MONTH	16.0	6.0	13.0	2.0	7.5	0.5	7.5	0.5	5.5	0.5	14.5	1.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	10.0	14.0	13.0	22.5	17.5	24.0	20.5	---	---	---	---
2	12.0	9.0	17.0	14.0	24.0	18.5	26.0	22.0	---	---	---	---
3	9.0	9.0	15.0	12.0	25.0	20.5	25.5	23.0	---	---	---	---
4	9.0	8.0	12.0	10.0	23.5	21.5	24.5	23.0	---	---	---	---
5	8.0	6.0	14.0	9.0	21.5	19.5	23.5	21.5	---	---	---	---
6	9.0	6.0	13.0	12.0	22.0	19.5	24.0	21.5	---	---	---	---
7	11.0	8.0	14.0	13.0	20.5	18.5	25.5	22.0	---	---	---	---
8	11.0	9.0	16.0	14.0	22.5	19.0	26.5	22.5	---	---	---	---
9	9.0	7.0	20.0	15.0	24.5	19.5	25.5	24.0	---	---	---	---
10	7.0	6.0	18.0	17.0	26.5	22.5	---	---	---	---	---	---
11	6.0	4.0	18.0	16.0	27.5	23.0	---	---	---	---	---	---
12	7.0	4.0	18.0	16.0	26.5	22.5	---	---	---	---	---	---
13	7.0	5.0	16.0	14.0	23.5	21.5	---	---	---	---	---	---
14	9.0	6.0	17.0	13.0	23.5	20.0	---	---	---	---	---	---
15	12.0	7.0	16.0	13.0	24.0	20.5	---	---	---	---	---	---
16	12.0	11.0	17.0	12.0	26.0	22.5	---	---	---	---	---	---
17	12.0	11.0	15.5	13.0	24.5	23.0	---	---	---	---	---	---
18	12.0	11.0	16.5	11.5	23.0	20.5	---	---	---	---	---	---
19	14.0	12.0	15.5	14.0	24.5	21.5	---	---	---	---	---	---
20	18.0	13.0	15.5	13.5	22.0	20.5	---	---	---	---	---	---
21	18.0	16.0	17.5	13.5	23.5	21.5	---	---	---	---	---	---
22	18.0	17.0	17.0	16.0	24.0	21.5	---	---	---	---	---	---
23	17.0	14.0	18.5	16.0	24.5	21.5	---	---	---	---	---	---
24	17.0	14.0	18.0	17.0	25.0	21.5	---	---	---	---	---	---
25	15.0	12.0	19.5	16.5	25.5	21.5	---	---	---	---	---	---
26	15.0	11.0	22.0	17.0	25.5	23.0	---	---	---	---	---	---
27	13.0	10.0	22.0	18.5	23.5	21.0	---	---	---	---	---	---
28	10.0	9.0	21.0	18.0	21.0	20.5	---	---	---	---	---	---
29	11.0	9.0	20.5	18.5	21.0	19.0	---	---	---	---	---	---
30	14.0	11.0	19.0	18.0	21.0	19.0	---	---	---	---	---	---
31	---	---	21.5	16.5	---	---	---	---	---	---	---	---
MONTH	18.0	4.0	22.0	9.0	27.5	17.5	---	---	---	---	---	---

LOCATION.--Lat 40°10'56", long 82°57'42", in SE 1/4 sec.1, T.3 N., R.18 W., Delaware County, at gaging station on left bank at downstream side of bridge on Orange Township Road 109, 0.3 mi (0.5 km) west of Africa, 0.3 mi (0.5 km) downstream from outlet of Alum Creek dam, 2.7 mi (4.3 km) upstream from Westerville Reservoir outlet, and 4.2 mi (6.8 km) northwest of Westerville.

DRAINAGE AREA.--122 mi² (316 km²).

PERIOD OF RECORD.--Chemical analyses: Water year 1965 (partial-record station); October 1965 to September 1970; water years 1970-73 (partial-record station).
Water temperatures: October 1965 to September 1970.

Sediment records: October 1969 to December 1972 (partial-record station); January to June 1973 (discontinued).

REMARKS.--Flow affected by ice Jan. 8-11, Feb. 7-14, 17-27. Flow partially regulated by unfinished Alum Creek Dam.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT., 1972											
05...	1110	138	--	--	--	--	--	--	--	--	--
DEC.											
08...	1520	610	--	--	--	--	58	21	--	--	--
MAR., 1973											
26...	1030	76	--	--	--	--	97	31	--	--	--
27...	1340	81	--	--	--	--	--	--	--	--	--
MAY											
17...	1400	54	--	--	--	--	--	--	--	--	--
JULY											
17...	1425	15	--	--	--	--	120	58	--	--	--
SEP.											
07...	1210	2.3	--	--	239	0	150	69	--	.2	.00

DATE	TIME	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA, MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
OCT., 1972											
05...		--	--	--	--	--	633	--	--	--	15.0
DEC.											
08...		2.3	--	--	720	--	371	7.1	--	--	1.5
MAR., 1973											
26...		1.6	--	--	250	--	529	8.0	--	--	8.0
27...		--	--	--	--	--	407	--	--	--	8.0
MAY											
17...		--	--	--	--	--	619	--	--	--	12.0
JULY											
17...		.30	--	--	350	--	766	7.3	--	--	25.0
SEP.											
07...		--	.37	.01	--	--	781	7.8	--	668	25.5

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, OCTOBER 1972 TO JUNE 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
DEC.					
08...	1520	610	1.5	167	275
JAN.					
06...	1305	410	1.0	76	84
FEB.					
02...	1440	658	4.5	420	746
MAR.					
16...	1420	780	--	215	453
APR.					
09...	1815	285	8.5	1340	1030

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, OCTOBER 1972 TO JUNE 1973

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DEC.						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	
08...	1520	1.5	610	167	275	74	84	89	94	96	98	99	100	--	--	--	
JAN.																	
06...	1305	1.0	410	76	84	75	84	87	92	95	97	97	99	100	--	--	
FEB.																	
02...	1440	4.5	658	420	746	50	59	70	81	88	94	98	100	--	--	--	
MAR.																	
16...	1420	--	780	215	453	69	78	83	87	91	93	95	98	100	--	--	
APR.																	
09...	1815	8.5	285	1340	1030	56	75	86	94	96	98	99	100	--	--	--	

SCIOTO RIVER BASIN

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03228805 ALUM CREEK AT AFRICA, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, JANUARY TO JUNE 1973

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	320	--	--	179	453	273	46	68	8.4
2	271	--	--	578	562	828	62	44	7.4
3	177	--	--	804	186	404	125	67	23
4	570	--	--	523	93	131	240	74	48
5	619	--	--	238	70	45	285	64	49
6	418	--	--	164	134	59	323	71	62
7	247	--	--	120	57	18	183	53	26
8	130	--	--	100	22	5.9	125	34	11
9	84	--	--	88	14	3.3	90	29	7.0
10	70	--	--	78	12	2.5	247	243	174
11	50	--	--	64	18	3.1	203	100	55
12	38	--	--	58	22	3.4	245	58	38
13	34	--	--	54	20	2.9	148	33	13
14	35	--	--	58	176	34	240	2330	2470
15	38	--	--	201	246	110	1480	765	3060
16	38	--	--	415	162	189	836	264	596
17	39	--	--	160	64	28	916	249	616
18	46	--	--	110	44	13	844	147	335
19	58	58	9.1	70	33	6.2	545	102	150
20	59	23	3.7	60	24	3.9	425	72	83
21	59	24	3.8	56	27	4.1	368	58	58
22	136	120	52	52	50	7.0	251	57	39
23	288	202	157	48	48	6.2	150	69	28
24	288	103	80	45	32	3.9	140	59	22
25	170	54	25	42	57	6.5	138	51	19
26	102	29	8.0	40	38	4.1	385	246	266
27	179	66	39	38	33	3.4	670	125	226
28	415	260	291	38	55	5.6	285	60	46
29	592	197	315	--	--	--	201	240	162
30	530	93	133	--	--	--	510	185	255
31	251	56	38	--	--	--	345	76	71
TOTAL	--	--	--	4481	--	2204.0	11051	--	9023.8

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	236	52	33	119	25	8.0	78	100	21
2	166	49	22	98	23	6.1	49	83	11
3	126	24	8.2	119	26	8.4	39	87	9.2
4	251	473	336	110	25	7.4	96	192	67
5	637	170	292	77	14	2.9	370	252	244
6	433	109	127	62	12	2.0	460	196	243
7	179	38	18	55	17	2.5	495	147	196
8	179	34	16	70	119	38	162	130	57
9	260	444	436	107	96	28	82	97	21
10	586	350	554	132	111	69	58	72	11
11	530	138	197	555	177	243	46	74	9.2
12	378	150	165	560	162	245	117	403	379
13	670	103	186	142	73	28	698	515	971
14	345	45	42	85	32	7.3	388	173	181
15	166	27	12	66	27	4.8	69	135	25
16	117	24	7.6	56	49	7.4	71	153	29
17	227	515	699	52	45	6.3	156	620	493
18	688	200	399	47	28	3.6	348	630	679
19	318	67	58	48	76	9.8	340	692	1840
20	188	42	21	117	82	26	3540	1260	11700
21	138	30	11	95	40	10	860	--	--
22	101	30	8.2	60	38	6.2	358	--	--
23	136	46	17	53	42	6.0	152	--	--
24	190	53	27	51	51	7.0	88	--	--
25	110	25	7.4	49	109	14	68	--	--
26	80	19	4.1	49	103	14	54	--	--
27	276	440	564	54	89	13	58	--	--
28	808	428	934	57	169	26	89	--	--
29	505	114	155	59	239	38	305	--	--
30	166	35	16	89	349	84	102	--	--
31	--	--	--	121	172	56	--	--	--
TOTAL	9190	--	5372.5	3414	--	1027.7	--	--	--

SCIOTO RIVER BASIN

03229600 SCIOTO RIVER BELOW SHADEVILLE, OHIO

LOCATION.--Lat 39°47'37", long 83°00'40", Pickaway County, on left bank at Picway Plant of Columbus and Southern Ohio Electric Company, 0.4 mi (0.6 km) downstream from Big Walnut Creek, and 3.2 mi (5.1 km) downstream from Shadepville.

DRAINAGE AREA.--2,266 mi² (5,869 km²).

PERIOD OF RECORD.--Chemical analyses: March 1965 to September 1973.
Water temperatures: March 1965 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 900 micromhos Sept. 23; minimum, 194 micromhos June 20.

pH: Maximum, 8.5 Jan. 7; minimum, 6.8 Dec. 19, Jan. 19.

Dissolved oxygen: Maximum, 13.7 mg/l Jan. 30; minimum, 0.0 mg/l Aug. 12.

Water temperatures: Maximum, 27.5°C Aug. 9, 29, 30, Sept. 3; minimum, 0.5°C Jan. 31.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
02...	0820	--	--	154	0	63	19	.3	--	--
20...	1500	--	--	--	--	--	--	--	--	--
31...	0930	--	--	216	0	120	46	.4	--	--
NOV.										
01...	0740	--	--	216	8	110	44	.8	--	--
15...	0920	--	--	120	0	52	15	.2	--	--
DEC.										
11...	0835	--	--	142	0	62	22	.2	--	--
20...	0735	--	--	210	0	87	44	.3	--	--
JAN.										
05...	0750	--	--	124	0	58	18	.2	--	--
15...	0740	--	--	199	0	98	66	.6	--	.00
16...	1335	--	--	220	0	110	61	.4	--	--
FEB.										
05...	0720	--	--	149	0	68	23	.2	--	--
28...	0740	--	--	232	0	120	45	.7	--	--
MAR.										
02...	--	--	--	223	0	130	46	.8	--	--
21...	--	--	--	140	0	61	22	.2	--	--
APR.										
19...	0800	--	--	126	0	55	24	.4	--	--
26...	0735	--	--	202	0	83	30	.5	--	--
MAY										
10...	1645	--	--	212	0	99	38	.9	--	--
29...	0800	--	--	172	0	71	30	.0	--	--
JUNE										
08...	1540	--	--	--	--	--	--	--	--	--
12...	0730	--	--	196	6	98	32	.8	--	--
20...	1115	--	--	102	0	33	14	.4	--	--
JULY										
19...	1225	--	--	228	0	120	44	1.3	--	--
26...	0715	--	--	102	0	40	12	.3	--	--
AUG.										
10...	0815	81	25	217	4	120	47	--	1.3	.00
15...	0740	45	13	127	1	56	20	--	.4	.00
SEP.										
04...	0740	71	20	189	5	92	36	--	.7	.00
21...	0745	84	25	178	4	160	58	--	1.4	.00

03229600 SCIOTO RIVER BELOW SHADEVILLE, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1965-69, 1971-73): Maximum, 1,260 micromhos Feb. 9, 1966; minimum, 190 micromhos May 27, 1968.

pH (1971-73): Maximum, 9.5 June 30, 1972; minimum, 5.1 Mar. 16, 1972.

Dissolved oxygen (1965-68, 1970-73): Maximum, 14.6 mg/l Dec. 24, 1967; minimum, 0.0 mg/l on many days during 1965-68, 1971 and 1973.

Water temperatures (1965-69, 1971-73): Maximum, 33.0°C Aug. 16, 1965; minimum, freezing point on many days during 1967-69 and 1972.

REMARKS.--Water-quality recorder operated since March 1965. Maximum recorded specific conductance value of 1,270 micromhos occurred Feb. 1, 1971. Maximum recorded dissolved oxygen concentration of 15.0 mg/l or higher occurred Feb. 7-11, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, daily samples were collected by a local observer. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	2.3	--	200	74	434	290	--	--	--	--
20...	--	--	--	--	--	--	--	11.0	3.0	<.5
31...	4.6	--	340	160	735	472	--	12.0	--	--
NOV.										
01...	4.2	--	330	140	688	446	--	--	--	--
15...	1.8	--	160	62	353	210	--	8.5	--	--
DEC.										
11...	2.3	--	200	84	421	262	--	--	--	--
20...	3.0	--	270	98	620	382	--	--	--	--
JAN.										
05...	2.2	--	170	68	379	242	--	--	--	--
15...	--	4.7	290	120	741	--	642	3.5	--	--
16...	4.2	--	310	130	745	478	--	--	--	--
FEB.										
05...	3.0	--	210	88	458	292	--	4.0	--	--
28...	4.2	--	330	140	759	494	--	5.0	--	--
MAR.										
02...	4.6	--	330	150	774	510	--	6.0	--	--
21...	2.5	--	200	86	427	266	--	6.0	--	--
APR.										
19...	1.7	--	180	77	371	254	--	12.0	--	--
26...	2.9	--	290	120	558	368	--	13.0	--	--
MAY										
10...	3.5	--	300	130	645	438	--	17.5	--	--
29...	3.3	--	240	99	491	324	--	18.0	--	--
JUNE										
08...	--	--	--	--	--	--	--	21.0	3.0	<.5
12...	4.1	--	300	130	625	408	--	23.0	--	--
20...	.80	--	130	46	267	174	--	22.0	--	--
JULY										
19...	4.7	--	320	130	759	452	--	22.0	--	--
26...	3.8	--	130	46	299	164	--	23.0	--	--
AUG.										
10...	--	5.0	--	--	767	--	542	23.0	--	--
15...	--	2.7	--	--	396	--	505	23.0	--	--
SEP.										
04...	--	3.6	--	--	607	--	541	24.0	--	--
21...	--	11	--	--	860	--	635	18.0	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03229600 SCIOTO RIVER BELOW SHADEVILLE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	7.6	7.2	8.3	7.7	7.4	7.2	---	---	7.4	7.3
2	---	---	7.2	7.0	8.1	7.7	7.8	7.3	---	---	7.4	7.2
3	---	---	7.5	7.2	8.0	7.9	8.1	7.6	---	---	7.4	7.2
4	---	---	7.7	7.4	8.0	7.3	8.3	8.0	---	---	7.7	7.3
5	---	---	7.8	7.5	7.9	7.1	8.4	8.1	---	---	7.7	7.4
6	---	---	7.8	7.4	8.0	7.3	8.4	7.6	---	---	7.6	7.4
7	---	---	8.0	7.4	8.1	7.4	8.5	8.3	---	---	7.6	7.2
8	---	---	7.7	7.3	8.2	7.8	8.3	7.6	---	---	7.6	7.2
9	---	---	7.7	7.4	7.9	7.6	8.4	7.7	---	---	7.5	7.2
10	---	---	---	---	7.9	7.8	8.4	7.9	---	---	7.8	7.2
11	---	---	---	---	8.0	7.7	8.2	7.7	---	---	7.6	7.4
12	7.8	7.5	---	---	7.9	7.5	8.2	7.8	---	---	7.7	7.5
13	7.7	7.6	---	---	7.8	7.0	8.2	7.9	---	---	7.8	7.7
14	7.8	7.6	---	---	7.6	7.3	8.2	7.7	---	---	7.7	7.4
15	7.8	7.7	8.1	7.4	7.7	7.5	8.0	7.6	---	---	7.6	7.4
16	7.8	7.7	8.2	7.4	7.9	7.7	7.9	7.4	---	---	7.5	7.3
17	7.7	7.6	8.2	7.8	7.9	7.7	7.7	7.3	---	---	7.6	7.5
18	7.7	7.6	8.3	8.1	7.8	7.5	7.4	6.9	---	---	7.6	7.6
19	7.8	7.6	8.1	7.3	7.5	6.8	7.5	6.8	---	---	7.7	7.6
20	7.7	7.4	7.9	7.1	7.9	7.4	7.7	7.6	---	---	7.7	7.6
21	7.6	7.5	8.0	7.5	7.8	7.6	8.1	7.7	---	---	7.7	7.5
22	7.6	7.4	7.8	7.5	7.7	7.5	7.9	7.3	---	---	7.7	7.5
23	7.5	7.3	8.0	7.3	7.7	7.6	7.7	7.5	---	---	7.7	7.5
24	7.5	7.2	8.4	7.8	7.7	7.5	7.8	7.6	---	---	7.7	7.4
25	7.4	7.3	8.3	7.3	7.6	7.5	7.7	7.4	---	---	7.7	7.5
26	7.5	7.4	8.2	7.9	7.6	7.2	7.6	7.4	---	---	7.6	7.5
27	7.5	7.4	8.2	7.5	7.5	7.2	7.5	7.3	---	---	7.6	7.5
28	7.5	7.5	8.3	8.2	7.5	7.2	7.6	7.4	---	---	7.6	7.4
29	7.7	7.5	8.3	8.3	7.6	6.9	7.6	7.4	---	---	7.5	7.4
30	7.8	7.7	8.4	8.2	7.4	7.0	7.8	7.6	---	---	7.5	7.4
31	7.8	7.5	---	---	7.3	7.1	7.7	7.6	---	---	7.5	7.4
MONTH	---	---	8.4	7.0	8.3	6.8	8.5	6.8	---	---	7.8	7.2

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.5	7.4	7.4	7.4	---	---	---	---	7.5	7.4	7.5	7.2
2	7.6	7.5	7.4	7.3	---	---	---	---	7.5	7.3	7.3	7.2
3	7.6	7.5	7.4	7.3	---	---	---	---	7.5	7.3	7.3	7.2
4	7.7	7.5	7.5	7.4	---	---	---	---	7.4	7.3	7.4	7.1
5	7.6	7.5	7.5	7.4	---	---	---	---	7.4	7.2	7.3	7.2
6	7.6	7.5	7.4	7.3	---	---	---	---	7.7	7.3	7.3	7.2
7	7.6	7.5	7.4	7.3	---	---	---	---	7.7	7.4	7.5	7.2
8	7.7	7.6	7.3	7.2	---	---	---	---	7.8	7.4	7.4	7.3
9	7.6	7.4	7.4	7.2	---	---	---	---	7.7	7.4	7.4	7.3
10	7.6	7.4	7.3	7.2	---	---	---	---	7.5	7.3	7.6	7.4
11	7.7	7.5	7.5	7.2	---	---	---	---	7.5	7.3	7.5	7.4
12	7.6	7.5	7.5	7.4	---	---	---	---	7.6	7.2	7.6	7.4
13	7.6	7.5	7.6	7.5	---	---	---	---	7.6	7.1	7.6	7.4
14	7.7	7.6	7.7	7.6	---	---	---	---	7.5	7.4	7.5	7.4
15	7.7	7.5	7.6	7.5	---	---	---	---	7.6	7.4	7.5	7.4
16	7.6	7.4	7.5	7.3	---	---	---	---	7.7	7.5	7.4	7.4
17	7.5	7.4	7.4	7.2	---	---	7.5	7.4	7.6	7.5	7.5	7.4
18	7.6	7.4	7.3	7.2	---	---	7.5	7.3	7.6	7.5	7.4	7.4
19	7.6	7.3	7.3	7.2	---	---	7.6	7.4	7.6	7.5	7.4	7.4
20	7.3	7.2	7.4	7.3	---	---	7.5	7.3	7.5	7.4	7.6	7.4
21	---	---	7.3	7.1	---	---	7.7	7.3	7.5	7.5	7.6	7.3
22	---	---	7.2	7.1	---	---	7.5	7.4	7.6	7.5	7.6	7.3
23	7.4	7.3	7.1	6.9	---	---	7.7	7.5	7.6	7.5	7.7	7.2
24	7.3	7.2	7.0	6.9	---	---	7.6	7.5	7.5	7.4	7.5	7.3
25	7.4	7.3	7.0	6.9	---	---	7.8	7.5	7.5	7.4	7.4	7.2
26	7.4	7.3	7.2	6.9	---	---	7.8	7.6	7.6	7.4	7.4	7.2
27	7.4	7.3	7.2	7.0	---	---	7.9	7.7	7.5	7.4	7.3	7.2
28	7.4	7.3	7.1	7.1	---	---	7.8	7.7	7.5	7.4	7.2	7.1
29	7.5	7.4	7.2	7.1	---	---	7.7	7.6	7.5	7.3	7.2	7.1
30	7.5	7.5	---	---	---	---	7.6	7.5	7.5	7.3	7.4	7.1
31	---	---	---	---	---	---	7.5	7.4	7.7	7.3	---	---
MONTH	7.7	7.2	7.7	6.9	---	---	---	---	7.8	7.1	7.7	7.1

SCIOTO RIVER BASIN

03229600 SCIOTO RIVER BELOW SHADEVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	7.0	7.5	5.7	11.1	10.7	11.9	10.8	13.1	12.1	11.1	9.1
2	8.3	7.4	7.9	7.1	10.8	10.6	12.4	11.9	11.9	11.6	10.6	8.9
3	8.3	7.8	9.1	7.6	10.7	10.6	12.3	11.6	12.3	11.7	10.0	8.8
4	8.0	7.1	9.3	9.1	10.6	10.5	12.0	11.5	12.6	12.3	11.9	8.8
5	7.2	6.4	9.7	9.1	11.2	10.4	12.4	12.0	12.5	11.9	11.6	10.1
6	6.4	5.2	9.8	9.5	10.5	9.8	12.6	12.4	12.0	11.5	10.6	9.7
7	6.4	5.2	9.6	8.9	12.1	10.5	12.8	12.6	11.5	10.8	10.8	9.5
8	6.2	5.9	9.5	8.7	12.2	11.8	13.1	11.6	11.4	10.8	11.5	9.8
9	6.6	5.7	9.9	9.5	12.0	11.8	13.2	12.2	11.9	11.4	10.8	9.2
10	6.0	5.1	10.3	9.3	11.9	11.8	12.5	12.1	11.9	11.5	11.7	8.7
11	5.7	4.6	10.0	9.8	12.2	11.8	12.2	11.7	12.2	11.7	9.5	8.8
12	6.6	5.0	10.2	9.9	12.3	11.7	11.7	11.0	12.0	11.4	10.0	9.2
13	6.6	5.3	10.1	9.3	11.8	11.4	11.5	11.1	11.5	10.8	10.2	9.5
14	6.9	5.8	9.4	9.2	12.2	11.8	11.4	10.8	10.8	9.2	10.3	9.3
15	7.3	6.3	10.1	9.3	12.3	12.0	11.2	10.7	10.6	9.1	10.5	8.1
16	7.0	6.1	10.7	9.9	12.7	12.1	11.0	9.8	11.8	10.6	9.4	8.8
17	6.5	5.4	10.9	10.5	12.8	12.6	11.0	10.1	12.2	11.8	10.0	9.3
18	6.8	5.7	10.8	10.6	12.6	12.0	10.3	10.0	12.3	11.8	10.9	10.0
19	7.1	6.1	10.6	9.9	12.2	12.0	10.0	9.3	11.8	11.3	11.2	10.5
20	7.4	6.1	10.6	9.4	12.4	11.6	10.2	9.7	11.3	10.4	11.3	10.1
21	6.8	6.4	11.0	10.4	12.4	12.3	10.6	10.2	11.0	9.7	11.1	9.7
22	6.8	6.4	10.5	9.9	12.5	12.3	12.0	9.6	10.9	10.2	11.0	9.9
23	6.7	5.6	10.4	10.2	12.6	12.5	11.7	11.5	10.9	9.8	10.9	9.7
24	6.9	5.6	10.7	10.1	12.6	12.4	12.8	11.5	11.1	9.9	10.7	9.3
25	7.2	5.5	10.6	9.9	12.4	12.3	12.8	12.4	11.1	10.1	10.2	9.6
26	7.9	6.9	10.3	9.9	12.3	11.7	12.5	11.8	10.5	9.8	10.3	9.7
27	7.9	7.2	10.6	10.2	11.9	11.6	12.0	11.6	10.4	9.0	10.9	9.8
28	7.8	6.8	10.5	10.1	12.0	11.7	12.0	11.6	11.0	9.1	10.8	10.5
29	7.9	7.2	10.9	10.5	12.0	11.7	13.4	12.0	---	---	10.5	10.0
30	8.2	7.9	11.3	10.9	11.8	11.3	13.7	13.4	---	---	10.0	9.4
31	8.4	7.5	---	---	11.3	10.8	13.6	13.1	---	---	10.1	9.7
MONTH	8.4	4.6	11.3	5.7	12.8	9.8	13.7	9.3	13.1	9.0	11.9	8.1
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.7	9.3	8.9	7.2	5.8	4.6	6.0	5.6	3.1	2.8	4.0	2.3
2	9.5	9.1	8.6	7.5	5.5	4.4	5.6	4.4	3.1	1.4	3.5	3.0
3	9.7	9.1	7.6	6.5	5.5	3.8	4.9	3.9	3.3	1.2	3.4	2.8
4	9.8	9.1	8.3	7.1	5.4	3.9	4.6	3.8	3.6	1.9	3.9	1.8
5	10.6	9.6	9.0	7.6	6.5	4.4	6.2	4.5	4.1	2.4	3.2	1.4
6	10.7	10.3	8.6	7.7	7.1	6.6	6.2	3.0	5.9	2.9	3.0	0.8
7	10.3	9.6	7.9	7.0	7.5	6.9	6.1	5.8	5.6	2.4	3.0	0.9
8	9.9	9.4	7.0	5.6	7.3	6.0	5.8	5.0	6.5	2.4	3.0	1.3
9	9.5	9.0	7.3	5.5	6.2	5.6	5.0	3.0	5.0	2.0	1.8	0.7
10	10.6	9.1	6.6	5.0	5.8	5.1	3.8	2.6	3.2	0.3	5.0	1.3
11	11.0	10.6	7.4	5.3	5.5	4.3	5.2	2.1	2.6	0.7	4.4	1.8
12	11.0	10.5	8.4	7.2	4.5	3.4	4.9	4.0	3.4	0.0	5.0	2.0
13	10.9	10.6	8.7	8.3	5.1	4.4	4.6	3.5	4.7	3.1	4.9	2.9
14	11.0	10.7	9.1	7.9	5.5	5.0	4.7	3.4	5.6	4.6	4.2	2.2
15	11.0	10.4	8.6	7.5	5.5	4.8	4.0	3.2	6.0	5.3	4.8	2.5
16	10.4	9.2	8.1	6.3	4.6	2.8	4.9	3.7	6.7	5.8	4.9	2.6
17	9.3	8.4	6.8	5.2	5.1	3.7	5.4	3.3	6.5	6.0	4.9	3.1
18	10.0	8.6	6.4	5.3	6.0	5.0	5.8	4.0	6.3	5.6	4.3	2.1
19	10.3	9.6	6.0	5.4	5.9	4.5	6.4	4.0	6.1	5.6	4.9	2.0
20	---	---	6.3	5.5	5.4	4.5	5.3	1.9	5.6	4.1	4.7	2.2
21	---	---	7.2	5.8	6.0	5.4	4.9	1.7	5.1	4.0	6.5	2.0
22	---	---	7.0	6.0	6.4	5.9	4.5	3.6	5.5	4.5	5.2	2.1
23	8.0	7.6	6.1	5.2	6.3	5.9	5.5	3.0	5.0	4.5	4.4	0.1
24	8.0	7.5	5.6	4.4	6.1	5.8	4.9	4.5	4.5	3.7	5.1	2.5
25	8.7	7.7	5.2	4.0	6.0	4.8	5.8	4.4	4.2	3.3	3.9	1.1
26	8.5	7.5	6.1	3.9	4.8	4.0	6.1	5.5	3.9	3.1	3.5	1.1
27	8.2	7.7	5.9	4.4	4.9	3.3	6.0	5.3	3.8	2.6	3.0	0.2
28	9.7	8.2	6.1	5.7	5.2	3.3	6.1	5.8	4.0	1.8	2.4	0.4
29	9.8	9.5	6.1	5.5	5.1	4.2	5.9	5.5	5.4	1.9	1.4	0.1
30	9.7	5.7	5.8	4.9	5.9	4.9	5.8	3.0	4.7	0.8	3.1	0.1
31	---	---	6.5	5.6	---	---	3.5	3.1	4.9	0.5	---	---
MONTH	11.0	5.7	9.1	3.9	7.5	2.8	6.4	1.7	6.7	0.0	6.5	0.1
YEAR	13.7	0.0										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO

LOCATION.--Lat 39°20'29", long 82°58'16", Ross County, at gaging station on right bank at north end of Chillicothe, 1,400 ft (427 m) downstream from Bridge Street Bridge, 7.4 mi (11.9 km) upstream from Paint Creek, and 15.4 mi (24.8 km) downstream from Deer Creek.

DRAINAGE AREA.--3,849 mi² (9,969 km²).

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, May 1965 to September 1973.
Water temperatures: October 1950 to September 1951, May 1965 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 815 micromhos Aug. 8; minimum, 210 micromhos June 12.

pH: Maximum, 8.3 Aug. 10; minimum, 6.9 Sept. 9.

Dissolved oxygen: Maximum, 13.1 mg/l Aug. 9; minimum, 1.7 mg/l Sept. 30.

Water temperatures: Maximum, 28.0°C Aug. 30; minimum, 0.5°C Dec. 17, 18, Jan. 10-13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL CAL-CIUM (CA) (MG/L)	TOTAL MAG-NE-SIUM (MG) (MG/L)	BICAR-BONATE (HCO ₃) (MG/L)	CAR-BONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
04...	0930	6980	--	--	193	0	79	26	.3	--	--
18...	1300	--	--	--	--	--	--	--	--	--	--
26...	1105	1700	--	--	254	0	100	35	.4	--	--
NOV.											
14...	0935	16300	--	--	148	0	47	14	.2	--	--
28...	0925	5760	--	--	233	0	72	22	.3	--	--
DEC.											
06...	1005	5120	--	--	246	0	87	28	.3	--	--
22...	0930	11100	--	--	198	0	66	29	.3	--	--
JAN.											
04...	1445	11000	--	--	190	6	74	21	.3	--	--
22...	0935	2530	--	--	268	0	90	38	.5	--	--
22...	1430	2750	--	--	130	--	25	21	.5	--	.01
FEB.											
06...	0950	9170	--	--	194	0	71	22	.2	--	--
23...	1010	2560	--	--	237	13	92	31	.5	--	--
MAR.											
08...	1130	4960	--	--	210	12	100	34	.4	--	--
20...	1000	19600	--	--	144	0	53	21	.2	--	--
APR.											
06...	0930	11600	--	--	204	11	74	22	.3	--	--
20...	0930	11700	--	--	184	0	57	18	.3	--	--
MAY											
18...	1100	2590	--	--	252	0	84	24	.5	--	--
30...	0930	3840	--	--	215	0	65	21	.3	--	--
JUNE											
01...	1315	--	--	--	--	--	--	--	--	--	--
12...	1140	3170	--	--	256	0	80	30	.6	--	--
21...	1130	19600	--	--	126	0	34	12	.2	--	--
JULY											
02...	1115	4620	--	--	218	--	62	22	.5	--	--
18...	1000	1760	--	--	238	12	75	24	.6	--	--
AUG.											
08...	1200	1310	89	29	285	0	89	28	--	.8	.00
14...	0945	10100	53	17	160	2	54	17	--	.5	.00
SEP.											
06...	0900	956	77	24	254	0	75	25	--	.6	.01
24...	1230	1040	90	30	259	13	120	46	--	1.1	.01

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1950-51, 1965-66, 1968-71, 1972-73): Maximum, 1,040 micromhos Feb. 9, 1966; minimum, 210 micromhos June 12, 1973.

pH (1972-73): Maximum, 8.3 Aug. 10, 1973; minimum, 6.9 Sept. 9, 1973.

Dissolved oxygen (1965-67, 1972-73): Maximum, 15.0 mg/l or higher on several days during June 1966, June and July 1967; minimum, 0.0 mg/l Apr. 27, Aug. 12, Sept. 22, 1966.

Water temperatures (1950-55, 1953-71, 1972-73): Maximum, 32.0°C July 14, 1954, Aug. 2, 3, 1955; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since May 1965. Maximum recorded specific conductance value of 1,100 micromhos occurred Feb. 6, 1972. Minimum recorded specific conductance value of 150 micromhos occurred June 29, 1972. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. Prior to June 1971, sampling site was at center of Bridge Street Bridge on U.S. Highway 23, 1,400 ft (427 m) upstream from gaging station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
04...	2.6	--	260	100	544	324	--	16.5	--	--
18...	--	--	--	--	--	--	--	13.0	.0	<.5
26...	3.6	--	320	110	702	426	--	11.0	--	--
NOV.										
14...	2.9	--	190	69	381	220	--	9.0	--	--
28...	3.0	--	290	98	569	328	--	4.5	--	--
DEC.										
06...	3.3	--	330	130	635	384	--	7.0	--	--
22...	3.0	--	260	98	532	320	--	3.5	--	--
JAN.										
04...	3.7	--	260	94	525	348	--	4.5	--	--
22...	3.7	--	340	120	700	424	--	4.0	--	--
22...	--	3.3	190	87	259	--	31	6.0	--	--
FEB.										
06...	4.2	--	260	100	530	344	--	4.5	--	--
23...	4.7	--	330	110	688	416	--	3.0	--	--
MAR.										
08...	4.0	--	320	130	657	410	--	10.5	--	--
20...	3.4	--	190	72	416	270	--	6.5	--	--
APR.										
06...	3.6	--	280	94	559	342	--	8.5	--	--
20...	3.2	--	230	79	462	276	--	12.0	--	--
MAY										
18...	3.2	--	310	100	625	382	--	15.0	--	--
30...	3.2	--	260	84	535	332	--	18.0	--	--
JUNE										
01...	--	--	--	--	--	--	--	19.0	.0	<.5
12...	4.6	--	330	120	615	434	--	24.5	--	--
21...	2.7	--	170	67	313	208	--	23.0	--	--
JULY										
02...	6.0	--	270	--	556	330	--	22.0	--	--
18...	4.3	--	310	94	622	370	--	22.0	--	--
AUG.										
08...	--	3.8	--	--	711	--	504	24.5	--	--
14...	--	3.2	--	--	445	--	606	24.5	--	--
SEP.										
06...	--	3.3	--	--	632	--	455	24.5	--	--
24...	--	5.1	--	--	786	--	544	20.9	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	480	370	640	540	615	600	610	555	750	560	690	650
2	480	395	580	510	650	605	570	530	690	550	685	655
3	535	470	525	450	650	630	580	530	560	500	700	665
4	540	490	550	465	650	620	580	470	520	500	690	670
5	510	490	550	500	640	620	485	445	540	500	---	---
6	520	490	520	500	630	580	510	460	550	520	---	---
7	560	515	515	460	690	515	525	485	565	530	---	---
8	595	550	465	410	530	450	560	510	580	520	665	630
9	605	560	450	410	490	420	585	535	550	530	670	645
10	610	570	480	430	495	465	640	570	620	540	660	640
11	620	580	530	480	490	460	630	565	640	600	680	640
12	650	590	515	490	500	460	640	590	625	580	670	600
13	660	405	495	455	530	480	670	620	600	570	600	560
14	510	445	455	375	550	520	700	645	740	585	570	550
15	560	500	400	380	520	480	720	665	670	630	570	485
16	580	535	410	390	540	480	730	690	650	610	490	385
17	590	545	---	---	560	520	705	680	640	610	405	375
18	620	570	---	---	590	540	740	695	655	630	390	345
19	635	605	---	---	620	560	730	695	670	630	405	335
20	650	620	---	---	600	570	740	700	680	630	420	405
21	660	630	470	430	570	500	750	660	685	630	440	420
22	665	640	490	460	540	505	710	670	690	640	460	430
23	680	640	490	470	535	490	680	605	720	645	495	450
24	680	660	520	490	570	500	610	570	720	680	525	490
25	680	660	530	505	570	530	600	570	710	680	---	---
26	680	660	545	520	580	540	610	580	700	670	---	---
27	700	665	560	525	580	545	640	600	695	660	---	---
28	670	650	565	540	600	550	620	600	675	645	---	---
29	680	640	---	---	610	560	600	560	---	---	---	---
30	670	645	620	595	605	570	550	510	---	---	---	---
31	660	580	---	---	630	570	580	540	---	---	---	---
MONTH	700	370	640	375	690	420	750	445	750	500	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	570	530	615	590	600	555	590	450	700	480
2	610	600	590	570	620	590	600	550	620	570	550	470
3	640	605	600	560	680	605	610	230	640	590	640	550
4	640	540	600	580	685	270	525	440	680	620	630	580
5	575	525	615	595	680	560	525	440	690	640	640	570
6	570	520	640	600	560	425	535	480	700	650	630	600
7	585	560	660	620	490	420	535	500	695	650	770	600
8	605	575	650	530	545	485	555	515	815	655	740	630
9	600	525	640	575	620	535	600	520	710	670	750	480
10	540	500	660	620	640	600	630	490	740	680	760	710
11	500	470	650	575	650	220	625	590	770	710	760	710
12	500	470	660	610	625	210	655	600	750	630	730	670
13	520	490	620	510	625	570	640	595	730	440	700	650
14	510	450	580	515	590	475	665	605	570	390	690	640
15	505	475	610	580	520	470	650	610	400	370	720	640
16	530	495	620	595	555	425	630	595	410	360	730	670
17	560	515	650	580	570	410	635	600	440	360	750	550
18	575	535	690	620	410	265	640	595	450	410	750	640
19	545	420	690	350	350	305	665	600	480	440	730	680
20	510	445	695	650	455	330	740	610	500	430	740	690
21	555	505	680	650	315	290	740	350	510	470	780	700
22	600	555	665	655	360	290	500	340	560	500	770	730
23	600	340	---	---	475	355	510	440	560	530	---	---
24	465	345	---	---	500	455	560	500	570	520	770	740
25	545	460	---	---	495	455	550	470	590	540	780	740
26	595	540	---	---	540	480	490	390	620	560	770	650
27	590	440	---	---	575	490	540	380	650	580	700	640
28	485	430	---	---	640	575	600	530	670	620	710	670
29	490	470	---	---	620	560	570	510	660	630	740	680
30	535	485	---	---	610	560	550	520	680	620	740	690
31	---	---	---	---	---	---	550	510	710	630	---	---
MONTH	640	340	---	---	685	210	740	230	815	360	780	470
YEAR	815	210										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	7.3	7.5	7.4	7.8	7.7	7.8	7.6	7.7	7.6	7.7	7.5
2	7.7	7.4	7.4	7.2	7.9	7.6	7.8	7.7	7.6	7.5	7.7	7.5
3	7.8	7.6	7.3	7.2	7.9	7.6	7.9	7.7	7.7	7.5	7.6	7.5
4	7.8	7.5	7.5	7.3	7.9	7.7	7.7	7.5	7.7	7.5	7.6	7.5
5	7.8	7.5	7.5	7.4	7.9	7.7	7.7	7.5	7.6	7.4	---	---
6	7.7	7.4	7.6	7.4	7.9	7.7	7.7	7.7	7.6	7.4	---	---
7	7.8	7.4	7.6	7.4	7.8	7.6	7.7	7.7	7.7	7.6	---	---
8	7.8	7.4	7.4	7.3	7.8	7.7	7.7	7.6	7.7	7.6	7.8	7.8
9	7.8	7.4	7.4	7.3	7.7	7.6	7.7	7.6	7.7	7.6	7.9	7.8
10	7.8	7.5	7.4	7.4	7.7	7.6	7.7	7.6	7.7	7.6	7.9	7.8
11	7.7	7.5	7.5	7.4	7.7	7.6	7.7	7.6	7.7	7.6	7.9	7.8
12	7.8	7.4	7.5	7.4	7.8	7.6	7.6	7.5	7.7	7.6	7.9	7.9
13	7.7	7.2	7.6	7.5	7.7	7.6	7.6	7.5	7.6	7.5	7.9	7.8
14	7.7	7.3	7.5	7.3	7.7	7.6	7.5	7.4	7.6	7.5	7.9	7.8
15	7.8	7.4	7.4	7.3	7.8	7.7	7.5	7.4	7.6	7.5	7.8	7.5
16	7.8	7.5	7.4	7.3	7.8	7.7	7.5	7.4	7.7	7.6	7.7	7.5
17	7.8	7.5	---	---	7.9	7.7	7.6	7.4	7.7	7.7	7.7	7.7
18	7.9	7.5	---	---	7.7	7.6	7.5	7.3	7.7	7.6	7.7	7.7
19	7.7	7.5	---	---	7.6	7.6	7.5	7.3	7.7	7.5	7.7	7.7
20	7.8	7.5	---	---	7.7	7.6	7.6	7.5	7.6	7.5	7.7	7.7
21	7.8	7.5	7.8	7.5	7.6	7.6	7.6	7.5	7.7	7.6	7.8	7.7
22	7.7	7.4	7.7	7.6	7.7	7.6	7.6	7.5	7.7	7.6	7.8	7.7
23	7.6	7.4	7.9	7.6	7.6	7.6	7.6	7.5	7.7	7.6	7.9	7.6
24	7.6	7.4	8.0	7.6	7.6	7.6	7.6	7.6	7.7	7.6	7.8	7.7
25	7.6	7.4	8.0	7.7	7.7	7.6	7.7	7.5	7.6	7.6	---	---
26	7.6	7.4	8.0	7.7	7.7	7.6	7.6	7.5	7.6	7.5	---	---
27	7.6	7.4	7.9	7.7	7.7	7.6	7.6	7.5	7.7	7.6	---	---
28	7.6	7.4	7.7	7.7	7.7	7.6	7.7	7.5	7.7	7.6	---	---
29	7.6	7.4	---	---	7.8	7.6	7.7	7.6	---	---	---	---
30	7.6	7.4	8.0	7.7	7.6	7.4	7.8	7.7	---	---	---	---
31	7.7	7.4	---	---	7.6	7.4	7.8	7.7	---	---	---	---
MONTH	7.9	7.2	8.0	7.2	7.9	7.4	7.9	7.3	7.7	7.4	---	---
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	7.8	7.7	7.6	7.5	7.5	7.4	7.8	7.4	7.2	7.0
2	7.7	7.7	7.7	7.7	7.7	7.4	7.5	7.4	7.5	7.4	7.2	7.0
3	7.7	7.6	7.7	7.6	7.5	7.4	7.8	7.1	7.5	7.4	7.3	7.1
4	7.7	7.6	7.8	7.6	7.8	7.4	7.5	7.3	7.5	7.4	7.3	7.1
5	7.8	7.7	7.7	7.6	7.6	7.3	7.5					

SCIOTO RIVER BASIN

03231500 SCIOTO RIVER AT CHILLICOTHE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.2	5.1	7.1	6.3	10.5	10.5	10.6	10.1	12.6	11.8	11.2	10.7
2	7.9	7.2	7.1	6.1	10.5	10.0	11.7	10.6	11.8	10.5	11.0	10.0
3	7.8	7.4	7.6	6.5	10.1	9.8	11.9	11.7	11.4	10.5	10.1	9.5
4	7.8	7.3	8.3	7.6	9.9	9.7	11.7	10.7	12.3	11.4	10.0	9.0
5	7.6	7.3	8.5	8.3	9.8	9.6	11.8	10.7	12.4	11.9	---	---
6	7.4	6.5	9.0	8.3	9.6	9.4	12.2	11.8	12.0	11.4	---	---
7	7.0	6.4	9.0	8.7	10.5	9.4	12.4	12.1	11.4	10.8	---	---
8	6.9	6.3	8.7	8.2	11.5	10.5	12.2	12.1	10.9	10.5	10.0	9.5
9	7.3	6.5	8.7	8.3	11.5	11.0	12.1	11.9	11.4	10.9	10.0	9.2
10	7.6	7.1	8.9	8.7	11.0	11.0	12.0	11.7	11.6	11.2	9.8	8.9
11	7.8	7.4	8.9	8.8	11.4	11.0	11.8	11.4	11.7	11.4	9.0	7.9
12	7.6	6.6	9.3	8.8	11.5	11.3	11.5	11.2	11.8	11.4	8.6	7.8
13	7.4	5.8	9.5	9.3	11.3	11.0	11.3	11.1	11.9	11.5	9.4	8.4
14	7.6	7.0	9.5	8.9	11.3	10.9	11.1	10.7	11.5	10.6	9.3	8.6
15	7.9	7.1	9.4	8.9	11.7	11.3	10.7	10.4	11.0	10.7	8.6	6.0
16	7.8	7.5	9.5	9.4	11.8	11.6	10.5	10.2	12.1	10.5	8.4	6.4
17	8.1	7.7	---	---	12.1	11.7	10.3	10.0	12.7	12.1	9.0	8.4
18	8.0	7.8	---	---	12.0	11.6	10.0	8.9	12.8	12.7	10.3	9.0
19	8.1	7.4	---	---	11.6	11.1	9.3	8.9	12.8	12.5	10.7	10.3
20	8.4	7.9	---	---	11.3	10.7	9.4	9.0	12.5	12.0	11.0	10.7
21	8.2	7.7	10.0	10.0	11.2	10.6	9.9	9.4	12.1	11.5	11.5	11.0
22	7.7	7.1	10.1	10.0	11.5	11.2	10.0	9.9	12.0	11.5	11.5	11.3
23	7.2	6.5	10.2	9.9	11.6	11.4	10.4	9.1	12.0	11.5	11.5	11.1
24	6.5	6.2	10.3	9.9	11.6	11.4	11.2	10.4	11.8	11.3	11.1	10.7
25	6.8	6.2	10.4	10.2	11.5	11.4	11.7	11.0	11.4	11.1	---	---
26	6.4	6.1	10.2	10.0	11.4	11.3	11.7	11.1	11.2	10.8	---	---
27	6.5	6.1	10.2	10.0	11.3	11.0	11.1	10.5	11.1	10.7	---	---
28	6.7	6.2	10.2	10.1	11.3	11.0	10.5	10.1	11.3	10.8	---	---
29	6.3	5.9	---	---	11.2	11.0	11.3	10.2	---	---	---	---
30	6.0	5.7	10.7	10.5	11.1	10.4	12.5	11.3	---	---	---	---
31	6.7	5.8	---	---	10.4	10.1	12.7	12.5	---	---	---	---
MONTH	8.4	5.1	10.7	6.1	12.1	9.4	12.7	8.9	12.8	10.5	---	---
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.0	8.3	6.2	5.8	4.9	4.2	4.6	4.3	4.1	2.3
2	10.4	10.2	8.5	8.0	6.1	5.4	4.9	4.7	4.5	4.0	4.3	3.0
3	10.2	10.0	8.1	7.3	6.1	5.2	5.7	4.5	4.3	3.8	4.3	3.3
4	10.1	9.5	7.9	7.6	7.8	5.7	4.7	4.1	4.7	4.2	4.6	3.4
5	9.9	9.7	8.4	8.1	6.3	4.0	4.5	3.9	6.5	4.3	5.0	3.4
6	10.1	9.6	8.5	7.5	4.4	3.7	4.7	4.3	8.6	4.6	4.5	3.1
7	10.0	9.4	8.1	7.7	9.0	4.3	4.7	4.4	9.8	4.7	4.8	3.2
8	9.7	9.4	8.3	7.9	9.0	8.0	4.9	4.5	11.5	5.3	4.6	3.0
9	9.7	9.3	8.0	6.7	8.0	7.5	4.8	4.8	13.1	6.2	3.6	2.8
10	9.8	9.5	6.9	6.6	7.5	7.2	4.9	4.7	11.8	6.2	5.1	2.9
11	10.6	9.5	7.5	6.3	7.4	6.5	4.8	4.4	7.4	3.9	5.1	3.0
12	10.8	10.5	6.6	6.0	6.7	5.8	4.6	4.0	4.2	3.4	6.9	3.0
13	10.6	10.0	7.8	6.3	5.9	3.9	4.6	4.0	3.6	2.3	6.0	3.5
14	10.8	10.4	8.8	7.6	5.6	3.6	4.7	4.1	4.7	2.9	4.8	2.7
15	10.5	9.9	7.9	6.8	5.9	5.5	4.4	3.7	4.9	4.5	4.9	2.8
16	9.9	9.3	6.9	5.9	6.2	5.5	4.2	3.6	5.2	4.6	5.5	2.9
17	9.3	8.7	6.1	5.7	5.5	4.0	5.3	4.0	5.1	4.7	8.3	3.3
18	8.7	7.3	5.9	5.2	5.7	4.8	5.4	4.1	5.1	4.8	7.2	4.4
19	9.2	7.6	5.4	4.8	5.9	4.9	7.7	4.5	4.9	4.5	6.9	3.6
20	8.9	8.2	5.0	4.5	5.0	3.8	7.3	4.4	5.0	4.7	7.4	4.0
21	8.2	7.6	4.5	2.2	4.5	3.7	5.9	3.7	5.0	4.6	9.2	3.7
22	7.6	7.2	2.2	2.1	3.8	3.1	4.1	3.6	4.8	4.6	6.2	3.4
23	7.2	7.0	---	---	3.9	3.3	4.7	4.0	4.9	4.6	---	---
24	7.2	7.0	---	---	4.2	3.6	4.7	3.9	5.5	4.8	6.7	3.8
25	7.3	7.0	---	---	4.6	4.1	4.3	3.8	5.5	4.9	5.9	2.1
26	7.9	7.0	---	---	4.7	4.6	4.2	3.8	5.7	4.8	6.3	2.0
27	8.5	7.3	---	---	4.9	4.6	4.4	4.1	6.8	5.2	9.8	4.3
28	8.6	8.0	---	---	4.8	4.4	4.7	4.0	8.5	5.1	6.3	4.4
29	9.3	8.2	---	---	4.8	4.4	4.7	4.5	9.4	5.6	4.6	2.0
30	9.4	8.9	---	---	4.8	4.4	4.7	4.5	9.8	5.7	2.7	1.7
31	---	---	---	---	---	---	4.7	4.4	8.8	4.0	---	---
MONTH	10.8	7.0	---	---	9.0	3.1	7.7	3.6	13.1	2.3	9.8	1.7
YEAR	13.1	1.7										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	15.5	12.5	11.5	5.0	4.5	6.5	6.0	3.5	1.5	6.5	4.5
2	17.0	15.5	14.0	12.0	5.5	4.5	6.0	4.5	5.5	3.5	8.0	6.0
3	18.0	16.0	14.0	13.0	6.5	5.5	4.5	3.5	5.5	4.5	9.5	8.0
4	17.0	16.5	13.5	12.0	7.0	6.5	4.5	4.0	4.5	4.0	11.0	9.0
5	16.5	16.5	12.0	11.5	8.0	6.5	4.5	4.0	4.5	3.5	---	---
6	16.5	16.0	12.0	11.5	8.5	7.0	4.0	3.0	5.5	4.5	---	---
7	16.5	16.0	11.5	11.0	7.0	5.5	3.0	2.0	6.0	5.5	---	---
8	16.5	15.5	11.5	11.0	5.5	4.0	2.0	1.5	6.0	5.0	11.5	10.5
9	16.0	15.0	11.0	10.5	4.0	3.5	1.5	1.0	5.0	3.5	11.5	10.5
10	15.5	14.0	10.5	10.0	4.5	4.0	1.0	0.5	3.5	3.0	13.0	11.5
11	15.5	14.5	10.5	10.5	4.0	3.5	1.0	0.5	3.0	2.0	14.0	13.0
12	15.0	14.5	10.5	10.0	4.0	3.5	1.0	0.5	3.0	2.0	13.5	12.0
13	15.5	14.5	10.0	9.5	4.5	4.0	1.5	0.5	3.5	2.0	12.0	11.5
14	14.5	14.0	9.5	9.0	4.5	4.0	3.0	1.0	4.5	3.5	13.5	11.5
15	14.5	13.5	9.0	8.0	4.0	3.5	3.5	2.5	4.5	4.0	14.5	13.0
16	14.0	13.5	8.0	6.5	3.5	1.5	4.5	3.0	4.0	2.0	14.0	13.5
17	14.0	13.0	---	---	1.5	0.5	5.0	4.0	2.0	1.0	13.5	10.5
18	13.5	12.0	---	---	2.0	0.5	6.0	4.5	1.5	1.0	10.5	8.0
19	12.0	11.0	---	---	3.0	2.0	6.5	5.5	3.0	1.5	8.0	7.0
20	11.5	10.5	---	---	4.0	3.0	6.0	5.0	3.5	3.0	8.0	6.5
21	11.5	10.5	6.5	6.5	4.0	3.5	5.0	4.5	4.0	3.5	6.5	5.5
22	12.5	11.0	6.5	6.5	4.0	3.5	5.5	4.0	3.5	3.0	6.0	5.5
23	13.0	12.0	6.5	6.0	4.0	4.0	5.0	4.5	4.0	3.0	6.5	5.5
24	13.0	12.0	6.5	5.5	4.0	4.0	4.5	3.5	4.5	3.0	8.0	6.0
25	12.0	11.5	6.0	5.5	4.5	4.0	3.5	3.0	5.5	4.0	---	---
26	12.0	11.0	6.0	5.5	4.5	4.0	4.5	3.0	6.0	5.0	---	---
27	11.5	11.0	6.0	5.5	4.0	4.0	5.5	4.5	5.5	5.5	---	---
28	13.0	11.5	6.0	5.5	4.0	3.5	5.5	5.5	6.0	5.0	---	---
29	13.0	12.5	---	---	4.5	3.5	5.5	3.5	---	---	---	---
30	13.5	12.5	5.0	4.5	6.0	4.5	3.5	1.5	---	---	---	---
31	13.0	11.5	---	---	6.5	6.0	1.5	1.0	---	---	---	---
MONTH	18.0	10.5	14.0	4.5	8.5	0.5	6.5	0.5	6.0	1.0	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	14.5	13.5	19.0	18.0	22.0	21.5	24.0	23.0	26.0	24.5
2	11.5	11.0	15.5	14.0	20.0	18.0	23.5	21.5	24.5	23.0	26.0	24.5
3	11.0	10.5	15.5	14.5	22.0	19.5	24.5	23.0	24.0	22.0	26.5	24.5
4	10.5	9.5	14.5	13.5	23.5	21.0	24.0	23.5	24.5	21.5	26.5	24.5
5	9.5	9.0	14.0	12.0	22.0	21.0	24.0	23.0	24.5	22.0	26.5	25.0
6	10.0	8.5	14.0	13.0	21.0	20.0	24.5	23.0	25.5	23.0	25.5	24.0
7	10.5	9.5	14.5	13.5	21.5	19.5	24.5	23.5	26.0	23.5	24.5	23.0
8	10.5	10.0	16.0	14.0	21.5	20.5	25.0	23.5	26.5	23.5	23.5	22.0
9	10.5	10.0	16.5	15.5	23.5	21.5	25.5	24.5	27.0	24.0	23.0	21.0
10	10.0	8.0	17.5	16.5	24.0	23.0	26.0	24.5	27.0	24.5	22.0	20.0
11	8.5	8.0	18.0	16.5	23.5	23.0	25.5	24.0	26.5	24.0	21.0	20.0
12	8.0	7.0	17.5	16.5	24.5	23.5	24.5	23.5	26.0	24.5	21.0	19.5
13	9.0	7.5	17.0	15.5	24.0	23.5	25.0	22.0	25.5	24.0	20.5	19.0
14	9.0	8.5	16.5	15.0	24.0	23.0	25.0	23.0	25.0	23.5	21.0	19.5
15	10.5	9.0	16.0	15.0	23.0	21.5	24.5	23.5	23.5	23.0	21.0	19.0
16	11.5	10.0	16.0	14.5	23.5	22.0	24.5	22.5	23.5	23.0	21.0	19.0
17	12.0	11.0	15.5	15.0	24.0	23.0	25.0	22.5	24.0	23.0	22.0	19.0
18	13.0	11.5	15.5	14.0	23.0	21.5	25.0	22.0	24.5	23.5	20.0	18.0
19	13.0	12.0	15.0	14.5	23.0	21.5	24.5	23.0	24.0	23.5	18.5	17.0
20	14.5	12.5	15.0	14.5	23.5	22.0	24.5	24.0	23.5	23.0	19.5	16.5
21	16.0	14.0	16.5	14.5	23.5	21.5	24.0	22.0	23.5	22.0	23.0	19.0
22	17.0	15.5	16.0	16.0	23.5	23.0	23.0	22.0	22.5	21.5	20.5	19.5
23	16.5	15.0	---	---	23.5	23.0	23.5	22.0	22.0	20.5	---	---
24	15.5	14.5	---	---	23.5	22.0	23.5	23.0	21.0	20.5	21.0	20.5
25	15.5	14.5	---	---	23.5	22.0	23.5	23.0	22.5	20.5	21.5	20.0
26	14.5	13.5	---	---	23.5	22.5	23.5	23.0	23.5	21.0	21.5	20.5
27	14.0	12.5	---	---	23.5	22.0	24.5	23.0	24.5	22.5	24.0	20.0
28	12.5	11.5	---	---	22.0	21.5	24.5	24.0	26.0	24.0	24.5	21.0
29	13.0	11.5	---	---	21.5	21.0	24.5	23.5	26.5	24.5	23.0	21.5
30	13.5	12.0	---	---	22.0	20.5	24.0	23.0	28.0	25.5	22.0	21.0
31	---	---	---	---	---	---	23.5	23.0	26.0	24.5	---	---
MONTH	17.0	7.0	---	---	24.5	18.0	26.0	21.5	28.0	20.5	26.5	16.5
YEAR	28.0	0.5										

SCIOTO RIVER BASIN

03234500 SCIOTO RIVER AT HIGBY, OHIO

LOCATION.--Lat 39°12'44", long 82°51'50", in sec. 6, T.7 N., R.20 W., Ross County, at gaging station on left bank at downstream side of highway bridge, 0.8 mi (1.3 km) downstream from Walnut Creek, 1.2 mi (1.9 km) north of Higby, 3.0 mi (4.8 km) west northwest of Richmondale, and 5.0 mi (8.0 km) upstream from Salt Creek.

DRAINAGE AREA.--5,131 mi² (13,289 km²).

PERIOD OF RECORD.--Chemical analyses: March 1967 to September 1973.

Water temperatures: October 1953 to September 1973.

Sediment records: October 1953 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 784 micromhos Sept. 21, 22; minimum, 265 micromhos Apr. 27.

pH: Maximum, 8.8 Oct. 29; minimum, 6.7 Mar. 5.

Dissolved oxygen: Maximum, 13.9 mg/l Apr. 9; minimum, 2.2 mg/l Sept. 1, 2.

Water temperatures: Maximum, 30.0°C Aug. 30; minimum, 1.5°C Jan. 9, 10.

Sediment concentrations: Maximum daily, 1,140 mg/l July 3; minimum daily, 2 mg/l Feb. 28.

Sediment discharges: Maximum daily, 40,100 tons (36,400 tonnes) Apr. 24; minimum daily, 16 tons (15 tonnes) Feb. 28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT.											
03...	1300	6620	--	--	208	0	77	22	.4	--	--
18...	1520	--	--	--	--	--	--	--	--	--	--
30...	1000	1780	--	--	274	0	110	41	.4	--	--
NOV.											
14...	1045	26000	--	--	162	0	47	11	.2	--	--
30...	1430	8120	--	--	242	0	74	26	.3	--	--
DEC.											
06...	1120	6920	--	--	252	0	80	24	.3	--	--
13...	1145	14600	--	--	200	0	61	17	.3	--	--
JAN.											
04...	1200	20400	--	--	185	0	67	18	.2	--	--
16...	1035	3450	--	--	280	0	82	26	.4	--	--
FEB.											
06...	1100	11700	--	--	194	0	69	21	.3	--	--
26...	1055	3030	--	--	262	0	99	31	.4	--	--
MAR.											
12...	1100	5650	--	--	239	0	100	31	.5	--	--
20...	1105	23000	--	--	146	0	53	19	.2	--	--
APR.											
04...	1050	11500	--	--	155	0	58	15	.2	--	--
13...	--	15300	--	--	208	0	92	29	.3	--	--
MAY											
17...	1400	3680	--	--	247	0	79	25	.4	--	--
30...	1040	5500	--	--	212	0	62	20	.2	--	--
JUNE											
11...	1230	5270	--	--	237	0	77	27	2.4	--	--
11...	1330	--	--	--	--	--	--	--	--	--	--
18...	1540	14800	--	--	138	0	37	13	.5	--	--
JULY											
18...	1115	2360	--	--	240	12	74	27	.6	--	--
23...	1235	9850	--	--	174	0	44	15	.3	--	--
AUG.											
08...	1130	1740	83	29	269	22	83	30	--	.7	.00
19...	1115	6180	89	29	269	16	110	44	--	.7	.00
SEP.											
06...	1015	1280	75	25	238	16	83	26	--	.5	.00
26...	1115	884	87	28	262	0	120	49	--	.8	.00

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP-ERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
MAR.																
26...	1145	11.0	10100	368	10000	46	57	69	83	94	98	100	--	--	--	--
APR.																
23...	1700	15.0	14400	1780	69200	39	50	61	76	91	97	99	100	--	--	--
JUNE																
21...	1305	23.5	19700	668	35500	60	72	83	89	94	95	97	99	100	--	--
JULY																
26...	1120	23.5	15300	380	15700	48	62	74	85	93	96	98	99	100	--	--

SCIOTO RIVER BASIN

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03234500 SCIOTO RIVER AT HIGBY, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 900 micromhos Oct. 16, 1971; minimum, 200 micromhos Apr. 7, 1972.

pH (1971-73): Maximum, 8.8 Oct. 29, 1972; minimum, 6.7 Mar. 5, 1973.

Dissolved oxygen (1972-73): Maximum, 13.9 mg/l Apr. 9, 1973; minimum, 2.2 Sept. 1, 2, 1973.

Water temperatures (1953-67, 1971-73): Maximum, 34.0°C June 29, 1966; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 2,260 mg/l June 26, 1971; minimum daily, 1 mg/l on several days during 1955-56.

Sediment discharges: Maximum daily, 550,000 tons (499,000 tonnes) Jan. 23, 1959; minimum daily, 0.82 ton (0.74 tonne) Sept. 8, 1955.

REMARKS.--Water-quality recorder operated since March 1967. Maximum recorded specific conductance value of 1,050 micromhos occurred on Sept. 24, 1967. Minimum recorded specific conductance value of 160 micromhos occurred on Apr. 2, 3, 1970. Maximum recorded dissolved oxygen value of 15.0 mg/l or higher occurred Apr. 24-30, May 1, 1971, and Mar. 27, 28, 1972. Minimum recorded dissolved oxygen value of 0.0 mg/l occurred Sept. 8-13, 15, Oct. 21, 22, 1968 and Sept. 13, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Flow slightly regulated by 5 reservoirs 50 mi (80 km) to 105 mi (169 km) upstream from station, and since 1952 by Rocky Fork Lake 51 mi (82 km) upstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
03...	2.7	--	250	80	530	358	--	16.0	--	--
18...	--	--	--	--	--	--	--	12.5	2.0	<.5
30...	3.8	--	330	100	737	478	--	13.0	--	--
NOV.										
14...	2.7	--	180	47	372	232	--	9.0	--	--
30...	3.4	--	300	100	604	382	--	4.5	--	--
DEC.										
06...	3.1	--	310	100	603	384	--	7.0	--	--
13...	3.4	--	250	86	487	324	--	4.0	--	--
JAN.										
04...	3.2	--	240	88	482	306	--	4.5	--	--
16...	3.3	--	330	100	658	406	--	3.0	--	--
FEB.										
06...	3.6	--	260	100	523	324	--	6.0	--	--
26...	4.6	--	330	120	676	422	--	5.5	--	--
MAR.										
12...	3.4	--	320	120	671	434	--	13.0	--	--
20...	3.7	--	200	80	419	258	--	--	--	--
APR.										
04...	2.9	--	200	73	412	248	--	9.5	--	--
13...	5.7	--	300	130	606	376	--	14.0	--	--
MAY										
17...	2.6	--	300	97	608	376	--	15.0	--	--
30...	3.2	--	260	86	517	316	--	18.0	--	--
JUNE										
11...	5.1	--	290	96	623	384	--	24.0	--	--
11...	--	--	--	--	--	--	--	14.0	.0	<.5
18...	5.5	--	170	57	366	252	--	23.0	--	--
JULY										
18...	4.3	--	320	100	637	372	--	22.0	--	--
23...	4.1	--	210	68	417	228	--	23.0	--	--
AUG.										
08...	--	3.7	--	--	680	--	539	24.0	--	--
19...	--	4.2	--	--	784	--	559	19.5	--	--
SEP.										
06...	--	2.9	--	--	631	--	470	25.5	--	--
26...	--	2.8	--	--	816	--	562	21.5	--	--

SCIOTO RIVER BASIN

03234500 SCIOTO RIVER AT HIGBY, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	518	350	721	610	613	602	---	---	590	560	693	684
2	507	362	619	488	620	602	---	---	590	563	707	687
3	540	507	500	444	620	608	---	---	---	---	713	693
4	558	529	495	446	635	607	489	464	516	482	719	696
5	532	526	510	491	635	619	464	422	525	489	723	699
6	542	532	495	481	620	500	458	440	546	515	719	657
7	563	537	508	432	521	511	492	458	546	516	662	642
8	589	561	432	402	512	350	501	485	564	537	674	645
9	601	589	431	408	382	332	513	501	572	543	672	650
10	616	601	454	431	440	382	536	513	---	---	659	647
11	633	616	504	454	473	443	564	531	---	---	651	639
12	651	633	504	489	487	460	584	564	---	---	671	623
13	696	522	493	489	494	470	---	---	---	---	630	588
14	596	554	492	355	518	479	---	---	---	---	770	585
15	644	596	390	359	533	508	686	578	---	---	597	554
16	654	630	423	388	514	497	681	675	---	---	558	476
17	654	638	448	423	512	487	683	671	---	---	477	395
18	649	636	448	438	536	512	698	677	---	---	422	405
19	668	649	452	433	575	521	708	671	---	---	425	413
20	685	668	443	414	571	502	677	666	---	---	438	417
21	691	683	482	443	526	500	680	674	---	---	458	429
22	702	690	517	481	527	494	675	602	---	---	473	444
23	705	699	522	504	526	497	608	569	672	665	485	462
24	713	704	541	517	---	---	573	548	678	665	519	483
25	715	709	554	541	---	---	570	551	683	674	549	503
26	720	708	562	547	---	---	581	566	687	676	536	491
27	733	715	571	553	548	536	581	561	689	681	513	483
28	740	722	592	562	554	539	587	570	692	680	548	500
29	728	722	599	581	---	---	575	561	---	---	---	---
30	737	728	604	595	---	---	564	513	---	---	---	---
31	777	719	---	---	---	---	567	513	---	---	---	---
MONTH	777	350	721	355	635	332	708	422	---	---	770	395
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	495	464	---	---	570	543	580	535	703	647
2	540	522	530	195	---	---	551	537	600	580	650	590
3	543	519	531	506	---	---	542	341	621	600	628	607
4	---	---	519	513	---	---	440	344	642	618	637	614
5	---	---	540	518	---	---	435	398	658	642	625	602
6	---	---	550	537	---	---	441	411	670	650	616	592
7	---	---	565	550	---	---	456	429	665	652	592	563
8	---	---	595	565	---	---	447	434	708	654	587	575
9	---	---	586	529	---	---	446	425	703	680	581	563
10	465	444	555	536	---	---	485	443	685	673	563	550
11	498	461	562	550	624	607	498	483	684	637	575	551
12	477	468	571	536	629	612	506	480	637	546	709	559
13	482	470	570	510	635	438	533	479	644	581	722	709
14	495	482	544	511	585	554	522	485	623	446	727	716
15	486	471	581	544	554	519	---	---	446	415	730	719
16	509	479	591	530	548	533	---	---	439	424	731	719
17	527	509	608	591	---	---	---	---	439	418	760	731
18	543	527	614	608	365	339	---	---	453	439	763	754
19	545	433	630	611	378	356	---	---	482	444	761	758
20	449	432	626	401	476	378	---	---	495	470	772	761
21	487	449	550	515	456	321	632	408	539	494	784	772
22	523	487	580	555	350	315	430	359	593	539	784	764
23	555	352	578	533	434	350	439	419	619	593	773	770
24	384	298	576	562	488	434	508	439	625	619	770	760
25	408	384	584	573	476	459	513	470	647	623	774	757
26	499	408	586	484	510	476	473	413	669	645	779	758
27	505	265	538	483	537	510	469	415	683	669	763	676
28	380	269	490	467	602	537	530	469	678	675	687	675
29	426	380	504	483	584	533	535	506	675	666	695	686
30	464	426	524	504	558	521	534	523	669	659	698	687
31	---	---	533	521	---	---	535	526	686	664	---	---
MONTH	---	---	630	401	---	---	632	341	708	415	784	550
YEAR	784	265										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03234500 SCIOTO RIVER AT HIGBY, OHIO--CONTINUED

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.9	7.2	7.1	6.8	---	---	---	---	10.3	9.5	8.7	7.7
2	8.5	7.5	7.3	6.8	---	---	---	---	11.2	9.2	8.4	7.4
3	8.3	6.4	7.5	6.8	---	---	---	---	---	---	7.7	6.8
4	7.7	7.4	8.3	7.5	10.2	9.7	11.8	10.0	9.6	6.7	7.9	7.0
5	7.5	7.0	8.7	8.0	11.1	10.2	12.2	8.7	9.1	6.6	7.6	6.2
6	7.1	6.4	8.5	8.1	10.5	8.5	10.6	9.1	---	---	7.2	6.2
7	6.8	6.5	9.2	8.2	10.8	7.8	9.7	6.3	---	---	7.5	6.0
8	6.8	6.4	9.6	8.3	10.3	7.7	9.3	7.7	8.7	6.2	8.0	6.2
9	6.8	6.4	9.6	9.2	9.8	7.8	10.0	8.1	7.5	5.8	8.6	6.5
10	7.5	6.8	9.8	9.4	9.2	7.6	9.6	9.0	---	---	8.9	7.4
11	7.6	7.1	10.0	9.4	10.6	8.2	9.7	8.6	---	---	8.2	6.2
12	7.9	6.7	10.1	9.6	9.8	9.3	9.4	8.4	---	---	9.6	6.4
13	7.7	6.6	10.5	10.1	10.0	6.9	---	---	---	---	9.5	7.7
14	7.9	6.8	10.5	10.2	7.4	6.6	---	---	---	---	12.1	8.4
15	8.1	7.2	10.6	10.3	7.5	6.1	9.2	8.3	---	---	11.2	9.3
16	8.0	7.5	10.7	9.1	8.1	7.0	11.0	8.6	---	---	9.8	8.2
17	8.8	7.1	10.4	9.5	8.6	8.0	9.9	8.5	---	---	9.5	7.9
18	9.0	8.4	10.5	8.7	9.3	8.4	9.1	8.3	---	---	9.7	7.4
19	8.7	8.3	10.6	8.5	11.4	7.9	8.8	8.0	---	---	---	---
20	8.8	8.4	10.2	8.3	11.6	6.8	8.2	7.7	---	---	---	---
21	8.7	8.4	9.9	5.6	10.7	6.5	9.0	7.9	---	---	---	---
22	8.5	7.5	10.0	7.9	10.0	8.1	10.4	9.0	---	---	---	---
23	7.5	7.0	10.0	8.2	9.5	7.8	10.2	8.8	13.0	12.6	---	---
24	7.1	6.9	10.1	8.6	10.0	7.9	10.2	9.2	12.6	12.0	---	---
25	7.2	7.0	9.9	8.3	9.5	6.5	10.5	9.2	12.2	11.0	---	---
26	7.7	7.2	10.2	8.2	9.8	8.5	10.7	9.2	11.2	9.6	---	---
27	7.5	7.2	10.1	8.5	10.1	9.2	10.0	9.3	10.5	9.0	---	---
28	7.3	6.9	10.2	5.3	10.4	9.5	10.7	9.9	9.8	8.5	---	---
29	7.1	6.9	10.1	7.0	---	---	10.6	8.8	---	---	---	---
30	7.3	7.0	10.6	8.6	---	---	11.2	8.7	---	---	---	---
31	7.0	5.6	---	---	---	---	10.4	9.2	---	---	---	---
MONTH	9.0	5.6	10.7	5.3	11.6	6.1	12.2	6.3	---	---	---	---
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.6	7.6	---	---	4.9	4.6	4.7	4.4	4.3	2.2
2	---	---	7.8	7.0	---	---	4.9	4.6	4.7	4.5	2.6	2.2
3	---	---	7.2	6.8	---	---	5.0	4.4	4.7	4.5	2.9	2.5
4	---	---	7.1	6.8	---	---	4.7	4.2	5.1	4.6	3.7	2.8
5	---	---	7.0	6.3	---	---	4.5	4.3	6.0	4.8	5.1	3.5
6	---	---	6.5	6.0	---	---	4.7	4.4	7.5	5.3	5.6	4.7
7	---	---	6.0	5.2	---	---	4.7	4.3	7.5	6.1	6.3	5.1
8	---	---	5.9	5.1	---	---	4.5	4.2	7.9	5.5	6.1	5.0
9	13.9	9.3	5.2	4.3	---	---	4.5	4.2	8.5	5.5	5.5	4.3
10	11.7	8.9	4.5	4.0	---	---	4.5	4.3	7.2	5.0	5.3	4.1
11	13.7	9.4	4.7	4.0	5.5	4.8	4.8	4.5	6.2	4.1	5.7	4.2
12	13.3	11.5	4.3	3.2	4.8	4.5	5.0	4.8	5.6	4.5	6.3	4.6
13	13.2	10.4	4.3	3.2	4.9	4.5	5.0	4.6	4.6	3.0	6.4	4.8
14	12.6	9.7	6.5	4.1	4.5	3.6	4.9	4.7	5.3	3.1	6.1	4.8
15	10.8	7.4	6.7	6.4	4.5	4.0	---	---	4.1	3.8	5.5	4.1
16	9.8	7.0	9.4	5.6	4.1	3.9	---	---	4.1	3.9	5.3	4.1
17	9.5	8.9	10.4	7.2	---	---	---	---	4.4	4.1	8.2	4.1
18	9.2	8.1	11.0	10.3	3.9	3.5	---	---	4.6	4.4	7.7	6.5
19	8.8	7.6	10.5	9.8	4.1	3.5	---	---	4.8	4.6	7.8	6.8
20	8.8	8.1	11.0	9.9	5.3	3.9	6.3	5.7	4.8	4.6	7.2	6.4
21	9.2	7.2	10.1	8.7	4.6	4.1	5.7	3.8	5.7	4.8	8.7	6.2
22	7.6	6.7	8.7	8.4	4.8	4.1	4.2	3.7	5.8	5.5	9.2	7.2
23	9.3	6.7	8.4	6.1	4.3	4.1	4.8	4.1	5.9	5.5	8.1	7.2
24	8.6	8.3	8.2	7.8	4.6	4.2	4.9	4.4	5.9	5.5	8.9	7.9
25	9.0	8.3	8.1	7.6	4.8	4.6	4.8	4.2	6.0	5.5	7.9	5.0
26	9.0	8.4	7.9	6.8	4.7	4.5	4.4	4.2	5.6	5.1	5.6	3.6
27	9.6	8.5	7.0	6.3	4.7	4.5	4.6	4.3	5.3	4.7	5.2	3.2
28	9.7	8.6	7.4	6.7	4.8	4.6	4.5	4.2	5.6	4.6	7.2	4.1
29	9.1	8.5	7.4	6.9	4.9	4.6	4.7	4.2	6.6	5.4	6.2	3.8
30	8.9	8.5	7.7	7.2	5.1	4.6	4.9	4.4	6.6	5.2	3.8	2.4
31	---	---	7.8	7.5	---	---	4.8	4.5	5.2	3.7	---	---
MONTH	---	---	11.0	3.2	---	---	6.3	3.7	8.5	3.0	9.2	2.2
YEAR	13.9	2.2										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	15.0	13.5	12.5	5.5	5.0	5.0	5.0	6.0	4.0	7.5	5.5
2	17.0	15.0	13.5	12.5	6.5	5.0	5.0	4.5	---	---	9.0	7.0
3	17.5	15.0	14.0	13.0	7.0	6.0	4.5	3.5	---	---	10.0	9.0
4	17.0	17.0	13.5	12.5	7.5	7.0	5.0	2.5	6.0	5.0	12.0	10.0
5	17.5	16.5	12.5	11.5	8.5	7.5	5.0	4.5	8.0	5.0	13.5	11.5
6	17.5	17.0	12.0	11.0	9.0	7.5	4.5	3.5	---	---	13.0	11.0
7	17.5	17.0	11.5	11.0	7.5	6.5	4.0	2.5	9.0	6.5	13.0	11.5
8	17.5	15.5	11.0	10.5	6.5	5.0	3.0	2.5	7.0	5.5	13.5	11.5
9	17.0	15.0	10.5	10.0	6.0	5.0	2.5	1.5	5.5	4.5	13.0	11.5
10	16.0	14.5	10.0	9.5	7.0	5.5	3.0	1.5	---	---	15.0	12.5
11	15.5	14.5	10.5	10.0	6.5	5.0	4.0	2.0	---	---	16.5	14.0
12	16.0	15.5	10.5	10.0	---	---	3.5	2.5	---	---	16.0	13.0
13	16.0	15.0	10.0	9.5	---	---	---	---	---	---	14.5	12.5
14	15.5	14.0	9.5	9.0	---	---	---	---	---	---	14.5	12.0
15	15.0	14.0	9.0	8.0	---	---	3.5	3.5	---	---	15.5	13.5
16	14.5	13.5	8.0	7.0	---	---	5.0	3.5	---	---	15.5	14.5
17	14.0	13.5	7.0	6.5	3.0	2.5	6.0	4.0	---	---	15.0	11.0
18	14.0	12.5	7.0	6.5	4.0	2.5	7.0	5.0	---	---	14.5	9.5
19	12.5	11.0	7.0	6.5	3.5	3.0	7.0	6.5	---	---	---	---
20	11.5	10.0	7.0	7.0	5.5	3.5	6.5	5.5	---	---	---	---
21	11.0	10.5	7.5	6.5	8.0	4.5	5.5	4.5	---	---	---	---
22	13.0	11.0	8.0	6.5	6.5	4.5	6.0	5.0	---	---	---	---
23	14.0	13.0	7.0	6.5	8.0	5.0	6.0	5.0	5.0	4.0	8.0	5.5
24	14.0	12.5	6.5	6.0	10.0	5.0	5.0	4.0	5.5	3.5	---	---
25	12.5	12.0	6.5	5.5	8.0	6.5	4.5	3.5	6.0	4.5	---	---
26	13.0	11.5	7.0	6.0	8.5	5.5	5.0	3.5	7.0	6.0	---	---
27	13.0	11.5	7.0	6.0	7.0	5.0	6.0	5.0	7.0	6.0	---	---
28	13.5	12.5	7.0	6.0	6.0	5.0	6.5	6.0	6.0	6.0	---	---
29	14.0	13.5	6.0	5.0	---	---	6.0	4.5	---	---	---	---
30	13.5	13.0	5.0	5.0	---	---	5.0	3.0	---	---	---	---
31	13.5	12.5	---	---	---	---	6.0	2.5	---	---	---	---
MONTH	18.0	10.0	14.0	5.0	---	---	7.0	1.5	---	---	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	15.0	13.0	---	---	24.0	22.0	25.5	23.5	27.0	25.0
2	12.0	11.5	15.5	14.5	---	---	25.0	22.5	25.0	23.5	27.0	24.5
3	12.0	11.0	15.5	14.5	---	---	25.0	23.0	25.0	23.0	27.0	25.0
4	13.5	10.0	14.5	13.0	---	---	25.5	24.5	25.5	23.0	26.5	25.0
5	13.0	10.5	14.5	12.0	---	---	25.5	24.0	26.0	23.5	26.5	25.0
6	---	---	14.0	12.5	---	---	25.5	23.5	26.0	23.5	26.0	25.0
7	---	---	15.0	13.5	---	---	26.0	24.0	26.0	24.5	29.5	23.0
8	---	---	16.0	14.5	---	---	26.5	24.5	26.5	24.0	25.0	22.5
9	---	---	19.0	15.5	---	---	27.0	25.0	27.0	25.0	25.0	23.0
10	---	---	18.5	17.5	---	---	26.5	25.5	27.0	25.5	23.5	22.0
11	8.5	7.5	19.0	17.5	26.5	25.0	26.5	24.5	27.0	25.0	23.5	22.0
12	9.0	7.0	18.5	17.0	26.0	25.0	26.0	23.0	26.5	24.5	22.5	21.0
13	11.0	7.0	18.0	16.5	25.0	22.5	26.0	23.0	26.0	24.5	22.0	20.5
14	---	---	17.5	15.5	25.5	23.0	26.0	24.0	25.5	24.5	22.0	21.0
15	---	---	17.0	15.5	24.5	22.5	---	---	24.0	23.5	22.5	21.0
16	11.5	11.0	17.5	15.0	24.0	23.0	---	---	24.5	23.0	22.0	20.5
17	12.5	11.5	19.5	15.5	---	---	---	---	25.0	23.0	21.5	20.5
18	13.0	12.0	17.0	14.0	24.0	23.5	---	---	25.0	23.5	21.0	18.5
19	14.0	12.5	17.0	15.5	24.5	23.0	---	---	25.0	23.5	18.5	17.5
20	15.0	13.5	15.5	14.5	25.0	23.5	25.5	25.0	25.0	23.0	18.5	17.5
21	17.0	14.5	18.0	14.5	24.0	23.5	25.0	23.5	24.0	22.5	20.0	18.0
22	17.5	16.5	19.0	16.5	24.5	23.0	24.0	23.0	23.5	21.5	21.0	19.5
23	17.0	15.0	19.5	18.5	24.5	23.5	25.0	23.0	23.0	20.5	21.5	20.5
24	15.5	14.5	19.0	18.0	24.5	23.0	25.0	24.0	22.5	21.5	22.0	21.5
25	15.5	13.5	20.5	18.0	25.0	23.0	24.5	24.0	23.5	21.0	22.5	21.0
26	13.5	13.0	21.5	18.5	25.0	23.0	24.5	24.0	24.5	22.5	23.0	21.5
27	13.5	11.0	20.5	19.5	24.5	23.0	25.5	24.0	26.0	23.5	23.0	21.0
28	12.0	10.5	20.5	19.0	23.5	22.0	26.0	24.0	27.5	24.5	23.5	22.5
29	13.0	11.0	20.0	18.5	23.0	21.5	25.5	24.0	28.5	25.5	23.5	22.5
30	13.0	12.5	19.5	18.5	23.5	21.0	25.5	23.5	30.0	24.0	23.0	22.0
31	---	---	19.0	18.0	---	---	25.0	23.5	29.5	24.5	---	---
MONTH	---	---	21.5	12.0	---	---	27.0	22.0	30.0	20.5	29.5	17.5
YEAR	30.0	1.5										

03234500 SCIOTO RIVER AT HIGBY, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	11200	396	12000	2630	66	581	7220	19	370
2	10500	298	8450	9720	349	9160	6410	25	433
3	8440	188	4280	17000	344	15800	6170	28	466
4	7940	129	2770	20300	197	10800	6170	27	450
5	5970	134	2160	19900	133	7150	6130	25	414
6	4580	118	1460	14900	98	3940	8130	79	1920
7	3810	99	1020	13500	103	3780	13600	278	10200
8	3500	86	813	20700	424	23700	18000	244	11900
9	3090	66	551	22400	228	13800	30300	214	17500
10	2640	62	442	22700	138	8460	27400	167	12400
11	2090	63	356	19400	104	5450	24200	244	15900
12	1880	63	320	15900	87	3730	17400	174	8170
13	5070	192	2670	14300	88	3400	14600	133	5240
14	4490	152	1840	24900	256	18100	14500	131	5130
15	3680	108	1070	26500	308	22000	15800	157	6700
16	3240	75	656	26200	111	7850	15400	143	5950
17	2790	57	429	24300	96	6300	11600	145	4540
18	2520	83	565	18000	117	5690	7870	117	2490
19	2290	44	272	15700	191	8100	6700	54	977
20	2170	42	246	16800	106	4810	8600	137	3510
21	1890	33	168	15300	79	3260	13500	134	4880
22	1710	32	148	13300	67	2410	14700	88	3490
23	1630	32	141	11500	58	1800	15400	67	2790
24	1620	38	166	10000	35	945	14100	62	2360
25	1710	34	157	8810	37	880	11700	75	2370
26	1860	31	156	8070	28	610	10200	86	2370
27	1980	43	230	7700	28	582	9480	60	1540
28	1840	43	214	7480	34	687	8740	43	1010
29	1820	35	172	7760	32	670	7730	46	960
30	1790	34	164	8100	22	481	6720	73	1320
31	1720	37	172	--	--	--	6220	57	957
TOTAL	111460	--	44258	463870	--	194926	384690	--	138707

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8460	68	1550	8000	30	648	2910	9	71
2	12300	75	2490	8910	88	2280	2780	16	120
3	11300	113	3450	14800	238	9510	2720	22	162
4	14100	389	14800	17500	134	6330	2970	25	200
5	18400	344	17100	15900	85	3650	3970	38	407
6	16900	120	5480	11700	73	2310	5670	39	597
7	12200	79	2600	8840	64	1530	6680	63	1140
8	8180	54	1190	7320	73	1440	6130	48	794
9	5890	38	604	6900	69	1290	5210	33	464
10	4960	55	737	5990	56	906	4220	31	353
11	4380	18	213	4930	40	532	4160	46	517
12	3960	13	139	4270	29	334	5880	152	2410
13	3650	22	217	3790	28	287	9200	167	4150
14	3540	22	210	3740	27	273	9410	59	1500
15	3500	16	151	5620	25	379	8590	125	2900
16	3470	16	150	7490	26	526	13300	250	8980
17	3360	37	336	6740	26	473	21300	471	27100
18	3330	20	180	5190	27	378	23300	382	24000
19	3550	13	125	4720	23	293	24500	254	16800
20	3680	23	229	4340	19	223	22700	158	9680
21	3600	25	243	3980	12	129	18300	124	6130
22	3980	27	290	3750	9	91	14200	105	4030
23	6340	86	470	3600	9	87	10900	98	2880
24	8260	59	1320	3440	15	139	8460	75	1710
25	8190	41	907	3240	17	149	6820	69	1270
26	6300	42	714	3090	17	142	9670	263	6970
27	5680	37	567	3070	8	66	12500	212	7160
28	6700	40	724	3010	2	16	15000	163	6600
29	9570	67	1730	--	--	--	12000	128	4150
30	12300	93	3090	--	--	--	13000	284	9970
31	10500	64	1810	--	--	--	16500	206	9180
TOTAL	230530	--	64816	183870	--	34411	322950	--	162395

03234500 SCIOTO RIVER AT HIGHBY, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	15600	148	6230	12300	80	2660	5830	93	1460
2	13000	76	2670	9530	82	2110	4610	89	1110
3	10500	49	1390	8440	86	1960	3890	74	777
4	11800	298	11000	7790	84	1770	3440	63	585
5	16200	407	17800	6850	52	962	5790	205	3570
6	15500	157	6570	5710	38	586	10600	552	15800
7	13500	108	3940	4920	48	638	10800	242	7060
8	14900	98	3940	4500	52	632	11600	180	5640
9	14900	96	3860	5210	58	816	9400	228	5790
10	15500	248	10400	4970	74	993	7240	278	5430
11	16800	94	4260	4770	76	979	5420	330	4830
12	16300	135	5940	5640	116	1770	4150	178	1990
13	15300	108	4460	7460	153	3080	6760	905	16600
14	17400	79	3710	6700	64	1160	7540	398	8100
15	15300	93	3840	5750	93	1440	6130	285	4720
16	10900	75	2210	4980	83	1120	4920	240	3190
17	8840	65	1550	3730	32	322	6740	100	1820
18	8960	61	1480	3370	22	200	12600	893	34200
19	15800	204	8700	3140	22	187	17100	652	30100
20	17500	242	11400	5360	352	5270	15200	258	10600
21	13200	115	4100	4670	87	1100	19600	705	37300
22	9860	92	2450	4420	58	692	26600	270	19400
23	11700	783	34000	4550	88	1080	25100	244	16500
24	21500	690	40100	3690	93	927	14300	214	8260
25	15700	255	10800	3380	37	338	11000	173	5140
26	11900	155	4980	4920	167	2360	7580	150	3070
27	14000	276	12700	6350	186	3190	5920	158	2530
28	22300	472	28400	7750	186	3890	5660	157	2400
29	20700	215	12000	6630	98	1750	8140	164	3600
30	16800	106	4810	5590	84	1270	7880	193	4110
31	--	--	--	5740	92	1430	--	--	--
TOTAL	442160	--	269690	178810	--	46682	291540	--	265682

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	7500	172	3480	3900	103	1080	3580	59	570
2	6200	127	2130	3340	92	830	2680	56	405
3	8610	1140	30600	2820	73	556	2000	36	194
4	10000	770	20800	2440	51	336	1590	38	163
5	10700	110	3180	2180	51	300	1420	37	142
6	10400	67	1880	1980	57	305	1380	45	168
7	9720	135	3540	1860	82	412	1370	44	163
8	7810	175	3690	1740	63	296	1370	38	141
9	5450	133	1960	1600	58	251	1290	36	125
10	4170	115	1290	1540	77	320	1230	38	126
11	3660	113	1120	1880	68	345	1230	20	66
12	3870	137	1430	2960	70	559	1140	33	102
13	3010	108	878	4670	147	2060	1050	41	116
14	2770	53	396	10700	316	9130	1020	44	121
15	2840	75	575	14200	313	12000	972	42	110
16	2870	48	372	12500	141	4760	947	35	89
17	2660	25	180	10200	79	2150	906	27	66
18	2360	50	319	7400	84	1680	904	33	81
19	2070	44	246	6110	95	1570	888	36	86
20	1860	36	181	4690	114	1440	858	34	79
21	4890	458	11600	3840	113	1170	836	26	59
22	12400	720	24100	3540	49	468	828	37	83
23	10100	332	9050	3400	41	376	865	37	86
24	8200	232	5140	2820	55	419	1230	35	116
25	8730	255	6010	2320	50	313	1120	39	118
26	15000	362	14700	2000	28	151	995	39	105
27	12100	234	7640	1800	32	156	921	38	94
28	10900	137	4030	1680	48	218	890	39	94
29	9210	115	2860	1560	30	126	909	34	83
30	6440	109	1900	1450	45	176	918	39	97
31	4820	112	1460	1580	55	235	--	--	--
TOTAL	211320	--	166737	124700	--	44188	37337	--	4048

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

2983237

1436540

SCIOTO RIVER BASIN

03235995 SALT CREEK ABOVE DAMSITE NEAR LONDONDERRY, OHIO

LOCATION.--Lat 39°17'26", long 82°44'45", Vinton County, at gaging station at bridge on State Highway 671, 0.5 mi (0.8 km) east of Ross County line, 2.8 mi (4.5 km) northeast of Londonderry.

DRAINAGE AREA.--268 mi² (694 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-72 (partial-record station).
Water temperatures: July to September 1973.

REMARKS.--Maximum recorded water temperature of 29.5°C occurred Aug. 29, 1973.

TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	25.0	21.5	29.0	25.0
2	---	---	---	---	---	---	---	---	25.5	22.0	29.0	24.5
3	---	---	---	---	---	---	---	---	25.0	22.0	28.5	24.5
4	---	---	---	---	---	---	---	---	26.0	21.5	28.0	24.5
5	---	---	---	---	---	---	---	---	26.5	22.0	28.0	24.5
6	---	---	---	---	---	---	---	---	26.5	22.0	25.5	23.5
7	---	---	---	---	---	---	---	---	27.0	23.5	24.5	21.0
8	---	---	---	---	---	---	---	---	28.0	24.5	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	26.5	25.0	---	---
11	---	---	---	---	---	---	---	---	28.0	24.5	---	---
12	---	---	---	---	---	---	---	---	27.0	24.5	---	---
13	---	---	---	---	---	---	26.5	25.5	25.5	24.5	---	---
14	---	---	---	---	---	---	26.5	21.5	25.0	22.0	---	---
15	---	---	---	---	---	---	24.5	23.5	24.0	22.0	---	---
16	---	---	---	---	---	---	26.5	22.0	25.5	21.5	---	---
17	---	---	---	---	---	---	26.5	21.5	26.0	22.0	---	---
18	---	---	---	---	---	---	26.5	21.0	26.0	23.0	---	---
19	---	---	---	---	---	---	26.0	23.0	25.5	23.0	---	---
20	---	---	---	---	---	---	25.5	24.0	25.5	22.0	---	---
21	---	---	---	---	---	---	24.5	21.5	24.5	21.5	---	---
22	---	---	---	---	---	---	24.0	21.0	24.0	20.0	---	---
23	---	---	---	---	---	---	25.5	23.5	23.0	19.5	---	---
24	---	---	---	---	---	---	25.0	23.5	22.0	20.0	---	---
25	---	---	---	---	---	---	24.5	22.0	24.5	19.5	---	---
26	---	---	---	---	---	---	23.5	21.5	25.5	22.0	---	---
27	---	---	---	---	---	---	25.0	22.0	27.0	23.5	---	---
28	---	---	---	---	---	---	26.0	22.0	29.0	25.0	---	---
29	---	---	---	---	---	---	25.0	23.0	29.5	20.0	---	---
30	---	---	---	---	---	---	25.5	21.0	28.5	25.5	---	---
31	---	---	---	---	---	---	24.5	22.0	28.0	24.5	---	---
MONTH	---	---	---	---	---	---	---	---	29.5	19.5	---	---

SCIOTO RIVER BASIN

03237100 SCIOTO RIVER AT LUCASVILLE, OHIO
(Radiochemical station)

LOCATION.--Lat 38°52'52", long 83°01'03", Scioto County, at bridge on State Highway 348 at Lucasville, 0.4 mi (0.6 km) downstream from Miller Run, and 4.9 mi (7.9 km) upstream from Scioto Brush Creek.

DRAINAGE AREA.--6,178 mi² (16,001 km²).

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

Water temperatures: October 1956 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum daily, 754 micromhos Sept. 27; minimum daily, 278 micromhos Apr. 28.
Water temperatures: Maximum, 27.0°C Sept. 3; minimum, freezing point Jan. 11-13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HC03) (MG/L)	CAR- BONATE (C03) (MG/L)	ALKA- LINITY AS CAC03 (MG/L)	DIS- SOLVED SULFATE (S04) (MG/L)
OCT.										
02...	--	--	--	--	--	--	180	0	148	61
12...	--	--	--	--	--	--	218	14	202	84
18...	40	--	48	--	--	--	--	--	195	--
31...	--	--	--	--	--	--	262	0	215	100
31...	--	--	--	--	--	--	--	--	--	--
NOV.										
02...	--	--	--	--	--	--	230	0	189	88
14...	--	--	--	--	--	--	192	8	171	59
14...	20	--	0	--	--	--	--	--	154	--
15...	--	--	--	--	--	--	130	0	107	39
DEC.										
04...	--	--	--	--	--	--	239	0	196	73
09...	--	--	--	--	--	--	112	0	92	45
14...	10	--	10	--	--	--	--	--	159	--
23...	--	--	--	--	--	--	184	0	151	59
JAN.										
04...	--	--	--	--	--	--	162	0	133	58
10...	20	--	51	--	--	--	--	--	189	--
20...	--	2100	--	67	64	23	167	0	137	59
27...	--	--	--	--	--	--	190	8	169	71
FEB.										
15...	--	--	--	--	--	--	--	--	139	--
16...	--	--	--	--	--	--	166	0	136	61
19...	--	--	--	--	--	--	179	10	163	69
28...	--	--	--	--	--	--	241	0	198	80
MAR.										
07...	--	--	--	--	--	--	234	0	192	94
14...	20	--	32	--	--	--	--	--	172	--
16...	--	--	--	--	--	--	192	0	157	100
19...	--	--	--	--	--	--	131	0	107	51
APR.										
19...	--	--	--	--	--	--	--	--	--	--
19...	0	--	30	--	--	--	--	--	169	--
19...	--	--	--	--	--	--	192	8	171	64
21...	--	--	--	--	--	--	168	0	138	51
28...	--	--	--	--	--	--	107	0	88	40
MAY										
16...	30	--	32	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	245	0	201	76
26...	--	--	--	--	--	--	208	0	171	68
28...	--	--	--	--	--	--	135	0	111	60
JUNE										
13...	--	--	--	--	--	--	246	0	202	72
21...	20	--	10	--	--	--	--	--	136	--
22...	--	--	--	--	--	--	136	0	112	35
27...	--	--	--	--	--	--	220	0	180	51
JULY										
03...	--	--	--	--	--	--	152	0	125	41
18...	30	--	120	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	280	0	230	74
31...	--	--	--	--	--	--	216	0	177	69
AUG.										
03...	--	--	--	--	--	--	252	0	207	71
10...	--	--	--	--	--	--	293	0	240	81
16...	--	--	--	--	--	--	163	0	134	50
23...	30	--	66	--	--	--	--	--	--	--
SEP.										
04...	--	--	--	--	--	--	228	0	187	92
13...	50	--	68	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	272	14	246	110
27...	--	--	--	--	--	--	283	0	232	120

SCIOTO RIVER BASIN

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03237100 SCIOTO RIVER AT LUCASVILLE, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance: Maximum daily, 1,100 micromhos Jan. 23, 1970; minimum daily, 207 micromhos May 8, 1961.
 Water temperatures: Maximum, 29.0°C July 22, 1957, July 20, 21, Aug. 7, 1969; minimum, freezing point on many days during winter periods.

REMARKS.--Samples for iron and manganese were filtered clear when collected. Daily samples were collected at this station and samples were selected for analysis on the following basis: (1) Maximum daily specific conductance for each month, (2) minimum daily specific conductance for each month, (3) median daily specific conductance for each month, and (4) a special sample was collected monthly during the period, October to June, as part of the Environmental Protection Agency national network. Determinations for trace metals were made on quarterly composites of the special monthly sample. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)
OCT.										
02...	22	.3	--	--	--	--	--	--	.73	210
12...	32	.4	--	--	--	--	--	--	.39	300
18...	38	--	--	--	2.7	.22	1.2	.59	.64	290
31...	40	.5	--	--	--	--	--	--	.58	330
31...	--	--	--	--	--	--	--	--	--	--
NOV.										
02...	34	.4	--	--	--	--	--	--	.70	290
14...	19	.2	--	--	--	--	--	--	.34	240
14...	20	--	--	--	--	--	--	--	--	250
15...	11	.1	--	--	--	--	--	--	.22	160
DEC.										
04...	29	.3	--	--	--	--	--	--	.26	300
09...	11	.1	--	--	--	--	--	--	.36	150
14...	22	--	--	--	3.2	.08	.81	.21	.25	250
23...	24	.2	--	--	--	--	--	--	.29	230
JAN.										
04...	16	.3	--	--	--	--	--	--	.38	210
10...	22	--	--	--	--	--	--	--	--	300
20...	25	.4	.4	.01	3.7	--	--	--	.37	250
27...	25	.3	--	--	--	--	--	--	.32	260
FEB.										
15...	23	--	--	--	2.3	.38	.91	.15	.32	230
16...	18	.3	--	--	--	--	--	--	.41	220
19...	26	.3	--	--	--	--	--	--	.26	250
28...	26	.4	--	--	--	--	--	--	.34	300
MAR.										
07...	33	.4	--	--	--	--	--	--	.38	310
14...	32	--	--	--	--	--	--	--	--	310
16...	25	.3	--	--	--	--	--	--	.48	270
19...	16	.2	--	--	--	--	--	--	.49	180
APR.										
19...	--	--	--	--	--	--	--	--	--	--
19...	22	--	--	--	3.3	.03	.91	.18	.39	260
19...	18	.4	--	--	--	--	--	--	.42	250
21...	15	.2	--	--	--	--	--	--	.30	210
28...	7.3	.2	--	--	--	--	--	--	.39	140
MAY										
16...	--	--	--	--	--	--	--	--	--	--
20...	23	.4	--	--	--	--	--	--	.44	290
26...	20	.4	--	--	--	--	--	--	.38	260
28...	15	.3	--	--	--	--	--	--	.47	180
JUNE										
13...	28	.3	--	--	--	--	--	--	.39	300
21...	24	--	--	--	5.6	.29	3.0	.13	1.2	220
22...	16	.3	--	--	--	--	--	--	.70	170
27...	22	.3	--	--	--	--	--	--	.38	260
JULY										
03...	15	.4	--	--	--	--	--	--	1.3	180
18...	--	--	--	--	--	--	--	--	--	--
21...	26	.4	--	--	--	--	--	--	.38	320
31...	20	.4	--	--	--	--	--	--	.49	270
AUG.										
03...	26	--	.3	.00	3.5	--	--	--	.43	--
10...	34	--	.5	.00	2.9	--	--	--	.39	--
16...	19	--	.3	.00	2.6	--	--	--	.29	--
23...	--	--	--	--	--	--	--	--	--	--
SEP.										
04...	21	--	.4	.00	2.2	--	--	--	.49	--
13...	--	--	--	--	--	--	--	--	--	--
16...	36	--	.6	.00	2.7	--	--	--	.64	--
27...	49	--	.7	.00	2.6	--	--	--	.83	--

SCIOTO RIVER BASIN

03237100 SCIOTO RIVER AT LUCASVILLE, OHIO--CONTINUED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DATE	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)	AIR TEMPERATURE (DEG C)	TURBIDITY (JTU)	COLOR (PLATINUM-COBALT UNITS)	OIL-GREASE (SEVERITY)
OCT.										
02...	62	463	7.6	268	--	19.0	--	--	--	--
12...	98	620	8.5	364	--	15.0	--	--	--	--
18...	--	560	7.2	--	--	12.5	10.5	30	20	0
31...	120	711	8.2	422	--	11.5	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
NOV.										
02...	100	626	8.2	362	--	14.0	--	--	--	--
14...	69	480	8.4	278	--	10.0	--	--	--	--
14...	--	460	7.4	--	--	9.5	10.5	75	30	0
15...	54	327	8.1	184	--	8.5	--	--	--	--
DEC.										
04...	100	603	7.8	378	--	6.0	--	--	--	--
09...	58	314	7.5	202	--	4.0	--	--	--	--
14...	--	490	7.4	--	--	5.0	--	75	25	1
23...	79	490	7.4	306	--	4.0	--	--	--	--
JAN.										
04...	77	429	8.2	260	--	4.5	--	--	--	--
10...	--	540	7.0	--	--	4.0	20.0	30	10	1
20...	120	480	8.0	374	835	5.0	--	--	--	--
27...	90	543	8.4	344	--	4.0	--	--	--	--
FEB.										
15...	--	480	7.0	--	--	3.0	--	60	40	0
16...	84	453	7.6	280	--	3.0	--	--	--	--
19...	87	531	8.4	326	--	2.0	--	--	--	--
28...	100	611	7.6	358	--	5.0	--	--	--	--
MAR.										
07...	120	646	7.5	402	--	10.0	--	--	--	--
14...	--	650	7.5	--	--	16.0	28.0	60	15	0
16...	110	559	7.6	366	--	12.0	--	--	--	--
19...	72	388	7.8	232	--	10.0	--	--	--	--
APR.										
19...	--	--	--	--	--	--	--	--	--	--
19...	--	515	7.4	--	--	14.5	14.0	50	40	0
19...	79	500	8.3	312	--	15.0	--	--	--	--
21...	72	416	7.9	260	--	15.0	--	--	--	--
28...	52	278	7.7	180	--	12.0	--	--	--	--
MAY										
16...	--	600	7.7	--	--	17.5	--	--	--	--
20...	88	596	7.7	384	--	15.0	--	--	--	--
26...	89	524	7.6	330	--	17.5	--	--	--	--
28...	70	394	7.8	258	--	19.0	--	--	--	--
JUNE										
13...	98	573	8.1	368	--	24.0	--	--	--	--
21...	--	590	6.0	--	--	25.5	--	150	50	0
22...	58	331	7.2	208	--	24.0	--	--	--	--
27...	80	498	7.6	316	--	23.0	--	--	--	--
JULY										
03...	56	377	7.9	258	--	25.0	--	--	--	--
18...	--	--	--	--	--	26.0	--	--	--	--
21...	90	640	7.8	426	--	24.5	--	--	--	--
31...	92	532	7.6	366	--	24.5	--	--	--	--
AUG.										
03...	--	572	7.8	--	472	23.0	--	--	--	--
10...	--	669	7.6	--	483	25.0	--	--	--	--
16...	--	390	7.4	--	606	23.5	--	--	--	--
23...	--	--	--	--	--	22.0	--	--	--	--
SEP.										
04...	--	546	7.5	--	411	26.0	--	--	--	--
13...	--	--	--	--	--	21.5	--	--	--	--
16...	--	705	8.8	--	524	22.0	--	--	--	--
27...	--	754	7.4	--	552	20.5	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

[illegible]

SCIOTO RIVER BASIN

03237100 SCIOTO RIVER AT LUCASVILLE, OHIO--CONTINUED

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	HARD- NESS (CA,MG) (MG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)
OCT. 31- DEC. 14	80	77	60	23	1.0	250	300
JAN. 10- MAR. 14	280	130	66	24	.4	260	300

DATE	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
OCT. 31- DEC. 14	2	0	38	5	17	340
JAN. 10- MAR. 14	4	3	31	14	6	470

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED STRON- TIUM 90 (PC/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS ALPHA AS U-NAT. (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	SUS- PENDE GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDE GROSS ALPHA AS U-NAT. (PC/L)	SUS- PENDE GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDE GROSS BETA AS CS-137 (PC/L)	TOTAL FILT- RABLE RESIDUE (MG/L)
OCT. 31- DEC. 14	.4	12	3.9	5.2	6.4	100	10	3.4	5.8	7.0	360
JAN. 10- MAR. 14	<.4	7.8	--	4.4	5.3	89	8.2	--	4.6	5.7	400
APR. 19- JUNE 21	.5	11	--	5.4	6.5	100	9.4	--	5.5	6.6	360

03237100 SCIOTO RIVER AT LUCASVILLE, OHIO--CONTINUED

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT, BETWEEN 0800 AND 1600)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	586	561	570	530	594	456	427	486	552	530	679
2	463	626	574	569	510	609	483	465	484	548	545	679
3	476	477	579	543	460	625	488	478	528	377	572	589
4	526	455	603	429	481	616	383	446	544	391	591	546
5	556	495	587	433	483	614	336	464	469	447	618	586
6	534	507	568	432	483	642	391	514	473	431	632	605
7	545	498	467	456	491	646	443	517	---	436	626	619
8	554	460	474	471	495	632	372	535	448	491	656	611
9	573	387	314	504	488	626	372	532	547	528	648	629
10	608	411	317	540	507	641	408	530	560	532	669	644
11	616	437	398	562	538	619	402	531	561	558	628	674
12	620	495	427	588	541	626	435	543	568	578	652	692
13	647	485	433	608	565	632	435	560	573	575	557	712
14	657	480	435	625	562	592	454	543	458	625	586	703
15	527	327	490	628	466	574	461	517	533	607	426	708
16	554	369	462	620	453	559	461	558	512	625	390	705
17	596	404	461	620	507	394	495	566	508	624	400	705
18	615	432	507	617	530	388	497	584	509	616	400	705
19	626	426	526	616	531	388	500	585	357	630	435	714
20	643	413	483	642	553	388	415	596	460	619	474	742
21	667	396	458	611	561	429	416	504	459	640	483	747
22	678	443	470	611	570	427	465	505	331	594	509	747
23	680	481	490	532	586	444	492	550	343	429	524	744
24	686	496	486	532	588	463	306	559	464	420	561	740
25	692	511	511	521	593	442	333	532	467	490	568	739
26	705	528	525	546	602	440	360	524	469	408	567	731
27	708	532	523	543	607	426	414	441	498	491	596	754
28	699	538	523	523	611	478	278	394	536	528	614	744
29	708	547	536	534	---	473	403	419	539	530	632	746
30	710	548	555	511	---	462	403	470	557	505	648	692
31	711	---	564	507	---	462	---	470	---	532	653	---
MONTH	616	473	494	550	532	527	419	512	491	528	561	688
YEAR	MAX	754	MIN	278	MEAN	533						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT, BETWEEN 0800 AND 1600)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	12.0	4.0	5.5	3.0	4.5	10.0	12.5	20.0	22.0	24.5	26.0
2	19.0	14.0	4.5	6.0	4.5	5.0	11.0	11.5	20.0	22.0	23.0	26.5
3	15.0	12.5	5.0	4.5	4.5	5.5	10.0	11.5	20.0	25.0	23.0	27.0
4	17.5	12.0	6.0	4.5	4.5	7.0	9.5	12.5	21.0	26.0	24.0	26.0
5	17.0	11.0	7.0	4.0	4.5	8.0	8.0	14.0	22.0	26.0	25.0	25.5
6	16.5	11.0	8.0	3.0	4.5	10.0	8.0	13.0	22.0	25.5	25.0	25.0
7	17.0	11.0	7.0	2.0	4.5	10.0	9.0	13.5	---	25.5	25.0	22.0
8	16.0	10.0	6.0	2.5	5.0	11.0	9.0	14.5	22.5	25.0	24.5	22.0
9	15.0	9.5	4.0	1.5	4.0	11.0	9.0	15.0	23.0	25.0	24.5	22.0
10	16.0	9.0	5.0	2.0	3.5	11.0	9.0	15.0	24.0	25.0	25.0	21.0
11	15.0	9.0	4.0	0.0	3.0	14.0	8.0	16.0	24.0	24.5	25.0	20.5
12	15.0	9.5	4.0	0.0	3.0	15.0	8.0	16.0	24.5	25.5	25.0	21.0
13	14.0	9.0	4.0	0.0	4.0	12.0	8.5	16.0	24.0	24.5	24.5	21.0
14	14.5	10.0	4.0	1.0	3.0	12.0	8.5	16.0	24.5	24.5	24.5	21.5
15	15.0	8.5	4.0	1.5	4.0	12.0	9.5	16.0	23.0	24.5	24.5	21.5
16	13.5	7.0	3.5	3.0	3.0	12.0	10.0	15.0	24.0	24.5	23.5	22.0
17	14.0	7.5	3.0	3.0	1.5	10.0	11.0	14.0	23.5	24.5	23.5	20.0
18	13.0	6.5	2.0	4.0	1.0	9.5	11.5	15.0	23.0	23.5	23.0	20.0
19	10.0	6.5	2.0	5.0	2.0	10.0	15.0	15.0	23.0	24.0	24.0	16.0
20	8.0	7.0	3.5	4.5	3.0	7.5	15.0	15.0	24.0	24.0	23.0	17.0
21	8.0	6.0	4.0	4.0	3.0	6.0	15.0	15.0	24.0	24.5	23.0	17.0
22	9.5	5.5	5.0	5.0	2.5	6.0	16.0	15.5	24.0	24.0	22.5	17.5
23	12.0	5.0	4.0	4.5	3.0	6.0	16.5	16.0	24.0	23.5	23.0	17.5
24	11.0	5.0	4.5	4.0	3.0	9.0	14.0	16.0	23.0	24.0	22.0	18.0
25	12.0	4.0	5.0	3.0	3.0	8.5	14.0	17.0	24.0	24.0	21.0	20.0
26	11.0	5.0	5.0	3.5	4.0	9.0	14.0	17.5	24.0	24.0	23.0	20.0
27	11.5	5.0	4.0	4.0	5.0	9.0	12.5	18.5	23.0	24.0	23.0	20.5
28	12.0	5.0	4.0	4.5	5.0	9.0	12.0	19.0	23.0	25.0	24.0	21.5
29	13.0	5.0	4.0	4.0	---	9.0	12.0	19.0	23.0	25.0	25.0	22.0
30	15.0	5.0	5.0	3.5	---	9.5	12.0	18.5	22.5	25.0	26.0	22.0
31	11.5	---	6.0	2.5	---	10.0	---	18.5	---	24.5	26.0	---
MONTH	14.0	8.0	4.5	3.0	3.5	9.5	11.0	15.5	23.0	24.5	24.0	21.5
YEAR	MAX	27.0	MIN	0.0	MEAN	13.5						

UPPER TWIN CREEK BASIN

03237280 UPPER TWIN CREEK AT McGAW, OHIO
(Hydrologic bench-mark station)

LOCATION.--Lat 38°38'37", long 83°12'57", Scioto County, at gaging station on right bank, 0.3 mi (0.5 km) downstream from Brown Run, 0.3 mi (0.5 km) upstream from Tucker Run, 0.7 mi (1.1 km) upstream from bridge on U.S. Highway 52 at McGaw, 2.7 mi (4.3 km) northeast of Buena Vista and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--12.2 mi² (31.6 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SiO ₂) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)
OCT. 18...	0930	.30	8.8	70	10	9.6	6.1	4.8	2.7
NOV. 14...	0945	5.8	9.0	20	0	6.6	4.6	2.7	2.1
DEC. 14...	1200	7.2	8.9	50	0	4.6	3.6	1.8	1.6
JAN. 10...	1015	8.0	9.6	20	0	5.3	3.8	2.4	1.8
FEB. 15...	1115	69	9.0	40	110	4.1	3.0	1.5	1.7
MAR. 14...	1000	8.2	9.6	0	0	3.0	4.8	2.8	1.8
APR. 19...	1430	66	10	30	17	3.4	3.4	2.1	2.0
MAY 16...	1030	11	12	10	0	3.4	4.3	2.3	1.8
JUNE 21...	0930	5.1	14	10	7	5.6	4.9	3.1	2.2
JULY 18...	1000	.36	11	40	4	6.5	5.2	3.6	2.5
AUG. 23...	1000	.01	13	0	20	6.9	6.1	4.0	3.5
SEP. 13...	1000	.00	12	10	5	7.5	6.2	3.9	2.7

DATE	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TEMPERATURE (DEG C)	COLOR (PLATINUM-COBALT UNITS)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATURATION	BIO-CHEMICAL OXYGEN DEMAND (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)
OCT. 18...	6.8	82	87	10.0	3	10.8	96	.4	320
NOV. 14...	7.0	72	64	11.0	2	11.0	99	.0	340
DEC. 14...	6.4	39	48	6.0	5	12.0	96	.2	140
JAN. 10...	6.6	48	55	.5	3	10.8	75	.1	24
FEB. 15...	6.3	40	46	3.0	5	12.2	90	.0	24
MAR. 14...	6.6	52	56	11.0	5	10.4	94	.4	100
APR. 19...	6.6	53	49	12.0	15	14.0	84	.0	180
MAY 16...	6.6	49	54	30.0	5	10.4	99	.2	140
JUNE 21...	6.8	53	68	24.0	5	9.6	110	.5	1000
JULY 18...	7.4	70	72	23.5	1	8.2	95	.2	1100
AUG. 23...	6.6	87	79	17.5	8	7.0	73	.0	380
SEP. 13...	6.5	94	79	16.0	0	10.0	100	.5	900

UPPER TWIN CREEK BASIN

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03237280 UPPER TWIN CREEK AT MCGAW, OHIO--CONTINUED

PERIOD OF RECORD.--Chemical analyses: Water years 1964-67 (partial-record station), August 1967 to September 1973.
 Water temperatures: October 1963 to September 1966, October 1967 to September 1970, July 1972 to September 1973.
 Sediment records: Water years 1964-69 (partial-record station), October 1969 to September 1972, water year 1973 (partial-record station).

REMARKS.--Prior to July 21, 1972, at site 0.7 mi (1.1 km) downstream. Flow affected by ice Jan. 7-14, Feb. 11-13, 17-25.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)
OCT. 18...	25	0	35	6.5	.1	.20	.04	49	28
NOV. 14...	21	0	26	3.0	.0	.11	.02	36	18
DEC. 14...	10	0	19	3.0	.3	.04	.01	26	18
JAN. 10...	10	0	23	4.0	.1	.10	.02	28	20
FEB. 15...	8	0	19	3.0	.0	.10	.08	22	16
MAR. 14...	10	0	25	4.0	.1	.00	.06	28	20
APR. 19...	9	0	21	2.0	.1	.10	.01	22	15
MAY 16...	9	0	23	3.1	.1	.03	.01	26	18
JUNE 21...	17	0	24	5.0	.1	.08	.10	31	17
JULY 18...	20	0	30	2.9	.0	.20	.00	38	21
AUG. 23...	21	0	32	2.0	.1	.20	.01	42	25
SEP. 13...	20	0	34	2.0	.1	.20	.00	44	28

DATE	TIME	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
JUNE 21...	0930	5	0	0	0	2	4	<.5	2	20

UPPER TWIN CREEK BASIN
03237280 UPPER TWIN CREEK AT MCGAW, OHIO--CONTINUED
TEMPERATURE (°C) OF WATER, JULY TO SEPTEMBER 1972

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	24.5	21.0	24.5	18.5
2	---	---	---	---	---	---	---	---	25.0	21.0	25.5	19.0
3	---	---	---	---	---	---	---	---	25.0	21.5	23.0	20.0
4	---	---	---	---	---	---	---	---	22.5	21.0	23.0	19.0
5	---	---	---	---	---	---	---	---	23.0	19.5	21.5	17.0
6	---	---	---	---	---	---	---	---	22.5	19.5	19.5	15.0
7	---	---	---	---	---	---	---	---	22.0	20.0	22.0	15.0
8	---	---	---	---	---	---	---	---	22.0	20.0	23.5	16.5
9	---	---	---	---	---	---	---	---	23.5	20.5	20.5	15.5
10	---	---	---	---	---	---	---	---	22.5	19.5	18.5	13.5
11	---	---	---	---	---	---	---	---	22.0	19.0	23.0	15.0
12	---	---	---	---	---	---	---	---	22.0	20.5	25.0	17.5
13	---	---	---	---	---	---	---	---	23.0	20.5	25.0	18.0
14	---	---	---	---	---	---	---	---	22.5	20.0	24.0	19.0
15	---	---	---	---	---	---	---	---	22.0	20.5	22.0	17.5
16	---	---	---	---	---	---	---	---	22.5	20.0	22.0	15.5
17	---	---	---	---	---	---	---	---	24.5	21.0	23.0	17.0
18	---	---	---	---	---	---	---	---	25.0	21.5	24.0	19.0
19	---	---	---	---	---	---	---	---	25.5	21.0	23.5	18.5
20	---	---	---	---	---	---	---	---	24.5	21.5	18.5	15.0
21	---	---	---	---	---	---	28.5	24.5	24.5	20.5	18.0	12.5
22	---	---	---	---	---	---	28.5	24.5	25.5	20.5	19.0	15.5
23	---	---	---	---	---	---	29.5	24.0	25.0	21.0	20.0	13.5
24	---	---	---	---	---	---	30.0	23.5	25.0	20.5	21.5	19.0
25	---	---	---	---	---	---	28.5	23.5	26.0	21.0	22.0	20.0
26	---	---	---	---	---	---	28.5	23.5	26.5	21.5	21.5	20.0
27	---	---	---	---	---	---	28.0	23.5	24.5	21.0	20.5	19.0
28	---	---	---	---	---	---	24.5	22.0	23.5	20.0	19.5	18.5
29	---	---	---	---	---	---	23.0	21.5	23.0	18.5	19.0	18.5
30	---	---	---	---	---	---	22.5	21.0	22.0	18.0	18.5	15.5
31	---	---	---	---	---	---	23.0	20.5	25.0	17.0	---	---
MONTH	---	---	---	---	---	---	---	---	26.5	17.0	25.5	12.5

UPPER TWIN CREEK BASIN

03237280 UPPER TWIN CREEK AT McGAW, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.0	0	0	41	--	--	14	--	--
2	2.1	0	0	16	1	.04	9.7	--	--
3	1.5	0	0	8.8	1	.02	8.0	0	0
4	1.5	0	0	6.2	1	.02	9.4	--	--
5	3.1	0	0	4.4	1	.01	14	--	--
6	2.4	1	.01	3.1	1	.01	36	--	--
7	1.9	1	.01	3.1	1	.01	31	--	--
8	1.4	1	0	9.4	0	0	310	--	--
9	1.0	1	0	8.0	0	0	108	--	--
10	.68	1	0	6.0	0	0	55	3	.45
11	.48	1	0	5.0	0	0	38	3	.31
12	.61	1	0	4.2	0	0	29	3	.23
13	.61	2	0	3.8	3	.03	32	2	.17
14	.48	2	0	13	--	--	26	--	--
15	.48	2	0	17	--	--	59	--	--
16	.42	3	0	9.4	--	--	59	--	--
17	.36	3	0	7.0	--	--	40	2	.22
18	.30	4	0	5.2	--	--	34	2	.18
19	.48	4	.01	21	23	2.9	31	2	.17
20	.61	2	0	38	7	.72	48	2	.26
21	.54	1	0	19	7	.36	44	1	.12
22	.61	0	0	12	7	.23	41	1	.11
23	.61	0	0	8.0	7	.15	35	1	.09
24	.61	0	0	6.2	6	.10	31	1	.08
25	.61	0	0	5.6	6	.09	28	1	.08
26	.54	0	0	6.6	6	.11	27	1	.07
27	.54	0	0	8.3	6	.13	24	1	.06
28	.61	0	0	15	--	--	22	0	0
29	.76	0	0	24	--	--	18	0	0
30	.76	0	0	19	--	--	17	0	0
31	1.0	0	0	--	--	--	20	0	0
TOTAL	30.60	--	.03	--	--	--	--	--	--

[illegible]

03237280 UPPER TWIN CREEK AT McGAW, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	30	1	.08	27	--	--	11	2	.06
2	27	1	.07	24	--	--	8.8	2	.05
3	24	1	.06	77	--	--	7.3	2	.04
4	109	26	11	47	--	--	5.7	2	.03
5	59	4	.64	30	--	--	5.1	2	.03
6	45	4	.49	22	8	.48	6.9	3	.06
7	40	3	.32	18	7	.34	8.8	3	.07
8	65	2	.35	34	6	.55	5.7	3	.05
9	56	2	.30	30	5	.41	4.2	4	.05
10	53	2	.29	24	4	.26	3.0	4	.03
11	45	2	.24	48	3	.39	2.3	4	.02
12	42	2	.23	34	1	.09	2.1	4	.02
13	37	2	.20	22	0	0	2.5	4	.03
14	34	2	.18	18	0	0	2.3	3	.02
15	31	2	.17	13	1	.04	1.7	3	.01
16	29	2	.16	10	1	.03	6.0	3	.05
17	27	2	.15	9.2	2	.05	8.8	3	.07
18	26	2	.14	7.3	2	.04	20	--	--
19	48	39	6.5	7.3	5	.10	8.5	--	--
20	48	7	.91	21	--	--	6.6	2	.04
21	38	7	.72	12	2	.06	4.8	2	.03
22	33	8	.71	9.9	2	.05	3.3	1	.01
23	110	--	--	10	3	.08	2.3	1	.01
24	69	--	--	12	4	.13	1.7	0	0
25	42	--	--	13	5	.18	1.2	0	0
26	27	--	--	12	5	.16	.96	0	0
27	149	94	57	12	6	.19	2.1	0	0
28	100	24	8.2	18	5	.24	7.6	0	0
29	44	8	.95	15	4	.16	4.5	0	0
30	33	--	--	13	3	.11	3.3	0	0
31	--	--	--	13	2	.07	--	--	--
TOTAL	--	--	--	--	--	--	--	--	--

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	48	--	--	1.5	0	0	.02	4	0
2	20	--	--	1.2	0	0	.02	4	0
3	10	--	--	.95	0	0	.02	4	0
4	36	--	--	.72	0	0	.02	4	0
5	29	--	--	.46	0	0	.02	4	0
6	13	--	--	.23	1	0	.01	4	0
7	7.9	--	--	.14	2	0	.01	4	0
8	5.1	0	0	.07	3	0	.01	4	0
9	3.3	0	0	.07	4	0	.02	4	0
10	3.6	0	0	.07	5	0	.02	7	0
11	3.6	0	0	.03	6	0	.02	9	0
12	1.9	0	0	.07	6	0	.01	13	0
13	1.4	0	0	.07	5	0	.01	19	0
14	1.1	0	0	.14	4	0	.02	10	0
15	.95	0	0	.14	3	0	.01	5	0
16	.83	0	0	.14	2	0	.01	1	0
17	.58	0	0	.07	1	0	.01	1	0
18	.46	0	0	.03	0	0	.02	1	0
19	.23	1	0	.03	0	0	.01	1	0
20	5.4	1	.01	.03	1	0	.01	2	0
21	8.2	2	.04	.03	2	0	.01	2	0
22	12	2	.06	.03	2	0	.01	2	0
23	8.5	2	.05	.03	2	0	.01	2	0
24	16	2	.09	.03	3	0	.01	2	0
25	17	1	.05	.03	4	0	.01	2	0
26	10	1	.03	.03	4	0	.01	2	0
27	8.2	1	.02	.03	4	0	.01	3	0
28	6.0	0	0	.02	4	0	.01	3	0
29	3.9	0	0	.02	4	0	.01	3	0
30	2.3	0	0	.02	4	0	.01	3	0
31	1.7	0	0	.02	4	0	--	--	--
TOTAL	--	--	--	6.45	--	0	.40	--	0

LITTLE MIAMI RIVER BASIN

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OHIO

LOCATION.--Lat 39°35'00", long 84°01'49", Greene County, at gaging station on right bank at downstream side of bridge on New Burlington Road, 0.3 mi (0.5 km) upstream from unnamed right bank tributary, 2.2 mi (3.5 km) southwest of Spring Valley, and 2.8 mi (4.5 km) downstream from Gladly Run.

DRAINAGE AREA.--366 mi² (948 km²).

PERIOD OF RECORD.--Chemical analyses: September 1968 to September 1973.
Water temperatures: September 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,110 micromhos Dec. 20; minimum, 249 micromhos July 11.

pH: Maximum, 8.6 Feb. 7-10, 12; minimum, 6.6 Nov. 29.

Dissolved oxygen: Maximum, 15.0 mg/l Jan. 8, 9, Feb. 11, 12; minimum, 3.0 mg/l June 10.

Water temperatures: Maximum, 27.0°C July 23; minimum, freezing point on several days during December, January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	BICAR- BONATE (MCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.										
02...	1857	289	316	0	57	35	.3	--	--	2.9
18...	1200	--	--	--	--	--	--	--	--	--
31...	1210	140	320	0	64	72	.2	--	--	14
NOV.										
06...	0930	484	246	14	60	36	.2	--	--	3.4
14...	0935	3100	166	0	35	17	.2	--	--	2.5
DEC.										
20...	1300	1670	222	0	43	46	.2	--	--	3.0
27...	1515	576	306	16	58	43	.2	--	--	3.1
JAN.										
04...	1215	1580	233	0	45	23	.2	--	--	3.2
30...	1415	580	286	12	58	76	.2	--	--	4.4
FEB.										
13...	1240	342	320	16	62	40	.2	--	--	3.6
20...	1030	366	284	30	61	40	.2	--	--	3.2
MAR.										
07...	1115	362	317	4	65	40	.3	--	--	3.0
15...	0940	1620	212	0	43	22	.3	--	--	3.3
APR.										
03...	1200	768	322	0	56	29	.2	--	--	3.6
18...	1350	2670	192	0	36	17	.2	--	--	2.8
MAY										
01...	0855	684	294	8	50	27	.2	--	--	3.4
15...	1025	345	350	0	58	42	.2	--	--	5.9
JUNE										
04...	0835	251	332	18	57	24	.4	--	--	3.5
05...	1420	--	--	--	--	--	--	--	--	--
18...	2000	3100	184	0	29	18	.4	--	--	6.5
JULY										
18...	1915	286	316	18	55	33	.4	--	--	3.5
24...	1915	1960	204	0	32	14	.3	--	--	2.9
AUG.										
20...	1848	724	190	4	36	27	--	.2	.00	--
28...	1000	189	364	8	61	45	--	.2	.00	--
SEP.										
18...	1210	150	348	26	63	58	--	.2	.00	--
24...	0900	144	296	23	54	38	--	.3	.00	--

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1969-70, 1971-73): Maximum, 1,180 micromhos Jan. 1, Mar. 19, 1970; minimum, 249 micromhos July 11, 1973.

pH (1971-73): Maximum, 9.2 Dec. 30, 1971; minimum, 4.7 Dec. 2, 1971.

Dissolved oxygen (1971-73): Maximum, 15.0 mg/l or higher Jan. 8, 9, Feb. 11, 12, 1973; minimum, 2.8 mg/l Aug. 14, 24, 1972.

Water temperatures (1969-70, 1971-72): Maximum, 28.0°C July 2, Aug. 1, 1970, July 23, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since September 1968. Maximum recorded specific conductance value of 1,570 micromhos occurred Feb. 1, 1971. Minimum recorded specific conductance value of 207 micromhos occurred Aug. 8, 1971. Dissolved oxygen concentrations listed as 15.0 mg/l represents concentrations of 15.0 mg/l or higher, due to instrument limitations. Minimum recorded dissolved oxygen concentration of 1.1 mg/l occurred on Apr. 14, 1971. Maximum recorded water temperature value of 34.5°C occurred June 26, 1971. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.									
02...	--	350	90	693	432	--	16.0	--	--
18...	--	--	--	--	--	--	10.0	.0	<.5
31...	--	390	130	898	472	--	10.0	--	--
NOV.									
06...	--	330	100	708	414	--	8.0	--	--
14...	--	190	54	389	264	--	7.0	--	--
DEC.									
20...	--	260	78	574	376	--	3.5	--	--
27...	--	370	92	734	486	--	5.0	--	--
JAN.									
04...	--	260	68	520	326	--	4.5	--	--
30...	--	350	95	805	448	--	2.0	--	--
FEB.									
13...	--	390	100	775	480	--	2.5	--	--
20...	--	380	97	731	474	--	4.0	--	--
MAR.									
07...	--	360	93	740	430	--	12.5	--	--
15...	--	240	66	496	292	--	12.0	--	--
APR.									
03...	--	350	86	674	416	--	9.0	--	--
18...	--	220	62	424	264	--	11.0	--	--
MAY									
01...	--	330	75	638	388	--	--	--	--
15...	--	380	92	741	448	--	19.0	--	--
JUNE									
04...	--	400	98	739	464	--	26.0	--	--
05...	--	--	--	--	--	--	20.5	2.0	<.5
18...	--	220	69	405	262	--	22.0	--	--
JULY									
18...	--	380	90	741	446	--	22.0	--	--
24...	--	200	33	418	264	--	21.0	--	--
AUG.									
20...	3.1	--	--	473	--	638	23.0	--	--
28...	4.0	--	--	801	--	548	22.0	--	--
SEP.									
18...	4.7	--	--	824	--	561	17.0	--	--
24...	3.6	--	--	680	--	482	18.0	--	--

03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	669	606	873	459	879	795	---	---	783	714	790	760
2	693	666	612	495	816	765	---	---	780	606	786	754
3	741	693	582	525	777	756	---	---	612	564	786	750
4	762	741	696	576	783	720	570	519	678	612	778	738
5	747	504	738	696	786	768	645	540	717	678	766	718
6	741	636	762	630	783	582	714	645	738	717	748	724
7	786	741	783	489	642	567	735	714	747	735	753	732
8	789	768	591	459	741	471	765	735	780	744	765	693
9	801	777	657	549	519	477	769	765	948	780	771	681
10	831	798	723	657	621	516	798	777	837	777	762	676
11	828	810	735	702	690	621	810	786	804	774	741	618
12	840	813	741	720	807	690	816	786	792	771	729	651
13	834	771	762	519	906	636	816	780	807	772	756	723
14	795	741	519	372	660	603	810	762	792	762	759	435
15	750	699	552	396	720	660	777	750	822	724	546	438
16	795	735	672	552	777	720	813	765	760	732	624	513
17	840	783	714	672	801	774	798	759	766	754	513	450
18	840	792	735	714	789	726	783	723	778	750	606	504
19	825	801	753	726	909	783	783	747	760	736	633	600
20	828	798	735	618	1110	567	774	729	780	731	681	633
21	822	807	726	693	630	591	777	732	784	756	711	681
22	828	804	723	662	675	630	780	651	790	762	735	711
23	837	804	704	689	696	666	717	675	792	756	747	720
24	873	780	719	689	723	696	696	672	784	754	768	729
25	813	771	722	698	741	720	741	696	786	754	765	648
26	831	807	737	689	759	726	768	741	---	---	648	435
27	843	816	713	680	816	732	768	717	786	754	588	513
28	840	822	783	704	771	729	753	705	784	754	675	588
29	834	792	906	783	771	726	765	660	---	---	684	510
30	834	807	795	783	777	723	870	765	---	---	546	513
31	858	819	---	---	---	---	783	756	---	---	636	537
INTH	873	504	906	372	1110	471	870	519	948	564	790	435
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	654	630	---	---	---	---	726	696	762	720	747	642
2	678	654	---	---	---	---	744	702	753	732	780	744
3	726	678	---	---	---	---	735	624	759	735	780	765
4	732	504	---	---	---	---	624	315	762	738	804	774
5	618	552	---	---	531	474	594	402	762	741	813	792
6	681	618	---	---	609	420	618	510	759	738	798	747
7	693	681	---	---	687	609	684	618	768	744	798	774
8	708	690	---	---	729	687	711	684	768	741	813	789
9	708	696	711	693	753	720	720	702	789	636	816	786
10	717	705	744	711	774	744	747	297	795	672	813	774
11	705	663	756	723	771	753	633	249	714	648	831	786
12	---	---	762	732	807	531	720	633	720	639	828	801
13	654	636	780	747	690	417	756	720	708	639	831	807
14	693	633	774	753	663	540	765	444	690	564	831	810
15	717	678	795	750	681	663	750	441	684	648	831	807
16	729	705	780	750	750	681	645	549	708	681	834	810
17	711	456	786	750	---	---	714	645	738	708	834	807
18	456	387	783	750	---	---	750	714	768	732	844	808
19	510	399	783	723	---	---	759	741	768	744	849	792
20	861	510	750	576	465	360	759	657	792	414	835	808
21	879	717	735	702	582	405	657	252	663	423	837	798
22	---	---	---	---	684	582	474	351	741	663	830	806
23	---	---	---	---	717	684	630	474	765	726	813	600
24	---	---	---	---	738	717	660	396	774	753	773	632
25	---	---	---	---	756	708	651	474	789	747	835	773
26	---	---	---	---	729	693	567	348	789	753	839	800
27	---	---	---	---	705	474	645	567	780	762	862	808
28	---	---	---	---	552	492	690	645	801	768	867	822
29	---	---	---	---	627	525	717	690	804	777	856	820
30	---	---	---	---	696	627	729	708	789	600	828	516
31	---	---	---	---	---	---	747	726	756	552	---	---
IONTH	---	---	---	---	---	---	765	249	804	414	867	516
YEAR	1110	249										

LITTLE MIAMI RIVER BASIN

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03242050 LITTLE MIAMI RIVER NEAR SPRING VALLEY, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.1	7.2	8.0	7.8	7.8	7.3	---	---	8.0	7.8	---	---
2	8.1	6.8	8.1	7.6	7.8	6.8	---	---	8.4	7.9	---	---
3	8.2	7.1	8.3	7.8	7.8	7.5	---	---	8.4	8.1	---	---
4	7.8	7.6	8.3	8.2	7.9	7.7	8.1	8.0	8.2	7.4	---	---
5	7.7	7.2	8.5	7.9	7.8	7.6	8.0	7.9	8.4	7.5	---	---
6	7.8	7.4	8.5	7.6	8.1	7.6	8.0	7.6	8.4	8.0	---	---
7	7.9	7.6	8.3	8.0	8.1	7.3	8.0	7.8	8.6	8.4	8.0	8.0
8	8.0	7.3	8.2	7.9	7.6	7.2	8.0	7.6	8.6	8.4	8.0	7.7
9	7.9	7.4	8.0	7.8	7.5	7.3	8.0	7.7	8.6	7.6	8.0	7.9
10	7.9	7.2	8.0	7.7	7.9	7.5	8.0	7.6	8.6	7.9	7.9	7.7
11	7.9	7.5	7.9	7.8	7.9	7.4	8.0	7.6	8.5	7.6	8.0	7.6
12	7.6	7.3	7.9	7.8	7.6	7.1	8.1	7.2	8.6	7.4	8.0	7.9
13	7.9	7.3	8.0	7.7	7.9	7.6	7.9	6.9	8.4	7.9	8.0	7.6
14	7.9	7.5	8.2	7.6	7.9	7.6	7.8	7.3	7.9	7.9	8.0	7.7
15	7.9	7.1	8.1	7.8	7.9	7.6	7.6	7.5	8.2	7.9	7.8	7.6
16	7.7	7.6	7.9	7.6	8.0	7.6	7.6	7.0	8.2	7.6	8.0	7.8
17	8.1	7.6	7.9	7.7	7.8	7.5	7.8	7.0	---	---	8.0	7.9
18	7.9	7.3	7.8	7.7	8.3	7.9	7.9	7.3	---	---	7.9	7.6
19	---	---	7.9	7.8	8.1	8.0	8.2	7.8	---	---	8.0	7.4
20	---	---	8.1	7.8	7.9	7.8	8.1	8.0	---	---	8.2	8.0
21	---	---	8.1	7.6	8.0	7.8	8.1	7.8	---	---	8.2	8.0
22	---	---	7.9	7.7	8.1	8.0	8.0	7.6	---	---	8.2	7.8
23	---	---	8.0	7.7	8.1	8.0	8.1	7.9	---	---	8.3	7.7
24	---	---	8.0	7.0	8.1	8.0	8.1	7.3	---	---	8.3	7.6
25	---	---	7.8	7.6	8.1	8.0	8.1	7.0	---	---	8.2	8.0
26	---	---	7.9	7.7	8.2	8.1	8.2	7.6	---	---	8.1	8.0
27	---	---	7.9	7.7	8.2	7.8	8.1	7.9	---	---	8.1	7.5
28	---	---	7.9	7.4	8.1	7.8	8.4	8.1	---	---	8.2	8.0
29	---	---	7.9	6.6	8.1	7.8	8.4	7.7	---	---	8.1	7.9
30	---	---	7.7	7.3	8.0	7.7	8.3	7.3	---	---	8.1	7.7
31	8.0	7.8	---	---	---	---	8.0	7.3	---	---	---	---
MONTH	---	---	8.5	6.6	8.3	6.8	8.4	6.9	---	---	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	8.2	7.5	8.1	7.7	8.1	7.4
2	---	---	---	---	---	---	8.2	7.6	8.3	7.8	8.2	7.4
3	8.2	7.9	---	---	---	---	8.2	7.5	8.3	7.7	8.2	7.5
4	8.3	8.1	---	---	---	---	8.2	7.7	8.3	7.6	8.2	7.6
5	8.2	8.2	---	---	7.7	7.2	8.2	7.7	8.3	7.5	8.2	7.8
6	---	---	---	---	8.0	7.4	8.2	7.5	8.3	7.6	8.3	7.9
7	---	---	---	---	8.1	7.6	8.3	7.6	8.3	7.6	8.3	7.9
8	---	---	---	---	8.2	7.7	8.3	7.6	8.3	7.8	8.3	7.9
9	---	---	8.2	7.9	8.1	7.8	8.2	7.6	8.2	7.7	8.3	8.2
10	---	---	8.3	8.2	8.2	7.7	8.2	7.7	8.2	7.7	8.3	7.7
11	---	---	8.3	8.2	8.1	7.6	8.1	7.7	8.2	7.7	8.3	7.9
12	---	---	8.4	8.3	8.3	7.7	8.3	7.8	8.2	7.8	8.3	7.8
13	8.4	8.1	8.4	8.3	8.0	7.5	8.3	7.7	8.2	7.7	8.3	8.0
14	8.4	8.0	8.5	8.3	8.1	7.6	8.3	7.8	8.1	7.8	8.2	8.0
15	8.5	7.9	8.4	8.3	8.1	7.6	8.2	7.7	8.3	7.9	8.2	7.8
16	8.4	8.2	8.4	8.2	8.0	7.6	8.3	7.7	8.3	7.8	8.3	7.9
17	8.4	8.2	8.5	8.3	8.1	7.5	8.3	7.8	8.3	7.7	8.2	7.9
18	8.3	7.8	8.5	8.3	7.7	7.1	8.3	7.7	8.3	7.8	8.3	8.2
19	8.2	8.0	8.4	8.2	8.0	7.5	8.3	7.6	8.3	7.9	7.9	7.5
20	8.2	8.1	8.3	8.1	8.0	7.4	8.2	7.8	8.2	7.6	7.9	7.5
21	8.3	8.1	8.4	8.2	8.0	7.6	8.1	7.7	8.2	7.9	7.8	7.4
22	---	---	---	---	8.1	7.7	8.0	7.5	8.3	8.0	7.8	7.5
23	---	---	---	---	8.2	7.7	8.0	7.4	8.3	7.8	7.8	7.0
24	---	---	---	---	8.2	7.7	8.1	7.8	8.2	8.0	7.8	7.3
25	---	---	---	---	8.2	7.6	7.9	7.4	8.2	7.6	7.7	7.2
26	---	---	---	---	8.2	7.7	8.0	7.5	8.1	7.5	7.7	7.3
27	---	---	---	---	8.2	7.9	8.1	7.6	8.1	7.6	7.8	7.4
28	---	---	---	---	8.0	7.8	8.2	7.8	8.1	7.5	7.7	7.4
29	---	---	---	---	8.2	7.7	8.3	7.6	8.1	7.5	7.7	7.5
30	---	---	---	---	8.2	7.6	8.3	7.7	8.2	7.7	7.6	7.4
31	---	---	---	---	---	---	8.2	8.0	8.2	7.3	---	---
MONTH	---	---	---	---	8.3	7.1	8.3	7.4	8.3	7.3	8.3	7.0

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TEMPERATURE (°C) OF WATER. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

TEMPERATURE (°C) OF WATER. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

LITTLE MIAMI RIVER BASIN

03242300 CAESAR CREEK AT HARVEYSBURG, OHIO

LOCATION.--Lat 39°30'27", long 84°00'42", Warren County, at gaging station on right bank at downstream side of bridge on State Highway 73, 0.2 mi (0.3 km) north of Harveysburg, 2.3 mi (3.7 km) downstream from Turkey Run, and 3.1 mi (5.0 km) upstream from Jonahs Run.

DRAINAGE AREA.--209 mi² (541 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-67, 1969, July to September 1970 (partial-record station), November 1970 to September 1973.
Water temperatures: December 1970 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
NOV. 06...	1500	286	10	20	240	12	28	84	36
DEC. 11...	1250	686	6.4	10	180	28	56	67	28
JAN. 24...	1320	250	8.7	60	150	24	27	80	29
MAR. 05...	1445	132	4.0	10	180	36	46	98	18
APR. 17...	1100	294	4.0	0	120	18	25	70	31
JUNE 07...	1035	346	7.8	0	10	24	24	63	32
JULY 10...	1430	57	5.3	20	170	21	25	76	33
AUG. 22...	1025	76	9.6	150	2600	19	88	72	28

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
NOV. 06...	360	110	629	8.1	392	394	11.0	10
DEC. 11...	280	88	534	7.9	310	307	2.0	20
JAN. 24...	320	92	599	8.0	360	361	1.5	3
MAR. 05...	320	96	585	7.9	361	364	12.0	5
APR. 17...	300	80	569	8.0	366	324	--	5
JUNE 07...	290	90	553	7.8	356	324	18.0	25
JULY 10...	330	79	593	7.9	362	348	25.0	2
AUG. 22...	290	56	547	7.9	314	323	19.0	15

03242300 CAESAR CREEK AT HARVEYSBURG, OHIO--Continued

EXTREMES.--1972-73:

Specific conductance: Maximum, 676 micromhos Oct. 28, 29, 31; minimum, 184 micromhos July 21.

Water temperatures: Maximum, 27.5°C July 9; minimum, freezing point on many days during December to February.

EXTREMES.--Period of record:

Specific conductance (December 1970 to September 1973): Maximum, 801 micromhos Jan. 17, 1972; minimum, 171 micromhos June 26, 1971.

Water temperatures: Maximum, 30.5°C June 6, 1971; minimum, freezing point on many days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since December 1970. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected on an approximate monthly basis to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 06...	7.2	1.9	300	0	55	26	.3	6.0	--
DEC. 11...	6.2	1.8	238	0	44	27	.2	2.1	--
JAN. 24...	8.6	1.7	276	0	52	22	.3	5.2	--
MAR. 05...	8.5	1.4	272	0	56	26	.2	4.1	--
APR. 17...	6.6	1.1	272	0	48	20	.3	2.0	--
JUNE 07...	7.0	2.5	246	0	43	22	.2	5.6	--
JULY 10...	7.4	1.5	302	0	47	19	.2	2.4	.05
AUG. 22...	7.0	3.5	292	0	38	14	.3	1.3	.12

03242300 CAESAR CREEK AT HARVEYSBURG, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	528	438	656	448	636	623	561	456	625	540	621	600
2	581	528	507	377	632	601	595	561	540	466	621	603
3	598	581	502	417	630	621	607	410	557	498	627	610
4	600	583	544	502	636	629	476	338	588	557	627	608
5	595	577	584	544	641	634	550	476	605	588	613	599
6	597	533	630	584	641	430	593	550	611	605	618	605
7	619	597	638	435	552	490	608	593	617	611	624	615
8	607	595	468	412	578	293	625	608	617	603	624	609
9	618	607	531	468	420	326	641	611	628	607	623	609
10	621	612	575	531	476	420	659	632	641	621	626	600
11	619	612	603	575	539	479	661	652	639	626	606	595
12	619	614	630	603	577	539	670	661	641	619	620	596
13	616	610	638	301	572	475	670	654	639	625	627	615
14	612	607	382	273	562	514	657	643	637	596	627	503
15	610	609	475	382	580	564	646	621	602	586	556	414
16	614	607	542	475	598	578	623	611	602	588	604	385
17	649	607	578	542	632	598	617	611	637	602	450	366
18	654	647	592	578	625	598	617	613	643	610	532	450
19	652	647	594	556	600	559	616	605	618	604	566	532
20	652	649	556	524	559	441	634	614	618	609	596	566
21	654	639	589	545	550	514	645	634	625	618	611	596
22	659	650	595	587	578	550	637	597	625	614	621	611
23	667	658	600	592	600	578	597	564	629	620	629	621
24	663	639	605	598	612	600	603	582	628	620	631	622
25	669	663	610	603	618	612	619	603	624	612	638	479
26	672	667	614	607	621	616	628	616	622	610	481	394
27	674	667	612	601	636	616	626	605	626	614	558	481
28	676	670	621	600	638	629	614	561	626	601	595	558
29	676	672	630	605	636	629	588	519	---	---	599	402
30	674	665	632	625	634	632	613	588	---	---	496	386
31	676	656	---	---	652	355	625	600	---	---	539	496
MONTH	676	438	656	273	652	293	670	338	643	466	638	366

[illegible]

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

LITTLE MIAMI RIVER BASIN

03245300 LITTLE MIAMI RIVER AT MIAMIVILLE, OHIO

LOCATION.--Lat 39°12'38", long 84°17'33", Hamilton County, on right bank at upstream side of bridge on State Highway 126, 0.4 mi (0.6 km) southeast of Miamiville, 4.2 mi (6.8 km) upstream from gaging station at Milford, 5.6 mi (9.0 km) upstream from East Fork Little Miami River, and 1.0 mi (1.6 km) north of Camp Dennison.

DRAINAGE AREA.--1,189 mi² (3,080 km²).

PERIOD OF RECORD.--Chemical analyses: October 1970 to September 1973.
Water temperatures: November 1970 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 791 micromhos Oct. 28; minimum, 203 micromhos July 1, 21.

pH: Maximum, 8.9 Feb. 26-28, Mar. 1, 2; minimum, 3.8 Dec. 18.

Dissolved oxygen: Maximum, 15.0 mg/l Feb. 25, Mar. 1; minimum, 4.4 mg/l Aug. 14.

Water temperatures: Maximum, 28.5°C Aug. 30, Sept. 3, 4; minimum, freezing point on several days during December, January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.										
02...	0840	1020	220	0	41	29	.2	--	--	2.4
19...	1215	--	--	--	--	--	--	--	--	--
30...	0815	229	326	6	62	52	.2	--	--	2.6
NOV.										
08...	1055	17100	164	0	35	15	.2	--	--	2.5
24...	1120	1630	284	6	52	30	.2	--	--	3.6
DEC.										
18...	0810	1400	276	12	55	37	.2	--	--	3.4
20...	1110	6000	182	6	44	31	.2	--	--	2.8
JAN.										
05...	1125	4140	192	0	41	18	.2	--	--	3.4
15...	0815	835	322	11	57	31	.2	--	--	3.9
FEB.										
02...	1140	4830	190	8	52	25	.2	--	--	3.1
28...	1055	671	310	2	60	32	.2	--	--	3.0
MAR.										
02...	1130	637	309	0	60	37	.2	--	--	2.6
30...	0900	8960	167	0	38	16	.2	--	--	2.6
APR.										
16...	0815	1860	250	15	52	25	.2	--	--	3.4
19...	1110	10500	152	0	30	12	.2	--	--	2.5
MAY										
18...	1125	664	325	0	54	30	.2	--	--	2.7
28...	0805	2320	220	0	46	20	.2	--	--	2.9
JUNE										
06...	1330	--	--	--	--	--	--	--	--	--
11...	0820	2780	288	0	50	32	.4	--	--	5.0
20...	1110	8840	137	0	27	16	.3	--	--	3.2
JULY										
11...	1105	795	258	16	59	28	.3	--	--	3.7
25...	1130	7680	168	0	29	12	.3	--	--	2.3
AUG.										
30...	1150	329	355	0	50	37	--	.2	.00	--
31...	1120	611	244	0	50	25	--	.2	.00	--
SEP.										
03...	0820	450	223	5	50	26	--	.2	.00	--
26...	1100	234	335	25	51	48	--	.2	.00	--

LITTLE MIAMI RIVER BASIN

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03245300 LITTLE MIAMI RIVER AT MIAMIVILLE, OHIO--Continued

EXTREMES.--Period of Record:

Specific conductance: Maximum, 974 micromhos Feb. 13, 1972; minimum, 158 micromhos Sept. 12, 1971.

pH (1971-73): Maximum, 9.2 July 26, 1972; minimum, 3.8 Dec. 18, 1972.

Dissolved oxygen: Maximum, 15.0 mg/l or higher on many days during 1971 to 1973; minimum, 0.8 mg/l May 17, 1971.

Water temperatures: Maximum, 32.5°C July 23, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since November 1970. Maximum recorded pH of 9.3 occurred June 26, 1971. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher due to instrument limitation. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Little Miami River at Milford, Ohio, station 03245500, drainage area 1,203 mi² (3,116 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.									
02...	--	240	60	511	304	--	14.5	--	--
19...	--	--	--	--	--	--	10.0	.0	<.5
30...	--	370	92	767	478	--	11.5	--	--
NOV.									
08...	--	200	66	385	260	--	10.5	--	--
24...	--	330	87	631	398	--	4.5	--	--
DEC.									
18...	--	340	94	667	424	--	.5	--	--
20...	--	230	71	490	292	--	1.5	--	--
JAN.									
05...	--	220	62	445	246	--	3.5	--	--
15...	--	370	87	704	412	--	.5	--	--
FEB.									
02...	--	240	71	507	306	--	4.5	--	--
28...	--	340	82	678	402	--	4.0	--	--
MAR.									
02...	--	340	86	671	406	--	5.5	--	--
30...	--	190	53	392	244	--	10.5	--	--
APR.									
16...	--	310	80	592	376	--	11.5	--	--
19...	--	170	46	346	216	--	13.5	--	--
MAY									
18...	--	340	73	669	430	--	14.5	--	--
28...	--	250	70	500	316	--	18.0	--	--
JUNE									
06...	--	--	--	--	--	--	21.5	1.0	<.5
11...	--	330	94	638	416	--	24.0	--	--
20...	--	160	48	301	204	--	22.0	--	--
JULY									
11...	--	320	82	658	396	--	24.5	--	--
25...	--	180	42	354	204	--	22.0	--	--
AUG.									
30...	2.9	--	--	740	--	505	27.0	--	--
31...	2.5	--	--	552	--	570	24.0	--	--
SEP.									
03...	2.4	--	--	523	--	428	26.0	--	--
26...	3.2	--	--	766	--	539	22.0	--	--

03245300 LITTLE MIAMI RIVER AT MIAMIVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	582	519	766	394	647	632	486	390	711	578	673	658
2	519	456	438	345	632	590	486	486	578	468	673	661
3	572	492	447	374	608	599	619	433	515	479	675	666
4	585	485	503	447	621	606	433	366	541	513	673	655
5	602	566	567	503	615	606	505	393	587	541	679	534
6	630	551	609	567	615	456	523	505	613	586	600	558
7	551	501	617	397	509	450	---	---	631	611	594	569
8	563	510	411	363	555	266	635	622	642	625	609	585
9	630	563	492	398	381	270	654	635	653	630	630	609
10	663	630	541	492	462	381	680	654	663	648	642	630
11	683	663	575	541	533	462	693	680	726	663	639	588
12	686	654	600	572	584	533	704	692	699	675	592	572
13	699	674	614	333	615	464	725	704	677	668	613	590
14	722	699	339	273	643	512	728	716	726	636	628	560
15	735	722	409	323	578	543	717	708	636	503	576	410
16	747	734	502	409	603	578	710	695	569	500	484	321
17	756	745	570	502	650	603	696	686	614	569	358	271
18	750	727	606	570	665	650	702	691	650	612	452	358
19	784	734	620	582	764	660	703	691	672	650	521	402
20	734	708	582	474	675	488	691	685	672	660	557	521
21	736	720	546	494	525	470	688	682	669	659	590	555
22	753	734	597	546	561	518	684	628	669	657	614	590
23	767	752	620	597	603	561	628	558	674	657	637	614
24	772	763	636	620	626	603	579	540	670	667	651	637
25	781	770	638	633	647	615	603	579	669	661	656	542
26	786	778	636	626	657	647	620	603	661	656	580	390
27	788	778	626	611	651	642	629	572	671	656	486	394
28	791	763	647	603	683	647	591	529	679	666	541	483
29	777	769	609	606	681	668	529	498	---	---	564	428
30	775	769	---	---	672	665	576	521	---	---	446	383
31	775	766	---	---	671	368	654	576	---	---	501	445
MONTH	791	456	766	273	764	266	728	366	726	468	679	271
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	527	459	584	545	551	453	569	203	641	573	630	473
2	568	520	605	578	579	550	599	521	671	641	509	462
3	598	568	616	598	607	572	660	555	686	669	534	505
4	604	343	622	604	617	407	597	503	695	675	614	539
5	462	352	631	596	572	382	599	416	693	684	662	614
6	540	462	638	628	529	475	570	438	711	692	680	653
7	588	540	644	635	481	433	566	503	716	690	707	698
8	591	523	650	627	575	473	612	566	701	684	707	660
9	543	471	635	618	616	572	665	612	698	687	704	642
10	502	477	632	569	641	616	684	665	701	689	735	702
11	538	502	612	584	668	641	693	662	708	630	723	710
12	559	538	630	612	673	370	662	389	686	636	735	719
13	571	540	642	627	646	355	531	410	692	576	750	735
14	582	559	654	640	461	359	659	531	662	587	746	738
15	585	554	649	639	556	458	692	632	678	632	753	725
16	607	581	639	628	605	551	689	537	636	555	741	707
17	624	381	655	634	626	584	537	479	618	591	707	677
18	438	261	678	655	584	358	600	515	648	618	746	705
19	388	343	672	573	413	222	648	600	674	648	761	746
20	480	387	633	513	377	216	678	599	674	368	---	---
21	544	480	586	569	424	325	599	203	627	372	---	---
22	585	544	586	542	514	412	408	230	594	510	---	---
23	591	274	613	559	576	511	464	408	510	440	761	750
24	449	298	645	613	625	572	503	245	614	504	761	737
25	519	420	667	512	641	554	393	255	680	600	770	717
26	602	519	547	398	624	498	530	393	707	680	788	725
27	612	405	472	379	649	259	527	419	707	648	---	---
28	441	366	528	472	401	252	584	527	710	654	702	692
29	524	441	555	525	493	401	633	582	711	699	696	648
30	560	524	575	281	560	490	669	633	722	708	704	659
31	---	---	460	382	---	---	681	561	707	507	---	---
MONTH	624	261	678	281	673	216	693	203	722	368	788	462
YEAR	791	203										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.3	8.0	8.3	7.4	8.2	7.8	8.2	7.9	8.0	7.9	8.9	8.3
2	8.3	7.6	7.6	7.2	8.3	7.3	8.2	7.9	7.9	7.8	8.9	8.7
3	8.3	7.8	7.8	7.4	8.2	7.7	8.3	8.1	8.0	7.9	8.8	8.5
4	8.3	8.2	7.9	7.8	8.2	8.1	8.1	8.1	8.0	7.5	8.8	8.3
5	8.3	8.0	8.0	7.6	8.2	8.0	8.3	8.3	8.0	7.3	8.7	8.0
6	8.3	8.0	8.1	7.4	8.1	7.9	8.3	8.2	8.0	7.8	8.6	7.8
7	8.3	8.1	8.0	7.8	8.2	8.1	---	---	8.1	8.0	8.5	8.2
8	8.3	7.9	7.8	7.7	8.2	7.8	8.1	8.0	8.2	8.0	8.6	8.0
9	8.4	8.1	8.0	7.8	7.9	7.8	8.1	8.0	8.2	8.2	8.6	8.5
10	8.4	8.1	8.0	7.8	8.3	7.9	8.1	8.0	8.4	8.3	8.6	8.4
11	8.5	8.4	8.1	7.9	8.2	8.1	8.1	8.0	8.4	8.3	8.4	8.0
12	8.4	8.2	8.1	8.0	8.2	7.5	8.1	7.8	8.4	8.2	8.4	8.3
13	8.5	8.3	8.1	7.8	8.2	7.9	8.1	7.7	8.4	8.3	8.5	8.0
14	8.5	8.3	7.8	7.6	8.2	8.1	8.0	7.9	8.4	8.3	8.6	8.3
15	8.5	8.2	7.9	7.7	8.2	7.8	8.0	7.9	8.3	8.2	8.4	7.8
16	8.5	7.0	8.0	7.9	8.3	8.2	8.0	7.5	8.2	8.2	8.1	8.0
17	8.5	6.9	8.0	7.9	8.3	8.0	8.0	7.3	---	---	8.1	8.0
18	8.5	7.8	8.1	8.0	8.3	3.8	8.0	7.5	---	---	8.3	8.1
19	8.5	7.8	8.1	8.1	8.0	7.9	8.1	7.9	---	---	8.4	8.0
20	8.2	7.8	8.1	8.0	8.0	7.9	8.1	8.0	---	---	8.4	8.4
21	8.2	8.0	8.1	7.9	8.0	7.8	8.1	8.1	---	---	8.5	8.4
22	8.1	7.5	8.1	7.9	8.1	8.0	8.1	7.9	8.3	8.2	8.5	8.3
23	8.0	7.6	8.1	7.9	8.2	8.1	8.0	8.0	8.8	8.2	8.6	8.3
24	8.1	8.0	8.2	7.4	8.2	8.1	8.0	7.8	8.8	8.1	8.5	8.2
25	8.1	8.1	8.1	8.0	8.2	8.2	8.1	7.3	8.8	8.5	8.5	8.4
26	8.2	7.6	8.1	8.0	8.3	8.2	8.1	7.9	8.9	8.7	8.4	8.1
27	8.2	8.0	8.1	7.9	8.3	8.2	8.0	7.9	8.9	8.7	8.3	7.9
28	8.1	7.9	8.1	8.0	8.3	8.1	8.0	7.9	8.9	8.6	8.3	8.2
29	8.1	8.0	8.0	7.4	8.3	8.0	8.1	7.9	---	---	8.3	8.2
30	8.2	8.0	---	---	8.2	7.9	8.1	7.9	---	---	8.3	8.0
31	8.2	8.1	---	---	8.1	7.7	8.1	7.9	---	---	8.2	8.2
MONTH	8.5	6.9	8.3	7.2	8.3	3.8	8.3	7.3	8.9	7.3	8.9	7.8
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.2	8.2	8.1	8.0	8.1	7.6	8.3	7.7	8.3	8.1	8.0	7.0
2	8.2	8.1	8.1	8.0	8.1	7.4	8.3	7.8	8.4	8.1	7.9	6.9
3	8.2	8.1	8.2	8.1	8.1	7.6	8.3	7.8	8.4	8.0	7.9	7.1
4	8.2	8.0	8.1	8.0	8.1	7.7	8.2	8.0	8.5	7.9	8.0	7.3
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LITTLE MIAMI RIVER BASIN

03245300 LITTLE MIAMI RIVER AT MIAMIVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.3	7.8	9.4	7.9	13.2	12.9	11.7	10.9	13.3	12.8	15.0	13.2
2	8.4	8.2	8.7	8.0	12.9	12.5	12.5	11.6	12.8	11.8	14.8	13.0
3	8.5	8.3	8.4	7.4	12.5	12.2	12.9	12.4	12.0	11.7	13.5	11.9
4	8.4	8.2	9.0	8.4	12.2	11.8	12.7	12.2	12.3	12.0	14.3	11.5
5	8.3	8.1	9.2	8.8	11.9	11.5	12.7	11.9	12.4	12.1	13.0	10.2
6	8.4	8.1	9.7	9.1	11.5	11.0	12.8	12.6	12.2	11.8	10.5	8.8
7	8.1	8.0	9.7	9.0	12.2	11.4	---	---	12.0	11.6	10.2	9.0
8	8.5	8.1	9.3	8.8	12.5	12.2	14.6	14.0	12.6	11.6	11.5	9.4
9	8.8	8.4	9.7	9.2	12.2	11.7	14.8	14.2	13.4	12.2	11.1	9.9
10	9.1	8.8	10.6	9.7	12.2	11.5	14.8	14.5	13.8	13.2	12.3	9.9
11	9.2	9.0	10.7	10.5	12.6	12.2	14.6	14.3	14.3	13.5	10.5	9.2
12	9.2	8.9	10.6	10.5	12.6	12.3	14.6	14.2	14.3	13.7	9.9	5.7
13	9.2	8.9	10.8	10.6	12.5	11.8	14.5	14.0	14.0	13.5	11.8	9.7
14	9.4	9.2	10.8	9.7	12.2	11.9	14.1	13.8	13.5	13.0	11.6	10.0
15	9.6	9.4	11.4	9.1	12.8	12.1	14.1	13.6	13.0	12.6	10.0	8.8
16	9.7	8.1	11.6	11.4	13.7	12.8	13.8	13.6	13.4	12.8	9.8	8.9
17	9.7	8.2	11.5	11.4	14.2	12.9	13.6	13.2	14.5	13.4	10.2	8.9
18	10.7	9.4	11.6	11.5	13.9	13.5	13.4	12.8	14.6	14.0	11.0	10.2
19	10.0	9.5	11.6	11.5	13.8	13.2	12.8	12.2	14.5	13.7	11.0	10.9
20	10.0	9.4	11.6	11.4	13.3	12.7	12.7	12.1	14.1	13.4	11.0	10.6
21	10.2	9.4	11.7	11.3	12.7	12.0	13.0	12.5	14.2	13.1	11.7	10.7
22	9.9	9.5	11.5	11.3	12.5	11.8	12.8	12.4	14.6	13.3	11.8	11.3
23	9.5	9.0	11.9	11.5	12.3	12.2	12.5	12.1	14.8	13.4	12.8	11.4
24	9.1	9.0	12.2	11.9	12.2	12.1	12.8	12.5	14.9	13.4	12.8	11.9
25	9.6	9.1	12.2	11.7	12.2	11.8	13.1	12.6	15.0	13.4	11.9	10.4
26	9.8	7.9	11.9	11.6	12.4	12.0	13.1	12.8	14.5	13.0	10.4	9.8
27	10.3	9.7	12.1	10.4	12.9	12.4	12.8	12.1	13.9	12.7	10.4	9.9
28	10.1	9.5	12.1	9.8	13.0	12.6	12.1	11.8	14.9	12.4	10.8	9.9
29	9.6	9.4	12.9	12.1	13.0	12.5	12.7	11.9	---	---	10.6	10.0
30	9.7	9.5	---	---	12.8	12.1	13.3	12.7	---	---	10.2	9.8
31	9.7	9.4	---	---	12.1	10.9	13.7	13.2	---	---	9.9	9.2
MONTH	10.7	7.8	12.9	7.4	14.2	10.9	14.8	10.9	15.0	11.6	15.0	5.3
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.3	9.0	9.4	9.3	8.1	7.4	8.0	7.4	7.4	7.1	6.4	5.9
2	9.9	9.1	9.3	8.6	7.7	7.5	7.5	7.1	7.4	7.0	6.2	5.9
3	10.1	9.7	9.1	8.5	7.5	7.0	7.3	6.9	7.6	7.2	6.9	5.8
4	10.9	9.8	9.7	8.9	7.4	6.6	7.2	7.1	8.1	7.1	6.4	5.7
5	11.1	10.6	9.6	9.4	7.1	6.6	7.3	6.4	8.2	7.2	7.3	5.9
6	11.5	10.7	9.6	9.4	7.4	6.5	6.8	6.4	8.6	7.3	7.8	6.4
7	11.0	10.7	9.5	8.9	7.3	7.2	7.0	6.5	9.1	7.2	8.2	7.0
8	10.8	10.6	8.9	8.4	7.7	6.6	6.8	6.5	10.8	7.2	7.9	7.5
9	10.9	10.6	8.5	8.1	6.8	6.4	6.9	6.4	9.7	8.8	7.9	7.2
10	11.4	10.5	9.1	7.9	6.5	6.2	6.7	6.4	9.7	7.0	8.8	7.4
11	12.1	11.2	9.3	8.3	6.6	6.0	7.0	6.3	9.3	7.0	10.2	8.1
12	11.8	11.5	8.8	7.7	6.6	5.8	6.8	6.4	8.1	6.8	10.9	8.4
13	12.2	11.6	8.9	7.9	6.6	5.8	6.8	6.4	7.4	4.9	10.3	8.8
14	11.8	11.3	9.6	8.1	6.2	5.9	6.9	6.5	7.2	4.4	9.7	8.5
15	11.3	10.9	10.0	9.0	6.5	6.1	7.0	6.5	7.5	6.0	10.6	8.6
16	10.9	10.1	9.9	9.1	6.6	6.0	7.1	6.5	7.3	6.3	10.7	8.8
17	10.7	9.7	10.3	8.9	6.3	6.1	6.8	6.5	7.5	6.6	8.7	8.4
18	10.4	9.9	10.5	9.1	6.4	5.9	6.9	6.2	7.1	5.9	9.4	8.3
19	10.2	9.8	10.1	9.0	6.7	5.9	6.2	5.6	6.8	5.8	12.2	8.9
20	9.8	9.3	9.4	7.9	7.2	6.4	6.6	5.4	6.4	5.4	9.1	8.0
21	9.3	8.8	9.2	8.0	7.2	6.8	7.2	6.1	6.8	4.5	9.3	7.7
22	9.1	8.8	9.5	7.8	7.1	6.9	6.9	6.6	7.3	5.1	8.9	7.5
23	9.8	8.8	9.3	7.7	7.1	7.0	7.0	6.6	6.2	4.8	8.3	7.2
24	9.9	9.6	8.9	7.5	7.1	7.0	7.3	6.6	6.9	5.2	9.4	7.5
25	10.0	9.4	8.8	6.8	7.3	6.8	7.2	6.9	6.5	5.9	9.7	7.4
26	10.0	8.7	7.3	6.6	7.0	6.8	7.3	6.9	6.6	5.8	10.6	7.1
27	10.3	8.7	6.8	6.6	8.1	6.8	7.1	6.9	6.4	5.7	8.2	6.9
28	10.4	10.0	7.5	6.7	7.9	7.5	7.3	7.0	6.7	5.5	7.3	6.0
29	10.1	9.6	7.6	7.3	7.8	7.5	7.3	7.1	7.6	5.6	6.6	5.6
30	9.8	9.2	8.0	7.4	7.7	7.5	7.4	7.2	8.5	7.5	6.4	5.2
31	---	---	8.0	7.5	---	---	7.6	7.2	6.4	6.1	---	---
MONTH	12.2	8.7	10.5	6.6	8.1	5.8	8.0	5.4	10.8	4.4	12.2	5.2
YEAR	15.0	4.4										

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03245300 LITTLE MIAMI RIVER AT MIAMIVILLE, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.5	15.0	12.0	11.0	4.0	3.0	8.0	5.5	3.5	2.0	6.0	3.0
2	16.0	13.5	14.0	12.0	4.5	3.5	5.5	3.5	5.5	3.5	6.0	5.0
3	16.0	14.0	14.0	13.0	5.5	4.5	3.5	3.0	5.5	5.0	7.0	6.0
4	15.5	14.5	13.0	11.5	6.0	5.5	4.0	3.5	5.0	4.0	9.5	7.0
5	15.5	14.5	12.0	10.0	7.0	6.0	4.0	3.0	5.5	4.5	11.5	9.5
6	16.0	15.0	11.0	9.0	7.5	6.0	3.0	2.0	6.5	5.0	12.5	10.0
7	16.0	15.0	11.0	9.0	6.0	4.0	---	---	6.5	6.5	14.0	12.0
8	16.0	14.0	11.0	9.0	4.0	2.5	1.0	0.5	6.5	4.5	14.0	12.0
9	15.5	14.0	9.5	9.0	4.0	3.0	0.5	0.0	4.5	3.0	13.0	12.0
10	14.0	12.5	9.0	9.0	4.5	4.0	0.0	0.0	3.0	1.5	13.5	11.5
11	13.5	13.0	10.0	9.0	4.0	3.0	0.0	0.0	2.0	1.0	15.0	13.0
12	14.0	13.0	10.0	9.0	3.0	2.5	0.5	0.0	2.5	0.5	14.5	12.5
13	13.5	13.0	9.0	8.0	5.0	3.0	0.5	0.0	2.0	1.0	13.5	11.5
14	13.0	12.0	8.0	8.0	5.0	4.0	0.5	0.0	3.0	2.0	14.0	13.0
15	13.0	11.5	8.0	6.5	4.0	2.5	0.5	0.0	3.0	2.5	15.0	13.5
16	12.0	12.0	6.5	6.0	2.5	0.0	1.5	0.5	2.5	1.5	14.5	12.0
17	12.0	11.0	6.5	6.0	0.0	0.0	3.0	1.0	1.5	0.0	12.0	6.5
18	11.0	9.0	6.5	6.0	0.5	0.0	5.0	2.5	1.5	0.5	6.5	5.0
19	11.0	9.0	6.5	6.0	1.0	0.0	5.5	4.5	3.0	1.0	7.0	5.0
20	10.0	9.0	6.0	6.0	2.5	1.0	4.5	4.0	2.5	2.0	6.5	6.0
21	10.0	9.0	6.0	5.5	4.5	2.5	4.0	3.5	2.5	2.0	6.5	5.5
22	11.0	9.0	5.5	5.5	5.0	4.5	4.5	4.0	2.5	1.5	7.0	5.5
23	13.0	11.0	5.5	5.0	5.0	5.0	4.0	3.0	3.0	1.5	7.5	5.0
24	13.0	11.0	5.0	4.0	5.5	5.0	3.5	2.5	4.0	1.5	9.5	6.5
25	11.0	11.0	4.5	4.0	5.5	4.5	3.5	2.0	4.5	2.5	10.5	9.0
26	12.0	10.0	4.5	4.5	4.5	3.5	3.5	2.5	5.0	4.0	10.0	9.5
27	11.0	10.0	5.0	4.5	3.5	3.0	4.5	3.5	4.5	4.0	10.5	9.0
28	12.0	11.0	5.0	4.0	4.0	3.0	5.5	4.5	4.5	3.5	10.0	9.0
29	13.0	12.0	4.0	3.0	6.5	4.0	4.5	2.5	---	---	10.5	9.5
30	12.0	11.0	---	---	8.5	6.5	2.5	1.5	---	---	10.5	10.5
31	12.0	11.0	---	---	8.0	5.5	2.5	1.0	---	---	12.5	11.0
MONTH	16.5	9.0	14.0	3.0	8.5	0.0	8.0	0.0	6.5	0.0	15.0	3.0

[illegible]

LITTLE MIAMI RIVER BASIN

03246400 EAST FORK LITTLE MIAMI RIVER NEAR WILLIAMSBURG, OHIO

LOCATION.--Lat 39°03'32", long 84°03'05", Clermont County, at downstream end of center pier of bridge on McKeever's Road near Williamsburg, 0.5 mi (0.8 km) upstream from sewage disposal plant, 1.0 mi (1.6 km) upstream from gaging station, and 2.1 mi (3.4 km) upstream from Todd Run.

DRAINAGE AREA.--234 mi² (606 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-70 (partial-record station), November 1970 to September 1973.

Water temperatures: December 1970 to September 1973.

Prior to October 1970, published as station 03246500 East Fork Little Miami River at Williamsburg, Ohio.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SiO ₂) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)
NOV. 07...	1330	652	9.6	80	630	20	84	55	15
DEC. 12...	1350	254	6.5	60	160	13	58	50	14
JAN. 23...	1245	330	5.5	40	330	0	6	60	21
MAR. 07...	1200	183	5.8	40	370	22	38	51	20
APR. 18...	1130	1220	6.2	70	310	22	37	44	14
JUNE 07...	1235	358	5.3	70	480	6	42	45	17
JULY 11...	1415	430	7.3	40	1400	27	270	63	16
AUG. 21...	1000	236	6.0	90	1300	2	140	26	6.6

DATE	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
NOV. 07...	200	66	380	7.4	250	237	11.0	40
DEC. 12...	180	54	373	7.7	232	220	3.0	40
JAN. 23...	230	77	447	7.7	276	295	2.5	10
MAR. 07...	210	76	439	7.5	267	260	14.0	25
APR. 18...	170	44	347	7.5	216	205	14.0	20
JUNE 07...	180	48	371	7.5	242	218	21.0	35
JULY 11...	220	54	439	7.6	272	257	--	12
AUG. 21...	92	23	204	7.0	142	120	20.5	60

LITTLE MIAMI RIVER BASIN

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03246400 EAST FORK LITTLE MIAMI RIVER NEAR WILLIAMSBURG, OHIO--Continued

EXTREMES.--1972-73:

Specific conductance: Maximum, 582 micromhos Jan. 16; minimum, 136 micromhos Dec. 9.
 Water temperatures: Maximum, 30.5°C Sept. 3; minimum, freezing point on several days during December to February.

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 601 micromhos Nov. 2, 1971; minimum, 119 micromhos June 16, 1972.
 Water temperatures (1971-73): Maximum, 31.5°C July 22, 24, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since December 1970. Maximum recorded specific conductance value of 901 micromhos occurred May 14, 1971. Interruptions in the record were due to malfunctions of the instrument.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 07...	5.9	4.0	164	0	41	17	.2	1.8	--
DEC. 12...	6.0	3.1	160	0	39	16	.3	1.4	--
JAN. 23...	9.3	2.5	192	0	50	18	.1	7.9	--
MAR. 07...	11	2.9	164	0	56	24	.1	2.0	--
APR. 18...	6.7	2.2	146	0	38	15	.3	1.3	--
JUNE 07...	6.6	3.1	164	0	36	16	.2	1.7	--
JULY 11...	7.3	3.1	208	0	37	15	.2	1.5	.34
AUG. 21...	3.3	4.3	84	0	23	5.5	.2	.50	.52

LITTLE MIAMI RIVER BASIN

03246400 EAST FORK LITTLE MIAMI RIVER NEAR WILLIAMSBURG, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	370	273	391	181	392	375	328	291	369	353	492	485
2	374	332	195	171	412	378	310	291	367	328	489	485
3	348	337	254	194	421	412	332	231	333	291	503	482
4	347	262	320	254	416	394	248	172	335	303	489	474
5	343	198	381	320	420	389	246	188	373	335	493	419
6	198	168	426	381	426	250	310	246	398	370	445	406
7	235	193	437	198	281	233	358	310	421	398	458	443
8	277	235	248	190	249	149	394	358	435	416	443	427
9	327	277	286	215	185	136	413	394	457	421	442	431
10	362	327	347	286	275	191	441	400	449	436	458	442
11	387	362	398	344	342	275	461	441	454	441	458	448
12	409	387	409	364	378	342	476	460	453	440	461	455
13	434	409	369	209	366	277	487	476	448	437	469	461
14	444	431	214	160	317	281	567	486	489	332	480	462
15	473	442	265	177	333	290	580	567	346	263	462	385
16	469	464	339	265	354	309	582	568	298	269	429	216
17	499	456	394	339	413	354	572	556	330	300	232	189
18	502	490	426	394	420	409	560	540	364	330	266	219
19	509	501	445	388	424	413	540	522	399	364	336	266
20	525	509	393	325	429	256	523	513	430	399	344	331
21	540	525	325	286	299	243	514	500	459	430	335	327
22	545	536	342	302	324	264	504	469	477	459	419	335
23	538	499	394	342	355	322	469	402	484	477	446	419
24	499	488	433	394	382	355	454	421	491	482	467	446
25	488	479	458	433	416	382	421	385	493	488	475	328
26	479	458	465	458	421	413	385	373	518	484	380	235
27	458	418	459	446	430	412	386	372	492	484	270	225
28	420	410	450	412	428	422	421	347	500	489	325	270
29	424	411	412	377	430	423	348	309	---	---	356	292
30	436	424	391	377	427	419	347	338	---	---	306	240
31	438	396	---	---	433	273	357	339	---	---	257	249
MONTH	545	168	465	160	433	136	582	172	518	263	503	189
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	298	248	417	375	---	---	317	282	494	481	441	432
2	294	287	447	417	---	---	308	293	488	463	450	441
3	315	292	459	446	---	---	422	297	509	454	449	445
4	316	189	474	458	---	---	421	219	537	456	452	446
5	202	181	484	474	---	---	345	257	558	537	451	445
6	258	202	486	483	---	---	287	262	567	547	450	439
7	287	225	484	466	361	325	375	287	569	539	448	438
8	246	185	466	456	345	326	432	375	562	493	443	425
9	207	193	463	457	357	342	455	432	519	489	433	426
10	285	207	474	462	376	351	464	455	509	488	435	427
11	303	235	467	456	399	375	462	362	511	485	436	430
12	327	303	468	328	411	399	398	344	499	304	436	431
13	364	327	400	324	413	290	383	372	436	233	436	428
14	359	346	423	400	296	277	381	301	307	156	437	427
15	374	352	425	419	299	286	366	243	302	218	436	432
16	414	373	419	383	340	294	275	238	259	218	439	436
17	427	394	383	371	302	194	287	270	280	255	444	439
18	394	218	390	377	301	233	299	287	296	280	442	435
19	218	178	408	369	358	301	309	298	304	275	445	413
20	254	212	404	297	402	330	316	298	299	194	428	412
21	328	254	299	213	364	254	316	149	291	234	432	419
22	393	328	262	224	368	276	255	160	310	291	432	417
23	405	197	290	262	384	358	308	255	316	310	441	382
24	245	192	296	290	358	350	322	170	341	316	438	426
25	301	245	---	---	356	348	232	179	368	341	437	424
26	387	301	---	---	364	355	305	232	386	368	426	416
27	385	231	---	---	367	205	364	305	399	386	432	416
28	277	213	---	---	320	224	403	364	408	398	436	426
29	299	241	---	---	287	278	444	403	422	408	437	419
30	375	299	---	---	306	287	476	443	434	389	433	428
31	---	---	---	---	---	---	485	451	437	431	---	---
MONTH	427	178	---	---	413	194	485	149	569	156	452	382
YEAR	582	136										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	12.0	10.5	3.0	1.5	7.5	6.5	4.5	1.5	5.5	2.5
2	16.0	14.0	14.5	12.0	4.0	2.0	6.5	3.5	7.0	4.0	6.0	5.0
3	16.5	16.5	14.5	13.5	5.0	3.5	4.5	3.0	7.0	5.5	7.5	6.0
4	16.5	15.5	13.5	12.0	6.0	5.0	5.0	4.5	6.0	4.0	10.0	7.0
5	16.5	15.0	12.0	10.5	7.0	6.0	4.5	3.0	6.5	4.0	12.5	9.5
6	16.0	15.0	11.0	9.0	8.0	6.5	3.0	1.0	6.5	5.0	13.5	10.0
7	16.0	15.5	11.0	10.5	6.5	3.5	1.0	0.0	6.5	5.5	14.0	12.0
8	15.5	14.0	10.5	9.5	3.5	2.0	0.5	0.0	5.5	3.0	14.5	12.0
9	15.0	14.0	9.5	9.0	3.5	2.0	0.5	0.0	3.5	1.5	13.0	12.0
10	14.0	12.5	9.0	8.0	4.0	3.0	0.0	0.0	1.5	0.0	16.5	12.5
11	13.5	13.0	9.5	9.0	3.0	2.0	0.5	0.0	1.5	0.0	18.5	15.0
12	15.0	13.5	10.0	9.0	5.0	2.0	0.5	0.0	1.5	0.0	15.5	13.0
13	14.5	13.5	9.5	8.0	5.0	4.5	0.5	0.0	1.5	0.0	14.5	11.5
14	14.0	13.0	8.0	8.0	5.0	4.0	0.5	0.0	2.0	1.0	16.0	13.5
15	14.0	11.5	8.0	7.0	4.0	2.0	0.5	0.0	2.0	1.5	16.5	15.0
16	12.0	12.0	7.0	6.5	2.0	0.0	1.0	0.0	1.5	0.5	16.5	13.0
17	13.5	11.0	6.5	6.0	0.0	0.0	1.5	0.0	1.0	0.5	13.0	7.0
18	12.0	10.5	6.5	6.0	0.5	0.0	2.0	0.0	1.0	0.5	7.0	5.0
19	10.5	9.0	6.5	6.0	0.5	0.5	1.5	1.5	1.5	0.5	7.0	4.5
20	9.5	7.5	6.0	6.0	1.5	0.5	1.5	1.0	1.5	1.0	6.5	5.5
21	9.0	8.0	5.5	6.0	4.0	1.5	1.5	0.5	1.5	0.5	5.0	4.0
22	11.0	9.0	5.0	4.5	4.5	4.0	3.0	1.5	1.0	0.0	6.0	5.0
23	13.0	11.0	4.5	3.5	5.0	4.5	3.0	2.0	2.0	0.5	7.0	4.0
24	12.0	11.0	4.0	2.5	5.5	5.0	3.5	1.5	3.5	0.5	9.0	5.5
25	11.0	10.0	3.5	2.5	5.5	5.0	3.5	0.5	4.0	2.0	10.0	8.5
26	11.0	9.0	4.0	3.5	5.5	4.0	3.5	1.5	5.0	4.0	10.0	9.5
27	10.0	9.0	4.0	3.0	4.0	3.0	5.0	3.5	4.5	3.5	12.0	8.5
28	11.5	10.0	3.5	2.5	3.0	2.0	6.0	4.5	9.0	3.0	10.5	9.0
29	12.5	11.5	2.5	1.5	4.0	2.0	5.0	2.5	---	---	11.0	10.0
30	11.5	11.0	2.5	1.5	6.5	4.0	2.5	0.5	---	---	12.0	10.0
31	11.0	10.5	---	---	8.5	6.5	2.5	0.5	---	---	13.0	11.0
MONTH	16.5	7.5	14.5	1.5	8.5	0.0	7.5	0.0	7.0	0.0	18.5	2.5

APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	12.5	16.0	13.5	---	---	24.0	22.5	23.5	22.5	27.0	24.0
2	12.5	11.0	17.0	15.5	---	---	26.5	23.5	23.5	22.0	30.0	24.5
3	11.0	10.5	16.5	15.0	---	---	28.5	25.5	23.5	22.0	30.5	24.5
4	10.5	7.5	16.0	13.5	---	---	27.0	25.0	24.5	22.0	30.0	24.5
5	7.5	7.0	16.5	13.0	---	---	26.5	24.0	25.5	22.5	27.5	24.5
6	10.5	7.0	16.0	14.5	---	---	26.5	24.5	25.0	23.0	27.5	21.5
7	9.5	9.0	14.5	14.0	23.0	21.5	27.5	24.5	26.5	23.0	27.0	21.5
8	9.5	8.5	17.0	14.5	24.0	20.5	28.5	25.5	27.5	24.0	23.5	21.5
9	9.5	8.5	20.0	16.0	25.5	23.0	29.5	27.0	28.5	24.5	22.0	19.5
10	8.5	6.5	19.5	18.0	27.0	24.0	28.0	26.5	28.0	25.0	24.0	19.0
11	7.0	5.5	19.5	18.0	28.0	25.0	26.5	25.0	29.0	24.5	23.5	18.5
12	7.0	6.5	18.5	17.0	27.5	25.5	25.0	23.0	29.0	24.5	24.0	18.0
13	9.0	6.0	17.5	16.0	25.5	23.5	26.0	23.0	25.0	22.5	22.5	18.0
14	11.0	7.0	18.0	15.0	24.5	22.0	26.0	24.0	23.5	22.0	22.5	19.0
15	13.0	8.0	17.0	15.0	24.0	22.5	25.0	23.5	23.5	22.5	24.0	18.5
16	13.0	11.5	17.5	14.0	24.0	23.5	24.5	22.5	23.5	22.0	24.0	18.0
17	13.5	12.5	18.0	14.5	23.0	22.0	26.0	23.0	24.5	23.0	23.5	18.0
18	15.0	13.0	17.0	14.0	25.5	22.5	27.0	23.0	25.5	23.0	20.0	16.0
19	17.0	14.5	16.5	15.0	26.5	23.5	27.0	23.5	25.0	23.5	20.5	14.5
20	19.0	16.5	15.5	13.5	25.5	23.5	26.5	24.5	23.5	19.5	20.5	14.5
21	21.0	18.5	16.0	12.5	24.5	22.5	25.0	22.0	22.5	20.5	20.5	17.0
22	20.0	19.0	17.0	14.5	25.5	23.0	23.5	22.0	22.0	20.0	21.5	18.0
23	19.0	16.0	18.5	16.5	25.0	23.0	25.0	23.0	22.0	19.5	22.0	18.0
24	16.5	15.0	18.0	17.5	25.5	23.5	24.5	23.0	22.5	21.0	22.5	19.0
25	16.0	13.5	---	---	27.0	24.0	23.5	22.0	23.5	20.5	23.5	20.0
26	14.0	12.5	---	---	27.0	25.5	24.5	23.0	25.5	22.0	25.5	19.5
27	13.0	11.0	---	---	25.5	21.0	25.5	23.0	27.0	23.5	25.0	19.5
28	11.0	9.5	---	---	23.0	21.0	25.5	23.5	27.5	24.5	24.0	21.0
29	13.5	10.0	---	---	22.5	21.0	25.0	23.5	28.5	25.0	24.0	22.0
30	14.5	13.0	---	---	24.5	21.0	25.5	23.0	28.0	24.5	25.0	21.5
31	---	---	---	---	---	---	24.5	23.0	27.5	24.0	---	---
MONTH	21.0	5.5	---	---	28.0	20.5	29.5	22.0	29.0	19.5	30.5	14.5

YEAR	30.5	0.0
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GREAT MIAMI RIVER BASIN

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO

LOCATION.--Lat 40°17'13", long 84°09'00", Shelby County, at gaging station on right bank 50 ft (15 m) upstream from North Street Bridge in Sidney, and 0.5 mi (0.8 km) downstream from Tawawa Creek. Sampling site at North Street Bridge.

DRAINAGE AREA.--541 mi² (1,401 km²).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1973.

Water temperatures: October 1967 to September 1971, October 1972 to September 1973.

Sediment records: October 1967 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	0840	664	--	--	232	0	74	22	.02	1.6	.12
11...	0825	454	430	120	230	0	76	19	.02	.60	.03
18...	0905	253	--	--	326	0	86	24	.07	1.4	.06
25...	0815	199	--	--	366	0	93	26	.01	1.3	.03
NOV.											
08...	0815	3660	--	--	164	0	44	16	.11	3.2	.20
DEC.											
20...	0835	1000	--	--	260	0	67	24	.04	2.1	.10
JAN.											
17...	0735	200	--	--	344	0	78	20	.05	1.8	.04
FEB.											
21...	0800	270	--	--	334	0	84	20	.00	2.3	.05
MAR.											
21...	0920	2270	--	--	192	0	50	14	.04	2.6	.00
APR.											
18...	0805	1630	--	--	220	0	55	16	.10	2.8	.04
MAY											
09...	0800	1020	--	--	294	0	64	18	.04	2.0	.20
JUNE											
20...	0900	2310	--	--	182	0	43	18	.07	6.4	.47
JULY											
05...	0940	3400	--	--	154	0	29	13	.30	3.6	.26
11...	0810	610	--	--	234	0	42	16	.17	2.6	.23
18...	0820	155	--	--	346	0	72	20	.02	1.3	.16
25...	0800	1510	--	--	164	0	39	14	.16	2.8	.08
AUG.											
01...	0800	278	--	--	288	0	61	22	.04	1.5	.27
08...	0800	126	440	84	326	0	86	24	.02	.71	.02
15...	0845	4790	--	--	142	0	29	12	.10	.90	.29
22...	0810	785	--	--	260	0	56	18	.03	.70	.48
29...	0820	208	--	--	338	0	71	16	.00	.70	.28
SEP.											
05...	0830	135	--	--	360	0	72	18	.02	.80	.14
12...	0830	110	--	--	364	0	66	20	.00	.70	.23
19...	0830	121	--	--	376	0	70	22	.02	.70	.40
26...	0845	106	--	--	358	0	66	24	.01	.80	.16

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
11...	.4	.00	0	11	1	13	15	30
AUG.								
08...	.5	.01	0	5	10	11	12	50

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO--Continued

EXTREMES--1972-73:

Sediment concentrations: Maximum daily, 1,710 mg/l July 3; minimum, 5 mg/l Mar. 1.

Sediment discharges: Maximum daily, 13,400 tons (12,200 tonnes) July 4; minimum daily, 2.8 tons (2.5 tonnes) Mar. 1.

EXTREMES--Period of record:

Sediment concentrations: Maximum daily, 1,710 mg/l July 3, 1973; minimum daily, 0 mg/l Mar. 23-25, 1970.

Sediment discharges: Maximum daily, 13,400 tons (12,200 tonnes) July 4, 1973; minimum daily, 0 ton (0.00 tonne) Mar. 23-25, 1970.

REMARKS--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September and monthly November to June. Special samples were also collected twice during the year to further define the quality of water. Flow affected by ice Dec. 18, 19, Jan. 6-19, Jan. 30 to Feb. 1, Feb. 6-14, 16-18. Some regulation by Indian Lake, capacity, 45,900 acre-ft (56.6 km³), 28 mi (45 km) upstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.19	280	90	540	7.6	342	14.5	35	2	8.9	86
11...	.16	290	100	550	8.0	328	11.0	15	4	10.2	92
18...	.14	380	110	700	7.8	432	8.0	15	2	10.4	87
25...	.16	410	110	750	7.7	466	9.0	25	4	10.1	87
NOV.											
08...	.34	210	76	390	7.4	265	9.0	110	4	10.0	86
DEC.											
20...	.11	310	96	575	7.3	336	.0	12	4	12.2	84
JAN.											
17...	.09	390	110	700	7.8	442	.0	5	2	12.6	86
FEB.											
21...	.08	380	110	685	7.8	434	1.5	8	6	12.4	88
MAR.											
21...	.16	230	72	450	7.6	268	2.5	50	4	12.0	88
APR.											
18...	.22	290	110	490	7.7	300	10.0	85	6	9.8	87
MAY											
09...	.16	330	88	610	7.8	362	14.0	35	4	8.7	84
JUNE											
20...	.68	230	81	440	7.4	286	20.0	150	16	7.8	85
JULY											
05...	.49	180	54	330	7.4	212	21.5	150	16	7.0	79
11...	.36	250	58	480	7.6	288	21.5	90	4	7.8	88
18...	.16	380	96	680	8.0	434	21.0	30	16	7.9	88
25...	.41	200	66	380	7.4	252	21.0	110	8	7.3	81
AUG.											
01...	.17	350	110	625	7.8	398	21.0	30	8	7.7	86
08...	.16	350	82	650	8.0	418	23.0	20	8	8.2	94
15...	.30	160	44	300	7.2	208	21.0	90	16	7.1	79
22...	.20	290	76	520	8.1	322	20.0	35	16	7.8	85
29...	.16	370	92	650	7.8	414	24.0	20	16	7.7	90
SEP.											
05...	.15	380	84	690	7.9	438	24.5	15	32	7.3	87
12...	.13	380	82	700	7.9	432	17.0	20	16	7.6	78
19...	.13	390	82	925	8.0	442	15.0	15	32	9.2	90
26...	.16	360	66	680	7.8	426	21.0	15	32	8.3	92

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT BETWEEN 1300 AND 1800)

[illegible]

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1850	118	589	676	206	549	692	22	41
2	1190	99	318	3840	434	4500	633	22	38
3	835	85	192	3590	220	2130	611	21	35
4	737	73	145	2510	127	861	584	19	30
5	1020	69	190	1770	117	559	624	18	30
6	940	73	185	1230	100	332	2750	610	5560
7	746	53	107	1400	104	393	3040	416	3410
8	633	36	62	3480	177	1660	2310	255	1590
9	541	29	42	2790	124	934	2040	184	1010
10	484	28	37	2070	88	492	1710	132	609
11	454	31	38	1600	59	251	1260	92	313
12	647	33	58	1220	45	148	995	67	180
13	660	33	59	1410	90	509	2340	128	809
14	484	32	42	5340	356	5130	2080	105	590
15	387	32	33	4440	213	2550	1510	67	273
16	317	33	28	3090	131	1090	1020	53	146
17	284	33	25	2160	79	461	674	44	80
18	248	30	20	1560	61	257	700	38	72
19	213	43	25	1300	53	186	760	32	66
20	191	51	26	1760	66	314	1090	30	88
21	180	48	23	1490	48	193	1600	38	164
22	174	38	18	1130	35	107	1720	40	186
23	182	28	14	915	24	59	1490	35	141
24	202	26	14	765	21	43	1250	30	101
25	199	25	13	701	20	38	1130	26	79
26	188	20	10	732	20	40	995	24	64
27	178	16	7.7	830	20	45	925	23	57
28	178	19	9.1	935	20	50	795	23	49
29	178	24	12	815	21	46	732	19	38
30	178	26	12	723	21	41	755	30	61
31	240	35	23	--	--	--	1030	18	50
TOTAL	14938	--	2376.8	56272	--	23968	39845	--	15960

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1180	22	70	660	17	30	208	5	2.8
2	820	31	69	1600	88	380	243	7	4.6
3	701	22	42	1690	95	433	441	24	29
4	1220	57	188	1230	53	176	692	58	108
5	1220	47	155	930	32	80	855	57	132
6	760	26	53	720	19	37	935	51	129
7	540	20	29	550	14	21	701	45	85
8	420	16	18	440	14	17	660	43	77
9	300	18	15	360	16	16	637	50	85
10	270	25	18	300	18	15	1970	217	1150
11	240	35	23	260	24	17	2940	267	2380
12	230	42	26	230	29	18	2820	265	2020
13	220	40	24	210	17	9.6	1990	143	768
14	210	35	20	330	13	12	1700	170	883
15	210	28	16	660	20	36	3020	347	2830
16	210	20	11	640	22	38	2270	124	760
17	200	11	5.9	380	21	22	4000	314	3390
18	200	9	4.9	330	19	17	3590	155	1500
19	230	13	8.1	302	15	12	3290	82	728
20	248	15	10	278	10	7.5	2810	59	448
21	218	13	7.7	267	8	5.8	2220	48	288
22	284	25	19	253	8	5.5	1860	42	211
23	732	43	85	248	9	6.0	1580	43	183
24	719	38	74	228	18	11	1390	45	169
25	597	16	26	211	23	13	1400	48	181
26	570	12	18	213	15	8.6	2110	160	912
27	624	10	17	211	10	5.7	2010	164	890
28	845	22	50	204	8	4.4	1420	114	437
29	1250	62	209	--	--	--	1130	77	235
30	820	43	95	--	--	--	1740	99	465
31	640	20	35	--	--	--	1610	103	448
TOTAL	16928	--	1441.6	13935	--	1454.1	54242	--	21928.4

GREAT MIAMI RIVER BASIN

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	2040	158	870	660	50	89	356	44	42
2	1690	123	561	570	49	75	305	41	34
3	1290	54	188	615	40	66	281	43	33
4	1460	44	173	620	33	55	290	45	35
5	2350	58	368	532	27	39	834	175	407
6	1770	64	306	383	31	32	2080	410	2300
7	1270	43	147	370	40	40	2210	278	1660
8	1090	31	91	414	67	75	1760	173	822
9	1020	29	80	1020	62	171	1230	102	339
10	1450	53	207	775	60	126	833	98	220
11	1400	50	189	1200	119	386	552	60	89
12	1310	44	156	1100	158	469	468	110	179
13	2150	92	534	950	94	241	1730	1120	5230
14	1780	65	312	750	64	130	1370	515	1900
15	1290	45	157	580	47	74	625	256	432
16	1040	35	98	420	41	46	418	178	201
17	1380	60	224	320	34	29	421	137	156
18	1570	99	420	280	29	22	383	103	107
19	1350	56	204	397	52	56	359	134	202
20	1270	44	151	516	73	102	2080	912	5120
21	915	33	82	719	81	157	1330	385	1380
22	723	44	86	512	56	77	739	171	341
23	1180	141	449	428	39	45	495	130	174
24	1080	123	359	404	35	38	389	128	134
25	785	68	144	387	49	51	320	102	88
26	575	49	76	557	74	111	262	92	65
27	575	128	199	566	90	138	905	227	656
28	1390	120	450	450	94	102	1200	325	1050
29	945	87	222	418	69	78	1260	384	1310
30	660	46	82	387	62	65	768	223	462
31	--	--	--	411	56	62	--	--	--
TOTAL	38798	--	7585	17711	--	3247	26253	--	25168

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	483	122	159	273	91	67	177	78	37
2	463	198	430	256	100	69	164	73	32
3	2630	1710	12100	218	99	58	159	70	30
4	4440	1120	13400	192	83	43	149	70	28
5	3330	480	4320	176	70	33	135	71	26
6	2200	277	1650	159	84	36	131	62	22
7	1320	198	706	141	88	34	132	58	21
8	795	176	378	128	79	27	127	68	23
9	537	120	174	121	73	24	120	63	20
10	632	189	404	124	69	23	119	63	20
11	587	177	281	207	99	124	113	66	20
12	392	106	112	6030	747	11500	109	59	17
13	262	82	58	5090	206	2830	113	60	18
14	220	86	51	3770	178	1810	136	71	26
15	209	108	61	4560	154	1900	156	67	28
16	201	114	62	3270	114	1010	125	75	25
17	172	109	51	2460	93	618	116	63	20
18	155	112	47	1730	103	481	110	62	18
19	142	112	43	1330	103	370	116	52	16
20	166	122	55	1640	114	505	105	56	16
21	295	110	88	1170	92	291	102	58	16
22	499	107	144	729	55	108	107	60	17
23	737	165	328	485	46	60	142	56	21
24	947	303	1060	373	59	59	133	63	23
25	1790	512	2470	335	75	68	117	63	20
26	1880	253	1280	290	91	71	104	68	19
27	1440	150	583	260	107	75	98	77	20
28	828	110	246	231	97	60	94	78	20
29	566	77	118	210	88	50	96	79	20
30	413	71	79	196	91	48	101	60	16
31	309	83	69	201	83	45	--	--	--
TOTAL	29040	--	41007	36355	--	22497	3706	--	655

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

348023
167287.9

03261500 GREAT MIAMI RIVER AT SIDNEY, OHIO--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP- ERA- TURE (°C)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
NOV.																
01...	1650	12.0	746	376	757	37	53	68	84	93	98	100	--	--	--	--
DEC.																
06...	1215	5.0	3420	882	8140	70	84	90	94	96	97	98	98	100	--	--
MAR.																
30...	1715	11.0	1850	109	544	67	78	87	92	98	99	100	--	--	--	--
JUNE																
14...	1700	25.0	1150	394	1220	80	89	93	97	99	99	100	--	--	--	--
JULY																
26...	1815	24.5	2060	254	1410	56	72	82	92	97	99	99	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
12...	1	0	0	4	18	23	26	28	29	31	59	100

GREAT MIAMI RIVER BASIN

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO

LOCATION.--Lat 40°18'25", long 84°23'02", in SE 1/4 sec.24, T.11 N., R.4 E., Shelby County, at gaging station on right bank at downstream side of bridge on Cardo Roman Road, 1.1 mi (1.8 km) northwest of Newport, 3 mi (5 km) south of Fort Loramie, and 3 mi (5 km) downstream from Mile Creek.

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-67, 1969-73 (partial-record station).

Water temperatures: Water years 1968-70, 1973 (partial-record station).

Sediment records: October 1967 to September 1973.

EXTREMES.--1972-73:

Sediment concentrations: Maximum daily, 1,050 mg/l Dec. 6; minimum daily, 9 mg/l Jan. 16-18, Feb. 28, Mar. 1.

Sediment discharges: Maximum daily, 3,730 tons (3,380 tonnes) Dec. 6; minimum daily, 0.06 ton (0.054 tonne) Sept. 28, 29.

EXTREMES.--Period of record:

Sediment concentrations: Maximum daily, 1,050 mg/l Dec. 6, 1972; minimum daily, 3 mg/l Jan. 12, 1971.

Sediment discharges: Maximum daily, 3,730 tons (3,380 tonnes) Dec. 6, 1972; minimum daily, 0.02 ton (0.018 tonne) Feb. 1-3, 1971.

REMARKS.--Flow affected by ice Dec. 15-18, Jan. 6-9, Feb. 16-28. Some regulation by Lake Loramie 5 mi (8 km) upstream, capacity 13,000 acre-ft (16.0 km³).

CHEMICAL ANALYSES, WATER YEARS OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
SEP., 1973											
24...	1020	2.5	130	45	348	0	260	97	--	.9	.01

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
SEP., 1973										
24...	--	.38	.77	--	--	1260	7.4	--	895	18.0

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT BETWEEN 0800 AND 0900)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	---	2.0	2.0	4.0	---	9.5	15.0	---	22.0	23.0	---
2	13.0	13.0	2.0	1.0	6.0	---	9.0	15.0	---	23.0	21.0	---
3	14.0	10.0	5.0	0.0	4.0	---	8.0	12.0	---	23.0	20.0	---
4	15.0	9.0	---	4.0	3.0	---	7.0	10.0	23.0	24.0	20.0	25.0
5	---	9.0	---	0.0	5.0	11.0	6.0	---	---	22.0	---	---
6	15.0	7.0	4.0	1.0	5.0	8.0	8.0	---	---	23.0	---	---
7	15.0	10.0	0.0	0.0	4.0	11.0	9.0	---	---	22.0	---	---
8	13.0	8.0	1.0	0.0	3.0	10.0	10.0	---	---	23.0	---	---
9	11.0	8.0	3.0	0.0	1.0	10.0	8.0	15.0	---	25.0	---	---
10	10.0	8.0	2.0	0.0	1.0	9.0	5.0	17.0	---	26.0	---	---
11	12.0	7.0	1.0	---	1.0	13.0	5.0	15.0	---	---	22.0	17.0
12	15.0	8.0	2.0	---	1.0	11.0	5.0	15.0	---	---	23.0	---
13	12.0	7.0	1.0	---	2.0	10.0	5.0	14.0	---	---	25.0	---
14	12.0	6.0	1.0	---	4.0	12.0	7.0	12.0	---	---	24.0	---
15	10.0	4.0	2.0	---	3.0	13.0	9.0	11.0	---	---	22.0	---
16	11.0	4.0	0.0	---	0.0	12.0	11.0	---	---	---	22.0	---
17	10.0	4.0	0.0	---	1.0	5.0	10.0	10.0	---	---	23.0	---
18	8.0	4.0	0.0	---	1.0	4.0	12.0	---	23.0	---	23.0	15.0
19	6.0	5.0	1.0	---	2.0	3.0	13.0	---	---	---	23.0	---
20	4.0	4.0	1.0	---	3.0	5.0	15.0	13.0	---	---	22.0	---
21	7.0	4.0	4.0	---	---	3.5	17.0	14.0	---	---	20.0	---
22	---	4.0	3.0	2.0	---	4.0	17.0	17.0	---	23.5	20.0	---
23	---	3.0	3.0	---	---	5.0	15.0	17.0	---	---	19.0	---
24	---	2.0	4.0	1.0	---	6.0	16.0	17.0	---	---	20.0	---
25	---	3.0	3.0	1.0	---	9.0	14.0	16.5	23.0	---	20.0	24.0
26	---	3.0	3.0	3.0	---	6.0	12.0	16.0	---	24.0	22.0	---
27	---	3.0	1.0	5.0	3.0	7.0	12.0	---	20.0	23.0	25.0	---
28	10.0	3.0	2.0	5.0	---	8.0	8.0	18.0	21.0	24.0	25.0	---
29	---	1.0	2.0	---	---	9.0	10.0	---	20.0	22.0	---	---
30	---	2.0	5.0	0.0	---	9.0	13.0	---	21.0	23.0	---	---
31	---	---	7.0	1.0	---	9.0	---	---	---	24.0	---	---
MONTH	---	5.5	2.0	---	---	8.0	10.0	---	---	---	---	---

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	891	76	183	159	77	50	137	37	14
2	375	88	89	1290	342	1150	123	32	11
3	209	81	46	2040	126	694	118	37	12
4	221	104	62	1350	76	277	112	37	11
5	412	116	129	506	101	138	120	34	11
6	292	87	69	238	104	67	1100	1050	3730
7	197	76	40	331	165	209	1890	430	2190
8	144	83	32	1510	210	856	1110	225	674
9	129	73	25	1410	103	392	451	236	287
10	76	56	11	691	94	175	302	222	181
11	17	52	2.4	347	96	90	210	172	98
12	208	265	185	250	80	54	179	218	105
13	254	178	122	373	197	296	772	253	527
14	155	80	33	1970	265	1350	607	238	390
15	108	41	12	2220	148	887	260	146	102
16	80	51	11	1380	123	458	140	95	36
17	76	49	10	541	106	155	110	110	33
18	56	36	5.4	266	103	74	92	110	27
19	46	19	2.4	231	98	61	82	80	18
20	32	19	1.6	564	116	177	202	83	45
21	30	20	1.6	381	85	87	329	87	77
22	31	21	1.8	241	69	45	367	71	70
23	38	22	2.3	169	60	27	326	54	48
24	44	23	2.7	133	57	20	297	47	38
25	43	24	2.8	118	47	15	271	43	31
26	34	26	2.4	136	43	16	225	34	21
27	36	27	2.6	210	59	33	179	33	16
28	41	28	3.1	266	56	40	141	33	13
29	52	29	4.1	195	43	23	127	31	11
30	56	31	4.7	160	40	17	147	43	17
31	58	32	5.0	--	--	--	362	203	215
TOTAL	4441	--	1103.9	19676	--	7933	10888	--	9059

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	244	73	51	116	23	7.7	17	9	.41
2	151	39	16	470	154	208	24	10	.65
3	130	34	12	516	80	111	63	24	5.0
4	426	156	182	292	38	30	139	226	88
5	311	55	46	207	40	22	374	328	331
6	130	33	12	154	43	18	356	112	117
7	100	28	7.6	179	46	22	516	536	1070
8	30	25	2.0	278	45	34	701	276	650
9	27	18	1.3	215	38	22	485	187	299
10	25	19	1.3	83	23	5.2	1500	394	1600
11	25	17	1.1	73	19	3.7	1780	208	1000
12	23	15	.93	51	16	2.2	1760	202	960
13	24	14	.91	20	18	.97	941	162	412
14	25	12	.81	22	33	2.0	509	357	595
15	28	11	.83	102	62	17	1110	392	1170
16	24	9	.58	90	58	14	733	170	336
17	24	9	.58	50	18	2.4	1510	372	1520
18	26	9	.63	38	24	2.5	1640	215	952
19	33	10	.89	34	18	1.7	1220	158	520
20	29	10	.78	32	16	1.4	699	120	226
21	24	10	.65	30	15	1.2	392	98	104
22	121	138	56	26	15	1.1	247	85	57
23	322	168	157	22	15	.89	179	88	43
24	220	34	20	19	15	.77	157	91	39
25	274	29	21	16	16	.69	221	128	85
26	238	23	15	15	17	.69	636	191	328
27	127	20	6.9	14	10	.38	633	120	205
28	234	87	81	15	9	.36	340	95	87
29	305	132	128	--	--	--	220	80	48
30	139	26	9.8	--	--	--	455	288	370
31	109	15	4.4	--	--	--	319	127	109
TOTAL	3948	--	838.99	3179	--	533.85	19876	--	13327.06

GREAT MIAMI RIVER BASIN

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	500	135	182	119	92	30	22	70	4.2
2	371	117	117	105	83	24	20	67	3.6
3	247	137	91	97	97	25	17	65	3.0
4	329	94	99	88	87	21	91	139	65
5	678	101	185	82	76	17	776	596	1170
6	369	76	76	62	74	12	858	213	493
7	228	85	52	17	74	3.4	566	186	284
8	183	68	34	80	117	32	246	174	116
9	160	78	34	106	143	41	133	168	60
10	268	134	97	66	101	18	88	161	38
11	231	63	39	92	123	31	60	154	25
12	278	80	82	67	99	18	56	151	23
13	664	99	177	52	71	10	65	150	26
14	383	51	53	39	64	6.7	47	149	19
15	215	45	26	35	59	5.6	30	148	12
16	150	55	22	28	43	3.3	28	147	11
17	169	60	27	28	46	3.5	35	147	14
18	154	55	23	22	47	2.8	28	145	11
19	139	53	20	72	120	38	18	139	6.8
20	140	60	23	167	171	77	21	129	7.3
21	116	70	22	97	79	21	20	116	6.3
22	380	591	912	66	76	14	14	102	3.9
23	1150	372	1160	57	83	13	10	88	2.4
24	755	100	204	50	85	11	9.4	76	1.9
25	322	104	90	39	87	9.2	8.4	64	1.5
26	175	95	45	34	79	7.3	7.7	65	1.4
27	132	87	31	40	87	9.4	659	596	999
28	134	74	27	41	101	11	720	120	233
29	118	81	26	35	98	9.3	580	190	298
30	113	86	26	34	89	8.2	276	160	119
31	--	--	--	28	80	6.0	--	--	--
TOTAL	9251	--	4002	1945	--	538.7	5509.5	--	4058.3

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	141	143	54	9.8	107	2.8	5.9	60	.96
2	72	122	24	7.7	102	2.1	5.0	55	.74
3	450	364	445	5.9	90	1.4	4.5	53	.64
4	936	158	399	4.8	87	1.1	4.0	51	.55
5	870	147	345	3.6	85	.83	3.8	45	.46
6	392	223	236	2.5	84	.57	3.4	34	.31
7	178	243	117	2.2	83	.49	3.0	29	.23
8	105	203	58	1.8	82	.40	2.5	31	.21
9	62	153	26	1.2	80	.26	1.9	38	.19
10	48	130	17	1.2	79	.26	2.2	45	.27
11	36	73	7.1	4.6	91	2.6	2.8	50	.38
12	21	48	2.7	636	404	628	2.3	51	.32
13	11	55	1.6	1160	92	288	1.9	51	.26
14	9.1	52	1.3	1060	257	793	4.5	52	.63
15	9.8	48	1.3	1750	174	822	9.4	52	1.3
16	8.0	45	.97	1590	64	275	5.3	52	.74
17	5.9	43	.68	648	89	156	2.8	52	.39
18	4.8	41	.53	223	93	56	2.5	52	.35
19	4.3	40	.46	109	92	27	2.1	52	.29
20	4.8	39	.51	238	301	197	1.8	53	.26
21	19	48	2.5	278	146	110	1.8	53	.26
22	43	55	6.4	143	99	38	1.7	54	.25
23	28	42	3.2	73	83	16	2.8	57	.43
24	19	41	2.1	47	66	8.4	2.5	56	.38
25	38	45	4.6	34	60	5.5	1.7	45	.21
26	158	198	87	24	72	4.7	1.1	34	.10
27	116	187	59	18	85	4.1	.99	31	.08
28	64	161	28	14	91	3.4	.80	30	.06
29	39	133	14	12	84	2.7	.75	30	.06
30	21	118	6.7	9.4	74	1.9	1.7	30	.14
31	13	114	4.0	7.3	67	1.3	--	--	--
TOTAL	3926.7	--	1955.65	8119.0	--	3450.81	87.44	--	11.45

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

90846.64
46812.71

03261950 LORAMIE CREEK NEAR NEWPORT, OHIO--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP- ERA- TURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	
DEC. 06...	1710	3.0	1600	1220	5270	83	94	98	98	99	99	100	--	--	--	--	
MAR. 30...	1425	10.0	486	176	231	84	90	94	96	98	99	99	100	--	--	--	
APR. 24...	1630	14.5	834	95	214	74	81	84	88	91	92	94	96	98	100	--	
JULY 26...	1630	24.5	158	174	74	66	82	87	95	98	99	99	100	--	--	--	

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 06...	1	22	44	69	79	84	87	91	100	--	--	--
06...	1	1	1	9	78	97	100	--	--	--	--	--
06...	1	1	2	8	31	41	52	60	63	63	63	100

GREAT MIAMI RIVER BASIN

03263110 GREAT MIAMI RIVER NEAR TAYLORSVILLE DAM, AT TAYLORSVILLE, OHIO

LOCATION.--Lat 39°52'00", long 84°10'02", Montgomery County, at Interstate Highway 70 Bridge, 0.2 mi (0.3 km) north of Taylorsville, 0.5 mi (0.8 km) downstream from gaging station, and 0.7 mi (1.1 km) downstream from Taylorsville Dam.

DRAINAGE AREA.--1,149 mi² (2,976 km²) (at gaging station).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
OCT.											
04...	0955	1400	--	--	234	0	67	24	.06	2.7	.28
11...	0945	784	470	75	262	0	76	27	.04	1.8	.17
18...	1030	585	--	--	300	0	78	28	.03	2.8	.28
25...	0940	410	--	--	330	0	85	32	.24	3.2	.59
NOV.											
08...	0930	8210	--	--	168	0	46	18	.10	3.5	.23
DEC.											
20...	0950	2600	--	--	270	0	63	38	.06	3.3	.23
JAN.											
17...	0835	540	--	--	340	0	76	30	.06	3.3	.82
FEB.											
21...	0900	646	--	--	318	0	76	28	.04	3.7	.15
MAR.											
21...	1030	4280	--	--	204	0	47	18	.06	3.2	.09
APR.											
18...	1010	3360	--	--	234	0	56	20	.08	3.5	.14
MAY											
09...	1000	1290	--	--	288	0	58	25	.05	3.8	.15
JUNE											
20...	1020	3820	--	--	174	0	33	18	.06	4.7	.20
JULY											
05...	1140	6710	--	--	148	0	31	12	.33	4.0	.27
11...	1010	1840	--	--	246	0	54	20	.12	3.3	.22
18...	0935	426	--	--	324	0	67	30	.04	3.2	.13
25...	0950	2800	--	--	218	0	49	16	.10	4.9	.15
AUG.											
01...	0920	676	--	--	298	0	57	30	.05	2.6	.32
08...	1000	330	290	72	304	10	63	34	.02	1.9	.01
15...	0950	9700	--	--	130	0	27	12	.18	1.2	.25
22...	0920	1950	--	--	244	0	45	20	.04	1.7	.42
29...	1030	515	--	--	328	0	64	26	.03	1.6	.36
SEP.											
05...	0940	334	--	--	336	0	62	26	.03	2.0	.32
12...	0940	288	--	--	338	0	68	28	.02	2.7	.38
19...	0950	250	--	--	328	0	70	32	.03	3.2	.40
26...	1000	242	--	--	330	0	73	32	.02	2.3	.14

DATE	DIS-SOLVED FLUORIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
11...	.4	.00	0	6	4	8	6	50
AUG.								
08...	.4	.00	0	3	0	16	9	50

GREAT MIAMI RIVER BASIN

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03263110 GREAT MIAMI RIVER NEAR TAYLORSVILLE DAM, AT TAYLORSVILLE, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: November 1961 to July 1963, July 1966 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June. Records of discharge are given for Great Miami River at Taylorsville, Ohio (station 03263000).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.44	280	88	560	7.7	360	14.5	45	2	8.5	82
11...	.41	310	95	600	7.6	376	12.0	20	2	9.8	91
18...	.54	350	100	675	8.1	420	10.0	20	4	9.8	87
25...	.60	370	100	745	7.6	454	10.0	8	2	9.2	81
NOV.											
08...	.39	230	92	425	7.7	267	9.5	120	16	10.0	87
DEC.											
20...	.25	310	88	650	7.8	389	2.0	17	6	12.2	88
JAN.											
17...	.45	380	100	760	7.8	462	2.0	6	4	12.2	88
FEB.											
21...	.31	360	99	705	7.7	430	1.5	9	2	11.9	85
MAR.											
21...	.28	250	83	455	7.7	288	3.5	60	4	12.1	91
APR.											
18...	.26	280	88	550	7.8	334	10.0	60	6	9.7	86
MAY											
09...	.28	320	84	615	7.9	366	15.0	15	8	8.4	82
JUNE											
20...	.77	210	68	400	7.5	257	21.0	160	4	7.2	80
JULY											
05...	.60	190	69	350	7.5	234	22.0	170	16	7.1	81
11...	.58	280	78	530	7.7	319	24.0	75	8	6.4	75
18...	.46	360	94	700	7.9	442	21.5	30	4	7.0	79
25...	.34	260	81	500	7.7	342	22.0	70	8	7.3	83
AUG.											
01...	.38	350	110	640	7.8	382	21.0	35	8	7.2	80
08...	.40	360	94	675	8.5	436	24.0	20	16	8.5	100
15...	.42	150	44	290	7.4	196	22.0	100	16	7.2	82
22...	.30	260	60	500	7.7	304	20.0	45	8	7.8	85
29...	.34	350	80	660	7.9	422	25.5	15	8	7.3	88
SEP.											
05...	.39	360	84	675	7.8	422	25.0	12	32	7.0	83
12...	.47	360	82	700	7.8	430	18.0	15	16	6.8	72
19...	.50	360	90	710	7.8	424	16.0	10	32	8.5	85
26...	.69	350	79	690	8.2	428	22.0	15	4	8.1	92

03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO

LOCATION.--Lat 40°03'28", long 84°21'22", in SW 1/4 sec.18, T.7 N., R.5 E., Miami County, at gaging station on left bank at downstream side of bridge on Laurer Road, 0.8 mi (1.3 km) northwest of Pleasant Hill, 2 mi (3 km) downstream from Painter Creek, and 2 mi (3 km) upstream from Canyon Run.

DRAINAGE AREA.--503 mi² (1,303 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1965-68, 1970-73 (partial-record station).

Water temperatures: October 1964 to September 1966.

Sediment records: October 1963 to September 1973.

EXTREMES.--1972-73:

Sediment concentrations: Maximum daily, 1,060 mg/l Dec. 6; minimum daily, 7 mg/l May 24.

Sediment discharges: Maximum daily, 13,000 tons (11,800 tonnes) Dec. 6; minimum daily, 2.3 ton (2.1 tonne) Sept. 29, 30.

EXTREMES.--Period of record:

Sediment concentrations: Maximum daily, 1,970 mg/l June 26, 1971; minimum daily, 1 mg/l on several days during January 1966.

Sediment discharges: Maximum daily, 21,400 tons (19,400 tonnes) Apr. 21, 1964; minimum daily, 0.07 ton (0.064 tonne) Aug. 21, 1965.

REMARKS.--Flow affected by ice Dec. 15-18, Jan. 7-18, Feb. 8-14, 16-24.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MAG) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
SEP., 1973											
17...	0910	74	--	--	307	14	79	22	--	.3	.01

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
SEP., 1973										
17...	--	1.5	.23	--	--	679	8.7	--	445	18.0

03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1220	55	181	370	22	59	488	17	22
2	554	48	72	4740	464	6010	415	16	18
3	350	46	43	5170	226	3150	375	15	15
4	365	46	45	1990	112	602	345	13	12
5	875	98	232	992	58	155	350	12	11
6	644	75	130	679	40	73	3840	1060	13000
7	420	54	61	960	62	226	5110	589	8470
8	316	47	40	4380	234	2770	1710	217	1000
9	250	43	29	2460	112	782	1590	92	395
10	201	43	23	1190	59	190	1400	58	257
11	169	41	19	976	40	105	960	56	145
12	332	62	73	756	32	65	735	47	93
13	476	140	180	1300	63	403	2450	132	937
14	296	82	66	7770	372	7800	1700	95	436
15	229	39	24	6250	182	3070	940	47	119
16	190	31	16	2430	87	571	600	38	62
17	178	30	14	1340	52	188	350	33	31
18	166	30	13	936	35	88	400	28	30
19	145	30	12	888	25	60	464	25	31
20	133	29	10	2060	107	595	872	27	64
21	128	27	9.3	1270	47	161	1270	38	130
22	128	26	9.0	880	36	86	1170	35	129
23	133	25	9.0	693	31	58	1170	28	88
24	135	25	9.1	574	30	46	1060	17	49
25	138	23	8.6	524	28	40	992	14	37
26	126	22	7.5	588	26	41	833	13	29
27	121	20	6.5	742	24	48	693	13	24
28	126	18	6.1	826	22	49	548	12	18
29	126	16	5.4	644	19	33	470	10	13
30	124	13	4.4	530	18	26	548	10	15
31	126	11	3.7	--	--	--	1380	92	441
TOTAL	8920	--	1361.6	54908	--	27550	35358	--	26121

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1200	98	333	390	27	28	201	15	8.1
2	651	38	87	1180	60	228	211	15	8.5
3	518	28	39	1510	94	383	239	15	9.7
4	1580	111	535	888	48	115	345	15	14
5	1250	74	260	644	43	75	928	81	275
6	665	44	79	530	40	57	1000	111	332
7	420	37	42	446	38	46	1260	154	957
8	360	33	32	380	36	37	1900	475	2660
9	300	30	24	310	35	29	992	355	967
10	280	26	20	260	35	25	5210	714	9720
11	250	22	15	240	35	23	5500	368	5460
12	240	20	13	230	35	22	5080	346	4750
13	230	19	12	230	35	22	2110	152	866
14	220	18	11	240	35	23	1460	123	523
15	220	17	10	672	83	179	3340	523	4720
16	210	15	8.5	770	63	131	1680	150	680
17	210	15	8.5	400	36	39	5360	361	5330
18	220	14	8.3	360	34	33	4010	160	1730
19	246	13	8.6	330	32	29	2590	97	678
20	239	12	7.7	310	31	26	1640	53	235
21	211	12	6.8	290	29	23	1140	32	98
22	360	50	60	270	27	20	864	23	54
23	1470	202	802	250	25	17	707	20	38
24	749	79	170	240	22	14	616	20	33
25	464	59	74	229	20	12	714	42	93
26	405	50	55	222	17	10	3020	259	2130
27	464	43	54	218	17	10	3180	182	1560
28	707	64	135	208	16	9.0	1450	74	290
29	1360	149	572	--	--	--	1020	50	138
30	658	38	68	--	--	--	1830	230	1170
31	452	27	33	--	--	--	1360	104	382
TOTAL	16809	--	3563.4	12247	--	1665.0	60957	--	45909.3

GREAT MIAMI RIVER BASIN

03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1780	127	610	512	21	29	190	10	5.1
2	1140	62	191	464	20	25	175	10	4.7
3	833	28	63	420	20	23	166	10	4.5
4	1060	31	111	370	20	20	236	13	8.3
5	2000	111	599	332	20	18	2120	512	3560
6	1140	35	108	304	19	16	2760	372	2770
7	812	19	42	288	20	16	2280	398	2450
8	742	21	42	340	22	20	984	130	345
9	728	36	71	616	37	62	609	68	112
10	1020	48	132	452	38	53	430	66	77
11	880	26	62	1100	955	3020	345	51	48
12	920	25	62	488	400	527	300	48	39
13	1890	124	633	332	219	196	284	44	34
14	976	30	79	284	122	94	250	42	28
15	686	23	43	264	54	38	215	41	24
16	588	22	35	250	24	16	215	42	24
17	1210	151	529	243	15	9.8	253	48	33
18	1930	315	1710	225	13	7.9	246	107	71
19	1460	120	473	239	12	7.7	194	97	51
20	1340	69	250	375	11	11	332	132	118
21	928	45	113	284	10	7.7	272	119	87
22	992	93	394	243	9	5.9	197	97	52
23	3030	684	5600	229	8	4.9	169	92	42
24	1820	212	1040	222	7	4.2	155	93	39
25	1010	88	240	222	8	4.8	150	92	37
26	700	50	95	280	8	6.0	155	88	37
27	581	37	58	269	9	6.5	2040	436	3370
28	560	31	47	250	10	6.8	2860	471	3850
29	452	28	34	253	10	6.8	1020	200	551
30	420	24	27	239	10	6.5	554	138	206
31	--	--	--	222	10	6.0	--	--	--
TOTAL	33628	--	13493	10610	--	4275.5	20156	--	18077.6

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	375	115	116	178	33	16	95	47	12
2	300	89	72	163	30	13	89	47	11
3	253	64	44	150	28	11	87	46	11
4	609	289	1220	135	26	9.5	80	46	9.9
5	1760	936	4450	121	24	7.8	78	46	9.7
6	651	335	589	110	24	7.1	82	46	10
7	360	145	141	104	25	7.0	75	45	9.1
8	260	75	53	97	25	6.5	69	44	8.2
9	215	40	23	91	25	6.1	75	43	8.7
10	440	310	734	97	25	6.5	87	43	10
11	288	421	346	87	25	5.9	77	42	8.7
12	181	87	43	1340	982	4760	72	41	8.0
13	150	47	19	506	240	328	70	40	7.6
14	140	30	11	1200	481	3280	66	39	6.9
15	222	25	15	4060	900	10400	117	38	12
16	229	23	14	1370	194	718	93	36	9.0
17	155	24	10	494	100	133	70	34	6.4
18	130	20	7.0	308	63	52	64	33	5.7
19	114	18	5.5	250	47	32	64	32	5.5
20	114	20	6.2	602	171	361	75	30	6.1
21	276	191	142	637	262	451	72	29	5.6
22	470	162	206	316	119	102	69	28	5.2
23	276	106	79	222	73	44	70	27	5.1
24	288	113	108	181	52	25	89	25	6.0
25	1130	429	1480	169	50	23	67	23	4.2
26	1560	431	1900	150	50	20	64	20	3.5
27	1050	220	624	130	50	18	57	17	2.6
28	518	148	207	119	49	16	53	17	2.4
29	316	100	85	110	48	14	54	16	2.3
30	236	57	36	110	48	14	57	15	2.3
31	201	39	21	108	47	14	--	--	--
TOTAL	13267	--	12806.7	13715	--	20901.4	2237	--	214.7

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

282812

175939.2

03265000 STILLWATER RIVER AT PLEASANT HILL, OHIO--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP- ERA- TURE (°C)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
NOV. 03...	1235	13.0	5460	204	3010	84	87	91	95	97	98	99	100	--	--	--
DEC. 06...	0750	5.0	2840	1340	10300	64	78	88	95	99	100	--	--	--	--	--
MAR. 10...	1500	11.0	5880	654	10400	68	79	85	91	94	96	98	99	100	--	--
APR. 24...	1400	15.0	1650	189	842	72	81	88	93	96	97	99	99	100	--	--
JULY 26...	1430	25.0	1930	617	3220	60	76	87	95	99	100	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 06...	3	0	1	5	16	27	34	42	50	65	84	100

GREAT MIAMI RIVER BASIN

03266000 STILLWATER RIVER AT ENGLEWOOD, OHIO

LOCATION.--Lat 39°52'10", long 84°16'57", in NW 1/4 sec.23, T.5 N., R.5 E., Montgomery County, at gaging station on right bank, 1,000 ft (305 m) downstream from Englewood Dam, 1 mi (2 km) southeast of Englewood, and 8.5 mi (13.7 km) upstream from mouth. Sampling site about 0.8 mi (1.3 km) downstream at bridge on Interstate Highway 70.

DRAINAGE AREA.--650 mi² (1,684 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1035	364	--	--	266	0	64	26	.05	4.0	.18
11...	1010	210	440	52	324	0	78	31	.03	3.8	.23
18...	1100	190	--	--	302	0	72	30	.10	3.2	.14
25...	1010	140	--	--	360	0	84	36	.02	2.1	.22
NOV.											
08...	1000	2970	--	--	210	0	52	26	.10	5.4	.34
DEC.											
20...	1015	930	--	--	294	0	65	30	.03	5.2	.06
JAN.											
17...	0915	280	--	--	340	0	72	26	.03	4.6	.08
FEB.											
21...	0925	427	--	--	304	0	71	24	.01	5.0	.04
MAR.											
21...	1055	1810	--	--	242	0	51	18	.05	5.6	.01
APR.											
18...	1035	2550	--	--	230	0	51	22	.13	4.7	.12
MAY											
09...	1025	713	--	--	300	0	60	24	.02	4.3	.15
JUNE											
20...	1100	522	--	--	200	0	41	22	.06	4.9	.37
JULY											
05...	1050	2280	--	--	250	0	54	20	.28	5.2	.54
11...	0905	668	--	--	300	0	59	22	.08	4.2	.39
18...	0950	195	--	--	326	0	64	28	.06	2.8	.20
25...	0900	1350	--	--	218	0	43	20	.14	4.9	.20
AUG.											
01...	0855	272	--	--	320	0	55	30	.06	3.9	.51
08...	0850	144	470	72	342	0	61	32	.03	2.7	.04
15...	1005	3560	--	--	120	0	21	13	.45	2.8	.21
22...	0940	634	--	--	264	0	44	20	.08	3.0	.32
29...	1005	172	--	--	338	0	61	24	.05	2.2	.24
SEP.											
05...	0955	118	--	--	320	0	59	28	.04	.90	.72
12...	1010	115	--	--	344	0	63	30	.03	1.3	.35
19...	1020	86	--	--	346	0	67	28	.05	1.4	.39
26...	1025	89	--	--	294	0	64	30	.05	.80	.40

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
11...	.3	.00	0	8	0	8	18	40
AUG.								
08...	.3	.00	0	4	0	11	6	50

GREAT MIAMI RIVER BASIN

185

03266000 STILLWATER RIVER AT ENGLEWOOD, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: Water years 1962-63 (partial-record station), July 1966 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.31	310	92	610	7.8	390	14.5	50	2	9.1	88
11...	.34	380	110	700	7.8	448	12.5	25	2	10.0	93
18...	.38	350	100	650	8.0	412	10.0	35	2	10.9	96
25...	.40	410	110	750	8.0	466	9.5	15	2	9.9	86
NOV.											
08...	.42	260	88	510	7.8	313	9.5	130	2	10.8	94
DEC.											
20...	.12	350	110	680	7.9	407	1.0	5	10	13.0	92
JAN.											
17...	.20	390	110	750	8.0	444	.0	3	2	13.3	91
FEB.											
21...	.13	370	120	680	7.9	420	1.0	6	4	13.1	92
MAR.											
21...	.17	290	91	540	7.9	336	4.5	35	4	12.3	95
APR.											
18...	.29	300	110	560	7.9	335	10.0	90	6	10.3	91
MAY											
09...	.14	330	84	640	8.1	392	14.5	15	8	9.2	89
JUNE											
20...	.43	240	76	470	7.7	291	22.0	100	4	7.2	82
JULY											
05...	.85	300	94	560	7.8	358	22.5	180	16	7.7	88
11...	.34	340	94	625	7.9	400	24.5	85	32	7.0	83
18...	.41	360	92	700	8.1	428	22.5	65	8	7.2	82
25...	.42	250	72	500	7.5	330	22.0	90	8	7.8	89
AUG.											
01...	.34	350	88	660	7.9	422	22.0	60	8	7.4	84
08...	.30	380	100	700	8.1	448	24.0	35	4	7.6	89
15...	1.0	130	32	280	7.4	178	21.5	200	8	8.0	90
22...	.34	290	73	540	7.7	332	20.0	90	4	8.1	88
29...	.38	360	82	625	7.9	424	26.0	40	8	7.4	90
SEP.											
05...	.40	340	78	640	8.2	380	26.0	35	32	8.0	98
12...	.37	370	88	680	8.3	424	19.5	35	4	8.0	86
19...	.44	380	96	700	8.1	428	16.0	30	16	9.0	93
26...	.44	320	78	620	8.4	384	21.0	25	32	9.5	100

GREAT MIAMI RIVER BASIN

03268000 BUCK CREEK AT NEW MOOREFIELD, OHIO

LOCATION.--Lat 39°59'31", long 83°42'53", in NE 1/4 sec.9, R.10, T.5, Clark County, on downstream side of bridge on Moorefield-Catawba Road, at New Moorefield, 1.7 mi (2.7 km) downstream from gaging station on Buck Creek near New Moorefield, and 1.3 mi (2.1 km) downstream from East Fork Buck Creek.

DRAINAGE AREA.--65.3 mi² (169 km²).

PERIOD OF RECORD.--Chemical analyses: July to September 1970 (partial-record station), November 1970 to September 1973.

Water temperatures: December 1970 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 759 micromhos June 24; minimum, 270 micromhos July 3.

Water temperatures: Maximum, 25.0°C July 3; minimum, freezing point on Dec. 16, 17, Jan. 10, Feb. 16, 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	DIS- SOLVED SILICA (SI02) (MG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG)
NOV. 08...	0915	102	9.3	120	610	35	78	69	25
DEC. 13...	1310	79	6.4	40	220	20	58	74	28
JAN. 22...	1500	53	10	60	490	33	39	85	30
MAR. 05...	1320	30	8.5	10	110	40	42	97	37
APR. 16...	1305	43	8.7	40	150	60	60	94	40
JUNE 07...	0905	66	7.9	10	190	34	60	84	37
JULY 09...	1315	41	12	20	280	58	59	110	38
AUG. 20...	1230	40	14	30	1300	58	81	98	40

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	TEMPER- ATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)
NOV. 08...	280	85	511	7.5	336	320	8.0	50
DEC. 13...	300	88	558	7.7	348	340	3.5	30
JAN. 22...	330	93	604	8.0	378	374	6.5	15
MAR. 05...	390	110	693	8.0	430	433	12.0	5
APR. 16...	400	110	704	8.1	458	427	12.0	5
JUNE 07...	360	100	622	7.8	410	388	14.5	15
JULY 09...	430	120	720	7.8	466	455	21.0	3
AUG. 20...	410	110	706	7.9	420	439	18.0	6

GREAT MIAMI RIVER BASIN

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03268000 BUCK CREEK AT NEW MOOREFIELD, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1972-73): Maximum, 759 micromhos June 24, 1973; minimum, 270 micromhos July 3, 1973.
 Water temperatures (1972-73): Maximum, 25.0°C July 3, 1973; minimum, freezing point on Dec. 16, 17, 1972, Jan. 10, Feb. 16, 17, 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since December 1970. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected on an approximate monthly basis. Discharges are computed from the combined discharges of Buck Creek near New Moorefield, Ohio, station 03267950, drainage area 30.5 mi² (79.0 km²), and East Fork Buck Creek near New Moorefield, Ohio, station 03267960, drainage area 28.7 mi² (74.3 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 08...	3.6	4.2	232	0	64	16	.3	3.0	--
DEC. 13...	5.6	3.2	256	0	63	26	.3	1.8	--
JAN. 22...	4.9	3.1	294	0	61	16	.2	4.5	--
MAR. 05...	5.3	1.8	348	0	80	18	.2	3.0	--
APR. 16...	5.0	1.5	352	0	82	16	.3	1.5	--
JUNE 07...	4.5	2.0	318	0	66	15	.3	3.7	--
JULY 09...	4.9	1.5	373	0	80	15	.3	2.4	.08
AUG. 20...	5.3	2.2	368	0	72	13	.2	2.9	.07

03268000 BUCK CREEK AT NEW MOOREFIELD, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	719	670	747	581	722	715	---	---	743	596	715	689
2	722	715	619	298	720	706	---	---	628	510	711	688
3	717	714	733	598	717	704	---	---	705	628	711	691
4	722	709	750	735	719	715	683	630	730	705	719	695
5	717	708	754	750	724	717	734	683	738	725	717	686
6	714	709	755	747	728	441	743	734	741	729	717	686
7	711	704	755	438	711	619	747	743	738	736	729	699
8	707	701	675	433	713	436	747	743	736	719	713	691
9	702	699	732	683	642	514	743	739	730	723	711	693
10	699	696	741	732	695	645	745	738	729	723	704	605
11	700	693	734	692	720	695	743	738	729	723	688	581
12	697	343	742	729	717	648	741	736	727	723	700	650
13	700	645	742	357	659	495	739	736	733	725	709	699
14	708	701	622	332	713	664	739	734	733	719	715	425
15	707	702	709	622	719	695	739	734	719	682	677	456
16	704	702	727	709	717	699	741	732	720	699	702	625
17	740	701	735	727	722	715	738	727	731	720	625	522
18	738	724	739	735	722	715	734	721	728	720	641	594
19	733	726	737	677	720	673	730	712	729	719	673	603
20	733	726	689	655	675	507	730	721	728	719	675	625
21	735	731	728	689	637	577	730	714	728	711	697	675
22	737	733	729	728	684	634	714	541	722	711	702	693
23	737	729	731	728	711	684	690	571	726	717	708	697
24	737	733	731	726	715	711	736	690	724	706	704	699
25	735	731	729	724	---	---	741	736	720	704	700	623
26	735	730	726	713	---	---	745	736	722	708	623	491
27	732	726	724	708	---	---	745	729	722	709	669	551
28	735	728	717	702	---	---	734	657	720	702	691	669
29	737	732	722	713	---	---	725	658	---	---	693	494
30	737	732	722	717	---	---	738	725	---	---	668	510
31	737	719	---	---	---	---	743	738	---	---	685	635
MONTH	740	343	755	298	---	---	747	541	743	510	729	425
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	685	648	711	694	---	---	721	681	708	679	706	686
2	699	685	713	693	---	---	719	528	702	677	710	675
3	704	698	703	694	---	---	585	270	702	669	708	665
4	707	484	709	686	---</							

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

GREAT MIAMI RIVER BASIN

03270000 MAD RIVER NEAR DAYTON, OHIO

LOCATION.--Lat 39°47'50", long 84°05'19", in SW 1/4 sec.7, R.8, T.2, Greene County, at gaging station on left bank in retarding basin 300 ft (91 m) upstream from Huffman Dam, 2.3 mi (3.7 km) downstream from Mud Run, and 6.2 mi (10.0 km) northeast of Dayton. Water-quality recorder located 900 ft (274 m) downstream from gaging station.

DRAINAGE AREA.--635 mi² (1,645 km²).

PERIOD OF RECORD.--Chemical analyses: October 1947 to September 1948, water years 1962-63 (partial-record station), July 1966 to September 1973.

Water temperatures: October 1947 to September 1948, June 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,030 micromhos Dec. 12; minimum, 270 micromhos June 20.

pH: Maximum, 10.1 July 21; minimum, 5.6 Oct. 5, 6.

Dissolved oxygen: Maximum, 15.0 mg/l Feb. 28, Mar. 1, 8; minimum, 3.3 mg/l Oct. 25.

Water temperatures: Maximum, 26.0°C Aug. 28, 29, Sept. 2, 3; minimum, freezing point Dec. 16-18, Feb. 17.

EXTREMES.--Period of record:

Specific conductance (1968-69, 1970-73): Maximum, 1,210 micromhos Jan. 9, 1969; minimum, 165 micromhos June 26, 1971.

pH (1971-73): Maximum, 10.0 July 21, 1973; minimum, 5.6 Oct. 5, 6, 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1100	482	--	--	344	0	80	32	.09	2.4	.26
11...	1050	366	300	49	354	0	82	32	.08	2.4	.17
18...	1130	392	--	--	354	0	82	32	.10	2.4	.26
25...	1035	362	--	--	354	0	80	30	.11	2.1	.30
NOV.											
08...	1030	3520	--	--	210	0	47	20	.10	3.0	.42
DEC.											
20...	1045	1600	--	--	296	0	64	56	.05	2.7	.27
JAN.											
17...	0955	608	--	--	352	0	80	32	.07	2.6	.15
FEB.											
21...	0955	613	--	--	350	0	77	32	.05	2.9	.30
MAR.											
21...	1130	1460	--	--	316	0	65	22	.04	3.5	.09
APR.											
18...	1100	--	--	--	278	0	56	20	.06	2.9	.10
MAY											
09...	1050	1000	--	--	330	0	65	26	.09	3.0	.21
JUNE											
20...	1130	5780	--	--	146	0	28	13	.07	3.8	.30
JULY											
05...	1205	2350	--	--	236	0	45	16	.22	3.3	.34
11...	1035	852	--	--	342	0	73	26	.10	2.7	.25
18...	1035	568	--	--	356	0	73	28	.04	2.6	.09
25...	1010	978	--	--	344	0	67	26	.07	2.9	.37
AUG.											
01...	1030	676	--	--	350	0	70	30	.11	2.2	.30
08...	1040	510	170	32	346	0	72	30	.07	3.0	.01
15...	1045	1580	--	--	278	0	54	22	.07	2.4	.67
22...	1025	762	--	--	342	0	63	28	.07	2.6	.18
29...	1050	518	--	--	326	0	75	24	.06	5.2	.26
SEP.											
05...	1025	496	--	--	338	0	69	28	.10	3.0	.29
12...	1035	482	--	--	358	0	73	26	.08	3.2	.54
19...	1045	424	--	--	356	0	74	24	.14	2.6	.54
26...	1110	402	--	--	354	0	87	28	.10	3.0	.36

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.										
11...	.3	.00	0	--	7	6	5	9	--	40
17...	--	--	--	.5	--	--	--	--	<.5	--
NOV.										
06...	--	--	--	--	--	--	--	--	<.5	--
JUNE										
05...	--	--	--	3.0	--	--	--	--	<.5	--
AUG.										
08...	.3	.01	0	--	2	20	12	8	--	50

GREAT MIAMI RIVER BASIN

471

03270000 MAD RIVER NEAR DAYTON, OHIO--CONTINUED

EXTREMES.--Period of record--Continued

Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher on many days during November 1970 to January 1971, November 1971, January and February 1972, February and March 1973; minimum, 2.4 mg/l June 4, 5, 1971.
 Water temperatures (1947-48, 1968-69, 1970-71, 1972-73): Maximum, 28.5°C June 20, 1971; minimum, freezing point on several days during winter periods.

REMARKS.--Samples for iron and manganese filtered clear when collected. Water-quality recorder operated since June 1968. Minimum recorded pH of 4.4 occurred Apr. 8, 1971. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Maximum recorded water temperature of 29.5°C occurred on Aug. 18, 1972. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

REVISIONS.--Revised figures for pH and dissolved oxygen for water year 1971 superseding those previously published are given herewith: Delete pH maximum and minimum values Feb. 25-28 and Apr. 3-9, 1971. Delete dissolved oxygen maximum and minimum values June 2-30 and July 1-3. Change minimum dissolved oxygen extremes 1970-71 water year to 4.4 mg/l Aug. 23 and minimum dissolved oxygen extremes period of record to 2.4 mg/l Aug. 23, 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.45	390	110	750	7.3	474	15.5	25	4	8.0	80
11...	.54	390	100	750	7.9	466	12.0	10	2	9.7	90
18...	.46	400	110	735	8.1	466	10.0	8	2	9.2	81
25...	.54	390	100	740	7.8	440	11.0	7	4	9.2	83
NOV.											
08...	.45	240	68	460	7.8	284	9.5	130	2	10.0	87
DEC.											
20...	.28	330	87	750	7.7	424	4.5	20	4	11.2	86
JAN.											
17...	.34	420	130	780	7.8	480	5.0	2	2	11.2	88
FEB.											
21...	.29	400	110	740	7.8	455	5.0	9	6	11.0	86
MAR.											
21...	.22	360	100	660	7.9	396	5.0	15	2	11.6	91
APR.											
18...	.24	320	92	605	7.8	364	11.0	55	4	9.4	85
MAY											
09...	.25	360	89	675	8.0	414	15.5	8	8	9.4	94
JUNE											
20...	.72	170	50	320	7.2	197	21.0	170	8	7.5	83
JULY											
05...	.59	270	76	500	7.7	308	21.0	150	16	7.6	84
11...	.37	390	110	700	7.7	429	21.0	30	16	7.1	79
18...	.25	390	98	725	8.0	458	20.0	15	8	7.9	86
25...	.54	380	98	700	7.8	456	20.0	30	2	7.4	80
AUG.											
01...	.38	410	120	750	7.7	450	20.0	15	2	7.0	76
08...	.31	400	120	750	7.9	468	22.5	5	16	8.2	93
15...	.30	320	92	560	7.7	362	21.0	60	32	7.8	87
22...	.29	370	90	690	7.7	418	18.0	20	4	8.2	86
29...	.40	390	120	700	7.8	454	24.5	5	8	8.0	95
SEP.											
05...	.38	390	110	710	7.8	444	22.5	10	32	7.0	80
12...	.38	390	96	725	7.9	450	16.5	10	8	7.2	73
19...	.41	410	120	725	7.8	446	16.0	8	8	8.7	87
26...	1.2	390	100	740	7.8	450	20.0	10	4	7.8	85

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

03270000 MAD RIVER NEAR DAYTON, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.4	8.1	8.2	7.4	11.6	10.4	10.9	10.2	11.3	10.2	15.0	11.5
2	8.7	7.8	8.1	7.7	11.3	10.1	11.6	10.9	10.3	9.5	13.3	10.2
3	8.3	7.3	8.7	8.1	10.5	10.0	11.5	11.0	10.6	10.1	12.6	9.7
4	7.5	7.1	9.0	8.6	10.7	10.1	11.8	11.1	11.9	9.8	13.3	9.6
5	7.5	6.7	9.4	9.0	10.6	9.9	12.1	11.7	11.8	9.6	13.0	9.7
6	8.5	7.5	9.8	9.0	11.5	9.2	12.6	11.7	11.2	9.5	13.4	9.5
7	8.5	7.4	9.0	8.3	13.8	11.4	12.6	11.9	10.7	9.5	12.9	9.1
8	9.5	7.6	9.7	9.0	12.9	12.1	12.6	11.9	12.2	9.6	15.0	10.1
9	10.1	7.8	9.5	9.1	12.7	12.0	12.5	11.8	12.5	10.2	13.9	10.6
10	10.3	8.1	9.5	9.0	12.3	11.7	12.9	12.1	12.5	10.6	13.1	10.4
11	10.0	8.2	9.1	8.7	---	---	12.9	12.1	12.7	10.6	10.8	9.5
12	8.4	7.5	9.5	9.1	---	---	12.9	12.0	13.8	10.0	10.5	9.5
13	8.5	7.9	10.1	9.3	---	---	12.7	11.7	13.8	11.2	12.7	9.9
14	9.3	8.3	10.9	10.0	---	---	12.7	11.3	11.7	10.7	10.1	8.2
15	10.5	8.4	10.9	10.6	---	---	11.9	11.1	11.7	10.3	8.3	6.5
16	9.4	8.5	10.9	10.4	---	---	12.5	10.7	14.3	11.6	9.0	6.8
17	10.5	8.3	10.6	10.2	---	---	12.4	10.4	14.8	13.1	11.1	7.1
18	9.7	8.4	10.5	10.1	---	---	12.2	9.7	14.8	12.6	11.5	9.2
19	11.3	8.9	10.5	10.2	---	---	10.5	9.4	14.6	12.0	10.5	8.5
20	11.6	9.1	11.4	10.3	---	---	12.3	10.0	12.9	11.3	10.3	8.8
21	10.9	8.5	11.6	10.9	11.4	9.3	13.0	10.9	13.8	11.0	10.4	9.3
22	11.3	8.2	11.4	10.6	9.5	9.3	12.2	10.8	14.8	11.7	11.4	9.2
23	10.7	7.5	11.1	10.5	9.6	9.4	11.4	10.7	13.9	11.8	10.4	8.6
24	8.9	6.9	11.5	10.7	9.8	9.6	13.0	11.5	14.9	11.5	10.0	7.7
25	8.0	3.3	11.1	10.6	10.1	9.8	13.0	11.0	14.7	11.2	9.0	7.8
26	9.9	5.6	10.7	10.3	10.1	9.8	12.2	10.3	13.6	11.0	9.3	7.8
27	11.0	7.0	11.3	10.5	10.7	10.0	10.8	9.7	14.3	10.8	9.8	8.0
28	8.8	6.3	11.9	10.6	10.6	10.1	10.5	9.6	15.0	11.9	10.3	8.2
29	10.2	6.5	12.3	10.8	10.8	10.0	12.6	10.5	---	---	10.3	9.3
30	10.4	7.0	11.9	10.5	10.6	9.7	12.9	11.3	---	---	10.3	9.0
31	9.1	7.6	---	---	10.2	9.5	12.5	10.8	---	---	10.5	9.8
MONTH	11.6	3.3	12.3	7.4	---	---	13.0	9.4	15.0	9.5	15.0	6.5
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.6	9.6	10.6	8.0	9.0	6.7	8.2	7.5	8.3	6.6	8.9	7.1
2	10.9	10.0	10.4	8.0	9.4	6.8	8.0	7.2	8.8	7.2	9.9	6.9
3	11.8											

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	11.5	10.0	6.0	5.0	8.5	5.0	6.0	4.0	9.0	5.0
2	---	---	14.0	11.5	7.5	5.5	5.0	4.0	7.0	6.0	10.0	7.0
3	---	---	14.0	11.5	7.5	6.0	5.0	4.0	6.0	4.5	11.0	9.5
4	---	---	11.5	10.5	6.5	6.0	6.0	4.5	6.0	4.0	12.0	10.5
5	---	---	11.0	9.5	8.0	6.5	4.5	3.5	7.5	5.5	13.0	11.0
6	---	---	11.0	8.5	9.0	5.5	3.5	2.5	8.5	7.0	14.5	10.5
7	---	---	11.5	10.5	5.5	2.5	3.0	2.0	8.0	7.0	14.5	12.5
8	---	---	11.0	9.0	4.0	3.0	3.0	2.0	7.0	4.0	14.5	11.0
9	---	---	9.5	9.0	5.0	4.0	3.0	1.5	5.0	2.5	12.0	10.5
10	---	---	10.0	9.0	5.0	3.5	2.0	1.0	3.5	2.0	13.5	10.5
11	---	---	10.0	9.5	3.5	2.5	2.0	0.5	4.0	1.5	15.5	12.5
12	---	---	10.0	9.0	6.5	3.0	2.5	0.5	4.5	1.0	14.0	10.5
13	---	---	9.0	8.0	6.5	4.5	4.0	1.5	5.5	3.0	12.0	9.5
14	---	---	8.0	6.5	4.5	4.0	4.5	2.0	6.5	5.0	14.0	11.0
15	---	---	6.5	6.0	4.5	3.5	5.0	3.5	6.5	4.0	14.5	13.0
16	---	---	7.0	6.5	3.5	0.0	6.5	4.5	4.0	0.5	16.0	14.0
17	13.5	11.5	7.0	6.5	0.5	0.0	8.0	5.0	3.0	0.0	14.5	5.0
18	11.5	9.5	7.5	7.0	2.0	0.0	9.0	6.0	3.0	0.5	12.5	4.0
19	11.0	8.5	7.5	7.0	4.0	2.0	8.5	7.0	5.5	2.0	15.5	7.0
20	10.5	7.0	7.0	6.5	5.0	4.0	7.0	4.5	6.0	4.5	14.0	7.5
21	10.0	8.5	6.5	6.0	6.0	4.5	4.5	4.0	5.5	3.5	13.0	7.0
22	11.5	9.5	7.0	6.5	6.0	6.0	6.0	4.5	4.0	3.0	13.0	6.0
23	14.5	11.5	7.0	5.5	6.5	6.0	5.5	4.0	4.5	3.5	15.5	8.0
24	12.5	12.0	6.0	5.0	7.0	6.5	4.5	3.5	7.0	3.5	19.5	9.5
25	12.0	10.5	6.0	5.0	7.0	6.5	6.0	3.5	8.0	4.5	18.0	12.5
26	12.0	9.0	6.0	5.0	6.5	5.5	6.5	5.0	6.5	5.0	18.5	11.0
27	11.5	8.5	5.5	5.0	5.5	4.5	8.5	6.5	5.5	4.5	18.5	10.0
28	12.5	11.0	6.0	5.0	5.5	4.5	8.5	6.0	6.0	4.5	17.0	10.0
29	13.5	12.0	5.5	4.5	6.5	5.0	6.0	2.5	---	---	10.5	10.0
30	12.0	11.0	6.0	5.0	9.0	6.5	3.5	2.0	---	---	15.0	10.5
31	11.0	10.0	---	---	10.0	8.5	4.0	2.5	---	---	12.5	11.0
MONTH	---	---	14.0	4.5	10.0	0.0	9.0	0.5	8.5	0.0	19.5	4.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	11.0	16.0	14.5	20.5	16.5	22.5	19.0	21.5	20.0	25.0	21.5
2	13.5	10.5	16.0	14.5	22.0	17.0	23.5	20.0	21.5	19.0	26.0	22.0
3	11.0	9.0	15.0	12.0	23.0	18.5	23.5	21.5	23.0	19.0	26.0	22.0
4	10.0	7.5	14.0	10.5								

GREAT MIAMI RIVER BASIN

03271350 GREAT MIAMI RIVER AT WEST CARROLLTON, OHIO

LOCATION.--Lat 39°40'28", long 84°15'42", Montgomery County, at bridge on Farmersville-West Carrollton Road, at West Carrollton.

DRAINAGE AREA.--2,647 mi² (6,856 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1130	--	--	248	0	69	34	--	.07	3.1	.32
11...	1120	420	59	290	0	82	42	.5	.06	3.1	.54
18...	1200	370	--	294	0	83	46	--	.01	3.3	.47
25...	1105	--	--	322	0	91	52	--	.13	2.8	.70
NOV.											
08...	1105	--	--	226	0	56	24	--	.07	4.0	.54
DEC.											
20...	1115	--	--	268	0	63	58	--	.07	2.9	.22
JAN.											
17...	1025	--	--	348	0	86	46	--	.07	3.7	1.0
FEB.											
21...	1020	150	34	314	0	77	38	--	.06	3.4	.24
MAR.											
21...	1200	--	--	228	0	51	24	--	.05	3.9	.11
APR.											
18...	1210	--	--	248	0	58	24	--	.08	3.6	.11
MAY											
09...	1225	550	44	284	0	60	32	.3	.08	2.8	.36
JUNE											
20...	1150	--	--	204	0	43	20	--	.05	4.5	.36
JULY											
05...	1245	8400	--	182	0	37	16	--	.29	4.5	.44
11...	1105	1200	--	290	0	64	30	--	.11	3.0	.13
18...	1105	--	--	320	0	77	44	--	.06	2.7	.43
25...	1040	--	--	268	0	59	28	--	.10	3.1	.22
AUG.											
01...	1100	--	--	288	0	66	38	--	.06	2.4	.43
08...	1110	310	78	338	0	77	44	.5	.06	2.1	.05
15...	1110	860	--	192	0	41	22	--	.14	1.8	.43
22...	1100	--	--	258	0	50	22	--	.06	2.1	.53
29...	1200	--	--	346	0	72	36	--	.08	3.1	.98
SEP.											
05...	1055	--	--	332	0	75	38	--	.11	2.0	1.0
12...	1105	280	--	334	0	81	42	--	.08	2.3	.88
19...	1110	360	--	344	0	87	34	--	.11	2.1	.65
26...	1140	--	--	322	0	54	54	--	.11	2.0	.88

DATE	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.							
11...	.00	2	9	2	19	18	60
18...	--	8	--	--	19	--	50
FEB.							
21...	.02	2	3	5	16	7	90
MAY							
09...	.01	1	3	20	10	16	50
JULY							
05...	--	2	--	--	37	--	100
11...	--	1	--	--	24	--	90
AUG.							
08...	.01	0	4	20	23	11	80
15...	--	--	--	--	16	--	80
SEP.							
12...	--	0	--	--	16	--	80
19...	--	4	--	--	13	--	80

GREAT MIAMI RIVER BASIN

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03271350 GREAT MIAMI RIVER AT WEST CARROLLTON, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: April 1965 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples collected weekly October, July to September, and monthly November to June. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.59	290	86	630	7.8	394	16.0	50	4	7.5	75
11...	.76	330	92	710	8.0	434	15.0	20	4	10.0	98
18...	.90	340	98	715	8.2	452	13.5	25	8	9.8	93
25...	1.1	370	100	790	8.0	478	14.0	20	4	9.6	92
NOV.											
08...	.45	260	74	520	7.8	337	10.0	110	4	10.4	92
DEC.											
20...	.52	310	90	725	8.0	415	3.0	35	12	12.4	92
JAN.											
17...	.72	380	94	825	7.9	504	4.5	10	6	12.0	92
FEB.											
21...	.62	360	100	730	8.0	441	5.0	10	6	12.0	94
MAR.											
21...	.34	300	110	515	7.8	316	5.0	50	2	12.5	98
APR.											
18...	.37	300	96	580	7.9	347	11.5	60	8	10.0	91
MAY											
09...	.45	310	77	625	7.9	388	17.0	30	4	9.0	78
JUNE											
20...	.85	240	73	470	7.5	285	22.5	160	8	7.2	82
JULY											
05...	.75	200	51	420	7.6	262	22.5	180	4	7.4	84
11...	.57	330	92	625	7.8	383	25.0	70	32	6.8	81
18...	.85	340	78	750	8.1	466	25.0	35	4	7.1	84
25...	.56	310	90	600	7.8	408	23.0	80	8	7.7	88
AUG.											
01...	.65	350	110	700	7.8	424	23.5	35	16	7.3	85
08...	.80	380	100	875	8.2	492	28.0	15	4	7.7	97
15...	.50	230	72	420	7.5	284	22.5	100	8	7.8	89
22...	.44	280	68	540	7.9	338	21.0	65	4	8.3	92
29...	.85	360	76	725	7.8	456	28.5	20	8	7.3	87
SEP.											
05...	.88	360	88	710	8.1	450	30.0	20	32	7.3	96
12...	.96	380	110	750	8.0	466	23.0	30	16	7.0	80
19...	1.0	390	110	800	8.2	488	20.5	25	32	9.7	110
26...	.42	360	96	790	8.2	506	26.5	25	16	7.5	92

GREAT MIAMI RIVER BASIN

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OHIO

LOCATION.--Lat 39°36'39", long 84°17'28", Montgomery County, on Chautauqua Road bridge, about 2.0 mi (3.2 km) south of Miamisburg and 2.5 mi (4.0 km) downstream from gaging station at Miamisburg.

DRAINAGE AREA.--2,715 mi² (7,032 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1962-64 (partial-record station), March 1964 to September 1973. Water temperatures: March 1964 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 844 micromhos Oct. 27; minimum, 312 micromhos Mar. 19.

pH: Maximum, 8.9 Sept. 4; minimum, 7.0 Feb. 1.

Dissolved oxygen: Maximum, 15.0 mg/l Jan. 13, 14; minimum, 2.8 mg/l Aug. 11.

Water temperatures: Maximum, 30.5°C Aug. 30, Sept. 3-5; minimum, freezing point on Dec. 16, 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.										
03...	1245	2830	210	8	63	25	.3	--	--	3.4
18...	0930	--	--	--	--	--	--	--	--	--
27...	1010	991	332	0	92	52	.4	--	--	3.5
NOV.										
03...	1435	17100	176	0	39	16	.2	--	--	3.5
29...	1355	4020	276	12	72	27	.2	--	--	3.3
DEC.										
08...	1300	13400	149	0	36	42	.2	--	--	2.9
20...	0800	5550	264	0	63	73	.3	--	--	2.8
JAN.										
04...	0755	5130	242	0	61	27	.3	--	--	3.8
12...	1245	1940	331	0	83	37	.4	--	--	4.6
FEB.										
06...	1230	3540	272	0	69	26	.3	--	--	4.9
27...	1315	1640	326	0	82	38	.4	--	--	4.0
MAR.										
02...	1230	1560	292	14	84	43	.4	--	--	4.0
13...	1315	12300	164	0	42	16	.2	--	--	4.7
APR.										
13...	1230	8370	270	0	60	31	.2	--	--	4.3
24...	1300	8100	212	0	48	18	.3	--	--	3.6
MAY										
09...	1300	3420	250	13	62	28	.3	--	--	2.9
18...	1230	2010	306	0	65	35	.4	--	--	3.3
JUNE										
06...	0900	--	--	--	--	--	--	--	--	--
06...	1500	14200	172	0	39	22	.4	--	--	5.2
13...	1330	4210	260	18	66	34	.4	--	--	4.0
JULY										
06...	1300	7550	188	0	41	14	.4	--	--	4.7
18...	0900	1350	315	0	76	38	.5	--	--	3.7
AUG.										
08...	1550	1220	295	16	16	45	--	.7	.00	--
22...	1050	3900	258	0	23	19	--	.6	.00	--
SEP.										
04...	1300	1190	329	0	17	36	--	.6	.00	--
19...	1425	926	290	20	17	53	--	1.2	.00	--

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance: Maximum, 1,170 micromhos Feb. 9, 1972; minimum, 270 micromhos Apr. 22, 1964.

pH (1964-71, 1972-73): Maximum, 9.3 May 19, 20, 1971; minimum, 6.7 Oct. 30, 1969.

Dissolved oxygen (1964-68, 1969-70, 1971-73): Maximum, 15.0 mg/l or higher on several days during 1964, 1966, 1968, 1972 and 1973; minimum, 0.0 mg/l on many days during 1964-66, 1970-71.

Water temperatures (1964-70, 1971-73): Maximum, 37.0°C Aug. 16-18, 1965; minimum, freezing point on Dec. 16, 17, 1972.

REMARKS.--Water-quality recorder operated since March 1964. Prior to November 1971, at site 400 ft (122 m) downstream, in O. H. Hutchings power plant. Minimum recorded pH of 5.7 occurred on Feb. 9, 1972. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Great Miami River at Miamisburg, Ohio, station 03271500, drainage area 2,711 mi² (7,021 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.									
03...	--	270	84	553	344	--	16.0	--	--
18...	--	--	--	--	--	--	13.5	.0	1.6
27...	--	390	120	814	502	--	14.0	--	--
NOV.									
03...	--	200	56	415	264	--	14.0	--	--
29...	--	340	94	671	424	--	5.0	--	--
DEC.									
08...	--	180	58	452	260	--	3.0	--	--
20...	--	300	83	731	454	--	3.0	--	--
JAN.									
04...	--	290	91	580	322	--	4.5	--	--
12...	--	380	110	757	450	--	2.0	--	--
FEB.									
06...	--	320	96	636	382	--	7.0	--	--
27...	--	370	100	764	456	--	6.5	--	--
MAR.									
02...	--	370	110	768	448	--	9.0	--	--
13...	--	200	66	423	272	--	11.0	--	--
APR.									
13...	--	310	88	619	370	--	8.0	--	--
24...	--	250	76	481	290	--	15.0	--	--
MAY									
09...	--	310	83	610	386	--	17.0	--	--
18...	--	340	88	693	426	--	15.5	--	--
JUNE									
06...	--	--	--	--	--	--	20.0	.0	<.5
06...	--	220	79	418	300	--	20.0	--	--
13...	--	350	110	633	416	--	24.0	--	--
JULY									
06...	--	220	66	436	290	--	23.0	--	--
18...	--	360	100	738	480	--	24.5	--	--
AUG.									
08...	4.2	--	--	820	--	528	29.0	--	--
22...	2.9	--	--	567	--	465	21.0	--	--
SEP.									
04...	3.4	--	--	795	--	543	28.0	--	--
19...	3.4	--	--	813	--	545	20.0	--	--

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	543	492	814	566	692	669	671	590	713	650	774	750
2	510	476	590	448	701	693	614	584	726	672	768	752
3	573	510	448	362	705	695	636	614	672	578	774	762
4	612	572	446	395	719	699	635	572	578	542	765	746
5	583	500	527	446	738	711	627	585	626	569	746	726
6	624	583	580	527	738	603	615	587	657	626	726	662
7	637	617	589	469	614	338	662	615	686	657	662	611
8	637	628	523	436	450	333	708	662	711	671	628	569
9	651	635	455	416	519	425	726	708	734	702	569	516
10	675	649	521	446	558	510	752	719	737	711	601	524
11	698	673	571	521	585	555	752	729	717	690	524	378
12	712	679	600	571	743	585	794	735	740	705	412	377
13	707	611	605	500	695	611	798	776	749	726	423	374
14	653	633	500	355	611	489	792	780	741	728	503	421
15	664	644	373	330	569	488	791	774	743	701	466	357
16	685	659	385	349	600	569	821	761	710	671	455	353
17	727	685	489	385	642	588	837	816	683	653	424	360
18	740	676	571	489	677	641	828	809	678	653	360	312
19	755	740	597	569	798	674	809	777	696	671	378	333
20	763	737	612	563	794	690	777	764	699	639	462	375
21	775	751	590	542	690	617	764	749	723	704	517	461
22	779	761	609	561	617	566	750	704	732	705	549	517
23	790	765	639	608	567	543	728	701	746	723	592	535
24	791	770	668	639	570	551	701	632	756	737	612	587
25	810	781	680	668	587	567	648	623	758	732	615	564
26	828	798	677	674	593	582	662	636	758	735	572	464
27	844	819	686	674	680	593	672	656	764	731	464	433
28	841	817	689	677	698	675	675	641	758	753	509	450
29	823	805	684	665	710	689	672	602	---	---	562	509
30	811	781	672	660	719	708	651	587	---	---	588	527
31	816	789	---	---	717	639	651	603	---	---	553	497
MONTH	844	476	814	330	798	333	837	572	764	542	774	312

[illegible]

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.0	7.7	8.0	7.9	8.1	7.8	8.3	8.0	7.6	7.0	8.6	7.9
2	7.9	7.7	8.1	7.9	8.2	7.5	8.4	7.8	7.7	7.5	8.3	8.0
3	7.8	7.5	8.0	7.8	8.1	8.0	8.1	7.9	7.5	7.5	8.3	8.1
4	7.7	7.6	7.8	7.8	8.0	7.9	8.1	8.0	7.9	7.4	8.4	8.1
5	7.8	7.6	8.2	7.8	8.0	7.7	7.9	7.8	8.0	7.6	8.4	8.1
6	7.9	7.7	8.1	7.8	7.8	7.4	8.3	7.8	7.8	7.6	8.5	8.1
7	7.8	7.7	8.0	7.6	7.5	7.2	8.0	7.9	7.7	7.6	8.2	7.6
8	8.1	7.6	7.9	7.8	7.4	7.3	8.1	7.8	7.8	7.6	8.0	7.5
9	8.0	7.6	8.0	7.8	7.5	7.3	8.0	7.8	8.0	7.6	7.6	7.4
10	8.0	7.6	8.1	7.9	7.6	7.3	8.1	7.8	7.9	7.6	7.9	7.4
11	7.9	7.6	8.1	8.1	7.7	7.4	7.9	7.8	8.0	7.6	7.7	7.4
12	7.8	7.6	8.2	8.1	7.8	7.6	8.7	7.8	8.1	7.7	7.5	7.4
13	8.0	7.6	8.1	8.0	7.7	7.6	8.3	7.8	8.1	7.9	8.0	7.5
14	8.0	7.5	8.0	7.7	7.6	7.5	8.2	7.9	8.1	7.9	8.1	7.8
15	8.0	7.4	8.0	7.7	7.7	7.5	8.1	8.0	8.0	7.8	8.2	8.0
16	7.8	7.4	8.0	7.8	8.0	7.6	8.3	8.0	8.0	7.7	8.1	7.9
17	7.8	7.5	8.0	7.9	7.8	7.5	8.5	8.0	8.1	7.9	8.1	7.5
18	8.1	7.7	8.0	7.9	7.8	7.6	8.4	8.0	8.0	7.8	8.2	7.8
19	8.0	7.5	8.0	7.8	7.9	7.8	8.1	7.8	8.0	7.7	8.3	8.1
20	8.1	7.8	7.9	7.9	8.1	7.8	8.0	7.9	7.8	7.6	8.2	8.0
21	8.1	7.9	7.9	7.9	8.1	8.0	8.1	7.9	7.6	7.5	8.1	7.5
22	8.1	7.9	7.9	7.7	8.0	7.9	8.2	7.9	7.7	7.5	7.9	7.7
23	8.2	7.9	7.9	7.5	8.0	8.0	8.0	7.9	7.8	7.7	8.2	7.8
24	8.1	8.0	8.0	7.7	8.1	8.0	8.4	7.9	8.3	7.7	8.3	7.8
25	8.1	7.9	7.8	7.8	8.1	8.0	8.0	7.4	8.3	7.8	8.2	8.1
26	8.2	8.1	7.8	7.7	8.1	7.8	7.8	7.5	8.0	7.9	8.1	8.0
27	8.2	8.0	7.9	7.7	8.1	7.8	7.7	7.6	7.9	7.8	8.2	7.9
28	8.2	7.8	7.9	7.7	8.7	7.9	7.6	7.4	8.1	7.9	8.1	8.0
29	8.1	7.9	8.0	7.7	8.2	7.9	7.5	7.3	---	---	8.2	7.5
30	8.1	8.0	8.0	7.8	8.3	8.0	7.6	7.4	---	---	7.8	7.4
31	8.0	7.9	---	---	8.4	8.0	7.6	7.4	---	---	7.6	7.5
MONTH	8.2	7.4	8.2	7.5	8.7	7.2	8.7	7.3	8.3	7.0	8.6	7.4
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.5	7.6	7.5	7.9	7.5	7.9	7.7	8.5	8.4	8.0	7.9
2	7.5	7.4	7.7	7.5	8.0	7.7	7.8	7.5	8.6	8.3	8.2	7.8
3	7.5	7.4	7.8	7.5	7.9	7.8	7.7	7.4	8.5	8.2	8.6	8.1
4	7.5	7.3	8.1	7.5	8.0	7.7	7.4	7.				

03271600 GREAT MIAMI RIVER NEAR MIAMISBURG, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.3	7.8	8.7	7.2	11.8	11.2	12.0	11.2	11.2	10.4	11.6	9.9
2	8.2	7.8	8.6	7.8	11.4	11.1	12.5	12.0	10.6	10.2	12.6	9.4
3	7.8	7.2	9.2	8.5	11.1	10.6	12.3	11.7	10.9	10.5	10.3	8.8
4	7.9	7.6	9.8	9.2	10.7	10.2	12.1	11.4	11.3	10.9	9.0	8.4
5	8.2	7.8	10.1	9.8	11.1	10.3	11.8	11.4	11.3	10.6	8.8	8.1
6	8.6	8.2	9.9	9.5	11.2	10.1	12.4	11.8	11.3	10.4	10.4	7.9
7	8.6	8.3	9.5	8.7	12.4	11.2	12.7	12.3	10.6	10.2	10.2	9.1
8	8.7	8.4	10.3	8.8	12.8	12.4	12.8	12.3	10.8	10.6	9.6	8.8
9	8.7	8.2	10.7	10.3	12.7	11.9	12.9	12.3	12.0	10.8	9.3	9.0
10	8.4	7.8	10.7	10.2	12.0	11.8	12.8	12.3	12.4	12.0	9.7	9.1
11	8.1	7.5	10.4	10.2	12.3	12.0	12.8	12.1	13.0	12.1	9.7	8.9
12	7.7	7.1	10.3	10.1	12.3	11.4	14.7	12.4	12.9	12.1	9.5	9.3
13	8.5	7.4	10.2	9.8	12.2	11.2	15.0	14.5	12.5	11.1	9.7	9.5
14	8.7	8.1	11.5	9.9	12.7	12.2	15.0	14.0	11.7	10.4	9.7	8.9
15	8.6	7.7	12.1	11.5	12.6	12.4	14.1	13.1	10.8	10.4	9.1	8.9
16	8.1	7.5	12.3	12.1	13.5	12.6	13.4	13.0	13.1	10.8	9.3	9.0
17	8.2	7.8	12.6	12.2	13.9	13.5	13.0	12.3	13.6	13.0	11.1	9.3
18	9.0	8.4	12.6	12.2	13.6	12.9	12.6	11.7	13.4	13.0	12.1	11.1
19	8.7	8.4	12.2	11.7	13.1	12.1	11.7	10.6	13.4	12.4	12.2	11.9
20	8.9	7.7	11.9	11.3	13.1	11.9	11.4	10.6	13.7	12.4	11.9	11.7
21	8.4	7.5	11.7	11.4	12.0	11.6	11.7	11.2	12.4	11.8	12.0	11.7
22	8.3	7.9	11.6	11.4	11.7	11.4	11.6	11.0	12.9	12.3	11.9	11.5
23	8.6	8.2	11.6	11.4	11.8	11.6	11.9	11.0	14.8	12.6	12.2	11.7
24	8.0	6.9	11.9	11.6	12.0	11.4	12.6	10.2	14.0	13.1	11.8	11.1
25	7.4	6.6	11.7	11.5	12.0	11.9	10.3	9.7	13.9	12.5	11.2	10.4
26	7.8	6.8	11.5	10.8	12.4	11.8	10.0	9.3	13.2	11.7	10.6	9.8
27	8.3	8.0	11.7	11.4	12.6	11.0	10.0	9.6	12.7	11.8	12.0	10.1
28	8.2	7.7	11.7	11.2	12.5	12.4	10.2	9.6	11.8	10.7	11.9	11.3
29	8.0	6.8	12.1	11.6	12.6	12.1	10.5	10.1	---	---	11.3	9.4
30	7.3	6.9	11.8	11.3	12.2	11.2	11.3	10.5	---	---	9.4	9.3
31	7.4	6.2	---	---	11.3	11.0	11.7	11.3	---	---	9.4	8.9
MONTH	9.0	6.2	12.6	7.2	13.9	10.1	15.0	9.3	14.8	10.2	12.6	7.5

[illegible]

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	14.5	14.5	13.0	6.0	5.0	8.0	5.5	5.0	3.5	8.5	6.5
2	15.5	13.5	14.5	13.5	6.5	6.0	5.5	4.5	6.0	5.0	9.5	8.0
3	16.5	15.0	13.5	13.0	7.0	6.5	5.0	4.0	5.5	4.5	10.5	9.0
4	17.0	16.5	13.0	11.5	7.5	6.5	5.0	4.0	5.0	3.5	11.5	10.5
5	17.0	16.5	11.5	10.5	8.5	7.0	4.0	3.0	6.5	4.5	12.5	11.0
6	17.0	16.0	12.0	10.0	9.0	5.5	3.0	1.5	7.5	6.5	12.5	11.5
7	17.0	16.0	12.0	11.0	5.0	3.0	2.0	0.5	7.0	7.0	13.5	12.0
8	17.0	16.0	11.5	10.0	3.0	2.0	1.5	0.5	7.0	5.0	13.0	12.0
9	17.0	15.5	10.0	9.5	4.0	2.5	1.5	1.0	5.0	4.0	12.5	11.0
10	16.5	15.0	10.0	9.0	4.0	3.5	1.0	0.5	4.0	2.5	12.5	11.0
11	16.0	15.0	10.0	9.5	3.5	2.5	1.0	0.5	3.0	1.0	13.0	10.5
12	17.0	16.0	10.0	9.5	5.5	3.0	2.0	1.0	3.5	1.5	12.0	11.5
13	17.0	15.5	10.0	9.0	5.5	4.0	2.0	1.0	4.5	3.5	12.0	11.0
14	15.5	14.0	9.0	7.0	4.0	3.0	2.5	1.0	6.5	4.5	13.0	11.0
15	15.0	13.5	7.0	6.0	3.0	2.0	3.5	2.0	6.5	4.5	13.5	12.5
16	14.0	13.5	6.0	5.5	2.0	0.0	4.5	3.5	4.5	1.5	13.0	11.5
17	15.0	13.5	6.0	5.0	0.5	0.0	6.0	4.0	1.5	0.5	11.5	5.5
18	14.0	12.5	6.5	6.0	2.0	0.5	7.5	5.5	2.0	1.0	5.5	3.5
19	13.0	12.0	6.5	6.5	3.0	2.0	8.0	7.0	4.0	2.0	5.5	3.5
20	14.0	11.0	7.0	6.5	4.0	3.0	7.0	5.0	4.5	3.5	5.5	4.5
21	13.5	12.5	6.5	5.5	4.0	3.5	5.0	4.0	4.5	3.5	6.0	4.0
22	13.5	11.5	6.5	6.0	5.0	4.0	5.5	4.0	3.5	3.0	7.0	5.0
23	15.0	13.0	6.5	6.0	5.0	4.5	5.5	4.0	4.0	3.5	8.0	5.5
24	15.5	14.5	6.0	5.0	5.5	5.0	4.0	3.0	6.0	4.0	9.5	7.0
25	14.5	14.0	6.0	5.5	5.5	5.0	4.5	3.0	6.5	4.5	10.0	9.0
26	15.0	13.5	5.5	5.0	5.0	4.5	5.5	4.5	6.5	6.0	10.0	8.5
27	15.0	13.0	6.0	5.0	4.5	3.5	6.0	5.5	6.5	5.5	9.5	7.5
28	15.5	14.5	6.0	5.5	4.5	3.5	6.5	5.0	7.0	5.5	10.0	8.5
29	15.0	14.0	5.5	4.5	5.5	4.0	5.0	3.5	---	---	10.5	9.5
30	14.5	13.5	5.5	5.0	7.5	5.5	3.5	1.5	---	---	12.5	10.5
31	14.5	13.0	---	---	9.0	7.5	3.5	2.0	---	---	11.5	10.5
MONTH	17.0	11.0	14.5	4.5	9.0	0.0	8.0	0.5	7.5	0.5	13.5	3.5

[illegible]

03272010 TWIN CREEK AT GERMANTOWN, OHIO

LOCATION.--Lat 39°37'22", long 84°23'33", in NE 1/4 sec.14, T.3 N., R.4 E., Montgomery County, at bridge on State Highway 725, 1 mi (2 km) downstream from gaging station, and approximately 0.1 mi (0.2 km) west of Germantown.

DRAINAGE AREA.--275 mi² (712 km²) (at gaging station).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1200	34	--	--	288	0	52	30	.06	1.8	.11
11...	1155	26	130	22	310	0	60	30	.01	2.7	.08
18...	1230	20	--	--	316	0	59	32	.08	2.0	.16
25...	1135	26	--	--	324	0	60	30	.01	1.7	.04
NOV.											
08...	1140	2120	--	--	148	0	41	22	.09	9.5	.34
DEC.											
20...	1150	1370	--	--	206	0	45	30	.08	4.5	.16
JAN.											
17...	1100	117	--	--	318	0	59	24	.01	4.9	.00
FEB.											
21...	1055	160	--	--	298	0	60	28	.01	5.7	.02
MAR.											
21...	1255	840	--	--	266	0	49	20	.02	6.2	.02
APR.											
18...	1300	1400	--	--	200	0	41	22	.17	5.5	.11
MAY											
09...	1300	450	--	--	248	0	43	19	.04	4.1	.15
JUNE											
20...	1225	1550	--	--	190	0	33	16	.07	6.5	.43
JULY											
05...	1330	219	--	--	300	0	50	22	.11	4.3	.20
11...	1200	99	--	--	296	0	50	20	.03	3.2	.05
18...	1155	62	--	--	310	0	52	28	.01	2.6	.35
25...	1120	1930	--	--	154	0	29	14	.25	5.8	.11
AUG.											
01...	1130	136	--	--	344	0	49	24	.01	4.5	.03
08...	1200	66	60	11	298	0	49	26	.01	2.7	.01
15...	1140	158	--	--	308	0	50	22	.04	2.2	.48
22...	1135	65	--	--	294	0	45	26	.01	1.9	.14
29...	1230	40	--	--	298	0	49	22	.01	3.7	.15
SEP.											
05...	1150	33	--	--	276	0	48	20	.02	2.0	.16
12...	1135	28	--	--	288	0	50	22	.01	1.6	.18
19...	1145	21	--	--	306	0	51	22	.01	1.8	.21
26...	1210	20	--	--	326	0	52	20	.03	2.0	.13

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
11...	.4	.00	2	9	1	9	8	30
AUG.								
08...	.3	.00	0	2	0	10	5	60

GREAT MIAMI RIVER BASIN

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03272010 TWIN CREEK AT GERMANTOWN, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: August 1967 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June. Records of discharge are given for Twin Creek near Germantown, Ohio (station 03272000).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.08	300	64	600	7.9	366	15.0	10	2	9.0	88
11...	.06	350	96	650	7.9	394	12.0	8	2	10.4	96
18...	.04	350	90	625	8.0	396	9.0	5	2	10.7	92
25...	.04	350	84	650	7.8	384	9.5	7	2	9.4	82
NOV.											
08...	.37	220	99	425	7.8	284	9.0	140	8	10.7	92
DEC.											
20...	.14	260	90	500	7.9	286	2.0	47	18	12.6	91
JAN.											
17...	.05	360	99	690	7.8	432	2.0	4	0	13.0	94
FEB.											
21...	.02	350	100	650	8.1	395	2.0	6	4	12.5	90
MAR.											
21...	.08	320	100	585	7.7	364	4.5	15	2	13.2	100
APR.											
18...	.27	230	66	570	7.9	287	10.0	100	6	10.2	90
MAY											
09...	.15	280	76	525	7.9	326	16.0	45	8	9.1	91
JUNE											
20...	.68	220	64	440	7.6	285	20.5	170	16	8.2	90
JULY											
05...	.28	340	94	625	7.9	372	22.0	70	16	8.1	92
11...	.09	320	77	600	8.1	351	23.0	15	8	7.8	90
18...	.07	340	86	625	8.0	382	22.0	10	4	9.4	107
25...	.56	200	74	380	7.5	260	21.5	150	8	8.0	90
AUG.											
01...	.08	370	88	675	7.9	394	21.0	10	16	8.3	92
08...	.02	350	100	600	7.9	354	24.0	5	16	10.1	120
15...	.06	330	77	600	8.2	410	22.5	10	8	8.5	96
22...	.03	310	68	560	7.8	344	20.0	10	4	9.0	98
29...	.02	320	76	600	7.9	372	25.0	5	8	9.8	120
SEP.											
05...	.05	300	74	550	7.9	332	24.5	10	16	8.7	104
12...	.05	310	74	520	7.7	334	18.0	10	8	7.8	82
19...	.06	330	78	600	7.7	348	15.0	10	4	9.5	93
26...	.07	340	72	550	7.8	390	21.0	15	16	8.2	91

GREAT MIAMI RIVER BASIN

03272100 GREAT MIAMI RIVER AT MIDDLETOWN, OHIO

LOCATION.--Lat 39°32'31", long 84°21'27", in sec. 18, R.4, T.2, Butler County, on left bank at County Park dock at Middletown, about 0.6 mi (1.0 km) downstream from New York Central Railroad bridge, and 0.3 mi (0.5 km) downstream from Twin Creek.

DRAINAGE AREA.--3,134 mi² (8,117 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1300	--	--	220	0	60	32	--	.08	2.8	.28
11...	1250	310	56	292	0	80	42	.4	.06	3.2	.23
18...	1345	290	--	296	0	82	50	--	.10	3.0	.27
25...	1240	--	--	320	0	92	58	--	.13	2.7	.44
NOV.											
08...	1235	--	--	224	0	56	26	--	.08	2.9	.61
DEC.											
20...	1305	--	--	228	0	55	59	--	.05	2.7	.16
JAN.											
17...	1140	--	--	348	0	84	44	--	.07	3.1	.87
FEB.											
21...	1200	280	81	310	0	77	40	.4	.04	3.9	.23
MAR.											
21...	1335	--	--	226	0	50	22	--	.05	4.6	.12
APR.											
10...	1240	--	--	282	0	69	44	--	.06	1.8	.52
18...	1340	--	--	188	0	42	26	--	.19	3.0	.13
MAY											
09...	1345	880	94	264	0	56	32	.4	.08	2.8	.36
JUNE											
20...	1345	--	--	214	0	45	24	--	.03	3.3	.42
JULY											
05...	1420	10000	--	162	0	34	18	--	.41	4.1	.28
11...	1245	700	--	244	0	60	30	--	.10	2.7	.42
18...	1245	--	--	326	0	75	47	--	.59	2.7	.20
25...	1210	--	--	246	0	52	26	--	.08	2.4	.25
AUG.											
01...	1245	--	--	316	0	66	44	--	.07	2.3	.30
08...	1300	280	84	336	0	76	48	.6	.06	2.3	.01
15...	1250	710	--	186	0	41	20	--	.10	2.3	.32
22...	1250	--	--	250	0	70	28	--	.07	2.1	.38
29...	1305	--	--	322	0	72	34	--	.05	2.8	.40
SEP.											
05...	1220	--	--	334	0	72	38	--	.11	1.6	.85
12...	1245	210	--	332	0	83	44	--	.10	1.8	.42
19...	1255	290	--	340	0	87	56	--	.11	1.9	.21
26...	1310	--	--	324	0	96	58	--	.12	1.5	.61

DATE	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.							
11...	.00	1	12	1	10	10	50
18...	--	0	--	--	11	--	40
FEB.							
21...	.01	0	4	6	12	9	80
MAY							
09...	.01	1	4	20	14	17	60
JULY							
05...	--	0	--	--	42	--	100
11...	--	0	--	--	15	--	70
AUG.							
08...	.01	0	2	10	16	11	70
15...	--	--	--	--	16	--	70
SEP.							
12...	--	1	--	--	18	--	80
19...	--	--	--	--	10	--	80

GREAT MIAMI RIVER BASIN

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03272100 GREAT MIAMI RIVER AT MIDDLETOWN, OHIO--Continued

PERIOD OF RECORD---Chemical analyses: July 1963 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.56	250	70	550	7.8	358	17.0	80	4	8.1	84
11...	.62	340	100	720	7.9	434	16.0	15	2	8.9	89
18...	.73	330	87	720	8.1	450	12.5	20	4	8.9	83
25...	1.1	370	110	800	7.8	480	14.5	15	2	7.6	74
NOV.											
08...	.49	260	76	510	7.8	327	10.5	110	8	10.4	93
DEC.											
20...	.32	280	92	650	7.9	363	3.0	45	14	12.0	89
JAN.											
17...	.65	390	100	830	7.8	498	5.0	10	4	11.4	89
FEB.											
21...	.60	370	120	730	7.9	445	4.5	20	6	11.2	86
MAR.											
21...	.32	270	84	530	7.7	304	5.0	60	4	12.4	97
APR.											
10...	.65	310	78	700	7.6	420	21.0	35	8	6.4	71
18...	.58	230	76	425	7.7	244	12.0	150	6	9.6	89
MAY											
09...	.48	290	73	600	7.9	356	13.0	40	8	8.3	78
JUNE											
20...	.68	260	84	520	7.5	305	23.0	110	16	7.1	82
JULY											
05...	.84	200	67	380	7.6	240	23.0	200	16	7.4	85
11...	.58	270	70	570	7.6	348	26.5	45	16	5.6	69
18...	.62	370	100	750	7.9	464	25.0	20	32	7.3	87
25...	.49	280	78	570	7.8	356	23.0	90	8	7.1	82
AUG.											
01...	.54	370	110	710	7.7	436	24.5	60	4	6.4	76
08...	.69	380	100	750	8.1	482	28.5	20	8	8.9	110
15...	.41	240	88	420	7.5	288	24.0	95	8	7.9	93
22...	.45	270	64	540	7.6	330	23.0	55	4	7.8	90
29...	.64	360	96	740	7.8	460	29.0	20	8	7.5	96
SEP.											
05...	.86	370	96	750	8.2	464	30.5	10	32	6.1	80
12...	.97	370	98	725	7.8	474	24.0	20	16	8.0	94
19...	1.0	370	91	800	8.1	490	22.0	20	16	10.0	110
26...	1.0	360	94	800	7.8	520	27.0	15	4	6.1	59

GREAT MIAMI RIVER BASIN

03272400 GREAT MIAMI RIVER NEAR MIDDLETOWN, OHIO

LOCATION.--Lat 39°25'46", long 84°28'35", Butler County, at bridge on Liberty-Fairfield Road, southwest of Middletown, 0.7 mi (1.1 km) upstream from Baltimore and Ohio Railroad bridge.

DRAINAGE AREA.--3,280 mi² (8,495 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
OCT.											
04...	1330	--	--	232	0	67	40	--	.07	3.2	.30
11...	1325	610	66	286	0	84	44	.4	.07	2.8	.29
18...	1415	520	--	278	0	86	50	--	.15	3.1	.60
25...	1310	--	--	312	0	100	62	--	.11	2.7	.50
NOV.											
08...	1305	--	--	202	0	53	26	--	.07	2.4	.28
DEC.											
20...	1340	--	--	276	0	57	58	--	.08	2.8	.56
JAN.											
17...	1215	--	--	336	0	86	44	--	.08	3.3	.91
FEB.											
21...	1235	200	58	304	0	77	39	.4	.06	3.6	.24
MAR.											
21...	1410	--	--	224	0	50	20	--	.50	4.1	.15
APR.											
18...	1410	--	--	204	0	50	22	--	.14	3.7	.12
MAY											
09...	1415	1200	110	250	0	54	30	.3	.08	2.6	.34
JUNE											
20...	1420	--	--	178	0	40	22	--	.04	4.3	.37
JULY											
05...	1350	11000	--	168	0	36	18	--	.27	4.3	.32
11...	1310	1900	--	242	0	61	30	--	.09	3.0	.54
18...	1315	--	--	314	0	79	48	--	.05	2.7	.08
25...	1240	--	--	206	0	45	22	--	.15	2.8	.14
AUG.											
01...	1315	--	--	304	0	68	40	--	.07	2.6	.42
08...	1330	260	68	326	0	76	50	.6	.04	1.9	.03
15...	1320	770	--	182	0	42	18	--	.13	1.6	.41
22...	1320	--	--	240	0	48	24	--	.07	2.0	.37
29...	1330	--	--	318	0	76	34	--	.04	4.1	.15
SEP.											
05...	1320	--	--	336	0	77	42	--	.07	2.9	.48
12...	1315	440	--	324	0	86	48	--	.03	2.0	.23
19...	1320	450	--	330	0	92	50	--	.07	1.7	.23
26...	1345	--	--	324	0	98	58	--	.04	1.3	.15

DATE	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.							
11...	.02	5	10	2	22	18	60
18...	--	3	--	--	19	--	50
FEB.							
21...	.02	3	3	5	10	6	260
MAY							
09...	.00	2	4	10	13	24	100
JULY							
05...	--	1	--	--	44	--	170
11...	--	0	--	--	24	--	180
AUG.							
08...	.01	0	4	10	15	12	120
15...	--	--	--	--	15	--	80
SEP.							
12...	--	1	--	--	21	--	100
19...	--	1	--	--	10	--	110

GREAT MIAMI RIVER BASIN

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03272400 GREAT MIAMI RIVER NEAR MIDDLETOWN, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: July 1963 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June. No discharge records available. Prior to May 1965, sampling site was 0.7 mi (1.1 km) downstream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.63	290	100	580	7.6	384	17.0	65	8	7.9	81
11...	.72	340	100	725	7.8	442	16.0	30	4	8.0	80
18...	.85	340	110	715	7.7	454	13.5	30	8	8.8	84
25...	.83	380	120	800	7.6	496	13.0	25	4	7.9	74
NOV.											
08...	.52	240	74	490	7.9	302	10.5	120	8	11.2	100
DEC.											
20...	.37	290	64	675	7.9	385	3.0	50	8	11.8	87
JAN.											
17...	.67	380	100	820	7.8	488	5.5	9	4	10.9	86
FEB.											
21...	.54	360	110	730	7.9	454	4.5	20	6	11.4	88
MAR.											
21...	.32	290	110	530	7.7	310	5.5	55	6	12.1	96
APR.											
18...	.49	230	63	495	7.9	294	12.0	120	6	10.7	99
MAY											
09...	.48	270	64	575	7.8	348	18.0	60	4	8.2	86
JUNE											
20...	.74	210	64	440	7.6	257	23.0	150	8	7.3	84
JULY											
05...	.94	200	62	382	7.5	244	--	200	4	--	--
11...	.60	280	81	580	7.6	345	26.0	90	8	5.8	71
18...	.67	360	100	740	8.0	478	26.0	20	8	8.0	98
25...	.56	250	81	590	7.6	318	22.5	110	4	7.6	86
AUG.											
01...	.49	370	120	675	7.7	430	24.0	25	8	6.9	81
08...	.58	380	110	750	8.1	488	--	15	16	10.0	130
15...	.54	220	71	420	7.4	278	--	90	8	7.6	89
22...	.45	260	63	520	7.6	320	22.5	75	4	7.7	88
29...	.65	370	110	700	7.9	470	29.5	20	8	8.2	110
SEP.											
05...	.62	370	94	730	8.0	446	29.0	15	32	7.9	101
12...	.58	380	110	750	8.0	476	23.0	25	16	8.0	92
19...	.77	390	120	790	8.0	496	21.0	20	8	10.3	110
26...	.82	370	100	810	8.1	534	26.0	20	4	9.4	110

GREAT MIAMI RIVER BASIN

03274000 GREAT MIAMI RIVER AT HAMILTON, OHIO

LOCATION.--Lat 39°23'28", long 84°34'20", in NE 1/4 sec.6, T.1 N., R.3 E., Butler County, at gaging station on right bank, 1,000 ft (305 m) downstream from Columbia Bridge at Hamilton, 3 mi (5 km) downstream from Four Mile Creek, and 4.3 mi (6.9 km) upstream from Pleasant Run.

DRAINAGE AREA.--3,630 mi² (9,402 km²).

PERIOD OF RECORD.--Chemical analyses: October 1950 to September 1951, water year 1973 (partial-record station).
Water temperatures: October 1950 to September 1951, October 1957 to September 1973.

EXTREMES.--1972-73:

Water temperatures: Maximum, 29.5°C Aug. 31; minimum, 1.0°C Jan. 12, 13, 31, Feb. 1.

EXTREMES.--Period of record:

Water temperatures: Maximum, 34.0°C Aug. 16, 1965; minimum, freezing point on several days during 1950 and 1951.

REMARKS.--Some regulation at low flow by industrial plants upstream from station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
SEP., 1973											
21...	1235 1010	--	--	--	328	0	95	58	.6	--	--

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
SEP., 1973										
21...	2.0	--	.72	370	100	818	7.7	506	--	23.5

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	17.0	13.5	13.0	5.5	5.0	5.5	5.5	1.5	1.0	6.5	6.0
2	17.0	16.0	13.0	13.0	5.5	5.5	5.5	4.5	3.0	1.5	7.0	6.5
3	16.0	16.0	13.5	13.0	5.5	5.5	4.5	4.0	3.0	3.0	8.0	7.0
4	16.0	16.0	13.0	11.0	5.5	5.5	4.0	4.0	3.0	3.0	10.0	8.0
5	16.5	16.0	11.0	10.5	6.0	5.5	4.0	3.5	3.5	3.0	10.5	10.0
6	16.5	16.5	10.5	10.0	6.5	6.0	3.5	3.0	4.5	3.5	11.0	10.5
7	16.5	16.5	10.0	10.0	6.0	4.5	3.0	2.0	4.5	4.5	11.5	11.0
8	16.5	16.5	10.0	10.0	4.5	3.0	2.0	1.5	4.5	4.5	11.5	11.5
9	16.5	16.5	10.0	9.5	3.5	3.0	1.5	1.5	4.5	4.0	11.5	11.5
10	16.5	16.0	9.5	9.0	3.5	3.5	1.5	1.5	4.0	3.5	11.5	11.0
11	16.0	16.0	9.0	9.0	3.5	3.5	1.5	1.5	4.0	4.0	11.5	11.5
12	16.0	16.0	9.0	9.0	3.5	3.5	1.5	1.0	4.0	3.5	11.5	11.5
13	16.0	16.0	9.0	8.0	4.0	3.5	1.5	1.0	3.5	3.5	11.5	11.0
14	16.0	16.0	8.0	8.0	4.0	3.5	1.5	1.5	4.0	3.5	12.0	11.5
15	16.0	15.5	8.0	6.5	3.5	3.5	1.5	1.5	4.5	4.5	13.0	12.0
16	15.5	15.0	6.5	6.0	3.5	2.0	3.0	1.5	4.5	4.5	13.0	12.0
17	15.0	14.5	6.0	6.0	2.0	1.5	3.5	3.0	4.5	3.5	12.0	10.0
18	14.5	14.0	6.0	6.0	1.5	1.5	4.5	3.5	3.5	3.0	10.0	8.0
19	14.0	13.5	6.0	6.0	2.0	1.5	5.0	4.5	3.5	3.0	8.0	8.0
20	13.5	13.0	6.0	6.0	2.0	2.0	5.0	5.0	4.0	3.5	8.0	8.0
21	13.0	13.0	6.0	6.0	3.0	2.0	5.0	4.5	4.5	4.0	8.0	8.0
22	13.5	13.0	6.0	6.0	3.5	3.0	4.5	4.5	4.5	4.5	8.0	8.0
23	14.0	13.5	6.0	6.0	3.5	3.5	4.5	3.5	4.5	4.5	8.5	8.0
24	14.0	14.0	6.0	5.5	3.5	3.5	3.5	3.0	5.5	4.5	10.0	8.5
25	14.0	13.5	5.5	5.5	3.5	3.5	3.0	3.0	6.0	5.5	10.5	10.0
26	13.5	13.5	5.5	5.5	3.5	3.5	3.0	3.0	6.0	6.0	10.5	10.0
27	13.5	13.5	5.5	5.5	3.5	3.5	3.5	3.0	6.0	6.0	10.0	9.5
28	14.0	13.5	5.5	5.5	3.5	3.5	3.5	3.5	6.0	6.0	10.0	10.0
29	14.0	14.0	5.5	5.0	3.5	3.5	3.5	3.0	---	---	10.0	10.0
30	14.0	14.0	5.0	5.0	5.0	3.5	3.0	1.5	---	---	11.0	10.0
31	14.0	13.5	---	---	5.5	5.0	1.5	1.0	---	---	11.0	11.0
MONTH	19.0	13.0	13.5	5.0	6.5	1.5	5.5	1.0	6.0	1.0	13.0	6.0

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--Continued
(CONTINUOUS ETHYL ALCOHOL-ACTUATED THERMOGRAPH)

[illegible]

GREAT MIAMI RIVER BASIN

03274050 GREAT MIAMI RIVER NEAR HAMILTON, OHIO

LOCATION.--Lat 39°20'00", long 84°36'42", Butler County, at American Materials Company private bridge near Hamilton, 5.5 mi (8.8 km) downstream from gaging station, and 2.4 mi (3.9 km) upstream from Indian Creek.

DRAINAGE AREA.--3,667 mi² (9,498 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL IRON (FE) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITRO- GEN (N) (MG/L)
OCT.											
04...	1500	2810	--	--	214	0	64	36	.09	3.3	.59
11...	1400	1630	710	79	278	0	86	44	.11	3.1	.65
18...	1450	1420	510	--	268	0	90	50	.02	3.2	1.7
25...	1345	1110	--	--	310	0	100	62	.17	2.9	.92
NOV.											
08...	1340	14500	--	--	196	0	54	29	.08	3.7	.43
DEC.											
20...	1415	10100	--	--	236	0	58	50	.07	3.4	.39
JAN.											
17...	1345	2330	--	--	338	0	88	44	.08	3.7	1.2
FEB.											
21...	1305	2760	210	52	298	0	79	40	.05	4.1	.23
MAR.											
21...	1445	11100	--	--	220	0	50	22	.05	4.7	.25
APR.											
18...	1440	16700	--	--	206	0	49	24	.13	3.5	.08
MAY											
09...	1455	5250	1300	75	232	0	54	28	.08	2.4	.41
JUNE											
20...	1500	13900	--	--	180	0	40	20	.05	4.9	.41
JULY											
05...	1545	10500	13000	--	172	0	37	18	.30	4.4	.40
11...	1350	3300	1000	--	280	0	69	34	.08	3.4	.37
18...	1355	1780	--	--	302	0	78	46	.06	2.8	.02
25...	1330	9710	--	--	220	0	45	22	.12	3.0	.23
AUG.											
01...	1355	2600	--	--	300	0	68	39	.08	2.4	.40
08...	1420	1550	340	94	324	0	78	48	.06	1.9	.04
15...	1405	10000	740	--	180	0	44	22	.12	1.6	.52
22...	1400	4700	--	--	226	0	46	26	.08	2.4	.48
29...	1405	1820	--	--	318	0	79	40	.06	2.1	.32
SEP.											
05...	1355	1380	--	--	322	0	78	40	.07	2.0	.28
12...	1400	1230	560	--	314	0	88	48	.08	2.0	.61
19...	1405	1040	420	--	330	0	95	54	.07	2.1	.63
26...	1430	917	--	--	310	0	99	54	.17	2.2	1.1

DATE	DIS- SOLVED FLUO- RIDE (F) (MG/L)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT.								
11...	.4	.02	3	10	3	13	16	70
18...	--	--	5	--	--	15	--	60
FEB.								
21...	.4	.03	10	2	3	8	5	270
MAY								
09...	.3	.01	2	10	10	10	23	100
JULY								
05...	--	--	2	--	--	48	--	170
11...	--	--	1	--	--	19	--	100
AUG.								
08...	.5	.01	0	2	10	16	14	110
15...	--	--	--	--	--	20	--	80
SEP.								
12...	--	--	0	--	--	16	--	110
19...	--	--	0	--	--	9	--	90

GREAT MIAMI RIVER BASIN

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03274050 GREAT MIAMI RIVER NEAR HAMILTON, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: July 1963 to September 1973.

REMARKS.--Samples for iron and manganese filtered clear when collected. Samples were collected weekly October, July to September, and monthly November to June. Records of discharge are given for Great Miami River at Hamilton, Ohio, station 03274000, drainage area, 3,630 mi² (9,402 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	ODOR (THRES- HOLD NUMBER)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
04...	.72	260	84	555	7.7	372	17.5	75	8	7.5	78
11...	.64	330	100	700	7.6	440	16.5	30	4	7.8	80
18...	.74	330	110	710	7.9	442	13.5	30	8	7.8	74
25...	.90	370	120	810	7.8	500	13.0	20	4	7.6	72
NOV.											
08...	.54	250	90	490	7.8	310	10.5	120	8	10.2	91
DEC.											
20...	.38	270	76	635	8.0	361	3.0	55	4	12.3	91
JAN.											
17...	.67	390	110	830	7.7	498	7.0	10	6	11.9	98
FEB.											
21...	.52	360	120	730	8.0	443	4.5	15	6	11.4	88
MAR.											
21...	.32	280	100	530	7.8	308	5.5	55	4	12.1	96
APR.											
18...	.52	250	81	485	7.9	297	12.0	120	8	9.9	92
MAY											
09...	.47	260	70	540	7.8	332	19.0	65	8	8.3	88
JUNE											
20...	1.4	220	72	440	7.7	263	23.5	180	8	7.6	88
JULY											
05...	.92	240	99	400	7.6	254	24.0	200	4	7.4	87
11...	.62	330	100	650	8.0	399	28.0	65	16	5.8	73
18...	.61	350	100	725	8.0	464	27.0	30	4	7.8	96
25...	.54	250	70	500	7.7	328	23.0	100	8	7.6	87
AUG.											
01...	.46	340	94	700	7.6	414	24.0	25	4	6.9	81
08...	.56	370	100	740	8.2	488	28.5	25	8	10.4	130
15...	.52	220	72	420	7.5	290	25.0	90	8	7.6	90
22...	.45	260	74	500	7.6	314	23.0	85	4	7.5	86
29...	.56	370	110	700	8.2	472	30.0	30	8	9.4	120
SEP.											
05...	.67	360	96	725	8.2	464	29.5	25	32	7.7	100
12...	.62	370	110	760	7.9	466	24.5	30	4	8.4	100
19...	.65	390	120	810	7.8	502	21.0	25	16	9.3	100
26...	.73	360	100	790	7.7	526	27.0	30	8	7.2	89

GREAT MIAMI RIVER BASIN

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OHIO

LOCATION.--Lat 39°15'47", long 84°40'04", in N 1/2 sec.34, R.1, T.2, Hamilton County, at Blue Rock Road bridge at New Baltimore, 6.4 mi (10.3 km) downstream from Indian Creek, and 14.3 mi (23.0 km) downstream from gaging station at Hamilton.

DRAINAGE AREA.--3,814 mi² (9,878 km²).

PERIOD OF RECORD.--Chemical analyses: July 1966 to September 1973.
Water temperatures: July 1966 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 865 micromhos Jan. 19; minimum, 240 micromhos July 21.
Dissolved oxygen: Maximum, 15.0 mg/l Nov. 15; minimum, 1.4 mg/l Sept. 30.
Water temperatures: Maximum, 30.0°C Aug. 30; minimum, 0.5°C Jan. 12.

EXTREMES.--Period of record:

Specific conductance (1967-69, 1970-73): Maximum, 1,150 micromhos Feb. 23, 1969; minimum, 230 micromhos May 24, 1968.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	BICAR- BONATE (HCO3) (MG/L)	CAH- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.										
04...	0745	2670	214	0	89	27	.3	--	--	3.8
19...	1015	--	--	--	--	--	--	--	--	--
30...	0930	1040	316	0	90	57	.5	--	--	4.2
NOV.										
01...	0910	2700	248	0	88	45	.4	--	--	3.6
15...	0815	28200	170	0	89	13	.2	--	--	3.7
DEC.										
05...	1240	3450	302	4	89	33	.3	--	--	3.8
08...	0830	14700	166	0	88	17	.2	--	--	3.6
19...	1535	4740	315	0	86	50	--	.4	.00	--
JAN.										
05...	0800	8750	245	0	61	27	.3	--	--	3.9
19...	0830	2430	276	18	90	45	.4	--	--	4.6
FEB.										
05...	1300	5640	210	12	62	24	.2	--	--	5.0
26...	0815	2190	282	14	86	38	.4	--	--	5.0
MAR.										
02...	0815	2090	306	0	86	44	.5	--	--	3.9
19...	1330	20000	158	5	40	18	.2	--	--	4.1
APR.										
19...	0925	13000	222	0	49	20	.2	--	--	3.5
30...	0845	5270	282	0	62	25	.3	--	--	3.9
MAY										
07...	0815	3120	318	0	72	33	.3	--	--	3.4
11...	0800	4000	144	0	64	30	.3	--	--	3.3
JUNE										
06...	1115	--	--	--	--	--	--	--	--	--
13...	0800	3890	284	0	66	34	.4	--	--	5.1
20...	1045	15000	214	0	47	26	.4	--	--	4.9
JULY										
06...	0845	9620	184	0	39	14	.3	--	--	3.9
18...	0820	1830	269	11	74	34	.5	--	--	3.9
AUG.										
09...	0755	1650	325	0	16	43	--	.6	.00	--
17...	0815	10000	174	0	36	13	--	.6	.00	--
SEP.										
10...	0800	1350	275	0	16	42	--	.7	.00	--
28...	0845	908	286	16	20	59	--	1.6	.00	--

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OHIO--Continued

EXTREMES.--Period of record--Continued

Dissolved oxygen (1967-68, 1970-73): Maximum, 15.0 mg/l or higher Feb. 26, Mar. 8, June 9, 10, 1971, Feb. 6, 1972, Nov. 15, 1972; minimum, 0.0 mg/l June 27, 1971.
 Water temperatures: Maximum, 33.0°C July 18, 1969; minimum, freezing point on several days during winter months of 1970 and 1971.

REMARKS.--Water-quality recorder operated since July 1966. Maximum recorded specific conductance value of 1,160 micromhos occurred Mar. 18, 1970. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher due to instrument limitation. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Great Miami River at Hamilton, Ohio, station 03274000, drainage area 3,630 mi² (9,402 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.									
04...	--	260	84	551	362	--	17.0	--	--
19...	--	--	--	--	--	--	12.0	--	<.5
30...	--	380	120	846	564	--	16.0	--	--
NOV.									
01...	--	300	96	697	426	--	13.0	--	--
15...	--	200	60	384	230	--	19.0	--	--
DEC.									
05...	--	360	100	713	396	--	8.0	--	--
08...	--	190	54	400	224	--	4.0	--	--
19...	4.2	--	--	799	--	528	4.5	--	--
JAN.									
05...	--	290	88	583	334	--	4.0	--	--
19...	--	380	120	786	468	--	7.0	--	--
FEB.									
05...	--	290	98	579	356	--	6.0	--	--
26...	--	370	120	759	436	--	8.0	--	--
MAR.									
02...	--	370	120	764	456	--	9.0	--	--
19...	--	210	72	425	252	--	6.5	--	--
APR.									
19...	--	260	78	504	314	--	12.5	--	--
30...	--	320	88	631	382	--	14.5	--	--
MAY									
07...	--	350	89	693	420	--	16.0	--	--
11...	--	190	72	413	254	--	17.0	--	--
JUNE									
06...	--	--	--	--	--	--	21.0	3.0	<.5
13...	--	330	97	658	438	--	25.5	--	--
20...	--	260	84	504	330	--	24.0	--	--
JULY									
06...	--	210	59	422	280	--	23.0	--	--
18...	--	340	100	693	448	--	26.0	--	--
AUG.									
09...	3.8	--	--	792	--	552	27.0	--	--
17...	2.8	--	--	402	--	569	25.0	--	--
SEP.									
10...	4.1	--	--	728	--	507	24.0	--	--
28...	2.3	--	--	835	--	564	25.5	--	--

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	550	485	800	565	710	685	690	640	610	510	780	745
2	555	505	670	520	705	665	680	640	710	510	775	755
3	530	480	540	330	---	---	660	555	710	690	785	770
4	560	500	390	330	---	---	590	535	---	---	780	740
5	605	530	460	365	780	740	665	580	610	580	790	715
6	605	505	555	460	795	690	665	625	680	610	765	700
7	650	580	575	500	720	435	650	580	700	680	735	675
8	650	620	530	455	435	365	635	615	735	700	675	605
9	---	---	480	390	480	375	690	600	750	720	645	575
10	700	660	450	400	560	480	765	595	775	750	665	580
11	710	685	530	450	610	560	785	760	780	755	635	420
12	725	700	580	530	665	610	805	780	775	600	420	365
13	740	720	620	470	690	660	810	790	780	620	460	430
14	740	620	470	370	710	690	820	800	790	765	455	440
15	640	600	420	350	560	530	820	815	785	750	490	455
16	665	640	370	355	670	560	830	815	770	755	500	450
17	730	655	420	355	680	650	840	820	775	730	450	395
18	740	725	520	410	720	675	850	825	755	730	415	400
19	780	720	540	500	760	720	865	840	735	710	---	---
20	780	740	520	460	750	600	850	835	755	735	500	460
21	780	760	550	490	690	650	840	800	770	750	545	500
22	780	760	605	580	665	615	805	760	785	765	595	545
23	800	775	630	590	620	610	760	730	785	760	655	595
24	815	800	660	630	630	605	750	730	800	750	680	635
25	815	800	680	660	650	630	750	680	810	780	680	580
26	820	795	695	680	690	650	710	690	830	805	590	470
27	810	775	695	685	710	685	710	680	820	810	515	485
28	820	790	730	685	730	700	700	660	830	810	525	495
29	830	800	730	705	730	715	675	630	---	---	555	520
30	835	820	715	690	745	725	710	635	---	---	580	510
31	835	770	---	---	745	670	700	505	---	---	630	490
MONTH	835	480	800	330	795	365	865	505	830	510	790	365

[illegible]

GREAT MIAMI RIVER BASIN

03274600 GREAT MIAMI RIVER AT NEW BALTIMORE, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	19.0	17.0	14.0	13.0	6.5	6.0	7.0	6.0	4.5	3.5	8.0	6.0
2	17.0	16.0	14.0	13.0	7.0	6.0	6.0	4.5	5.5	4.5	8.5	7.5
3	18.0	16.5	13.0	12.0	7.5	7.0	5.0	4.5	5.5	5.5	9.0	8.5
4	18.0	17.0	12.0	11.5	7.5	7.0	5.0	4.5	---	---	11.0	9.0
5	18.0	17.0	11.5	10.5	8.5	7.5	4.5	3.5	5.5	5.5	11.5	10.5
6	18.0	17.0	11.0	10.0	9.0	7.0	3.5	2.5	7.0	5.5	14.0	11.5
7	17.5	17.0	11.0	10.5	7.0	5.0	2.5	2.0	7.0	6.5	14.5	13.5
8	17.0	16.0	11.0	10.0	5.0	4.0	2.0	1.5	6.5	5.0	14.0	13.0
9	---	---	10.0	9.0	5.0	4.0	1.5	1.0	5.0	4.0	13.5	12.5
10	15.5	15.0	9.0	9.0	5.5	5.0	1.5	1.0	4.0	3.5	14.0	12.5
11	15.5	15.0	10.0	9.0	5.0	4.5	1.5	1.0	4.0	3.0	13.5	13.0
12	16.5	15.5	10.0	9.0	6.0	4.5	1.5	0.5	3.5	2.5	13.0	12.0
13	16.0	15.5	9.5	9.0	6.0	5.5	2.5	1.0	3.0	4.0	13.5	12.0
14	16.0	15.0	8.5	8.0	5.5	5.0	3.5	2.0	5.0	4.0	13.0	12.5
15	15.5	14.5	8.0	7.0	4.0	4.0	4.0	3.5	5.0	4.0	14.0	13.5
16	15.0	14.0	7.0	6.5	4.0	2.0	5.0	4.0	4.0	3.0	14.0	14.0
17	14.5	14.0	6.5	6.5	2.0	1.5	6.0	5.0	3.0	2.0	14.0	8.0
18	14.0	13.0	7.0	6.5	3.0	2.0	7.5	6.0	3.0	2.0	8.0	7.0
19	13.0	12.0	7.0	7.0	4.0	3.0	8.0	7.0	4.0	2.0	---	---
20	12.5	12.0	7.0	7.0	3.5	3.0	7.0	6.0	4.0	3.5	7.0	7.0
21	13.0	12.5	7.0	6.5	4.5	3.5	6.0	5.0	4.0	3.5	7.0	6.5
22	15.5	13.5	7.0	6.5	4.5	4.0	6.0	5.5	4.0	3.5	8.0	6.5
23	17.0	15.5	7.0	6.5	5.0	4.5	5.5	4.5	4.0	3.5	9.0	7.0
24	16.5	15.5	6.5	6.0	5.0	5.0	4.5	4.0	5.0	3.5	10.0	8.0
25	15.5	15.0	6.5	6.0	5.5	5.0	4.5	3.5	6.0	4.5	10.5	10.0
26	15.5	14.5	6.5	6.0	5.0	4.5	5.0	4.0	6.0	5.5	10.5	9.0
27	15.5	15.0	6.5	6.0	4.5	4.0	5.5	5.0	5.5	5.0	9.5	8.5
28	16.5	16.0	6.5	5.5	4.5	4.0	6.0	5.0	6.5	5.0	9.5	9.0
29	17.0	16.0	6.0	5.5	5.0	4.0	5.0	3.5	---	---	11.0	9.5
30	16.5	16.0	6.0	6.0	7.0	5.0	3.5	3.0	---	---	12.0	10.5
31	16.0	14.0	---	---	8.0	7.0	3.5	2.5	---	---	12.0	12.0
MONTH	19.0	12.0	14.0	5.5	9.0	1.5	8.0	0.5	7.0	2.0	14.5	6.0
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	11.0	17.0	15.5	22.0	19.0	24.0	22.0	26.0	24.5	29.0	28.0
2	11.0	10.0	17.5	16.0	24.0	19.0	25.0	23.0	26.0	24.0	29.0	27.0
3	10.0	10.0	17.0	16.0	26.5	21.5	27.0	24.0	26.0	24.0	29.0	27.0
4	10.0	9.0	16.5	15.0	25.0	24.0	26.0	24.5	27.0	25.0	29.0	27.5
5	9.0	8.0	17.0	15.0	24.0	22.0	24.5	23.0	27.5	25.0	29.0	28.0
6	9.0	7.5	16.5	16.0	22.5	20.0	24.5	23.0	27.0	25.0	28.0	27.0
7	10.0	9.0	16.0	15.5	20.0	19.0	25.5	23.0	27.0	25.0	27.5	26.0
8	11.0	10.0	17.0	15.5	---	---	26.0	24.0	28.0	26.0	27.0	25.5
9	11.0	10.0	19.0	17.0	---	---	27.0	25.0	28.0	26.0	26.0	25.0
10	10.0	8.0	19.5	18.0	---	---	26.5	25.5	28.0	26.0	25.0	24.0
11	8.5	7.5	20.0	18.0	---	---	27.0	25.0	28.0	26.0	25.0	24.0
12	8.0	8.0	19.5	18.0	25.0	24.0	26.0	24.5	28.0	26.0	24.5	23.0
13	9.0	7.0	18.0	17.0	25.0	23.5	26.0	24.0	27.0	24.0	24.0	22.5
14	10.0	8.0	17.5	16.0	25.0	23.0	26.0	24.5	24.0	23.5	24.0	23.0
15	11.5	9.0	16.5	15.5	24.0	22.5	26.0	24.5	25.0	23.0	24.5	23.0
16	12.0	11.0	17.0	15.0	25.0	23.0	26.5	24.5	24.0	22.0	24.0	23.0
17	12.5	12.0	17.0	15.5	25.0	23.0	27.0	24.5	25.0	22.0	24.0	23.0
18	12.5	12.0	17.5	15.5	24.0	23.0	27.0	25.0	26.0	24.0	24.0	22.0
19	13.5	12.5	17.5	16.0	24.0	23.0	27.0	25.0	26.0	25.0	22.0	21.0
20	15.5	13.5	17.0	16.0	---	---	27.0	26.0	25.5	25.0	22.0	21.0
21	17.0	15.0	19.0	16.0	23.5	22.5	26.5	23.0	25.0	24.0	23.0	22.0
22	16.5	16.0	20.0	18.0	24.0	22.5	24.0	23.0	24.0	23.0	24.0	22.5
23	16.0	15.5	21.0	19.5	24.5	22.5	24.0	23.0	24.0	22.5	25.0	24.0
24	16.0	14.5	21.0	20.0	25.0	23.0	25.0	24.0	24.0	23.0	25.0	24.0
25	15.0	14.0	20.5	19.0	25.0	23.5	25.0	24.0	25.0	23.0	26.0	25.0
26	15.0	13.0	21.5	19.0	23.5	25.5	26.0	25.0	26.0	24.0	26.5	25.0
27	14.0	12.5	21.0	19.0	25.0	21.5	26.0	25.0	27.0	25.0	26.0	25.5
28	13.0	11.5	19.5	19.0	22.5	21.0	26.5	25.0	28.0	26.0	26.5	25.5
29	13.5	12.0	19.5	18.5	22.0	21.0	26.5	25.0	28.5	27.0	26.5	26.0
30	15.5	14.0	19.5	18.5	23.0	21.0	26.0	25.0	30.0	26.0	26.5	26.0
31	---	---	20.5	19.0	---	---	25.5	25.0	28.5	26.0	---	---
MONTH	17.0	7.0	21.5	15.0	26.5	19.0	27.0	22.0	30.0	22.0	29.0	21.0
YEAR	30.0	0.5										

03276600 GREAT MIAMI RIVER AT ELIZABETHTOWN, OHIO

LOCATION.--Lat 39°09'11", long 84°47'38", Hamilton County, at Lost Bridge on Lawrenceburg Road, 0.6 mi (1.0 km) southeast of Elizabethtown, 0.9 mi (1.4 km) downstream from Whitewater River, and 5.4 mi (8.7 km) upstream from mouth.

DRAINAGE AREA.--5,356 mi² (13,872 km²).

PERIOD OF RECORD.--Chemical analyses: October 1956 to September 1973.

Water temperatures: October 1956 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum daily, 983 micromhos Oct. 9; minimum daily, 368 micromhos Nov. 14-17.

Water temperatures: Maximum, 30.0°C Sept. 1-5; minimum, 1.0 on several days during December and January.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
01...	--	--	--	--	196	10	62	24	.3	--	--
06...	300	75	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	278	0	80	37	.4	--	--
28...	--	--	--	--	310	0	98	54	.5	--	--
NOV.											
02...	--	--	--	--	262	0	88	47	.5	--	--
02...	1200	730	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	152	0	38	13	.2	--	--
18...	--	--	--	--	260	4	63	24	.1	--	--
DEC.											
04...	--	--	--	--	298	0	75	34	.2	--	--
08...	--	--	--	--	269	0	67	30	.3	--	--
10...	--	--	--	--	220	8	57	24	.2	--	--
JAN.											
04...	--	--	--	--	228	0	58	25	.3	--	--
18...	--	--	--	--	324	0	90	39	.4	--	--
28...	--	--	--	--	270	0	71	34	.3	--	--
FEB.											
06...	--	--	--	--	220	8	62	26	.4	--	--
09...	--	--	--	--	289	0	76	41	.3	--	--
27...	--	--	--	--	310	0	82	39	.4	--	--
27...	30	89	--	--	--	--	--	--	--	--	--
MAR.											
05...	--	--	--	--	304	0	85	43	.4	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	170	0	40	17	.2	--	--
22...	--	--	--	--	232	0	54	21	.2	--	--
28...	960	170	--	--	--	--	--	--	--	--	--
APR.											
14...	--	--	--	--	229	16	60	24	.3	--	--
18...	--	--	--	34	291	0	62	27	--	.3	.00
21...	--	--	--	--	236	0	52	20	.3	--	--
27...	--	--	--	--	290	0	62	24	.3	--	--
MAY											
07...	--	--	--	--	246	16	68	28	.4	--	--
16...	--	--	--	--	293	0	74	34	.4	--	--
25...	180	350	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	208	7	56	24	.4	--	--
JUNE											
01...	--	--	--	--	306	0	69	34	.3	--	--
07...	--	--	--	--	252	0	55	29	.3	--	--
20...	--	--	--	--	200	0	40	22	.3	--	--
20...	40	15	--	--	--	--	--	--	--	--	--
JULY											
01...	--	--	--	--	254	4	61	26	.4	--	--
07...	--	--	--	--	204	8	46	18	.4	--	--
17...	40	43	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	314	0	79	40	.4	--	--
AUG.											
03...	--	--	--	--	312	0	68	30	.4	--	--
12...	--	--	--	--	312	0	82	38	.5	--	--
15...	--	--	--	--	180	0	41	16	.3	--	--
17...	110	0	--	--	--	--	--	--	--	--	--
SEP.											
02...	--	--	--	--	293	0	75	37	--	.4	.01
14...	--	--	84	33	297	17	90	48	--	.4	.01
19...	130	39	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	304	12	94	53	--	.5	.00

03276600 GREAT MIAMI RIVER AT ELIZABETHCWN, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance: Maximum daily, 1,090 micromhos Jan. 6, 1964; minimum daily, 296 micromhos Jan. 28, 1962.
 Water temperatures: Maximum, 32.5°C July 24, 1972; minimum, freezing point on several days during winter periods of most years.

REMARKS.--Samples for iron and manganese filtered clear when collected. Daily samples were collected at this station and samples were selected for analysis on the following basis: (1) Maximum daily specific conductance for each month, (2) minimum daily specific conductance for each month, (3) median daily specific conductance for each month, and (4) special sample each month to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION
OCT.											
01...	3.7	--	.58	260	82	528	8.4	340	--	--	--
06...	--	--	--	--	--	--	--	--	--	7.0	74
11...	3.4	--	.66	330	100	687	7.9	420	--	--	--
28...	4.0	--	.87	370	120	816	7.8	512	--	--	--
NOV.											
02...	2.8	--	1.3	310	95	714	8.0	436	--	--	--
02...	--	--	--	--	--	--	--	--	--	8.2	84
14...	3.1	--	.54	180	56	368	8.2	198	--	--	--
18...	3.6	--	.37	300	80	591	8.4	326	--	--	--
DEC.											
04...	4.4	--	.43	350	100	705	7.7	440	--	--	--
08...	3.0	--	1.4	320	99	605	7.6	396	--	--	--
10...	4.1	--	.33	280	86	553	8.4	344	--	--	--
JAN.											
04...	3.5	--	.28	270	82	555	7.5	342	--	--	--
18...	4.7	--	.59	380	110	771	7.7	494	--	--	--
28...	4.3	--	.32	320	98	669	7.7	426	--	--	--
FEB.											
06...	4.4	--	.34	290	96	570	8.3	384	--	--	--
09...	3.6	--	.39	340	100	712	7.9	470	--	--	--
27...	3.6	--	.54	360	100	749	7.6	486	--	--	--
27...	--	--	--	--	--	--	--	--	--	114	90
MAR.											
05...	3.2	--	.54	360	110	759	7.6	476	--	--	--
19...	--	--	--	--	--	--	--	--	--	10.2	87
19...	3.6	--	.52	200	60	425	7.8	266	--	--	--
22...	3.8	--	.26	270	80	542	8.0	368	--	--	--
28...	--	--	--	--	--	--	--	--	--	11.0	97
APR.											
14...	3.7	--	.36	300	86	579	8.5	360	--	--	--
18...	--	4.2	.35	380	140	637	7.8	--	580	--	--
21...	3.8	--	.38	270	76	522	8.2	324	--	--	--
27...	3.8	--	.32	320	82	626	7.8	380	--	--	--
MAY											
07...	3.4	--	.48	320	92	630	8.6	406	--	--	--
16...	3.4	--	.50	340	100	690	7.8	430	--	--	--
25...	--	--	--	--	--	--	--	--	--	6.0	68
26...	3.0	--	.98	260	78	532	8.4	336	--	--	--
JUNE											
01...	4.0	--	.52	350	98	677	7.7	434	--	--	--
07...	5.1	--	.55	300	93	575	7.3	378	--	--	--
20...	3.8	--	1.1	230	66	450	7.2	284	--	--	--
20...	--	--	--	--	--	--	--	--	--	6.0	70
JULY											
01...	6.1	--	.62	310	100	614	8.4	418	--	--	--
07...	4.6	--	.96	240	60	470	8.6	322	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
18...	2.9	--	.66	360	100	729	7.7	472	--	--	--
AUG.											
03...	5.2	--	.45	340	84	671	8.2	404	--	--	--
12...	3.1	--	.52	350	94	730	7.7	438	--	--	--
15...	2.7	--	.59	200	52	407	7.6	232	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
SEP.											
02...	--	3.5	.47	--	--	691	7.6	--	548	--	--
14...	--	3.2	.68	--	--	780	8.8	--	567	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
26...	--	4.3	.62	--	--	809	8.7	--	587	--	--

GREAT MIAMI RIVER BASIN

03276600 GREAT MIAMI RIVER AT ELIZABETHTOWN, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT BETWEEN 1045 AND 2330)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	528	709	683	656	656	735	564	620	677	614	683	692
2	538	714	702	556	644	754	582	603	594	633	684	691
3	538	523	702	556	653	740	568	640	604	632	671	692
4	638	526	705	555	653	756	578	643	592	623	725	698
5	633	518	705	556	575	759	579	641	612	478	727	697
6	634	524	639	636	570	634	579	641	596	479	722	695
7	642	522	628	638	580	630	573	630	575	470	725	756
8	639	516	640	637	714	627	578	628	565	478	725	759
9	983	431	640	637	712	623	578	630	581	616	725	754
10	686	430	553	625	698	440	578	637	574	615	711	754
11	687	429	560	724	700	442	588	640	581	629	727	756
12	684	431	559	425	717	436	590	637	651	627	730	754
13	680	443	559	759	715	437	590	676	647	629	727	780
14	706	368	650	759	722	463	579	679	634	649	407	780
15	706	368	650	766	703	462	589	689	651	635	407	775
16	680	368	650	766	708	460	528	690	641	625	408	777
17	675	368	646	750	716	461	528	689	450	727	484	795
18	682	591	650	771	717	425	528	533	452	729	483	795
19	758	592	593	755	710	425	530	534	458	726	485	801
20	764	592	596	766	719	544	528	534	450	726	485	793
21	757	593	597	737	700	542	522	536	456	501	557	793
22	764	593	597	740	716	542	529	535	582	507	556	805
23	800	637	597	735	716	543	622	535	568	506	557	805
24	800	637	600	735	735	612	624	535	567	505	552	801
25	798	636	593	659	744	619	622	536	511	522	652	807
26	796	638	600	659	727	623	623	532	504	526	659	805
27	810	639	654	646	749	518	626	535	499	518	655	805
28	816	669	656	669	742	518	619	631	498	524	655	797
29	814	675	654	669	---	519	623	630	490	604	718	803
30	713	675	655	663	---	519	624	628	615	603	712	801
31	---	---	655	667	---	582	---	680	---	602	709	---
MONTH	712	545	631	673	693	561	579	611	563	589	626	768
YEAR	MAX	983	MIN	368	MEAN	629						

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
(ONCE-DAILY MEASUREMENT BETWEEN 1045 AND 2330)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	14.0	8.0	5.0	5.0	5.0	13.5	16.0	22.0	26.0	26.0	30.0
2	16.0	14.0	8.0	5.0	6.0	7.0	13.5	16.0	24.0	25.0	26.0	30.0
3	16.0	14.0	8.0	5.0	6.0	8.5	10.0	17.0	24.0	26.0	25.0	30.0
4	17.0	12.0	8.0	5.0	6.0	11.0	12.0	17.0	24.0	26.0	26.0	30.0
5	17.5	11.0	8.0	5.0	6.0	11.0	11.0	17.0	24.0	26.0	26.0	30.0
6	17.0	11.0	8.0	2.0	6.0	10.0	11.0	18.0	24.0	26.0	27.0	29.0
7	16.0	11.0	6.0	2.0	6.0	10.0	11.0	18.0	25.0	26.0	28.0	29.0
8	17.0	11.0	6.0	2.0	4.0	10.0	12.0	18.0	26.0	26.0	28.0	29.0
9	16.0	10.0	6.0	2.0	4.0	10.0	14.0	19.0	26.0	27.0	28.0	26.0
10	16.0	10.0	5.0	1.0	4.0	11.0	12.0	19.0	26.0	28.0	28.0	25.0
11	16.0	9.0	4.0	1.0	4.0	13.0	13.0	19.0	26.0	28.0	28.0	25.0
12	17.0	9.5	4.0	1.0	4.0	13.0	13.0	19.0	27.0	28.0	28.0	25.0
13	16.0	9.5	4.0	1.0	4.0	13.0	13.0	18.0	27.0	27.0	28.0	25.0
14	16.0	9.0	3.0	3.0	4.0	14.0	---	18.0	27.0	27.0	28.0	24.0
15	17.0	7.0	2.0	3.0	4.0	14.0	---	18.0	27.5	26.0	26.0	24.0
16	17.5	7.0	1.0	3.0	4.0	14.5	14.0	17.0	27.0	26.0	26.0	24.0
17	17.0	7.0	1.0	5.0	3.5	12.0	14.0	17.0	26.0	28.0	26.0	24.0
18	16.0	7.0	1.0	6.0	3.5	12.0	14.0	17.0	27.0	28.0	26.0	22.0
19	11.0	7.0	2.0	7.0	4.0	12.0	15.0	17.0	24.5	28.0	26.0	22.0
20	12.5	7.0	6.0	7.5	4.0	9.0	15.0	18.0	24.5	28.0	26.0	22.5
21	14.0	7.0	6.0	6.0	4.0	8.0	15.0	18.0	24.5	25.0	25.0	22.0
22	16.0	7.0	6.0	7.0	4.5	8.0	16.0	18.0	24.5	25.0	24.0	23.5
23	16.0	6.0	6.0	7.0	4.5	8.0	16.0	18.0	24.5	25.0	24.0	24.0
24	16.0	6.0	6.0	7.0	4.5	10.0	16.0	19.0	25.0	25.0	24.0	26.0
25	14.0	6.0	6.0	5.0	5.0	11.0	16.0	19.0	25.0	25.0	26.0	26.0
26	12.0	7.0	6.0	5.0	5.0	11.0	16.0	20.0	25.0	25.0	28.0	26.0
27	13.0	7.0	6.0	5.0	6.0	11.0	16.0	20.0	23.0	25.0	29.0	26.0
28	14.0	7.0	5.0	4.0	6.0	11.0	16.0	19.5	25.0	25.0	29.0	27.0
29	14.0	7.0	7.0	4.0	---	11.0	16.0	19.5	23.0	26.0	29.0	26.0
30	14.0	7.0	7.0	4.0	---	13.0	16.0	20.0	26.0	27.0	29.0	26.0
31	14.0	---	5.0	4.0	---	13.5	---	21.0	---	27.0	29.0	---
MONTH	15.5	9.0	5.5	4.0	4.5	11.0	14.0	18.0	25.0	26.5	27.0	26.0
YEAR	MAX	30.0	MIN	1.0	MEAN	15.5						

ST. LAWRENCE RIVER BASIN

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STREAMS TRIBUTARY TO LAKE ERIE

04181050 ST. MARYS RIVER AT WILSHIRE, OHIO

LOCATION.--Lat 40°45'07", long 84°47'36", in SW 1/4 NE 1/4 sec.30, T.3 S., R.1 E., First principal meridian, at bridge on New York, Chicago, and St. Louis Railroad, at northeast edge of Wilshire, 1 mi (2 km) upstream from Ohio-Indiana State line.

DRAINAGE AREA.--435 mi² (1,127 km²).

PERIOD OF RECORD.--Chemical analyses: July 1969 to September 1973

REMARKS.--Samples collected bi-monthly by the Indianapolis, Indiana district office as part of the Environmental Protection Agency national network.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT. 11...	1515	.04	2.9	.17	1.3	.35	595	8.1	384
DEC. 13...	1200	.10	1.6	.03	1.5	.31	--	--	210
FEB. 21...	1130	.00	3.6	.12	.32	.28	850	8.0	492
APR. 18...	1050	.10	3.7	.03	1.1	.28	440	7.6	295
JUNE 19...	1430	.07	2.9	.14	1.6	.27	700	7.6	454

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TEMPER- ATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	IMME- DIATE COLI- FORM (COL. PER 100 ML)
OCT. 11...	474	90	15.0	16.5	25	8.6	85	24000
DEC. 13...	344	134	--	--	35	--	--	--
FEB. 21...	528	36	.5	.0	15	1.1	86	2150
APR. 18...	510	215	11.5	14.0	100	9.2	84	20600
JUNE 19...	572	118	25.5	30.5	70	6.6	80	8600

STREAMS TRIBUTARY TO LAKE ERIE

04183500 MAUMEE RIVER AT ANTWERP, OHIO

LOCATION.--Lat 41°11'56", long 84°44'40", in sec.22, T.3 N., R.1 E., Paulding County, at gaging station on left bank 425 ft (130 m) downstream from bridge on State Highway 49, 1 mi (2 km) north of Antwerp, 7 mi (11 km) downstream from Indiana State line, and 10 mi (16 km) upstream from Marie DeLarme Creek.

DRAINAGE AREA.--2,129 mi² (5,514 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRITE (N) (MG/L)
OCT.											
11...	1330	910	--	--	--	--	--	--	--	--	.06
18...	1700	1080	--	--	--	--	--	--	--	--	--
NOV.											
14...	1300	10700	--	--	--	--	--	--	--	--	.20
DEC.											
13...	0930	5080	--	--	--	--	--	--	.3	--	.14
19...	1200	2400	--	--	--	--	73	28	--	--	--
JAN.											
17...	0900	1000	--	--	--	--	--	--	--	--	.04
FEB.											
07...	1035	3280	--	--	--	--	68	25	--	--	--
21...	0945	1230	--	--	--	--	--	--	--	--	.04
MAR.											
21...	1030	10100	--	--	--	--	--	--	.2	--	.07
APR.											
10...	1725	2030	--	--	--	--	--	--	--	--	--
18...	0930	3342	--	--	--	--	--	--	--	--	.08
MAY											
22...	1430	810	--	--	--	--	--	--	--	--	.05
JUNE											
01...	1110	3000	--	--	--	--	55	24	--	--	--
19...	1230	1360	--	--	--	--	--	--	.4	--	.15
SEP.											
19...	1040	182	81	28	300	0	130	52	--	.3	--

DATE	TOTAL RESI- DUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TEMPER- ATURE (DEG C)	AIR TEMP- ERATURE (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	IMME- DIATE COLI- FORM (COL. PER 100 ML)	CYANIDE (CN) (MG/L)	PHENOLS (UG/L)
OCT.										
11...	528	108	14.5	16.5	25	8.6	60	23600	--	3
18...	--	--	9.5	--	--	--	--	--	--	--
NOV.										
14...	599	361	7.0	1.5	35	9.6	79	22000	--	4
DEC.										
13...	470	170	--	--	25	--	--	--	.01	9
19...	--	--	.5	--	--	--	--	--	--	--
JAN.										
17...	478	12	4.0	7.0	10	8.6	66	2520	--	4
FEB.										
07...	--	--	3.0	--	--	--	--	--	--	--
21...	538	70	1.0	5.0	20	12.2	86	3000	--	3
MAR.										
21...	366	136	4.5	.5	25	12.2	94	16000	.01	5
APR.										
10...	--	--	8.0	--	--	--	--	--	--	--
18...	538	212	11.0	12.5	60	9.6	87	81000	--	2
MAY										
22...	534	104	15.5	17.5	25	10.8	108	13200	--	2
JUNE										
01...	--	--	17.0	--	--	--	--	--	--	--
19...	528	218	23.5	30.0	25	6.2	72	51000	.01	0
SEP.										
19...	578	--	16.0	--	--	--	--	--	--	--

04183500 MAUMEE RIVER AT ANTWERP, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, water year 1966-67 (partial-record station); October 1969 to September 1973
 Water temperatures: October 1948 to September 1949.

REMARKS.--Samples collected bi-weekly by the Indianapolis, Indiana district office as part of the Environmental Protection Agency national network. Additional samples are collected by the Columbus, Ohio district office, to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS- SOLVED AMMONIA NITRO- GEN (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
OCT.										
11...	--	2.9	--	.60	.16	.49	--	660	8.3	420
18...	--	--	--	--	--	--	--	647	--	--
NOV.										
14...	--	3.0	--	.08	3.0	.62	--	380	7.2	238
DEC.										
13...	--	3.0	--	.13	1.2	.36	--	--	--	300
19...	--	3.7	--	--	--	--	270	544	8.5	--
JAN.										
17...	--	2.7	--	.22	.49	.03	--	560	7.6	466
FEB.										
07...	--	4.1	--	--	--	--	230	489	7.6	--
21...	--	3.3	--	.47	.76	.36	--	720	7.7	468
MAR.										
21...	--	3.0	--	.00	.00	.29	--	400	7.2	230
APR.										
10...	--	--	--	--	--	--	--	579	--	--
18...	--	3.6	--	.03	.72	.30	--	460	7.6	326
MAY										
22...	--	1.5	--	.43	1.4	.26	--	650	7.9	430
JUNE										
01...	--	3.5	--	--	--	--	250	496	7.6	--
19...	--	3.0	--	.11	2.0	.38	--	500	7.6	310
SEP.										
19...	.01	--	2.7	--	--	.23	--	854	7.4	--

DATE	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC.											
13...	6	100	1	0	--	17	3	10	0	5	60
MAR.											
21...	6	0	0	4	4	21	12	10	0	4	80
JUNE											
19...	5	100	4	0	--	27	9	14	1	0	70

STREAMS TRIBUTARY TO LAKE ERIE
04184100 MAUMEE RIVER AT DEFIANCE, OHIO

LOCATION.--Lat 41°16'43", long 84°23'07", Defiance County, at waterworks on right bank at Defiance, about 300 ft (91 m) upstream from Tiffin River, and 1.8 mi (2.9 km) upstream from Auglaize River.

DRAINAGE AREA.--2,316 mi² (5,998 km²).

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1973.
Water temperatures: January 1966 to September 1973.

EXTREMES.--1972-73:

Dissolved oxygen: Maximum, 15.0 mg/l on several days during December and February; minimum, 3.2 mg/l June 19.
Water temperatures: Maximum, 29.5°C Sept. 2, 3; minimum, freezing point on many days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.											
02...	0800	--	--	194	0	64	19	.2	--	--	4.0
13...	0800	--	--	262	0	92	27	.3	--	--	3.5
25...	1800	--	--	--	--	--	--	--	--	--	--
NOV.											
17...	0800	--	--	121	0	37	14	.2	--	--	3.4
29...	0800	--	--	236	0	81	23	.2	--	--	3.5
DEC.											
04...	0850	--	--	258	0	90	27	.3	--	--	3.4
13...	1600	--	--	144	0	50	21	.2	--	--	3.1
JAN.											
02...	0800	--	--	148	0	52	17	.2	--	--	4.0
17...	0800	--	--	253	0	91	26	.3	--	--	4.1
FEB.											
05...	0800	--	--	146	0	55	18	.3	--	--	4.9
20...	0800	--	--	252	12	96	40	.4	--	--	3.5
MAR.											
02...	0800	--	--	271	0	98	38	.4	--	--	2.9
21...	0800	--	--	136	0	44	15	.3	--	--	3.1
APR.											
25...	0800	--	--	177	0	52	16	.2	--	--	2.7
29...	0850	--	--	208	0	60	18	.2	--	--	2.5
MAY											
07...	0800	--	--	241	6	80	27	.3	--	--	3.0
30...	0800	--	--	190	0	58	20	.2	--	--	3.5
JUNE											
07...	0915	--	--	--	--	--	--	--	--	--	--
13...	0800	--	--	130	0	33	15	.4	--	--	2.7
25...	0800	--	--	238	0	720	26	.5	--	--	2.6
JULY											
03...	1130	--	--	128	0	40	13	.4	--	--	3.7
25...	0800	--	--	248	14	88	33	.7	--	--	1.8
AUG.											
03...	0800	94	24	267	17	69	24	--	.5	.01	--
22...	0800	52	13	145	3	43	15	--	.3	.01	--
SEP.											
14...	0800	65	26	181	6	100	39	--	.5	.01	--
28...	0800	63	30	188	8	130	61	--	.6	.01	--

04184100 MAUMEE RIVER AT DEFIANCE, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance: Maximum, 1,350 micromhos Jan. 24, 1970; minimum, 210 micromhos Jan. 30, 1969, Feb. 8, 9, 1971.

Dissolved oxygen (1966-68, 1969-70, 1972-73): Maximum, 15.0 mg/l or higher on many days during water years 1966 to 1968 and 1973; minimum, 0.2 mg/l Aug. 23, 1966.

Water temperatures: Maximum, 32.0°C July 3, 1966; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since January 1966. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher due to instrument limitation. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	--	250	91	498	326	--	15.0	--	--	--
13...	--	320	100	652	444	--	13.5	--	--	--
25...	--	--	--	--	--	--	9.0	--	6.0	<.5
NOV.										
17...	--	150	51	324	210	--	4.5	--	--	--
29...	--	300	110	595	386	--	3.0	--	--	--
DEC.										
04...	--	320	110	646	416	--	3.0	--	--	--
13...	--	190	72	403	234	--	1.0	--	--	--
JAN.										
02...	--	200	79	409	280	--	3.5	--	--	--
17...	--	320	110	630	436	--	.5	--	--	--
FEB.										
05...	--	200	80	425	272	--	3.5	--	--	--
20...	--	350	120	732	476	--	.5	--	--	--
MAR.										
02...	--	340	120	712	464	--	3.5	--	--	--
21...	--	180	68	365	232	--	4.0	--	--	--
APR.										
25...	--	210	65	433	280	--	15.0	--	--	--
29...	--	250	80	488	320	--	13.0	--	--	--
MAY										
07...	--	310	100	621	384	--	14.0	--	--	--
30...	--	240	84	487	306	--	17.0	--	--	--
JUNE										
07...	--	--	--	--	--	--	19.5	8	7.0	<.5
13...	--	160	54	324	208	--	21.5	--	--	--
25...	--	280	84	576	360	--	23.5	--	--	--
JULY										
03...	--	160	55	342	226	--	23.0	--	--	--
25...	--	330	100	685	456	--	24.5	--	--	--
AUG.										
03...	2.0	--	--	616	--	733	23.0	--	--	--
22...	2.2	--	--	375	--	672	21.0	--	--	--
SEP.										
14...	.58	--	--	611	--	558	20.0	--	--	--
28...	2.3	--	--	753	--	552	23.0	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04184100 MAUMEE RIVER AT DEFIANCE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	500	440	---	---	670	655	500	450	580	520	685	660
2	525	500	---	---	690	670	450	425	525	480	720	680
3	525	510	---	---	710	685	470	430	510	455	710	655
4	550	520	---	---	710	700	470	455	455	405	655	620
5	570	540	---	---	730	700	480	450	420	400	640	550
6	570	530	---	---	710	555	465	420	465	420	550	490
7	535	510	---	---	650	560	480	425	495	465	510	490
8	520	505	430	400	---	---	490	460	515	490	490	475
9	560	520	460	425	---	---	510	490	535	515	520	490
10	600	560	460	420	---	---	530	490	580	535	510	480
11	630	600	450	415	---	---	530	515	590	570	480	415
12	630	605	470	450	---	---	520	500	645	590	435	370
13	---	---	480	450	440	415	590	510	---	---	380	355
14	---	---	450	365	555	440	620	580	---	---	390	360
15	---	---	365	310	510	435	620	605	---	---	405	390
16	---	---	490	305	450	420	---	---	695	660	405	350
17	---	---	480	330	540	450	660	650	720	690	350	340
18	---	---	395	350	560	540	660	660	745	720	375	350
19	---	---	405	385	590	555	660	630	790	745	375	350
20	---	---	425	405	570	570	655	630	775	745	350	330
21	---	---	470	425	---	---	720	655	775	730	355	345
22	---	---	510	470	---	---	700	625	730	710	375	355
23	---	---	550	510	---	---	625	545	---	---	395	375
24	---	---	580	550	---	---	550	510	705	695	435	395
25	---	---	625	580	---	---	520	455	695	665	460	435
26	---	---	640	625	550	550	555	435	680	660	455	440
27	---	---	640	625	560	545	475	450	710	655	445	410
28	---	---	650	640	575	545	500	475	685	650	410	370
29	---	---	660	645	595	575	500	490	---	---	455	395
30	---	---	665	650	595	550	515	500	---	---	495	455
31	---	---	---	---	550	500	530	510	---	---	515	495
MONTH	---	---	---	---	---	---	720	420	790	400	720	330

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	520	495	570	530	520	490	530	520	---	---	640	590
2	505	490	580	540	490	480	680	520	640	570	740	640
3	510	490	600	580	480	470	520	330	640	535	735	670
4	515	490	600	560	470	460	490	330	535	520	740	680
5	520	515	---	---	460	450	490	400	530	470	700	620
6	---	---	---	---	460	450	---	---	480	460	640	580
7	---	---	---	---	460	420	---	---	530	480	700	580
8	---	---	---	---	470	430	---	---	530	520	740	630
9	---	---	590	550	480	440	---	---	540	520	830	730
10	---	---	600	560	500	480	---	---	530	520	830	650
11	---	---	560	510	490	450	---	---	550	530	650	600
12	---	---	540	510	450	410	---	---	570	550	600	570
13	---	---	540	530	410	285	---	---	640	565	595	580
14	---	---	530	520	400	325	---	---	650	600	605	590
15	---	---	560	530	500	390	---	---	610	500	610	600
16	480	440	610	560	560	475	---	---	580	500	625	605
17	550	480	600	590	560	520	---	---	600	510	635	620
18	550	510	620	600	520	500	---	---	730	590	650	630
19	520	470	610	590	510	490	---	---	620	405	670	650
20	500	460	600	590	510	480	---	---	410	320	680	650
21	510	500	610	580	550	510	---	---	400	320	690	660
22	520	480	600	590	570	560	---	---	450	360	695	660
23	510	470	610	560	640	570	---	---	470	450	700	670
24	---	---	570	510	630	590	---	---	455	430	680	660
25	---	---	610	530	630	575	---	---	450	430	720	650
26	500	450	600	580	700	560	---	---	460	420	735	690
27	500	480	630	600	560	410	---	---	500	460	740	695
28	490	470	630	600	490	400	---	---	510	500	760	710
29	510	480	600	480	480	420	---	---	540	510	820	770
30	530	510	490	400	520	440	570	510	550	530	830	790
31	---	---	500	410	---	---	---	---	590	540	---	---
MONTH	---	---	630	400	700	285	---	---	730	320	830	570

04184100 MAUMEE RIVER AT DEFIANCE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.6	5.6	---	---	7.2	6.3	8.0	7.4	11.3	10.7	12.8	12.5
2	7.1	5.9	---	---	8.6	6.4	7.7	6.8	12.3	11.2	12.5	12.1
3	7.1	6.4	---	---	6.7	6.3	7.3	7.1	11.7	11.4	12.1	11.8
4	6.9	6.6	---	---	6.6	6.1	7.6	7.3	12.9	11.7	11.8	11.4
5	7.0	6.8	---	---	6.8	6.5	8.1	7.4	12.5	11.9	12.1	11.3
6	7.7	6.8	---	---	7.2	6.3	8.2	7.7	12.9	12.5	11.9	11.3
7	7.6	6.8	---	---	7.9	6.3	9.0	8.2	12.8	12.2	11.8	10.5
8	7.8	7.0	9.3	8.2	---	---	8.9	8.5	13.1	12.5	11.2	10.8
9	8.0	7.0	10.1	9.2	---	---	9.5	8.8	13.1	12.6	10.9	10.4
10	7.8	7.2	11.7	10.1	---	---	9.8	9.1	13.8	12.9	12.5	10.1
11	8.0	7.6	10.7	10.0	---	---	9.7	9.3	14.1	13.4	11.9	9.3
12	8.0	7.8	10.6	10.1	---	---	10.5	9.7	14.3	13.3	11.1	8.3
13	---	---	11.0	9.7	13.0	6.5	10.8	9.3	14.1	13.6	10.1	8.3
14	---	---	10.7	9.4	10.1	6.7	11.3	10.2	13.6	13.2	10.8	8.4
15	---	---	9.7	9.3	13.4	10.0	11.9	11.2	13.2	13.0	9.7	8.2
16	---	---	10.1	9.7	15.0	13.4	12.6	11.8	13.7	13.0	9.1	8.0
17	---	---	11.3	9.7	15.0	15.0	14.1	12.1	13.4	12.9	8.9	8.3
18	---	---	11.1	10.5	15.0	15.0	12.8	11.4	13.1	12.8	9.6	8.6
19	---	---	11.2	10.0	15.0	15.0	12.4	10.0	13.0	12.0	10.7	9.6
20	---	---	11.5	9.9	15.0	15.0	10.8	9.3	13.1	12.6	11.1	10.5
21	---	---	11.0	10.1	15.0	15.0	10.0	9.1	12.9	12.4	11.5	10.4
22	---	---	11.5	10.0	15.0	15.0	10.2	9.3	12.6	12.4	11.3	10.6
23	---	---	11.1	10.0	15.0	14.0	11.0	9.6	12.6	12.4	11.9	10.5
24	---	---	12.5	8.7	14.0	13.5	12.0	9.4	12.6	12.4	11.6	10.6
25	---	---	11.7	9.2	13.5	13.2	10.2	7.8	12.8	12.3	12.5	10.7
26	---	---	10.5	6.3	13.4	12.0	9.3	7.9	15.0	12.1	11.1	10.4
27	---	---	6.6	6.1	12.2	10.1	9.4	8.3	15.0	12.5	10.8	10.2
28	---	---	7.8	6.2	10.2	9.8	9.2	8.5	15.0	12.7	10.2	10.0
29	---	---	8.2	6.3	10.2	9.1	11.1	8.8	---	---	10.4	9.9
30	---	---	8.4	6.4	9.1	8.4	11.3	9.7	---	---	10.4	9.6
31	---	---	---	---	8.8	7.9	10.9	9.6	---	---	9.8	9.4
MONTH	---	---	---	---	15.0	6.1	14.1	6.8	15.0	10.7	12.8	8.0

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	9.2	7.6	7.4	7.0	6.7	4.4	4.1	---	---	---	---
2	9.7	9.0	7.4	6.8	6.8	6.5	4.5	4.0	---	---	---	---
3	9.7	8.9	7.9	7.1	6.5	6.1	4.7	4.2	---	---	---	---
4	8.9	8.6	8.4	7.6	6.2	5.8	4.2	3.7	---	---	---	---
5	8.7	8.7	8.4	7.7	5.8	5.3	4.3	3.7	---	---	---	---
6	---	---	8.1	7.4	5.7	5.1	---	---	---	---	---	---
7	---	---	7.9	7.0	5.6	4.9	---	---	---	---	---	---
8	---	---	8.5	7.3	5.3	5.0	---	---	---	---	---	---
9	---	---	8.4	7.3	5.3	5.0	---	---	---	---	---	---
10	---	---	7.9	5.1	5.1	4.7	---	---	---	---	---	---
11	---	---	7.1	6.5	5.0	4.4	---	---	---	---	12.2	10.2
12	---	---	7.2	6.9	4.6	4.3	---	---	---	---	11.6	10.2
13	---	---	8.1	7.1	4.6	3.8	---	---	---	---	10.2	7.3
14	---	---	8.4	7.4	3.8	3.3	---	---	---	---	---	---
15	---	---	9.1	8.1	3.9	3.6	---	---	---	---	---	---
16	10.9	10.4	11.0	8.3	3.8	3.5	---	---	---	---	---	---
17	11.2	10.4	11.5	10.2	3.6	3.3	---	---	---	---	---	---
18	10.4	8.9	11.2	10.2	3.6	3.4	---	---	---	---	---	---
19	9.9	9.7	10.7	9.2	3.5	3.2	---	---	---	---	---	---
20	9.8	8.9	9.5	8.8	3.7	3.3	---	---	---	---	---	---
21	9.2	8.6	9.6	8.6	3.5	3.3	---	---	---	---	---	---
22	8.7	8.1	9.3	8.3	4.3	3.4	---	---	---	---	---	---
23	8.2	7.0	9.1	8.1	4.8	4.1	---	---	---	---	---	---
24	---	---	8.1	7.4	4.8	4.4	---	---	---	---	---	---
25	---	---	9.3	7.5	5.0	3.8	---	---	---	---	9.2	7.0
26	6.6	6.0	9.4	8.6	4.5	4.0	---	---	---	---	8.8	6.6
27	6.4	6.0	9.0	8.5	4.7	4.2	---	---	---	---	---	---
28	6.6	6.4	8.5	7.3	4.5	3.5	---	---	---	---	---	---
29	7.0	6.6	7.3	6.7	4.5	4.0	---	---	---	---	---	---
30	7.5	7.0	7.1	6.6	4.3	4.1	---	---	---	---	---	---
31	---	---	7.1	6.8	---	---	---	---	---	---	---	---
MONTH	---	---	11.5	5.1	7.0	3.2	---	---	---	---	---	---

04184500 BEAN CREEK AT POWERS, OHIO

LOCATION.--Lat 41°40'39", long 84°13'56", in NE 1/4 sec.24, T.9 S., R.1 E., Fulton County, at gaging station on right bank at downstream side of bridge on U. S. Highway 20, 1 mi (2 km) east of Powers, 2.2 mi (3.5 km) upstream from Iron Creek, 3 mi (5 km) downstream from Silver Creek, and 5.2 mi (8.4 km) east of Payette.

DRAINAGE AREA.--206 mi² (534 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS-CHARGE (CFS)	RICAR-BONATE (HC03) (MG/L)	CAR-BONATE (C03) (MG/L)	ALKA-LINITY AS CAC03 (MG/L)	DIS-SOLVED SULFATE (S04) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	TOTAL FLUO-RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT.											
02...	1055	100	--	--	246	--	28	--	.03	--	1.8
17...	1200	42	--	--	--	--	--	--	--	--	--
NOV.											
07...	0940	160	--	--	--	--	--	--	--	--	2.4
DEC.											
12...	1315	160	--	--	--	--	--	--	--	--	--
18...	1005	E90	--	--	239	--	22	--	.02	--	2.6
FEB.											
05...	0930	300	--	--	--	--	17	--	--	--	2.9
06...	1325	151	--	--	--	70	17	--	--	3.0	--
MAR.											
16...	1345	954	--	--	180	--	18	--	.06	--	1.8
APR.											
04...	1145	360	--	--	--	--	--	--	--	--	--
23...	0935	800	--	--	--	--	16	--	--	--	2.4
MAY											
31...	1035	1010	--	--	--	--	--	--	--	--	--
JUNE											
08...	1045	648	--	--	218	--	18	--	.00	--	1.3
JULY											
24...	0930	40	--	--	--	64	22	--	--	.80	--
SEP.											
18...	1215	17	330	0	271	73	26	.3	.00	--	.69

[illegible]

04184500 BEAN CREEK AT POWERS, OHIO--Continued

PERIOD OF RECORD.--Chemical analyses: Water years 1965-67, 1969 (partial-record station); October 1969 to September 1973.

REMARKS.--Samples collected monthly by the Lansing, Michigan district office as part of the Environmental Protection Agency national network. Additional samples are collected by the Columbus, Ohio district office to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	AMMONIA NITRO- GEN (N) (MG/L)	ORGANIC NITRO- GEN (N) (MG/L)	DIS- SOL- VED- PHOS- PHORUS (P) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)
OCT.										
02...	.05	1.6	.03	.11	360	661	7.7	462	512	50
17...	--	--	--	--	--	686	--	--	--	--
NOV.										
07...	--	--	--	.40	--	686	7.8	--	--	--
DEC.										
12...	--	--	--	--	--	--	--	--	--	--
18...	.02	.61	.02	.06	350	652	7.7	410	454	44
FEB.										
05...	--	--	--	.07	280	532	7.9	--	--	--
06...	--	--	--	--	290	550	8.2	--	--	--
MAR.										
16...	.02	1.3	.03	.16	260	490	7.5	296	428	132
APR.										
04...	--	--	--	--	--	532	--	--	--	--
23...	--	--	--	.23	186	438	7.5	--	--	--
MAY										
31...	--	--	--	--	--	433	--	--	--	--
JUNE										
08...	.35	1.5	.25	.36	280	516	7.7	327	410	83
JULY										
24...	--	--	--	--	380	651	7.9	--	--	--
SEP.										
18...	--	--	--	.13	--	700	7.9	--	475	--

STREAMS TRIBUTARY TO LAKE ERIE

04185300 TIFFIN RIVER AT EVANSFORD, OHIO

LOCATION.--Lat 41°25'38", long 84°23'22", in SE 1/4 sec.33, T.6 N., R.4 E., Defiance County, on left bank at upstream side of bridge on State Highway 191, 0.4 mi (0.6 km) east of center of Evansford, 1,300 ft (396 m) downstream from Brush Creek, and 6.5 mi (10.5 km) downstream from Beaver Creek.

DRAINAGE AREA.--541 mi² (1,401 km²).

PERIOD OF RECORD.--Chemical analyses: June 1968 to September 1973

Water temperatures: June 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 831 micromhos Feb. 19; minimum, 367 micromhos Nov. 15.

pH: Maximum, 8.6 Sept. 23; minimum, 7.0 Nov. 17, 18, Feb. 19, 20.

Dissolved oxygen: Maximum, 14.2 mg/l Feb. 27; minimum, 2.5 mg/l Aug. 28.

Water temperatures: Maximum, 31.0°C Sept. 3, 4; minimum, freezing point on many days during December to March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.									
12...	1725	256	20	82	34	.3	--	--	2.4
20...	1140	326	4	86	44	.3	--	--	1.9
26...	1000	--	--	--	--	--	--	--	--
NOV.									
14...	1650	166	0	62	22	.2	--	--	7.1
27...	1605	226	4	94	33	.2	--	--	7.3
DEC.									
02...	1610	282	4	95	31	.2	--	--	6.4
08...	1615	196	0	75	27	.2	--	--	7.6
JAN.									
01...	1545	143	0	57	26	.2	--	--	7.8
12...	1730	305	0	88	32	.2	--	--	4.8
FEB.									
03...	0940	178	0	65	28	.2	--	--	6.0
24...	1700	282	0	89	53	.3	--	--	3.9
MAR.									
01...	1720	262	14	89	37	.3	--	--	3.6
22...	1815	174	0	57	25	.2	--	--	4.4
APR.									
11...	0830	208	0	66	28	.2	--	--	3.8
28...	2000	276	0	72	26	.2	--	--	2.6
MAY									
22...	2000	304	0	72	27	.2	--	--	1.8
26...	1210	180	0	54	22	.2	--	--	4.2
JUNE									
02...	1020	180	0	49	22	.4	--	--	4.7
07...	1100	--	--	--	--	--	--	--	--
23...	1700	302	8	65	32	.4	--	--	2.4
JULY									
06...	1558	168	0	42	18	.3	--	--	5.4
19...	1620	326	0	66	32	.4	--	--	2.3
AUG.									
02...	1235	221	0	58	32	--	.4	.00	--
23...	1300	322	0	67	45	--	.4	.00	--
SEP.									
24...	1600	268	11	73	52	--	.4	.00	--
27...	1605	318	0	71	41	--	.4	.00	--

04185300 TIFFIN RIVER AT EVANSFORD, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1970-73): Maximum, 1,120 micromhos Oct. 11, 1970; minimum, 170 micromhos Feb. 23, 1971.

pH (1971-73): Maximum, 8.9 Apr. 11, 12, 1972; minimum, 6.5 Feb. 12, 1972.

Dissolved oxygen (1971-73): Maximum, 15.0 mg/l or higher Jan. 8-10, 1972; minimum, 2.5 mg/l Aug. 28, 1973.

Water temperatures (1970-73): Maximum, 31.0°C Sept. 3, 4, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since June 1968. Maximum recorded pH of 9.1 occurred Mar. 16-18, 1969. Minimum recorded dissolved oxygen concentration of 2.2 mg/l occurred on Nov. 28-30, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.									
12...	--	330	86	671	398	--	13.0	--	--
20...	--	380	110	753	442	--	5.0	--	--
26...	--	--	--	--	--	--	8.0	2.0	<.5
NOV.									
14...	--	240	100	485	262	--	5.0	--	--
27...	--	330	140	711	394	--	3.0	--	--
DEC.									
02...	--	380	140	724	416	--	3.0	--	--
08...	--	280	120	547	300	--	.0	--	--
JAN.									
01...	--	230	110	470	278	--	3.0	--	--
12...	--	380	130	727	450	--	.0	--	--
FEB.									
03...	--	250	100	532	358	--	2.0	--	--
24...	--	360	130	771	494	--	.0	--	--
MAR.									
01...	--	360	120	721	480	--	1.0	--	--
22...	--	230	88	404	300	--	4.5	--	--
APR.									
11...	--	270	99	552	342	--	4.5	--	--
28...	--	330	100	626	388	--	12.0	--	--
MAY									
22...	--	340	90	653	410	--	14.0	--	--
26...	--	240	92	487	324	--	15.0	--	--
JUNE									
02...	--	240	92	449	306	--	16.0	--	--
07...	--	--	--	--	--	--	19.0	3.0	<.5
23...	--	350	88	669	440	--	22.0	--	--
JULY									
06...	--	220	82	437	262	--	22.5	--	--
19...	--	360	92	709	446	--	23.5	--	--
AUG.									
02...	.62	--	--	610	--	430	21.0	--	--
23...	1.1	--	--	750	--	487	19.0	--	--
SEP.									
24...	.63	--	--	710	--	460	17.5	--	--
27...	.38	--	--	742	--	473	20.5	--	--

04185300 TIFFIN RIVER AT EVANSPOET, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	696	621	751	736	724	703	484	445	---	---	736	703
2	702	651	736	571	730	724	493	448	---	---	705	606
3	699	666	592	547	736	730	463	445	---	---	606	515
4	714	699	619	583	739	730	481	448	---	---	515	442
5	729	714	652	589	733	715	475	436	---	---	492	480
6	738	729	700	652	715	577	481	475	---	---	506	491
7	750	738	715	637	583	544	517	478	666	651	529	503
8	750	744	637	490	589	550	601	517	681	663	549	527
9	759	750	520	481	661	586	646	601	705	678	554	527
10	762	756	571	520	706	661	688	646	741	696	572	55
11	765	747	622	571	724	706	709	688	765	741	582	480
12	747	676	646	622	730	703	742	706	774	759	480	441
13	736	661	649	625	682	604	766	736	792	765	485	458
14	709	658	625	406	628	586	772	766	783	744	459	405
15	736	709	406	367	592	559	769	751	771	747	470	449
16	739	724	421	388	---	---	751	721	777	765	513	470
17	754	742	430	415	---	---	727	721	786	768	509	497
18	754	748	517	430	---	---	---	---	810	786	507	498
19	760	754	589	517	---	---	---	---	831	795	506	482
20	760	751	619	589	---	---	---	---	828	801	487	433
21	760	757	631	616	---	---	---	---	804	777	489	456
22	760	745	628	610	---	---	---	---	813	792	491	482
23	754	631	652	622	607	577	---	---	828	810	511	490
24	790	655	670	652	577	559	---	---	816	762	515	482
25	742	670	688	670	568	556	---	---	813	546	517	457
26	742	685	700	688	571	562	---	---	786	777	492	453
27	706	691	712	694	613	571	---	---	780	720	479	458
28	733	706	703	691	640	613	---	---	774	728	507	476
29	745	730	703	688	661	640	---	---	---	---	534	507
30	766	745	703	682	661	598	---	---	---	---	561	531
31	766	751	---	---	592	460	---	---	---	---	567	561
MONTH	790	621	751	367	---	---	---	---	831	546	736	405
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	645	636	487	451	---	---	642	522	742	688
2	---	---	648	642	451	442	---	---	624	555	751	688
3	---	---	645	597	484	451	582	492	633	393	751	712
4	---	---	609	588	514	484	573	396	504	369	751	727
5	---	---	594	564	532	463	429	393	571	505	745	724
6	---	---	579	570	571	532	447	417	604	574	736	706
7	---	---	591	573	586	571	513	447	628	604	763	724
8	---	---	597	582	618	582	561	513	640	625	784	727
9	---	---	606	570	615	546	612	561	661	640	766	706
10	---	---	600	561	609	552	636	609	673	637	757	694
11	579	516	561	474	630	609	618	594	688	652	751	742
12	540	504	519	483	630	582	675	618	703	676	---	---
13	594	540	558	516	618	498	687	675	700	661	---	---
14	612	594	579	540	555	498	693	678	700	628	---	---
15	627	612	600	573	498	447	693	681	631	616	---	---
16	633	621	634	576	567	495	693	684	661	625	---	---
17	636	630	661	490	633	567	699	687	685	625	---	---
18	645	636	664	655	636	627	732	696	697	661	---	---
19	645	636	670	658	651	636	738	705	---	---	---	---
20	636	618	673	661	657	648	711	678	---	---	801	732
21	624	612	676	670	666	654	684	672	---	---	779	710
22	624	567	673	664	669	654	678	666	---	---	739	721
23	594	525	670	592	672	663	684	672	763	721	765	717
24	594	543	709	634	663	648	687	675	763	670	770	707
25	528	492	634	424	669	660	681	666	712	658	805	697
26	570	528	535	466	681	657	687	672	706	646	793	715
27	606	567	538	529	---	---	684	672	709	667	793	709
28	627	606	535	493	---	---	690	681	715	658	811	736
29	636	627	535	517	---	---	702	678	721	661	817	712
30	642	636	538	523	---	---	687	675	721	637	811	715
31	---	---	529	484	---	---	681	495	721	679	---	---
MONTH	---	---	709	424	681	442	738	393	763	369	---	---
YEAR	831	367										

04185300 TIFFIN RIVER AT EVANSPOET, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.8	7.7	7.8	7.7	7.7	7.6	7.5	7.5	---	---	7.8	7.6
2	7.8	7.7	7.7	7.3	7.7	7.4	7.5	7.4	---	---	7.8	7.5
3	7.8	7.7	7.5	7.4	7.7	7.6	7.5	7.5	---	---	7.7	7.5
4	8.0	7.8	7.5	7.4	7.8	7.7	7.6	7.5	---	---	7.7	7.6
5	8.0	7.8	7.5	7.5	7.7	7.7	7.6	7.5	---	---	7.6	7.5
6	7.9	7.7	7.6	7.4	7.7	7.7	7.5	7.4	---	---	7.6	7.4
7	7.9	7.7	7.6	7.4	7.7	7.4	7.5	7.4	7.5	7.4	7.6	7.5
8	7.9	7.8	7.6	7.5	7.7	7.4	7.5	7.4	7.6	7.5	7.7	7.6
9	8.0	7.9	7.4	7.4	7.6	7.4	7.5	7.5	7.7	7.3	7.8	7.8
10	8.0	7.9	7.4	7.3	7.6	7.5	7.5	7.5	7.6	7.2	7.8	7.8
11	8.0	7.9	7.5	7.4	7.7	7.5	7.5	7.5	7.6	7.2	7.8	7.6
12	7.9	7.6	7.5	7.5	7.6	7.5	7.5	7.5	7.6	7.2	7.7	7.6
13	7.8	7.6	7.6	7.2	7.6	7.5	7.5	7.3	7.5	7.2	7.7	7.6
14	7.8	7.7	7.6	7.2	7.6	7.5	7.4	7.3	7.3	7.3	7.6	7.5
15	7.9	7.8	7.4	7.3	7.6	7.4	7.4	7.3	7.6	7.3	7.7	7.6
16	7.9	7.8	7.3	7.1	7.7	7.6	7.4	7.3	7.6	7.4	7.7	7.7
17	7.9	7.9	7.1	7.0	7.7	7.5	7.4	7.3	7.6	7.3	7.8	7.9
18	7.9	7.9	7.2	7.0	7.6	7.4	7.5	7.4	7.5	7.2	7.9	7.8
19	8.0	7.9	7.4	7.2	7.5	7.4	---	---	7.7	7.0	7.9	7.7
20	8.0	7.8	7.4	7.1	7.4	7.4	---	---	7.2	7.0	7.8	7.7
21	7.9	7.8	7.4	7.3	7.5	7.4	---	---	7.5	7.2	7.8	7.7
22	7.8	7.7	7.5	7.4	7.5	7.4	---	---	7.5	7.2	7.7	7.7
23	7.7	7.3	7.6	7.5	7.5	7.4	---	---	7.4	7.2	7.7	7.7
24	7.6	7.4	7.6	7.3	7.6	7.5	---	---	7.4	7.1	7.9	7.8
25	7.7	7.6	7.5	7.4	7.6	7.5	---	---	7.5	7.3	7.9	7.8
26	7.7	7.6	7.6	7.5	7.7	7.5	---	---	7.6	7.5	7.8	7.7
27	7.8	7.6	7.6	7.5	7.7	7.7	---	---	7.6	7.5	7.8	7.7
28	7.7	7.6	7.6	7.5	7.7	7.6	---	---	7.7	7.2	7.9	7.7
29	7.6	7.5	7.7	7.5	7.7	7.7	---	---	7.7	7.2	7.9	7.7
30	7.8	7.7	7.7	7.7	7.7	7.7	---	---	---	---	7.9	7.7
31	7.8	7.8	---	---	7.6	7.5	---	---	---	---	7.8	7.8
MONT	8.0	7.3	7.8	7.0	7.8	7.4	---	---	7.7	7.0	8.0	7.4

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04185300 TIFFIN RIVER AT EVANSPOET, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.3	6.9	7.7	7.6	10.8	10.6	10.9	10.0	---	---	13.0	12.8
2	7.5	7.3	7.6	6.8	11.0	10.7	11.8	10.9	---	---	13.0	12.8
3	7.5	7.2	6.9	6.7	10.8	10.7	12.2	11.7	---	---	12.8	11.3
4	7.2	7.2	7.0	6.8	11.3	10.9	12.1	11.9	---	---	11.3	10.6
5	7.2	6.9	7.1	6.9	11.3	11.2	12.2	12.1	---	---	10.8	10.6
6	7.0	6.8	7.3	7.0	11.6	11.3	12.2	12.1	---	---	10.7	10.2
7	7.1	6.8	7.1	6.8	12.0	11.6	12.2	12.0	12.4	12.3	10.2	9.2
8	7.4	7.1	6.8	6.8	12.2	12.0	12.1	12.0	12.8	12.4	9.4	8.9
9	7.9	7.4	6.9	6.7	12.2	11.9	12.0	11.8	13.4	12.8	9.4	8.9
10	8.2	7.9	7.0	6.8	12.0	11.7	11.9	11.8	13.7	13.4	9.8	9.1
11	8.2	7.9	7.1	6.9	12.3	11.9	11.9	11.8	13.6	13.5	9.8	8.5
12	8.0	7.7	7.1	7.0	12.3	12.3	11.9	11.7	13.6	13.5	8.8	8.6
13	8.2	7.7	7.2	6.9	12.3	12.2	11.8	11.7	13.6	13.4	9.2	8.8
14	8.2	8.1	8.3	7.2	12.5	12.3	11.8	11.7	13.6	13.5	9.3	8.9
15	8.5	8.1	8.5	8.1	12.4	12.3	11.7	11.6	13.5	13.3	9.0	8.4
16	8.4	8.2	8.8	8.5	12.4	12.3	11.7	11.5	13.5	13.3	9.1	8.5
17	8.6	8.1	9.0	8.8	12.5	12.4	11.5	11.5	13.4	13.2	11.3	9.1
18	9.2	8.6	9.1	8.9	12.6	12.4	---	---	13.5	13.3	12.0	11.3
19	9.7	9.1	9.0	8.9	12.7	12.6	---	---	14.1	13.3	12.7	12.0
20	10.2	9.6	9.0	8.8	12.7	12.7	---	---	13.6	13.3	12.5	12.0
21	9.9	9.5	9.0	8.9	12.7	12.7	---	---	13.4	13.2	12.5	11.6
22	9.3	8.8	9.0	8.9	12.8	12.6	---	---	13.3	13.2	12.3	11.5
23	8.8	7.7	9.3	9.0	12.7	11.9	---	---	13.3	13.2	12.0	11.2
24	7.9	7.5	9.6	9.3	11.9	11.7	---	---	13.3	13.2	11.7	10.7
25	7.9	7.6	9.8	9.6	11.8	11.7	---	---	13.2	13.2	11.0	10.8
26	8.0	7.9	10.0	9.8	11.8	11.6	---	---	13.2	13.1	11.2	10.6
27	8.2	7.9	10.0	9.9	11.8	11.7	---	---	14.2	13.0	11.1	10.8
28	7.9	7.8	10.2	10.0	11.8	11.7	---	---	13.2	12.9	11.0	8.5
29	7.7	7.6	10.7	10.4	11.7	11.6	---	---	---	---	8.5	8.0
30	7.7	7.6	10.8	10.6	11.6	10.6	---	---	---	---	8.0	7.5
31	7.7	7.6	---	---	10.6	10.0	---	---	---	---	7.5	7.2
MONTH	10.2	6.8	10.8	6.7	12.8	10.0	---	---	14.2	12.3	13.0	7.2

APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.7	8.5	7.3	6.9	---	---	4.8	4.4	5.5	4.5
2	---	---	8.5	8.2	6.9	6.6	---	---	4.7	4.4	4.9	4.0
3	---	---	8.8	8.2	6.6	6.3	5.7	5.4	5.2	4.8	4.5	4.0
4	---	---	8.9	8.6	6.5	6.1	5.5	5.1	5.2	5.0	4.5	4.1
5	---	---	9.2	8.9	6.2	5.8	5.4	5.1	5.0	4.6	5.2	3.1
6	10.3	10.0	9.2	9.1	6.4	5.3	5.4	5.3	4.7	4.3	5.5	4.9
7	10.3	10.1	9.1	8.7	6.9	6.0	5.4	5.2	4.4	4.1	5.6	5.0
8	10.2	9.9	8.7	8.2	6.0	5.1	5.3	4.8	4.3	3.7	5.4	5.0
9	10.1	9.9	8.2	8.0	5.5	5.0	4.9	4.7	3.9	3.3	5.2	4.9
10	10.5	10.1	8.0	7.6	5.3	5.1	4.8	4.7	4.1	3.4	5.2	4.7
11	10.7	10.2	8.0	7.9	5.1	5.0	4.9	4.8	4.1	3.6	5.1	4.8
12	10.3	10.2	8.2	7.9	5.2	4.9	5.1	4.9	4.3	3.5	---	---
13	10.3	10.1	8.3	8.0	5.2	5.0	5.0	4.8	4.3	3.8	---	---
14	10.1	9.8	8.4	8.2	5.3	5.0	4.9	4.7	5.6	4.0	---	---
15	9.9	9.5	9.0	8.6	5.5	5.0	4.8	4.6	4.3	3.7	---	---
16	9.5	9.1	9.5	8.9	5.5	5.0	5.0	4.8	4.1	3.6	---	---
17	9.1	8.8	9.4	9.0	5.1	5.0	5.1	5.0	6.5	3.6	---	---
18	8.8	8.7	9.4	9.2	5.1	5.0	5.3	5.1	6.7	6.3	---	---
19	8.8	8.6	9.2	8.6	5.2	5.0	5.7	5.1	---	---	---	---
20	8.6	8.4	8.6	8.3	5.2	5.0	5.2	4.4	---	---	8.2	7.9
21	8.4	8.1	8.3	7.7	5.3	5.1	5.1	4.4	---	---	8.3	7.8
22	8.1	7.8	7.9	7.7	5.2	5.0	5.1	4.7	---	---	8.3	7.6
23	7.9	7.6	7.7	7.4	5.3	5.1	6.6	4.7	6.6	6.4	7.6	7.3
24	8.3	7.7	7.6	7.2	5.3	5.0	5.3	4.9	6.6	6.5	7.6	7.1
25	8.4	8.2	8.0	7.5	5.3	5.1	5.1	4.7	6.7	6.4	7.6	7.1
26	8.7	8.5	7.9	7.6	5.2	5.0	4.8	4.5	6.6	6.2	7.3	6.2
27	8.7	8.5	7.7	7.5	---	---	4.9	4.5	6.3	6.0	6.6	6.2
28	9.0	8.5	7.5	7.4	---	---	4.8	4.4	6.0	2.5	6.4	6.0
29	9.1	8.9	7.6	7.4	---	---	4.9	4.8	6.0	2.7	6.1	5.8
30	9.0	8.8	7.5	7.4	---	---	5.2	4.6	5.8	4.8	6.3	5.7
31	---	---	7.4	7.3	---	---	4.8	4.2	5.8	4.8	---	---
MONTH	10.7	7.6	9.5	7.2	7.3	4.9	6.6	4.2	6.7	2.5	---	---

YEAR	14.2	2.5
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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	12.5	7.5	7.0	2.0	1.0	3.5	1.5	---	---	1.0	0.0
2	15.0	12.0	11.0	7.5	3.0	1.0	1.5	0.0	---	---	1.0	0.5
3	15.0	12.5	10.0	8.5	2.5	1.5	1.0	0.0	---	---	3.5	0.5
4	14.0	13.0	9.5	8.5	2.0	1.0	1.0	0.0	---	---	4.0	3.0
5	15.5	13.5	8.5	8.0	2.0	1.5	0.0	0.0	---	---	4.0	3.0
6	16.0	14.0	9.0	7.0	2.0	1.0	2.5	0.0	---	---	6.5	3.5
7	15.0	13.0	8.5	8.0	1.0	0.0	0.5	0.0	3.5	3.0	8.0	6.0
8	14.0	12.0	8.5	8.0	0.5	0.0	0.5	0.0	2.5	1.5	10.0	7.0
9	12.5	10.5	8.5	7.5	1.0	0.0	0.5	0.0	2.0	0.0	8.5	7.0
10	11.5	9.0	7.5	7.0	1.0	0.0	0.0	0.0	1.0	0.0	7.5	6.5
11	12.0	9.5	7.0	6.5	1.5	0.0	0.5	0.0	1.0	0.5	11.0	7.0
12	13.5	12.0	7.0	6.5	2.0	0.0	1.0	0.0	0.5	0.5	10.5	9.0
13	12.0	10.5	6.5	5.5	1.0	0.0	1.0	0.0	1.5	0.5	9.5	8.5
14	12.5	10.5	5.5	3.5	1.5	0.0	0.0	0.0	1.0	0.5	10.5	8.5
15	11.0	9.0	3.0	2.5	0.5	0.0	0.5	0.0	1.0	0.0	12.5	10.5
16	11.0	9.5	3.5	2.0	0.0	0.0	0.0	0.0	0.5	0.0	11.0	8.5
17	10.5	8.0	3.5	3.0	0.5	0.0	0.0	0.0	0.5	0.0	8.5	3.0
18	7.5	6.0	4.0	3.0	0.5	0.0	---	---	1.0	0.5	3.0	1.5
19	6.5	4.5	3.5	3.5	0.5	0.0	---	---	1.5	0.5	3.0	0.5
20	6.5	3.0	5.0	3.5	0.5	0.0	---	---	1.5	0.5	3.0	0.5
21	6.5	5.0	4.5	4.0	1.0	0.0	---	---	1.0	0.0	3.5	1.0
22	8.0	6.5	4.5	4.0	0.5	0.0	---	---	0.5	0.0	4.0	2.0
23	10.5	8.0	4.0	3.0	1.5	0.0	---	---	1.0	0.5	5.5	1.5
24	10.0	9.0	4.0	3.0	2.0	1.5	---	---	1.0	0.0	6.5	3.5
25	9.0	8.0	3.5	3.0	1.5	1.5	---	---	1.0	0.0	6.0	5.0
26	9.0	7.5	3.0	2.5	2.0	1.0	---	---	0.0	0.0	7.0	4.5
27	8.5	6.0	3.0	2.5	1.0	0.5	---	---	1.0	0.0	7.5	4.5
28	8.5	8.0	3.0	2.0	1.5	1.0	---	---	1.0	0.5	7.5	6.5
29	8.0	7.5	3.0	2.0	1.5	0.5	---	---	---	---	8.0	7.0
30	7.5	7.0	3.0	1.5	3.5	1.5	---	---	---	---	9.0	7.5
31	7.0	7.0	---	---	4.0	3.5	---	---	---	---	8.5	8.0
MONTH	16.0	3.0	11.0	1.5	4.0	0.0	---	---	3.5	0.0	12.5	0.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	16.0	13.5	19.5	15.5	---	---	22.0	21.0	29.0	25.0
2	---	---	17.0	15.0	21.5	17.5	---	---	22.0	20.0	30.5	25.0
3	---	---	15.5	11.0	22.5	20.0	22.5	21.5	22.0	19.5	31.0	25.5
4	---	---	14.0	11.0	23.0	21.0	22.0	21.0	23.0	19.5	31.0	25.0
5	---	---	14.5	10.5	22.5	21.0	22.5	20.0	24.5	21.5	30.0	25.0
6	8.5	7.5	14.0	11.0	22.0	21.0	23.0	20.5	25.0	22.5	28.5	23.0
7	9.5	7.0	14.5	13.0	21.0	19.5	23.5	21.0	25.5	22.5	24.5	20.5
8	11.0	7.5	16.5	14.0	22.0	19.5	24.0	21.5	27.0	23.5	22.5	19.0
9	9.0	7.0	18.5	15.0	23.5	20.5	25.0	22.5	27.5	25.0	22.0	19.0
10	7.5	5.0	19.5	17.0	24.5	20.5	25.0	23.0	27.0	24.5	22.5	17.5
11	6.0	4.0	18.5	16.0	26.0	22.5	23.5	21.5	25.5	23.5	20.5	18.5
12	7.0	5.0	19.5	16.5	25.5	23.5	23.0	20.0	26.5	23.5	---	---
13	8.5	5.0	17.5	16.0	24.5	22.0	24.5	21.0	26.0	23.0	---	---
14	10.5	6.0	15.5	14.0	24.0	21.0	24.5	22.0	24.0	22.5	---	---
15	12.5	7.5	14.0	12.5	24.0	21.0	24.5	21.5	25.5	21.5	---	---
16	12.0	10.5	12.5	10.5	24.5	21.5	23.0	21.0	25.5	21.5	---	---
17	13.5	10.0	12.0	9.0	23.0	22.0	24.0	19.5	25.0	21.5	---	---
18	14.0	13.0	13.0	9.0	24.0	21.5	24.5	19.5	23.0	22.0	---	---
19	15.0	13.0	11.5	11.0	25.0	22.0	24.5	20.5	---	---	---	---
20	18.0	14.5	16.0	11.0	24.5	22.5	23.0	21.5	---	---	16.5	14.5
21	18.5	16.5	17.5	12.5	24.5	22.0	21.5	20.5	---	---	15.5	13.0
22	19.5	18.0	16.0	15.0	24.0	21.5	22.5	20.0	---	---	18.0	15.5
23	19.5	17.0	16.5	15.0	22.5	20.5	23.5	20.0	19.5	18.5	18.5	15.5
24	18.5	16.0	18.0	15.5	23.0	19.5	23.5	21.5	20.5	18.0	18.5	15.5
25	17.5	15.0	17.0	14.0	24.0	20.0	25.0	22.0	22.5	18.5	20.0	16.5
26	17.0	14.5	18.0	15.0	24.0	21.5	25.0	23.0	25.5	21.0	22.0	18.5
27	15.5	13.5	17.0	16.0	---	---	25.5	22.5	27.5	23.5	22.0	19.5
28	14.5	11.5	19.0	16.5	---	---	24.0	22.0	30.0	25.0	21.5	20.0
29	13.0	10.5	18.5	16.0	---	---	24.5	21.0	30.5	25.0	20.0	19.5
30	14.0	11.5	16.5	15.5	---	---	23.5	20.5	27.5	25.0	19.5	18.0
31	---	---	17.5	15.0	---	---	23.0	21.0	28.0	24.0	---	---
MONTH	19.5	4.0	19.5	9.0	26.0	15.5	25.5	19.5	30.5	18.0	---	---
YEAR	31.0	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO

LOCATION.--Lat 40°56'55", long 84°15'58", in SE 1/4 sec.15, T.1 S., R.5 E., Putnam County, at gaging station on left bank 200 ft (61 m) upstream from bridge on U.S. Highway 224, 3.5 mi (5.6 km) northeast of Fort Jennings, 6.0 mi (9.7 km) upstream from Ottawa River, and 7.3 mi (11.7 km) downstream from Jennings Creek.

DRAINAGE AREA.--332 mi² (860 km²).

PERIOD OF RECORD.--Chemical analyses: October 1968 to September 1973.

Water temperatures: October 1968 to September 1973.

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,060 micromhos Sept. 24; minimum, 205 micromhos Dec. 7.

pH: Maximum, 9.0 Aug. 8; minimum, 7.0 Apr. 2-4, 6, 7.

Dissolved oxygen: Maximum, 15.0 mg/l on many days during February and March; minimum, 3.5 mg/l Sept. 3.

Water temperatures: Maximum, 29.5°C Aug. 29, Sept. 2-4; minimum, freezing point on many days during January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	1410	282	--	--	204	6	77	26	.3	--	--
25...	1145	--	--	--	--	--	--	--	--	--	--
30...	0905	95	--	--	274	16	130	46	.4	--	--
NOV.											
14...	1300	2370	--	--	128	0	49	14	.2	--	--
29...	1430	428	--	--	216	10	87	26	.3	--	--
DEC.											
03...	1000	229	--	--	274	0	100	29	.3	--	--
24...	1020	682	--	--	178	6	70	21	.2	--	--
JAN.											
15...	1000	95	--	--	306	24	130	35	.5	--	--
29...	1155	768	--	--	206	0	85	24	.3	--	--
FEB.											
06...	1715	320	--	--	204	3	83	23	.2	--	--
18...	1415	110	--	--	268	14	120	39	.4	--	--
MAR.											
02...	1040	78	--	--	234	12	120	41	.5	--	--
20...	1020	1720	--	--	138	0	45	16	.2	--	--
APR.											
23...	1000	1720	--	--	128	0	48	14	.2	--	--
29...	1030	474	--	--	272	0	88	25	.3	--	--
MAY											
09...	0800	187	--	--	270	0	100	32	.4	--	--
27...	0945	1430	--	--	124	0	54	19	.2	--	--
JUNE											
06...	1300	2060	--	--	125	0	42	19	.3	--	--
25...	0835	86	--	--	285	0	100	39	.5	--	--
JULY											
16...	1500	56	--	--	278	14	100	30	.5	--	--
25...	0830	396	--	--	154	0	52	17	.4	--	--
AUG.											
12...	0910	44	--	--	262	14	130	50	--	.6	.00
20...	0935	371	--	--	182	0	50	12	--	.3	.00
SEP.											
04...	2000	36	89	32	314	0	130	42	--	.6	.00
24...	1500	28	--	--	302	15	160	70	--	.8	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
DEC.					
11...	1520	320	1.0	90	78
FEB.					
08...	1000	261	3.0	18	13
APR.					
10...	1310	343	7.0	34	31
MAY					
30...	1405	245	16.5	146	97
JULY					
25...	0955	381	21.0	229	236

STREAMS TRIBUTARY TO LAKE ERIE

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 1,330 micromhos Feb. 2-4, 1971; minimum, 150 micromhos Feb. 20, 1971.

pH (1969-73): Maximum, 9.8 July 22, 1970; minimum, 5.9 July 18, 1972.

Dissolved oxygen (1969-73): Maximum, 15.0 mg/l or higher on many days during 1969-73; minimum, 2.0 mg/l Aug. 5-7, 1971.

Water temperatures (1969-73): Maximum, 30.0°C July 1, Aug. 1, 1970, July 23, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since October 1968. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitation. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
03...	3.9	--	280	100	578	358	--	15.0	--	--
25...	--	--	--	--	--	--	--	7.5	11	<.5
30...	2.0	--	400	150	819	516	--	5.0	--	--
NOV.										
14...	3.0	--	180	75	367	208	--	7.0	--	--
29...	2.8	--	310	120	605	388	--	3.5	--	--
DEC.										
03...	2.8	--	360	140	682	430	--	4.0	--	--
24...	3.0	--	250	94	501	290	--	3.5	--	--
JAN.										
15...	3.0	--	440	150	862	564	--	.5	--	--
29...	4.2	--	280	110	584	376	--	1.5	--	--
FEB.										
06...	4.1	--	290	120	574	362	--	4.5	--	--
18...	2.0	--	390	150	772	488	--	.0	--	--
MAR.										
02...	2.0	--	340	130	714	466	--	4.0	--	--
20...	3.6	--	180	67	382	242	--	4.5	--	--
APR.										
23...	3.2	--	170	65	362	242	--	14.5	--	--
29...	2.7	--	340	120	647	424	--	11.0	--	--
MAY										
09...	1.9	--	340	120	693	426	--	15.5	--	--
27...	11	--	210	110	430	304	--	17.0	--	--
JUNE										
06...	3.9	--	180	78	386	238	--	19.5	5.0	<.5
25...	2.1	--	350	120	720	462	--	23.0	--	--
JULY										
16...	2.0	--	370	120	732	452	--	24.0	--	--
25...	5.0	--	210	84	430	256	--	23.0	--	--
AUG.										
12...	--	.91	--	--	800	--	3690	24.0	--	--
20...	--	2.5	--	--	480	--	748	22.0	--	--
SEP.										
04...	--	.82	--	--	792	--	726	29.5	--	--
24...	--	1.6	--	--	1000	--	818	20.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
DEC.											
11...	1520	93	96	96	99	99	100	--	--	--	--
MAY											
30...	1405	65	80	85	92	94	96	99	100	--	--
JULY											
25...	0955	65	79	88	96	99	99	100	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	527	521	823	745	652	628	507	475	616	580	753	702
2	---	---	745	370	673	649	567	507	610	493	714	691
3	580	570	364	318	697	673	591	567	493	469	739	697
4	584	559	369	316	715	700	570	468	489	458	744	720
5	566	548	472	369	771	666	498	442	545	489	750	664
6	602	560	528	472	666	262	576	502	587	545	670	559
7	634	591	552	468	262	205	595	568	646	587	599	581
8	652	634	468	333	275	210	627	569	658	625	593	434
9	667	652	333	297	447	275	688	613	709	658	480	314
10	663	654	403	316	530	447	711	662	729	704	527	431
11	672	659	480	403	583	530	787	707	747	717	435	363
12	661	465	520	480	609	583	836	752	766	741	363	341
13	582	519	537	483	584	289	857	805	787	756	444	358
14	586	577	483	288	358	295	875	828	785	740	482	383
15	659	582	288	258	435	340	877	818	756	735	385	325
16	731	659	307	264	528	435	856	807	770	735	411	354
17	727	712	454	307	592	527	862	801	813	770	433	337
18	745	721	507	454	643	592	805	760	815	779	340	290
19	750	735	543	507	678	643	764	721	793	754	373	310
20	750	738	550	532	701	665	725	698	773	737	434	357
21	753	741	534	501	665	556	734	709	739	706	485	423
22	769	749	520	504	561	515	733	677	718	696	519	462
23	763	729	544	516	515	496	677	549	712	693	540	480
24	731	728	574	543	508	496	549	524	715	687	579	513
25	786	729	600	573	513	504	695	528	711	672	584	528
26	810	784	607	598	538	511	706	649	---	---	563	423
27	825	810	606	586	553	537	651	616	---	---	465	426
28	828	808	614	565	608	553	619	585	710	698	539	431
29	822	810	604	592	623	585	600	556	---	---	545	505
30	820	808	631	602	634	601	572	545	---	---	567	463
31	816	802	---	---	604	496	586	572	---	---	530	460
MONTH	828	465	823	258	771	205	877	442	815	458	753	290
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	559	465	566	529	604	576	570	506	623	557	755	728
2	517	463	676	558	621	591	618	556	576	550	768	734
3	513	465	623	605	648	617	---	---	626	576	789	745
4	557	513	658	623	673	645	---	---	670	626	800	764
5	586	529	664	645	648	507	---	---	697	670	799	755
6	529	488	682	655	511	344	---	---	727	694	817	767
7	535	493	684	675	344	329	---	---	753	725	812	788
8	583	535	693	675	379	343	---	---	749	701	842	792
9	627	583	703	649	489	379	---	---	743	700	839	790
10	657	622	664	510	547	487	631	615	756	720	861	812
11	649	609	606	510	578	547	649	631	765	728	882	830
12	613	545	600	434	610	573	678	649	788	758	848	822
13	556	388	460	430	609	452	720	678	764	699	844	828
14	388	371	525	454	449	389	728	714	720	586	856	848
15	478	387	576	525	589	449	741	713	586	423	886	851
16	525	477	619	573	654	589	743	729	451	424	916	886
17	562	515	657	619	654	626	737	706	505	431	942	913
18	551	507	660	639	632	611	717	673	506	458	949	925
19	583	539	678	648	649	614	716	653	500	410	963	906
20	591	546	693	658	678	649	697	671	487	395	927	910
21	614	587	691	513	707	678	715	450	490	439	952	915
22	623	483	527	501	728	707	453	356	551	482	951	907
23	483	348	531	495	730	710	452	359	597	545	951	916
24	406	359	570	528	729	703	411	366	621	563	1060	948
25	485	406	583	561	722	675	451	410	646	606	955	867
26	543	485	561	387	740	695	521	251	691	634	886	844
27	589	543	527	414	700	563	515	232	706	681	873	855
28	631	589	468	438	580	492	590	486	733	703	890	873
29	647	631	504	469	575	405	633	582	750	717	892	871
30	655	566	540	498	506	392	638	614	747	702	900	878
31	---	---	576	522	---	---	654	564	752	712	---	---
MONTH	657	348	703	387	740	329	---	---	788	395	1060	728
YEAR	1060	205										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.5	7.8	7.7	7.9	7.8	8.0	7.8	8.1	7.9	8.6	8.4
2	---	---	7.7	7.2	8.0	7.9	8.1	8.0	8.0	7.6	8.6	8.5
3	7.8	7.7	7.4	7.2	8.1	7.9	8.1	8.0	7.9	7.7	8.5	8.4
4	7.8	7.6	7.4	7.3	8.0	7.8	8.0	7.9	7.9	7.8	8.4	8.3
5	7.7	7.6	7.6	7.4	8.0	7.8	8.1	7.9	8.0	7.9	8.3	8.1
6	7.8	7.7	7.8	7.5	7.8	7.4	8.1	8.0	8.2	8.0	8.1	8.0
7	7.9	7.7	7.8	7.5	7.5	7.3	8.1	8.1	8.2	7.7	8.1	8.0
8	7.9	7.7	7.5	7.3	7.6	7.4	8.1	8.1	7.9	7.7	8.1	7.8
9	8.0	7.8	7.5	7.2	7.7	7.5	8.2	8.1	8.1	7.9	7.8	7.7
10	8.0	7.8	7.6	7.5	7.8	7.7	8.2	8.1	8.1	7.9	7.8	7.7
11	7.9	7.9	7.7	7.5	7.9	7.8	8.2	8.1	8.1	8.0	7.7	7.5
12	7.9	7.3	7.8	7.7	7.9	7.8	8.2	8.1	8.1	8.1	7.7	7.4
13	7.7	7.4	7.9	7.7	7.6	7.3	8.2	8.1	8.2	8.1	7.7	7.7
14	7.8	7.6	7.8	7.2	7.5	7.4	8.2	8.2	8.2	8.1	7.8	7.5
15	7.9	7.7	7.2	7.2	7.6	7.5	8.2	8.2	8.2	8.1	7.6	7.5
16	8.0	7.8	7.4	7.2	7.8	7.6	8.3	8.2	8.3	8.1	7.7	7.5
17	8.0	7.7	7.5	7.3	7.8	7.6	8.3	7.9	8.3	8.2	7.7	7.3
18	7.8	7.6	7.6	7.5	7.8	7.7	8.0	7.9	8.4	8.2	7.6	7.6
19	7.8	7.6	7.7	7.6	7.8	7.7	8.1	7.9	8.4	8.3	7.7	7.3
20	7.8	7.6	7.7	7.6	7.8	7.7	8.1	8.0	8.4	8.3	7.7	7.6
21	7.8	7.6	7.7	7.6	7.7	7.7	8.1	8.0	8.4	8.3	7.8	7.6
22	7.8	7.7	7.7	7.6	7.8	7.7	8.2	8.0	8.4	8.3	7.8	7.7
23	7.8	7.6	7.7	7.6	7.7	7.7	8.1	7.9	8.5	8.4	7.8	7.8
24	7.7	7.7	7.9	7.6	7.8	7.7	7.9	7.8	8.5	8.3	7.9	7.8
25	7.8	7.6	7.9	7.8	7.8	7.7	8.1	7.8	8.6	8.4	7.9	7.8
26	7.8	7.6	7.8	7.7	7.8	7.7	8.2	7.9	---	---	7.8	7.6
27	7.8	7.7	7.8	7.7	7.9	7.7	8.1	7.9	---	---	7.7	7.5
28	7.8	7.7	8.0	7.8	8.1	7.7	8.1	7.9	8.6	8.5	7.8	7.2
29	7.8	7.7	7.9	7.8	8.1	7.9	8.0	7.7	---	---	7.7	7.5
30	7.8	7.7	7.9	7.8	8.1	7.9	8.0	7.8	---	---	7.5	7.2
31	7.9	7.7	---	---	7.9	7.8	8.1	7.9	---	---	7.2	7.1
MONTH	8.0	7.3	8.0	7.2	8.1	7.3	8.3	7.7	8.6	7.6	8.6	7.1
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.2	7.1	8.1	7.8	7.7	7.6	7.7	7.6	7.8	7.6	8.4	8.2
2	7.1	7.0	8.3	7.8	7.7	7.5	7.7	7.7	7.8	7.6	8.4	8.3
3	7.1	7.0	8.3	7.8	7.8	7.7	---	---	7.8	7.5	8.4	8.2
4	7.1	7.0	8.4	8.0	7.8	7.5	---	---	8.0	7.5	8.4	8.2
5	7.1	7.1	8.5	8.2	7.8	7.4	---	---	8.1	7.8	8.4	8.3
6	7.1	7.0	8.5	8.3	7.4	7.3	---	---	8.3	8.0	8.4	8.1
7	7.1	7.0	8.5	8.3	7.4	7.2	---	---	8.8	8.2	8.2	7.9
8	7.1	7.1	8.4	8.2	7.5	7.3	---	---	9.0	8.5	8.1	7.9
9	7.2	7.1	8.4	7.9	7.6	7.4	---	---	8.9	8.6	8.0	7.9
10	7.9	7.1	7.9	7.6	7.7	7.6	7.8	7.7	8.9	8.5	8.5	7.9
11	7.9	7.8	7.8	7.5	7.8	7.7	7.8	7.6	8.8	8.5	8.6	8.0
12	7.9	7.7	7.8	7.5	7.8	7.7	7.9	7.5	8.9	8.3	8.6	7.9
13	7.8	7.6	7.6	7.5	7.7	7.5	8.1	7.8	8.9	8.4	8.5	7.8
14	7.6	7.6	7.7	7.5	7.5	7.4	8.2	7.9	8.5	7.8	8.5	8.0
15	7.8	7.6	7.8	7.5	7.7	7.5	8.2	7.8	7.8	7.5	8.5	8.0
16	7.9	7.5	8.0	7.7	7.7	7.7	8.4	7.9	7.6	7.5	8.3	8.0
17	7.8	7.5	8.1	7.8	7.8	7.7	8.7	8.0	7.6	7.5	8.3	8.0
18	7.7	7.6	8.2	8.0	7.7	7.7	8.9	8.3	7.7	7.6	8.5	7.9
19	7.8	7.7	8.2	8.0	7.8	7.7	8.8	8.3	7.8	7.6	8.5	8.1
20	7.9	7.7	8.1	8.0	7.8	7.7	8.5	8.3	7.7	7.6	8.7	8.1
21	8.1	7.8	7.9	7.6	7.9	7.7	8.3	7.5	7.7	7.6	8.7	8.1
22	8.2	7.5	7.7	7.5	8.1	7.8	7.5	7.4	7.9	7.7	8.8	8.5
23	7.5	7.4	7.7	7.6	8.2	7.8	7.5	7.4	8.0	7.7	8.7	8.1
24	7.5	7.4	7.7	7.6	8.3	8.0	7.5	7.4	8.0	7.9	8.6	8.0
25	7.6	7.5	7.7	7.6	8.5	8.0	7.6	7.4	8.1	7.8	8.6	8.2
26	7.7	7.6	7.6	7.2	8.6	8.2	7.8	7.6	8.1	7.9	8.6	8.4
27	7.9	7.7	7.5	7.2	8.2	7.5	7.7	7.7	8.2	8.0	8.6	8.4
28	8.1	7.8	7.4	7.4	7.6	7.5	7.8	7.7	8.3	7.8	8.6	8.4
29	8.2	7.9	7.5	7.4	7.6	7.3	7.9	7.7	8.6	7.8	8.4	8.1
30	8.0	7.8	7.6	7.5	7.6	7.3	7.9	7.5	8.6	8.2	8.3	7.9
31	---	---	7.7	7.5	---	---	7.9	7.8	8.5	8.2	---	---
MONTH	8.2	7.0	8.5	7.2	8.6	7.2	---	---	9.0	7.5	8.8	7.8
YEAR	9.0	7.0										

STREAMS TRIBUTARY TO LAKE ERIE

04186500 AUGLAIZE RIVER NEAR FORT JENNINGS, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.5	8.9	8.6	11.8	11.7	11.8	11.0	13.9	13.0	15.0	15.0
2	---	---	8.6	6.8	11.9	11.6	12.5	11.8	12.9	12.1	15.0	15.0
3	7.9	6.7	7.3	6.7	11.6	11.2	12.7	12.5	12.2	12.0	14.8	12.1
4	7.3	6.1	8.1	7.3	11.7	11.2	12.6	12.1	12.6	12.2	12.4	11.0
5	7.6	6.1	9.5	8.1	11.7	11.2	12.9	12.4	12.7	12.3	11.2	10.5
6	7.7	7.4	9.8	9.5	11.2	10.3	13.4	12.9	12.8	12.6	10.6	9.8
7	7.6	7.5	9.7	8.9	11.4	10.6	13.5	13.4	13.2	12.4	9.9	9.4
8	7.8	7.6	8.9	8.4	11.7	11.4	13.5	13.0	14.2	12.4	9.6	8.8
9	8.3	7.8	9.0	8.5	11.5	11.2	13.6	13.4	15.0	13.2	9.8	8.9
10	8.6	8.2	9.4	9.0	11.7	11.4	13.7	9.5	15.0	14.0	10.1	9.8
11	8.5	8.3	9.9	9.4	12.3	11.7	13.5	11.2	15.0	14.5	9.8	8.5
12	8.3	6.9	9.9	9.9	12.3	12.0	13.5	9.7	15.0	15.0	8.9	8.4
13	8.1	7.4	10.1	9.9	11.9	11.2	13.4	13.2	15.0	15.0	9.6	8.9
14	8.3	8.0	9.9	9.5	11.5	11.3	13.3	13.0	15.0	14.5	9.6	8.7
15	8.6	8.3	10.3	9.8	11.8	11.5	13.1	12.9	15.0	13.2	8.6	8.0
16	8.7	8.4	10.6	10.3	12.3	11.7	13.2	12.9	15.0	14.3	8.9	8.3
17	8.5	8.3	10.8	10.4	12.4	10.1	13.3	13.1	15.0	13.8	10.6	8.9
18	9.0	8.4	10.8	10.7	12.3	11.8	13.3	13.1	15.0	15.0	11.5	10.6
19	9.6	9.0	10.7	10.6	12.1	11.8	13.1	12.8	15.0	15.0	11.4	11.2
20	9.7	9.5	10.7	10.6	11.8	11.6	13.7	13.1	15.0	14.8	11.3	10.9
21	9.7	9.2	10.8	10.7	11.9	11.7	13.9	13.6	15.0	14.1	11.1	10.8
22	9.2	8.4	10.7	10.7	11.9	11.8	13.9	13.2	15.0	14.0	11.0	10.7
23	8.4	7.3	10.9	10.8	11.8	11.6	13.2	12.7	15.0	14.7	10.9	10.7
24	7.4	7.1	11.1	10.9	11.6	11.6	13.3	13.0	15.0	14.2	10.7	10.3
25	8.6	7.2	11.2	10.7	11.7	11.6	13.5	13.2	15.0	15.0	10.3	9.5
26	9.2	8.6	10.9	10.7	11.8	11.7	13.8	13.1	---	---	9.7	9.4
27	9.2	9.0	11.0	10.8	12.2	11.8	13.3	12.5	---	---	10.0	9.7
28	9.0	8.0	11.8	11.0	13.0	12.2	12.5	12.3	15.0	15.0	12.3	9.8
29	8.1	7.4	12.1	11.8	12.4	12.2	13.4	12.5	---	---	10.1	9.9
30	8.3	7.6	12.0	11.8	12.3	11.5	13.7	13.3	---	---	9.9	9.6
31	8.9	8.3	---	---	11.5	10.8	14.2	13.7	---	---	9.9	9.6
MONTH	9.7	6.1	12.1	6.7	13.0	10.1	14.2	9.5	15.0	12.0	15.0	8.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.8	9.5	10.5	8.7	6.7	6.2	5.9	5.6	5.6	4.9	11.5	5.2
2	9.7	9.4	12.1	8.5	6.5	5.8	6.9	5.7	5.7	4.9	8.0	4.2
3	10.0	9.7	10.8	8.1	6.5	5.4	---	---	5.8	5.6	7.7	3.5
4	10.4	10.0	12.6	9.3	6.2	5.2	---	---	6.0	5.6	8.3	3.7
5	10.9	10.4	13.2	9.8	6.1	5.2	---	---	6.8	5.6	9.5	4.4
6	10.9	10.4	12.9	9.6	5.6	4.8	---	---	8.0	5.6	9.5	5.0
7	10.4	10.0	11.8	9.1	5.0	4.8	---	---	11.4	5.9	9.0	5.3
8	10.2	9.9	11.8	8.4	5.3	4.8	---	---	14.2	6.2	9.3	5.5
9	10.2	10.0	10.1	7.8	5.2	5.1	---	---	13.2	5.8	8.6	5.4
10	11.3	10.2	7.8	6.3	5.3	5.1	5.7	5.5	11.3	4.9	9.6	5.7
11	11.8	11.3	7.8	6.4	5.2	4.9	6.1	5.5	8.9	4.4	9.5	5.1
12	11.7	11.2	7.4	6.7	5.0	4.7	6.5	5.8	8.7	3.7	9.6	5.5
13	11.7	11.0	7.7	7.2	5.4	4.9	7.2	6.2	9.0	4.1	9.4	5.7
14	11.2	10.8	8.2	7.7	5.5	5.2	7.7	5.6	4.4	3.6	9.0	5.4
15	10.8	10.4	9.4	8.2	5.5	5.3	8.2	5.6	4.3	4.0	9.5	5.6
16	10.4	9.7	9.8	8.7	5.6	5.2	10.0	5.9	4.4	4.1	8.8	5.7
17	10.0	9.2	11.1	9.0	5.3	5.1	13.6	6.9	4.5	4.3	8.7	5.6
18	9.4	9.0	12.2	9.6	5.3	5.1	15.0	7.4	4.5	4.3	10.5	5.7
19	9.5	8.8	10.8	9.0	5.2	5.0	15.0	7.7	4.5	3.7	13.1	7.6
20	9.4	8.8	10.4	8.2	5.1	4.6	15.0	6.5	4.4	4.0	14.3	7.8
21	9.4	8.6	8.7	7.3	5.8	5.0	6.8	4.3	4.5	4.1	14.8	8.2
22	8.7	7.1	7.3	6.5	7.2	5.5	6.0	5.1	4.6	4.4	13.5	8.5
23	7.5	7.0	6.9	6.4	8.4	5.6	6.1	5.8	5.0	4.7	13.2	6.4
24	7.7	7.1	6.9	6.4	9.1	5.9	6.0	5.8	5.1	5.0	14.1	6.3
25	8.2	7.7	6.8	6.0	11.3	5.9	5.9	5.5	5.0	4.7	13.8	7.1
26	9.2	8.2	6.6	6.2	10.7	6.1	5.7	5.4	5.0	4.6	11.5	7.5
27	9.4	8.7	6.5	6.2	6.1	5.2	5.7	5.4	5.7	4.8	9.5	5.6
28	11.2	9.4	6.3	6.1	5.8	5.4	5.5	5.4	6.5	4.6	7.1	4.0
29	10.4	9.8	6.3	6.0	5.9	5.5	5.9	5.5	9.5	4.9	6.1	3.8
30	10.1	9.1	6.5	6.2	6.0	5.9	5.9	5.7	9.4	5.2	9.7	3.9
31	---	---	6.8	6.5	---	---	5.9	4.9	11.8	5.1	---	---
MONTH	11.8	7.0	13.2	6.0	11.3	4.6	---	---	14.2	3.6	14.8	3.5
YEAR	15.0	3.5										

STREAMS TRIBUTARY TO LAKE ERIE

04187500 OTTAWA RIVER AT ALLENTOWN, OHIO

LOCATION.--Lat 40°45'18", long 84°11'41", NW 1/4 sec. 29, T.3 S., R.6 E., Allen County, at gaging station on left bank at upstream side of bridge on State Highway 81 at Allentown, 0.3 mi (0.5 km) downstream from Kessler Run, and 1.5 mi (2.4 km) upstream from McBride Ditch. Continuous water-quality recorder on right bank at downstream side of State Highway 81 bridge.

DRAINAGE AREA.--160 mi² (414 km²).

PERIOD OF RECORD.--Chemical analyses: March 1969 to September 1973.

Water temperatures: March 1969 to September 1973.

EXTREMES.--1972-73:

Water temperatures: Maximum, 29.0°C Aug. 9; minimum, freezing point on Dec. 16, 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	1300	79	--	--	146	0	160	75	.7	--	--
25...	1000	37	--	--	188	0	400	170	4.5	--	--
NOV.											
15...	1230	2000	--	--	74	0	39	12	.2	--	--
28...	1200	300	--	--	166	8	120	43	.4	--	--
DEC.											
28...	1115	185	--	--	156	0	130	47	.3	--	--
JAN.											
30...	1315	175	--	--	122	0	130	65	.3	--	--
FEB.											
05...	1335	180	--	--	148	0	130	47	.4	--	--
28...	1600	35	--	--	196	0	290	170	1.0	--	--
MAR.											
28...	1500	200	--	--	148	0	120	43	.4	--	--
APR.											
09...	1410	127	--	--	191	0	160	59	.4	--	--
10...	1015	306	--	--	162	0	140	44	.4	--	--
MAY											
15...	1045	72	--	--	80	0	220	80	.8	--	--
29...	1355	232	--	--	159	0	110	39	.3	--	--
JUNE											
06...	1145	--	--	--	--	--	--	--	--	--	--
JULY											
16...	1100	34	--	--	54	0	310	160	1.2	--	--
23...	1915	175	--	--	134	0	98	30	.4	--	--
AUG.											
16...	1930	91	--	--	140	0	100	32	--	.4	.00
26...	1206	30	89	39	59	0	340	150	--	1.1	.00
SEP.											
06...	2000	27	84	44	23	0	460	120	--	1.3	.00
19...	1950	27	--	--	--	0	450	230	--	1.5	.14

04187500 OTTAWA RIVER AT ALLENTOWN, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1970-71): Maximum, 2,590 micromhos Jan. 23, 1971; minimum, 277 micromhos Feb. 23, 1971.
 Water temperatures (1969-71, 1972-73): Maximum, 31.5°C June 29, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since March 1969. Minimum recorded specific conductance value of 119 micromhos occurred Mar. 18, 1973. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
03...	13	--	310	190	875	578	--	16.5	--	--
25...	15	--	440	280	1720	1100	--	10.0	6.5	.6
NOV.										
15...	5.3	--	120	60	280	186	--	5.0	--	--
28...	7.9	--	300	150	709	452	--	4.0	--	--
DEC.										
28...	10	--	300	170	722	476	--	3.0	--	--
JAN.										
30...	14	--	280	180	747	516	--	1.5	--	--
FEB.										
05...	11	--	290	170	716	468	--	5.0	--	--
28...	16	--	430	270	1490	938	--	5.5	--	--
MAR.										
28...	9.6	--	270	150	680	456	--	9.0	--	--
APR.										
09...	13	--	400	240	851	548	--	9.5	--	--
10...	13	--	310	180	745	468	--	7.5	--	--
MAY										
15...	39	--	350	280	1190	712	--	13.0	--	--
29...	14	--	290	160	674	438	--	18.0	--	--
JUNE										
06...	--	--	--	--	--	--	--	--	5.0	<.5
JULY										
16...	23	--	470	420	1620	1100	--	24.0	--	--
23...	12	--	250	140	600	394	--	24.5	--	--
AUG.										
16...	--	8.9	--	--	572	--	540	24.0	--	--
26...	--	29	--	--	1450	--	1130	25.0	--	--
SEP.										
06...	--	30	390	370	1470	--	1100	26.0	--	--
19...	--	28	--	--	2050	--	1280	18.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04187500 OTTAWA RIVER AT ALLENTOWN, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	607	488	1970	1390	1170	880	---	---	1340	835	1740	1420
2	824	607	1390	555	1260	911	---	---	1470	429	1610	1320
3	1020	879	577	547	965	926	---	---	---	---	1370	826
4	1310	1020	589	549	978	916	---	---	---	---	826	591
5	1220	841	580	568	1480	862	---	---	---	---	689	552
6	1100	974	646	564	975	226	---	---	---	---	575	501
7	1320	1100	683	543	383	302	---	---	---	---	665	291
8	1480	1320	560	462	508	383	---	---	---	---	413	306
9	1580	1470	635	505	573	508	---	---	---	---	490	413
10	1570	1400	704	608	627	573	---	---	---	---	499	433
11	1590	1420	715	684	657	627	---	---	---	---	537	299
12	1520	946	713	682	686	657	---	---	---	---	328	227
13	1090	909	726	646	686	358	---	---	---	---	294	255
14	1070	937	646	298	465	387	---	---	---	---	308	219
15	982	932	315	279	543	465	---	---	---	---	328	277
16	1060	993	396	315	603	543	---	---	---	---	359	323
17	1320	1070	487	396	689	603	---	---	---	---	360	122
18	1370	1310	532	487	810	619	---	---	---	---	401	119
19	1400	1320	577	532	877	810	---	---	---	---	467	371
20	1500	1400	590	551	1020	877	---	---	---	---	523	454
21	1630	1500	562	521	1020	863	---	---	---	---	599	512
22	1740	1630	572	553	863	738	---	---	---	---	609	551
23	1730	1500	631	572	738	692	---	---	---	---	677	588
24	1580	1550	669	631	692	680	---	---	---	---	691	631
25	1860	1580	713	669	689	680	---	---	---	---	658	526
26	1910	1820	740	713	692	681	---	---	---	---	526	389
27	2090	1660	740	710	716	689	---	---	---	---	625	455
28	2020	1780	788	709	726	714	---	---	1630	1490	821	617
29	1800	1620	797	709	---	---	---	---	---	---	839	687
30	1680	1620	1030	797	---	---	863	752	---	---	812	632
31	1770	1580	---	---	---	---	983	796	---	---	652	569
MONTH	2090	488	1970	279	1480	226	---	---	---	---	1740	119

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	588	435	954	854	907	703	---	---	1270	940	1650	1440
2	599	434	1020	950	1070	799	1130	716	1270	1170	1840	1520
3	795	608	1050	1010	1050	844	737	424	1370	1260	1830	1570
4	788	662	1090	1020	919	736	602	435	1510	1350	2070	1620
5	688	511	1100	1050	736	322	801	602	1560	1450	1940	1570
6	798	526	1090	1070	371	139	938	801	1480	1420	1640	1390
7	825	741	1090	1060	139	131	1020	938	1500	1380	1660	1400
8	845	764	1140	1070	186	139	1070	1020	1600	1390	1930	1520
9	911	837	1150	1120	259	186	1120	1070	1620	1470	1900	1630
10	869	685	1180	1130	294	259	1160	1120	1620	1470	2100	1710
11	---	---	1200	1140	---	---	1200	1160	1670	1550	2070	1740
12	---	---	1210	1180	---	---	1230	1200	1570	1340	2030	1700
13	---	---	1200	1170	---	---	1280	1230	1340	1080	1980	1610
14	---	---	1200	1150	---	---	1410	1280	1100	431	1780	1520
15	---	---	1250	1160	---	---	1540	1400	456	346	1850	1530
16	807	741	1230	1180	---	---	1660	1540	570	451	1890	1080
17	865	675	1330	1190	---	---	1580	1540	---	---	2020	1710
18	731	658	1400	1300	---	---	1580	1460	---	---	2150	1700
19	795	712	1390	1250	---	---	1490	1340	---	---	2220	1740
20	830	764	1250	1080	---	---	1350	1230	---	---	2000	1760
21	849	773	1090	1060	---	---	1270	1010	1080	995	2010	1760
22	874	328	1150	1090	---	---	1010	744	1440	1050	2030	1820
23	419	297	1210	1150	---	---	744	551	1380	1210	2060	1480
24	748	418	1220	1200	---	---	688	659	1430	1250	1760	1400
25	820	748	1230	918	---	---	740	659	1340	1240	1840	1650
26	901	819	920	547	---	---	787	703	1440	1180	1900	1680
27	961	891	633	492	---	---	860	779	1330	1230	1960	1760
28	947	467	644	534	---	---	913	846	1360	1240	1970	1830
29	786	608	700	644	---	---	920	882	1520	1350	2030	1760
30	854	769	707	660	---	---	918	892	1560	1310	2040	1760
31	---	---	691	616	---	---	946	912	1580	1350	---	---
MONTH	961	297	1400	492	---	---	1660	424	1670	346	2220	1080

04187500 OTTAWA RIVER AT ALLENTOWN, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	13.0	12.5	10.0	5.0	4.0	---	---	5.0	3.5	7.5	4.0
2	16.5	13.5	13.5	12.0	5.5	4.0	---	---	6.0	0.5	8.5	6.5
3	18.5	16.5	13.5	11.0	5.5	5.0	---	---	---	---	8.0	7.0
4	18.0	16.5	11.0	9.5	5.0	4.0	---	---	---	---	7.0	6.5
5	17.5	16.5	9.5	9.0	6.0	4.0	---	---	---	---	8.5	6.5
6	18.5	17.0	10.5	8.0	6.5	2.5	---	---	---	---	10.5	7.5
7	18.0	16.5	11.0	10.0	2.5	0.5	---	---	---	---	12.0	9.5
8	17.0	14.5	10.5	8.5	3.0	0.5	---	---	---	---	11.5	10.5
9	15.5	13.5	8.5	8.0	4.0	2.0	---	---	---	---	10.5	8.0
10	15.0	12.5	8.5	8.0	4.0	2.5	---	---	---	---	10.0	7.0
11	16.0	14.0	8.5	8.5	2.5	1.5	---	---	---	---	13.0	9.5
12	17.0	15.5	9.0	8.5	3.5	1.5	---	---	---	---	13.0	9.0
13	15.5	14.0	8.5	7.5	2.5	0.5	---	---	---	---	10.5	8.0
14	15.0	13.5	7.5	5.5	2.0	1.0	---	---	---	---	12.5	9.5
15	13.5	12.0	5.5	5.0	2.0	2.0	---	---	---	---	13.5	12.5
16	12.5	12.0	5.5	5.0	2.0	0.0	---	---	---	---	13.5	10.0
17	13.0	11.5	5.5	5.0	0.5	0.0	---	---	---	---	9.5	2.0
18	11.5	9.5	6.0	5.5	1.5	0.5	---	---	---	---	3.5	1.5
19	10.0	8.0	6.0	5.5	3.0	1.5	---	---	---	---	4.0	2.5
20	9.5	7.0	6.0	5.5	4.5	2.5	---	---	---	---	5.0	3.5
21	10.5	9.0	5.5	5.0	3.0	2.0	---	---	---	---	6.0	3.0
22	13.0	10.0	5.5	5.5	3.0	2.0	---	---	---	---	6.5	4.5
23	15.0	13.0	5.5	5.0	3.5	3.0	---	---	---	---	8.0	4.5
24	13.0	11.5	5.0	4.0	4.0	3.5	---	---	---	---	9.5	5.5
25	11.5	10.0	5.0	4.5	4.0	3.5	---	---	---	---	8.5	7.5
26	11.0	9.0	5.0	4.5	3.5	3.0	---	---	---	---	8.5	7.0
27	12.5	9.0	4.5	4.0	4.0	3.0	---	---	---	---	10.0	7.0
28	13.5	12.0	4.0	3.5	3.5	3.0	---	---	5.0	4.5	9.0	7.5
29	13.5	12.0	4.0	3.0	---	---	---	---	---	---	11.0	8.5
30	12.0	11.0	5.0	4.0	---	---	6.0	2.5	---	---	10.5	10.0
31	11.0	10.0	---	---	---	---	3.5	1.0	---	---	10.0	9.5
MONTH	18.5	7.0	13.5	3.0	6.5	0.0	---	---	---	---	13.5	1.5

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04188200 AUGLAIZE RIVER AT CLOVERDALE, OHIO

LOCATION.--Lat 41°01'08", long 84°17'20", in NE 1/4 sec.28, T.1 N., R.5 E., Putnam County, on left bank at old bridge abutment, 0.2 mi (0.3 km) upstream from bridge on State Route 114, 2.5 mi (4.0 km) upstream from Blanchard River, 4.5 mi (7.2 km) downstream from Ottawa River, and 0.8 mi (1.3 km) east of Cloverdale.

DRAINAGE AREA.--713 mi² (1,847 km²).

PERIOD OF RECORD.--Chemical analyses: June 1967 to September 1973.

Water temperatures: June 1967 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,570 micromhos Sept. 25; minimum, 213 micromhos Dec. 13.

Dissolved oxygen: Maximum, 15.0 mg/l Jan. 23, 24, Feb. 25; minimum, 0.9 mg/l Sept. 29.

Water temperatures: Maximum, 28.0°C Aug. 9; minimum, freezing point on many days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
02...	1315	--	--	--	--	--	--	--	--	--
02...	1415	--	--	179	0	75	24	.3	--	--
30...	0930	--	--	254	0	170	72	.6	--	--
NOV.										
16...	--	--	--	99	0	38	12	.2	--	--
27...	0930	--	--	230	0	110	35	.3	--	--
DEC.										
07...	0915	--	--	62	0	40	14	.2	--	--
21...	1345	--	--	211	0	110	51	.3	--	--
JAN.										
01...	1445	--	--	164	0	80	24	.3	--	--
17...	1240	--	--	267	7	180	61	.5	--	--
FEB.										
05...	0945	--	--	156	0	78	25	.2	--	--
28...	1215	--	--	193	10	180	81	.6	--	--
MAR.										
01...	0945	--	--	222	0	170	72	.6	--	--
19...	0920	--	--	100	0	40	16	.2	--	--
APR.										
10...	1305	--	--	215	0	100	32	.3	--	--
23...	1015	--	--	134	0	67	21	.3	--	--
MAY										
07...	1830	--	--	232	0	140	49	.5	--	--
28...	1830	--	--	138	0	57	20	.2	--	--
JUNE										
06...	1445	--	--	--	--	--	--	--	--	--
07...	1040	--	--	91	0	37	13	.4	--	--
25...	0835	--	--	208	0	130	51	.6	--	--
JULY										
05...	1015	--	--	102	0	36	12	.4	--	--
19...	1920	--	--	244	0	180	74	.7	--	--
AUG.										
16...	1905	39	11	121	0	38	13	--	.4	.00
SEP.										
06...	1815	110	38	238	0	230	91	--	.8	.00
24...	1645	99	47	200	0	320	150	--	1.1	.00

04188200 AUGLAIZE RIVER AT CLOVERDALE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 1,870 micromhos Jan. 13, 1970; minimum, 213 micromhos Dec. 13, 1972.

pH (1969-70): Maximum, 10.5 Dec. 4-6, 18-26, 1969, Jan. 2, 6, 1970; minimum, 4.5 Oct. 3, 1969.

Dissolved oxygen (1972-73): Maximum, 15.0 mg/l or higher Jan. 23, 24, Feb. 25, 1973; minimum, 0.9 mg/l Sept. 29, 1973.

Water temperatures (1969-71, 1972-73): Maximum, 29.5°C July 2, 1970, Aug. 11, 1971, June 20, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since June 1967. Dissolved oxygen concentrations listed as 15.0 mg/l represents concentrations of 15.0 mg/l or higher, due to instrument limitations. Maximum recorded water temperatures of 31.0°C occurred Aug. 23, 24, 1968. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	--	--	--	--	--	--	--	10.0	.0	<.5
02...	6.9	--	250	100	541	346	--	15.0	--	--
30...	8.0	--	390	180	952	616	--	10.0	--	--
NOV.										
16...	3.4	--	160	79	298	188	--	7.0	--	--
27...	7.3	--	340	150	706	440	--	4.0	--	--
DEC.										
07...	3.6	--	130	79	258	152	--	2.0	--	--
21...	7.0	--	320	150	712	450	--	2.0	--	--
JAN.										
01...	6.7	--	240	100	523	332	--	5.0	--	--
17...	9.3	--	430	200	971	644	--	.0	--	--
FEB.										
05...	6.9	--	260	130	527	336	--	4.0	--	--
28...	7.9	--	380	200	994	636	--	.5	--	--
MAR.										
01...	8.7	--	380	200	911	618	--	2.0	--	--
19...	4.4	--	150	68	324	220	--	2.0	--	--
APR.										
10...	6.2	--	310	130	663	432	--	7.0	--	--
23...	6.1	--	200	90	439	288	--	15.0	--	--
MAY										
07...	10	--	360	170	828	528	--	16.0	--	--
28...	8.6	--	220	110	450	294	--	17.0	--	--
JUNE										
06...	--	--	--	--	--	--	--	--	4.0	<.5
07...	4.8	--	140	66	308	182	--	20.0	--	--
25...	5.9	--	330	160	786	486	--	23.0	--	--
JULY										
05...	5.8	--	140	56	318	198	--	23.0	--	--
19...	3.9	--	380	180	947	602	--	26.0	--	--
AUG.										
16...	--	2.1	--	--	337	--	497	29.0	--	--
SEP.										
06...	--	5.6	--	--	1100	--	866	25.0	--	--
24...	--	15	--	--	1520	--	1130	20.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04188200 AUGLAIZF RIVER AT CLOVERDALE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	507	495	945	795	711	681	566	523	678	627	915	867
2	567	498	798	480	738	711	568	526	654	525	909	894
3	612	567	480	351	792	732	605	568	579	462	942	867
4	621	597	408	348	---	---	599	527	504	462	948	858
5	648	612	507	408	---	---	555	498	561	492	876	663
6	705	648	624	507	---	---	570	528	618	561	666	621
7	705	660	663	510	---	---	---	---	696	498	621	579
8	714	681	510	384	---	---	---	---	723	678	660	507
9	732	714	384	348	---	---	---	---	732	717	507	447
10	768	732	429	360	---	---	---	---	753	726	552	474
11	816	666	543	429	---	---	---	---	795	753	474	387
12	---	---	597	543	438	339	---	---	894	795	387	336
13	---	---	612	474	549	213	---	---	912	819	426	360
14	---	---	474	324	396	324	---	---	876	828	465	378
15	---	---	324	276	495	384	---	---	852	798	396	321
16	---	---	333	285	606	495	---	---	940	823	387	324
17	774	768	474	333	633	606	981	936	960	909	393	375
18	768	762	564	474	850	637	951	867	1010	922	390	297
19	789	762	600	564	704	665	867	828	1000	953	468	303
20	831	783	624	582	714	672	897	843	953	921	420	345
21	849	819	627	579	742	652	936	873	934	880	483	420
22	858	849	591	567	653	539	954	807	917	878	519	480
23	858	813	621	579	539	506	807	534	910	880	552	519
24	891	810	678	618	513	504	672	621	959	884	573	552
25	936	891	696	666	525	513	621	573	948	888	591	552
26	912	846	714	696	537	522	678	591	979	943	552	441
27	876	846	714	693	567	537	723	666	1020	972	462	426
28	945	876	702	660	648	567	711	654	1030	874	501	453
29	990	945	696	672	644	602	687	600	---	---	555	501
30	969	939	690	666	637	607	600	561	---	---	600	540
31	975	945	---	---	608	566	633	567	---	---	558	510
MONTH	990	495	945	276	---	---	---	---	1030	462	948	297

[illegible]

04188200 AUGLAIZE RIVER AT CLOVERDALE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.9	6.6	7.3	7.0	8.0	7.9	8.8	8.3	8.6	8.0	---	---
2	7.2	6.8	7.0	6.5	8.3	8.0	9.8	8.8	8.0	7.4	---	---
3	7.2	6.8	6.8	6.5	8.1	7.9	9.5	9.1	8.1	7.7	---	---
4	7.1	7.0	6.9	6.6	---	---	9.5	8.8	8.7	8.0	---	---
5	7.1	6.8	6.9	6.7	---	---	9.2	8.8	8.5	7.8	---	---
6	6.9	6.8	7.4	6.8	---	---	9.5	7.0	8.5	7.9	---	---
7	7.0	6.8	7.3	6.7	---	---	---	---	8.6	7.7	---	---
8	7.3	7.0	6.7	6.4	---	---	---	---	7.7	7.4	---	---
9	7.5	7.2	7.0	6.6	---	---	---	---	---	---	---	---
10	7.7	7.4	7.2	6.7	---	---	---	---	---	---	---	---
11	7.8	7.5	7.1	6.9	---	---	---	---	---	---	---	---
12	---	---	7.5	7.1	---	---	---	---	---	---	---	---
13	---	---	7.5	6.9	---	---	---	---	---	---	---	---
14	---	---	7.0	6.8	---	---	---	---	---	---	---	---
15	---	---	7.3	6.9	---	---	---	---	---	---	---	---
16	---	---	7.4	7.3	---	---	---	---	7.7	6.7	---	---
17	7.4	7.3	7.4	7.2	---	---	8.4	7.6	---	---	---	---
18	7.6	7.3	7.6	7.3	---	---	8.4	8.0	8.3	7.5	7.8	7.4
19	8.1	7.3	7.6	7.4	---	---	8.0	7.6	8.0	7.3	8.3	7.6
20	8.0	7.5	7.8	7.3	---	---	8.1	7.5	7.5	7.3	7.6	7.2
21	7.9	7.6	7.6	7.2	---	---	8.1	7.8	7.3	6.7	7.8	7.2
22	7.8	7.5	7.6	7.3	---	---	8.2	7.8	7.2	6.7	7.4	7.2
23	7.6	7.1	7.6	7.5	---	---	7.8	7.4	7.3	7.1	7.7	7.2
24	7.3	7.2	8.0	7.6	---	---	8.2	7.4	8.8	7.1	7.5	7.2
25	7.4	7.0	7.8	7.7	---	---	8.2	7.8	8.0	6.8	7.2	7.1
26	7.5	7.2	7.7	7.5	---	---	8.3	7.7	7.4	7.1	8.0	7.1
27	7.7	7.2	7.5	7.2	---	---	8.0	7.6	7.9	7.1	8.2	7.0
28	7.4	7.0	7.7	7.5	8.1	7.1	7.6	7.3	8.2	7.8	7.7	6.9
29	7.3	7.0	7.9	7.8	9.2	7.4	8.4	7.2	---	---	7.7	7.4
30	7.5	7.1	8.4	8.0	9.2	8.8	7.9	7.5	---	---	7.6	7.3
31	7.5	7.3	---	---	8.8	8.3	8.4	7.5	---	---	7.4	7.2
MONTH	8.1	6.6	8.4	6.4	---	---	---	---	---	---	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.6	7.3	---	---	7.4	7.4	---	---	7.8	7.2	---	---
2	7.3	7.2	7.8	7.8	7.4	7.4	7.4	7.4	8.3	6.9	---	---
3	7.4	7.2	7.8	7.8	7.4	7.3	7.4	7.3	7.9	6.7	---	---
4	8.4	7.4	7.8	7.8	7.3	7.3	7.4	7.3	8.1	6.7	---	---
5	8.7	8.3	7.8	7.8	7.3	7.2	7.4	7.3	8.0	7.2	---	---
6	8.7	7.7	7.8	7.8	7.3	7.2	7.4	7.4	8.3	7.3	---	---
7	7.7	7.4	7.8	7.8	7.3	7.2	7.4	7.4	8.6	7.8	---	---
8	7.7	7.4	7.8	7.8	7.3	7.2	7.5	7.4	9.3	8.1	---	---
9	7.6	7.4	7.8	7.7	7.3	7.3	7.5	7.4	8.9	8.3	---	---
10	7.7	7.3	7.8	7.8	7.3	7.3	7.5	7.4	8.4	8.1	8.1	7.5
11	7.9	7.3	7.8	7.7	7.3	7.3	7.5	7.4	8.3	7.7	8.0	7.2
12	8.0	7.8	7.8	7.7	7.3	7.3	7.5	7.4	8.4	7.7	7.9	6.7
13	7.9	7.6	7.8	7.7	7.3	7.3	7.5	7.4	8.8	7.7	7.9	6.6
14	8.1	7.5	7.8	7.7	7.3	7.2	7.5	7.5	8.6	7.1	7.9	7.1
15	7.8	7.4	7.8	7.6	7.3	7.3	7.5	7.5	7.4	5.9	7.8	6.7
16	7.6	7.3	7.6	7.6	7.3	7.3	7.5	7.5	7.1	5.9	7.7	6.9
17	7.6	7.2	7.6	7.6	7.3	7.3	7.5	7.4	7.4	6.5	7.5	6.8
18	7.4	7.1	7.6	7.6	7.3	7.3	7.5	7.5	7.3	6.7	7.9	6.6
19	7.3	7.1	7.6	7.6	7.3	7.3	7.5	7.5	7.3	6.9	7.9	6.6
20	7.5	7.2	7.6	7.6	7.3	7.3	7.5	7.4	7.4	7.0	8.0	7.0
21	7.3	7.2	7.6	7.6	7.3	7.3	7.4	7.4	7.6	6.7	7.9	6.8
22	7.2	7.0	7.6	7.5	7.3	7.3	7.4	7.3	7.5	6.5	7.7	7.0
23	7.0	6.6	7.6	7.5	7.4	7.3	7.4	7.3	7.6	6.5	7.4	6.8
24	7.1	6.8	7.5	7.5	7.4	7.3	7.4	7.4	7.6	6.9	7.8	7.5
25	7.2	6.9	7.5	7.5	7.4	7.3	7.4	7.4	7.6	7.0	8.0	7.3
26	---	---	7.5	7.4	7.4	7.3	7.4	7.4	8.5	7.3	8.2	7.4
27	---	---	7.4	7.4	7.3	7.3	7.4	7.4	8.9	7.5	8.1	7.1
28	---	---	7.4	7.4	7.3	7.3	7.4	7.4	8.5	7.9	7.5	7.2
29	---	---	7.4	7.4	---	---	7.5	7.4	8.8	7.9	7.2	7.0
30	---	---	7.4	7.4	---	---	7.5	7.4	8.2	7.9	7.1	6.9
31	---	---	7.4	7.3	---	---	7.4	7.4	---	---	---	---
MONTH	8.7	6.6	7.8	7.3	7.4	7.2	7.5	7.3	9.3	5.9	---	---

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.7	2.8	11.1	10.3	---	---	12.0	9.5	12.3	10.1	14.3	13.2
2	5.7	3.6	11.3	7.5	---	---	11.3	10.4	11.6	8.4	14.1	12.2
3	6.2	5.0	10.1	8.2	---	---	12.0	10.9	12.8	10.7	12.2	10.1
4	5.2	4.6	12.9	10.1	---	---	11.3	9.6	11.8	11.4	10.1	9.2
5	6.6	4.5	11.6	10.3	---	---	10.3	9.7	14.0	11.1	9.9	9.3
6	4.8	4.0	12.2	11.6	---	---	12.3	8.4	12.3	11.3	10.4	6.8
7	5.2	4.5	11.8	10.3	---	---	---	---	13.2	10.7	8.5	5.1
8	6.2	4.5	10.4	8.5	---	---	---	---	12.0	11.0	8.3	6.8
9	7.0	5.8	11.8	9.5	---	---	---	---	12.8	11.7	8.9	6.7
10	6.9	6.0	12.4	11.7	---	---	---	---	12.7	9.2	9.6	8.6
11	6.7	5.9	11.8	11.3	---	---	---	---	12.8	9.7	9.3	6.8
12	---	---	11.6	10.4	11.5	9.1	---	---	13.6	9.5	7.2	6.5
13	---	---	11.5	10.9	9.2	8.5	---	---	12.7	9.6	7.0	6.8
14	---	---	11.9	10.7	9.2	8.7	---	---	12.8	11.9	---	---
15	---	---	---	---	9.4	9.0	---	---	12.9	11.7	---	---
16	---	---	10.1	9.9	9.6	8.8	---	---	13.1	9.9	---	---
17	7.2	6.7	10.1	9.9	---	---	11.1	10.6	14.3	10.4	---	---
18	9.4	6.5	10.1	8.8	12.3	9.6	11.4	10.6	14.9	13.8	13.2	12.8
19	10.7	9.3	9.7	8.6	12.0	11.8	11.7	11.2	14.4	13.1	12.8	11.3
20	10.8	10.5	9.8	8.6	11.9	11.6	12.2	11.5	14.2	13.2	11.8	10.5
21	10.7	9.3	10.0	9.1	13.7	8.7	12.3	11.5	13.7	12.8	12.7	8.6
22	9.7	8.5	10.0	8.6	12.1	11.7	12.0	11.8	13.7	12.7	12.2	9.7
23	9.1	6.9	10.0	9.0	12.3	11.8	15.0	11.6	14.2	12.6	11.5	6.5
24	6.9	5.8	10.0	9.3	11.8	11.5	15.0	12.0	14.8	13.1	11.1	10.1
25	7.0	5.5	10.0	9.0	11.5	11.3	13.9	11.9	15.0	13.3	11.4	9.4
26	9.7	7.0	9.9	8.7	11.4	11.4	12.3	11.2	14.3	13.4	11.3	8.5
27	10.4	9.1	10.1	9.0	11.7	11.3	11.7	10.9	14.3	13.2	11.2	9.4
28	9.6	7.8	10.0	9.9	12.5	10.1	12.2	10.8	14.4	13.0	9.5	8.4
29	8.2	7.2	---	---	11.0	10.7	12.2	11.4	---	---	8.8	8.2
30	8.9	7.8	---	---	10.9	10.2	12.8	11.1	---	---	9.1	7.7
31	10.7	9.0	---	---	10.1	9.3	12.4	10.2	---	---	8.7	7.4
MONTH	10.8	2.8	12.9	7.5	---	---	---	---	15.0	8.4	14.3	5.1

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04189000 BLANCHARD RIVER NEAR FINDLAY, OHIO

LOCATION.--Lat 41°03'21", long 83°41'17", on east line of sec.10, T.1 N., R.10 E., Hancock County, at gaging station on left bank at upstream side of county road bridge, 2.0 mi (3.2 km) west of Findlay, 3.0 mi (4.8 km) downstream from Eagle Creek, and 3.0 mi (4.8 km) upstream from Aurand Run.

DRAINAGE AREA.--346 mi² (896 km²).

PERIOD OF RECORD.--Chemical analyses: July 1968 to September 1973.

Water temperatures: July 1968 to September 1973.

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,090 micromhos Sept. 22; minimum, 175 micromhos May 26.

pH: Maximum, 8.3 July 8; minimum, 6.6 Sept. 29, 30.

Dissolved oxygen: Maximum, 15.0 mg/l on several days during November; minimum, 0.2 mg/l July 21.

Water temperatures: Maximum, 29.0°C Aug. 28, 29, Sept. 2; minimum, 0.5°C on several days during February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
01...	0920	2140	--	--	156	0	59	15	.2	--	--
11...	1200	103	--	--	240	12	160	32	.7	--	--
27...	0930	--	--	--	--	--	--	--	--	--	--
NOV.											
16...	1445	3480	--	--	100	0	47	10	.2	--	--
26...	1030	279	--	--	235	12	120	28	.3	--	--
DEC.											
03...	1050	201	--	--	240	10	130	28	.4	--	--
07...	0850	4130	--	--	73	0	33	11	.2	--	--
JAN.											
16...	1400	82	--	--	298	0	160	39	.8	--	--
29...	1105	1090	--	--	147	0	81	20	.3	--	--
FEB.											
04...	0930	892	--	--	128	0	72	18	.2	--	--
22...	0830	80	--	--	226	5	150	61	.7	--	--
MAR.											
02...	0805	152	--	--	209	9	150	37	.7	--	--
18...	0830	3730	--	--	86	0	39	11	.2	--	--
APR.											
21...	0720	252	--	--	198	10	110	26	.4	--	--
29...	0930	1040	--	--	127	0	58	31	.2	--	--
MAY											
06...	0855	145	--	--	227	8	120	26	.5	--	--
27...	0805	6000	--	--	61	0	29	9.0	.2	--	--
JUNE											
07...	0835	4270	--	--	88	0	31	12	.3	--	--
07...	1545	--	--	--	--	--	--	--	--	--	--
22...	0655	95	--	--	225	0	140	32	.7	--	--
JULY											
19...	0745	34	--	--	186	0	160	36	.4	--	--
29...	0905	170	--	--	156	0	76	18	.2	--	--
AUG.											
09...	0800	28	64	27	143	2	170	40	--	1.2	.00
16...	0820	632	67	28	151	0	68	17	--	.3	.00
SEP.											
27...	0930	18	66	27	48	0	230	50	--	1.1	.01
30...	0835	26	55	20	106	1	140	28	--	1.0	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE D SEDI- MENT (MG/L)	SUS- PENDE D SEDI- MENT DIS- CHARGE (T/DAY)
DEC.					
27...	1400	754	4.0	20	41
MAR.					
26...	1400	1190	8.0	128	411
APR.					
03...	1620	501	8.5	57	77
JUNE					
15...	0950	426	20.0	221	254
SEP.					
12...	1630	23	20.0	14	.87

04189000 BLANCHARD RIVER NEAR FINDLAY, OHIO--CONTINUED

EXTREMES--Period of record:

Specific conductance (1969-73): Maximum, 1,500 micromhos or higher Jan. 26, 1970; minimum, 175 micromhos May 26, 1973.

pH (1969-73): Maximum, 9.1 June 20, 1971; minimum, 3.1 May 13, 1970.

Dissolved oxygen (1969-73): Maximum, 15.0 mg/l or higher on several days during November 1972; minimum, 0.0 mg/l June 18, July 2, 3, 1970.

Water temperatures (1969-73): Maximum, 31.0°C June 28, 1971; minimum, freezing point on several days during winter periods.

REMARKS--Water-quality recorder operated since July 1968. Maximum recorded pH of 9.3 occurred Sept. 17, 1968. Dissolved oxygen concentrations listed as 15.0 mg/l represents concentrations of 15.0 mg/l or higher, due to instrument limitations. Maximum recorded water temperatures of 33.0°C occurred Aug. 27, 28, Sept. 5, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (MG/L)	TOTAL NITRATE (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON-CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
01...	4.0	--	210	82	426	292	--	11.0	--	--
11...	6.8	--	400	180	806	564	--	13.0	--	--
27...	--	--	--	--	--	--	--	9.0	.0	<.5
NOV.										
16...	3.2	--	140	58	303	200	--	11.0	--	--
26...	3.7	--	360	150	704	480	--	13.0	--	--
DEC.										
03...	4.0	--	370	160	720	496	--	14.0	--	--
07...	2.8	--	110	50	243	164	--	9.0	--	--
JAN.										
16...	4.3	--	440	200	887	600	--	2.5	--	--
29...	7.2	--	260	140	499	322	--	1.0	--	--
FEB.										
04...	5.1	--	220	120	442	306	--	4.0	--	--
22...	8.5	--	370	180	856	570	--	2.0	--	--
MAR.										
02...	7.3	--	350	160	771	516	--	4.0	--	--
18...	3.5	--	130	60	270	190	--	4.0	--	--
APR.										
21...	4.6	--	320	140	633	440	--	16.0	--	--
29...	4.7	--	190	86	385	262	--	9.0	--	--
MAY										
06...	4.2	--	360	160	691	450	--	12.0	--	--
27...	4.8	--	110	60	222	186	--	16.0	--	--
JUNE										
07...	2.9	--	120	48	262	184	--	19.0	--	--
07...	--	--	--	--	--	--	--	20.0	9.0	<.5
22...	4.2	--	350	160	738	480	--	22.0	--	--
JULY										
19...	4.9	--	320	170	736	490	--	24.0	--	--
29...	4.6	--	230	100	476	320	--	22.0	--	--
AUG.										
09...	--	6.6	--	--	773	--	590	25.0	--	--
16...	--	4.8	--	--	484	--	682	21.0	--	--
SEP.										
27...	--	30	--	--	995	--	785	21.0	--	--
30...	--	7.2	--	--	625	--	458	19.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.											
26...	1400	79	88	92	95	97	98	99	99	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
12...	1	0	0	0	1	1	2	4	6	17	22	100

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	438	427	824	762	795	691	477	455	808	687	860	812
2	525	430	762	382	824	776	580	455	693	441	833	777
3	634	525	445	379	820	720	666	584	444	429	777	635
4	705	634	493	444	1010	812	617	473	558	447	635	546
5	735	697	647	493	970	698	512	463	644	558	555	513
6	765	735	770	647	698	224	604	512	632	607	526	496
7	784	751	800	438	261	218	698	603	675	630	550	486
8	792	750	438	315	370	253	770	698	726	660	624	544
9	804	768	414	345	582	370	822	770	730	693	649	564
10	849	802	555	414	656	582	886	820	748	692	593	446
11	840	819	633	555	723	652	927	866	761	708	446	326
12	831	747	718	633	830	398	963	915	783	717	363	317
13	759	690	726	249	398	291	984	930	817	745	459	363
14	747	685	293	237	402	315	972	932	846	768	526	309
15	740	717	307	293	573	402	1030	919	922	773	328	292
16	726	705	374	307	670	573	1030	673	930	855	356	322
17	772	724	576	374	740	670	704	642	855	833	372	237
18	797	737	700	576	814	740	984	645	846	826	291	242
19	813	780	---	---	915	715	972	900	921	835	352	282
20	836	807	618	570	715	552	936	870	919	854	394	352
21	852	829	618	561	552	473	942	864	900	827	440	394
22	858	828	739	618	483	462	885	690	888	839	483	440
23	833	780	808	739	508	483	690	477	848	816	510	483
24	838	810	855	807	515	505	549	474	844	800	531	508
25	838	823	848	813	567	519	643	549	820	774	523	487
26	833	812	813	678	576	565	700	633	806	755	487	394
27	850	816	678	633	595	582	---	---	865	806	443	400
28	849	832	698	624	630	583	---	---	865	814	563	443
29	850	789	775	696	665	629	518	507	---	---	618	522
30	807	780	807	775	670	615	607	517	---	---	572	399
31	820	794	---	---	615	485	718	607	---	---	440	390
MONTH	858	427	855	237	1010	218	1030	455	930	429	860	237

[illegible]

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.3	7.1	7.8	7.6	7.6	7.4	7.8	7.4	7.8	7.6	8.1	7.6
2	7.4	7.3	7.8	7.3	7.6	7.5	8.1	7.5	7.7	7.4	8.1	7.7
3	7.5	7.4	7.3	7.1	7.7	7.6	7.9	7.6	7.7	7.4	8.1	7.8
4	7.5	7.4	7.2	7.0	7.6	7.5	7.8	7.5	7.9	7.5	7.8	7.5
5	7.6	7.4	7.3	7.2	7.6	7.5	7.7	7.5	7.9	7.6	7.8	7.5
6	7.7	7.6	7.4	7.3	7.5	7.0	7.7	7.5	7.7	7.4	7.8	7.5
7	7.7	7.5	7.5	7.2	7.2	7.0	7.9	7.7	7.7	7.5	7.5	7.3
8	7.8	7.6	7.2	7.1	7.3	7.1	7.9	7.8	7.8	7.5	7.5	7.3
9	7.8	7.7	7.2	7.1	7.6	7.3	7.9	7.8	7.8	7.5	8.0	7.4
10	7.7	7.6	7.3	7.2	7.8	7.5	8.1	7.7	7.8	7.5	7.7	7.4
11	7.7	7.6	7.4	7.2	7.8	7.6	7.9	7.8	7.7	7.5	7.4	7.1
12	7.7	7.5	7.5	7.4	7.8	7.2	7.9	7.8	7.7	7.4	7.2	7.1
13	7.6	7.5	7.4	7.1	7.4	7.3	7.9	7.7	7.7	7.5	7.6	7.1
14	7.6	7.5	7.2	7.2	7.6	7.4	7.8	7.7	7.7	7.5	7.5	7.2
15	7.7	7.6	7.2	7.2	7.7	7.5	7.8	7.7	7.7	7.4	7.4	7.2
16	7.6	7.6	7.2	7.2	7.7	7.5	7.8	7.7	7.7	7.5	7.3	7.2
17	7.6	7.6	7.3	7.2	7.9	7.6	8.0	7.8	7.8	7.5	7.2	7.1
18	7.7	7.6	7.3	7.2	7.7	7.6	7.9	7.8	7.8	7.6	7.2	7.1
19	7.8	7.6	---	---	7.8	7.6	8.0	7.8	7.9	7.5	7.3	7.1
20	7.8	7.6	7.4	7.1	7.7	7.6	7.8	7.7	7.7	7.4	7.5	7.2
21	7.8	7.6	7.4	7.3	7.7	7.5	7.9	7.7	7.8	7.7	7.6	7.4
22	7.8	7.7	7.5	7.4	7.7	7.5	7.9	7.7	7.8	7.7	7.6	7.5
23	7.8	7.6	7.6	7.5	7.7	7.6	7.8	7.5	7.8	7.7	7.8	7.4
24	7.8	7.7	7.6	7.4	7.8	7.6	7.8	7.5	7.8	7.7	7.8	7.4
25	7.8	7.7	7.6	7.4	7.7	7.6	7.8	7.6	7.9	7.6	7.6	7.4
26	7.9	7.8	7.6	7.5	7.8	7.7	7.7	7.7	7.9	7.8	7.6	7.3
27	7.9	7.7	7.5	7.4	7.6	7.6	---	---	7.9	7.6	7.4	7.3
28	7.8	7.7	7.5	7.4	7.7	7.6	---	---	7.9	7.5	7.4	7.2
29	7.8	7.7	7.6	7.4	7.7	7.6	7.7	7.5	---	---	7.4	7.3
30	7.8	7.7	7.6	7.5	7.7	7.6	7.8	7.5	---	---	7.3	7.1
31	7.8	7.7	---	---	7.9	7.5	7.9	7.6	---	---	7.3	7.2
MONTH	7.9	7.1	7.8	7.0	7.9	7.0	8.1	7.4	7.9	7.4	8.1	7.1
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.3	7.1	7.8	7.5	7.8	7.4	7.7	7.3	---	---	7.3	7.0
2	7.3	7.2	7.7	7.5	7.7	7.4	7.8	7.3	---	---	7.3	7.0
3	7.4	7.3	7.7	7.5	7.7	7.5	7.3	7.1	---	---	7.4	7.0
4	7.4	7.3	8.0	7.5	7.9	7.5	7.6	7.2	---	---	7.4	7.0
5</												

STREAMS TRIBUTARY TO LAKE ERIE

04189000 BLANCHARD RIVER NEAR FINDLAY, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.6	6.0	---	---	11.5	10.6	12.1	11.0	11.7	10.7	13.7	11.2
2	8.7	6.5	---	---	11.1	10.5	12.3	11.6	11.1	10.8	13.4	11.0
3	8.3	7.7	8.9	6.6	10.8	10.4	12.3	10.9	11.5	10.9	11.9	10.5
4	8.3	7.2	10.9	8.6	11.0	10.0	12.1	11.7	11.5	11.2	11.9	10.5
5	8.3	7.5	12.4	7.2	10.9	10.1	12.5	12.1	11.2	11.0	11.9	10.4
6	8.1	7.3	13.0	11.3	10.7	9.7	12.7	12.3	12.4	10.8	11.5	11.2
7	8.0	7.6	11.9	10.3	10.8	10.0	12.7	12.2	12.4	10.7	11.2	10.0
8	8.5	7.8	10.3	9.0	10.9	10.7	12.4	12.0	12.6	10.6	10.8	10.1
9	8.5	7.8	9.1	8.3	10.8	10.2	12.3	11.8	13.1	12.6	10.9	6.0
10	8.3	7.9	10.4	6.2	11.0	10.2	12.1	11.2	13.3	12.9	11.3	10.8
11	9.0	7.7	11.0	6.4	11.2	10.8	12.0	11.3	13.2	12.9	10.8	8.6
12	---	---	10.6	6.1	11.2	10.3	12.0	11.1	13.1	12.7	9.5	8.5
13	---	---	10.2	6.1	10.6	10.1	12.0	10.7	12.6	11.0	10.6	9.6
14	---	---	9.1	7.6	10.8	10.3	11.8	10.8	11.2	10.8	10.7	7.3
15	---	---	9.6	6.3	11.0	10.3	11.6	9.4	12.4	10.7	8.6	8.4
16	---	---	11.0	9.4	11.3	10.8	12.2	9.1	12.8	10.9	9.4	8.5
17	10.6	8.4	10.7	6.8	10.9	10.5	9.6	8.8	13.1	11.1	11.3	9.4
18	9.2	7.7	10.2	6.8	10.9	10.4	9.4	8.4	13.5	12.9	11.8	10.3
19	9.1	7.9	---	---	10.6	10.1	9.1	8.1	13.2	10.7	11.8	10.3
20	9.5	8.8	15.0	14.4	10.9	8.8	9.5	8.9	13.0	10.8	11.8	10.3
21	9.4	8.8	15.0	14.0	11.0	10.6	9.6	8.0	13.0	11.0	11.7	10.3
22	9.0	8.4	14.6	13.9	10.9	10.6	10.0	8.7	13.0	11.1	11.7	10.3
23	8.6	6.9	14.7	14.1	10.8	10.3	10.1	9.2	13.0	11.2	11.7	8.9
24	8.0	7.4	14.7	13.9	10.6	10.4	10.2	9.8	13.5	11.2	11.6	11.1
25	8.7	7.4	14.5	13.5	10.8	10.2	10.0	9.6	13.5	11.2	11.1	10.5
26	9.2	6.0	14.9	14.3	10.8	10.4	9.7	9.3	13.4	11.3	11.0	10.9
27	9.2	6.2	15.0	14.7	13.4	10.8	---	---	13.5	11.2	11.0	10.8
28	8.8	7.8	15.0	14.7	13.1	12.1	---	---	13.6	11.2	10.8	10.0
29	8.3	7.7	15.0	14.4	12.5	12.1	12.1	11.9	---	---	10.5	9.3
30	8.7	7.9	15.0	9.9	12.5	11.4	12.1	11.8	---	---	10.4	9.9
31	9.6	6.8	---	---	11.6	11.0	11.8	10.1	---	---	10.6	10.5
MONTH	10.6	6.0	15.0	6.1	13.4	8.8	12.7	8.0	13.6	10.6	13.7	6.0
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.6	10.0	9.7	8.9	7.8	6.8	7.4	4.4	---	---	2.2	2.0
2	10.4	10.1	8.9	8.1	7.2	6.4	6.8	3.9	---	---	2.0	2.0
3	10.6	10.3	9.0	8.1	7.1	5.8	5.5	3.4	---	---	2.0	2.0
4	10.9	10.3	9.8	7.9	6.9	5.3	6.8	3.8	---	---	2.0	2.0
5	11.4	10.9	10.3	7.9	7.1	5.6	7.6	4.0	---	---	2.7	2.0
6	11.5	10.7	10.0	7.7	6.1	5.7	4.9	3.4	7.6	5.5	2.6	2.3
7	10.7	10.1	8.9	8.0	6.2	5.5	4.9	3.2	6.1	3.8	3.2	2.6
8	10.6	10.2	8.3	7.2	7.0	6.2	7.7	3.4	4.4	2.3	4.5	3.2
9	10.4	9.6	8.6	7.8	7.5	7.0	9.3	6.1	4.2	3.8	4.4	2.0
10	11.5	10.2	7.9	7.2	7.2	6.6	8.2	5.1	4.0	3.0	4.1	3.2
11	11.9	11.4	8.7	7.1	6.9	5.1	6.9	4.9	3.6	2.5	3.7	3.2
12	11.5	11.1	8.9	8.5	5.6	4.6	7.1	4.6	2.4	2.0	4.8	3.7
13	11.7	11.2	9.0	8.7	6.9	5.0	4.6	3.6	2.4	2.2	4.9	4.2
14	11.5	11.0	8.9	7.7	7.2	6.4	4.3	3.6	2.6	2.2	4.8	3.9
15	11.0	10.6	8.5	7.7	6.8	5.7	7.4	3.2	3.6	2.2	4.0	3.4
16	10.6	9.2	8.6	7.8	5.9	5.1	7.4	3.8	4.7	3.4	4.4	3.5
17	10.2	9.4	8.5	7.8	6.1	5.5	6.0	3.0	5.8	4.7	4.5	3.8
18	10.1	9.6	8.7	7.9	6.2	4.4	7.4	3.0	5.2	3.7	4.9	3.6
19	9.6	7.9	8.3	6.9	4.6	3.4	4.8	1.8	4.6	3.7	5.2	3.9
20	9.3	7.5	8.9	7.6	4.5	3.0	3.1	0.4	4.5	3.3	4.7	4.1
21	9.0	8.5	9.1	7.5	4.0	2.4	3.8	0.2	4.4	3.3	5.6	3.5
22	8.7	7.7	7.8	6.6	3.5	2.3	5.7	1.4	5.0	3.6	5.3	2.8
23	9.2	8.6	7.1	6.3	4.2	2.5	6.5	5.7	4.4	3.8	3.4	2.2
24	9.5	9.0	7.6	6.4	7.5	2.7	7.2	6.7	4.0	3.5	4.4	3.2
25	9.5	9.0	7.5	6.1	6.6	3.9	---	---	3.5	2.9	4.1	2.6
26	9.7	9.0	7.8	6.2	5.7	3.0	---	---	3.9	2.8	3.7	2.0
27	10.1	8.7	6.3	5.7	5.4	2.6	---	---	2.6	2.3	3.7	1.9
28	10.8	10.1	6.7	6.1	5.9	4.5	---	---	2.6	2.1	---	---
29	10.9	10.7	7.6	6.7	6.6	5.6	---	---	2.9	2.2	---	---
30	10.7	9.7	8.0	7.3	6.5	4.3	---	---	2.7	2.3	---	---
31	---	---	8.1	7.5	---	---	---	---	2.3	2.2	---	---
MONTH	11.9	7.5	10.3	5.7	7.8	2.3	---	---	7.6	2.0	5.6	1.9
YEAR	15.0	0.2										

STREAMS TRIBUTARY TO LAKE ERIE

04191500 AUGLAIZE RIVER NEAR DEFIANCE, OHIO

LOCATION.--Lat 41°14'15", long 84°23'57", in NE 1/4 sec.9, T.3 N., R.4 E., Defiance County, at gaging station on right bank, 125 ft (38 m) downstream from dam of Toledo Edison Co., 0.2 mi (0.3 km) upstream from Jackson ditch, and 3.0 mi (4.8 km) south of Defiance. Water-quality recorder located at powerplant 125 ft (38 m) upstream from gaging station.

DRAINAGE AREA.--2,318 mi² (6,004 km²).

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1973.

Water temperatures: January 1966 to September 1973.

Sediment records: Water years 1952, 1963, 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 917 micromhos Aug. 16; minimum, 122 micromhos Aug. 17.

pH: Maximum, 8.6 Aug. 31; minimum, 5.1 Nov. 2.

Dissolved oxygen: Maximum, 14.9 mg/l Nov. 23; minimum, 1.0 mg/l Aug. 30.

Water temperatures: Maximum, 30.5°C July 19, Sept. 4; minimum, freezing point Dec. 8-12.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
14...	1215	4400	--	--	164	2	72	23	.3	--	--
25...	1400	1740	--	--	250	0	110	33	.3	--	--
25...	1430	--	--	--	--	--	--	--	--	--	--
NOV.											
02...	1210	6490	--	--	240	8	120	35	.4	--	--
16...	1550	20100	--	--	96	0	34	10	.2	--	--
DEC.											
02...	1340	1740	--	--	220	0	96	25	.2	--	--
09...	1450	11300	--	--	120	0	47	14	.2	--	--
JAN.											
05...	1740	3160	--	--	150	0	67	16	.3	--	--
22...	0940	725	--	--	252	14	140	38	.4	--	--
FEB.											
06...	1245	3700	--	--	142	0	68	21	.2	--	--
24...	1700	660	--	--	238	10	140	51	.4	--	--
MAR.											
03...	1630	785	--	--	214	6	130	49	.4	--	--
21...	1620	10800	--	--	116	0	46	15	.2	--	--
APR.											
11...	0845	1960	--	--	192	0	86	23	.3	--	--
17...	1505	2640	--	--	174	0	72	20	.2	--	--
MAY											
11...	1445	1920	--	--	234	0	130	41	.5	--	--
31...	1040	4300	--	--	134	0	55	16	.2	--	--
JUNE											
06...	1715	--	--	--	--	--	--	--	--	--	--
15...	1858	7590	--	--	114	0	42	13	.3	--	--
22...	1000	668	--	--	212	0	78	24	.4	--	--
JULY											
05...	1745	6900	--	--	120	0	39	13	.3	--	--
15...	1230	292	--	--	223	0	76	23	.4	--	--
AUG.											
10...	1855	131	54	19	181	2	90	29	--	.4	.00
18...	1855	2160	35	13	125	0	54	17	--	.3	.00
SEP.											
05...	1025	120	59	21	184	0	95	30	--	.4	.00
26...	1600	116	66	26	220	9	130	48	--	.6	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT.					
18...	1130	1280	11.0	57	197
NOV.					
16...	1640	20300	4.5	307	16800
DEC.					
20...	1405	N.19	.5	21	105
FEB.					
07...	1500	2100	4.0	67	380
JUNE					
13...	1255	8560	23.5	190	4390

04191500 AUGLAIZE RIVER NEAR DEFIANCE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1966-68, 1969-73): Maximum, 1,260 micromhos Jan. 29, 1970; minimum, 122 micromhos Aug. 17, 1973.

pH (1969-73): Maximum, 9.6 Aug. 10, 1971; minimum, 5.1 Nov. 2, 1972.

Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher on many days during 1971 and 1972; minimum, 0.6 mg/l Oct. 7, 1971.

Water temperatures (1966-68, 1969-73): Maximum, 32.0°C Aug. 27, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since January 1966. Minimum recorded dissolved oxygen concentration of 0.2 mg/l occurred July 1, 1966. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
14...	4.4	--	250	110	502	332	--	13.5	--	--	--
25...	4.2	--	340	130	695	466	--	10.0	--	--	--
25...	--	--	--	--	--	--	--	10.0	4	4.0	<.5
NOV.											
02...	3.5	--	350	140	727	454	--	10.0	--	--	--
16...	3.0	--	140	62	278	164	--	7.0	--	--	--
DEC.											
02...	3.8	--	300	120	601	372	--	3.0	--	--	--
09...	3.2	--	170	72	351	214	--	2.5	--	--	--
JAN.											
05...	4.1	--	210	87	449	282	--	1.0	--	--	--
22...	5.7	--	390	160	826	538	--	1.0	--	--	--
FEB.											
06...	5.2	--	220	100	462	296	--	3.5	--	--	--
24...	4.9	--	390	180	841	552	--	1.0	--	--	--
MAR.											
03...	6.1	--	350	160	760	484	--	2.5	--	--	--
21...	3.8	--	170	75	345	220	--	4.5	--	--	--
APR.											
11...	7.3	--	280	120	574	370	--	7.5	--	--	--
17...	4.5	--	250	110	501	310	--	11.5	--	--	--
MAY											
11...	4.8	--	350	160	758	492	--	18.0	--	--	--
31...	7.6	--	200	90	418	286	--	17.0	--	--	--
JUNE											
06...	--	--	--	--	--	--	--	21.0	7	8.0	<.5
15...	4.1	--	160	66	348	196	--	23.0	--	--	--
22...	4.3	--	280	110	574	344	--	25.5	--	--	--
JULY											
05...	4.6	--	160	62	333	202	--	24.0	--	--	--
15...	4.7	--	280	97	579	358	--	25.5	--	--	--
AUG.											
10...	--	4.1	--	--	584	--	511	27.0	--	--	--
18...	--	3.3	--	--	398	--	431	24.0	--	--	--
SEP.											
05...	--	2.7	--	--	590	--	462	26.5	--	--	--
26...	--	2.4	--	--	758	--	542	22.0	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
16...	1640	78	89	91	95	98	99	100	--	--	--
FEB.											
07...	1500	87	91	95	99	100	--	--	--	--	--
JUNE											
13...	1255	80	87	94	96	98	99	100	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04191500 AUGLAIZE RIVER NEAR DEFIANCE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	440	402	758	753	642	627	462	449	585	573	785	776
2	450	434	762	510	627	601	464	453	581	569	786	782
3	473	450	510	381	621	614	489	446	581	500	815	778
4	486	465	384	357	633	618	497	440	500	476	821	758
5	506	476	396	362	657	632	465	434	476	453	780	690
6	540	492	446	396	683	354	494	465	495	458	693	572
7	576	537	498	446	354	306	536	494	520	495	574	556
8	588	573	509	393	306	273	530	524	543	520	561	530
9	605	587	399	374	351	284	560	528	572	541	579	519
10	629	602	374	366	371	311	609	560	597	569	520	467
11	653	626	401	368	414	369	611	605	634	596	491	361
12	680	647	461	399	488	414	636	611	654	633	361	331
13	732	521	503	461	582	488	675	636	679	654	350	341
14	521	500	516	303	515	360	711	675	685	676	370	346
15	509	501	305	285	371	356	729	710	709	679	357	316
16	539	506	285	272	---	---	761	728	731	707	320	314
17	597	533	309	281	---	---	803	759	777	731	323	313
18	632	597	360	309	476	456	851	803	793	777	327	306
19	666	632	435	360	495	468	882	851	792	786	306	285
20	678	666	482	435	584	495	885	869	786	776	310	290
21	690	674	533	482	648	584	885	867	779	773	346	310
22	696	690	566	486	650	647	875	794	839	776	407	343
23	717	689	570	552	---	---	794	710	847	832	448	404
24	737	717	555	548	---	---	713	587	849	826	481	447
25	744	695	581	555	---	---	599	581	824	809	516	479
26	705	647	605	581	492	486	588	579	814	805	526	505
27	647	620	653	605	515	488	585	566	805	791	505	441
28	632	617	660	639	525	506	566	549	791	777	449	434
29	696	632	639	635	554	525	570	560	---	---	450	445
30	734	683	641	632	572	554	594	567	---	---	502	448
31	756	734	---	---	564	461	602	585	---	---	527	481
MONTH	756	402	762	272	683	273	885	434	849	453	821	285

[illegible]

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

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TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO

LOCATION.--Lat 41°30'00", long 83°42'46", Lucas County, at gaging station on downstream side of second pier from left end of bridge on State Highway 64 at Waterville, 3.0 mi (4.8 km) downstream from Tontogany Creek, and 21.1 mi (33.9 km) upstream from mouth. Water-quality recorder in water treatment plant 1,500 ft (457 m) upstream from gaging station.

DRAINAGE AREA.--6,330 mi² (16,395 km²).

PERIOD OF RECORD.--Chemical analyses: March 1950 to February 1952, May 1963 to September 1973.

Water temperatures: March 1950 to September 1973.

Sediment records: April 1950 to September 1973.

EXTREMES.--1972-73:

Sediment concentrations: Maximum daily, 1,380 mg/l July 5; minimum daily, 8 mg/l Feb. 23-25.

Sediment discharges: Maximum daily, 86,100 tons (78,100 tonnes) July 5; minimum daily, 16 tons (15 tonnes) Sept. 25.

EXTREMES.--Period of record:

Specific conductance (1950-52, 1963-65, 1967-68): Maximum, 1,150 micromhos Dec. 19, 1964; minimum, 213 micromhos Jan. 30, 1952.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT.											
03...	1630	12400	--	--	176	0	62	19	.3	--	--
26...	1800	--	--	--	--	--	--	--	--	--	--
31...	1615	3780	--	--	251	0	89	30	.3	--	--
NOV.											
29...	1230	7400	--	--	240	0	86	25	.2	--	--
DEC.											
27...	1045	11100	--	--	188	0	71	23	.2	--	--
JAN.											
08...	1600	7000	--	--	152	7	62	20	.2	--	--
23...	--	5000	--	--	242	0	95	30	.3	--	--
FEB.											
06...	1330	12400	--	--	156	0	63	21	.2	--	--
27...	1430	1900	--	--	236	20	110	45	.3	--	--
MAR.											
02...	1745	2130	--	--	240	4	100	41	.3	--	--
21...	1740	30100	--	--	152	0	48	17	.2	--	--
APR.											
25...	1410	14000	--	--	180	0	67	19	.3	--	--
29...	--	5150	--	--	239	0	86	25	.4	--	--
MAY											
15...	0815	5680	--	--	236	0	90	31	.4	--	--
28...	1610	15700	--	--	130	0	56	20	.3	--	--
JUNE											
07...	1315	--	--	--	--	--	--	--	--	--	--
14...	--	21400	--	--	126	0	38	12	.3	--	--
26...	--	3280	--	--	200	0	65	20	.3	--	--
JULY											
05...	2010	21100	--	--	144	0	40	13	.3	--	--
26...	1830	3400	--	--	266	0	77	26	.5	--	--
AUG.											
10...	1350	690	--	--	217	15	86	28	--	.5	.00
24...	1105	2150	45	14	143	2	65	20	--	.4	.00
SEP.											
03...	1455	610	51	16	168	4	70	22	--	.3	.00
21...	1000	236	49	16	188	7	78	26	--	.4	.00

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
JAN.																
05...	1400	0.5	18800	249	12600	88	91	95	96	98	98	100	--	--	--	--
FEB.																
03...	1400	--	16200	265	11600	70	86	90	96	97	98	100	--	--	--	--
MAR.																
12...	1230	6.0	39600	569	60800	74	83	92	96	98	99	100	--	--	--	--
APR.																
25...	1410	--	14000	231	8730	72	83	91	94	97	99	100	--	--	--	--
MAY																
27...	1210	12.0	15400	503	20900	81	91	96	97	98	99	100	--	--	--	--

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--CONTINUED

EXTREMES.--Period of record--Continued

pH (1966-67): Maximum, 11.1 Nov. 7, 1966; minimum, 6.1 Feb. 6, May 12, 14, 1967.

Dissolved oxygen (1966-68): Maximum, 15.0 or higher Oct. 4, 1966, Jan. 2, 6, 1967, Apr. 28, 1968; minimum, 3.1 mg/l May 17, 1968.

Water temperatures (1950-69): Maximum, 34.0°C July 1, 1963; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 2,240 mg/l Mar. 26, 1954; minimum daily, 1 mg/l on many days during 1953, 1955 and 1963.

Sediment discharges: Maximum daily, 208,000 tons (189,000 tonnes) Feb. 12, 1959; minimum daily, 0.26 ton (0.24 tonne) Sept. 18, 1955.

REMARKS.--Water-quality recorder operated since May 1963. Maximum recorded pH of 11.4 occurred Jan. 16, 1965. Minimum recorded pH of 5.0 occurred Nov. 24, 1968. Minimum recorded dissolved oxygen concentration of 0.3 mg/l occurred Nov. 10, 1965. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Flow affected by ice Jan. 7-15, 20-24, Feb. 9-28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.											
03...	4.0	--	.43	230	86	471	296	--	18.0	--	--
26...	--	--	--	--	--	--	--	--	10.0	5.0	4.9
31...	4.0	--	.27	320	110	650	414	--	9.0	--	--
NOV.											
29...	4.0	--	.22	320	120	620	408	--	3.0	--	--
DEC.											
27...	3.6	--	.23	260	100	513	332	--	1.5	--	--
JAN.											
08...	4.1	--	.28	230	94	460	268	--	--	--	--
23...	3.7	--	.28	330	130	650	380	--	2.0	--	--
FEB.											
06...	5.2	--	.36	230	100	469	306	--	3.0	--	--
27...	4.2	--	.27	360	130	766	502	--	1.5	--	--
MAR.											
02...	4.4	--	.29	340	140	714	468	--	.0	--	--
21...	3.7	--	.36	190	66	397	232	--	6.0	--	--
APR.											
25...	3.8	--	.48	240	92	486	304	--	9.0	--	--
29...	3.8	--	.26	300	100	604	390	--	11.0	--	--
MAY											
15...	4.2	--	.34	300	110	631	366	--	10.0	--	--
28...	7.9	--	.88	200	94	428	256	--	12.0	--	--
JUNE											
07...	--	--	--	--	--	--	--	--	20.5	4.0	<.5
14...	5.8	--	.94	160	57	346	204	--	18.0	--	--
26...	5.5	--	.34	260	96	511	316	--	23.0	--	--
JULY											
05...	6.0	--	.21	190	72	372	244	--	20.0	--	--
26...	3.2	--	.32	310	92	621	392	--	22.0	--	--
AUG.											
10...	--	3.4	.17	--	--	590	--	489	23.0	--	--
24...	--	2.4	.23	--	--	418	--	439	23.0	--	--
SEP.											
03...	--	1.6	.19	--	--	460	--	368	27.0	--	--
21...	--	1.1	.17	--	--	508	--	410	18.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	665	656	647	641	543	482	573	558	774	733
2	---	---	660	644	651	641	482	455	582	573	766	714
3	---	---	678	642	653	648	462	312	584	527	783	766
4	---	---	645	452	653	644	477	452	527	488	766	727
5	---	---	464	312	659	648	465	312	489	465	738	684
6	---	---	417	404	---	---	452	312	474	327	684	641
7	---	---	---	---	---	---	473	312	483	466	641	603
8	---	---	---	---	---	---	477	470	511	483	611	571
9	---	---	---	---	---	---	500	476	535	511	575	540
10	---	---	---	---	---	---	707	488	563	535	560	530
11	---	---	---	---	---	---	537	516	571	553	564	456
12	---	---	---	---	---	---	554	534	590	563	456	399
13	---	---	---	---	---	---	561	551	593	578	399	372
14	---	---	---	---	---	---	569	558	603	588	391	367
15	---	---	---	---	---	---	585	564	620	603	401	388
16	---	---	---	---	---	---	591	575	659	620	388	361
17	---	---	---	---	---	---	595	560	697	650	361	344
18	---	---	---	---	---	---	570	550	681	669	354	333
19	---	---	---	---	---	---	579	560	691	673	340	311
20	---	---	---	---	---	---	593	578	694	686	317	305
21	---	---	---	---	---	---	614	586	712	691	397	316
22	---	---	---	---	---	---	605	593	721	701	383	350
23	---	---	---	---	---	---	650	599	750	720	410	380
24	---	---	---	---	---	---	599	575	779	749	440	410
25	---	---	---	---	---	---	591	520	780	764	472	438
26	---	---	---	---	---	---	530	507	787	765	484	456
27	705	663	---	---	537	530	518	508	770	747	474	387
28	687	666	---	---	543	533	519	505	759	726	471	450
29	693	683	633	624	554	539	671	515	---	---	450	418
30	696	683	647	626	570	546	560	549	---	---	436	410
31	683	663	---	---	584	543	564	548	---	---	452	433
MONTH	---	---	---	---	---	---	707	312	787	327	783	305

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	465	441	525	513	451	431	---	---	570	512	445	427
2	475	454	546	519	492	448	---	---	512	484	451	432
3	475	467	588	542	515	494	---	---	540	495	453	434
4	469	457	617	462	520	502	---	---	541	535	---	---
5	464	450	632	617	529	516	---	---	540	528	---	---
6	487	454	630	603	530	498	---	---	543	537	---	---
7	501	480	615	579	518	480	---	---	538	525	---	---
8	538	493	593	575	480	405	---	---	547	517	---	---
9	570	531	591	572	422	405	---	---	568	538	---	---
10	563	546	590	578	437	419	449	434	585	451	---	---
11	587	556	621	462	464	437	471	450	622	451	---	---
12	596	582	635	620	482	464	485	471	603	571	---	---
13	593	582	635	618	506	474	483	462	604	564	464	431
14	611	591	647	633	476	389	489	464	591	556	479	452
15	615	603	642	635	389	345	495	488	588	553	482	455
16	603	566	633	590	402	381	504	492	558	541	485	456
17	567	518	590	580	446	402	510	503	559	523	494	475
18	519	489	580	564	446	438	527	501	612	559	494	472
19	512	491	579	567	476	446	527	510	721	606	502	469
20	522	491	580	569	489	476	534	495	606	427	505	472
21	491	464	588	450	507	489	540	519	445	426	508	475
22	467	452	599	588	507	507	536	521	520	445	513	493
23	495	467	605	589	---	---	560	534	520	301	516	468
24	507	476	607	592	---	---	599	561	741	395	524	465
25	507	476	608	605	---	---	632	599	753	402	562	488
26	476	462	613	605	---	---	662	632	402	390	600	465
27	476	465	651	594	---	---	777	663	408	390	516	456
28	479	474	654	303	---	---	786	630	421	403	517	490
29	522	479	431	413	---	---	626	603	424	411	522	486
30	524	518	435	405	---	---	621	603	430	414	531	509
31	---	---	450	407	---	---	627	569	432	421	---	---
MONTH	615	441	654	303	---	---	---	---	753	301	---	---

STREAMS TRIBUTARY TO LAKE ERIE

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04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	7.7	7.4	---	---	---	---	7.8	6.4	---	---
2	---	---	7.6	6.9	---	---	---	---	6.8	6.0	---	---
3	---	---	7.4	7.0	---	---	---	---	7.4	6.8	---	---
4	---	---	7.2	6.9	---	---	---	---	7.7	6.0	---	---
5	---	---	7.1	6.7	---	---	---	---	7.7	7.4	---	---
6	---	---	7.0	6.5	---	---	---	---	8.3	7.7	---	---
7	---	---	---	---	---	---	---	---	8.6	7.6	---	---
8	---	---	---	---	---	---	---	---	8.8	7.5	---	---
9	---	---	---	---	---	---	---	---	9.5	7.7	---	---
10	---	---	---	---	---	---	---	---	9.7	7.8	---	---
11	---	---	---	---	---	---	---	---	9.5	7.3	---	---
12	7.6	7.4	---	---	---	---	---	---	9.4	7.9	---	---
13	7.3	6.8	---	---	---	---	---	---	9.8	8.2	---	---
14	7.2	6.8	---	---	---	---	---	---	9.2	7.3	---	---
15	7.3	6.4	---	---	---	---	---	---	8.6	7.4	---	---
16	7.4	6.1	---	---	---	---	7.6	7.4	9.2	7.8	---	---
17	7.5	6.7	---	---	---	---	8.7	6.9	9.6	7.3	---	---
18	7.6	6.1	---	---	---	---	9.9	7.5	9.8	7.0	---	---
19	7.4	6.7	---	---	---	---	10.8	8.0	9.5	7.8	---	---
20	7.6	6.1	---	---	---	---	10.5	9.6	9.1	7.5	---	---
21	7.6	7.1	---	---	---	---	10.6	10.1	9.0	7.5	---	---
22	8.3	7.6	---	---	---	---	10.6	7.7	9.5	7.3	---	---
23	9.3	7.6	---	---	---	---	10.0	9.5	9.1	7.3	---	---
24	9.7	9.3	---	---	---	---	9.5	7.9	8.7	7.0	---	---
25	9.9	9.1	---	---	---	---	8.7	7.6	9.1	7.3	---	---
26	9.8	7.6	---	---	---	---	8.7	7.1	9.1	8.1	---	---
27	9.5	7.4	---	---	---	---	9.6	7.0	9.5	7.1	9.0	7.6
28	7.8	7.4	---	---	---	---	10.0	8.5	---	---	9.0	7.4
29	7.8	7.4	7.2	6.9	---	---	9.6	7.2	---	---	8.8	7.3
30	7.9	7.5	7.3	6.8	---	---	---	---	---	---	8.7	7.8
31	8.2	7.5	---	---	---	---	7.7	6.5	---	---	8.7	8.1
MONTH	---	---	---	---	---	---	---	---	9.8	6.0	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.6	6.9	8.8	8.4	7.7	7.1	---	---	8.2	7.3	8.5	7.2
2	8.6	7.9	8.7	8.6	7.8	7.6	---	---	8.1	7.0	8.5	7.2
3	8.4	7.7	8.6	8.2	7.8	7.6	---	---	7.7	6.8	8.4	7.4
4	8.4	7.7	8.4	8.1	7.8	7.6	---	---	7.8	6.8	---	---
5	8.5	7.6	8.6	8.2	7.8	7.7	---	---	7.9	6.1	---	---
6	9.6	7.7	8.7	8.2	7.7	7.5	---	---	8.0	7.1	---	---
7	9.2	7.6	8.8	8.3	7.5	7.4	---	---	8.2	7.1	---	---
8	8.3	7.7	8.8	8.5	7.5	7.3	---	---	8.3	7.1	---	---
9	8.1	7.6	9.0	8.5	7.5	7.4	---	---	8.4	7.1	---	---
10	8.1	7.2	8.9	8.6	7.7	7.4	7.8	7.3	8.3	7.1	---	---
11	8.0	7.7	8.7	8.3	8.0	7.5	7.8	7.2	8.3	7.1	---	---
12	8.8	8.4	8.6	8.4	8.1	7.5	7.9	7.3	8.4	7.1	---	---
13	8.8	8.4	8.5	8.3	8.0	7.4	8.0	7.4	8.4	7.3	8.8	8.2
14	9.0	8.4	8.7	8.3	7.8	7.3	8.2	7.4	8.1	7.3	8.5	7.8
15	9.1	8.5	8.6	8.2	7.7	7.2	8.1	7.4	8.1	7.1	8.6	7.7
16	8.7	8.4	8.6	8.0	7.8	7.3	8.3	7.5	8.0	7.0	8.6	7.8
17	8.7	8.3	8.3	7.9	7.8	7.4	8.4	7.5	7.8	7.0	8.3	7.7
18	8.6	8.4	8.3	8.0	7.7	7.1	8.7	7.6	7.7	7.0	8.6	7.7
19	8.8	8.4	8.1	7.9	8.0	7.2	8.7	7.5	7.6	6.9	8.6	7.7
20	9.0	8.6	8.5	7.9	8.1	7.7	8.2	7.5	7.4	6.7	8.6	7.7
21	8.9	8.7	8.7	8.1	8.3	7.6	8.0	7.4	7.5	6.8	8.7	7.7
22	8.7	8.6	8.4	8.3	---	---	8.1	7.5	7.6	6.1	8.4	7.7
23	8.7	8.5	8.5	8.1	---	---	8.2	7.5	7.5	6.8	8.9	7.8
24	8.6	8.4	8.4	8.2	---	---	8.0	7.4	7.6	6.7	8.9	7.9
25	8.4	8.2	8.2	7.9	---	---	8.2	7.4	7.8	6.7	8.8	7.7
26	8.3	8.1	8.3	7.8	---	---	8.2	7.4	7.7	6.8	8.9	8.0
27	8.3	8.2	8.2	7.7	---	---	8.2	7.4	8.0	7.0	8.9	8.0
28	8.4	8.2	7.8	7.4	---	---	8.1	7.3	8.5	7.2	8.7	8.0
29	8.5	8.2	7.5	7.3	---	---	8.1	7.2	8.5	7.3	8.4	7.7
30	8.6	8.4	7.4	6.9	---	---	8.1	7.2	8.4	7.3	8.5	7.7
31	---	---	7.3	7.0	---	---	8.3	7.3	8.5	7.2	---	---
MONTH	9.6	6.9	9.0	6.9	---	---	---	---	8.5	6.1	---	---

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	13.3	12.8	---	---	---	---	---	---	14.5	12.7
2	---	---	12.8	11.9	---	---	---	---	---	---	14.5	12.6
3	---	---	12.2	11.2	---	---	---	---	---	---	14.7	12.2
4	---	---	11.2	8.8	---	---	---	---	---	---	15.0	11.2
5	---	---	10.5	9.2	---	---	---	---	---	---	12.7	10.7
6	---	---	11.3	7.7	---	---	---	---	---	---	10.8	10.1
7	---	---	---	---	---	---	---	---	---	---	10.2	9.4
8	---	---	---	---	---	---	---	---	---	---	9.7	9.2
9	---	---	---	---	---	---	---	---	---	---	9.5	9.4
10	---	---	---	---	---	---	---	---	---	---	9.6	10.0
11	---	---	---	---	---	---	---	---	---	---	9.4	8.5
12	9.0	8.4	---	---	---	---	---	---	---	---	8.6	8.2
13	9.8	8.5	---	---	---	---	---	---	---	---	8.2	7.9
14	11.9	8.9	---	---	---	---	---	---	---	---	9.8	8.2
15	14.4	10.7	---	---	---	---	---	---	---	---	9.7	8.1
16	12.4	10.2	---	---	---	---	---	---	---	---	9.6	8.9
17	12.9	10.7	---	---	---	---	---	---	---	---	10.0	9.2
18	14.9	12.9	---	---	---	---	---	---	---	---	11.8	10.1
19	14.8	12.1	---	---	---	---	---	---	---	---	11.5	10.9
20	14.8	11.4	---	---	---	---	---	---	---	---	11.8	11.5
21	14.8	11.6	---	---	---	---	---	---	---	---	11.9	11.8
22	13.6	10.4	---	---	---	---	---	---	---	---	12.1	11.6
23	11.4	9.2	---	---	---	---	---	---	---	---	12.6	11.6
24	13.4	11.4	---	---	---	---	---	---	---	---	11.8	11.2
25	14.9	11.9	---	---	---	---	---	---	---	---	11.8	11.2
26	14.9	12.0	---	---	---	---	---	---	---	---	11.4	11.0
27	12.6	12.0	---	---	---	---	---	---	15.0	11.2	12.5	11.0
28	12.2	11.5	---	---	---	---	---	---	15.0	11.9	11.7	11.3
29	12.0	11.2	---	---	---	---	---	---	---	---	11.4	11.1
30	13.3	11.8	---	---	---	---	---	---	---	---	11.1	11.0
31	13.5	12.7	---	---	---	---	---	---	---	---	11.3	11.0
MONTH	---	---	---	---	---	---	---	---	---	---	15.0	7.9

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.1	10.8	9.4	8.8	8.2	6.8	---	---	7.3	5.6	9.9	5.5
2	10.8	10.7	9.2	8.5	7.9	6.6	---	---	7.1	4.3	9.8	5.1
3	10.9	10.7	9.6	8.6	7.6	6.4	---	---	7.6	6.1	9.3	5.5
4	11.1	10.9	10.6	9.3	7.5	6.5	---	---	8.3	6.0	---	---
5	11.2	11.0	11.0	9.6	7.5	6.7	---	---	8.3	6.0	---	---
6	11.4	11.0	11.2	9.5	7.3	6.5	---	---	9.0	7.0	---	---
7	11.2	11.0	11.8	9.9	7.4	6.3	---	---	9.9	7.5	---	---
8	11.2	11.0	11.0	9.3	6.7	5.9	---	---	10.2	6.3	---	---
9	11.3	11.0	12.2	8.9	6.7	6.2	---	---	10.3	6.2	---	---
10	11.5	11.2	10.9	8.7	6.8	6.2	8.0	6.5	10.4	5.9	---	---
11	11.9	11.2	11.0	8.0	7.0	6.4	7.9	6.5	10.2	6.1	---	---
12	11.7	11.1	11.0	8.6	6.9	6.2	8.2	6.8	10.9	5.6	---	---
13	11.7	11.0	11.4	9.1	7.1	5.8	8.5	6.8	10.7	6.0	15.0	7.7
14	11.3	10.8	12.8	9.3	6.9	5.6	9.2	6.7	9.7	6.2	15.0	10.2
15	11.5	10.5	10.9	8.9	5.9	5.4	8.8	7.0	9.3	6.2	15.0	10.6
16	10.7	10.0	11.6	8.9	6.1	5.4	9.8	7.2	8.6	6.2	14.2	12.8
17	10.8	9.9	12.4	8.9	7.0	5.7	10.3	7.4	7.6	5.7	13.8	13.0
18	10.1	9.7	11.9	9.4	7.1	6.1	11.8	6.6	7.2	6.0	15.0	12.9
19	9.9	9.4	10.6	7.6	7.1	6.1	12.1	7.1	6.9	5.8	14.2	12.9
20	9.6	8.9	12.2	8.6	7.4	6.2	9.1	6.2	6.7	5.5	14.2	12.9
21	9.3	8.6	12.9	8.9	7.1	6.2	10.1	6.2	7.0	5.8	14.7	12.7
22	8.8	8.3	11.8	8.2	7.3	6.3	11.4	6.3	7.4	6.2	13.5	13.0
23	8.6	8.2	12.0	8.0	---	---	9.9	6.9	7.4	6.2	15.0	13.0
24	8.7	7.7	11.1	8.7	---	---	7.5	5.8	7.7	6.3	15.0	13.0
25	8.8	7.7	10.2	8.5	---	---	7.8	5.8	7.8	6.6	15.0	12.1
26	9.0	8.2	10.5	7.6	---	---	7.5	5.8	7.6	6.0	15.0	13.2
27	9.4	8.3	9.6	7.2	---	---	8.0	5.7	7.9	6.2	15.0	13.1
28	9.7	9.1	7.8	6.3	---	---	6.7	5.4	9.7	5.8	15.0	13.3
29	10.2	8.9	7.7	6.6	---	---	6.8	5.4	9.9	6.2	15.0	12.9
30	10.0	9.1	8.0	6.9	---	---	6.7	5.5	9.7	6.2	14.9	12.7
31	---	---	8.0	6.8	---	---	7.6	5.4	9.7	5.6	---	---
MONTH	11.9	7.7	12.9	6.3	---	---	---	---	10.9	4.3	---	---

04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.0	8.5	3.5	2.5	5.0	4.0	1.5	0.0	3.0	0.5
2	---	---	10.5	8.5	3.5	2.5	4.5	3.0	4.0	0.5	4.0	1.5
3	---	---	10.5	9.5	3.5	3.0	4.0	2.5	4.5	2.0	3.5	2.5
4	---	---	11.5	10.0	3.0	2.0	3.5	2.0	4.0	2.0	4.5	2.5
5	---	---	10.5	10.0	3.0	2.0	2.5	1.0	5.0	3.0	5.0	4.5
6	---	---	10.0	9.0	---	---	2.0	0.5	3.5	3.0	6.0	5.0
7	---	---	---	---	---	---	2.0	0.5	3.5	3.0	7.5	5.5
8	---	---	---	---	---	---	1.5	0.5	3.0	2.5	8.5	7.0
9	---	---	---	---	---	---	2.0	0.5	2.5	2.0	8.0	7.5
10	---	---	---	---	---	---	2.5	1.0	2.0	1.5	8.0	7.5
11	---	---	---	---	---	---	2.0	1.0	2.0	0.5	9.0	8.0
12	16.0	14.5	---	---	---	---	2.0	0.5	2.0	0.5	9.5	9.0
13	14.5	13.5	---	---	---	---	2.0	0.5	2.0	0.5	10.0	9.0
14	17.0	13.0	---	---	---	---	1.5	0.5	1.5	0.5	9.5	9.0
15	18.0	10.5	---	---	---	---	1.0	0.5	1.5	0.5	10.5	9.0
16	18.0	13.0	---	---	---	---	1.0	0.5	2.0	0.5	10.5	10.5
17	16.5	12.0	---	---	---	---	1.0	0.5	2.5	0.5	10.5	7.5
18	12.5	7.0	---	---	---	---	1.5	0.5	2.0	0.5	7.5	6.0
19	15.0	4.5	---	---	---	---	3.0	1.0	2.0	0.5	6.0	4.5
20	16.5	5.0	---	---	---	---	2.0	0.5	1.0	0.5	4.5	3.5
21	15.5	9.0	---	---	---	---	1.5	0.5	1.5	0.5	4.5	3.5
22	17.5	11.5	---	---	---	---	2.0	0.5	1.5	0.5	4.5	4.0
23	21.0	15.5	---	---	---	---	2.0	1.0	1.0	0.0	5.5	4.5
24	15.5	11.5	---	---	---	---	1.5	1.0	1.5	0.5	6.0	5.0
25	15.0	8.5	---	---	---	---	1.5	1.0	1.5	0.5	6.0	5.5
26	14.0	6.5	---	---	---	---	2.0	1.0	1.5	0.5	7.0	6.0
27	10.0	9.0	---	---	2.5	2.5	3.5	2.0	2.0	0.5	8.0	7.0
28	10.5	10.0	---	---	3.0	2.5	3.5	2.5	2.0	0.5	7.5	7.5
29	10.5	9.5	3.5	3.0	3.0	2.0	3.0	0.5	---	---	8.0	7.5
30	10.0	9.0	3.5	3.0	3.5	2.0	0.5	0.0	---	---	8.5	8.0
31	9.0	8.5	---	---	4.5	3.5	0.5	0.0	---	---	8.5	8.0
MONTH	---	---	---	---	---	---	5.0	0.0	5.0	0.0	10.5	0.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	8.0	13.5	12.5	19.0	16.5	---	---	26.0	24.0	31.0	25.5
2	9.0	8.5	14.5	13.5	20.0	17.5	---	---	25.5	24.0	32.5	25.5
3	9.0	8.5	14.0	12.0	21.0	19.0	---	---	25.5	23.5	31.0	26.0
4	8.5	8.0	12.0	11.0	22.0	20.0	---	---	27.0	24.0	---	---
5	8.5	8.0	13.0	11.0	21.5	20.0	---	---	27.5	24.5	---	---
6	9.5	7.5	13.0	12.5	21.0	20.0	---	---	27.5	24.5	---	---
7	9.5	8.5	14.0	12.5	20.5	20.0	---	---	28.0	24.5	---	---
8	10.0	8.5	14.5	13.0	21.0	20.0	---	---	28.5	24.0	---	---
9	9.5	8.0	16.5	14.0	22.0	20.5	---	---	30.0	24.5	---	---
10	8.0	7.5	16.0	15.5	23.0	21.0	26.5	25.5	28.5	24.5	---	---
11	8.0	6.5	16.5	15.0	24.0	22.0	26.0	24.5	28.5	23.5	---	---
12	7.5	6.5	16.5	15.0	25.0	23.0	25.0	23.0	30.0	24.0	---	---
13	8.5	6.5	15.0	14.5	25.0	23.5	26.0	22.5	29.0	23.5	22.5	18.5
14	9.0	7.0	14.5	13.5	23.5	22.0	28.5	24.0	26.5	24.0	23.0	18.0
15	9.5	8.0	14.5	13.5	23.0	21.5	27.0	24.0	26.5	23.5	24.5	17.0
16	10.0	8.5	15.0	13.0	23.5	22.5	26.0	23.5	26.5	23.5	22.5	17.5
17	10.5	9.0	15.0	13.0	23.5	22.5	26.5	22.5	26.5	24.0	19.5	17.5
18	10.5	10.0	16.5	13.5	23.5	22.0	29.5	22.5	26.0	24.5	22.5	17.0
19	12.0	10.5	15.0	13.5	24.5	22.5	28.5	23.5	25.5	24.5	21.0	15.0
20	13.0	11.5	15.0	10.5	25.0	23.5	25.5	23.5	25.0	24.0	20.5	15.5
21	14.0	12.5	17.5	14.5	25.0	23.5	24.0	23.0	24.5	23.5	21.0	14.5
22	14.5	13.5	16.0	15.5	---	---	24.5	22.5	24.0	22.5	20.5	16.5
23	14.5	14.0	16.0	15.0	---	---	25.5	22.5	23.0	22.0	23.5	16.5
24	15.0	10.5	16.0	15.0	---	---	25.0	24.0	23.5	22.0	23.0	16.5
25	14.5	13.5	16.0	15.5	---	---	26.0	24.0	26.0	22.0	23.5	16.5
26	14.5	13.0	17.5	16.0	---	---	26.0	24.5	26.5	23.0	25.5	19.5
27	13.0	12.0	17.5	16.5	---	---	26.0	24.0	28.5	24.0	26.0	19.0
28	12.5	11.5	17.0	16.0	---	---	25.5	24.0	31.5	25.5	22.5	19.5
29	12.0	11.0	18.0	17.0	---	---	27.0	23.5	31.0	25.5	20.5	18.5
30	13.0	11.5	17.5	17.0	---	---	26.0	24.0	29.5	26.0	22.5	17.5
31	---	---	18.0	16.5	---	---	26.0	24.0	30.0	24.5	---	---
MONTH	15.0	6.5	18.0	10.5	---	---	---	---	31.5	22.0	---	---

STREAMS TRIBUTARY TO LAKE ERIE

04193500 MAUMEE RIVER AT WATERTVILLE, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	20700	242	13500	3740	33	333	5820	78	1230
2	18700	218	11000	6480	86	1500	5080	68	933
3	13300	162	5820	22700	269	16500	4510	61	743
4	8500	109	2500	29400	353	24000	4130	56	624
5	7520	96	1950	26900	317	23000	3970	55	590
6	7080	92	1760	20500	244	13500	11700	146	4610
7	7280	94	1850	13000	160	5620	25900	300	21000
8	4480	60	726	22300	266	16000	27600	329	24500
9	3680	51	507	29400	353	28000	24200	291	19000
10	3100	45	377	27800	326	24500	17500	210	9920
11	2640	41	292	23600	279	17800	11700	146	4610
12	2280	37	228	19100	233	12000	7120	91	1750
13	3940	55	585	14900	179	7200	13800	169	6300
14	7560	96	1960	23600	279	17800	19400	229	12000
15	6840	89	1640	41100	487	54000	21400	260	15000
16	5400	72	1050	42800	511	59100	16200	197	8620
17	3970	55	590	38200	456	47000	9650	123	3200
18	3190	46	396	28500	338	26000	5890	79	1260
19	2560	40	276	21200	253	14500	4940	67	894
20	2260	36	220	17200	207	9610	5260	70	994
21	1840	33	164	14300	171	6600	7950	100	2150
22	1680	31	141	14200	170	6520	11000	138	4100
23	1930	33	172	11800	144	4590	13300	162	5820
24	3620	45	440	8900	112	2690	14300	171	6600
25	5400	68	991	6920	90	1680	13400	162	5860
26	5290	45	643	6280	83	1410	13400	162	5860
27	4380	36	426	6440	86	1500	12200	149	4910
28	3740	33	333	7200	93	1810	11000	138	4100
29	3370	30	273	7360	95	1890	9250	116	2900
30	3490	31	292	6760	88	1610	9550	120	3090
31	3680	32	318	--	--	--	17800	208	10000
TOTAL	173400	--	51420	562580	--	452263	378920	--	193168

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	22900	272	16800	6360	48	824	1750	22	104
2	19300	230	12000	7080	65	1240	1980	22	118
3	14500	174	6810	15300	243	10000	2980	28	225
4	16900	199	9080	19200	273	14200	5680	85	1300
5	18500	236	11800	15200	82	3370	8950	102	2460
6	15700	215	9110	13000	57	2000	12900	92	3200
7	10000	132	3560	8500	55	1260	14900	75	3020
8	7000	119	2250	7280	58	1140	12400	58	1940
9	5400	90	1310	5000	53	716	12400	52	1740
10	4000	49	529	4200	38	431	13300	64	2300
11	3200	41	354	3500	28	265	24500	285	20500
12	2600	40	281	3000	24	194	39500	554	59100
13	2700	32	233	2600	27	190	37000	595	59400
14	2700	29	211	2400	25	162	30700	460	38100
15	2300	30	186	2500	14	95	34000	333	30600
16	2330	30	189	2600	10	70	34400	263	24400
17	2360	27	172	2200	10	59	36000	202	19600
18	2500	25	169	1900	10	51	36300	159	15600
19	3040	27	222	1800	9	44	38900	152	16000
20	3100	39	326	1900	10	51	38100	160	16500
21	3300	42	374	2300	10	62	31700	162	13900
22	3500	43	406	2700	9	66	25300	108	7380
23	5000	45	608	2800	8	60	20600	95	5280
24	8600	69	1600	2900	8	63	16600	92	4120
25	9900	74	1980	2500	8	54	14100	92	3500
26	7360	70	1390	2200	12	71	14500	102	3990
27	6480	71	1240	1900	23	118	17500	154	7280
28	7240	58	1130	1700	22	101	16700	133	6000
29	8750	51	1200	--	--	--	13300	99	3560
30	9350	49	1240	--	--	--	11500	92	2860
31	8000	49	1060	--	--	--	11800	92	2930
TOTAL	238510	--	87820	144520	--	36957	630240	--	377007

STREAMS TRIBUTARY TO LAKE ERIE

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04193500 MAUMEE RIVER AT WATERVILLE, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	12200	84	2770	4980	51	686	10700	88	2540
2	12700	68	2330	4190	49	554	6360	57	979
3	13300	55	1980	3620	50	489	6440	54	939
4	11000	48	1430	3190	53	456	7720	51	1060
5	9200	49	1220	2920	53	418	9300	68	1710
6	8750	55	1300	2700	52	379	16000	299	13900
7	8250	57	1270	2390	49	316	27800	486	36500
8	6840	57	1050	2470	43	287	29200	178	14000
9	5820	55	864	2720	53	389	24400	55	3620
10	6520	55	968	4000	52	562	16400	38	1680
11	5750	44	683	4840	53	693	11200	42	1270
12	6170	56	933	4610	56	697	6170	40	666
13	6240	62	1040	4290	56	649	13000	287	12600
14	8950	83	2010	4420	58	692	21400	616	35600
15	10100	88	2400	5150	73	1020	18200	336	16500
16	7680	74	1530	2780	58	435	11700	288	9100
17	6200	68	1140	2230	57	343	6400	253	4370
18	7080	63	1200	2100	53	301	4910	189	2510
19	8750	106	2500	1860	50	251	3370	163	1480
20	9900	167	4460	2180	49	288	3010	137	1110
21	8500	154	3530	2180	51	300	2440	105	692
22	7480	118	2380	1490	48	193	1980	77	412
23	12400	177	5930	1510	45	183	1730	46	215
24	16400	266	11800	2840	52	399	1840	32	159
25	14400	237	9210	3100	57	477	2420	31	203
26	10500	158	4480	4420	78	1020	3280	32	283
27	6280	91	1540	13700	446	17400	6560	77	1690
28	6060	56	916	15800	557	23800	14500	258	10100
29	5150	53	737	14200	348	13300	15800	279	11900
30	5360	53	767	14000	218	8240	15100	220	8970
31	--	--	--	15300	148	6110	--	--	--
TOTAL	263930	--	74368	156180	--	81327	319330	--	196758

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	10800	149	4340	1840	117	581	626	53	90
2	5640	76	1160	2390	127	820	610	54	89
3	8650	291	8680	3130	132	1120	610	51	84
4	21500	1230	71400	2390	128	826	578	51	80
5	23100	1380	86100	1790	121	585	530	49	70
6	15100	800	32600	1390	112	420	546	48	71
7	8200	455	10100	1170	103	325	440	45	53
8	6560	330	5840	950	90	231	330	45	40
9	5260	272	3860	792	76	163	305	46	38
10	4290	231	2680	707	60	115	410	50	55
11	3870	196	2050	626	52	88	410	60	66
12	3130	166	1400	562	43	65	305	73	60
13	2440	144	949	626	39	66	255	71	49
14	1600	126	544	1170	40	126	268	55	40
15	1540	116	482	1430	42	162	355	54	52
16	1290	110	383	3250	84	857	280	52	34
17	1170	102	322	5960	128	2060	246	51	34
18	1000	87	235	5120	82	1130	343	51	47
19	932	73	184	3970	55	590	189	53	27
20	968	68	178	3940	47	500	227	53	32
21	950	66	169	3740	49	495	217	51	30
22	986	66	176	3840	52	539	343	49	45
23	2030	69	378	3220	53	461	236	47	30
24	3280	79	700	2150	52	302	170	45	21
25	4260	98	1130	1600	53	229	140	43	16
26	3550	103	987	1450	58	227	280	42	32
27	3130	101	854	1290	63	219	268	42	30
28	2750	99	735	986	65	173	268	40	29
29	2420	99	647	860	53	123	440	40	48
30	2150	101	586	758	47	96	455	40	49
31	1710	106	489	741	50	100	--	--	--
TOTAL	154256	--	240338	63838	--	13794	10680	--	1446

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

3096384

1806666

STREAMS TRIBUTARY TO LAKE ERIE

04194022 MAUMEE RIVER AT TOLEDO OVERSEAS TERMINAL DOCK, AT TOLEDO, OHIO

LOCATION.--Lat 41°41'06", long 83°28'35", Lucas County, at Toledo Overseas Terminal dock at Toledo, about 1 mi (2 km) upstream from the mouth.

PERIOD OF RECORD.--Chemical analyses: October 1962 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.											
04...	0915	--	168	0	59	22	--	--	240	100	458
12...	0928	--	202	0	71	26	--	--	280	110	550
18...	0915	18	236	4	89	34	3.9	.11	330	130	634
25...	0915	--	202	0	75	32	--	--	260	94	569
NOV.											
01...	0915	19	244	0	91	31	4.9	.31	340	140	659
08...	0915	--	144	0	51	20	--	--	220	100	418
15...	0915	--	--	--	--	--	--	--	--	--	--
22...	0915	--	152	0	57	18	--	--	230	110	442
DEC.											
20...	0930	--	152	0	57	30	--	--	210	86	464
27...	0900	13	178	4	69	40	7.3	.17	270	120	507
JAN.											
03...	0900	--	160	0	57	23	--	--	220	89	453
17...	0915	--	184	0	71	31	--	--	250	99	531
24...	0910	18	230	4	82	40	5.4	.27	320	120	630
31...	0915	--	180	0	72	29	--	--	250	100	531
FEB.											
07...	0915	--	160	0	69	25	--	--	230	99	480
14...	0920	--	192	0	73	29	--	--	260	100	544
28...	0930	30	250	0	97	55	5.7	.24	360	150	738
MAR.											
07...	0900	26	248	0	100	40	5.8	.28	340	140	706
14...	0915	--	126	0	43	20	--	--	180	77	395
21...	0845	--	120	0	50	19	--	--	160	62	354
28...	0930	--	178	0	62	23	--	--	230	84	479
APR.											
04...	0915	--	204	0	71	21	--	--	260	92	533
11...	0915	--	204	0	76	24	--	--	280	110	556
18...	0845	15	220	0	100	27	4.4	.22	300	120	596
25...	0915	--	196	0	68	20	--	--	250	90	509
MAY											
09...	0915	--	211	0	72	23	--	--	270	96	545
16...	0830	--	244	0	82	27	--	--	300	100	609
23...	0900	22	228	0	89	35	4.0	.26	300	110	635
30...	--	--	131	0	57	23	--	--	200	92	437
JUNE											
05...	0830	13	170	8	57	22	5.5	.29	240	87	490
13...	0850	--	146	0	46	19	--	--	200	80	423
27...	0855	--	174	0	54	22	--	--	230	88	474

STREAMS TRIBUTARY TO LAKE ERIE

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04194022 MAUMEE RIVER AT TOLEDO OVERSEAS TERMINAL DOCK, AT TOLEDO, OHIO--Continued

REMARKS.--Determinations of suspended solids and dissolved oxygen (DO) furnished by the city of Toledo, Division of Sewage Disposal. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.										
04...	7.4	--	--	15.0	70	50	--	--	--	--
12...	7.7	--	--	15.5	50	30	--	--	--	--
18...	8.3	426	--	12.0	30	35	--	--	--	.1
25...	7.4	--	--	10.5	40	30	--	--	--	--
NOV.										
01...	7.7	440	53	10.0	40	25	9.2	81	3.5	.1
08...	8.0	--	118	10.0	120	20	8.4	74	3.9	--
15...	--	--	192	7.0	--	--	8.6	70	1.7	--
22...	7.5	--	72	5.0	90	30	9.9	77	4.9	--
DEC.										
20...	7.3	--	42	1.0	50	25	11.4	80	3.0	--
27...	8.3	332	19	1.0	40	40	10.6	75	2.4	.0
JAN.										
03...	8.0	--	68	2.0	110	30	10.4	75	1.9	--
17...	8.2	--	32	1.0	45	25	11.5	81	2.4	--
24...	8.3	408	16	.5	20	20	11.7	81	1.4	.0
31...	8.1	--	32	.5	50	30	12.2	85	2.7	--
FEB.										
07...	7.6	--	72	2.0	100	35	11.4	83	2.3	--
14...	7.9	--	37	.5	45	30	12.2	85	3.0	--
28...	8.3	474	10	.5	10	10	11.2	78	1.5	.0
MAR.										
07...	8.1	456	14	6.5	15	10	10.2	83	3.6	.0
14...	7.3	--	338	10.0	250	60	7.3	65	4.3	--
21...	7.3	--	165	4.5	120	50	11.0	85	3.6	--
28...	7.2	--	71	8.0	50	40	10.0	84	1.9	--
APR.										
04...	7.6	--	55	10.0	25	28	10.4	92	2.3	--
11...	7.5	--	49	9.0	35	21	10.2	88	1.8	--
18...	7.8	404	31	12.0	15	5	9.8	91	2.0	.1
25...	7.4	--	89	15.5	50	31	7.0	70	1.0	--
MAY										
09...	7.9	--	53	15.5	35	25	8.5	85	2.9	--
16...	8.0	--	63	15.5	35	28	8.7	87	3.9	--
23...	7.8	424	35	15.5	20	5	7.1	71	3.1	.0
30...	7.3	--	234	21.0	190	90	7.1	79	2.2	--
JUNE										
05...	8.3	314	--	21.5	1100	60	--	--	--	.1
13...	8.2	286	--	24.0	1100	45	--	--	--	--
27...	8.1	314	--	24.0	1100	60	--	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04194023 MAUMEE RIVER AT MOUTH, AT U.S. COAST GUARD STATION AT TOLEDO, OHIO

LOCATION.--Lat 41°41'36", long 83°18'20", on left bank at U.S. Coast Guard Station, 200 ft (61 m) downstream from entrance of channel to Bay View Park Yacht Club, across the river from C. and O. docks, and 2,500 ft (762 m) downstream from Toledo Sewage Disposal plant.

DRAINAGE AREA.--6,608 mi² (17,115 km²).

PERIOD OF RECORD.--Chemical analyses: February 1967 to September 1973.

Water temperatures: February 1967 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 954 micromhos Mar. 1; minimum, 347 micromhos June 21.

pH: Maximum, 8.6 May 17-20; minimum, 6.3 Sept. 7.

Water temperatures: Maximum, 36.0°C July 25; minimum, freezing point Dec. 5, 12-14, Feb. 22.

EXTREMES.--Period of record:

Specific conductance (1967-69, 1970-73): Maximum, 1,070 micromhos Feb. 4, 1972; minimum, 210 micromhos Dec. 23, 1967.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
02...	1030	--	--	167	0	57	22	.3	--	--
18...	1515	--	--	212	10	84	30	.4	--	--
18...	1535	--	--	--	--	--	--	--	--	--
NOV.										
01...	1300	--	--	217	10	89	35	.4	--	--
13...	0915	--	--	169	0	56	20	.2	--	--
DEC.										
11...	1300	--	--	138	0	55	29	.2	--	--
18...	0930	--	--	154	0	68	60	.3	--	--
JAN.										
08...	0920	--	--	166	0	69	31	.3	--	--
22...	0930	--	--	196	0	78	32	.3	--	--
FEB.										
12...	0930	--	--	168	0	70	31	.3	--	--
27...	0930	--	--	222	0	91	50	.3	--	--
MAR.										
05...	0930	--	--	250	0	100	51	.4	--	--
16...	0945	--	--	152	0	54	22	.2	--	--
APR.										
09...	0930	--	--	189	0	70	24	.3	--	--
16...	0930	--	--	212	0	84	38	.3	--	--
MAY										
21...	0930	--	--	222	0	85	40	.6	--	--
30...	1950	--	--	--	--	--	--	--	--	--
30...	2000	--	--	138	0	59	24	1.6	--	--
JUNE										
04...	0930	--	--	146	0	56	30	.4	--	--
18...	0945	--	--	128	0	44	20	.4	--	--
JULY										
11...	1300	--	--	154	0	47	18	.5	--	--
30...	1230	--	--	214	0	71	34	.5	--	--
AUG.										
06...	0920	86	22	199	8	90	39	--	.5	.01
29...	1220	60	16	157	0	68	36	--	.5	.01
SEP.										
04...	0945	61	15	149	0	63	36	--	.4	.01
24...	1000	46	12	129	0	49	31	--	.4	.01

04194023 MAUMEE RIVER AT MOUTH, AT U.S. GUARD STATION AT TOLEDO, OHIO--Continued

EXTREMES.--Period of record--Continued

pH (1972-73): Maximum, 8.6 May 17-20, 1973; minimum, 6.3 Sept. 7, 1973.

Dissolved oxygen (1967-68): Maximum, 14.4 mg/l Sept. 4, 1967; minimum, 0.0 mg/l on many days during June to September 1967.

Water temperatures (1967-69, 1970-73): Maximum, 36.0°C July 25, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since February 1967. Maximum recorded pH value of 9.1 occurred Apr. 13, 1971. Maximum recorded dissolved oxygen concentration of 15.0 mg/l occurred on several days during November and December 1972. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. No discharge records available.

REVISIONS.--Revised figures for pH for water year 1972 superseding those previously published are given herewith: Minimum, Feb. 22-29, 1972, pH 7.4.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	4.7	--	220	83	473	314	--	15.5	--	--
18...	4.2	--	300	110	619	404	--	12.0	--	--
18...	--	--	--	--	--	--	--	12.0	1.0	<.5
NOV.										
01...	4.2	--	310	120	654	422	--	9.5	--	--
13...	3.7	--	220	82	451	300	--	8.0	--	--
DEC.										
11...	4.4	--	190	77	450	280	--	1.5	--	--
18...	6.8	--	220	94	602	386	--	2.0	--	--
JAN.										
08...	6.2	--	240	100	523	314	--	1.0	--	--
22...	6.5	--	260	99	583	362	--	2.0	--	--
FEB.										
12...	5.9	--	260	120	537	342	--	1.0	--	--
27...	5.9	--	310	130	702	438	--	1.0	--	--
MAR.										
05...	4.7	--	360	150	756	478	--	2.0	--	--
16...	3.9	--	210	86	435	266	--	5.5	--	--
APR.										
09...	4.0	--	250	95	519	344	--	9.0	--	--
16...	7.5	--	300	130	635	424	--	10.0	--	--
MAY										
21...	3.3	--	300	120	648	416	--	15.5	--	--
30...	--	--	--	--	--	--	--	17.0	6.0	<.5
30...	5.1	--	230	120	460	300	--	17.5	--	--
JUNE										
04...	5.7	--	210	90	462	296	--	20.0	--	--
18...	4.9	--	180	75	380	248	--	23.5	--	--
JULY										
11...	6.2	--	200	74	419	286	--	26.0	--	--
30...	4.0	--	270	94	592	378	--	26.0	--	--
AUG.										
06...	--	4.7	--	--	648	--	576	25.5	--	--
29...	--	4.0	--	--	537	--	488	26.0	--	--
SEP.										
04...	--	3.7	--	--	509	--	394	27.0	--	--
24...	--	1.9	--	--	406	--	416	19.0	--	--

04194023 MAUMEE RIVER AT MOUTH, AT U.S. COAST GUARD STATION AT TOLEDO, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1972

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	521	470	657	618	699	603	720	612	543	474	954	786
2	477	449	694	628	729	627	678	522	549	453	870	744
3	493	448	718	646	705	633	594	501	618	498	834	750
4	478	406	683	545	666	639	591	489	681	537	816	751
5	554	455	620	524	825	642	546	504	573	480	786	732
6	570	525	630	396	927	687	546	501	567	468	738	648
7	619	589	525	441	762	---	546	483	624	498	892	637
8	733	655	486	438	---	---	547	475	585	471	852	708
9	788	713	486	456	---	---	592	487	651	501	758	638
10	834	540	486	438	---	---	607	526	690	549	687	507
11	641	557	462	435	489	417	598	520	624	534	735	528
12	640	535	465	435	618	408	598	517	579	537	566	425
13	604	523	465	438	636	465	649	541	573	543	497	380
14	588	492	474	435	546	471	616	526	581	539	521	392
15	497	461	498	447	568	493	550	511	631	556	533	401
16	649	442	456	390	658	526	611	550	648	603	500	413
17	661	580	435	378	712	544	629	545	660	575	---	---
18	729	613	399	360	694	559	614	549	709	607	---	---
19	763	688	396	369	760	478	651	564	795	594	---	---
20	776	689	417	378	565	448	636	576	857	584	---	---
21	738	663	---	---	535	451	600	537	938	653	---	---
22	721	649	---	---	502	445	652	559	716	638	---	---
23	653	572	---	---	544	469	719	596	---	---	---	---
24	591	549	---	---	563	503	708	654	---	---	---	---
25	617	551	---	---	581	506	706	637	---	---	---	---
26	642	570	---	---	641	503	707	602	---	---	---	---
27	629	569	636	603	686	575	621	549	711	678	---	---
28	648	579	666	603	608	566	646	508	903	678	---	---
29	668	629	687	615	602	578	593	518	---	---	---	---
30	660	609	687	612	671	578	684	489	---	---	---	---
31	668	620	---	---	689	620	600	501	---	---	---	---
MONTH	834	406	718	360	927	408	720	475	938	453	---	---

[illegible]

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PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.1	7.2	8.1	7.6	7.9	7.5	7.8	7.5	7.7	7.6	7.9	7.5
2	8.4	7.5	7.7	7.5	7.8	7.4	7.7	7.4	7.8	7.5	7.9	7.7
3	8.3	7.6	7.7	7.6	7.9	7.6	7.7	7.4	7.7	7.5	7.9	7.8
4	7.6	7.4	7.6	7.4	7.9	7.8	7.7	7.4	7.7	7.4	7.9	7.8
5	7.8	7.3	7.5	7.3	7.9	7.6	7.7	7.5	7.7	7.6	8.0	7.9
6	7.5	7.2	7.6	7.3	7.9	7.5	7.6	7.5	7.8	7.5	8.0	7.7
7	7.3	7.2	7.6	7.2	7.9	7.8	7.6	7.4	7.8	7.4	7.9	7.4
8	7.4	7.1	7.6	7.5	---	---	7.6	7.3	7.8	7.5	7.7	7.4
9	7.3	7.1	7.6	7.5	---	---	7.6	7.4	7.7	7.5	7.7	7.5
10	7.2	7.0	7.6	7.5	---	---	7.5	7.4	7.8	7.4	7.7	7.5
11	7.2	7.0	7.5	7.4	8.1	7.8	7.5	7.3	7.8	7.5	7.7	7.3
12	7.2	7.1	7.6	7.5	8.1	7.8	7.6	7.4	7.8	7.4	7.6	7.4
13	7.2	7.0	7.7	7.5	8.1	7.8	7.5	7.4	7.8	7.4	7.4	7.3
14	7.3	7.0	7.7	7.6	8.1	7.9	7.5	7.3	7.8	7.7	7.6	7.2
15	7.3	7.1	7.8	7.6	8.1	7.9	7.6	7.4	7.8	7.7	7.5	7.2
16	7.4	7.1	7.6	7.5	8.0	7.8	7.6	7.4	7.8	7.7	7.5	7.3
17	7.4	7.3	7.6	7.5	7.9	7.8	7.6	7.4	7.8	7.6	---	---
18	7.6	7.3	7.5	7.5	7.9	7.8	7.6	7.4	7.8	7.5	---	---
19	7.8	7.5	7.6	7.5	7.9	7.4	7.7	7.4	7.8	7.5	---	---
20	7.6	7.5	7.6	7.5	7.5	7.4	7.8	7.5	7.8	7.5	---	---
21	7.5	7.4	---	---	7.5	7.4	7.8	7.7	7.9	7.5	---	---
22	7.5	7.4	---	---	7.6	7.4	7.8	7.5	7.9	7.8	---	---
23	7.6	7.4	---	---	7.6	7.4	7.6	7.4	---	---	---	---
24	7.6	7.5	---	---	7.6	7.5	7.7	7.4	---	---	---	---
25	7.6	7.4	---	---	7.6	7.4	7.5	7.3	---	---	---	---
26	7.6	7.5	---	---	7.7	7.5	7.7	7.3	---	---	---	---
27	7.7	7.5	7.7	7.6	7.7	7.5	7.6	7.4	8.0	7.9	---	---
28	7.7	7.5	7.8	7.5	7.8	7.6	7.7	7.4	8.0	7.5	---	---
29	7.7	7.6	7.8	7.5	7.8	7.7	8.0	7.4	---	---	---	---
30	7.7	7.7	7.8	7.5	7.8	7.5	7.8	7.5	---	---	---	---
31	7.8	7.7	---	---	7.6	7.4	7.7	7.5	---	---	---	---
MONTH	8.4	7.0	8.1	7.2	8.1	7.4	8.0	7.3	8.0	7.4	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.2	7.6	7.6	7.5	7.6	6.7	7.4	7.3	7.6	7.4
2	---	---	8.2	7.9	7.8	7.5	7.8	7.3	7.5	7.3	7.5	7.4
3	---	---	8.2	7.8	7.7	7.5	7.7	7.0	7.5	7.3	7.5	7.4
4	---	---	8.2	7.7	7.5	7.4	7.2	7.1	7.5	7.3	7.5	7.4
5	7.6	7.4	8.1	7.9	7.6	7.4	7.2	7.0	7.5	7.3	7.4	7.4
6	7.6	7.3	8.2	7.9	7.7	7.5	7.3	7.1	7.5	7.3	7.6	7.4
7	7.8	7.5	8.2	7.8	7.7	7.5	7.2	7.1	7.5	7.3	8.4	6.3
8	7.9	7.6	8.1	7.8	7.8	7.5	7.3	7.2	7.4	7.3	8.3	7.4
9	7.9	7.7	8.4	8.0	7.5	7.4	7.3	7.1	7.4	7.3	7.6	7.4
10	---	---	8.2	8.0	7.5	7.4	7.4	7.1	7.4	7.3	8.3	7.3
11	7.6	7.3	---	---	7.7	7.4	7.4	7.3	7.4	7.1	8.3	7.3
12	7.9	7.3	---	---	7.5	7.4	7.7	7.4	7.3	7.0	8.3	7.3
13	8.1	7.6	8.3	8.0	7.5	7.4	---	---	7.2	7.0	8.4	7.6
14	7.8	7.4	8.3	7.7	7.6	7.4	---	---	7.2	7.1	7.7	7.4
15	7.8	7.5	8.4	7.8	7.7	7.4	---	---	7.4	7.0	8.3	7.4
16	7.8	7.5	8.5	8.0	7.5	7.3	---	---	7.3	7.0	8.3	7.5
17	8.0	7.5	8.6	8.2	7.5	7.4	---	---	7.2	7.0	8.4	7.6
18	7.9	7.6	8.6	8.1	---	---	---	---	7.3	6.9	8.3	7.5
19	7.8	7.6	8.6	8.0	7.4	7.3	---	---	7.4	7.2	8.3	7.5
20	7.8	7.6	8.6	8.2	7.3	7.2	---	---	7.4	7.0	8.3	7.6
21	7.9	7.5	8.5	7.5	7.3	7.1	---	---	7.5	7.1	8.2	7.6
22	8.0	7.5	8.0	7.7	7.2	7.0	---	---	7.9	7.4	7.6	7.4
23	8.0	7.3	8.1	7.6	7.2	7.1	---	---	8.2	7.4	7.6	7.5
24	8.0	7.5	8.1	7.9	7.3	7.1	8.2	7.3	7.5	7.4	8.2	7.5
25	8.3	7.9	8.0	7.6	7.3	7.2	7.7	6.5	7.5	7.3	7.5	7.2
26	8.3	7.9	7.9	7.6	7.2	7.1	8.0	7.0	7.4	7.2	7.4	7.1
27	8.3	7.9	8.5	7.9	7.3	7.1	8.2	7.5	7.3	7.1	7.2	7.2
28	8.1	7.9	8.2	7.8	7.3	7.0	8.2	8.2	7.4	7.1	7.9	7.2
29	8.1	7.6	8.5	7.9	7.2	7.0	8.2	8.1	7.5	6.8	7.4	7.2
30	8.0	7.6	8.3	7.5	7.4	7.0	8.2	7.3	7.5	7.4	7.7	7.2
31	---	---	7.6	7.4	---	---	7.4	7.3	7.7	7.4	---	---
MONTH	8.3	7.3	8.6	7.4	7.8	7.0	---	---	8.2	6.8	8.4	6.3
YEAR	8.6	6.3										

STREAMS TRIBUTARY TO LAKE ERIE

04194023 MAUMEE RIVER AT MOUTH, AT U.S. COAST GUARD STATION AT TOLEDO, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	13.1	11.9	12.2	9.3	14.4	13.6	11.3	11.2	11.8	11.5
2	---	---	12.2	10.3	12.2	8.9	14.3	13.1	11.4	11.1	11.5	11.3
3	---	---	13.0	11.4	11.7	9.6	14.3	13.0	11.4	11.3	11.3	11.1
4	10.2	7.1	12.5	11.1	11.9	10.6	14.3	13.5	11.6	11.3	11.2	11.0
5	8.8	5.4	11.3	10.5	12.1	9.9	14.2	13.1	11.6	11.3	11.0	10.7
6	8.3	5.7	12.1	10.3	11.8	8.8	14.1	13.2	12.6	11.4	10.8	10.6
7	7.7	5.5	12.4	10.8	12.3	10.6	14.0	13.3	12.8	12.5	12.3	10.5
8	7.0	4.5	13.5	11.2	---	---	13.9	12.8	12.9	12.4	12.5	12.3
9	7.8	3.8	13.6	12.9	---	---	13.8	12.8	12.9	12.8	12.4	11.9
10	5.7	3.7	12.9	12.0	---	---	13.7	12.4	13.0	12.8	12.4	12.3
11	6.3	4.1	13.4	12.0	12.1	10.8	13.6	12.4	13.0	12.9	12.3	12.2
12	5.8	4.5	13.9	12.8	12.3	10.2	13.5	12.4	13.1	13.0	12.4	12.2
13	5.4	2.6	15.0	13.1	12.3	10.1	13.4	12.2	13.1	12.9	12.5	12.2
14	5.4	2.9	15.0	13.1	12.7	11.3	13.3	12.1	13.3	13.1	12.5	12.4
15	5.4	3.1	14.2	13.8	12.3	11.4	13.0	11.8	13.1	13.0	12.4	12.3
16	10.8	4.2	14.6	14.1	12.7	11.4	13.0	12.0	13.0	12.9	12.4	12.4
17	11.0	9.5	15.0	14.3	13.0	12.0	13.0	11.6	12.9	12.8	---	---
18	11.2	9.8	15.0	14.9	13.5	12.0	12.7	12.1	12.8	12.7	---	---
19	10.7	8.7	15.0	15.0	14.0	12.0	12.1	11.8	12.7	12.5	---	---
20	10.2	9.2	15.0	15.0	14.4	13.3	11.8	11.5	12.6	12.6	---	---
21	10.0	9.0	---	---	14.1	13.0	11.5	11.2	12.6	12.5	---	---
22	9.9	8.7	---	---	14.6	13.0	11.3	11.1	12.5	12.1	---	---
23	10.7	8.6	---	---	15.0	13.8	11.2	11.0	---	---	---	---
24	11.1	9.9	---	---	15.0	14.2	11.0	10.8	---	---	---	---
25	11.3	10.0	---	---	15.0	13.9	11.1	10.8	---	---	---	---
26	11.8	10.3	---	---	14.9	13.8	11.1	10.8	---	---	---	---
27	11.7	10.1	12.1	10.8	14.9	13.6	11.1	11.0	11.9	11.8	---	---
28	11.9	10.4	12.2	10.0	15.0	13.6	11.1	10.9	11.8	11.7	---	---
29	11.6	11.2	12.2	8.9	14.9	13.5	11.1	10.9	---	---	---	---
30	12.4	11.5	12.2	9.6	14.4	13.4	11.3	11.0	---	---	---	---
31	13.0	12.2	---	---	14.7	13.2	11.3	11.0	---	---	---	---
MONTH	13.0	2.6	15.0	8.9	15.0	8.8	14.4	10.8	13.3	11.1	---	---

[illegible]

04194023 NAUMEE RIVER AT MOUNT, AT U.S. COAST GUARD STATION AT TOLEDO, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	17.5	16.0	9.0	8.0	4.0	0.5	3.5	1.5	2.0	0.5	4.0	2.0
2	16.0	14.5	11.0	9.0	5.0	0.5	2.0	1.0	4.0	1.5	3.0	1.0
3	16.0	14.5	10.0	8.5	3.0	1.0	---	---	4.5	2.5	3.0	2.0
4	16.5	16.0	9.5	9.0	1.5	0.5	3.5	1.0	5.5	2.0	3.0	1.5
5	17.0	15.5	10.0	9.0	3.5	0.0	---	---	4.0	1.0	3.5	2.0
6	17.0	16.0	9.5	8.5	3.5	1.5	---	---	3.0	1.5	4.5	3.5
7	17.0	16.0	11.5	9.0	2.5	0.5	---	---	4.5	2.0	9.0	4.5
8	17.0	15.0	10.0	9.0	---	---	---	---	4.0	3.0	9.5	7.0
9	16.0	14.5	9.0	9.0	---	---	---	---	4.0	2.5	9.5	8.5
10	16.5	10.0	9.0	8.5	---	---	---	---	4.0	2.0	9.0	8.0
11	16.0	15.5	8.5	8.0	2.0	0.5	---	---	3.0	1.0	10.5	8.5
12	16.0	15.0	8.5	8.0	3.0	0.0	---	---	1.5	0.5	10.5	10.0
13	16.0	15.0	8.0	7.5	4.5	0.0	---	---	1.5	1.0	10.0	10.0
14	15.5	13.5	8.0	7.0	1.5	0.0	---	---	1.5	0.5	11.0	9.5
15	14.5	13.0	7.0	5.5	2.5	1.0	---	---	2.0	0.5	12.0	10.5
16	13.5	12.5	6.0	5.0	3.5	1.0	---	---	2.5	1.0	12.5	12.0
17	13.5	11.5	5.5	4.5	3.5	1.0	---	---	2.0	0.5	---	---
18	13.0	9.0	4.5	4.0	3.0	0.5	4.0	1.5	3.0	1.5	---	---
19	12.0	10.0	4.5	4.0	3.5	1.0	4.5	1.5	3.0	1.0	---	---
20	12.0	10.5	5.0	4.0	---	---	3.0	0.5	3.0	1.0	---	---
21	12.0	11.0	---	---	---	---	1.5	0.5	4.0	1.0	---	---
22	12.0	10.5	---	---	---	---	3.0	0.5	3.0	0.0	---	---
23	12.0	10.0	---	---	---	---	4.5	1.5	---	---	---	---
24	10.0	9.5	---	---	---	---	4.0	1.0	---	---	---	---
25	11.0	9.5	---	---	---	---	4.5	2.0	---	---	---	---
26	10.5	10.0	---	---	---	---	4.0	1.5	---	2.5	---	---
27	10.0	9.0	4.5	2.5	---	---	3.5	2.0	4.0	0.5	---	---
28	10.0	9.0	4.0	1.5	---	---	4.0	1.5	3.5	0.5	---	---
29	10.0	9.0	4.0	1.5	---	---	3.5	1.5	---	---	---	---
30	9.5	8.0	4.0	1.0	2.5	1.0	3.5	1.0	---	---	---	---
31	9.0	8.0	---	---	3.5	2.0	3.0	0.5	---	---	---	---
MONTH	17.5	8.0	11.5	1.0	---	---	---	---	5.5	0.0	---	---

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04194030 MAUMEE RIVER AT CENTER C. AND O. RAILROAD DOCK, AT TOLEDO, OHIO

LOCATION.--Lat 41°41'46", long 83°21'39", Lucas County, at mouth at end of center dock of Chesapeake and Ohio Railroad coal-loading dock, at Toledo.

PERIOD OF RECORD.--Chemical analyses: June 1962 to September 1973.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
OCT.											
04...	0903	--	168	0	57	24	--	--	220	82	460
12...	0921	--	200	0	69	28	--	--	260	96	537
18...	0900	17	234	0	83	30	4.6	.12	320	130	622
25...	0900	--	198	0	76	34	--	--	260	98	573
NOV.											
01...	0900	23	242	0	94	36	5.2	.25	310	110	679
08...	0900	--	136	0	49	20	--	--	210	98	420
15...	0900	--	164	0	57	20	--	--	220	86	466
22...	0900	--	146	0	53	20	--	--	210	90	418
DEC.											
20...	0915	--	154	0	50	33	--	--	210	84	476
27...	0845	14	186	0	66	32	4.6	.22	260	110	523
JAN.											
03...	0845	--	160	0	58	23	--	--	220	89	459
17...	0845	--	184	0	71	34	--	--	250	99	537
24...	0845	18	226	0	79	34	4.5	.24	310	120	610
31...	0900	--	176	0	95	31	--	--	250	110	545
FEB.											
07...	0900	--	160	0	61	26	--	--	230	99	488
14...	0900	--	174	0	71	30	--	--	250	110	528
28...	0915	26	186	0	85	48	6.5	.19	270	120	605
MAR.											
07...	0915	27	250	0	120	44	6.1	.30	340	130	721
14...	0930	--	128	0	50	20	--	--	180	75	393
21...	0830	--	120	0	44	18	--	--	160	62	355
28...	0900	--	174	0	62	23	--	--	230	88	478
APR.											
04...	0845	--	194	0	72	26	--	--	260	100	527
11...	0900	--	199	0	74	24	--	--	260	96	546
18...	0900	15	204	8	83	28	4.9	.22	300	130	591
25...	0900	--	194	0	70	21	--	--	260	100	515
MAY											
16...	0845	--	222	0	76	28	--	--	280	98	575
23...	0930	25	240	0	86	46	4.5	.24	300	100	636
30...	--	--	148	0	64	24	--	--	220	99	468
JUNE											
05...	0845	13	168	6	58	23	5.8	.29	240	92	485
13...	0915	--	144	0	44	19	--	--	200	82	412
27...	0910	--	160	0	51	23	--	--	220	89	463

04194030 MAUMEE RIVER AT CENTER C. AND O. RAILROAD DOCK, AT TOLEDO, OHIO--Continued

REMARKS.--Determinations of suspended solids and dissolved oxygen (DO) furnished by the city of Toledo, Division of Sewage Disposal. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL NON- FILT- RABLE RESIDUE (MG/L)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)	COLOR (PLAT- INUM- COBALT UNITS)	DIS- SOLVED OXYGEN (MG/L)	PER- CENT SATUR- ATION	BIO- CHEM- ICAL OXYGEN DEMAND (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)
OCT.										
04...	7.6	--	88	15.5	85	50	7.8	78	5.2	--
12...	7.8	--	80	15.5	60	35	7.0	70	2.7	--
18...	7.7	428	36	11.5	30	25	8.3	75	5.5	.0
25...	7.5	--	45	10.5	40	25	8.4	75	4.3	--
NOV.										
01...	7.6	452	43	10.0	35	25	9.2	81	4.3	.0
08...	7.2	--	140	10.0	140	75	8.3	73	4.5	--
15...	7.4	--	150	7.0	120	50	8.7	71	2.3	--
22...	8.0	--	71	5.0	110	75	9.6	75	4.5	--
DEC.										
20...	7.4	--	43	1.0	55	15	11.0	77	2.0	--
27...	7.5	312	16	1.0	30	20	10.4	73	4.2	.0
JAN.										
03...	8.1	--	103	2.0	100	25	10.5	76	2.1	--
17...	7.5	--	25	1.0	45	20	11.2	79	2.2	--
24...	7.7	380	15	.5	20	20	11.4	79	1.4	.0
31...	8.2	--	39	.5	55	25	12.0	83	2.7	--
FEB.										
07...	7.6	--	79	2.0	100	35	11.2	81	2.2	--
14...	7.5	--	38	1.0	45	30	12.0	84	3.1	--
28...	7.4	372	10	.5	15	20	11.0	76	1.6	.0
MAR.										
07...	7.9	462	22	6.5	10	15	9.8	80	3.2	.0
14...	7.4	--	382	10.0	280	60	7.2	64	3.0	--
21...	7.4	--	155	4.5	160	70	11.4	88	3.7	--
28...	7.8	--	62	8.0	55	40	10.0	84	3.8	--
APR.										
04...	7.7	--	60	10.0	35	27	10.2	90	1.9	--
11...	7.9	--	48	9.0	25	24	10.2	88	2.1	--
18...	8.6	416	31	12.0	20	5	9.8	91	2.1	.1
25...	7.9	--	62	15.5	40	27	7.0	70	1.0	--
MAY										
16...	7.6	--	75	15.5	30	25	8.3	83	3.8	--
23...	8.0	430	27	15.5	20	5	6.6	66	3.2	.0
30...	7.5	--	160	21.5	140	65	6.9	78	2.2	--
JUNE										
05...	8.4	316	--	21.0	65	50	--	--	--	.0
13...	8.2	272	--	23.5	1100	50	--	--	--	--
27...	8.1	298	--	24.0	1100	45	--	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04194310 MIDDLE BRANCH PORTAGE RIVER NEAR PORTAGE, OHIO

LOCATION.--Lat 41°20'19", long 83°33'10", in NW 1/4 sec.1, T.4 N., R.11 E., Wood County, on downstream side of center pier of bridge on Bloomsdale Road, 3.4 mi (5.5 km) upstream from South Branch Portage River, 5.0 mi (8.0 km) downstream from Rocky Ford Creek, and 6.0 mi (9.7 km) east northeast of Portage.

DRAINAGE AREA.--217 mi² (562 km²).

PERIOD OF RECORD.--Chemical analyses: April 1969 to September 1973.
Water temperatures: April 1969 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 2,130 micromhos Sept. 4; minimum, 223 micromhos June 22.

Water temperatures: Maximum, 36.0°C Aug. 28; minimum, freezing point on several days during December and January.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
04...	1905	--	--	236	10	96	22	.2	--	--
21...	1720	--	--	294	0	130	36	.2	--	--
27...	0810	--	--	--	--	--	--	--	--	--
NOV.										
14...	0845	--	--	114	0	40	10	.2	--	--
26...	1250	--	--	267	0	110	25	.2	--	--
DEC.										
02...	1700	--	--	224	6	110	27	.2	--	--
06...	0815	--	--	152	0	58	19	.2	--	--
JAN.										
15...	1105	--	--	254	6	140	37	.2	--	--
29...	0830	--	--	203	0	90	23	.2	--	--
FEB.										
05...	0810	--	--	190	12	91	22	.2	--	--
17...	1650	--	--	286	4	150	64	.3	--	--
21...	1335	--	--	117	0	67	20	.2	--	.00
MAR.										
03...	1045	--	--	218	0	100	32	.2	--	--
19...	0845	--	--	126	0	48	16	.2	--	--
APR.										
05...	1510	--	--	179	0	78	20	.2	--	--
17...	1330	--	--	239	0	110	28	.2	--	--
MAY										
16...	1245	--	--	248	0	110	27	.2	--	--
26...	1255	--	--	150	0	58	18	.1	--	--
JUNE										
07...	1340	--	--	124	0	38	16	.4	--	--
07...	1445	--	--	--	--	--	--	--	--	--
19...	1555	--	--	282	0	91	30	.3	--	--
JULY										
03...	1900	--	--	152	0	46	12	.3	--	--
21...	1705	--	--	217	0	120	45	.4	--	--
AUG.										
11...	1650	83	34	195	11	210	58	--	.4	.00
18...	1735	54	19	177	0	110	24	--	.4	.00
SEP.										
01...	1500	83	34	183	9	250	68	--	.6	.00
28...	1435	92	64	182	7	450	140	--	.6	.00

04194310 MIDDLE BRANCH PORTAGE RIVER NEAR PORTAGE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1970-73): Maximum, 2,130 micromhos Sept. 4, 1973; minimum, 169 micromhos July 16, 1972.
 Water temperatures (1971-73): Maximum, 36.0°C Aug. 28, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since April 1969. Maximum recorded water temperature of 36.5°C occurred June 28, 1971. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
04...	3.7	--	330	120	644	422	--	11.5	--	--
21...	4.1	--	400	160	786	530	--	8.0	--	--
27...	--	--	--	--	--	--	--	--	.0	<.5
NOV.										
14...	3.4	--	150	56	309	202	--	7.0	--	--
26...	4.1	--	360	140	690	466	--	3.0	--	--
DEC.										
02...	4.1	--	340	150	692	446	--	4.0	--	--
06...	4.0	--	210	86	431	278	--	5.0	--	--
JAN.										
15...	4.6	--	390	170	834	554	--	.5	--	--
29...	6.9	--	290	120	584	398	--	.0	--	--
FEB.										
05...	4.7	--	310	130	592	394	--	3.0	--	--
17...	4.4	--	450	210	936	616	--	.0	--	--
21...	--	8.2	230	130	443	--	677	2.0	--	--
MAR.										
03...	3.8	--	320	140	636	414	--	4.0	--	--
19...	4.4	--	190	87	373	246	--	2.0	--	--
APR.										
05...	4.5	--	260	110	512	320	--	7.5	--	--
17...	4.0	--	330	130	656	420	--	13.5	--	--
MAY										
16...	3.5	--	340	140	667	422	--	13.0	--	--
26...	11	--	240	120	478	318	--	14.0	--	--
JUNE										
07...	7.9	--	190	88	366	244	--	18.5	--	--
07...	--	--	--	--	--	--	--	18.0	18	<.5
19...	3.8	--	360	130	679	442	--	28.0	--	--
JULY										
03...	6.4	--	210	86	414	278	--	23.5	--	--
21...	.80	--	320	140	708	458	--	24.0	--	--
AUG.										
11...	--	.72	--	--	884	--	7560	28.0	--	--
18...	--	4.1	--	--	581	--	557	28.0	--	--
SEP.										
01...	--	.56	--	--	949	--	778	32.0	--	--
28...	--	.38	--	--	1420	--	1080	20.0	--	--

04194310 MIDDLE BRANCH PORTAGE RIVER NEAR PORTAGE, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	13.0	10.0	8.0	3.0	2.5	5.5	2.0	3.0	1.0	2.5	1.5
2	16.5	12.5	13.0	10.0	4.5	1.5	2.0	0.5	5.5	3.0	5.5	1.0
3	18.0	14.0	13.0	11.0	4.0	3.0	2.0	0.0	5.0	3.0	6.0	5.5
4	17.0	14.5	11.5	10.0	3.0	0.5	3.5	2.0	5.0	2.5	6.5	5.5
5	17.0	14.5	10.0	9.0	4.5	1.0	2.5	0.5	4.5	3.5	7.0	5.0
6	17.0	15.0	10.0	7.5	5.5	0.0	0.5	0.5	6.0	2.5	12.0	6.0
7	16.5	14.5	11.0	9.5	2.0	0.0	0.5	0.5	4.5	3.5	14.0	9.0
8	15.0	11.5	11.0	9.5	3.0	1.5	0.5	0.5	3.5	1.0	12.5	10.0
9	13.5	10.0	9.5	9.0	3.5	3.0	0.5	0.0	1.0	0.5	10.0	7.0
10	12.5	9.0	9.0	8.0	3.5	0.5	0.5	0.0	1.0	0.5	9.0	5.0
11	14.0	10.0	9.0	7.5	0.5	0.0	0.5	0.0	1.0	0.5	11.5	9.0
12	16.0	14.0	8.5	8.5	1.5	0.0	0.5	0.0	1.5	0.5	14.0	10.0
13	14.0	12.5	8.5	8.0	2.0	1.5	1.0	0.5	1.5	0.5	13.5	7.0
14	---	---	8.0	6.0	2.5	2.0	0.5	0.5	1.5	0.5	12.0	8.5
15	12.5	9.5	6.0	4.5	2.5	0.5	0.5	0.5	4.0	1.0	15.5	11.5
16	12.0	10.5	7.0	6.0	0.5	0.0	0.5	0.0	---	---	---	---
17	11.0	9.0	6.5	6.0	0.5	0.5	1.0	0.5	---	---	---	---
18	9.0	6.5	7.0	6.0	0.5	0.5	1.5	0.5	2.0	0.5	---	---
19	8.0	5.0	6.5	6.0	1.0	0.5	1.0	0.5	2.0	1.5	6.0	5.0
20	8.5	4.5	7.0	6.0	1.0	0.5	1.0	0.5	2.0	1.0	6.0	4.0
21	9.0	7.0	---	---	2.5	1.0	1.0	0.5	2.0	1.0	6.5	3.5
22	11.0	8.5	---	---	3.0	2.0	4.5	0.5	1.5	1.0	6.5	5.0
23	11.5	10.5	---	---	3.5	3.0	4.0	2.0	1.5	1.0	9.0	4.5
24	11.5	10.0	4.5	4.0	4.0	3.5	2.5	0.5	1.5	1.0	10.5	5.5
25	10.0	8.5	4.0	3.0	4.0	3.5	4.0	0.5	2.5	1.0	8.5	7.0
26	9.5	6.5	3.5	3.0	3.5	3.0	6.5	2.0	1.5	1.0	10.0	7.0
27	11.0	7.0	4.5	3.5	3.5	2.5	6.5	4.5	2.0	1.0	11.0	7.0
28	12.0	11.0	4.5	3.5	4.0	3.0	5.5	1.5	2.0	1.0	8.5	7.0
29	12.0	10.0	3.5	2.5	3.5	2.5	1.5	0.5	---	---	12.0	7.5
30	10.0	9.0	3.5	2.0	7.0	3.5	1.0	0.5	---	---	11.5	10.5
31	9.0	8.0	---	---	7.5	6.0	1.5	0.5	---	---	10.5	9.0
MONTH	18.0	4.5	13.0	2.0	7.5	0.0	6.5	0.0	6.0	0.5	15.5	1.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	8.5	16.0	13.0	24.0	17.0	27.5	21.0	27.0	15.5	33.5	25.0
2	11.0	9.5	16.0	13.0	26.0	19.0	29.0	23.5	25.0	14.0	35.0	21.0
3	9.5	8.5	16.0	11.0	25.0	21.0	25.5	22.0	23.0	15.0	35.0	25.5
4	8.5	8.0	11.0	7.0	25.0	21.5	23.0	22.0	19.5	14.0	33.0	15.5
5	10.0	7.0	16.5	7.0	22.5	19.0	25.0	21.5	20.0	14.5	16.5	15.0
6	14.0	7.5	16.5	11.5	---	---	27.5	22.0	21.0	15.0	17.0	16.5
7	13.0	10.5	16.5	13.0	---	---	29.0	23.5	21.0	15.0	22.5	16.5
8	13.5	8.5	16.5	13.5	---	---	29.5	24.5	31.5	16.0	19.5	15.0
9	10.5	7.5	15.0	13.0	---	---	31.5	26.0	33.0	17.5	19.0	17.0
10	7.5	6.5	---	---	---	---	29.0	25.5	28.0	18.0	27.5	15.5
11	7.5	4.5	17.0	12.0	---	---	27.0	23.5	21.0	16.0	24.5	19.0
12	9.5	5.5	16.0	12.5	28.5	26.5	25.5	20.5	22.0	16.5	24.5	18.0
13	11.5	5.5	13.5	10.5	26.5	20.5	29.5	21.5	23.0	16.0	---	---
14	13.5	6.5	13.5	9.5	24.0	19.5	30.0	24.0	24.5	16.0	---	---
15	15.5	8.0	13.5	9.5	28.0	21.5	29.0	23.5	17.5	14.5	---	---
16	14.0	11.5	13.5	9.5	27.5	22.5	26.5	23.0	19.0	14.0	---	---
17	15.0	9.5	14.0	9.5	25.0	23.0	28.5	21.0	22.0	16.0	---	---
18	14.5	13.0	17.5	10.0	26.5	22.0	30.5	22.0	21.0	16.0	---	---
19	---	---	16.5	12.5	31.0	23.5	31.5	24.5	28.5	16.5	---	---
20	---	---	17.0	11.5	28.5	25.0	27.5	23.5	30.5	16.5	---	---
21	17.5	12.5	20.5	13.5	29.0	24.0	24.5	22.5	29.0	21.5	---	---
22	17.5	11.0	19.0	15.5	29.0	23.5	27.0	22.0	26.0	19.5	---	---
23	12.5	10.0	15.5	13.5	27.5	24.0	28.0	15.0	24.5	18.0	---	---
24	16.0	12.5	15.0	13.5	24.0	21.5	25.5	15.5	25.5	20.0	---	---
25	14.5	11.5	16.0	14.0	27.0	21.0	26.5	16.0	29.0	20.0	22.5	17.5
26	15.5	9.5	17.0	14.0	28.0	22.0	25.5	17.0	28.5	17.5	23.5	19.0
27	14.5	9.5	16.5	15.5	22.0	20.0	26.0	16.5	26.0	18.5	23.5	18.5
28	12.5	7.0	21.0	16.0	21.5	20.5	18.0	16.0	36.0	24.0	23.0	20.0
29	12.5	6.0	20.0	16.5	20.5	19.0	27.5	14.5	35.5	25.0	22.5	18.5
30	14.0	10.0	18.0	15.5	23.5	19.0	25.0	15.0	33.5	19.5	23.0	18.0
31	---	---	20.5	14.5	---	---	18.0	16.0	32.0	23.5	---	---
MONTH	17.5	4.5	21.0	7.0	31.0	17.0	31.5	14.5	36.0	14.0	---	---
YEAR	36.0	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04195600 PORTAGE RIVER AT RAILROAD BRIDGE, AT WOODVILLE, OHIO

LOCATION.--Lat 41°26'58", long 83°21'29", in E 1/2 sec.28, T.6 N., R.13 E., Sandusky County, on right bank at old interurban line bridge abutment, just downstream from railroad bridge, and 800 ft (244 m) downstream from gaging station at Woodville.

DRAINAGE AREA.--428 mi² (1,109 km²) (at gaging station).

PERIOD OF RECORD.--Chemical analyses: June 1968 to September 1973.

Water temperatures: June 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,370 micromhos Sept. 19; minimum, 284 micromhos Dec. 7.

Dissolved oxygen: Maximum, 14.5 mg/l Mar. 1; minimum, 0.1 mg/l Aug. 14-16.

Water temperatures: Maximum, 43.0°C June 10; minimum, freezing point on several days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
02...	1705	1830	--	--	212	4	79	22	.2	--	--
19...	1300	--	--	--	--	--	--	--	--	--	--
21...	1000	67	--	--	218	0	200	98	.1	--	--
NOV.											
16...	1440	3750	--	--	144	0	53	15	.2	--	--
26...	1952	418	--	--	185	6	120	38	.2	--	--
DEC.											
19...	1930	320	--	--	250	5	120	59	.2	--	--
22...	2045	1340	--	--	188	0	78	24	.2	--	--
JAN.											
15...	2020	90	--	--	258	6	180	81	.3	--	--
30...	1936	482	--	--	212	10	110	35	.2	--	--
FEB.											
04...	1651	815	--	--	181	6	90	29	.2	--	--
20...	2045	80	--	--	279	0	160	95	.3	--	--
MAR.											
03...	1646	225	--	--	224	0	120	52	.2	--	--
15...	0840	4820	--	--	111	0	42	14	.2	--	--
APR.											
15...	0730	232	--	--	234	0	120	46	.3	--	--
24...	1330	880	--	--	190	0	86	22	.4	--	--
MAY											
07...	2210	118	--	--	227	0	130	54	.3	--	--
26...	1840	1390	--	--	182	0	70	21	.2	--	--
31...	1020	--	--	--	--	--	--	--	--	--	--
JUNE											
07...	1400	5680	--	--	124	0	38	20	.3	--	--
21...	1130	99	--	--	282	2	100	46	4.0	--	--
JULY											
06...	1210	510	--	--	222	0	66	23	.4	--	--
31...	2123	47	--	--	220	0	120	53	.4	--	--
AUG.											
03...	2005	29	78	27	173	0	120	60	--	.4	.01
29...	1100	6.8	79	21	176	0	160	110	--	.6	.01
SEP.											
18...	1635	7.6	76	24	178	6	160	110	--	.6	.01
25...	1505	8.4	100	26	189	0	160	130	--	.5	.01

04195600 PORTAGE RIVER AT RAILROAD BRIDGE, AT WOODVILLE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1970-73): Maximum, 2,350 micromhos Feb. 4, 1971; minimum, 251 mi (404 km)cmohos Feb. 21, 1971.

Dissolved oxygen (1972-73): Maximum, 14.5 mg/l Mar. 1, 1973; minimum, 0.1 mg/l Aug. 14-16, 1973.

Water temperatures (1970-71, 1972-73): Maximum, 43.0°C June 10, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since June 1968. Maximum recorded pH value of 12.0 occurred Aug. 5, 9, 1971 and Aug. 14, 15, 1972. Minimum recorded pH value of 6.5 occurred June 5, 1970 and Jan. 7, 1971. Maximum recorded dissolved oxygen value of 15.0 mg/l or higher occurred on many days during March, April and November 1971 and Apr. 2, 3, 1972. Maximum recorded water temperature of 35.0°C occurred Aug. 4, 1969. Dissolved oxygen concentrations of 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Portage River at Woodville, Ohio (station 04195500).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	3.1	--	290	110	577	368	--	27.0	--	--
19...	--	--	--	--	--	--	--	6.5	1.0	<.5
21...	2.6	--	460	280	1020	712	--	8.0	--	--
NOV.										
16...	3.9	--	200	82	405	256	--	5.0	--	--
26...	4.0	--	330	170	756	494	--	4.0	--	--
DEC.										
19...	3.8	--	370	160	800	514	--	1.0	--	--
22...	3.4	--	260	100	533	330	--	3.0	--	--
JAN.										
15...	4.2	--	470	250	994	626	--	2.0	--	--
30...	7.2	--	350	160	683	428	--	.0	--	--
FEB.										
04...	5.0	--	290	130	591	394	--	6.0	--	--
20...	3.8	--	440	210	1010	672	--	1.0	--	--
MAR.										
03...	3.9	--	350	170	744	500	--	5.0	--	--
15...	4.1	--	160	69	334	234	--	12.0	--	--
APR.										
15...	4.1	--	360	170	732	500	--	12.0	--	--
24...	5.2	--	280	120	558	382	--	14.5	--	--
MAY										
07...	2.8	--	360	170	755	518	--	15.0	--	--
26...	10	--	260	110	527	366	--	16.0	--	--
31...	--	--	--	--	--	--	--	14.5	3.0	<.5
JUNE										
07...	7.4	--	180	78	358	254	--	19.5	--	--
21...	4.0	--	370	140	732	504	--	25.0	--	--
JULY										
06...	5.8	--	290	110	579	384	--	22.0	--	--
31...	2.5	--	340	160	724	490	--	25.0	--	--
AUG.										
03...	--	1.3	--	--	723	--	540	26.0	--	--
29...	--	1.2	--	--	997	--	785	27.5	--	--
SEP.										
18...	--	2.0	--	--	1000	--	801	20.0	--	--
25...	--	2.7	--	--	1110	--	803	21.5	--	--

04195600 PORTAGE RIVER AT RAILROAD BRIDGE, AT WOODVILLE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.3	9.1	8.1	7.6	---	---	---	---	---	---
2	---	---	9.1	7.0	7.9	7.4	---	---	---	---	---	---
3	---	---	7.0	6.5	8.5	7.8	---	---	---	---	---	---
4	---	---	8.0	6.4	8.2	7.6	---	---	---	---	---	---
5	7.9	7.8	7.9	7.5	8.5	7.6	---	---	---	---	---	---
6	7.8	7.7	8.1	7.6	7.9	7.0	---	---	---	---	---	---
7	7.8	7.6	7.9	7.6	7.6	7.0	---	---	---	---	---	---
8	8.0	7.7	---	---	8.4	7.6	---	---	---	---	8.5	7.6
9	8.1	7.8	---	---	7.9	6.9	---	---	---	---	7.6	7.4
10	8.4	7.9	---	---	7.9	6.9	---	---	---	---	8.7	7.5
11	8.4	8.0	---	---	---	---	---	---	---	---	---	---
12	8.4	7.6	---	---	---	---	---	---	---	---	---	---
13	7.9	7.6	---	---	---	---	---	---	---	---	---	---
14	8.1	7.6	---	---	---	---	---	---	---	---	---	---
15	8.1	7.8	8.5	8.1	---	---	---	---	---	---	---	---
16	8.1	7.9	8.1	6.8	---	---	---	---	---	---	---	---
17	8.2	8.0	7.6	7.1	---	---	---	---	---	---	---	---
18	8.3	8.0	7.7	7.3	---	---	---	---	---	---	---	---
19	9.5	8.2	7.4	6.9	---	---	---	---	---	---	---	---
20	10.1	9.3	7.5	6.9	---	---	---	---	---	---	---	---
21	9.7	9.5	7.4	7.1	---	---	---	---	---	---	---	---
22	9.6	9.2	7.3	7.2	---	---	---	---	---	---	---	---
23	9.2	8.4	7.7	7.3	---	---	---	---	---	---	---	---
24	8.6	8.5	8.2	7.5	---	---	---	---	---	---	---	---
25	9.0	8.5	8.4	8.0	---	---	---	---	---	---	---	---
26	9.7	8.9	8.3	7.7	---	---	---	---	---	---	---	---
27	10.2	9.3	7.8	6.0	---	---	---	---	---	---	---	---
28	9.5	9.2	7.2	6.9	---	---	---	---	---	---	---	---
29	9.2	8.9	8.3	7.0	---	---	---	---	---	---	---	---
30	9.1	8.8	8.1	7.6	---	---	---	---	---	---	---	---
31	9.3	9.0	---	---	---	---	---	---	---	---	---	---
MONTH	10.2	7.6	---	---	---	---	---	---	---	---	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.3	8.0	7.7	7.5	---	---	8.7	8.2	8.5	7.8
2	---	---	8.0	7.6	7.6	7.4	---	---	8.7	8.3	8.5	7.9
3	---	---	7.9	7.5	7.6	7.4	---	---	9.1	8.4	8.2	7.8
4	---	---	8.6	7.9	7.4	7.3	---	---	9.1	8.7	8.2	7.5
5	---	---	8.8	8.4	7.4	7.1	---	---	9.0	8.6	8.5	7.7
6	---	---	8.8	8.3	7.2	7.0	7.9	7.8	8.9	8.6	8.5	7.7
7	---	---	8.6	8.0	7.1	6.4	7.9	7.9	8.7	8.2	9.3	8.0
8	---	---	8.3	7.5	7.1	6.3	8.0	7.9	8.5	7.9	8.8	8.3
9	---	---	7.7	7.4	7.3	7.0	8.1	8.0	8.9	8.1	8.8	8.5
10	---	---	7.8	7.3	7.2	6.4	8.4	8.0	8.3	7.8	8.8	8.3
11	---	---	7.8	7.7	7.0	6.5	8.7	8.3	8.3	7.8	9.0	8.5
12	---	---	7.9	7.7	6.8	6.7	8.7	8.3	8.4	7.9	8.8	8.5
13	---	---	8.2	7.9	7.0	6.8	8.8	8.4	8.6	8.1	9.3	8.5
14	---	---	8.5	8.1	6.9	6.8	8.9	8.3	8.3	7.7	8.8	8.4
15	---	---	8.5	8.2	7.3	6.8	8.9	8.2	8.2	7.5	8.6	8.2
16	---	---	8.6	8.2	7.3	7.1	9.0	8.6	7.7	7.2	8.5	8.0
17	8.3	8.1	8.6	8.2	7.2	7.1	9.0	8.7	7.3	7.1	8.3	7.9
18	8.3	8.0	8.9	8.3	7.4	7.2	9.0	8.6	7.3	7.1	8.8	7.7
19	8.1	7.8	8.6	8.4	7.6	7.4	8.9	8.6	8.4	7.1	9.2	8.4
20	8.3	7.6	8.5	7.9	7.7	7.3	8.9	8.1	8.7	7.7	9.3	8.6
21	8.0	7.5	8.1	7.8	8.5	7.7	8.4	8.0	9.1	8.4	9.0	8.4
22	7.8	7.3	7.9	7.8	8.8	8.2	8.6	7.9	9.6	8.9	8.7	8.3
23	7.8	7.2	8.0	7.7	8.6	8.2	8.6	8.0	9.7	9.2	10.0	8.4
24	7.7	7.3	7.9	7.7	8.7	8.2	8.6	8.0	9.6	9.1	9.1	8.4
25	7.8	7.5	8.2	7.8	8.3	7.6	8.5	7.8	9.7	9.2	8.9	8.2
26	8.0	7.7	8.1	7.8	8.0	7.6	8.3	7.6	9.7	8.9	8.7	8.2
27	8.0	7.8	7.8	7.5	7.6	7.5	7.6	7.5	8.9	8.2	9.1	8.2
28	8.5	8.0	7.8	7.6	7.5	7.4	7.6	7.5	8.6	8.2	9.0	8.2
29	8.9	8.1	7.7	7.5	7.4	7.2	7.7	7.6	8.6	7.8	9.6	8.7
30	8.6	8.3	7.7	7.4	---	---	8.0	7.7	8.4	7.8	9.6	8.3
31	---	---	7.8	7.5	---	---	8.7	7.7	8.6	7.9	---	---
MONTH	---	---	8.9	7.3	8.8	6.3	9.0	7.5	9.7	7.1	10.0	7.5

04195600 PORTAGE RIVER AT RAILROAD BRIDGE, AT WOODVILLE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.4	9.6	8.8	6.5	12.0	11.4	8.0	7.4	10.8	10.5	14.5	13.0
2	9.8	9.3	8.8	6.5	12.2	11.7	9.0	8.0	---	---	13.9	12.9
3	10.7	9.9	9.5	6.5	12.1	11.5	9.3	8.7	---	---	13.0	12.3
4	9.9	9.7	12.3	8.5	12.0	11.5	8.9	8.8	10.3	10.1	14.3	12.0
5	12.5	9.1	11.1	10.5	12.1	11.5	---	---	10.6	10.2	---	---
6	12.1	11.0	10.9	10.2	11.8	---	---	---	10.8	10.5	---	---
7	11.6	6.7	12.8	7.3	9.2	7.9	---	---	---	11.1	10.7	---
8	7.0	6.2	---	---	7.6	7.3	---	---	---	11.5	10.9	12.5
9	7.3	6.1	---	---	8.0	7.7	---	---	11.9	11.5	12.9	10.7
10	7.8	6.5	---	---	8.2	7.8	10.0	9.7	13.4	11.9	13.0	11.0
11	7.8	6.2	---	---	8.3	---	10.2	9.8	13.7	13.2	---	---
12	6.5	4.9	---	---	7.6	6.8	---	---	13.8	13.3	---	---
13	5.3	4.5	---	---	7.2	4.8	9.8	9.7	13.9	13.2	---	---
14	8.1	4.7	---	---	5.4	5.3	10.1	9.7	13.9	12.1	---	---
15	8.2	5.9	11.4	8.0	5.5	5.3	---	---	13.1	12.2	---	---
16	7.9	5.9	11.5	10.8	6.0	5.7	---	---	13.5	12.4	---	---
17	7.4	5.1	11.3	11.0	6.0	5.8	---	---	13.7	12.7	---	---
18	10.1	5.3	11.4	11.3	6.3	5.8	---	---	13.5	12.1	---	---
19	10.2	9.6	11.4	11.2	10.5	6.0	8.4	8.1	13.4	11.6	---	---
20	10.2	9.5	11.4	11.1	8.4	7.2	8.1	8.1	13.1	12.1	---	---
21	9.9	8.9	11.2	11.1	8.1	6.9	8.7	8.4	13.2	12.2	---	---
22	9.0	8.1	11.3	11.1	7.7	6.2	8.4	7.8	13.6	12.3	---	---
23	8.1	6.9	11.6	11.3	6.9	6.3	8.1	7.6	13.1	12.4	---	---
24	7.0	6.4	12.2	11.5	7.2	6.5	8.5	8.0	13.4	12.7	---	---
25	7.5	6.6	12.1	11.8	7.3	7.1	8.9	8.7	13.8	12.4	---	---
26	8.6	7.4	11.9	11.7	7.4	7.2	9.2	8.8	14.0	12.5	---	---
27	9.0	7.6	12.8	11.6	7.8	7.4	9.0	8.9	13.9	12.7	---	---
28	7.6	6.5	11.6	11.3	7.8	7.6	9.1	9.0	14.3	13.1	---	---
29	6.8	6.3	12.0	11.3	8.2	7.8	10.1	8.8	---	---	---	---
30	7.8	6.5	11.9	11.4	8.3	7.4	10.4	10.1	---	---	---	---
31	7.6	6.8	---	---	7.7	6.9	10.7	10.4	---	---	---	---
MONTH	12.5	4.5	---	---	12.2	4.8	---	---	14.3	10.1	---	---

[illegible]

STREAMS TRIBUTARY TO LAKE EPIE

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04195600 PORTAGE RIVER AT RAILROAD BRIDGE, AT WOODVILLE, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.3	9.1	8.1	7.6	---	---	---	---	---	---
2	---	---	9.1	7.0	7.9	7.4	---	---	---	---	---	---
3	---	---	7.0	6.5	8.5	7.8	---	---	---	---	---	---
4	---	---	8.0	6.4	8.2	7.6	---	---	---	---	---	---
5	7.9	7.8	7.9	7.5	8.5	7.6	---	---	---	---	---	---
6	7.8	7.7	8.1	7.6	7.9	7.0	---	---	---	---	---	---
7	7.8	7.6	7.9	7.6	7.6	7.0	---	---	---	---	---	---
8	8.0	7.7	---	---	8.4	7.6	---	---	---	---	8.5	7.6
9	8.1	7.8	---	---	7.9	6.9	---	---	---	---	7.6	7.4
10	8.4	7.9	---	---	7.9	6.9	---	---	---	---	8.7	7.5
11	8.4	8.0	---	---	---	---	---	---	---	---	---	---
12	8.4	7.6	---	---	---	---	---	---	---	---	---	---
13	7.9	7.6	---	---	---	---	---	---	---	---	---	---
14	8.1	7.6	---	---	---	---	---	---	---	---	---	---
15	8.1	7.8	8.5	8.1	---	---	---	---	---	---	---	---
16	8.1	7.9	8.1	6.8	---	---	---	---	---	---	---	---
17	8.2	8.0	7.6	7.1	---	---	---	---	---	---	---	---
18	8.3	8.0	7.7	7.3	---	---	---	---	---	---	---	---
19	9.5	8.2	7.4	6.9	---	---	---	---	---	---	---	---
20	10.1	9.3	7.5	6.9	---	---	---	---	---	---	---	---
21	9.7	9.5	7.4	7.1	---	---	---	---	---	---	---	---
22	9.6	9.2	7.3	7.2	---	---	---	---	---	---	---	---
23	9.2	8.4	7.7	7.3	---	---	---	---	---	---	---	---
24	8.6	8.5	8.2	7.5	---	---	---	---	---	---	---	---
25	9.0	8.5	8.4	8.0	---	---	---	---	---	---	---	---
26	9.7	8.9	8.3	7.7	---	---	---	---	---	---	---	---
27	10.2	9.3	7.8	6.0	---	---	---	---	---	---	---	---
28	9.5	9.2	7.2	6.9	---	---	---	---	---	---	---	---
29	9.2	8.9	8.3	7.0	---	---	---	---	---	---	---	---
30	9.1	8.8	8.1	7.6	---	---	---	---	---	---	---	---
31	9.3	9.0	---	---	---	---	---	---	---	---	---	---
MONTH	10.2	7.6	---	---	---	---	---	---	---	---	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.3	8.0	7.7	7.5	---	---	8.7	8.2	8.5	7.8
2	---	---	8.0	7.6	7.6	7.4	---	---	8.7	8.3	8.5	7.9
3	---	---	7.9	7.5	7.6	7.4	---	---	9.1	8.4	8.2	7.8
4	---	---	8.6	7.9	7.4	7.3	---	---	9.1	8.7	8.2	7.5
5	---	---	8.8	8.4	7.4	7.1	---	---	9.0	8.6	8.5	7.7
6	---	---	8.8	8.3	7.2	7.0	7.9	7.8	8.9	8.6	8.5	7.7
7	---	---	8.6	8.0	7.1	6.4	7.9	7.9	8.7	8.2	9.3	8.0
8	---	---	8.3	7.5	7.1	6.3	8.0	7.9	8.5	7.9	8.8	8.3
9	---	---	7.7	7.4	7.3	7.0	8.1	8.0	8.9	8.1	8.8	8.5
10	---	---	7.8	7.3	7.2	6.4	8.4	8.0	8.3	7.8	8.8	8.3
11	---	---	7.8	7.7	7.0	6.5	8.7	8.3	8.3	7.8	9.0	8.5
12	---	---	7.9	7.7	6.8	6.7	8.7	8.3	8.4	7.9	8.8	8.5
13	---	---	8.2	7.9	7.0	6.8	8.8	8.4	8.6	8.1	9.3	8.5
14	---	---	8.5	8.1	6.9	6.8	8.9	8.3	8.3	7.7	8.8	8.4
15	---	---	8.5	8.2	7.3	6.8	8.9	8.2	8.2	7.5	8.6	8.2
16	---	---	8.6	8.2	7.3	7.1	9.0	8.6	7.7	7.2	8.5	8.0
17	8.3	8.1	8.6	8.2	7.2	7.1	9.0	8.7	7.3	7.1	8.3	7.9
18	8.3	8.0	8.9	8.3	7.4	7.2	9.0	8.6	7.3	7.1	8.8	7.7
19	8.1	7.8	8.6	8.4	7.6	7.4	8.9	8.6	8.4	7.1	9.2	8.4
20	8.3	7.6	8.5	7.9	7.7	7.3	8.9	8.1	8.7	7.7	9.3	8.6
21	8.0	7.5	8.1	7.8	8.5	7.7	8.4	8.0	9.1	8.4	9.0	8.4
22	7.8	7.3	7.9	7.8	8.8	8.2	8.6	7.9	9.6	8.9	8.7	8.3
23	7.8	7.2	8.0	7.7	8.6	8.2	8.6	8.0	9.7	9.2	10.0	8.4
24	7.7	7.3	7.9	7.7	8.7	8.2	8.6	8.0	9.6	9.1	9.1	8.4
25	7.8	7.5	8.2	7.8	8.3	7.6	8.5	7.8	9.7	9.2	8.9	8.2
26	8.0	7.7	8.1	7.8	8.0	7.6	8.3	7.6	9.7	8.9	8.7	8.2
27	8.0	7.8	7.8	7.5	7.6	7.5	7.6	7.5	8.9	8.2	9.1	8.2
28	8.5	8.0	7.8	7.6	7.5	7.4	7.6	7.5	8.6	8.2	9.0	8.2
29	8.9	8.1	7.7	7.5	7.4	7.2	7.7	7.6	8.6	7.8	9.6	8.7
30	8.6	8.3	7.7	7.4	---	---	8.0	7.7	8.4	7.8	9.6	8.3
31	---	---	7.8	7.5	---	---	8.7	7.7	8.6	7.9	---	---
MONTH	---	---	8.9	7.3	8.8	6.3	9.0	7.5	9.7	7.1	10.0	7.5

STREAMS TRIBUTARY TO LAKE ERIE

04196500 SANDUSKY RIVER NEAR UPPER SANDUSKY, OHIO

LOCATION.--Lat 40°51'02", long 83°15'23", in sec. 21, T.2 S., R.14 E., Wyandot County, at gaging station on left bank at downstream side of county road bridge, 0.7 mi (1.1 km) downstream from unnamed right bank tributary, 0.8 mi (1.3 km) upstream from Rock Run, and 2.0 mi (3.2 km) northeast of Upper Sandusky.

DRAINAGE AREA.--298 mi² (772 km²).

PERIOD OF RECORD.--Chemical analyses: June 1969 to September 1973.

Water temperatures: June 1969 to September 1973.

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 942 micromhos Sept. 19; minimum, 255 micromhos July 5.

Dissolved oxygen: Maximum, 15.0 mg/l Feb. 12-14, Sept. 18; minimum, 2.2 mg/l Aug. 12.

Water temperatures: Maximum, 29.0°C Aug. 9; minimum, freezing point on many days during January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
01...	2055	2000	--	--	122	0	49	13	.2	--	--
17...	1200	--	--	--	--	--	--	--	--	--	--
24...	1305	118	--	--	272	0	140	31	.3	--	--
NOV.											
01...	0530	132	--	--	252	0	120	29	.3	--	--
08...	2100	2680	--	--	120	0	46	14	.2	--	--
DEC.											
03...	1225	203	--	--	236	0	110	27	.2	--	--
14...	1700	1890	--	--	100	0	48	17	.2	--	--
JAN.											
01...	1635	1390	--	--	124	0	56	16	.2	--	--
14...	1345	80	--	--	219	7	140	29	.3	--	--
FEB.											
04...	1115	888	--	--	120	0	61	16	.2	--	--
18...	1805	120	--	--	241	4	130	60	.3	--	--
MAR.											
18...	1925	1890	--	--	109	0	50	10	.2	--	--
APR.											
17...	1100	197	--	--	192	13	100	22	.3	--	--
29...	1905	633	--	--	128	0	59	15	.2	--	--
MAY											
16...	2015	182	--	--	232	0	100	22	.3	--	--
27...	2008	1770	--	--	102	0	41	11	.2	--	--
31...	1430	--	--	--	--	--	--	--	--	--	--
JUNE											
17...	2126	118	--	--	244	4	120	25	.5	--	--
21...	0805	4730	--	--	70	0	24	12	.3	--	--
JULY											
04...	1930	2020	--	--	120	0	42	12	.3	--	--
19...	0755	52	--	--	234	14	120	22	.5	--	--
AUG.											
15...	2115	1550	48	10	129	1	50	12	--	.3	.00
31...	0915	26	83	30	262	0	180	32	--	.5	.01
SEP.											
03...	0541	23	91	47	250	20	190	33	--	.5	.01
27...	1255	18	82	37	244	19	240	41	--	.7	.00

04196500 SANDUSKY RIVER NEAR UPPER SANDUSKY, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1969-70, 1971-73): Maximum, 1,300 micromhos Nov. 22, 1971; minimum, 200 micromhos June 18, 1970.

Dissolved oxygen (1972-73): Maximum, 15.0 mg/l or higher Feb. 12-14, Sept. 18, 1973; minimum, 2.2 mg/l Aug. 12, 1973.

Water temperatures (1971-73): Maximum, 29.5°C July 22, 23, 1972; minimum, freezing point on many days during winter period.

REMARKS.--Water-quality recorder operated since June 1969. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Maximum recorded water temperature of 33.0°C occurred on Aug. 9, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHUS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
01...	5.0	--	--	180	80	362	240	--	13.5	--	--
17...	--	--	--	--	--	--	--	--	10.5	1.0	<.5
29...	3.0	--	--	380	160	749	476	--	11.5	--	--
NOV.											
01...	2.5	--	--	350	140	696	446	--	9.5	--	--
08...	4.4	--	--	160	62	354	248	--	9.0	--	--
DEC.											
03...	3.6	--	--	350	160	654	418	--	4.0	--	--
14...	3.6	--	--	160	78	329	212	--	2.0	--	--
JAN.											
01...	3.7	--	--	190	88	376	228	--	5.5	--	--
14...	4.2	--	--	360	170	789	458	--	1.0	--	--
FEB.											
04...	4.8	--	--	190	90	405	270	--	3.0	--	--
18...	3.3	--	--	370	160	811	528	--	.0	--	--
MAR.											
18...	4.2	--	--	160	70	351	214	--	3.0	--	--
APR.											
17...	3.3	--	--	310	130	600	352	--	11.0	--	--
29...	4.2	--	--	190	85	395	228	--	9.0	--	--
MAY											
16...	3.5	--	--	320	130	620	376	--	13.0	--	--
27...	7.4	--	--	150	66	322	220	--	17.0	--	--
31...	--	--	--	--	--	--	--	--	17.0	4.0	<.5
JUNE											
17...	3.2	--	--	350	140	678	454	--	24.0	--	--
21...	4.4	--	--	100	42	226	150	--	22.0	--	--
JULY											
04...	4.7	--	--	160	62	338	228	--	22.0	--	--
19...	2.9	--	--	360	140	679	462	--	21.5	--	--
AUG.											
15...	--	3.2	--	--	--	367	--	656	15.0	--	--
31...	--	1.3	--	--	--	842	--	633	23.0	--	--
SEP.											
03...	--	1.2	.21	--	--	840	--	662	28.0	--	--
27...	--	1.2	.38	--	--	948	--	729	23.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04196500 SANDUSKY RIVER NEAR UPPER SANDUSKY, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	420	374	721	690	624	591	471	386	606	572	725	669
2	483	395	438	438	682	624	492	389	590	410	714	666
3	536	489	433	370	681	663	557	492	410	359	666	539
4	599	536	490	379	705	657	557	437	458	371	534	505
5	608	588	565	490	670	616	452	390	527	458	525	504
6	612	590	610	565	670	354	519	423	566	530	530	512
7	635	585	631	487	354	311	596	519	591	566	543	512
8	653	635	498	343	470	335	612	577	624	591	575	543
9	666	653	372	333	620	470	---	---	620	606	603	573
10	684	666	483	372	621	585	---	---	731	620	593	465
11	708	684	531	483	608	585	---	---	735	669	492	365
12	710	666	561	531	677	591	---	---	702	669	378	363
13	699	596	588	519	591	374	---	---	710	693	470	378
14	597	566	519	301	374	330	---	---	702	678	500	377
15	633	596	309	282	492	371	---	---	705	689	377	278
16	671	633	433	309	572	492	761	749	719	693	350	261
17	674	878	511	433	638	573	749	738	765	719	368	324
18	692	963	556	511	650	635	753	725	815	744	363	327
19	698	683	595	556	669	645	755	678	779	741	432	363
20	723	698	576	490	675	629	678	668	738	708	455	431
21	744	723	507	484	629	512	696	671	710	696	461	443
22	759	741	553	502	512	435	699	648	750	702	485	461
23	759	735	592	553	458	432	648	573	746	708	522	485
24	759	735	618	591	495	459	603	569	771	702	530	522
25	735	696	636	618	527	495	575	555	765	719	527	504
26	698	683	645	636	557	527	602	572	719	683	504	471
27	708	692	634	598	611	557	627	603	702	689	491	471
28	720	699	598	552	630	599	627	551	726	696	534	491
29	734	719	561	553	624	608	551	452	---	---	557	516
30	748	729	592	561	630	611	516	449	---	---	540	471
31	744	718	---	---	612	471	572	524	---	---	486	458
MONTH	759	374	721	282	705	311	---	---	815	359	725	261

[illegible]

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04196500 SANDUSKY RIVER NEAR UPPER SANDUSKY, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	13.0	10.0	8.5	3.0	2.5	7.0	4.5	3.0	1.0	3.0	1.0
2	13.5	12.5	12.5	10.0	4.0	2.5	4.5	4.5	4.5	3.0	5.5	3.0
3	15.5	13.5	12.5	11.5	4.5	3.5	3.0	1.0	4.0	3.5	6.0	5.5
4	15.5	15.0	11.5	10.0	3.5	2.5	3.0	2.5	3.5	2.5	7.0	6.0
5	16.0	15.0	10.0	8.5	3.5	2.0	2.5	1.0	4.0	3.0	8.0	6.5
6	16.5	15.5	8.5	7.5	6.0	3.5	1.0	0.0	4.0	3.5	10.0	8.0
7	16.5	14.0	9.5	8.0	5.0	1.0	0.0	0.0	4.5	4.0	11.5	10.0
8	14.5	13.5	9.0	8.5	1.5	0.5	0.5	0.0	4.0	2.5	11.5	10.5
9	14.5	12.5	8.5	7.5	2.0	1.5	---	---	2.5	1.0	11.0	9.5
10	12.5	11.0	8.0	7.5	2.5	1.5	---	---	1.5	0.5	10.5	8.5
11	12.5	11.5	8.5	8.0	2.5	1.0	---	---	1.5	0.5	13.0	11.0
12	14.0	12.5	8.0	7.5	2.5	1.0	---	---	1.5	0.0	13.0	11.0
13	13.5	13.0	8.0	7.5	3.0	2.5	---	---	2.0	0.5	11.0	9.5
14	13.0	12.5	7.5	6.5	2.5	2.0	---	---	1.0	0.0	12.0	9.5
15	12.5	11.0	6.5	5.0	2.0	1.0	---	---	1.5	0.5	14.0	12.0
16	12.0	11.0	5.5	4.5	1.5	0.5	1.0	0.0	0.5	0.0	14.0	12.0
17	11.0	10.0	5.5	5.5	1.0	0.5	1.0	0.0	0.5	0.0	12.0	5.5
18	10.0	8.5	5.5	5.5	1.0	0.5	2.5	0.0	1.0	0.0	5.5	2.5
19	8.0	7.0	5.5	5.5	1.0	0.5	2.0	0.5	0.5	0.0	3.0	2.5
20	7.5	6.0	5.5	5.0	0.5	0.5	1.0	0.5	0.0	0.0	4.0	3.0
21	7.5	6.5	5.5	4.5	2.0	0.5	1.5	0.5	0.5	0.0	5.0	4.0
22	9.0	7.0	4.5	4.0	2.5	2.0	2.5	1.5	0.5	0.0	4.5	3.5
23	11.5	9.5	5.0	4.0	3.0	2.5	2.0	1.0	0.5	0.0	5.5	3.0
24	11.0	10.5	4.0	3.5	3.5	3.0	2.0	1.5	1.0	0.0	7.0	5.0
25	10.5	8.0	4.0	3.5	4.0	3.5	2.5	0.0	1.5	0.0	7.0	6.5
26	8.0	7.5	4.0	3.5	3.5	3.0	3.0	1.5	1.0	0.0	8.0	6.5
27	8.0	7.5	4.0	3.5	3.0	2.5	4.0	3.0	1.0	0.0	8.0	6.5
28	10.0	8.0	3.5	3.5	3.0	2.5	4.0	3.5	2.0	0.0	8.0	7.0
29	10.5	10.0	3.5	2.5	3.5	2.5	3.5	1.0	---	---	10.0	7.5
30	10.0	8.5	3.0	2.5	6.0	3.5	1.0	0.5	---	---	10.5	9.5
31	9.0	8.5	---	---	7.0	6.5	1.5	0.5	---	---	11.0	10.5
MONTH	16.5	6.0	12.5	2.5	7.0	0.5	---	---	4.5	0.0	14.0	1.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.0	10.5	15.0	13.0	19.0	17.5	22.0	20.0	23.5	22.5	28.5	24.0
2	11.5	9.5	16.5	14.5	20.5	18.5	24.0	21.5	24.0	22.0	28.5	24.0
3	9.5	8.0	16.5	10.0	21.5	19.5	24.0	22.5	24.0	21.5	28.5	24.5
4	8.0	7.0	12.0	9.0	22.5	21.0	25.0	22.0	24.5	21.5	28.5	24.5
5	7.0	5.0	12.5	7.0	22.5	21.0	22.0	21.5	25.5	21.5	27.0	24.5
6	8.5	5.5	13.0	9.5	22.5	20.5	22.5	21.5	26.0	22.5	27.5	23.0
7	10.0	8.0	14.5	13.0	20.0	19.5	24.0	22.0	26.0	23.5	25.5	21.0
8	10.0	9.0	15.5	14.0	21.0	19.5	25.0	23.0	27.0	24.0	25.0	20.0
9	9.5	7.5	18.5	15.0	23.0	21.0	25.0	24.0	29.0	25.0	21.5	19.5
10	7.5	6.0	18.5	17.5	24.5	22.5	25.0	24.0	26.5	25.0	23.0	18.0
11	6.5	5.5	19.5	12.5	25.5	23.5	25.0	23.5	27.0	23.5	22.5	19.0
12	6.5	5.0	15.0	14.0	25.5	24.0	24.0	22.0	26.5	24.0	23.0	18.0
13	8.0	6.0	14.5	12.0	25.0	23.0	24.5	22.0	28.0	24.5	21.5	17.0
14	9.0	6.0	14.0	12.0	24.0	22.5	26.0	23.0	26.0	24.0	20.5	18.0
15	11.5	6.5	14.0	11.5	24.5	22.5	24.5	23.5	24.0	22.5	22.0	16.5
16	12.0	8.5	14.0	12.5	25.5	23.0	24.0	22.0	23.0	22.5	21.5	17.5
17	12.0	10.0	14.0	11.0	25.5	23.5	24.0	22.0	24.0	22.5	20.5	17.5
18	13.0	11.5	14.0	12.0	24.5	23.0	25.5	21.5	24.0	22.5	19.0	15.0
19	15.5	13.0	14.0	12.5	23.5	22.5	25.5	22.0	24.0	23.0	18.5	13.0
20	19.0	15.5	14.5	13.0	---	---	24.5	23.0	24.0	22.5	18.0	13.5
21	19.5	18.0	15.0	13.0	23.0	21.5	23.5	21.5	22.5	20.5	18.5	13.5
22	19.5	18.0	15.5	14.5	23.0	22.0	22.0	21.0	23.5	20.0	20.0	15.5
23	18.0	17.0	15.5	14.5	22.5	21.5	23.0	21.5	21.5	18.5	21.5	17.0
24	17.5	15.5	16.0	15.5	22.5	21.5	23.5	22.5	21.5	19.0	21.0	16.5
25	17.0	15.0	18.5	15.0	22.5	21.5	24.5	22.5	23.0	20.0	---	---
26	16.0	13.0	18.5	15.0	24.0	22.0	24.5	23.5	25.0	22.0	---	---
27	15.0	11.5	17.0	16.0	23.5	21.5	24.0	23.5	27.5	23.5	---	---
28	11.5	9.5	18.0	17.0	21.0	20.0	24.5	23.5	29.0	25.0	---	---
29	9.5	8.5	17.5	17.0	20.0	19.0	24.0	22.5	28.5	25.0	---	---
30	13.5	9.5	21.5	16.5	20.5	19.5	24.0	22.5	26.0	24.5	26.0	18.0
31	---	---	17.5	16.0	---	---	23.5	22.5	26.5	24.0	---	---
MONTH	19.5	5.0	21.5	7.0	25.5	17.5	26.0	20.0	29.0	18.5	28.5	13.0
YEAR	29.0	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04196800 TYNOCHTEE CREEK AT CRAWFORD, OHIO

LOCATION.--Lat 40°55'22", long 83°20'56", in SE 1/4 sec. 27, T.1 S., R.13 E., Wyandot County, at gaging station on right bank at downstream side of bridge on State Highway 199 (formerly U.S. Highway 23), 0.4 mi (0.6 km) northwest of Crawford, 1.5 mi (2.4 km) downstream from Lick Run, 2.7 mi (4.3 km) upstream from Little Tynochtee Creek, and 3.0 mi (4.8 km) southeast of Carey.

DRAINAGE AREA.--229 mi² (593 km²).

PERIOD OF RECORD.--Chemical analyses: January 1968 to September 1973.

Water temperatures: January 1968 to September 1973.

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 950 micromhos Sept. 17; minimum, 136 micromhos July 26.

pH: Maximum, 8.3 June 26; minimum, 4.6 Mar. 17, 19.

Dissolved oxygen: Maximum, 15.0 mg/l Dec. 28, Feb. 27, 28, Mar. 1; minimum, 3.4 mg/l Sept. 1.

Water temperatures: Maximum, 29.0°C Aug. 28, 29; minimum, freezing point on several days during December to March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
02...	2300	295	--	--	124	0	51	13	.2	--	--
27...	0935	63	--	--	210	12	160	33	.3	--	--
27...	1015	--	--	--	--	--	--	--	--	--	--
NOV.											
16...	1330	2650	--	--	62	0	29	8.3	.2	--	--
24...	1000	215	--	--	188	0	100	16	.2	--	--
DEC.											
02...	1400	122	--	--	188	6	120	18	.2	--	--
10...	1100	422	--	--	152	0	78	14	.2	--	--
JAN.											
16...	1120	30	--	--	228	0	190	23	.4	--	--
30...	1600	478	--	--	112	0	72	16	.2	--	--
FEB.											
06...	0930	300	--	--	142	0	92	16	.2	--	--
27...	1005	35	--	--	224	0	170	23	.3	--	--
MAR.											
02...	1800	50	--	--	200	0	170	23	.3	--	--
19...	1600	1890	--	--	74	0	39	8.7	.1	--	--
APR.											
04...	1400	222	--	--	184	0	100	17	.2	--	--
11...	1800	675	--	--	102	0	56	10	.2	--	--
MAY											
17...	0950	134	--	--	199	0	100	15	.3	--	--
JUNE											
05...	1400	506	--	--	87	0	42	9.0	.4	--	--
07...	1730	--	--	--	--	--	--	--	--	--	--
25...	1900	36	--	--	253	0	160	24	.5	--	--
JULY											
18...	1800	21	--	--	184	0	110	19	.5	--	--
26...	0800	775	--	--	69	0	29	7.0	.4	--	--
AUG.											
13...	1200	29	--	--	281	5	190	19	--	1.3	.00
16...	1600	918	--	--	83	0	26	6.1	--	.3	.00
SEP.											
17...	1000	22	45	44	172	0	290	20	--	.4	.00
27...	2000	36	--	--	152	4	120	20	--	.3	.00

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV.					
08...	1505	1170	8.5	203	641
DEC.					
28...	1130	410	4.0	28	31
FEB.					
15...	1150	67	1.0	12	2.2
APR.					
10...	1615	494	--	498	664
JUNE					
04...	1545	61	24.0	108	18
SEP.					
24...	1445	36	20.0	68	6.6

04196800 TYMOCHTEE CREEK AT CRAWFORD, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1969-73): Maximum, 1,500 micromhos or higher on several days during 1970 and 1971; minimum, 136 micromhos July 26, 1973.

pH (1969-73): Maximum, 9.3 Apr. 6, May 6, 1972; minimum, 4.6 Mar. 17, 19, 1973.

Dissolved oxygen (1969-73): Maximum, 15.0 mg/l or higher on several days during 1969, 1970, 1972, and 1973; minimum, 2.4 mg/l Aug. 22, 1970.

Water temperatures (1969-73): Maximum, 31.5°C July 21-23, 1972; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since January 1968. Minimum recorded dissolved oxygen concentrations of 1.5 mg/l occurred Aug. 25, 1968 and Aug. 20, 1969. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.										
02...	6.6	--	180	78	363	236	--	13.0	--	--
27...	3.3	--	380	190	721	472	--	7.0	--	--
27...	--	--	--	--	--	--	--	--	.0	<.5
NOV.										
16...	3.6	--	100	49	221	150	--	4.5	--	--
24...	5.9	--	290	140	562	376	--	4.0	--	--
DEC.										
02...	4.8	--	320	160	597	400	--	3.0	--	--
10...	4.0	--	230	100	453	306	--	3.0	--	--
JAN.										
16...	4.6	--	420	230	847	524	--	.0	--	--
30...	7.4	--	210	120	417	254	--	.0	--	--
FEB.										
06...	6.4	--	240	120	488	330	--	3.0	--	--
27...	3.5	--	390	210	732	504	--	.0	--	--
MAR.										
02...	3.3	--	370	210	705	480	--	2.0	--	--
19...	3.6	--	120	60	249	170	--	8.0	--	--
APR.										
04...	4.2	--	290	140	557	362	--	9.0	--	--
11...	3.6	--	160	76	331	206	--	5.0	--	--
MAY										
17...	4.2	--	290	130	568	386	--	11.0	--	--
JUNE										
05...	2.0	--	120	48	267	164	--	21.0	--	--
07...	--	--	--	--	--	--	--	20.0	16	2.6
25...	2.9	--	390	180	746	480	--	26.0	--	--
JULY										
18...	5.1	--	310	160	600	394	--	25.0	--	--
26...	4.7	--	100	44	220	150	--	22.0	--	--
AUG.										
13...	--	1.5	--	--	829	--	640	27.0	--	--
16...	--	2.5	--	--	242	--	194	22.0	--	--
SEP.										
17...	--	.24	--	--	871	--	691	12.0	--	--
27...	--	2.8	--	--	570	--	451	23.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
08...	1505	85	90	94	95	97	98	99	100	--	--
APR.											
10...	1615	75	90	95	98	99	100	--	--	--	--

04196800 TYMOCHTEE CREEK AT CRAWFORD, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	440	381	716	640	618	566	443	399	567	498	768	750
2	465	392	640	341	662	597	416	360	546	360	750	686
3	528	465	389	346	683	662	507	416	410	335	686	617
4	575	528	379	349	713	660	506	414	394	336	617	552
5	599	573	467	361	710	612	440	366	477	297	569	487
6	618	566	544	467	612	231	441	360	542	477	493	474
7	659	618	562	374	279	236	521	441	572	448	502	487
8	686	651	376	305	269	210	584	521	586	566	544	502
9	728	660	334	305	420	269	644	584	618	583	565	451
10	732	725	331	299	485	420	708	644	641	614	451	393
11	757	732	458	331	503	485	761	708	667	637	444	324
12	745	578	499	458	509	449	809	761	667	633	336	318
13	695	617	518	371	449	275	837	807	645	626	356	313
14	709	602	371	241	378	305	849	836	635	626	427	343
15	715	638	266	238	380	315	855	840	636	627	343	274
16	649	590	244	217	467	380	863	847	651	624	297	241
17	622	592	364	244	534	467	865	837	682	641	263	230
18	655	596	455	364	572	534	841	783	679	664	254	222
19	676	635	488	455	584	572	790	740	674	659	274	221
20	712	658	461	418	582	506	742	718	700	665	305	274
21	736	701	455	404	506	438	734	714	700	657	337	305
22	745	706	481	410	438	372	725	557	677	662	375	337
23	755	715	544	481	372	365	557	402	688	670	414	375
24	730	680	583	544	396	369	510	428	717	682	431	407
25	736	698	623	583	428	396	449	431	719	707	442	405
26	725	686	631	590	452	428	505	449	736	712	410	369
27	748	685	590	511	464	452	555	505	775	732	433	383
28	748	725	518	503	515	464	553	454	761	732	438	390
29	731	709	528	487	548	515	458	422	---	---	499	438
30	727	719	566	528	564	548	436	406	---	---	445	313
31	722	707	---	---	548	443	499	429	---	---	370	304
MONTH	757	381	716	217	713	210	865	360	775	297	768	221
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	436	319	486	414	509	390	513	448	572	511	747	711
2	495	436	505	484	568	509	555	495	604	572	776	731
3	522	493	574	502	599	567	582	507	637	604	783	711
4	557	509	606	574	606	583	573	347	651	635	754	677
5	509	415	630	604	600	243	390	275	685	651	747	687
6	443	352	655	626	419	300	453	298	693	676	765	723
7	476	393	662	653	339	282	466	358	704	668	821	755
8	534	476	669	658	351	329	509	454	723	665	824	783
9	565	482	666	635	429	343	532	496	737	662	831	804
10	482	366	635	492	498	429	540	418	774	697	844	813
11	426	330	547	240	540	498	549	450	713	671	847	824
12	430	357	313	275	572	510	608	546	700	634	876	834
13	453	390	392	286	599	572	661	608	823	635	876	854
14	390	304	468	392	613	599	699	661	636	503	874	855
15	468	356	528	468	648	613	742	699	575	293	871	831
16	532	468	565	528	663	636	763	659	300	230	908	840
17	570	531	606	565	694	654	679	593	263	219	950	900
18	591	570	644	606	730	694	620	581	390	263	928	910
19	590	577	649	633	743	729	612	543	452	390	920	881
20	585	576	645	606	748	729	630	540	511	448	897	724
21	577	565	612	520	750	732	630	576	547	511	729	614
22	567	514	520	444	754	732	639	368	548	504	628	566
23	514	456	504	456	763	680	397	338	565	525	605	568
24	496	468	550	477	711	624	398	353	536	505	615	579
25	493	464	597	180	754	699	382	211	542	492	604	580
26	504	483	219	183	721	664	225	136	573	542	582	533
27	514	376	273	216	671	590	187	151	603	573	550	535
28	394	294	333	248	590	555	277	187	631	603	546	531
29	357	286	429	333	565	376	395	277	653	629	535	495
30	414	306	473	429	500	388	462	395	670	648	524	510
31	---	---	469	300	---	---	511	460	713	670	---	---
MONTH	591	286	669	180	763	243	763	136	823	219	950	499
YEAR	950	136										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.2	7.1	7.6	7.4	7.3	7.0	7.3	7.1	7.3	7.1	7.9	7.6
2	7.3	7.2	7.4	6.9	7.4	7.2	7.5	7.1	7.3	7.1	7.8	7.6
3	7.3	7.2	6.9	6.4	7.4	7.2	7.5	7.2	7.1	6.8	7.7	7.5
4	7.4	7.3	6.9	6.1	7.4	7.3	7.5	7.3	7.2	7.0	7.7	7.5
5	7.5	7.3	7.1	6.6	7.4	7.3	7.3	7.1	7.2	7.1	7.8	7.5
6	7.4	7.3	7.5	7.1	7.5	6.0	7.4	7.0	7.8	7.4	7.6	7.4
7	7.5	7.4	7.6	7.3	7.0	6.5	7.5	7.2	7.7	7.5	7.7	7.5
8	7.6	7.4	7.3	6.9	7.0	6.6	7.5	7.3	7.6	7.3	7.6	7.5
9	7.7	7.4	7.1	7.0	7.3	6.9	7.5	7.3	7.5	7.2	7.6	7.3
10	7.6	7.5	7.1	6.9	7.3	7.1	7.5	7.3	7.3	7.1	7.4	7.1
11	7.9	7.6	7.3	7.1	7.4	7.2	7.4	7.3	7.4	7.1	7.4	7.3
12	7.8	7.3	7.4	7.3	7.5	7.2	7.6	7.4	7.5	7.2	7.3	6.8
13	7.7	7.3	7.4	7.1	7.2	6.8	7.6	7.4	7.4	7.2	7.1	6.8
14	7.6	7.4	7.1	6.7	7.1	6.8	7.6	7.4	7.4	7.2	7.3	7.1
15	7.7	7.4	7.0	6.7	7.1	6.9	7.5	7.5	7.3	7.2	7.3	7.0
16	7.5	7.4	6.9	6.6	7.0	6.9	7.7	7.5	7.5	7.3	7.1	6.7
17	7.6	7.3	6.9	6.6	7.3	6.9	7.8	7.4	7.7	7.4	6.8	4.6
18	7.6	7.4	7.2	6.9	7.3	7.0	7.8	7.5	7.7	7.5	6.8	4.6
19	7.7	7.5	7.2	7.1	7.4	7.3	7.8	7.2	7.7	7.6	7.2	6.6
20	7.8	7.4	7.2	7.1	7.4	7.2	7.7	7.3	7.7	7.5	7.1	6.9
21	7.7	7.4	7.3	7.1	7.3	7.2	7.8	7.6	7.7	7.5	7.2	7.0
22	7.8	7.5	7.3	7.1	7.3	7.1	7.8	7.4	7.7	7.5	7.2	7.2
23	7.7	7.4	7.4	7.3	7.3	7.1	7.5	7.2	7.8	7.5	7.5	7.1
24	7.5	7.3	7.6	7.4	7.3	7.0	7.5	7.1	7.8	7.5	7.6	7.3
25	7.5	7.3	7.6	7.4	7.3	7.1	7.5	7.1	7.9	7.4	7.6	7.4
26	7.6	7.4	7.6	7.5	7.3	7.2	7.6	7.4	7.8	7.6	7.4	7.3
27	7.7	7.4	7.5	7.4	7.5	7.2	7.5	7.3	7.9	7.5	7.7	7.4
28	7.6	7.5	7.5	7.4	7.5	7.1	7.5	7.1	8.0	7.4	7.4	7.2
29	7.5	7.5	7.3	7.1	7.6	7.3	7.3	7.0	---	---	7.5	7.2
30	7.5	7.4	7.2	7.0	7.7	7.6	7.2	7.1	---	---	7.2	6.9
31	7.6	7.4	---	---	7.7	7.3	7.3	7.1	---	---	7.1	7.0
MONTH	7.9	7.1	7.6	6.1	7.7	6.0	7.8	7.0	8.0	6.8	7.9	4.6

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04196800 TYMOCHTEE CREEK AT CRAWFORD, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.1	7.9	9.4	8.7	12.3	12.0	11.7	11.3	12.3	11.8	15.0	13.3
2	8.1	7.9	8.7	6.9	12.3	11.9	12.4	11.7	11.8	11.1	14.6	13.0
3	8.0	7.8	6.9	6.6	12.1	11.8	13.0	12.4	11.3	10.9	12.9	12.1
4	7.8	7.7	6.8	6.6	12.2	12.0	13.1	12.8	11.6	10.8	12.1	11.7
5	7.7	7.4	7.6	6.8	12.2	11.8	13.4	13.1	11.8	11.6	11.7	11.2
6	7.4	7.2	8.8	7.6	11.8	8.9	13.7	8.5	11.9	11.2	11.2	10.9
7	7.8	7.4	9.0	8.6	10.2	9.3	13.5	9.7	11.9	11.7	10.9	9.0
8	8.2	7.7	8.7	8.4	10.3	9.3	13.4	8.5	12.3	11.8	10.4	10.0
9	8.8	8.1	8.4	8.2	9.8	9.4	13.3	12.7	12.9	12.3	10.5	10.1
10	8.7	8.6	8.5	8.2	10.1	9.3	13.3	13.0	13.4	12.9	10.5	10.0
11	9.8	8.6	8.8	8.4	10.3	9.8	13.1	12.8	13.6	13.4	10.1	8.7
12	8.7	7.5	9.2	8.8	13.4	10.2	12.8	12.5	13.7	12.7	8.7	8.3
13	8.3	7.4	9.7	9.2	13.2	13.0	12.6	12.3	13.6	13.3	9.1	8.7
14	8.4	7.7	9.8	9.7	13.2	13.0	12.4	12.0	13.3	13.0	9.7	9.1
15	8.8	8.3	10.0	9.8	13.3	13.0	12.3	12.0	13.3	12.8	9.3	8.3
16	8.7	8.5	10.7	9.9	14.2	13.0	12.9	12.1	13.6	12.0	8.5	7.9
17	9.0	8.6	10.8	10.3	14.4	7.4	12.5	12.2	13.9	13.5	11.1	8.5
18	9.4	8.9	10.5	10.3	13.9	10.1	12.6	12.2	13.8	13.4	12.0	11.1
19	10.4	9.4	10.6	10.5	13.4	13.0	12.5	12.2	13.6	13.1	12.3	12.0
20	10.8	8.7	11.0	10.4	13.2	12.8	13.1	12.4	13.4	13.0	12.0	11.8
21	10.7	9.9	10.9	10.6	13.3	12.9	13.3	12.8	13.6	13.0	11.9	11.8
22	10.3	9.3	10.6	10.2	13.4	12.5	12.9	12.1	13.9	13.3	11.8	11.7
23	9.3	8.0	10.7	10.3	12.6	12.2	12.3	12.0	13.8	13.2	11.9	11.5
24	8.0	7.5	11.0	10.6	12.5	12.1	12.7	12.3	14.1	13.3	11.6	11.0
25	8.5	7.7	11.0	10.9	12.4	12.1	12.5	12.3	14.5	13.4	11.0	10.5
26	9.3	8.3	11.0	10.8	12.3	12.2	12.4	12.0	14.7	13.5	10.5	10.3
27	9.8	9.1	10.9	10.6	12.6	12.3	12.0	11.3	15.0	13.6	10.8	10.4
28	9.4	8.4	11.1	10.9	15.0	12.6	11.5	11.2	15.0	13.5	10.7	10.4
29	8.4	8.2	12.6	11.1	12.7	12.6	11.9	11.5	---	---	10.5	10.0
30	8.7	7.9	12.7	12.1	12.6	12.1	12.2	10.6	---	---	9.9	9.5
31	9.4	8.6	---	---	12.1	11.2	12.4	9.6	---	---	9.8	9.6
MONTH	10.8	7.2	12.7	6.6	15.0	7.4	13.7	8.5	15.0	10.8	15.0	7.9
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.6	9.5	9.4	9.0	6.4	5.8	7.2	6.9	6.1	5.8	8.4	3.4
2	9.8	9.5	9.0	8.5	5.9	5.5	7.2	7.0	6.3	6.0	9.1	3.5
3	10.1	9.8	8.9	8.5	5.5	5.2	7.6	7.0	6.7	6.0	10.7	3.8
4	10.5	10.1	9.7	8.9	5.3	4.9	7.4	6.6	7.1	6.5	9.6	4.1
5	11.0	10.5	10.2	9.6	5.6	4.9	7.2	6.7	7.8	6.5	6.5	3.5
6	11.0	10.6	10.0	9.2	5.8	5.5	7.6	6.9	8.3	6.2	---	---
7	10.6	9.1	9.7	8.7	5.7	5.2	7.4	7.2	9.1	6.0	---	---
8	10.3	10.1	9.2	8.5	5.8	5.6	7.4	7.1	9.3	5.9	---	---
9	10.4	10.0	8.8	7.6	5.9	5.4	7.1	6.8	9.0	5.4	---	---
10	10.9	10.4	7.8	7.3	5.5	5.2	6.8	5.9	8.7	5.1	---	---
11	11.3	11.0	7.9	6.1	5.2	4.8	6.7	6.0	9.1	5.5	---	---
12	11.3	11.1	7.5	7.3	5.3	4.8	7.3	6.7	9.8	5.2	8.9	5.9
13	11.4	11.1	7.9	7.4	5.4	5.1	7.9	7.3	8.7	5.4	9.6	5.8
14	11.3	10.8	8.3	7.9	5.5	5.2	9.6	7.4	6.9	5.5	9.1	6.1
15	10.9	10.2	8.6	8.3	5.9	5.5	12.2	7.1	6.2	5.6	10.1	6.4
16	10.2	9.9	9.0	8.5	5.9	5.3	14.4	8.1	5.8	5.4	9.8	7.6
17	10.1	9.8	9.4	9.0	6.0	5.3	10.3	7.9	5.3	4.9	9.6	7.6
18	9.9	9.2	9.7	9.1	6.5	5.2	10.3	7.4	5.2	4.8	10.3	7.9
19	9.9	9.1	9.1	8.9	7.3	5.4	12.6	7.4	5.5	5.1	10.4	8.5
20	9.6	9.0	9.0	8.7	8.0	5.8	9.2	7.1	5.5	5.3	11.7	8.7
21	9.1	8.7	8.7	8.5	8.3	5.6	7.1	5.9	5.9	5.5	12.3	8.5
22	9.0	8.4	8.6	8.2	8.1	5.9	6.7	5.9	6.2	5.8	11.7	8.3
23	8.7	8.3	8.2	7.6	8.7	6.3	6.9	6.5	6.7	6.1	11.6	7.7
24	9.2	8.4	7.8	7.3	8.7	6.7	6.7	6.5	6.4	5.7	9.5	7.5
25	9.2	8.6	8.5	7.7	9.6	6.9	6.8	5.7	6.4	5.1	10.3	7.4
26	9.7	9.1	8.2	6.2	9.7	6.7	6.1	5.6	6.8	4.7	9.4	7.2
27	9.4	9.0	6.3	6.1	7.8	6.3	5.7	5.1	7.2	4.5	9.1	6.9
28	9.5	9.2	6.3	6.0	7.1	6.4	5.2	5.0	7.9	4.2	7.9	6.4
29	9.7	9.5	6.7	6.1	7.2	6.5	5.9	5.2	8.7	4.3	6.9	6.0
30	9.6	9.4	6.8	6.7	7.1	6.9	6.1	5.9	6.6	3.6	7.4	6.2
31	---	---	6.9	6.3	---	---	6.0	5.8	7.3	3.8	---	---
MONTH	11.4	8.3	10.2	6.0	9.7	4.8	14.4	5.0	9.8	3.6	12.3	3.4
YEAR	15.0	3.4										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04196900 SANDUSKY RIVER AT ST. JOHNS BRIDGE, NEAR MEXICO, OHIO

LOCATION.--Lat 41°01'49", long 83°12'56", in sec.23, T.1 N., R.14 E., Seneca County, at right upstream abutment of St. Johns Bridge, on Seneca County Highway 6, 100 ft (30 m) downstream from dam, 2.5 mi (4.0 km) upstream from gaging station, 6.5 mi (10.5 km) upstream from Honey Creek, and 4.5 mi (7.2 km) northwest of Mexico.

DRAINAGE AREA.--771 mi² (1,997 km²).

PERIOD OF RECORD.--Chemical analyses: June 1969 to September 1973.

Water temperatures: June 1969 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 970 micromhos Sept. 21; minimum, 210 micromhos June 21.

Dissolved oxygen: Maximum, 15.0 mg/l on many days during November and January to March; minimum, 4.8 mg/l Aug. 14, 15.

Water temperatures: Maximum, 28.5°C Aug. 9, 10, Sept. 2; minimum, freezing point on many days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	1330	1520	--	--	150	0	67	14	.3	--	--
17...	1300	--	--	--	--	--	--	--	--	--	--
30...	1400	285	--	--	260	0	150	33	.3	--	--
NOV.											
10...	2345	4380	--	--	120	0	52	14	.2	--	--
21...	1300	--	--	--	--	--	--	--	--	--	--
28...	1736	1250	--	--	191	0	100	21	.2	--	--
DEC.											
05...	1939	786	--	--	208	9	120	27	.2	--	--
07...	1130	5200	--	--	85	0	45	12	.2	--	--
JAN.											
02...	1740	2080	--	--	131	0	68	15	.2	--	--
16...	1215	230	--	--	246	0	160	24	.3	--	--
FEB.											
05...	1940	1460	--	--	130	0	76	17	.2	--	--
22...	1800	240	--	--	244	0	150	35	.3	--	--
MAR.											
01...	1736	230	--	--	240	0	160	35	.3	--	--
17...	1215	6570	--	--	97	0	43	10	.2	--	--
APR.											
17...	1052	554	--	--	183	6	100	17	.3	--	--
20...	1830	488	--	--	196	10	120	20	.3	--	--
MAY											
10...	1225	551	--	--	192	14	120	26	.4	--	--
31...	1345	2180	--	--	142	0	62	16	.3	--	--
JUNE											
01...	1130	1500	--	--	156	0	66	21	.3	--	--
19...	1330	402	--	--	246	0	130	28	.4	--	--
JULY											
03...	2120	645	--	--	192	0	80	17	.4	--	--
30...	1410	430	--	--	145	0	61	13	.4	--	--
AUG.											
03...	1245	169	89	25	221	13	110	17	--	.5	.00
22...	1400	220	79	21	206	7	99	15	--	.5	.00
SEP.											
07...	1410	57	86	34	214	12	180	24	--	.6	.00
21...	1600	59	98	42	243	5	250	33	--	.7	.00

04196900 SANDUSKY RIVER AT ST. JOHNS BRIDGE, NEAR MEXICO, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 1,240 micromhos Nov. 23, 1971; minimum, 210 micromhos June 21, 1973.
Dissolved oxygen (1972-73): Maximum, 15.0 mg/l or higher on many days during 1972-73; minimum, 4.8 mg/l Aug. 14, 1973.

Water temperatures (1971-73): Maximum, 28.5°C July 23, 24, 1972, Aug. 9, 10, Sept. 2, 1973; minimum, freezing point on many days during December 1972 to February 1973.

REMARKS.--Water-quality recorder operated since June 1969. Minimum recorded specific conductance value of 130 micromhos occurred Feb. 19, 20, 1971. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. Records of discharge are given for Sandusky River near Mexico, station 04197000, drainage area 774 mi² (2,005 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
03...	6.6	--	210	87	440	7.2	314	--	14.5	--	--
17...	--	--	--	--	--	--	--	--	10.5	.0	<.5
30...	3.9	--	390	180	780	7.3	502	--	10.0	--	--
NOV.											
10...	4.9	--	210	110	372	7.9	262	--	11.0	--	--
21...	--	--	--	--	--	--	--	--	5.0	--	<.5
28...	4.1	--	290	130	570	8.0	384	--	6.0	--	--
DEC.											
05...	4.0	--	340	150	664	8.3	466	--	5.5	--	--
07...	3.8	--	130	60	290	7.6	210	--	3.0	--	--
JAN.											
02...	4.2	--	200	92	410	7.9	244	--	5.5	--	--
16...	4.6	--	400	200	812	8.2	500	--	.5	--	--
FEB.											
05...	6.3	--	220	110	441	8.1	280	--	4.5	--	--
22...	3.4	--	380	180	761	7.9	496	--	1.0	--	--
MAR.											
01...	2.6	--	380	180	749	7.9	488	--	3.0	--	--
17...	3.3	--	140	60	293	7.2	198	--	12.0	--	--
APR.											
17...	3.5	--	290	130	554	8.3	322	--	--	--	--
20...	3.4	--	320	140	608	8.4	354	--	--	--	--
MAY											
10...	2.9	--	330	150	617	8.6	418	--	17.0	--	--
31...	5.0	--	210	94	407	7.1	280	--	17.0	4.0	<.5
JUNE											
01...	4.4	--	230	100	443	7.1	302	--	17.5	--	--
19...	3.3	--	370	170	676	7.4	490	--	23.0	--	--
JULY											
03...	6.6	--	280	120	543	8.1	358	--	--	--	--
30...	4.0	--	200	81	413	7.8	276	--	23.0	--	--
AUG.											
03...	--	3.7	--	--	633	8.5	--	576	25.0	--	--
22...	--	2.2	--	--	561	8.5	--	508	22.0	--	--
SEP.											
07...	--	.80	--	--	746	8.6	--	562	24.0	--	--
21...	--	.67	--	--	912	8.4	--	679	19.0	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	420	390	800	775	605	575	490	420	580	500	840	805
2	430	400	775	385	635	605	420	390	590	435	805	740
3	490	430	405	375	690	635	440	390	440	390	740	635
4	560	490	400	380	710	690	490	400	400	365	645	600
5	640	560	430	400	705	660	440	400	470	370	600	555
6	650	640	515	430	660	280	415	395	540	470	555	545
7	690	650	590	515	305	280	480	400	600	540	565	545
8	700	690	585	310	300	290	550	470	650	600	590	560
9	700	680	315	300	380	300	615	540	660	645	620	590
10	735	700	330	315	550	380	670	615	690	660	630	475
11	760	730	405	330	600	550	700	650	700	690	635	425
12	770	760	510	405	610	590	750	690	750	700	420	350
13	790	770	560	510	600	340	800	750	810	800	---	---
14	770	690	550	235	360	340	820	790	810	760	---	---
15	730	700	250	230	380	335	825	810	765	760	---	---
16	700	670	250	240	480	370	820	810	770	760	---	---
17	720	680	310	250	540	460	810	785	805	770	---	---
18	730	720	440	310	590	540	805	795	865	805	---	---
19	750	720	525	440	640	590	795	770	870	850	285	280
20	760	740	540	470	635	600	770	750	855	835	355	285
21	765	750	500	470	600	480	745	735	860	825	405	355
22	770	760	500	470	490	410	740	720	835	820	435	405
23	805	765	560	500	425	400	720	580	835	820	480	435
24	835	800	610	560	425	400	580	510	830	815	505	480
25	830	790	640	610	460	425	540	505	830	820	525	505
26	800	770	690	640	500	460	540	520	825	820	515	460
27	800	770	690	620	530	500	570	530	830	810	480	465
28	780	770	620	565	540	510	590	550	850	825	490	475
29	780	770	565	550	590	540	550	470	---	---	540	480
30	825	770	575	550	610	590	510	475	---	---	555	415
31	820	800	---	---	610	490	500	475	---	---	450	415
MONTH	835	390	800	230	710	280	825	390	870	365	840	280
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	455	415	485	365	---	---	460	380	---	---	670	650
2	550	450	595	485	---	---	520	460	---	---	660	640
3	600	550	585	545	---	---	560	520	635	604	680	600
4	630	600	635	585	572	562	560	330	660	635	690	670
5	630	520	665	635	670	410	440	270	680	660	720	690
6	520	430	735	665	420	335	330	270	700	680	720	710
7	470	410	765	725	455	360	390	330	710	690	---	---
8	550	470	785	705	400	370	470	390	720	680	---	---
9	600	550	765	715	400	385	530	470	740	680	---	---
10	610	460	735	615	---	---	580	530	740	680	---	---
11	480	425	620	285	---	---	610	580	740	700	860	840
12	445	410	305	225	---	---	610	500	730	700	880	850
13	510	445	315	305	---	---	620	510	730	700	900	870
14	520	480	425	315	---	---	630	610	740	700	900	880
15	480	435	525	425	---	---	660	630	790	430	900	860
16	575	480	590	525	---	---	730	660	430	230	880	860
17	610	560	630	590	---	---	750	730	300	250	880	850
18	604	574	670	630	---	---	750	660	280	250	930	880
19	619	604	690	670	705	675	700	620	350	230	950	920
20	618	608	710	480	705	220	660	640	445	350	950	940
21	628	618	580	470	245	210	760	650	500	445	970	890
22	645	628	560	480	290	220	770	370	550	500	950	910
23	635	595	520	500	465	290	460	380	600	550	930	860
24	595	545	585	520	470	505	410	380	610	600	890	820
25	565	550	590	525	555	505	460	410	610	600	900	810
26	565	555	---	---	570	555	510	350	635	610	860	800
27	585	565	---	---	590	570	380	310	650	620	870	830
28	585	325	---	---	600	255	320	280	660	640	850	820
29	375	315	---	---	410	275	375	320	650	620	840	810
30	365	295	---	---	430	390	430	375	680	610	830	760
31	---	---	---	---	---	---	480	430	660	630	---	---
MONTH	645	295	785	225	---	---	770	270	790	230	970	600
YEAR	970	210										

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.9	9.2	9.6	9.4	13.6	13.3	11.5	11.0	14.7	14.2	15.0	15.0
2	10.7	9.9	9.8	8.1	13.3	13.0	11.6	11.2	14.2	13.4	15.0	14.3
3	10.8	10.0	8.1	7.9	13.0	12.7	11.8	11.1	13.5	13.3	14.3	13.3
4	10.7	10.3	8.7	8.1	12.7	12.4	11.4	11.1	13.5	13.1	13.8	12.4
5	10.4	9.9	9.7	8.7	12.4	12.1	11.5	11.2	13.8	13.4	13.8	12.3
6	10.2	9.8	10.2	9.7	12.1	11.8	12.0	11.5	13.7	13.3	13.4	11.1
7	10.3	9.9	10.7	10.2	11.8	11.4	12.2	11.9	13.7	13.3	11.8	11.1
8	10.5	10.0	11.0	10.1	11.5	11.3	12.5	12.2	14.3	13.5	11.9	10.9
9	11.1	10.5	11.1	10.5	11.6	11.3	12.7	12.4	15.0	14.3	12.0	11.6
10	11.5	10.8	11.0	10.5	12.0	11.3	13.1	12.7	15.0	14.9	12.0	10.9
11	11.3	10.9	12.2	11.3	12.2	12.0	13.0	12.7	15.0	15.0	11.1	9.9
12	11.0	10.9	13.4	12.2	12.3	11.9	13.2	12.4	15.0	14.9	10.0	9.8
13	11.2	10.4	14.4	13.4	12.0	11.6	13.0	12.7	15.0	15.0	---	---
14	10.9	10.4	14.7	14.4	11.6	11.5	13.2	12.8	15.0	14.9	---	---
15	11.6	10.9	15.0	14.7	11.9	11.4	13.2	13.0	15.0	14.9	---	---
16	11.2	10.9	15.0	15.0	12.8	11.9	13.7	12.7	15.0	15.0	---	---
17	12.0	10.5	15.0	15.0	12.9	12.5	12.7	11.7	15.0	15.0	---	---
18	10.8	10.7	15.0	15.0	12.7	12.0	12.9	12.2	15.0	15.0	---	---
19	11.4	10.8	15.0	15.0	12.0	11.8	13.2	12.4	15.0	15.0	13.6	12.8
20	11.7	11.0	15.0	15.0	12.0	11.9	13.3	13.1	15.0	15.0	13.1	12.5
21	11.4	11.1	15.0	15.0	12.0	11.8	13.5	12.9	15.0	15.0	13.0	12.6
22	11.2	10.7	15.0	15.0	12.0	11.6	13.4	12.7	15.0	15.0	13.2	12.7
23	10.7	10.3	15.0	15.0	12.3	11.6	13.5	13.1	15.0	14.8	13.4	11.9
24	10.6	9.5	15.0	15.0	12.2	12.1	13.9	13.4	15.0	14.7	12.5	11.3
25	9.5	9.2	15.0	15.0	12.2	11.7	13.9	13.2	15.0	14.8	11.8	11.1
26	9.7	9.3	15.0	15.0	12.3	11.9	13.7	12.9	15.0	15.0	11.2	10.8
27	10.2	9.7	15.0	14.7	12.5	12.0	13.2	12.7	15.0	15.0	11.5	10.7
28	10.1	9.8	14.7	14.3	12.0	11.7	12.9	12.7	15.0	15.0	11.5	10.8
29	10.0	9.7	14.3	14.0	12.1	11.7	15.0	12.9	---	---	11.1	10.4
30	9.7	9.0	14.0	13.6	12.2	11.9	15.0	14.8	---	---	10.7	10.2
31	9.4	9.1	---	---	11.9	11.2	15.0	14.6	---	---	10.6	10.1
MONTH	12.0	9.0	15.0	7.9	13.6	11.2	15.0	11.0	15.0	13.1	15.0	9.8
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.3	9.7	10.0	9.2	---	---	7.6	6.4	---	---	6.3	5.0
2	10.2	10.0	9.3	9.0	---	---	6.8	6.3	---	---	6.6	5.0
3	10.5	10.2	9.2	9.0	---	---	6.5	5.9	7.2	6.8	5.4	5.0
4	10.9	10.4	10.1	9.2	7.0	6.4	6.3	5.4	7.1	6.8	---	---
5	11.5	10.7	10.4	9.8	6.9	6.5	5.9	5.1	8.3	6.6	---	---
6	11.7	11.0	10.4	9.8	6.6	6.3	5.6	5.3	8.8	7.4	---	---
7	11.4	10.5	10.0	9.6	6.9	6.3	5.6	5.2	10.2	7.3	---	---
8	11.0	10.5	9.8	8.9	6.8	6.0	6.0	5.6	10.2	7.1	---	---
9	11.1	10.7	8.9	8.3	6.5	6.4	5.8	5.6	9.6	6.7	---	---
10	11.6	10.9	8.5	8.0	---	---	5.8	5.3	8.9	6.0	---	---
11	11.9	11.6	9.8	8.0	---	---	5.6	5.4	8.2	5.0	10.1	9.0
12	12.1	11.4	8.9	7.4	---	---	6.1	5.5	7.5	6.0	11.0	10.0
13	12.3	11.4	9.4	8.7	---	---	6.4	6.1	7.7	6.2	10.8	10.5
14	12.6	11.4	9.7	9.1	---	---	6.5	6.1	7.1	4.8	11.7	8.7
15	12.4	11.1	10.0	9.6	---	---	6.6	6.0	5.4	4.8	10.0	8.8
16	11.5	11.0	10.0	9.5	---	---	6.5	6.0	5.9	4.9	9.2	8.8
17	11.4	11.1	10.0	9.5	---	---	7.5	6.2	6.1	5.8	9.2	8.8
18	11.3	10.9	9.9	9.3	---	---	8.2	6.6	6.2	5.9	9.1	8.5
19	11.0	10.5	9.6	9.4	8.4	7.5	7.8	6.3	6.3	6.0	9.6	9.1
20	10.7	9.6	9.5	8.7	7.8	6.3	7.0	6.2	6.1	5.8	9.7	9.0
21	10.3	9.5	9.2	8.5	6.7	6.1	6.7	5.7	6.2	5.9	9.6	9.2
22	9.8	9.3	8.9	8.4	6.5	6.0	6.1	5.1	6.8	6.1	9.7	8.5
23	9.3	9.0	8.6	8.4	6.9	6.1	5.6	4.9	6.9	6.5	9.9	9.3
24	9.8	9.0	8.4	8.1	7.2	6.6	5.6	5.2	7.0	6.6	10.2	9.8
25	9.9	9.7	8.4	7.9	7.3	6.6	5.6	5.3	7.1	6.5	10.0	9.3
26	10.1	9.7	---	---	7.1	6.6	5.9	5.4	7.5	6.6	10.0	9.6
27	10.2	9.8	---	---	7.2	6.3	6.0	5.2	7.8	6.0	10.0	8.8
28	10.5	10.0	---	---	7.4	6.0	6.2	5.8	7.9	6.1	10.3	8.6
29	10.7	10.1	---	---	7.2	6.3	6.4	6.1	7.6	6.4	9.5	8.2
30	10.4	9.8	---	---	7.2	6.5	6.4	5.8	7.8	6.6	9.6	7.7
31	---	---	---	---	---	---	6.1	5.7	7.0	6.0	---	---
MONTH	12.6	9.0	10.4	7.4	---	---	8.2	4.9	10.2	4.8	---	---
YEAR	15.0	4.8										

STREAMS TRIBUTARY TO LAKE ERIE

04196990 SANDUSKY RIVER AT ST. JOHNS BRIDGE, NEAR MEXICO, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	13.5	10.5	10.0	4.0	3.5	5.5	4.5	0.0	0.0	0.5	0.5
2	14.0	13.5	13.5	10.5	4.5	3.5	4.5	3.5	0.0	0.0	3.5	0.5
3	14.5	13.5	14.0	13.5	5.0	4.5	4.0	3.0	0.5	0.0	5.5	3.5
4	15.0	14.0	13.5	13.0	5.5	5.0	3.0	3.0	0.0	0.0	6.5	5.5
5	15.5	14.5	13.0	10.0	5.5	5.0	3.0	1.5	1.5	0.0	7.5	6.0
6	16.0	15.5	11.0	10.5	---	---	1.5	0.5	1.0	0.5	9.5	7.5
7	16.0	15.5	11.5	10.5	3.0	2.0	0.5	0.5	1.0	1.0	11.0	9.0
8	15.5	14.5	12.0	11.0	2.0	1.5	0.5	0.5	1.0	0.0	11.5	10.5
9	14.5	13.5	11.0	10.5	1.5	1.0	0.5	0.5	0.0	0.0	11.5	11.0
10	13.5	12.5	11.5	11.0	3.0	1.5	1.0	0.5	0.0	0.0	11.0	9.0
11	12.5	12.0	11.0	10.5	2.5	1.5	1.0	1.0	0.0	0.0	13.0	9.5
12	13.0	12.0	11.0	10.5	1.5	1.0	1.0	0.5	0.0	0.0	13.0	13.0
13	13.0	12.5	11.0	10.0	2.0	1.0	1.0	0.5	0.5	0.0	---	---
14	13.0	12.0	10.0	8.5	1.5	1.0	1.0	0.5	0.0	0.0	---	---
15	12.0	11.5	8.5	7.0	1.5	1.0	1.0	0.5	0.0	0.0	---	---
16	11.5	11.5	7.0	6.5	1.0	0.5	0.5	0.0	0.0	0.0	---	---
17	11.5	11.0	6.5	6.0	0.5	0.5	0.5	0.0	0.0	0.0	---	---
18	11.0	9.5	6.5	6.0	0.5	0.5	0.5	0.0	0.5	0.0	---	---
19	10.0	9.5	6.5	6.0	0.5	0.0	0.0	0.0	1.0	0.5	2.5	2.0
20	9.5	8.5	6.0	3.0	0.0	0.0	0.5	0.0	0.5	0.5	4.0	2.0
21	8.5	8.0	6.0	4.5	1.0	0.0	0.5	0.5	0.5	0.5	4.0	4.0
22	8.0	8.0	5.5	5.5	1.5	1.0	0.5	0.5	0.5	0.5	5.0	4.5
23	9.5	8.0	5.5	5.0	3.0	1.5	2.0	0.5	0.5	0.5	6.0	5.0
24	10.0	9.5	5.5	5.0	3.0	2.5	2.0	1.0	0.5	0.5	6.0	4.5
25	10.5	10.0	6.0	5.5	3.0	3.0	1.0	0.5	0.5	0.5	7.5	5.5
26	10.0	9.0	6.0	6.0	3.0	3.0	1.5	1.0	0.5	0.5	6.5	5.5
27	9.5	8.5	6.0	6.0	3.0	2.0	3.0	1.5	0.5	0.5	6.0	5.0
28	8.5	8.5	6.0	6.0	2.0	2.0	3.5	3.0	0.5	0.5	5.5	4.5
29	9.5	8.5	6.0	4.0	3.0	2.0	3.0	0.0	---	---	6.0	4.5
30	9.5	9.0	4.0	4.0	4.5	3.0	0.0	0.0	---	---	6.5	5.5
31	10.5	9.5	---	---	5.5	3.5	0.0	0.0	---	---	6.5	6.0
MONTH	16.0	8.0	14.0	3.0	5.5	0.0	5.5	0.0	1.5	0.0	13.0	0.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.0	6.0	12.0	9.0	---	---	24.0	23.0	---	---	27.0	26.0
2	7.5	7.0	13.0	12.0	---	---	25.0	23.5	---	---	28.5	26.5
3	7.0	6.0	13.0	12.0	---	---	26.0	25.0	24.5	24.0	28.0	26.5
4	6.5	5.5	13.0	10.0	21.0	20.5	26.0	24.5	24.5	24.0	28.0	26.5
5	6.0	4.0	10.5	10.0	21.0	20.5	25.0	24.0	25.0	23.5	28.0	26.5
6	5.0	4.0	11.5	10.5	20.5	20.0	24.5	24.0	25.0	24.0	26.5	26.5
7	6.0	5.0	13.0	11.5	21.5	20.5	25.5	24.5	26.0	24.0	---	---
8	6.0	5.0	13.0	13.0	23.0	21.0	27.0	25.0	27.0	24.5	---	---
9	6.5	5.5	15.0	13.0	22.0	21.0	27.0	26.0	28.5	25.0	---	---
10	6.0	4.0	15.5	15.0	---	---	28.0	27.0	28.5	25.5	---	---
11	5.0	4.5	15.5	13.0	---	---	28.0	26.5	26.5	25.0	21.0	21.0
12	5.5	4.5	13.5	13.0	---	---	27.0	26.0	26.5	25.5	21.5	20.0
13	6.5	5.0	13.5	13.5	---	---	26.0	24.5	26.5	26.0	21.0	20.0
14	7.0	5.0	13.5	13.5	---	---	26.5	25.5	26.0	25.0	20.0	19.5
15	8.0	6.0	13.5	11.0	---	---	26.5	26.0	25.0	24.0	19.5	18.0
16	8.5	7.0	13.0	12.0	---	---	26.5	26.0	24.0	23.0	19.5	19.0
17	11.0	8.0	12.0	11.5	---	---	26.5	25.5	24.0	23.0	20.0	19.0
18	11.0	10.5	13.0	11.5	---	---	26.0	25.0	24.5	24.0	20.0	13.0
19	12.0	11.0	13.0	11.5	26.0	22.0	26.0	24.5	25.0	23.5	18.0	17.0
20	14.0	12.0	13.0	11.5	26.5	24.0	26.0	24.5	25.0	24.5	18.0	17.0
21	15.5	14.0	14.5	13.5	25.5	24.0	25.0	24.5	24.5	24.0	18.5	17.0
22	15.5	15.5	14.5	13.5	25.5	25.5	25.0	23.5	24.0	23.5	18.0	18.0
23	16.0	15.0	14.0	14.0	25.5	25.0	24.0	23.0	23.5	21.5	19.5	18.0
24	15.0	14.0	14.0	14.0	25.5	24.0	24.5	23.5	21.5	21.0	20.5	18.0
25	14.0	13.0	14.5	14.0	25.5	24.0	24.5	23.5	22.0	21.0	20.0	18.0
26	13.0	12.0	---	---	25.5	24.5	25.5	24.5	24.0	22.0	20.0	15.0
27	13.0	11.0	---	---	25.5	25.0	25.5	25.0	25.5	22.0	20.0	17.0
28	11.0	8.0	---	---	25.5	23.5	26.0	25.0	26.5	24.5	20.0	17.0
29	8.0	8.0	---	---	23.5	22.0	25.5	25.0	27.0	26.0	20.0	16.0
30	9.0	8.0	---	---	23.0	22.0	25.0	24.0	27.0	26.0	20.0	16.0
31	---	---	---	---	---	---	24.5	24.5	27.0	25.5	---	---
MONTH	16.0	4.0	15.5	9.0	---	---	28.0	23.0	28.5	21.0	28.5	13.0
YEAR	28.5	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04198005 SANDUSKY RIVER BELOW FREMONT, OHIO

LOCATION.--Lat 41°22'12", long 83°06'10", in NW 1/4 sec.26, T.5 N., R.15 E., Sandusky County, on left bank 0.3 mi (0.5 km) downstream from U.S. Highway 20 bridge, 0.7 mi (1.1 km) downstream from Fremont Sewage plant, 7.0 mi (11.3 km) downstream from gaging station near Fremont, and 4.0 mi (6.4 km) upstream from Muskegon Creek.

DRAINAGE AREA.--1,264 mi² (3,274 km²).

PERIOD OF RECORD.--Chemical analyses: September 1966 to September 1973.

Water temperatures: September 1966 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 876 micromhos Oct. 26; minimum, 204 micromhos Nov. 17.

pH: Maximum, 9.0 July 23; minimum, 5.9 Nov. 24.

Dissolved oxygen: Maximum, 15.0 mg/l on several days in February and March; minimum, 0.1 mg/l on several days during September.

Water temperatures: Maximum, 27.0°C Aug. 13, Sept. 3-5; minimum, freezing point on many days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	2000	2500	--	--	136	0	61	15	.2	--	--
18...	1330	--	--	--	--	--	--	--	--	--	--
28...	1900	376	--	--	254	14	140	32	.4	--	--
NOV.											
02...	2000	5320	--	--	223	0	110	28	.3	--	--
17...	1900	7510	--	--	112	0	48	13	.2	--	--
DEC.											
05...	2100	1770	--	--	239	0	120	28	.3	--	--
07...	1800	9970	--	--	88	0	41	14	.2	--	--
JAN.											
03...	2100	1860	--	--	139	0	71	18	.2	--	--
19...	1700	370	--	--	283	0	140	28	.3	--	--
FEB.											
01...	1150	1230	--	--	156	4	85	23	.2	--	--
25...	1900	280	--	--	260	0	150	65	.4	--	--
MAR.											
10...	1500	3050	--	--	162	8	100	26	.3	--	--
20...	1900	6760	--	--	118	0	51	13	.2	--	--
APR.											
26...	1025	834	--	--	207	0	110	23	.3	--	--
30...	1900	2780	--	--	134	0	64	17	.2	--	--
MAY											
09...	1330	1100	--	--	199	11	110	24	.3	--	--
31...	1130	3050	--	--	168	0	68	16	.2	--	--
JUNE											
23...	2000	1810	--	--	106	0	36	16	.3	--	--
27...	1100	703	--	--	194	0	76	26	.4	--	--
JULY											
24...	0800	1170	--	--	222	14	130	21	.4	--	--
29...	1900	1610	--	--	120	0	52	10	.2	--	--
AUG.											
13...	1230	141	65	22	181	13	110	27	--	.3	.00
20...	2200	465	34	11	122	0	48	11	--	.3	.00
SEP.											
01...	2100	83	58	20	167	4	100	24	--	.4	.00
30...	1500	97	86	34	233	0	190	44	--	.6	.00

04198005 SANDUSKY RIVER BELOW FREMONT, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1967-73): Maximum, 1,230 micromhos Nov. 25, 1971; minimum, 156 micromhos Apr. 26, 1972.
 pH (1969-73): Maximum, 11.5 June 28, 1972; minimum, 4.8 Apr. 26, 1970.
 Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher on many days during 1970-73; minimum, 0.0 mg/l Oct. 14, 1970.
 Water temperatures: Maximum, 32.5°C Aug. 17, 1970; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since September 1966. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Sandusky River near Fremont, Ohio, station 04198000, drainage area 1,251 mi² (3,240 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (MG) (UG/L)
OCT.											
03...	4.2	--	.35	200	88	410	270	--	15.0	--	--
18...	--	--	--	--	--	--	--	--	10.0	2.0	<.5
28...	2.6	--	.57	400	170	782	518	--	9.0	--	--
NOV.											
02...	3.6	--	.46	330	150	655	420	--	10.5	--	--
17...	3.5	--	.40	160	68	337	214	--	5.0	--	--
DEC.											
05...	3.6	--	.17	340	140	679	460	--	4.0	--	--
07...	2.9	--	.81	130	58	283	190	--	3.5	--	--
JAN.											
03...	3.6	--	.24	220	110	439	258	--	3.0	--	--
19...	3.2	--	.08	410	180	771	486	--	1.0	--	--
FEB.											
01...	5.3	--	.21	250	120	523	346	--	1.0	--	--
25...	3.0	--	.07	390	180	793	520	--	.0	--	--
MAR.											
10...	4.5	--	.06	290	140	573	374	--	9.0	--	--
20...	3.7	--	.28	170	74	349	228	--	3.0	--	--
APR.											
26...	3.2	--	.28	310	140	603	378	--	14.5	--	--
30...	4.0	--	.38	200	90	423	254	--	11.0	--	--
MAY											
09...	3.1	--	.29	330	150	633	408	--	16.5	--	--
31...	4.4	--	.37	240	100	471	302	--	16.5	4.0	<.5
JUNE											
23...	4.6	--	.65	150	63	309	210	--	22.5	--	--
27...	4.6	--	.42	270	110	525	368	--	25.0	--	--
JULY											
24...	2.5	--	.52	360	150	697	490	--	24.0	--	--
29...	4.8	--	.36	140	42	341	238	--	25.0	--	--
AUG.											
13...	--	2.4	.30	--	--	607	--	499	26.0	--	--
20...	--	2.7	.24	--	--	346	--	418	23.5	--	--
SEP.											
01...	--	1.6	.28	--	--	543	--	421	26.0	--	--
30...	--	1.3	.57	--	--	846	--	616	21.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04198005 SANDUSKY RIVER BELOW FREMONT, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	513	431	822	789	507	434	632	450	539	522	818	755	
2	456	434	789	565	558	454	472	439	570	518	794	749	
3	449	440	565	390	582	450	464	450	518	419	749	698	
4	479	449	418	393	595	465	532	464	422	387	698	547	
5	515	473	432	415	627	531	477	420	398	383	551	536	
6	555	510	474	430	664	252	469	420	452	399	560	527	
7	590	549	512	470	419	270	496	469	510	450	527	515	
8	617	593	567	363	358	296	531	483	564	510	538	500	
9	638	608	363	336	399	351	591	531	599	564	557	538	
10	651	624	363	350	501	387	644	591	630	599	581	545	
11	654	635	411	363	585	492	659	626	645	630	545	455	
12	---	---	470	411	723	579	705	635	672	645	455	362	
13	703	683	513	470	741	423	736	676	680	655	377	362	
14	652	586	522	293	423	350	741	707	705	660	416	377	
15	610	584	293	240	441	372	756	723	734	705	395	305	
16	620	610	273	243	465	410	781	753	766	705	317	305	
17	641	619	321	204	---	---	786	765	735	720	326	281	
18	716	614	392	321	---	---	796	757	775	724	305	272	
19	711	693	470	392	616	605	771	741	790	754	326	305	
20	729	699	543	470	681	622	771	744	794	754	350	326	
21	714	697	524	500	690	591	748	732	762	729	392	350	
22	736	714	510	495	586	501	762	736	739	708	425	392	
23	744	729	540	508	501	465	765	703	757	739	455	425	
24	760	744	560	531	465	450	699	630	793	757	491	455	
25	790	759	574	554	480	460	648	585	798	766	509	491	
26	876	786	639	574	516	334	583	555	798	770	515	500	
27	817	792	652	632	574	516	573	564	804	770	500	461	
28	853	798	770	556	573	555	604	571	797	758	473	461	
29	---	---	591	465	596	570	600	550	---	---	497	473	
30	812	795	524	456	633	596	550	480	---	---	521	482	
31	812	795	---	---	658	633	520	502	---	---	476	410	
MONTH	876	431	822	204	741	252	796	420	804	383	818	272	
		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	449	422	421	406	475	445	432	385	406	385	537	501	
2	464	452	461	416	480	448	432	412	432	406	549	511	
3	506	455	523	461	495	480	504	432	459	432	556	538	
4	545	506	560	523	520	492	498	433	477	448	552	540	
5	566	515	596	560	552	504	510	397	487	469	564	540	
6	527	485	616	596	550	361	435	328	523	487	582	540	
7	491	455	626	616	382	357	370	330	550	516	595	562	
8	455	446	643	626	423	382	412	370	565	531	598	580	
9	485	455	659	626	409	382	453	412	579	564	612	598	
10	542	485	665	586	438	399	459	450	577	570	628	613	
11	503	443	599	577	466	438	507	454	577	567	636	627	
12	455	410	607	407	501	466	553	507	577	570	---	---	
13	446	440	407	338	555	454	579	553	582	570	---	---	
14	485	446	407	385	454	424	601	579	571	550	---	---	
15	521	485	422	407	507	445	624	600	567	525	---	---	
16	520	506	469	422	544	496	634	616	697	568	---	---	
17	515	487	515	467	600	544	648	628	603	360	---	---	
18	542	494	569	515	625	600	642	622	367	343	---	---	
19	605	542	590	559	649	606	633	589	343	327	---	---	
20	625	605	640	590	667	597	640	621	340	327	---	---	
21	628	611	643	500	654	297	639	627	357	337	740	723	
22	635	622	566	508	297	261	636	624	381	355	771	732	
23	641	620	536	482	319	273	672	609	405	378	767	752	
24	620	562	550	529	376	319	699	462	445	402	767	750	
25	596	574	554	544	504	376	496	456	463	441	770	752	
26	605	596	571	281	528	504	504	436	507	463	791	768	
27	601	589	281	242	534	522	528	436	523	495	795	786	
28	596	395	298	263	577	534	537	406	528	499	797	785	
29	425	376	350	298	582	369	420	345	531	522	810	795	
30	421	395	425	350	387	351	366	345	531	516	827	806	
31	---	---	484	425	---	---	385	364	531	499	---	---	
MONTH	641	376	665	242	667	261	699	328	697	327	---	---	
YEAR	876	204											

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04198005 SANDUSKY RIVER BELOW FREMONT, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.6	10.3	9.6	8.0	12.4	11.9	11.1	10.5	15.0	13.4	15.0	13.0
2	10.9	10.0	8.7	7.6	12.8	11.9	11.0	10.6	14.1	13.3	14.8	12.7
3	10.1	9.2	10.6	7.7	12.4	11.5	12.7	10.9	13.7	13.0	14.6	12.4
4	9.2	8.8	10.2	9.8	12.6	12.0	12.8	12.4	13.8	11.1	12.6	12.3
5	10.2	8.3	9.9	9.1	12.6	11.7	12.9	12.2	13.7	13.5	12.5	11.7
6	9.7	9.1	9.3	8.2	12.5	11.4	13.3	12.8	13.6	13.0	11.8	11.1
7	9.8	9.3	10.3	9.5	13.0	12.5	13.3	13.0	13.3	13.0	11.5	10.8
8	10.0	9.5	9.9	9.4	12.8	12.2	13.2	13.0	13.3	11.5	12.7	11.0
9	10.0	9.7	10.8	9.2	12.2	11.7	13.1	12.6	15.0	12.1	10.9	10.4
10	10.2	9.0	10.8	9.9	11.7	11.4	13.1	12.7	15.0	15.0	10.8	10.3
11	9.4	8.7	10.2	9.6	11.6	11.3	12.9	12.5	15.0	14.4	10.5	9.9
12	---	---	9.9	8.5	11.5	10.9	12.7	12.3	15.0	15.0	10.2	9.9
13	10.0	8.0	8.7	8.1	12.2	10.7	12.6	12.1	15.0	14.0	10.4	10.0
14	8.9	8.2	8.9	8.3	12.6	11.9	12.5	12.7	14.5	13.3	10.4	10.1
15	9.8	9.4	9.4	9.0	12.0	11.6	12.3	11.9	13.4	12.0	10.2	9.5
16	10.7	10.1	9.7	9.3	12.1	9.5	12.3	11.8	14.8	12.0	9.9	9.6
17	10.7	10.3	10.2	9.4	---	---	12.0	11.5	14.6	14.2	11.3	9.7
18	11.1	9.4	10.8	9.0	---	---	11.7	11.1	14.9	14.1	12.1	11.4
19	9.9	9.4	10.5	9.4	13.6	13.4	13.6	10.1	15.0	14.4	12.3	11.9
20	10.3	9.4	10.1	9.3	13.4	13.2	13.2	12.4	15.0	14.1	12.1	11.3
21	10.5	9.3	10.5	10.0	13.3	13.1	13.3	12.8	14.9	14.1	12.0	11.4
22	9.7	7.8	11.2	10.5	13.2	12.8	13.2	12.3	14.7	14.1	11.8	11.2
23	8.7	6.7	11.7	11.2	12.9	12.4	12.7	12.3	15.0	14.4	11.8	11.1
24	7.4	3.8	12.2	11.7	12.5	12.1	12.9	12.2	15.0	15.0	11.6	11.0
25	8.6	6.3	12.1	11.4	12.2	11.4	12.9	12.2	15.0	14.8	11.1	10.4
26	8.8	7.8	11.9	11.0	11.7	11.1	12.4	12.0	15.0	14.8	10.7	10.2
27	8.3	5.0	13.1	11.4	11.6	10.9	12.0	11.0	15.0	14.7	10.5	10.1
28	5.4	2.7	12.9	12.2	10.9	10.4	11.3	10.4	15.0	13.2	10.6	9.8
29	---	---	12.7	12.2	10.5	10.2	11.8	11.0	---	---	10.3	9.5
30	9.4	7.9	12.7	11.8	10.2	9.1	11.5	11.2	---	---	9.8	9.6
31	9.2	8.4	---	---	11.0	8.5	13.5	11.2	---	---	9.9	9.7
MONTH	11.1	2.7	13.1	7.6	13.6	8.5	13.6	10.1	15.0	11.1	15.0	9.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.8	9.3	10.2	9.3	7.4	6.8	8.0	7.4	6.4	5.3	5.7	0.8
2	9.6	9.2	9.4	8.7	7.1	6.4	7.6	7.3	6.4	4.4	3.0	0.6
3	9.9	9.4	9.2	8.7	6.5	6.2	7.5	6.6	6.5	5.1	2.3	0.1
4	9.9	9.8	9.5	8.9	6.5	5.9	7.5	6.8	6.7	5.0	0.9	0.1
5	10.6	9.9	9.8	9.3	6.5	5.6	7.7	7.4	7.3	4.9	2.1	0.1
6	10.8	9.9	9.7	8.8	7.4	6.6	7.7	7.4	7.2	2.7	1.3	0.1
7	10.2	10.0	9.3	8.5	7.6	7.3	7.5	6.9	3.3	2.7	1.2	0.1
8	10.3	9.5	8.5	8.0	7.7	7.3	7.2	6.7	3.5	3.3	2.2	0.2
9	10.0	9.7	8.7	7.5	7.5	6.9	6.9	6.4	4.4	3.3	2.8	0.1
10	10.5	9.8	8.0	6.7	7.1	6.3	6.8	5.2	4.7	4.0	1.5	0.1
11	11.0	10.2	7.4	6.4	6.5	5.6	6.5	5.3	4.5	4.1	2.1	0.1
12	10.9	10.6	7.5	7.1	5.7	5.2	7.5	6.1	4.9	4.4	---	---
13	11.0	9.9	7.7	7.5	6.3	5.4	6.8	5.6	9.6	4.7	---	---
14	10.7	10.1	7.8	7.3	6.4	6.0	6.8	5.7	7.7	4.9	---	---
15	10.2	9.4	7.8	7.1	6.6	5.6	7.4	5.9	5.3	0.2	---	---
16	9.7	9.0	7.8	7.3	6.1	4.8	7.6	6.3	7.9	3.8	---	---
17	9.5	9.1	7.9	7.3	5.3	4.0	7.5	5.0	6.8	6.5	---	---
18	9.7	8.8	8.0	7.2	5.5	4.6	8.4	4.4	6.8	6.2	---	---
19	9.6	8.9	7.6	7.1	6.0	4.7	9.9	5.5	6.3	5.9	---	---
20	10.3	9.0	7.9	6.6	6.6	5.2	10.3	4.7	5.9	4.3	---	---
21	10.4	9.2	8.2	7.5	7.6	6.8	8.4	6.1	5.4	3.6	4.2	2.2
22	9.9	8.4	8.2	7.7	7.8	7.5	7.6	3.5	5.0	3.0	3.2	1.8
23	10.4	8.3	8.3	7.8	7.7	7.3	9.9	5.0	4.9	3.9	4.1	0.6
24	9.9	8.7	7.8	7.3	7.3	7.0	6.9	5.1	5.5	3.2	5.0	2.4
25	10.4	8.6	7.6	7.1	7.1	6.1	6.5	5.8	5.6	3.1	4.1	1.4
26	10.5	8.4	8.1	7.1	6.5	5.9	6.4	5.2	7.3	2.7	3.4	1.2
27	10.3	9.0	8.2	7.8	6.3	5.5	6.7	5.9	7.1	4.7	2.8	0.7
28	10.2	9.2	8.0	7.5	6.6	6.0	6.7	6.4	7.3	4.6	2.3	0.7
29	10.5	10.0	7.5	7.2	7.9	6.6	6.9	6.5	6.5	3.0	1.5	0.1
30	10.5	9.8	7.7	7.3	7.9	7.3	6.8	6.0	5.0	0.6	0.6	0.1
31	---	---	8.1	7.2	---	---	6.3	5.5	9.6	1.1	---	---
MONTH	11.0	8.3	10.2	6.4	7.9	4.0	10.3	3.5	9.6	0.2	---	---
YEAR	15.0	0.1										

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04198005 SANDUSKY RIVER BELOW FREMONT, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	13.0	9.0	8.5	3.0	2.5	5.5	4.5	2.5	1.0	1.5	0.5
2	14.5	12.5	11.5	9.0	3.5	2.5	4.5	3.5	4.0	2.0	2.5	1.0
3	15.0	13.5	11.5	11.0	3.5	3.0	3.5	3.0	4.0	3.5	4.5	2.0
4	15.5	13.5	11.5	10.5	3.0	3.0	3.0	2.0	4.5	3.5	5.0	4.0
5	16.0	14.0	10.5	9.5	4.0	3.0	2.0	0.5	4.0	3.5	6.5	5.0
6	16.0	15.0	9.5	9.0	5.0	4.0	0.5	0.0	4.0	3.5	9.0	6.5
7	15.5	15.0	9.5	9.0	4.0	2.5	0.5	0.0	4.5	3.5	10.0	8.5
8	15.0	13.5	9.0	8.5	2.5	2.5	0.5	0.0	4.0	3.0	11.0	9.0
9	14.5	12.5	8.5	8.0	3.0	2.5	0.5	0.0	3.0	2.0	10.0	9.0
10	12.5	11.5	8.0	8.0	3.0	2.0	0.5	0.0	2.0	1.0	9.0	8.0
11	12.0	11.0	8.0	7.5	2.0	1.5	0.5	0.0	1.5	0.5	10.5	8.5
12	---	---	8.0	7.5	2.5	1.5	0.5	0.0	1.5	0.5	11.0	10.0
13	14.0	13.0	8.0	7.5	3.0	2.5	0.5	0.0	1.5	0.0	10.0	9.5
14	12.5	12.0	7.5	5.5	2.5	2.5	0.5	0.0	1.5	-1.0	10.0	9.5
15	12.5	11.0	5.5	4.5	3.0	1.5	0.0	0.0	1.5	0.0	12.0	10.0
16	11.5	10.0	5.0	4.5	1.5	0.5	0.5	0.0	1.5	0.0	12.0	10.5
17	10.5	9.5	4.5	4.0	---	---	0.5	0.0	1.0	0.5	10.5	5.5
18	9.5	8.5	4.5	4.0	---	---	1.0	0.5	1.0	0.5	5.5	3.5
19	9.0	8.0	4.5	4.5	0.5	0.0	1.0	0.5	1.0	0.0	3.5	3.0
20	8.5	7.5	5.0	4.5	0.5	0.0	1.0	0.5	1.0	0.5	3.5	2.5
21	8.5	7.5	4.5	4.5	0.5	0.0	0.5	0.5	1.0	0.0	4.0	3.0
22	8.5	7.5	4.5	4.0	2.0	0.5	2.0	0.5	1.0	0.0	4.5	3.5
23	11.0	8.5	4.0	3.5	2.5	2.0	2.0	1.5	1.0	0.5	5.0	3.5
24	11.0	10.0	5.0	3.0	3.0	2.5	2.0	1.0	1.0	0.5	6.0	4.0
25	10.0	9.0	4.5	3.5	3.5	3.0	2.5	1.0	1.0	0.5	6.0	5.0
26	9.0	8.5	4.5	3.5	3.5	3.0	2.5	2.0	1.0	0.5	7.5	6.0
27	9.0	8.0	4.0	3.5	3.0	2.5	3.0	2.0	1.0	0.5	8.0	6.5
28	10.0	8.5	4.0	3.5	3.0	2.5	3.5	2.0	1.0	0.0	7.5	6.5
29	---	---	4.0	3.0	2.5	2.0	1.5	0.0	---	---	9.0	7.0
30	9.5	9.5	3.5	2.0	5.0	2.5	0.5	0.0	---	---	9.0	8.5
31	9.5	8.5	---	---	6.0	5.0	1.0	0.0	---	---	8.5	8.0
MONTH	16.0	7.5	11.5	2.0	6.0	0.0	5.5	0.0	4.5	0.0	12.0	0.5

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04198018 WEST BRANCH HURON RIVER NEAR WILLARD, OHIO

LOCATION.--Lat 41°05'28", long 82°39'04", in T.2 W., R.23 W., Huron County, on left bank at downstream abutment of bridge on Maple Ridge Road, 4.5 mi (7.2 km) northeast of Willard, and 2.0 mi (3.2 km) downstream from Walnut Creek.

DRAINAGE AREA.--86 mi² (223 km²).

PERIOD OF RECORD.--Chemical analyses: December 1968 to September 1973.

Water temperatures: December 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 905 micromhos Sept. 5; minimum, 205 micromhos July 29.

Water temperatures: Maximum, 29.0°C July 9; minimum, freezing point on many days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.											
01...	0713	--	--	130	4	110	16	.2	--	--	4.4
11...	1430	--	--	284	0	190	29	.3	--	--	1.6
17...	1400	--	--	--	--	--	--	--	--	--	--
NOV.											
02...	1650	--	--	106	0	66	16	.2	--	--	3.6
30...	1705	--	--	216	12	170	26	.2	--	--	2.6
DEC.											
14...	1700	--	--	96	0	66	13	.2	--	--	3.2
18...	1745	--	--	214	8	160	24	.2	--	--	2.6
JAN.											
01...	1715	--	--	138	0	110	18	.2	--	--	3.2
09...	1709	--	--	206	0	180	22	.2	--	--	2.3
FEB.											
04...	1800	--	--	151	0	120	20	.1	--	--	3.4
22...	1700	--	--	234	0	160	39	.2	--	--	1.4
MAR.											
01...	1644	--	--	210	0	140	29	.2	--	--	1.6
10...	1825	--	--	132	0	97	23	.1	--	--	2.5
APR.											
05...	1620	--	--	117	0	80	13	.2	--	--	2.4
25...	1625	--	--	223	7	170	24	.3	--	--	.40
MAY											
08...	1140	--	--	246	0	150	28	.3	--	--	.50
30...	1245	--	--	138	0	74	16	.0	--	--	3.3
30...	1250	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	1637	--	--	104	0	50	14	.4	--	--	4.7
13...	1755	--	--	273	0	150	25	.2	--	--	1.5
JULY											
27...	1715	--	--	144	0	86	16	.4	--	--	3.4
31...	1645	--	--	272	0	170	23	.4	--	--	.50
AUG.											
07...	1755	45	33	141	0	190	25	--	.2	.00	--
17...	1805	--	--	190	4	120	21	--	.3	.00	--
SEP.											
08...	1648	--	--	257	0	210	32	--	.6	.00	--
17...	1625	41	35	--	--	--	--	--	.3	.00	--
18...	1625	--	--	124	0	210	28	--	--	--	--

EXTREMES.--Period of record:
Specific conductance (1968-69, 1970-71, 1972-73): Maximum, 1,620 micromhos Apr. 24, 1969; minimum, 140 micromhos July 5, 1969.
Water temperatures (1968-69, 1970-71, 1972-73): Maximum, 31.5°C June 28, 1971; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since December 1968. Maximum recorded specific conductance value of 1,660 microhos occurred on June 8, 1972. Minimum recorded specific conductance value of 109 microhos occurred Aug. 17, 1972. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

[illegible]

04198018 WEST BRANCH HURON RIVER NEAR WILLARD, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	540	355	736	591	---	---	550	386	704	524	785	442
2	614	540	557	332	---	---	638	550	524	312	437	384
3	684	612	547	402	---	---	687	625	483	347	457	407
4	691	655	633	531	---	---	607	338	576	486	521	45
5	752	677	712	606	506	476	561	413	621	577	530	470
6	788	688	824	626	497	290	689	566	662	621	567	482
7	831	683	702	263	515	326	747	674	687	653	616	573
8	810	704	499	305	615	515	805	717	687	662	649	611
9	818	728	615	499	649	605	836	754	730	598	674	630
10	827	785	648	557	624	591	870	787	834	676	652	475
11	862	761	761	576	644	591	880	839	780	693	486	336
12	795	375	866	292	689	413	890	870	852	746	521	345
13	577	503	510	240	413	304	885	859	862	752	578	504
14	645	577	---	---	537	387	870	836	795	732	616	236
15	706	636	---	---	607	540	836	771	760	686	398	239
16	779	667	---	---	674	540	803	754	---	---	496	398
17	816	735	---	---	676	636	788	722	---	---	431	290
18	---	---	---	---	678	654	761	669	---	---	455	362
19	---	---	---	---	682	645	727	639	---	---	466	451
20	---	---	---	---	640	431	702	621	752	560	482	447
21	891	811	---	---	431	418	800	685	730	697	505	441
22	872	831	---	---	462	408	780	644	826	666	550	504
23	904	832	---	---	513	438	624	528	719	691	587	513
24	900	843	---	---	549	501	601	544	735	614	527	470
25	875	793	---	---	601	552	658	598	747	674	510	463
26	876	790	---	---	641	601	726	651	752	651	486	418
27	879	813	---	---	643	596	713	641	766	665	553	479
28	859	813	---	---	663	625	634	467	784	689	609	553
29	831	733	---	---	689	658	518	437	---	---	644	569
30	749	626	---	---	678	555	653	533	---	---	569	430
31	708	672	---	---	571	365	687	567	---	---	569	497
MONTH	904	355	---	---	689	290	890	338	862	312	785	236

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04199100 HURON RIVER BELOW MILAN, OHIO

LOCATION.--Lat 41°20'06", long 82°34'38", in SW 1/4 sec. 2, T.5 N., R.22 W., Erie County, on right bank at downstream side of bridge on Mason Road, 3.5 mi (5.6 km) northeast of Milan, and 4.2 mi (6.8 km) downstream from the gaging station at Milan.

DRAINAGE AREA.--385 mi² (997 km²).

PERIOD OF RECORD.--Chemical analyses: June 1968 to September 1973.
Water temperatures: June 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 892 micromhos Sept. 19, 20; minimum, 249 micromhos June 13.

pH: Maximum, 9.2 Sept. 16; minimum, 6.4 Nov. 29, Dec. 2.

Dissolved oxygen: Maximum, 15.0 mg/l on many days during October, November, January to March; minimum, 3.1 mg/l Aug. 13.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
03...	1600	392	--	--	164	0	100	21	.3	--	--
17...	1510	--	--	--	--	--	--	--	--	--	--
24...	1100	170	--	--	218	12	140	34	.3	--	--
NOV.											
07...	1400	375	--	--	196	0	120	28	.2	--	--
16...	1300	1500	--	--	120	0	77	16	.2	--	--
DEC.											
13...	1000	3820	--	--	100	0	730	23	.2	--	--
20...	1400	1050	--	--	180	0	120	45	.2	--	--
JAN.											
02...	1430	495	--	--	128	0	89	20	.2	--	--
16...	1500	100	--	--	216	16	160	30	.3	--	--
FEB.											
06...	1000	381	--	--	138	8	110	23	.2	--	--
20...	1000	144	--	--	224	0	150	38	.2	--	--
MAR.											
06...	1100	1020	--	--	120	0	95	24	.2	--	--
21...	1000	1310	--	--	110	0	73	19	.2	--	--
APR.											
11...	0900	783	--	--	128	0	84	17	.2	--	--
24...	1000	228	--	--	190	0	140	26	.3	--	--
MAY											
08...	1000	152	--	--	194	0	140	24	.2	--	--
23...	2000	920	--	--	152	0	88	24	.2	--	--
30...	1350	--	--	--	--	--	--	--	--	--	--
JUNE											
12...	1600	156	--	--	198	0	110	24	.2	--	--
30...	1900	372	--	--	149	0	78	20	.2	--	--
JULY											
23...	2200	64	--	--	220	--	140	29	.3	--	--
30...	1900	68	--	--	189	--	100	22	.4	--	--
AUG.											
02...	1800	53	39	8.9	121	1	66	29	--	1.0	.00
11...	1900	30	91	25	222	4	170	35	--	.4	.00
SEP.											
08...	1400	28	96	28	242	0	180	46	--	.4	.00
29...	1900	61	100	30	254	8	200	44	--	.4	.00

04199100 HURON RIVER BELOW MILAN, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (1971-73): Maximum, 1,170 micromhos Feb. 14, 1972; minimum, 189 micromhos Aug. 18, 1972.
 pH (1971-73): Maximum, 9.2 Sept. 16, 1973; minimum, 4.3 Dec. 10, 1971.

Dissolved oxygen (1971-73): Maximum, 15.0 mg/l or higher on several days during 1971-73; minimum, 3.1 mg/l Aug. 13, 1973.

Water temperatures (1971-72): Maximum, 30.0°C July 23, 1972; minimum, freezing point on many days during winter period.

REMARKS.--Water-quality recorder operated since June 1968. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Records of discharge are given for Huron River at Milan, Ohio, station 04199000, drainage area 371 mi² (961 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
03...	3.1	--	.16	260	120	540	364	--	16.0	--	--
17...	--	--	--	--	--	--	--	--	10.5	2.0	<.5
24...	1.6	--	.33	360	160	727	490	--	12.0	--	--
NOV.											
07...	2.9	--	.17	310	150	613	410	--	9.0	--	--
16...	3.4	--	.23	200	100	417	264	--	5.0	--	--
DEC.											
13...	3.1	--	.40	150	68	396	246	--	2.0	--	--
20...	2.7	--	.15	300	150	648	412	--	.5	--	--
JAN.											
02...	2.6	--	.18	210	100	456	328	--	2.0	--	--
16...	2.6	--	.17	390	190	766	502	--	.5	--	--
FEB.											
06...	3.4	--	.15	270	140	540	350	--	3.5	--	--
20...	2.0	--	.19	360	180	734	472	--	.5	--	--
MAR.											
06...	4.0	--	.18	210	110	480	318	--	6.5	--	--
21...	2.8	--	.08	180	90	398	264	--	2.0	--	--
APR.											
11...	2.3	--	.22	200	95	429	262	--	4.5	--	--
24...	1.5	--	.17	310	150	637	412	--	16.0	--	--
MAY											
08...	1.0	--	.15	310	150	618	376	--	15.5	--	--
23...	3.3	--	.24	240	120	515	294	--	15.5	--	--
30...	--	--	--	--	--	--	--	--	--	4.0	<.5
JUNE											
12...	2.2	--	.24	290	78	599	402	--	26.5	--	--
30...	3.8	--	.30	230	110	478	310	--	19.5	--	--
JULY											
23...	.80	--	.28	330	--	673	438	--	23.5	--	--
30...	2.7	--	.29	280	--	556	358	--	23.5	--	--
AUG.											
02...	--	2.4	1.0	--	--	443	--	292	--	--	--
11...	--	1.1	.31	--	--	764	--	780	26.5	--	--
SEP.											
08...	--	1.4	.45	--	--	842	--	688	24.5	--	--
29...	--	1.2	.55	--	--	890	--	710	21.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04199100 HURON RIVER BELOW MILAN, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	358	322	707	692	669	627	432	405	623	557	750	702
2	492	358	692	411	699	669	489	423	643	367	702	407
3	562	478	459	393	708	696	549	489	393	345	433	391
4	---	---	537	459	696	681	573	387	467	393	474	434
5	---	---	597	537	720	525	426	366	520	467	524	474
6	---	---	636	597	525	252	504	426	561	520	502	472
7	---	---	657	528	375	252	567	504	586	561	552	502
8	---	---	528	354	492	375	609	567	615	586	581	552
9	---	---	459	363	564	492	663	609	661	613	613	580
10	---	---	540	459	585	564	711	663	675	645	630	552
11	---	---	570	540	594	582	744	711	688	664	566	362
12	---	---	591	570	690	594	771	744	705	684	424	355
13	562	484	609	591	699	309	801	771	730	709	513	424
14	546	483	606	267	417	315	804	795	732	723	563	323
15	587	545	396	273	501	417	795	780	723	707	323	274
16	641	587	483	396	564	501	780	766	720	708	435	319
17	667	640	528	483	576	564	769	742	782	713	458	302
18	693	666	561	528	585	576	746	701	775	763	406	301
19	719	692	582	561	594	585	701	659	777	759	432	406
20	721	715	594	519	702	555	659	644	785	734	433	403
21	733	715	522	507	555	414	656	653	792	750	429	390
22	762	732	576	522	417	408	666	656	815	749	446	428
23	764	737	618	576	441	411	674	596	814	751	466	446
24	745	709	654	618	471	441	596	574	789	741	471	444
25	742	727	669	654	504	471	574	570	788	734	470	434
26	760	742	675	660	558	504	584	569	741	720	481	424
27	763	754	672	645	567	549	601	580	746	725	441	435
28	756	747	645	600	582	567	624	600	754	709	527	440
29	747	735	606	594	600	579	629	536	---	---	571	527
30	738	705	627	606	618	600	547	532	---	---	579	414
31	717	705	---	---	603	441	561	537	---	---	470	416
MONTH	---	---	707	267	720	252	804	366	815	345	750	274

[illegible]

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE EPIF

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04199100 HURON RIVER BELOW MILAN, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.5	9.0	2.5	2.0	5.0	3.0	0.5	0.5	1.5	1.0
2	---	---	12.5	9.5	2.5	2.0	3.5	2.0	4.0	0.5	3.0	1.0
3	---	---	12.5	11.5	3.5	2.5	2.0	0.5	4.0	3.5	5.0	3.0
4	---	---	11.5	10.5	3.5	2.5	2.5	1.5	3.5	2.5	6.5	5.0
5	---	---	10.5	9.0	4.0	3.0	2.5	1.0	3.5	3.0	8.0	6.0
6	---	---	9.5	8.0	6.0	4.0	1.0	0.5	3.5	3.0	9.0	6.5
7	---	---	10.0	9.0	4.0	2.0	0.5	0.0	3.5	2.5	10.0	8.5
8	---	---	10.5	10.0	2.5	1.5	0.5	0.0	3.5	2.0	10.5	8.5
9	---	---	10.0	9.0	3.5	2.5	0.5	0.5	2.0	0.5	10.0	8.0
10	---	---	9.0	8.5	3.5	3.0	0.5	0.5	1.0	0.5	9.0	7.0
11	---	---	9.5	9.0	3.0	1.0	0.5	0.0	0.5	0.5	12.0	9.0
12	---	---	9.0	9.0	2.5	1.0	0.5	0.0	0.5	0.5	12.0	9.5
13	12.5	12.0	9.0	8.5	3.0	2.0	0.5	0.0	0.5	0.0	9.5	8.5
14	12.0	11.0	8.5	7.0	2.0	2.0	0.0	0.0	0.5	0.0	---	---
15	11.5	10.5	7.0	6.5	2.0	1.0	0.0	0.0	1.0	0.0	---	---
16	11.0	10.0	7.0	6.0	1.5	1.0	1.0	0.0	1.5	1.0	---	---
17	10.5	10.0	6.5	6.0	1.5	1.0	0.0	0.0	1.5	0.5	---	---
18	10.0	8.5	7.0	6.5	---	---	0.5	0.0	1.0	0.5	---	---
19	8.5	7.5	7.0	6.5	---	---	0.5	0.0	0.5	0.0	---	---
20	8.0	7.0	7.0	6.5	0.5	0.5	1.0	0.0	0.5	0.5	---	---
21	7.5	6.5	6.5	5.0	1.0	0.0	0.5	0.5	1.0	0.5	---	---
22	8.5	7.5	5.0	4.5	1.5	1.0	1.5	0.5	1.0	0.5	---	---
23	11.5	8.5	4.5	4.0	2.0	1.0	2.0	1.5	1.0	0.5	---	---
24	12.0	10.5	4.0	3.0	2.0	1.5	1.5	1.0	1.0	0.5	---	---
25	10.5	8.5	3.5	3.0	2.0	2.0	1.5	0.5	1.0	0.5	---	---
26	8.5	8.0	3.5	3.0	2.0	1.5	2.0	1.5	1.0	1.0	---	---
27	8.5	7.5	3.5	3.0	1.5	1.5	3.0	2.0	1.5	1.0	---	---
28	10.5	8.0	3.5	3.0	1.5	1.5	3.0	2.5	1.5	1.0	---	---
29	11.0	10.5	3.0	2.0	1.5	1.0	2.5	1.0	---	---	---	---
30	10.5	9.0	3.0	2.0	4.0	1.5	0.5	0.5	---	---	---	---
31	9.0	8.5	---	---	5.5	4.0	0.5	0.5	---	---	---	---
MONTH	---	---	12.5	2.0	6.0	0.0	5.0	0.0	4.0	0.0	---	---

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	20.5	17.5	22.0	21.5	25.5	24.5	28.0	27.0
2	---	---	---	---	21.0	20.0	25.5	22.0	25.5	24.5	28.0	27.0
3	---	---	---	---	22.5	20.5	27.0	24.0	25.5	24.5	28.0	27.0
4	---	---	---	---	22.5	20.0	26.5	24.0	25.0	24.0	27.5	27.0
5	---	---	---	---	23.5	20.0	24.5	22.5	25.5	24.0	27.5	27.0
6	---	---	---	---	23.0	19.5	25.0	23.5	25.0	24.5	27.5	26.0
7	---	---	---	---	21.5	19.0	27.0	24.0	26.0	24.5	26.0	25.0
8	---	---	---	---	24.0	19.5	28.0	25.0	27.0	25.0	25.5	24.0
9	---	---	---	---	24.5	22.0	28.0	26.5	27.5	26.0	24.0	23.0
10	---	---	---	---	25.0	23.5	28.5	27.0	27.5	26.5	23.0	22.0
11	---	---	---	---	27.0	24.5	27.5	25.5	27.0	26.5	22.5	21.5
12	---	---	---	---	28.0	25.5	25.5	23.5	27.0	26.0	23.5	21.0
13	---	---	---	---	26.0	21.0	24.5	22.5	26.5	25.0	21.0	20.0
14	---	---	14.5	13.5	23.5	21.5	25.5	23.5	26.0	24.5	20.5	20.0
15	---	---	16.5	13.5	24.5	22.5	26.5	24.5	24.5	20.5	21.0	19.5
16	---	---	15.0	13.5	25.0	22.5	26.0	25.5	23.5	21.0	21.0	20.0
17	---	---	16.0	13.5	25.0	21.5	26.5	25.0	24.0	23.5	20.0	19.5
18	---	---	16.5	13.0	22.5	21.0	26.0	25.0	25.5	23.0	19.5	18.5
19	---	---	16.0	14.0	24.0	22.5	26.0	25.0	25.5	24.0	19.0	18.0
20	---	---	15.0	12.0	24.0	23.0	27.5	25.0	25.5	24.5	18.0	17.5
21	---	---	18.0	13.0	24.0	22.0	---	---	24.5	23.0	19.0	17.0
22	---	---	18.0	15.5	24.5	23.0	---	---	23.0	21.5	19.0	17.0
23	---	---	16.0	15.0	25.0	23.0	---	---	21.5	20.5	19.5	18.0
24	---	---	15.5	15.0	23.5	20.5	25.5	24.5	21.0	20.5	19.5	18.0
25	---	---	15.5	14.5	23.0	20.0	26.0	24.0	22.0	20.5	20.0	18.5
26	---	---	18.0	15.0	24.5	23.0	25.5	24.5	23.5	21.0	21.0	19.5
27	---	---	17.5	16.0	25.0	23.0	25.5	24.5	25.0	22.5	21.0	20.0
28	---	---	20.0	17.5	22.5	19.5	26.0	24.5	26.0	23.5	21.0	21.0
29	---	---	20.0	18.5	21.0	19.0	25.0	24.0	27.0	25.0	21.0	21.0
30	---	---	19.0	17.0	21.5	19.5	25.0	24.0	27.5	26.0	21.0	20.5
31	---	---	19.5	16.0	---	---	25.0	24.0	27.5	26.5	---	---
MONTH	---	---	---	---	28.0	17.5	28.5	21.5	27.5	20.5	28.0	17.0

STREAMS TRIBUTARY TO LAKE ERIE

04199500 VERMILION RIVER NEAR VERMILION, OHIO

LOCATION.--Lat 41°22'55", long 82°19'01", in T.6 N., R.19 W., Lorain County, at gaging station on right bank 40 ft (12 m) downstream from bridge on North Ridge Road, 3.5 mi (5.6 km) southeast of Vermilion, and 4.5 mi (7.2 km) upstream from mouth. Water-quality recorder located at bridge on North Ridge Road.

DRAINAGE AREA.--262 sq mi.

PERIOD OF RECORD.--Chemical analyses: March 1950 to February 1952, February 1969 to September 1973.

Water temperatures: March to August 1950, February 1969 to September 1973.

Sediment records: Water years 1970-73 (partial-record station).

EXTREMES.--1972-73:

Specific conductance: Maximum, 801 micromhos Feb. 16; minimum, 218 micromhos July 20.

Water temperatures: Maximum, 34.0°C Aug. 5; minimum, freezing point on several days during January and February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.										
02...	0930	1190	94	0	49	9.9	.2	--	--	2.3
17...	1615	--	--	--	--	--	--	--	--	--
27...	0820	85	224	4	120	29	.2	--	--	.60
NOV.										
10...	0750	1060	98	0	59	13	.2	--	--	2.6
27...	0740	370	164	0	86	19	.2	--	--	1.8
DEC.										
04...	1245	248	174	0	98	30	.2	--	--	2.3
15...	1010	630	92	0	61	19	.2	--	--	2.0
JAN.										
02...	1310	375	130	0	77	18	.2	--	--	1.9
16...	1630	60	188	0	120	26	.2	--	--	1.6
FEB.										
05...	0856	476	104	0	74	17	.1	--	--	2.5
26...	0850	135	178	0	120	70	.1	--	--	1.3
MAR.										
02...	0835	990	126	0	75	34	.1	--	--	2.6
16...	0825	2260	76	0	45	10	.1	--	--	1.7
APR.										
06...	0835	1170	98	0	61	14	.2	--	--	1.7
24...	0855	102	185	0	100	23	.2	--	--	.30
MAY										
11...	0747	500	187	0	96	22	.2	--	--	.50
14...	0925	200	134	0	67	15	.2	--	--	1.9
30...	1445	--	--	--	--	--	--	--	--	--
JUNE										
14...	1405	191	100	0	43	14	.3	--	--	2.1
29...	0748	149	182	0	68	23	.3	--	--	1.1
JULY										
23...	0725	113	212	0	85	23	.4	--	--	.80
30...	0735	36	142	0	65	16	.4	--	--	1.2
AUG.										
13...	0735	34	203	4	97	28	--	.6	.00	--
20...	0730	56	127	1	73	16	--	.4	.00	--
SEP.										
04...	0733	7.9	186	6	100	25	--	.4	.00	--
24...	0745	5.4	218	7	110	33	--	.3	.01	--

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
DEC.					
12...	1145	280	.5	15	11
FEB.					
07...	1630	240	2.5	14	9.1
MAR.					
02...	1310	1400	1.5	313	1180
15...	1740	3430	15.0	941	8720
APR.					
10...	1150	807	6.0	116	253
SEP.					
21...	1000	6.6	12.0	22	.39

04199500 VERMILION RIVER NEAR VERMILION, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1972-73): Maximum, 801 micromhos Feb. 16, 1973; minimum, 218 micromhos July 20, 1973.
 Water temperatures (1971-73): Maximum, 34.0°C Aug. 5, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since February 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	--	140	63	298	8.0	200	--	12.0	--	--
17...	--	--	--	--	--	--	--	10.0	3.0	<.5
27...	--	310	120	646	8.3	424	--	6.0	--	--
NOV.										
10...	--	160	80	336	7.9	230	--	7.0	--	--
27...	--	220	86	469	8.0	316	--	2.0	--	--
DEC.										
04...	--	250	110	552	7.9	366	--	2.5	--	--
15...	--	150	74	333	7.9	218	--	1.0	--	--
JAN.										
02...	--	190	84	408	8.0	244	--	3.0	--	--
16...	--	290	140	628	8.2	384	--	1.5	--	--
FEB.										
05...	--	180	95	380	8.1	250	--	2.5	--	--
26...	--	300	150	703	7.7	444	--	.0	--	--
MAR.										
02...	--	240	140	496	7.3	316	--	1.0	--	--
16...	--	110	48	254	7.6	170	--	12.0	--	--
APR.										
06...	--	150	70	331	7.6	188	--	5.5	--	--
24...	--	260	110	539	7.9	312	--	13.0	--	--
MAY										
11...	--	250	97	520	7.7	302	--	15.0	--	--
14...	--	190	80	393	7.9	226	--	12.0	--	--
30...	--	--	--	--	--	--	--	19.0	7.0	.6
JUNE										
14...	--	140	58	292	7.9	196	--	--	--	--
29...	--	230	81	472	7.6	300	--	18.0	--	--
JULY										
23...	--	270	96	556	8.0	366	--	21.0	--	--
30...	--	190	74	398	7.8	250	--	20.5	--	--
AUG.										
13...	.24	--	--	588	8.5	--	449	23.0	--	--
20...	2.3	--	--	413	8.4	--	388	23.0	--	--
SEP.										
04...	.25	--	--	575	8.6	--	424	24.0	--	--
24...	.17	--	--	661	8.6	--	464	15.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR.											
02...	1310	31	41	54	66	78	85	92	98	99	100
15...	1740	43	54	65	74	82	87	91	95	98	100
APR.											
10...	1150	61	74	81	88	94	97	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
21...	2	1	1	4	8	12	16	26	46	83	100	--

04199500 VERMILION RIVER NEAR VERMILION, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	358	318	603	566	---	---	401	375	556	468	584	493
2	344	315	566	386	---	---	418	401	485	388	517	360
3	389	346	418	339	504	498	439	412	388	342	360	335
4	413	389	---	---	---	---	432	385	371	340	435	338
5	433	413	420	392	457	448	390	365	400	371	394	364
6	444	432	458	423	470	290	400	365	433	400	414	381
7	455	444	474	349	---	---	449	400	456	433	412	389
8	465	451	349	322	---	---	483	447	531	451	435	412
9	472	461	322	273	---	---	447	409	549	503	466	435
10	487	471	343	322	---	---	464	424	544	524	495	455
11	580	482	409	336	---	---	---	---	530	520	459	354
12	580	567	437	397	---	---	---	---	569	530	411	311
13	597	458	449	356	---	---	---	---	573	556	375	321
14	458	391	356	236	---	---	523	518	603	549	401	307
15	444	425	---	---	---	---	523	518	685	547	341	325
16	479	444	---	---	---	---	---	---	801	663	418	254
17	477	467	358	330	---	---	---	---	673	609	477	301
18	517	477	---	---	---	---	---	---	621	609	467	293
19	533	506	---	---	---	---	---	---	650	605	---	---
20	567	533	---	---	---	---	---	---	676	617	---	---
21	573	566	---	---	---	---	494	457	772	636	---	---
22	575	556	470	398	---	---	550	471	671	638	---	---
23	575	564	427	415	---	---	488	468	768	644	---	---
24	589	570	443	425	---	---	522	463	647	621	349	317
25	592	584	460	444	---	---	486	484	694	620	334	303
26	678	592	495	448	---	---	597	463	748	626	324	303
27	649	612	470	444	---	---	594	471	780	603	353	315
28	632	625	474	461	---	---	595	489	606	573	381	321
29	627	584	468	461	408	394	522	454	---	---	416	375
30	587	569	482	468	427	408	522	454	---	---	450	391
31	614	587	---	---	443	401	474	462	---	---	419	387
MONTH	678	315	---	---	---	---	---	---	801	340	584	254

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04199900 EAST BRANCH BLACK RIVER AT GRAFTON, OHIO

LOCATION.--Lat 41°15'51", long 82°03'39", in T.4 N., R.16 W., Lorain County, on right downstream abutment of bridge on Crook Street at south edge of Grafton, and 14.0 mi (22.5 km) upstream from West Branch Black River.

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--Chemical analyses: April 1969 to September 1973.

Water temperatures: April 1969 to September 1973.

EXTREMES.--Period of record:

Specific conductance (1971-72): Maximum, 1,270 micromhos Nov. 18, 19, 1971; minimum, 271 micromhos Apr. 14, 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.											
02...	1515	--	--	100	0	59	13	.1	--	--	1.6
13...	1720	--	--	192	10	130	40	.2	--	--	1.0
16...	1500	--	--	--	--	--	--	--	--	--	--
NOV.											
01...	1410	--	--	182	6	140	44	.2	--	--	.80
14...	1650	--	--	66	0	46	11	.1	--	--	1.3
DEC.											
08...	1625	--	--	102	0	70	18	.1	--	--	1.6
18...	1605	--	--	142	4	110	26	.1	--	--	1.4
JAN.											
05...	1705	--	--	78	0	69	16	.2	--	--	1.7
15...	1410	--	--	240	0	150	40	.2	--	--	1.4
FEB.											
05...	1715	--	--	103	0	88	22	.2	--	--	1.8
26...	1300	--	--	156	0	140	53	.2	--	--	1.2
MAR.											
10...	1255	--	--	114	0	110	27	.2	--	--	1.2
15...	1230	--	--	88	0	57	14	.2	--	--	1.4
APR.											
26...	1735	--	--	202	0	130	34	.2	--	--	.30
30...	1645	--	--	106	0	74	16	.2	--	--	1.5
MAY											
11...	1945	--	--	86	0	58	12	.2	--	--	1.5
22...	1000	--	--	178	0	110	29	.2	--	--	.30
30...	1730	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	1345	--	--	84	0	44	14	.3	--	--	1.4
16...	1055	--	--	195	0	110	40	.3	--	--	1.1
JULY											
12...	1315	--	--	130	0	71	25	.3	--	--	1.6
20...	1303	--	--	206	7	120	43	.3	--	--	.30
AUG.											
03...	1535	--	--	180	0	100	36	--	.2	.01	--
28...	1400	96	29	253	0	150	56	--	.2	.01	--
SEP.											
01...	0945	100	29	252	0	150	58	--	.4	.01	--
17...	1830	--	--	243	8	160	68	--	.3	.01	--

04199900 EAST BRANCH BLACK RIVER AT GRAFTON, OHIO--CONTINUED

EXTREMES.--Period of record--Continued

Water temperatures (1971-72): Maximum, 33.0°C July 24, 1972; minimum, freezing point on several days during winter period.

REMARKS.--Water-quality recorder operated since April 1969. Maximum recorded specific conductance value of 1,630 micromhos occurred Sept. 9, 12, 1971. Minimum recorded specific conductance value of 170 micromhos occurred July 13, 1969. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	--	150	68	330	7.5	208	--	14.0	--	--
13...	--	310	140	697	8.5	440	--	12.0	--	--
16...	--	--	--	--	--	--	--	9.5	4.0	1.1
NOV.										
01...	--	300	140	669	8.4	430	--	8.5	--	--
14...	--	110	56	253	7.9	156	--	6.0	--	--
DEC.										
08...	--	150	66	354	8.0	222	--	1.0	--	--
18...	--	240	120	514	8.4	330	--	.0	--	--
JAN.										
05...	--	140	76	329	7.6	204	--	.0	--	--
15...	--	350	150	745	7.5	478	--	.0	--	--
FEB.										
05...	--	180	96	421	7.8	232	--	3.0	--	--
26...	--	290	160	684	7.6	404	--	.5	--	--
MAR.										
10...	--	210	120	486	7.6	312	--	10.0	--	--
15...	--	120	48	287	7.2	196	--	12.0	--	--
APR.										
26...	--	300	130	646	7.8	412	--	16.0	--	--
30...	--	170	83	372	7.7	246	--	12.0	--	--
MAY										
11...	--	130	60	305	7.5	208	--	15.0	--	--
22...	--	260	110	570	7.7	368	--	15.0	--	--
30...	--	--	--	--	--	--	--	17.0	6.0	<.5
JUNE										
06...	--	110	41	266	6.9	180	--	20.0	--	--
16...	--	270	110	607	7.4	392	--	23.0	--	--
JULY										
12...	--	180	74	434	7.3	272	--	22.0	--	--
20...	--	300	120	677	8.3	426	--	24.0	--	--
AUG.										
03...	.74	--	--	605	7.6	--	507	23.0	--	--
28...	.29	--	--	841	8.1	--	618	27.0	--	--
SEP.										
01...	.29	--	--	849	8.0	--	629	24.0	--	--
17...	.23	--	--	880	8.5	--	640	18.0	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04199900 EAST BRANCH BLACK RIVER AT GRAFTON, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	429	258	743	654	594	525	722	538	507	481	607	463
2	510	318	666	372	644	553	577	491	489	372	491	393
3	520	455	487	367	641	566	591	503	372	322	396	368
4	---	---	433	375	589	551	483	355	383	328	399	371
5	---	---	514	439	570	450	502	305	431	383	425	399
6	---	---	531	490	485	322	411	330	478	431	452	425
7	---	---	538	424	355	296	369	359	508	478	452	417
8	---	---	418	317	393	313	---	---	528	508	482	445
9	---	---	329	313	445	393	---	---	545	528	514	482
10	---	---	402	327	572	445	---	---	582	545	497	483
11	---	---	463	402	514	495	---	---	631	582	501	419
12	---	---	524	463	545	467	---	---	666	613	436	409
13	---	---	549	452	527	369	---	---	684	641	438	420
14	---	---	452	259	458	301	---	---	694	675	432	316
15	---	---	298	264	385	366	---	---	---	---	316	264
16	---	---	387	298	---	---	---	---	---	---	325	263
17	---	---	465	387	---	---	742	731	---	---	359	325
18	---	---	482	435	---	---	742	707	---	---	347	325
19	---	---	519	472	---	---	711	674	---	---	361	344
20	---	---	483	450	506	431	679	658	---	---	374	361
21	---	---	480	437	451	382	672	662	---	---	383	370
22	---	---	521	416	413	351	666	633	---	---	396	383
23	---	---	540	444	409	358	638	607	---	---	405	388
24	646	613	580	473	423	351	607	564	---	---	388	369
25	661	614	597	527	480	423	565	503	---	---	373	356
26	695	660	612	518	536	479	515	499	745	616	365	354
27	697	657	592	501	539	496	542	515	679	558	368	360
28	854	645	595	522	572	396	560	542	721	508	405	366
29	773	688	553	510	569	451	551	466	---	---	442	405
30	819	694	564	519	581	452	466	446	---	---	475	442
31	815	695	---	---	581	527	481	433	---	---	502	475
MONTH	---	---	743	259	644	296	---	---	---	---	607	263

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	513	502	441	393	551	271	---	---	559	528	862	824
2	515	502	479	445	573	310	---	---	592	558	873	837
3	521	515	491	478	535	331	---	---	608	586	877	844
4	---	---	520	490	514	452	---	---	621	595	881	842
5	---	---	541	519	502	319	---	---	646	616	877	857
6	---	---	557	541	337	245	---	---	667	646	886	858
7	---	---	571	547	350	264	---	---	678	659	899	860
8	---	---	576	558	374	316	---	---	684	671	894	873
9	464	443	558	480	395	365	---	---	685	669	894	877
10	446	379	490	456	427	379	---	---	686	675	901	875
11	394	371	504	302	459	346	---	---	694	642	899	877
12	407	378	462	349	---	---	---	---	659	626	905	884
13	447	406	446	385	---	---	---	---	651	629	907	873
14	475	441	428	392	---	---	---	---	655	638	899	881
15	506	475	476	420	---	---	---	---	668	642	903	875
16	524	499	519	481	---	---	---	---	669	651	901	884
17	545	524	545	519	---	---	664	629	690	665	901	879
18	562	540	567	545	---	---	678	645	706	681	897	881
19	583	555	565	547	---	---	693	665	715	696	897	868
20	602	579	552	530	---	---	700	666	724	706	888	866
21	618	594	560	538	---	---	666	482	731	703	889	861
22	627	610	589	559	---	---	672	436	763	731	871	839
23	634	607	567	337	---	---	580	499	768	744	868	834
24	624	613	374	318	---	---	589	527	776	752	872	842
25	633	613	409	346	---	---	534	484	790	757	869	829
26	650	631	424	393	---	---	556	511	806	771	855	824
27	643	437	456	422	---	---	607	528	819	785	863	827
28	437	308	434	424	---	---	637	606	844	808	860	839
29	336	295	469	433	---	---	607	458	862	833	839	800
30	389	333	514	204	---	---	493	467	862	833	814	798
31	---	---	525	260	---	---	523	492	873	833	---	---
MONTH	650	295	589	204	---	---	---	---	873	528	907	798

04199900 EAST BRANCH BLACK RIVER AT GRAFTON, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	14.0	9.0	8.5	2.5	1.0	---	---	---	---	1.0	0.5
2	19.5	15.0	10.0	9.0	2.5	1.0	---	---	---	---	1.5	0.5
3	18.0	16.0	10.5	9.5	3.0	2.0	---	---	---	---	3.5	1.5
4	---	---	10.0	9.0	2.0	1.5	---	---	---	---	5.0	3.0
5	---	---	9.5	7.5	2.5	1.5	---	---	---	---	7.0	5.0
6	---	---	8.0	7.0	4.5	0.5	---	---	---	---	9.0	7.0
7	---	---	8.0	7.5	5.0	1.5	---	---	---	---	10.5	9.0
8	---	---	8.5	8.0	1.5	0.5	---	---	---	---	11.0	9.5
9	---	---	8.0	7.5	1.0	0.5	---	---	---	---	10.5	9.0
10	---	---	8.0	7.0	2.5	1.0	---	---	---	---	11.0	9.0
11	---	---	8.0	7.5	1.0	0.5	---	---	---	---	12.5	11.0
12	---	---	8.0	7.5	3.0	0.5	---	---	---	---	12.5	11.5
13	---	---	8.0	7.0	---	---	---	---	---	---	11.5	9.5
14	---	---	7.0	5.5	---	---	---	---	---	---	11.0	9.0
15	---	---	6.0	5.0	---	---	---	---	---	---	13.5	11.0
16	---	---	6.5	4.0	---	---	---	---	---	---	13.0	12.0
17	---	---	5.0	4.0	---	---	---	---	---	---	12.0	6.5
18	---	---	6.0	4.0	---	---	---	---	---	---	6.5	3.0
19	---	---	6.5	4.0	---	---	---	---	---	---	3.0	2.0
20	---	---	6.0	3.5	---	---	---	---	---	---	3.0	2.0
21	---	---	5.5	3.5	---	---	---	---	---	---	3.5	2.5
22	---	---	7.0	3.0	---	---	---	---	---	---	4.0	3.0
23	---	---	6.5	2.5	---	---	---	---	---	---	5.0	3.0
24	10.5	10.0	5.0	2.0	---	---	---	---	---	---	6.0	4.5
25	10.0	9.5	4.0	2.0	---	---	---	---	---	---	6.5	6.0
26	9.5	8.0	5.5	2.0	---	---	---	---	1.0	0.5	7.5	6.5
27	9.5	8.0	6.0	1.5	---	---	---	---	1.0	0.5	8.5	7.0
28	11.0	8.5	5.0	2.0	---	---	---	---	1.0	0.5	8.0	7.0
29	12.5	9.5	2.0	1.0	---	---	---	---	---	---	10.0	8.0
30	11.5	8.0	2.5	0.5	---	---	---	---	---	---	11.0	10.0
31	12.0	7.5	---	---	---	---	---	---	---	---	11.5	10.5
MONTH	---	---	10.5	0.5	---	---	---	---	---	---	13.5	0.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.5	11.0	13.5	11.5	19.0	16.5	---	---	24.5	23.0	27.5	24.0
2	7.5	11.5	15.5	13.5	21.0	18.0	---	---	25.5	22.5	28.5	24.5
3	11.5	10.5	15.0	12.5	21.0	19.5	---	---	24.0	22.5	28.0	24.5
4	---	---	12.5	9.5	23.0	20.0	---	---	25.0	21.5	28.0	24.0
5	---	---	12.5	9.0	24.0	21.5	---	---	26.0	21.5	26.5	24.0
6	---	---	13.5	10.5	21.5	19.5	---	---	26.0	22.5	26.0	23.5
7	---	---	15.0	13.0	20.0	19.0	---	---	26.0	23.0	23.5	21.5
8	---	---	16.0	14.5	21.5	19.0	---	---	24.5	23.5	23.5	20.5
9	8.5	7.5	17.5	15.0	23.0	20.5	---	---	28.0	24.5	22.0	19.5
10	7.5	6.0	17.5	16.5	25.0	22.0	---	---	27.0	25.0	22.5	17.5
11	6.5	5.5	16.5	15.0	26.0	23.5	---	---	26.0	24.0	21.5	18.5
12	7.0	5.5	16.0	15.0	---	---	---	---	26.0	24.0	22.0	18.0
13	8.0	6.0	15.0	14.0	---	---	---	---	27.0	23.0	21.0	16.5
14	9.0	6.5	15.5	13.5	---	---	---	---	25.0	23.0	20.0	18.0
15	11.0	7.5	14.5	13.5	---	---	---	---	25.5	22.5	20.5	17.0
16	12.0	10.0	14.5	13.0	---	---	---	---	25.0	22.0	21.0	18.0
17	12.5	11.0	15.0	12.5	---	---	25.5	23.0	25.5	23.0	19.5	17.5
18	13.5	12.0	15.5	13.0	---	---	25.5	22.5	25.0	23.0	19.0	16.5
19	15.5	13.0	14.0	13.0	---	---	26.5	22.5	26.0	23.0	17.5	14.5
20	17.5	15.0	14.5	12.5	---	---	24.5	23.5	25.0	23.5	16.5	15.5
21	18.5	16.5	16.5	13.5	---	---	23.0	22.5	23.5	21.5	17.5	13.5
22	18.5	17.5	16.0	15.5	---	---	23.0	21.5	23.5	20.0	20.0	16.0
23	17.5	16.0	16.0	15.0	---	---	23.5	21.5	22.5	18.5	20.0	17.0
24	17.5	15.0	16.0	15.0	---	---	24.0	22.5	22.5	20.0	20.5	16.5
25	16.0	14.0	16.0	15.0	---	---	25.0	23.0	23.5	19.0	20.5	16.5
26	16.5	13.5	17.0	15.5	---	---	25.0	24.0	25.5	21.5	21.0	18.0
27	15.0	10.5	16.5	16.0	---	---	25.5	24.0	27.5	23.5	22.0	18.0
28	10.5	8.5	18.5	16.5	---	---	26.5	24.0	29.5	25.0	21.5	20.0
29	9.0	8.0	18.5	17.5	---	---	25.0	23.5	29.0	25.0	20.5	19.0
30	11.5	8.5	18.5	17.0	---	---	25.0	22.5	28.5	24.5	20.5	18.0
31	---	---	17.0	15.5	---	---	24.5	23.5	26.5	24.0	---	---
MONTH	18.5	5.5	18.5	9.0	---	---	---	---	29.5	18.5	28.5	13.5

STREAMS TRIBUTARY TO LAKE ERIE

04200400 WEST BRANCH BLACK RIVER NEAR ELYRIA, OHIO

LOCATION.--Lat 41°20'10", long 82°07'15", in T.5 N., R.16 W., Lorain County, on right abutment of private dam, 200 ft (61 m) upstream from bridge on U.S. Highway 20, 4.0 mi (6.4 km) upstream from confluence with East Branch, and 1.8 mi (2.9 km) south from center of Elyria.

DRAINAGE AREA.--170 mi² (440 km²).

PERIOD OF RECORD.--Chemical analyses: March 1969 to September 1973.
Water temperatures: March 1969 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 872 micromhos Feb. 25; minimum, 193 micromhos June 6.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973.

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.											
04...	1130	--	--	150	0	85	16	.2	--	--	2.0
18...	1300	--	--	208	12	150	32	.3	--	--	1.6
NOV.											
01...	1340	--	--	194	4	140	30	.3	--	--	1.5
15...	1058	--	--	70	0	49	8.8	.2	--	--	1.7
22...	1230	--	--	--	--	--	--	--	--	--	--
DEC.											
20...	1300	--	--	148	4	110	34	.2	--	--	1.9
22...	1749	--	--	92	0	70	18	.2	--	--	1.9
JAN.											
05...	1755	--	--	93	0	72	14	.2	--	--	1.8
17...	1400	--	--	230	6	150	32	.2	--	--	2.4
FEB.											
02...	1727	--	--	94	0	86	27	.2	--	--	2.6
19...	1840	--	--	184	8	160	45	.2	--	--	1.8
MAR.											
09...	1731	--	--	134	0	110	24	.2	--	--	1.6
26...	1855	--	--	96	0	66	13	.1	--	--	1.0
APR.											
06...	1808	--	--	105	0	78	14	.2	--	--	1.4
23...	1425	--	--	202	0	130	25	.3	--	--	.90
MAY											
09...	1000	--	--	202	0	120	21	.3	--	--	.60
30...	1645	--	--	--	--	--	--	--	--	--	--
31...	1742	--	--	136	0	70	15	.3	--	--	1.1
JUNE											
08...	1625	--	--	126	0	61	15	.3	--	--	1.9
14...	0940	--	--	204	0	86	22	.4	--	--	1.5
JULY											
19...	1730	--	--	188	0	95	24	.5	--	--	3.4
26...	1938	--	--	98	0	53	14	.4	--	--	2.0
AUG.											
02...	1711	55	14	147	0	73	21	--	.5	.01	--
31...	1245	76	20	210	9	110	37	--	.5	.00	--
SEP.											
07...	1653	76	20	212	10	110	40	--	.6	.01	--
27...	1734	72	23	198	0	140	48	--	.7	.00	--

04200400 WEST BRANCH BLACK RIVER NEAR ELYRIA, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (March to September 1969, 1970-73): Maximum, 1,030 micromhos Feb. 15, 1972; minimum, 168 micromhos Feb. 23, 1971.

Water temperatures (March to September 1969, 1970-71): Maximum, 28.5°C June 26, 1971; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since March 1969. Maximum recorded water temperature of 32.0°C occurred July 23, 1972. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
04...	--	210	87	444	8.2	262	--	15.0	--	--
18...	--	350	160	726	8.5	444	--	9.0	4.0	<.5
NOV.										
01...	--	310	140	666	8.3	404	--	9.0	--	--
15...	--	110	52	256	7.8	136	--	5.0	--	--
22...	--	--	--	--	--	--	--	3.0	--	<.5
DEC.										
20...	--	250	120	570	8.3	318	--	1.0	--	--
22...	--	150	74	345	8.1	194	--	3.0	--	--
JAN.										
05...	--	160	84	349	7.8	216	--	3.0	--	--
17...	--	360	160	752	8.3	480	--	3.0	--	--
FEB.										
02...	--	180	100	424	7.9	278	--	5.0	--	--
19...	--	340	180	736	8.4	478	--	3.0	--	--
MAR.										
09...	--	230	120	502	8.1	310	--	10.0	--	--
26...	--	150	72	332	7.2	182	--	8.0	--	--
APR.										
06...	--	170	84	362	7.8	226	--	9.0	--	--
23...	--	300	130	627	7.6	402	--	18.0	--	--
MAY										
09...	--	280	110	587	7.8	372	--	15.0	--	--
30...	--	--	--	--	--	--	--	17.0	9.0	<.5
31...	--	190	78	404	7.5	250	--	17.0	--	--
JUNE										
08...	--	180	77	363	7.1	238	--	22.0	--	--
14...	--	260	93	527	7.8	340	--	22.0	--	--
JULY										
19...	--	260	100	557	8.1	358	--	26.0	--	--
26...	--	140	60	324	7.6	198	--	25.0	--	--
AUG.										
02...	2.7	--	--	467	7.6	--	356	26.0	--	--
31...	1.1	--	--	663	8.6	--	450	25.0	--	--
SEP.										
07...	1.3	--	--	672	8.7	--	465	23.0	--	--
27...	5.0	--	--	763	8.2	--	521	21.0	--	--

04200400 WEST BRANCH BLACK RIVER NEAR ELYRIA, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	533	517	660	514	555	544	810	624
2	---	---	---	---	562	533	625	499	563	399	676	327
3	---	---	---	---	558	520	504	463	399	342	327	302
4	---	---	---	---	555	531	493	373	400	361	379	327
5	---	---	---	---	552	433	386	351	439	400	418	372
6	---	---	---	---	454	323	406	365	468	439	435	412
7	---	---	---	---	619	309	448	406	508	468	453	432
8	---	---	---	---	563	538	486	451	528	508	485	453
9	---	---	---	---	565	541	534	486	554	528	510	485
10	---	---	---	---	574	563	573	533	579	554	527	447
11	---	---	---	---	562	530	616	573	622	579	447	375
12	---	---	---	---	531	520	652	613	658	622	379	353
13	643	632	---	---	556	531	679	652	694	658	417	370
14	682	643	---	---	552	543	713	680	728	685	440	220
15	691	680	---	---	543	516	729	713	733	696	252	233
16	707	685	---	---	516	514	750	726	732	699	360	252
17	719	700	---	---	---	---	783	750	731	714	355	273
18	733	715	---	---	545	538	778	760	732	717	509	263
19	724	695	---	---	571	545	760	707	738	708	391	362
20	700	697	---	---	585	474	714	641	708	695	381	349
21	697	693	---	---	474	359	720	699	732	702	374	356
22	706	695	443	431	359	355	706	685	737	722	404	370
23	704	689	454	436	373	356	697	669	722	688	416	397
24	691	655	464	446	408	373	677	608	693	682	397	325
25	706	664	467	448	438	410	611	554	872	682	327	309
26	708	659	488	464	464	438	554	539	828	696	338	320
27	---	---	488	469	482	464	547	534	795	692	370	332
28	---	---	488	469	496	480	570	547	714	703	410	368
29	---	---	505	487	502	489	573	555	---	---	452	409
30	---	---	518	503	572	501	560	534	---	---	483	450
31	---	---	---	---	525	510	544	538	---	---	485	469
MONTH	---	---	---	---	619	309	783	351	872	342	810	222

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

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04200400 WEST BRANCH BLACK RIVER NEAR ELYRIA, OHIO--Continued

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	13.0	---	---	1.5	1.5	6.5	6.0	---	---	---	---
2	14.0	12.0	---	---	2.0	1.5	6.0	4.5	---	---	---	---
3	15.5	13.5	---	---	2.5	2.0	4.5	3.0	---	---	3.0	1.5
4	15.5	15.0	---	---	2.5	2.5	3.5	3.0	---	---	5.5	3.0
5	---	---	---	---	3.0	2.5	3.5	2.0	---	---	7.5	5.5
6	---	---	---	---	5.0	3.0	2.0	1.5	---	---	9.0	7.5
7	---	---	---	---	4.0	3.5	2.0	1.5	---	---	11.5	9.0
8	---	---	---	---	---	---	2.0	1.5	---	---	12.0	11.0
9	---	---	---	---	---	---	2.0	1.5	---	---	11.0	10.5
10	---	---	---	---	---	---	2.0	1.5	---	---	10.5	9.0
11	---	---	---	---	---	---	2.0	2.0	---	---	13.0	10.5
12	---	---	---	---	---	---	2.0	2.0	---	---	13.0	11.5
13	13.0	12.5	---	---	---	---	2.0	2.0	---	---	11.5	9.5
14	12.5	12.0	---	---	---	---	2.0	2.0	---	---	13.0	9.5
15	12.0	11.0	---	---	---	---	---	---	---	---	15.0	12.5
16	11.0	10.5	---	---	---	---	---	---	---	---	14.5	12.5
17	10.5	10.0	---	---	---	---	---	---	---	---	12.5	6.0
18	10.0	8.5	---	---	1.0	1.0	---	---	---	---	6.0	3.5
19	9.0	8.0	---	---	1.0	1.0	---	---	---	---	4.5	2.5
20	8.5	8.0	---	---	1.5	1.0	---	---	---	---	5.0	3.0
21	8.5	8.0	---	---	2.0	1.5	---	---	---	---	4.5	3.0
22	8.5	8.0	3.0	2.5	3.0	2.0	---	---	---	---	5.0	4.0
23	9.5	8.0	2.5	1.5	4.0	3.0	---	---	---	---	6.5	4.0
24	9.5	8.5	1.5	1.0	4.5	4.0	---	---	---	---	7.5	5.5
25	9.5	8.5	1.5	1.0	4.5	4.5	---	---	---	---	7.5	7.0
26	9.0	8.0	3.0	1.5	4.5	4.0	---	---	---	---	8.0	7.0
27	---	---	3.0	3.0	4.0	3.5	---	---	---	---	9.5	7.5
28	---	---	3.0	2.5	3.5	3.0	---	---	---	---	9.0	8.0
29	---	---	2.5	2.0	3.5	3.0	---	---	---	---	11.0	8.5
30	---	---	2.0	1.5	5.5	3.5	---	---	---	---	13.5	11.0
31	---	---	---	---	6.5	5.5	---	---	---	---	13.5	13.0
MONTH	---	---	---	---	---	---	---	---	---	---	15.0	1.5

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	13.0	---	---	19.0	16.5	23.0	21.5	25.0	24.0	26.5	24.5
2	14.5	14.0	---	---	20.5	19.0	25.0	23.0	25.0	23.5	26.0	25.0
3	14.0	12.0	---	---	21.0	20.5	26.0	23.5	24.5	23.0	26.0	24.0
4	12.0	9.5	---	---	22.5	21.0	27.5	25.0	24.5	22.0	25.5	24.0
5	9.5	8.0	---	---	23.0	22.5	27.0	25.0	24.5	23.0	---	---
6	10.0	8.0	---	---	23.0	21.0	27.0	25.0	24.5	23.5	---	---
7	11.5	10.0	---	---	21.5	20.0	27.0	26.0	25.5	24.0	---	---
8	11.0	10.0	---	---	22.5	21.0	27.0	26.0	28.0	23.5	---	---
9	10.5	9.0	---	---	21.5	19.5	29.0	26.5	29.0	25.5	22.0	21.5
10	9.0	7.5	---	---	22.0	20.0	28.5	25.0	28.0	26.0	21.5	20.5
11	8.0	6.5	---	---	23.0	22.0	26.5	25.5	27.5	25.5	21.0	20.5
12	8.5	7.0	---	---	24.0	23.0	25.5	24.0	26.0	24.5	21.0	20.0
13	10.5	8.0	---	---	23.5	22.5	24.0	23.5	25.0	24.0	20.5	19.0
14	11.0	9.0	16.5	15.5	23.0	22.0	24.5	23.0	25.0	24.0	20.0	19.5
15	13.0	10.5	16.0	15.0	22.5	21.5	24.5	23.0	24.5	24.0	20.0	19.0
16	14.5	12.5	15.5	14.5	22.5	20.0	24.5	23.5	24.5	23.5	19.5	19.0
17	14.5	13.5	15.5	14.5	22.5	19.5	25.0	22.5	25.0	23.5	19.5	19.0
18	---	---	17.0	15.5	22.5	21.5	25.0	23.5	25.0	23.5	19.0	18.0
19	---	---	17.5	16.5	23.5	22.0	25.0	24.5	24.5	23.5	18.5	17.0
20	---	---	18.5	16.0	24.5	20.5	25.5	24.0	25.0	23.5	18.5	17.0
21	---	---	18.5	16.0	25.5	24.5	24.5	23.0	24.5	22.5	---	---
22	---	---	18.5	17.5	26.0	24.5	25.0	23.5	23.0	22.0	---	---
23	---	---	18.0	17.0	26.0	24.5	24.5	23.0	22.5	21.5	---	---
24	---	---	17.5	16.5	25.5	24.0	24.5	23.5	22.5	22.0	---	---
25	---	---	16.5	15.5	24.5	23.0	26.0	24.0	23.0	21.5	---	---
26	---	---	17.0	15.5	25.0	24.0	25.5	24.0	24.5	22.5	---	---
27	---	---	16.5	15.5	25.0	24.0	25.5	24.5	25.5	23.0	---	---
28	---	---	18.0	15.5	24.5	23.0	25.5	24.5	25.0	23.5	---	---
29	---	---	18.5	17.0	22.5	21.0	25.5	24.0	25.5	24.5	---	---
30	---	---	17.5	16.0	22.0	21.0	25.0	24.0	26.5	25.0	---	---
31	---	---	17.0	16.0	---	---	25.0	24.0	25.5	24.5	---	---
MONTH	---	---	---	---	26.0	16.5	29.0	21.5	29.0	21.5	---	---

STREAMS TRIBUTARY TO LAKE ERIE

04200550 BLACK RIVER BELOW ELYRIA, OHIO

LOCATION.--Lat 41°24'42", long 82°05'45", in T.6 N., R.17 W., Lorain County, at Ford Road bridge on north edge of Elyria, 0.7 mi (1.1 km) downstream from Elyria sewage disposal plant, and 5.2 mi (8.4 km) downstream from gaging station at Elyria.

DRAINAGE AREA.--412 mi² (1,067 km²).

PERIOD OF RECORD.--Chemical analyses: January 1966 to September 1973.

Water temperatures: January 1966 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,460 micromhos Sept. 20; minimum, 210 micromhos Mar. 16.

Dissolved oxygen: Maximum, 15.0 mg/l on many days during November, January to March; minimum, 0.1 mg/l Aug. 27, Sept. 21, 25, 28.

Water temperatures: Maximum, 33.0°C June 7; minimum, freezing point on several days during December to February.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
01...	1835	4170	--	--	86	0	50	12	.1	--	--
13...	0930	93	--	--	152	0	130	60	.4	--	--
NOV.											
01...	1230	245	--	--	190	0	120	47	.3	--	--
12...	1530	475	--	--	127	0	86	23	.2	--	--
DEC.											
20...	1200	750	--	--	122	0	110	69	.2	--	--
24...	1415	998	--	--	94	0	74	20	.2	--	--
JAN.											
06...	1650	502	--	--	81	0	80	25	.2	--	--
17...	1300	75	--	--	172	0	160	70	.4	--	--
FEB.											
04...	1320	1260	--	--	80	0	73	20	.2	--	--
25...	1415	190	--	--	142	0	140	80	.2	--	--
MAR.											
25...	1255	1400	--	--	93	0	67	16	.2	--	--
31...	1650	430	--	--	129	0	96	28	.3	--	--
APR.											
22...	1240	125	--	--	158	6	130	37	.2	--	--
28...	1450	3590	--	--	82	0	62	16	.2	--	--
MAY											
08...	1500	120	--	--	176	0	120	48	.3	--	--
27...	1615	970	--	--	123	0	76	18	.2	--	--
JUNE											
03...	1355	179	--	--	150	0	92	30	.3	--	--
18...	2055	782	--	--	120	0	70	22	.3	--	--
JULY											
01...	1600	136	--	--	134	0	76	32	.3	--	--
17...	1330	44	--	--	150	0	110	50	.6	--	--
AUG.											
19...	1240	38	56	14	115	0	140	83	--	.8	.00
26...	1045	14	55	14	126	0	210	130	--	1.3	.00
SEP.											
20...	1200	12	64	15	54	0	300	180	--	1.3	.00
30...	1225	46	43	14	109	0	130	110	--	.6	.00

DATE	TEMPER- ATURE (DEG C)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
MAY				
30...	18.5	11	10	<5.0

STREAMS TRIBUTARY TO LAKE ERIE

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04200550 BLACK RIVER BELOW ELYRIA, OHIO--Continued

EXTREMES.--Period of record:

Specific conductance (January to September 1966, 1967-68, 1969-70, 1971-73): Maximum, 1,500 micromhos or higher on many days during 1966, 1970, and 1971; minimum, 167 micromhos Sept. 18, 1972.
 Dissolved oxygen (January to September 1966, 1972-73): Maximum, 15.0 mg/l or higher on many days during 1966, 1972 and 1973; minimum, 0.0 mg/l June 3, 5, 6, July 3, 4, 1966.
 Water temperatures (1966-68, 1969-70, 1972-73): Maximum, 33.0°C June 7, 1973; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since January 1966. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. The quality of the water is affected by sewage disposal and industrial waste. Records of discharge are given for Black River at Elyria, Ohio, station 04200500, drainage area 396 mi² (1,026 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
OCT.										
01...	1.8	--	.36	130	60	289	7.7	202	--	--
13...	9.6	--	.81	280	160	784	6.9	500	--	--
NOV.										
01...	2.2	--	.43	270	110	700	7.2	448	--	10.0
12...	2.1	--	.24	200	96	464	7.2	298	--	--
DEC.										
20...	4.2	--	.59	240	140	658	7.9	438	--	1.0
24...	1.9	--	.19	160	83	380	7.7	250	--	--
JAN.										
06...	3.7	--	.23	170	100	397	7.8	238	--	--
17...	12	--	1.0	320	180	894	7.0	548	--	3.0
FEB.										
04...	2.3	--	.22	160	94	363	7.8	200	--	3.5
25...	2.7	--	.36	300	180	765	7.9	490	--	1.5
MAR.										
25...	1.1	--	.12	150	74	342	7.2	198	--	7.0
31...	1.8	--	.22	210	100	496	7.3	336	--	11.0
APR.										
22...	2.3	--	.75	270	130	632	8.3	380	--	18.0
28...	1.5	--	.64	140	73	323	7.0	178	--	--
MAY										
08...	2.5	--	.62	260	120	672	7.3	414	--	15.0
27...	2.4	--	.33	190	89	414	7.5	244	--	--
JUNE										
03...	3.3	--	.64	220	97	531	7.1	312	--	20.0
18...	1.4	--	.56	170	72	405	7.4	232	--	22.0
JULY										
01...	4.0	--	.57	190	80	500	6.9	308	--	23.0
17...	4.3	--	1.8	220	97	675	7.3	416	--	23.5
AUG.										
19...	--	5.8	.90	--	--	774	8.1	--	534	24.0
26...	--	11	.06	--	--	1120	8.2	--	721	24.0
SEP.										
20...	--	20	1.9	--	--	1410	6.1	--	922	18.0
30...	--	14	.78	--	--	881	6.5	--	608	21.5

04200550 BLACK RIVER BELOW ELYRIA, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	273	258	756	659	731	585	---	---	665	587	859	673
2	318	255	737	449	725	608	---	---	644	404	685	353
3	422	321	466	446	617	587	---	---	404	350	361	338
4	435	410	470	444	753	570	---	---	380	351	370	352
5	567	519	503	468	632	457	---	---	439	376	474	360
6	596	554	573	498	463	311	---	---	510	429	463	406
7	631	575	602	477	311	281	---	---	562	481	515	447
8	640	583	465	354	436	293	---	---	650	512	525	459
9	687	594	366	356	433	401	---	---	644	583	563	491
10	840	648	423	353	455	426	---	---	670	593	561	440
11	852	754	456	419	503	450	---	---	616	577	511	366
12	856	771	480	446	699	480	---	---	667	570	399	351
13	861	770	541	480	629	381	---	---	740	652	445	396
14	837	689	484	277	381	336	---	---	813	699	480	290
15	765	678	298	277	417	339	---	---	821	776	447	220
16	810	658	374	298	458	410	---	---	789	753	308	210
17	864	771	435	374	491	456	---	---	804	726	363	308
18	789	615	467	429	563	488	---	---	781	727	365	309
19	687	632	506	458	788	552	---	---	946	760	412	337
20	794	676	492	466	733	503	---	---	908	819	351	308
21	823	681	485	467	504	384	---	---	883	766	342	301
22	725	654	564	363	409	382	758	735	828	774	367	323
23	681	627	510	477	388	365	799	722	902	764	432	361
24	695	638	501	465	393	356	717	615	844	770	395	338
25	734	692	521	483	477	393	664	599	774	723	354	330
26	765	721	533	518	642	480	675	618	863	689	346	317
27	795	732	546	509	554	521	660	579	799	751	408	321
28	803	716	551	513	---	---	580	519	863	743	488	372
29	730	667	573	524	---	---	546	481	---	---	519	439
30	695	657	636	546	---	---	582	472	---	---	523	448
31	712	657	---	---	---	---	657	575	---	---	522	472
MONTH	864	255	756	277	788	281	---	---	946	350	859	210

[illegible]

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

04201500 ROCKY RIVER NEAR BERE, OHIO

LOCATION.--Lat 41°24'24", long 81°53'14", in T.6 N., R.15 W., Cuyahoga County, at gaging station on right bank at downstream side of Cedar Point Road Bridge in Rocky River Reservation just downstream from confluence of East and West Branches, and 3.0 mi (4.8 km) northwest of Berea. Sediment samples taken at bridge 2,400 ft (732 m) downstream.

DRAINAGE AREA.--267 mi² (692 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1965-73 (partial-record station).

Sediment records: July 1969 to September 1971 (partial-record station), October 1971 to September 1972, water year 1973 (partial-record station).

REMARKS.--Flow affected by ice Dec. 19, Jan. 9-22, 31, Feb. 9, 14-18, 21-28. Some regulation at low flow by small reservoirs on East Branch.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT., 1972											
18...	1455	58	--	--	--	--	--	--	--	--	--
DEC.											
13...	0915	2460	--	--	--	--	67	62	--	--	--
FEB., 1973											
09...	1045	245	--	--	--	--	100	67	--	--	--
APR.											
12...	1240	644	--	--	--	--	--	--	--	--	--
28...	1325	3290	--	--	--	--	--	--	--	--	--
JUNE											
14...	1105	137	--	--	--	--	65	30	--	--	--
AUG.											
14...	1300	67	--	--	--	--	--	--	--	--	--
SEP.											
05...	1150	18	60	17	135	0	130	77	--	.4	.01

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)
OCT., 1972										
18...	--	--	--	--	--	702	--	--	--	8.0
DEC.										
13...	1.2	--	--	180	--	470	8.1	--	--	3.0
FEB., 1973										
09...	1.4	--	--	230	--	633	8.1	--	--	.5
APR.										
12...	--	--	--	--	--	493	--	--	--	8.0
28...	--	--	--	--	--	354	--	--	--	9.0
JUNE										
14...	2.1	--	--	160	--	423	8.1	--	--	20.5
AUG.										
14...	--	--	--	--	--	731	--	--	--	23.0
SEP.										
05...	--	4.5	.40	--	--	800	7.3	--	538	26.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SUSPENDED CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
NOV.																
14...	1630	5.0	4720	370	4720	49	62	74	86	93	96	98	100	--	--	--
DEC.																
13...	1200	3.0	2560	340	2350	42	53	66	80	91	96	98	100	--	--	--
MAR.																
15...	1650	14.0	3800	539	5530	48	63	73	84	93	97	99	100	--	--	--
APR.																
28...	1205	9.0	3530	404	3850	42	56	70	85	94	98	99	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAMPLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG.												
29...	3	1	6	12	29	45	60	75	86	98	100	--

STREAMS TRIBUTARY TO LAKE ERIE

04201500 ROCKY RIVER NEAR BERE, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible][illegible]

04201500 ROCKY RIVER NEAR BEEA, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	350	--	--	285	--	--	536	--	--
2	474	--	--	229	--	--	242	--	--
3	438	--	--	295	--	--	175	--	--
4	660	--	--	280	--	--	522	--	--
5	1930	139	767	265	--	--	585	--	--
6	804	46	100	187	--	--	1530	--	--
7	438	32	38	144	--	--	748	--	--
8	468	30	38	175	--	--	330	--	--
9	628	29	49	592	92	155	175	--	--
10	1570	28	119	804	201	436	122	--	--
11	892	28	67	1080	--	--	91	--	--
12	644	27	47	456	--	--	81	--	--
13	384	23	24	260	--	--	233	--	--
14	270	17	12	195	--	--	134	--	--
15	207	12	6.7	238	--	--	72	--	--
16	183	11	5.4	220	--	--	788	--	--
17	179	9	4.3	224	--	--	1450	220	870
18	191	7	3.6	191	--	--	522	--	--
19	242	8	5.2	151	--	--	233	--	--
20	199	11	5.9	251	--	--	172	--	--
21	158	13	5.5	238	46	30	140	--	--
22	131	13	4.6	168	--	--	97	--	--
23	122	12	4.0	1120	--	--	78	--	--
24	140	12	4.5	1330	--	--	325	77	81
25	116	11	3.4	474	--	--	195	23	12
26	102	10	2.8	684	96	190	105	23	6.5
27	644	198	862	408	--	--	76	22	4.5
28	3010	464	4100	408	--	--	195	21	11
29	836	--	--	543	--	--	154	22	9.1
30	414	--	--	420	--	--	91	20	4.9
31	--	--	--	1310	202	720	--	--	--
TOTAL	--	--	--	--	--	--	--	--	--

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	86	20	4.6	38	10	1.0	56	57	8.6
2	69	18	3.4	36	10	.97	36	35	3.4
3	62	17	2.8	36	11	1.1	28	20	1.5
4	165	16	7.1	33	10	.89	22	13	.77
5	203	16	8.8	28	11	.83	21	10	.57
6	99	15	4.0	21	11	.62	21	10	.57
7	56	15	2.3	20	12	.65	39	10	1.1
8	38	15	1.5	19	14	.72	41	10	1.1
9	31	15	1.3	21	16	.91	28	10	.76
10	97	26	7.2	28	18	1.4	22	10	.59
11	179	20	9.7	38	19	1.9	20	10	.54
12	86	20	4.6	81	22	4.8	19	10	.51
13	54	20	2.9	74	28	5.6	19	11	.56
14	41	20	2.2	161	84	58	20	12	.65
15	86	20	4.6	116	49	16	20	12	.65
16	81	20	4.4	81	24	5.2	19	13	.67
17	52	20	2.8	52	20	2.8	21	13	.74
18	43	20	2.3	41	17	1.9	35	15	1.4
19	31	20	1.7	36	17	1.7	31	16	1.3
20	97	--	--	128	99	56	24	8	.52
21	571	--	--	158	94	43	11	6	.18
22	238	--	--	102	60	17	33	16	1.4
23	99	--	--	67	62	11	56	21	3.2
24	74	--	--	52	63	8.8	60	18	2.9
25	151	--	--	39	64	6.7	33	10	.89
26	137	--	--	35	65	6.1	21	8	.45
27	113	--	--	30	67	5.4	16	7	.30
28	107	--	--	27	68	5.0	31	8	.67
29	62	--	--	27	69	5.0	238	145	125
30	39	--	--	25	66	4.5	165	145	65
31	30	--	--	47	65	8.2	--	--	--
TOTAL	--	--	--	1697	--	283.69	1206	--	226.49

STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO

LOCATION.--Lat 41°08'08", long 81°32'50", Summit County, at gaging station on right bank 230 ft (70 m) upstream from North Portage Path Bridge at Old Portage, 1.2 mi (1.9 km) downstream from Little Cuyahoga River, and 4.0 mi (6.4 km) northwest of Akron City Hall. Sampling site at North Portage Path Bridge.

DRAINAGE AREA.--404 mi² (1,046 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1966-67, 1969-70 (partial-record station), October 1970 to September 1973.

Water temperatures: October 1970 to September 1973.

Sediment records: March 1972 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 960 micromhos Sept. 24; minimum, 120 micromhos July 20.

pH: Maximum, 8.7 July 4; minimum, 6.2 July 3.

Dissolved oxygen: Maximum, 15.0 mg/l Jan. 6-10, Feb. 11; minimum, 1.4 mg/l July 25, 27.

Water temperatures: Maximum, 34.0°C Aug. 28, 29; minimum, freezing point Dec. 17, 18, Jan. 8.

Sediment concentrations: Maximum daily, 376 mg/l July 20; minimum daily, 1 mg/l Sept. 10.

Sediment discharges: Maximum daily, 1,860 tons (1,690 tonnes) Mar. 14; minimum daily, 0.15 ton (0.14 tonne) Sept. 10.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL CALCIUM (CA) (MG/L)	TOTAL MAGNESIUM (MG/L)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DISSOLVED SULFATE (SO ₄) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)
OCT.											
01...	2100	1270	--	--	102	0	47	25	.1	--	--
25...	2030	201	--	--	162	0	89	99	.2	--	--
NOV.											
02...	2100	377	--	--	142	0	75	78	.2	--	--
17...	1320	1150	--	--	88	0	51	27	.1	--	--
DEC.											
08...	2215	820	--	--	116	0	57	68	.1	--	--
10...	2000	956	--	--	98	0	54	37	.1	--	--
JAN.											
04...	2200	948	--	--	96	0	59	48	.2	--	--
24...	1945	526	--	--	116	0	63	68	.2	--	--
FEB.											
04...	2045	908	--	--	96	0	57	50	.2	--	--
25...	2015	314	--	--	127	0	72	110	.2	--	--
MAR.											
01...	0930	350	--	--	128	0	69	86	.2	--	--
15...	1200	1900	--	--	72	0	44	30	.2	--	--
APR.											
08...	2045	1230	--	--	88	0	48	31	.1	--	--
25...	2100	410	--	--	127	0	64	59	.2	--	--
MAY											
08...	1635	437	--	--	122	0	60	50	.2	--	--
27...	2040	904	--	--	110	0	48	34	.1	--	--
JUNE											
08...	1000	--	--	--	--	--	--	--	--	--	--
10...	2215	1000	--	--	91	0	35	28	.2	--	--
27...	2130	248	--	--	145	0	65	74	.3	--	--
JULY											
01...	2115	278	--	--	148	0	64	68	.3	--	--
19...	2050	128	--	--	179	0	89	87	.3	--	--
AUG.											
02...	0800	164	45	12	135	0	72	62	--	.3	.00
26...	2115	86	73	18	178	6	100	130	--	.2	.00
SEP.											
02...	2050	67	66	18	177	4	120	110	--	.7	.00
20...	1645	63	--	--	195	8	100	140	--	.4	.01

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMPERATURE (°C)	DISCHARGE (CFS)	SUSPENDED SEDIMENT		PARTICLE SIZE											
				CONCENTRATION (MG/L)	DISCHARGE (TONS/DAY)	PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED											
DEC.						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00	
15...	1030	2.5	860	16	37	56	64	72	77	82	86	90	94	100	--	--	
MAR.																	
15...	1040	11.5	1760	328	1560	43	53	61	67	72	76	82	90	98	100	--	

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance: Maximum, 2,710 micromhos Feb. 5, 1971; minimum, 120 micromhos July 20, 1973.

pH (1971-73): Maximum, 8.7 July 4, 1973; minimum, 4.4 Jan. 27, 1972.

Dissolved oxygen (1971-73): Maximum, 15.0 mg/l or higher Jan. 6-10, Feb. 11, 1973; minimum, 0.2 mg/l Aug. 19, 1972.

Water temperatures: Maximum, 34.0°C Aug. 28, 29, 1973; minimum, freezing point Jan. 16, 31, Dec. 17, 18, 1972, Jan. 8, 1973.

Sediment concentrations: Maximum daily, 444 mg/l June 29, 1972; minimum daily, 1 mg/l Sept. 10, 1973.

Sediment discharges: Maximum daily, 1,860 tons (1,690 tonnes) Mar. 14, 1973; minimum daily, 0.15 ton (0.14 tonne) Sept. 10, 1973.

REMARKS.--Water-quality recorder operated since October 1970. Dissolved oxygen concentrations listed as 15.0 mg/l represent concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected four times during the year to further define the quality of water. Natural flow of stream affected by diversions, storage reservoirs and power plants.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
01...	1.1	--	140	56	336	182	--	15.0	--	--
25...	1.8	--	250	120	719	414	--	13.0	--	--
NOV.										
02...	1.5	--	220	100	608	344	--	15.0	--	--
17...	1.1	--	140	68	339	186	--	6.5	--	--
DEC.										
08...	1.2	--	150	55	478	264	--	5.0	--	--
10...	1.1	--	150	70	380	212	--	3.0	--	--
JAN.										
04...	1.6	--	150	72	429	244	--	5.0	--	--
24...	1.4	--	180	85	526	320	--	5.0	--	--
FEB.										
04...	1.3	--	150	72	435	254	--	4.0	--	--
25...	1.6	--	200	96	712	388	--	5.0	--	--
MAR.										
01...	1.6	--	200	95	613	398	--	6.5	--	--
15...	1.3	--	110	51	308	202	--	12.5	--	--
APR.										
08...	.90	--	130	58	336	196	--	10.0	--	--
25...	1.1	--	190	86	497	278	--	17.0	--	--
MAY										
08...	1.1	--	180	80	472	302	--	18.0	--	--
27...	1.1	--	150	60	384	238	--	17.0	--	--
JUNE										
08...	--	--	--	--	--	--	--	21.5	5.0	<.5
10...	.50	--	120	46	307	164	--	25.0	--	--
27...	.90	--	210	91	592	354	--	25.0	--	--
JULY										
01...	1.4	--	210	89	578	368	--	25.0	--	--
19...	1.2	--	270	120	722	466	--	30.0	--	--
AUG.										
02...	--	1.7	--	--	560	--	376	25.0	--	--
26...	--	1.7	--	--	886	--	607	28.0	--	--
SEP.										
02...	--	3.8	--	--	886	--	585	31.0	--	--
20...	--	2.1	--	--	954	--	662	22.0	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 19...	3	1	2	8	31	41	50	62	78	100	--	--

STREAMS TIRBUTARY TO LAKE EGIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	380	310	655	580	625	455	480	440	595	515	630	550
2	325	290	590	510	600	505	480	460	620	490	600	540
3	370	325	580	515	530	510	470	309	540	420	560	500
4	460	360	515	505	630	510	449	359	430	390	520	480
5	420	360	550	480	630	520	419	399	430	380	520	440
6	530	380	515	490	540	360	420	395	415	375	470	420
7	420	390	500	440	480	410	492	420	390	370	430	400
8	450	385	490	440	620	400	465	435	590	370	400	340
9	440	390	450	417	520	420	445	415	605	495	400	360
10	520	400	433	403	420	380	455	435	580	515	400	360
11	560	480	440	420	420	380	475	435	525	475	440	350
12	580	440	430	418	880	390	490	435	500	470	400	380
13	580	500	418	378	580	450	495	440	505	480	---	---
14	515	480	383	318	460	400	550	455	655	480	450	250
15	590	490	---	---	540	400	600	525	700	520	350	290
16	600	560	---	---	530	480	615	540	790	560	350	270
17	690	600	340	325	490	460	590	545	660	630	320	290
18	680	640	360	325	520	460	625	555	660	620	350	300
19	690	660	365	345	880	440	635	575	630	570	440	290
20	730	650	370	340	740	560	---	---	630	580	420	360
21	785	700	390	360	560	470	---	---	700	560	380	360
22	790	740	470	380	485	410	560	500	800	630	380	370
23	770	630	430	410	440	410	560	510	940	750	390	370
24	760	720	440	410	420	390	560	540	850	740	390	355
25	800	760	460	420	400	390	550	460	760	690	390	355
26	800	740	480	435	540	380	470	440	710	660	380	365
27	760	640	485	455	470	440	520	470	670	600	370	345
28	670	640	480	445	450	420	520	480	640	590	375	355
29	680	610	485	455	440	420	695	490	---	---	355	345
30	670	630	465	445	450	420	645	585	---	---	360	340
31	660	630	---	---	470	430	615	525	---	---	360	330
MONTH	800	290	655	318	880	360	695	309	940	370	630	250
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	380	335	520	470	340	300	680	578	---	---	890	800
2	385	355	480	425	380	310	690	640	670	530	880	760
3	365	345	440	410	390	330	720	680	710	610	790	770
4	375	330	460	420	370	330	730	380	650	580	830	790
5	350	330	470	440	370	350	700	530	610	550	870	790
6	340	325	480	460	380	330	620	580	640	600	900	770
7	345	335	500	460	330	290	660	620	690	600	860	790
8	340	330	550	350	310	280	670	620	690	600	910	860
9	390	320	510	400	290	280	680	600	690	580	880	820
10	375	330	510	380	307	280	660	250	690	630	880	840
11	420	360	480	380	320	300	660	580	670	640	890	840
12	380	350	460	430	420	320	700	610	680	480	860	840
13	380	350	450	425	380	330	720	690	700	660	920	850
14	390	350	440	400	440	370	720	340	750	360	880	820
15	400	360	430	380	460	410	630	300	780	630	860	820
16	420	390	450	410	500	380	680	630	770	750	880	830
17	460	420	480	420	500	400	690	620	760	720	910	840
18	480	440	480	420	510	405	760	630	790	710	920	800
19	500	480	480	440	510	400	820	630	750	710	---	---
20	520	490	490	430	500	480	830	120	770	300	920	860
21	510	470	480	440	500	440	630	170	690	430	940	880
22	500	470	490	430	480	410	660	610	750	690	940	300
23	500	480	460	360	530	480	700	620	860	710	920	540
24	530	470	450	380	540	460	660	620	870	830	960	850
25	560	500	420	370	570	430	700	440	910	790	920	880
26	560	540	420	330	560	420	630	340	890	830	920	870
27	580	480	400	320	630	560	600	360	900	860	930	900
28	550	470	430	320	760	610	---	---	930	850	920	880
29	540	490	450	320	700	580	---	---	890	750	890	330
30	555	510	460	340	650	610	---	---	760	730	920	840
31	---	---	420	330	---	---	---	---	850	570	---	---
MONTH	580	320	550	320	760	280	830	120	930	300	960	300
YEAR	960	120										

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	8.6	7.3	8.4	7.3	11.7	11.2	14.0	13.6	14.3	12.6	13.7	10.9
2	9.2	8.6	8.4	7.9	11.6	11.1	14.5	14.0	12.9	11.7	12.7	10.7
3	9.6	9.0	9.1	8.4	11.4	10.9	14.4	12.5	13.3	12.5	11.8	10.8
4	9.1	8.5	9.2	8.9	11.4	10.6	14.1	13.3	14.0	13.3	12.4	11.1
5	8.7	8.3	10.1	9.1	10.9	10.2	14.5	13.9	14.0	13.3	12.2	11.3
6	8.4	8.0	10.4	9.6	10.8	7.7	15.0	14.1	13.6	13.0	12.0	11.1
7	8.4	8.1	10.1	9.3	11.4	10.8	15.0	14.6	13.6	13.0	11.7	10.8
8	8.6	8.3	10.8	9.8	12.0	11.4	15.0	11.0	13.7	12.9	12.2	11.6
9	8.9	8.5	10.9	10.6	11.9	11.5	15.0	14.2	14.1	13.0	12.5	11.6
10	9.0	8.4	10.7	10.0	12.3	11.7	15.0	14.1	14.8	13.2	11.7	10.8
11	8.8	8.3	10.3	10.0	12.7	12.3	14.8	14.0	15.0	13.7	10.8	9.7
12	8.4	7.5	10.6	10.3	12.7	11.8	14.8	13.8	14.8	13.3	10.4	10.3
13	8.5	8.1	10.4	9.4	12.4	11.8	14.6	13.7	14.1	12.8	---	---
14	8.4	7.9	10.8	9.0	12.7	12.3	14.2	13.5	13.2	12.1	11.4	9.0
15	9.0	7.9	---	---	12.6	12.0	13.8	13.2	13.0	12.4	10.9	10.4
16	8.8	8.1	---	---	13.0	12.3	13.7	12.7	13.8	12.7	10.5	9.4
17	8.5	8.0	13.1	13.0	13.6	13.0	13.4	12.3	14.6	13.3	11.1	9.4
18	8.8	8.3	13.2	12.9	13.6	12.9	13.2	11.8	14.6	13.4	11.8	10.9
19	8.7	8.1	13.0	12.9	13.4	12.5	12.3	11.7	14.2	12.6	12.7	11.6
20	8.7	7.7	13.0	12.6	13.2	12.7	---	---	13.5	12.3	12.7	12.2
21	9.1	7.7	12.8	12.4	13.2	12.6	---	---	12.9	12.1	12.3	11.9
22	8.2	7.0	12.6	12.2	13.1	12.7	12.4	11.7	13.8	11.8	---	---
23	7.0	4.7	12.8	12.1	13.3	12.8	13.2	12.4	13.6	11.6	---	---
24	8.3	7.5	12.9	12.6	13.4	13.0	13.8	12.7	13.9	11.8	---	---
25	9.9	7.7	12.7	12.3	13.8	13.5	14.5	13.0	14.2	11.8	---	---
26	10.6	8.9	12.4	12.1	13.9	13.6	14.2	10.8	14.5	11.8	---	---
27	9.7	9.0	12.2	11.8	14.1	13.5	12.7	11.9	14.1	11.4	---	---
28	8.8	8.1	12.1	11.7	14.1	13.6	12.7	11.8	14.0	11.0	---	---
29	8.8	8.0	12.1	11.5	14.2	13.6	13.4	10.7	---	---	---	---
30	9.3	8.4	11.8	11.4	14.0	13.4	14.5	11.7	---	---	---	---
31	9.3	8.0	---	---	13.6	13.4	14.6	13.1	---	---	---	---
MONTH	10.6	4.7	13.2	7.3	14.2	7.7	15.0	10.7	15.0	11.0	---	---
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	9.1	8.6	8.1	7.4	8.0	7.5	---	---	---	---
2	---	---	9.0	8.6	8.2	7.6	10.1	7.2	7.7	5.2	---	---
3	---	---	9.2	8.3	8.5	7.7	10.1	6.8	7.6	4.9	---	---
4	---	---	9.6	9.0	8.5	7.8	9.9	4.2	7.6	5.3	---	---
5	11.5	11.2	10.3	9.4	8.3	7.4	8.7	6.3	7.8	5.0	---	---
6	11.4	10.4	10.1	9.1	8.3	7.7	8.0	6.3	8.4	5.1	---	---
7	10.7	10.0	9.7	8.4	8.5	8.2	8.0	5.3	8.7	5.0	9.4	4.6
8	10.6	10.0	9.0	4.4	9.0	8.1	8.2	5.2	7.4	4.1	9.1	4.1
9	10.6	9.5	8.7	7.7	8.8	8.3	8.0	4.6	7.0	4.0	8.5	4.0
10	10.7	10.2	8.5	7.2	8.5	7.7	6.4	2.2	6.9	3.1	9.0	4.3
11	11.2	10.6	8.8	8.1	8.1	7.2	6.8	4.4	7.4	3.6	7.8	4.0
12	11.0	10.5	8.7	8.2	7.6	5.7	7.1	4.5	6.9	3.9	9.0	4.0
13	11.0	10.3	9.1	8.4	7.5	6.5	7.8	4.6	7.8	5.0	9.8	5.0
14	10.8	10.2	9.1	8.2	7.3	6.2	7.9	2.3	7.3	3.3	8.1	4.6
15	10.6	9.8	8.9	7.8	7.8	6.4	5.8	2.8	7.2	5.8	9.0	4.1
16	10.2	9.4	8.9	7.7	7.0	5.1	6.5	3.5	8.1	4.1	9.2	3.8
17	10.6	8.9	8.6	7.5	7.2	6.1	6.2	3.2	7.3	4.6	9.5	4.3
18	9.7	8.7	8.6	7.3	6.5	5.7	7.0	3.0	5.6	4.5	6.1	3.4
19	9.6	8.3	8.2	7.3	6.7	5.8	7.9	2.9	5.4	4.8	---	---
20	9.5	8.0	8.3	7.2	7.1	6.0	6.4	1.6	6.3	2.0	9.3	4.0
21	9.2	7.7	8.4	7.0	6.9	5.9	5.2	3.7	5.9	4.6	9.8	4.3
22	8.7	7.6	7.7	6.1	7.2	6.2	4.6	3.6	6.3	4.5	9.0	1.5
23	8.7	7.9	7.4	5.4	7.9	6.2	4.6	2.7	5.8	3.4	7.5	4.9
24	9.1	7.7	7.8	7.2	7.4	6.0	4.0	2.7	6.5	4.1	8.0	4.4
25	9.1	8.0	7.7	6.9	7.9	5.8	3.5	1.4	7.1	4.4	8.0	4.2
26	9.2	7.9	7.3	6.2	8.2	5.8	4.0	2.3	6.2	4.2	7.4	4.2
27	8.6	7.9	7.7	7.0	7.8	6.3	3.2	1.4	6.0	3.4	7.9	4.2
28	9.2	8.6	7.8	6.5	7.6	5.8	---	---	---	---	5.9	4.1
29	9.7	8.9	7.4	5.7	8.5	6.9	---	---	---	---	6.3	4.0
30	9.7	8.7	7.6	6.3	8.8	7.1	---	---	---	---	7.3	4.9
31	---	---	8.1	7.5	---	---	---	---	---	---	---	---
MONTH	11.5	7.6	10.3	4.4	9.0	5.1	10.1	1.4	8.7	2.0	---	---
YEAR	15.0	1.4										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	13.5	14.0	13.5	5.0	4.0	4.0	3.0	5.5	4.0	9.0	6.0
2	16.0	15.0	16.5	14.0	5.0	4.0	3.0	2.5	7.5	5.5	9.0	7.5
3	16.5	14.5	15.0	13.5	5.5	4.0	5.0	2.5	6.5	5.0	8.5	8.0
4	17.5	16.0	14.0	13.5	6.0	3.5	5.0	3.5	5.0	3.5	8.0	6.0
5	18.0	17.0	13.5	11.5	6.5	5.0	4.5	3.0	5.5	4.0	7.5	5.5
6	18.5	17.5	13.0	10.5	10.5	5.0	3.5	2.0	5.5	5.0	8.0	6.0
7	18.0	15.5	12.0	11.5	5.5	3.5	2.5	2.0	5.5	4.5	8.0	7.0
8	17.0	15.0	12.0	10.5	3.5	2.5	2.5	0.0	5.5	4.0	8.5	7.0
9	16.5	14.5	10.5	10.0	3.5	3.0	3.0	0.5	4.5	2.5	8.0	7.0
10	17.0	14.0	10.5	9.5	3.5	1.5	2.5	0.5	3.5	2.0	10.0	7.0
11	16.5	14.0	10.5	9.5	2.0	1.5	2.5	1.0	3.0	1.5	11.5	10.0
12	16.5	15.5	10.0	9.0	3.5	1.0	3.0	1.5	4.0	1.5	11.0	10.5
13	16.0	14.5	10.5	9.0	4.0	3.0	3.0	2.0	5.0	2.5	---	---
14	16.5	14.0	10.5	9.0	3.5	2.0	4.0	2.5	6.0	4.0	13.5	10.5
15	15.0	13.0	---	---	3.0	1.5	4.5	3.0	5.5	4.0	13.0	11.5
16	14.5	13.5	---	---	2.0	0.5	5.5	4.5	4.0	2.5	13.5	11.5
17	14.5	12.5	6.5	6.0	0.5	0.0	7.0	5.0	3.5	1.5	11.5	7.5
18	13.0	12.0	6.5	5.5	2.0	0.0	7.5	5.5	4.0	1.5	9.0	5.0
19	13.0	12.0	6.0	5.0	3.0	1.0	7.5	7.0	4.5	3.0	5.5	4.5
20	14.5	11.5	6.0	4.5	3.0	1.5	---	---	5.5	4.5	5.5	4.5
21	13.0	12.0	6.0	5.0	3.5	2.0	---	---	6.0	4.5	5.5	4.5
22	15.0	13.0	6.0	5.0	3.5	2.0	5.5	5.0	6.0	4.0	6.0	4.5
23	15.5	13.5	6.0	4.0	3.5	2.0	5.5	4.5	6.5	4.5	7.0	4.5
24	14.0	13.0	4.5	3.5	3.0	1.5	5.0	4.5	6.5	4.5	8.5	4.5
25	13.0	12.5	4.0	3.5	1.5	1.5	4.5	3.0	6.5	4.5	8.5	7.0
26	14.5	12.0	4.0	3.5	2.0	1.5	6.0	3.5	6.0	4.0	10.0	8.0
27	15.5	12.0	5.0	3.5	3.0	1.5	7.5	6.0	7.0	4.5	9.0	7.0
28	16.0	15.0	5.0	4.0	3.0	2.0	7.5	7.5	8.5	5.0	9.5	7.5
29	15.5	13.0	5.0	4.0	3.5	2.0	5.0	4.0	---	---	11.0	9.0
30	13.5	13.0	5.5	4.0	4.0	3.0	4.0	2.5	---	---	11.5	10.5
31	13.5	12.0	---	---	4.5	4.0	4.5	2.5	---	---	11.5	10.0
MONTH	18.5	11.5	16.5	3.5	10.5	0.0	7.5	0.0	8.5	1.5	13.5	4.5
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	12.5	11.0	17.0	15.5	21.0	19.0	26.0	23.5	---	---	33.5	29.0
2	13.0	12.0	17.5	15.5	21.0	19.5	27.0	23.5	30.0	25.5	33.5	28.5
3	12.0	10.5	17.0	14.5	21.5	20.0	28.5	24.5	29.5	25.5	33.0	27.0
4	11.0	8.5	14.5	13.0	22.0	20.5	28.5	24.5	30.0	25.5	33.0	26.0
5	9.5	7.5	14.0	11.5	22.0	21.0	27.0	24.5	29.5	24.5	33.0	28.0
6	11.5	8.5	15.5	12.0	21.5	21.0	28.5	23.5	30.0	24.0	30.5	27.0
7	12.0	10.5	18.0	14.0	21.5	20.5	29.0	24.5	31.0	25.5	29.5	24.5
8	12.0	10.5	18.0	16.5	24.0	21.0	30.5	24.5	31.0	26.0	28.5	23.0
9	11.0	10.0	19.0	12.5	24.5	23.5	31.5	26.0	33.0	30.5	26.0	22.0
10	10.0	8.0	18.5	11.5	25.0	23.5	29.0	20.5	31.5	31.0	26.5	13.0
11	8.5	7.0	18.0	16.0	26.0	23.0	29.0	26.0	31.5	27.0	26.5	18.0
12	9.0	7.5	17.5	16.0	26.5	24.0	26.0	23.5	31.0	26.5	26.0	16.5
13	9.5	8.0	16.5	15.0	26.0	23.5	30.5	24.0	30.5	25.0	25.0	12.0
14	10.5	8.0	18.0	14.5	26.5	20.0	30.0	25.5	29.0	25.5	25.5	21.0
15	11.5	8.5	17.0	15.5	26.0	19.0	28.5	23.0	31.0	28.5	26.0	18.0
16	13.5	10.0	18.5	14.5	26.0	22.0	28.5	24.0	31.0	26.0	24.5	18.0
17	15.0	13.5	17.0	14.5	25.5	24.0	28.5	23.0	31.0	27.0	24.0	16.5
18	15.5	14.0	18.0	15.0	26.0	23.5	27.5	23.5	31.0	26.5	23.5	18.5
19	18.0	15.0	17.0	15.5	27.0	24.0	30.0	21.0	30.5	26.0	---	---
20	20.0	16.5	16.5	15.5	27.0	25.0	28.0	20.5	26.5	24.0	---	---
21	20.0	17.5	18.5	14.5	28.0	25.5	26.5	21.5	26.0	25.0	---	---
22	19.5	18.0	18.0	16.5	27.0	25.0	27.0	25.0	27.0	22.0	24.5	16.0
23	19.0	17.0	18.0	16.5	26.5	24.5	27.0	23.0	26.5	18.5	25.5	20.0
24	20.5	16.5	18.5	17.0	25.0	23.0	28.0	24.5	27.0	23.5	24.5	18.5
25	18.5	16.5	18.5	16.5	26.0	23.0	28.5	23.5	29.5	23.0	25.5	18.5
26	19.5	16.0	18.5	16.5	28.0	24.0	27.5	26.0	31.0	25.0	25.5	20.5
27	17.0	14.5	18.0	16.5	25.5	24.5	28.5	24.5	33.5	27.0	26.0	18.0
28	15.0	13.5	19.0	16.5	25.0	24.0	---	---	34.0	29.0	24.5	23.0
29	14.0	12.0	19.5	18.5	26.0	23.5	---	---	34.0	29.0	25.0	23.0
30	16.5	12.5	19.5	18.5	25.5	23.0	---	---	33.5	29.0	24.0	16.5
31	---	---	20.0	18.0	---	---	---	---	33.5	28.0	---	---
MONTH	20.5	7.0	20.0	11.5	28.0	19.0	31.5	20.5	34.0	18.5	33.5	12.0
YEAR	34.0	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1350	64	233	230	36	22	485	14	18
2	988	58	155	350	70	66	458	9	11
3	780	53	112	386	72	75	428	9	10
4	780	46	97	371	28	28	458	12	15
5	750	39	79	374	12	12	455	13	16
6	701	22	42	401	36	39	856	176	512
7	606	17	28	526	93	149	868	43	101
8	506	18	25	757	98	200	792	29	62
9	401	15	16	780	47	99	872	23	54
10	353	13	12	683	16	30	956	18	46
11	350	15	14	711	12	23	892	16	39
12	437	32	38	776	24	50	924	26	65
13	377	21	21	792	51	118	1100	19	56
14	356	18	17	1500	107	433	1020	18	50
15	347	12	11	1500	82	332	880	16	38
16	332	12	11	1200	55	178	828	19	42
17	177	10	4.8	1150	37	115	666	18	32
18	171	8	3.7	1210	26	85	627	14	24
19	189	8	4.1	1140	22	68	669	17	31
20	168	8	3.6	1060	25	72	852	22	51
21	166	12	5.4	880	21	50	952	15	39
22	180	12	5.8	760	15	31	988	13	35
23	238	28	19	662	12	21	996	12	32
24	220	13	7.7	606	12	20	964	16	42
25	211	9	5.1	561	12	18	964	16	42
26	206	9	5.0	571	12	19	996	16	43
27	192	8	4.1	568	11	17	948	14	36
28	187	10	5.0	533	8	12	844	12	27
29	240	14	9.1	494	10	13	739	10	20
30	228	17	10	458	8	9.9	676	10	18
31	211	17	9.7	--	--	--	655	10	18
TOTAL	12398	--	1013.1	21990	--	2404.9	24808	--	1625

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	627	10	17	443	13	16	361	10	9.7
2	550	10	15	792	111	254	471	10	13
3	632	90	353	1020	34	94	595	12	19
4	912	115	283	935	32	81	703	19	36
5	852	56	129	893	23	55	905	39	99
6	704	22	42	947	16	41	1080	31	90
7	641	18	31	970	19	50	1140	42	129
8	596	12	19	932	18	45	1140	30	92
9	568	10	15	823	12	27	1060	24	69
10	494	10	13	682	12	22	1030	44	122
11	410	10	11	591	17	27	944	37	96
12	365	10	9.9	500	20	27	848	35	80
13	308	10	8.3	436	17	20	728	43	85
14	290	11	8.6	470	20	25	1180	328	1860
15	295	10	8.0	591	28	45	1980	330	1760
16	273	10	7.4	500	16	22	1820	128	629
17	268	10	7.2	411	16	18	1680	93	422
18	298	10	8.0	398	15	16	1860	67	336
19	359	10	9.7	422	15	17	1770	63	301
20	395	12	13	383	15	16	1590	75	322
21	347	9	8.4	372	15	15	1460	38	150
22	458	14	17	355	15	14	1300	17	60
23	522	7	9.9	359	15	15	1190	30	96
24	533	9	13	357	15	14	1170	34	107
25	476	8	10	334	14	13	1180	33	105
26	458	9	11	350	12	11	1240	32	107
27	476	10	13	319	10	8.6	1160	29	91
28	529	10	14	321	10	8.7	1110	25	75
29	589	10	16	--	--	--	1180	18	57
30	494	12	16	--	--	--	1290	23	80
31	449	10	12	--	--	--	1200	28	91
TOTAL	15168	--	1148.4	15906	--	1017.3	36365	--	7588.7

04206000 CUYAHOGA RIVER AT OLD PORTAGE, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1080	31	90	616	22	37	751	82	166
2	1150	39	121	764	27	56	701	67	127
3	1190	52	167	764	27	56	782	51	108
4	1270	64	219	655	15	27	938	37	94
5	1530	59	244	576	12	19	999	44	119
6	1410	47	179	507	14	19	1260	63	214
7	1230	29	96	450	18	22	1500	49	198
8	1250	24	81	523	69	157	1420	32	123
9	1200	28	91	636	62	106	1250	34	115
10	1270	30	103	746	45	91	1080	44	128
11	1210	19	62	864	38	89	895	43	104
12	1070	9	26	768	19	39	710	37	71
13	968	11	29	736	14	28	628	38	64
14	872	18	42	740	13	26	503	44	60
15	756	15	31	755	12	24	418	44	50
16	669	12	22	675	12	22	557	73	118
17	588	15	24	628	11	19	590	64	102
18	576	22	34	539	13	19	511	43	59
19	544	13	19	516	29	40	455	28	34
20	497	7	9.4	596	26	42	445	20	24
21	503	13	18	570	18	28	432	30	35
22	443	28	33	562	21	32	409	60	66
23	449	53	64	765	54	120	345	83	77
24	434	38	45	930	30	75	381	62	64
25	432	37	43	942	35	89	317	27	23
26	406	34	37	955	34	88	274	24	18
27	578	88	161	916	34	84	254	43	29
28	690	59	110	913	37	91	274	38	28
29	547	16	24	837	35	79	263	27	19
30	510	22	30	714	68	152	251	17	12
31	--	--	--	848	119	272	--	--	--
TOTAL	25322	--	2254.4	22006	--	2048	19593	--	2449

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	271	15	11	134	38	14	99	3	.80
2	265	16	11	164	37	16	79	2	.43
3	225	13	7.9	157	34	14	67	4	.72
4	312	96	152	171	32	15	69	5	.93
5	264	33	24	164	28	12	82	4	.89
6	220	7	4.2	151	26	11	93	4	1.0
7	185	3	1.5	140	24	9.1	64	4	.69
8	166	3	1.3	134	21	7.6	60	3	.49
9	139	2	.75	129	18	6.3	57	5	.77
10	291	109	160	141	15	5.7	55	1	.15
11	169	23	10	128	13	4.5	61	2	.33
12	142	26	10	176	12	5.7	63	3	.51
13	143	56	22	130	9	3.2	61	4	.66
14	160	77	55	173	45	38	67	5	.90
15	250	87	66	170	17	7.8	67	5	.90
16	155	33	14	122	6	2.0	61	4	.66
17	130	16	5.6	105	3	.85	60	4	.65
18	94	6	1.5	117	3	.95	79	5	1.1
19	100	20	5.4	97	3	.79	69	5	.93
20	456	376	1500	184	212	287	63	3	.51
21	551	306	668	161	14	6.1	61	4	.66
22	261	54	38	113	9	2.7	155	104	104
23	220	39	23	97	8	2.1	183	44	33
24	201	35	19	111	8	2.4	104	3	.84
25	260	44	35	103	6	1.7	96	5	1.3
26	232	49	53	88	4	.95	95	7	1.8
27	243	53	35	86	5	1.2	89	2	.48
28	179	41	20	93	7	1.8	92	3	.75
29	155	41	17	90	5	1.2	210	32	21
30	154	40	17	82	3	.66	164	14	6.2
31	141	39	15	137	5	1.8	--	--	--
TOTAL	6734	--	3003.15	4048	--	484.10	2625	--	184.05

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)

TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

206963

25220.10

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO

LOCATION.--Lat 41°23'43", long 81°37'48", in T.6 N., R.12 W., Cuyahoga County, at gaging station on left bank 240 ft (73 m) downstream from bridge on Old Rockside Road, 0.8 mi (1.3 km) northeast of Independence, and 3.0 mi (4.8 km) downstream from Tinkers Creek.

DRAINAGE AREA.--707 mi² (1,831 km²).

PERIOD OF RECORD.--Chemical analyses: October 1948 to September 1949, July 1965 to September 1973.

Water temperatures: October 1948 to September 1949, October 1952 to September 1973.

Sediment records: October 1950 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,910 micromhos Aug. 31; minimum, 323 micromhos Aug. 20.

Dissolved oxygen: Maximum, 14.5 mg/l Feb. 16; minimum, 2.3 mg/l July 11.

Water temperatures: Maximum, 29.5°C Aug. 28; minimum, freezing point Feb. 18.

Sediment concentrations: Maximum daily, 1,480 mg/l June 16; minimum daily, 3 mg/l Sept. 16.

Sediment discharges: Maximum daily, 20,100 tons (18,200 tonnes) Mar. 15; minimum daily, 1.40 ton (1.3 tonne) Sept. 16.

EXTREMES.--Period of record:

Specific conductance (1968-73): Maximum, 2,000 micromhos or higher on several days during 1968-71; minimum, 255 micromhos Feb. 21, 1971.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	BICARBONATE (HCO ₃) (MG/L)	CARBONATE (CO ₃) (MG/L)	DIS-SOLVED SULFATE (SO ₄) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)
OCT.										
02...	1215	2330	110	0	61	29	.2	--	--	1.7
19...	1555	326	166	0	120	95	.4	--	--	4.0
25...	1345	--	--	--	--	--	--	--	--	--
NOV.										
07...	1100	640	154	0	100	66	.3	--	--	3.0
14...	1600	6410	90	0	59	25	.2	--	--	1.6
DEC.										
05...	1600	1200	125	0	89	98	.3	--	--	2.7
06...	1015	3860	110	0	68	59	.3	--	--	1.6
JAN.										
04...	1600	2530	96	0	67	44	.2	--	--	1.8
30...	1600	870	128	0	92	190	.3	--	--	3.4
FEB.										
06...	1700	1420	111	0	74	60	.3	--	--	2.2
22...	1600	720	137	0	100	170	.4	--	--	3.3
MAR.										
01...	1600	910	138	0	100	150	.4	--	--	3.7
15...	1040	7170	83	0	54	36	.2	--	--	1.6
APR.										
27...	1850	2390	122	0	81	66	.3	--	--	1.8
28...	1055	5170	92	0	60	39	.2	--	--	1.6
MAY										
12...	0900	1500	124	0	71	48	.2	--	--	2.0
19...	0915	820	140	0	86	62	.3	--	--	2.9
JUNE										
07...	1752	2020	112	0	52	35	.3	--	--	1.0
07...	1815	--	--	--	--	--	--	--	--	--
30...	1030	417	163	0	90	83	.5	--	--	2.6
JULY										
14...	0915	261	178	0	120	220	.6	--	--	4.0
28...	0735	458	146	0	84	62	.5	--	--	3.2
AUG.										
15...	1027	855	135	2	91	75	--	.6	.00	--
26...	1035	240	192	0	130	140	--	.7	.01	--
SEP.										
19...	1739	185	196	3	160	170	--	.7	.00	--
30...	0942	665	125	0	98	77	--	.4	.00	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP-ERATURE (°C)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
DEC.																
06...	1530	6.5	4950	1370	18300	30	41	53	68	81	89	94	98	100	--	--
MAR.																
15...	1300	11.5	7150	813	15700	37	47	60	71	82	88	93	98	100	--	--
APR.																
27...	2000	14.0	2960	906	7240	28	38	48	62	76	86	94	98	99	100	--
JUNE																
04...	0735	--	3530	1090	10400	37	48	60	74	83	88	92	95	98	100	--

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--CONTINUED

EXTREMES.--Period of record--Continued

Dissolved oxygen (1970-73): Maximum, 14.5 mg/l Feb. 16, 1973; minimum, 1.0 mg/l Sept. 13, 1971.

Water temperatures (1948-49, 1952-67, 1968-73): Maximum, 31.0°C Aug. 18, 1949; minimum, freezing point on many days during winter periods.

Sediment concentrations: Maximum daily, 4,800 mg/l Aug. 21, 1960; minimum daily, 1 mg/l Sept. 4, 10, 1955.

Sediment discharges: Maximum, 51,400 tons (46,600 tonnes) Mar. 5, 1964; minimum daily, 0.25 ton (0.23 tonne) Sept. 4, 1955.

REMARKS.--Water-quality recorder operated since July 1965. Prior to February 1973 specific conductance values reported as 2,000 micromhos represent values of 2,000 micromhos or higher, due to instrument limitations. The pH parameter was added in February 1973. Maximum recorded pH value of 7.9 occurred Feb. 28, Mar. 1, 1973. Minimum recorded pH value of 6.7 occurred Mar. 10, 14, 1973. Minimum recorded dissolved oxygen concentrations of 0.0 mg/l occurred Oct. 23, 1965, Feb. 10-12, June 23, July 26, 1966. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. Natural flow of stream affected by diversions, storage reservoirs and power plants. Some diversion from the Tuscarawas drainage into this basin at Portage Lakes. Water diverted into Ohio Canal at Brecksville, 6.0 mi (9.7 km) upstream from station, bypasses station. These records do not include flow in canal except above about 15,000 ft³/s (425 m³/s), when channels merge.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.									
02...	--	150	60	392	258	--	14.5	--	--
19...	--	260	120	800	522	--	8.0	--	--
25...	--	--	--	--	--	--	11.5	3.0	<.5
NOV.									
07...	--	240	110	654	420	--	10.5	--	--
14...	--	150	76	351	230	--	8.0	--	--
DEC.									
05...	--	200	98	710	438	--	5.5	--	--
06...	--	170	80	488	308	--	8.0	--	--
JAN.									
04...	--	160	82	434	258	--	4.5	--	--
30...	--	220	120	1020	590	--	3.5	--	--
FEB.									
06...	--	180	89	532	330	--	6.0	--	--
22...	--	240	130	974	546	--	--	--	--
MAR.									
01...	--	240	130	935	592	--	--	--	--
15...	--	130	62	369	242	--	11.5	--	--
APR.									
27...	--	180	80	553	304	--	14.0	--	--
28...	--	140	64	392	238	--	10.0	--	--
MAY									
12...	--	180	78	502	306	--	16.0	--	--
19...	--	210	96	594	372	--	15.0	--	--
JUNE									
07...	--	150	58	396	224	--	23.0	--	--
07...	--	--	--	--	--	--	23.0	2.0	2.0
30...	--	230	96	718	436	--	21.5	--	--
JULY									
14...	--	280	130	1260	766	--	25.0	--	--
28...	--	210	90	624	396	--	24.5	--	--
AUG.									
15...	3.3	--	--	654	--	433	22.0	--	--
26...	4.2	--	--	1010	--	646	23.5	--	--
SEP.									
19...	5.2	--	--	1120	--	721	18.5	--	--
30...	4.4	--	--	660	--	458	28.5	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	424	376	792	766	668	578	604	564	952	842	991	856
2	424	398	772	504	856	664	604	542	948	568	856	593
3	472	424	618	512	794	676	623	573	590	562	675	579
4	506	472	654	604	912	658	610	462	578	530	643	586
5	584	496	678	626	902	658	484	460	558	512	635	584
6	574	534	680	638	658	398	602	482	542	512	585	528
7	632	538	688	482	574	428	694	602	642	518	539	503
8	596	542	508	390	606	434	762	640	604	526	557	491
9	604	560	494	446	740	540	750	612	828	602	539	485
10	644	566	520	494	544	504	630	604	838	736	588	492
11	684	614	572	516	504	478	642	604	736	666	540	498
12	716	628	576	542	1040	500	676	634	676	638	516	495
13	676	602	560	538	1100	526	826	640	696	639	534	516
14	676	612	498	344	606	484	888	808	887	686	590	395
15	648	616	426	394	540	494	840	804	1060	858	405	357
16	682	614	482	416	712	540	944	802	1060	866	411	381
17	728	664	542	456	742	616	806	764	1000	897	450	411
18	824	728	542	474	670	616	768	716	897	829	---	---
19	834	790	518	460	846	628	746	704	891	828	---	---
20	844	806	556	482	1050	802	816	718	955	886	569	524
21	848	806	504	484	802	628	772	740	974	887	561	489
22	868	826	618	504	628	518	854	728	1100	928	512	482
23	868	766	646	558	518	494	826	676	1350	1090	525	501
24	834	706	572	538	516	492	702	670	1460	1310	506	464
25	816	740	602	542	658	498	832	688	1320	1050	492	450
26	840	804	686	578	628	576	688	616	1050	993	491	446
27	830	798	636	590	734	602	634	616	---	---	531	456
28	818	790	644	566	604	572	700	616	1030	897	501	450
29	816	758	590	568	594	542	706	638	---	---	524	449
30	782	704	616	578	608	546	1030	674	---	---	512	446
31	782	728	---	---	582	550	978	874	---	---	521	452
MONTH	868	376	792	344	1100	398	1030	460	1460	512	991	357

[illegible]

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--CONTINUED

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	---	---	---	---	---	---	---	---	7.9	7.2
2	---	---	---	---	---	---	---	---	---	---	7.8	7.3
3	---	---	---	---	---	---	---	---	---	---	7.7	7.6
4	---	---	---	---	---	---	---	---	---	---	7.7	7.5
5	---	---	---	---	---	---	---	---	---	---	7.6	7.2
6	---	---	---	---	---	---	---	---	---	---	7.5	7.1
7	---	---	---	---	---	---	---	---	---	---	7.5	7.3
8	---	---	---	---	---	---	---	---	---	---	7.5	6.9
9	---	---	---	---	---	---	---	---	---	---	7.5	6.9
10	---	---	---	---	---	---	---	---	---	---	7.5	6.7
11	---	---	---	---	---	---	---	---	---	---	7.4	6.9
12	---	---	---	---	---	---	---	---	---	---	7.5	7.2
13	---	---	---	---	---	---	---	---	---	---	7.5	7.4
14	---	---	---	---	---	---	---	---	---	---	7.5	6.7
15	---	---	---	---	---	---	---	---	---	---	7.4	7.1
16	---	---	---	---	---	---	---	---	---	---	7.5	7.3
17	---	---	---	---	---	---	---	---	---	---	7.5	7.2
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	7.6	7.5
21	---	---	---	---	---	---	---	---	---	---	7.6	7.5
22	---	---	---	---	---	---	---	---	---	---	7.6	7.5
23	---	---	---	---	---	---	---	---	---	---	7.6	7.4
24	---	---	---	---	---	---	---	---	---	---	7.6	7.2
25	---	---	---	---	---	---	---	---	---	---	7.5	7.4
26	---	---	---	---	---	---	---	---	---	---	7.5	7.4
27	---	---	---	---	---	---	---	---	---	---	7.5	7.3
28	---	---	---	---	---	---	---	---	7.9	7.5	7.5	7.4
29	---	---	---	---	---	---	---	---	---	---	7.5	7.3
30	---	---	---	---	---	---	---	---	---	---	7.4	7.3
31	---	---	---	---	---	---	---	---	---	---	7.4	7.4
MONTH	---	---	---	---	---	---	---	---	---	---	7.9	6.7

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	7.2	7.1	7.0	7.4	7.2	7.4	7.2	7.5	7.2	7.3	7.1
2	7.5	7.4	7.1	7.0	7.3	7.2	7.4	7.3	7.4	7.2	7.5	7.1
3	7.6	7.4	7.2	7.0	7.3	7.3	7.4	7.3	7.5	7.2	7.5	7.3
4	7.7	7.5	7.3	7.2	7.4	7.2	7.4	7.2	7.6	7.3	7.4	7.3
5	7.7	7.6	7.2	7.0	7.3	7.2	7.3	7.1	7.6	7.3	7.5	7.3
6	7.6	7.4	7.2	6.9	7.3	7.2	7.4	7.2	7.7	7.4	7.5	7.4
7	7.5	7.4	7.4	7.0	7.3	7.2	7.4	7.3	7.7	7.4	7.5	7.3
8	7.6	7.5	7.4	7.3	7.3	7.2	7.5	7.3	7.7	7.3	7.6	7.4
9	7.6	7.6	7.3	7.1	7.3	7.1	7.5	7.2	7.6	7.2	7.6	7.3
10	7.6	7.5	7.4	7.2	7.2	7.1	7.5	7.1	7.5	7.2	7.6	7.4
11	7.6	7.6	7.4	7.3	7.2	7.0	7.4	7.0	7.5	7.2	7.4	7.1
12	7.6	7.5	7.4	7.4	7.2	7.0	7.5	7.3	7.3	7.1	7.5	7.1
13	7.6	7.5	7.5	7.4	7.2	7.1	7.5	7.2	7.5	7.1	7.2	7.1
14	7.6	7.4	7.5	7.4	7.2	7.1	7.5	7.2	7.4	7.1	7.3	7.0
15	7.5	7.3	7.4	7.3	7.2	7.1	7.4	7.1	7.2	7.1	7.3	7.0
16	7.5	7.4	7.4	7.4	7.4	7.1	7.5	7.1	7.3	7.1	7.4	7.0
17	7.5	7.4	7.5	7.4	7.3	7.1	7.5	7.4	7.3	7.1	7.4	7.0
18	7.4	7.4	7.5	7.4	7.3	7.1	7.5	7.3	7.3	7.1	7.4	7.0
19	7.4	7.3	7.4	7.4	7.3	6.9	7.4	7.3	7.5	7.1	7.5	7.2
20	7.4	7.3	7.4	7.4	7.2	7.0	7.4	7.2	7.3	7.0	7.4	7.1
21	7.4	7.2	7.5	7.4	7.2	7.1	7.3	7.0	7.3	7.1	7.4	7.2
22	7.3	7.2	7.5	7.3	7.3	7.2	7.4	7.2	7.4	7.1	7.3	7.1
23	7.4	7.3	7.4	7.3	7.2	7.1	7.5	7.3	7.5	7.3	7.3	7.0
24	7.4	7.2	7.4	7.2	7.3	7.2	7.5	7.2	7.5	7.3	7.3	7.1
25	7.3	7.2	7.4	7.4	7.4	7.1	7.4	7.2	7.5	7.3	7.3	7.2
26	7.2	7.0	7.4	7.3	7.4	7.2	7.3	7.2	7.5	7.3	7.3	7.2
27	7.1	7.0	7.4	7.4	7.4	7.2	7.3	7.1	7.6	7.3	7.3	7.1
28	7.2	7.1	7.4	7.3	7.3	7.2	7.4	7.1	7.8	7.3	7.2	7.0
29	7.2	7.1	7.5	7.3	7.3	7.2	7.5	7.3	7.5	7.2	7.2	7.0
30	7.2	6.9	7.4	7.3	7.4	7.2	7.5	7.3	7.4	7.3	7.3	7.1
31	---	---	7.4	7.3	---	---	7.5	7.4	7.4	7.2	---	---
MONTH	7.7	6.9	7.5	6.9	7.4	6.9	7.5	7.0	7.8	7.0	7.6	7.0

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.1	9.0	9.1	8.3	9.9	9.8	11.3	10.7	12.7	12.1	11.9	10.0
2	9.2	9.0	9.1	7.8	9.9	9.7	11.7	11.3	12.6	11.6	13.2	11.5
3	8.4	7.9	9.9	8.1	9.8	9.4	11.8	11.6	12.4	11.4	12.8	11.9
4	7.9	7.3	9.9	9.4	9.9	9.5	12.1	11.4	12.4	12.0	11.9	11.6
5	7.3	6.7	10.0	9.6	9.9	9.3	12.9	12.0	12.2	11.8	11.8	9.7
6	7.3	6.7	10.3	9.9	9.6	9.1	13.0	12.8	12.7	11.5	12.5	10.2
7	7.1	6.4	9.9	8.5	10.4	9.6	13.1	13.0	13.1	10.5	12.1	10.1
8	7.4	6.8	10.3	8.7	10.5	9.1	13.2	13.1	13.1	12.6	10.6	9.9
9	7.4	7.1	10.4	10.2	10.5	8.5	13.8	12.8	13.5	12.8	11.8	10.1
10	8.2	7.4	10.3	10.0	10.6	10.3	12.9	12.7	13.6	12.6	11.1	9.2
11	8.4	7.7	10.0	9.6	10.9	10.6	12.8	12.5	13.7	13.5	11.0	8.9
12	7.9	6.8	10.1	9.8	11.0	9.9	12.6	12.4	13.8	13.5	10.4	8.6
13	8.2	7.1	10.1	9.9	9.7	10.3	12.5	12.2	13.5	11.4	10.9	9.9
14	8.5	7.7	10.6	10.0	11.0	10.8	12.2	11.8	12.3	11.9	10.5	8.8
15	8.3	8.0	11.0	10.4	11.0	10.7	11.8	11.6	12.3	10.3	9.4	8.9
16	8.7	8.1	11.1	11.0	11.4	10.8	12.0	11.6	14.5	12.0	10.6	9.2
17	8.4	8.0	11.0	10.7	11.6	11.4	11.7	11.4	12.8	11.4	10.2	8.6
18	8.7	8.1	10.8	10.6	11.7	11.4	11.7	11.3	14.2	12.5	---	---
19	9.1	8.5	10.7	10.6	11.5	10.8	11.3	10.8	12.5	12.2	---	---
20	9.5	8.6	10.8	9.9	11.3	10.7	11.5	11.1	12.2	11.6	11.6	11.2
21	9.2	8.4	10.8	10.5	11.3	11.0	11.7	11.5	11.6	11.3	11.7	11.5
22	8.9	7.8	10.6	10.3	11.3	11.2	11.6	9.5	11.5	11.2	12.3	11.7
23	8.1	7.6	10.6	10.3	11.3	11.1	11.6	9.8	11.3	10.7	12.5	11.7
24	7.6	5.9	10.7	10.5	11.3	11.1	12.6	11.6	10.8	10.6	12.5	11.4
25	8.5	7.2	10.6	10.2	11.4	11.2	12.7	12.3	12.1	10.2	12.0	11.1
26	8.4	7.9	10.3	9.8	11.5	11.4	12.4	11.9	10.2	10.0	11.4	10.3
27	8.4	7.9	10.4	10.1	11.6	11.2	11.9	11.4	---	---	11.6	8.4
28	8.0	7.5	10.3	10.1	11.5	11.3	11.7	10.8	12.0	11.4	10.9	10.1
29	8.3	7.4	10.5	10.3	11.6	11.5	13.0	11.2	---	---	10.3	9.4
30	9.5	7.8	10.3	9.9	11.6	10.9	13.0	12.3	---	---	10.0	9.2
31	9.7	9.0	---	---	10.9	10.4	13.1	12.7	---	---	9.7	9.1
MONTH	10.1	5.9	11.1	7.8	11.7	8.5	13.8	9.5	14.5	10.0	13.2	8.4
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.2	8.2	9.4	9.0	8.3	7.9	7.4	5.8	5.3	2.6	6.6	4.3
2	9.0	8.3	9.3	8.9	7.9	7.6	7.6	5.7	5.1	3.5	7.7	4.9
3	9.6	8.7	9.9	8.5	7.9	7.1	7.4	5.3	5.0	2.8	6.8	5.1
4	11.1	10.2	10.3	9.8	8.3	7.4	6.8	4.3	6.5	3.4	6.8	5.2
5	11.5	11.0	10.4	9.5	7.4	7.2	6.1	4.8	6.3	4.0	5.6	4.9
6	11.5	10.9	9.6	8.9	7.9	6.9	6.8	5.4	6.5	4.2	5.4	4.3
7	10.9	10.5	9.1	5.3	8.1	7.7	7.3	4.7	6.8	4.2	6.0	4.3
8	10.8	10.4	7.7	7.1	8.0	7.5	8.5	4.1	6.4	3.9	6.4	4.6
9	11.0	10.7	7.7	5.4	7.7	7.4	7.7	3.6	6.2	3.8	5.0	4.7
10	11.3	10.5	8.3	7.6	7.5	7.3	5.6	2.7	5.6	3.8	5.0	4.8
11	11.6	11.2	8.7	7.5	7.5	7.0	6.6	2.3	5.3	3.4	5.1	4.4
12	11.4	11.1	8.5	8.1	6.9	6.4	6.8	4.9	4.9	3.4	5.1	4.6
13	11.2	10.9	8.6	8.0	6.9	5.2	6.0	4.3	6.4	4.0	5.1	4.8
14	11.1	10.6	8.8	8.2	6.8	6.0	7.1	2.7	5.2	3.8	5.1	4.3
15	10.7	10.2	8.3	7.3	6.5	5.8	5.8	4.1	5.4	4.2	5.2	4.5
16	10.5	9.9	8.5	7.9	7.8	5.6	7.9	4.1	7.3	4.6	5.3	4.5
17	10.0	9.6	8.3	7.2	7.0	5.2	7.7	5.3	5.1	3.7	5.4	4.8
18	9.9	8.6	8.4	7.8	6.5	5.9	7.6	4.9	5.0	3.3	6.0	4.9
19	9.8	8.5	7.8	7.2	6.3	5.8	7.0	4.5	6.7	3.7	6.4	3.1
20	9.2	8.3	8.5	7.5	5.8	5.3	6.4	4.4	6.0	3.9	6.6	4.5
21	8.5	7.8	9.0	7.7	5.9	5.4	5.9	3.0	6.3	4.6	7.0	4.5
22	8.3	7.6	8.2	7.6	6.4	5.5	6.4	4.8	6.8	5.5	6.3	4.6
23	9.1	7.9	8.6	6.6	6.4	5.5	6.8	5.0	7.3	5.6	4.6	3.4
24	9.1	8.1	8.6	7.3	7.0	5.3	6.5	3.7	6.5	5.4	6.4	4.6
25	8.7	8.0	8.4	8.1	7.3	4.3	5.4	2.7	7.0	4.4	5.9	4.6
26	8.8	7.3	8.8	7.4	7.2	5.3	5.4	2.4	7.7	4.4	5.1	4.5
27	9.8	7.2	8.9	8.3	6.9	5.1	3.9	2.6	7.3	5.0	4.9	4.3
28	11.3	9.8	8.6	8.1	6.5	5.5	6.5	2.5	8.0	4.6	4.7	4.0
29	11.2	10.7	8.3	7.7	6.1	5.4	6.3	3.7	7.3	4.1	6.0	4.2
30	10.8	9.2	8.3	7.5	7.0	5.7	6.2	4.1	6.2	4.7	6.6	5.4
31	---	---	8.6	7.5	---	---	5.7	3.9	6.1	4.8	---	---
MONTH	11.6	7.2	10.4	5.3	8.3	4.3	8.5	2.3	8.0	2.6	7.7	3.1
YEAR	14.5	2.3										

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	13.5	10.5	15.5	14.5	20.0	17.5	24.5	21.5	24.5	23.0	28.0	25.0
2	13.0	11.5	16.5	15.0	22.0	19.0	26.5	23.5	25.0	22.5	28.5	25.5
3	11.5	10.0	16.0	13.0	21.0	19.0	27.5	25.0	24.5	23.0	29.0	25.5
4	10.0	7.5	13.0	10.5	22.5	18.5	26.5	24.5	25.0	22.0	28.5	25.0
5	8.0	7.0	14.0	10.0	24.0	21.0	26.0	24.0	25.5	22.5	27.0	25.0
6	10.0	6.5	15.0	12.0	22.0	21.0	26.5	23.5	26.0	23.0	26.5	24.5
7	11.0	9.0	16.5	14.0	23.0	20.5	27.5	24.0	25.5	23.5	24.5	22.5
8	11.0	10.0	17.0	16.0	24.0	21.0	28.5	25.5	27.0	23.5	23.0	20.5
9	10.0	8.5	19.0	15.5	24.5	22.0	29.0	26.0	27.5	25.0	21.5	20.0
10	8.5	7.0	18.0	16.0	26.0	22.5	27.5	24.5	27.0	25.0	21.0	20.0
11	8.0	6.5	16.5	15.0	26.5	23.5	25.0	23.0	26.5	24.5	21.0	20.0
12	8.5	6.5	16.5	15.5	27.0	25.0	23.0	22.0	25.5	24.0	20.5	18.0
13	9.5	7.0	15.5	14.0	26.0	23.5	26.5	21.5	25.5	23.0	18.5	18.0
14	10.5	7.0	16.0	13.5	25.0	22.5	27.0	25.0	24.5	21.0	20.0	18.0
15	11.5	8.5	15.5	14.0	25.0	22.0	26.5	23.5	24.0	21.0	21.0	18.0
16	12.0	11.0	16.0	13.5	25.0	20.5	25.5	23.5	26.0	22.5	19.5	18.0
17	13.5	11.5	15.5	14.5	23.5	21.5	24.5	22.5	26.0	24.0	18.5	18.0
18	14.5	13.0	16.0	13.5	23.5	22.5	25.5	22.0	25.0	23.0	19.0	18.0
19	16.5	14.0	15.5	14.0	24.0	22.0	26.5	23.0	26.0	23.0	18.0	16.5
20	17.5	15.5	14.5	13.5	26.0	24.0	25.5	22.0	24.5	19.5	17.5	17.0
21	18.5	16.5	16.5	13.0	26.5	24.5	24.0	22.0	20.5	20.0	17.5	16.5
22	18.5	17.5	16.0	15.5	26.0	24.0	25.5	23.0	22.0	19.5	20.0	17.0
23	17.5	15.5	16.0	15.0	25.5	24.0	25.5	24.0	21.0	19.0	21.5	18.0
24	17.0	14.5	16.5	15.5	24.5	21.0	26.0	24.0	23.0	20.0	21.0	19.0
25	16.0	14.5	17.0	16.5	25.5	21.5	26.0	24.0	24.0	20.5	21.0	17.5
26	17.0	13.5	18.0	16.0	26.0	23.5	26.5	25.0	26.0	22.5	22.5	19.5
27	16.5	11.0	17.5	16.5	25.0	23.5	26.5	23.5	28.5	24.5	22.5	20.0
28	11.0	9.0	18.5	16.5	23.5	22.0	26.5	24.5	29.5	26.0	22.0	17.0
29	11.5	9.5	18.5	17.0	23.0	21.0	26.0	24.0	29.0	26.5	20.5	19.0
30	15.0	11.0	18.5	17.5	22.5	21.5	25.5	23.0	28.0	26.5	20.0	19.0
31	---	---	19.0	16.5	---	---	25.0	24.0	27.0	25.5	---	---
MONTH	18.5	6.5	19.0	10.0	27.0	17.5	29.0	21.5	29.5	19.0	29.0	16.5
YEAR	29.5	0.0										

STREAMS TRIBUTARY TO LAKE ERIE

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3560	200	1920	388	60	63	872	17	40
2	2350	191	1210	1580	646	3360	892	22	53
3	1590	87	373	1140	116	406	852	23	53
4	1200	67	217	835	24	54	936	49	124
5	1120	45	136	745	17	34	1280	58	200
6	1060	42	120	655	27	48	3310	852	9600
7	951	43	110	1160	221	1240	2190	480	2840
8	798	28	60	3770	358	3640	1670	180	812
9	651	30	53	2180	51	300	1700	49	225
10	527	32	46	1590	45	193	1610	30	130
11	512	48	66	1310	39	138	1430	33	127
12	654	47	83	1210	22	72	1490	42	205
13	618	38	63	1160	131	423	2770	382	2860
14	546	23	34	5700	625	9880	1960	134	709
15	500	17	23	3250	172	1510	1580	46	196
16	490	19	25	2320	58	363	1390	28	105
17	416	20	22	1750	47	222	1160	33	103
18	306	25	21	1560	36	152	1050	25	71
19	332	25	22	1500	37	150	1070	35	101
20	310	19	16	1750	26	123	2000	276	1510
21	280	12	9.1	1530	20	83	2250	122	741
22	284	12	9.2	1380	28	104	2460	73	485
23	453	18	22	1280	29	100	2040	42	231
24	452	20	24	1120	24	73	1710	17	78
25	386	24	25	1020	18	50	1510	32	130
26	351	14	13	1330	27	97	1500	42	170
27	334	18	16	1410	21	80	1520	27	111
28	324	17	15	1220	14	46	1350	35	128
29	490	22	29	1020	17	47	1180	31	99
30	463	20	25	897	36	87	1140	35	108
31	389	20	21	--	--	--	1110	30	90
TOTAL	22697	--	4828.3	47760	--	23138	48982	--	22435

DAY	JANUARY			FEBRUARY			MARCH		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1050	17	48	928	27	68	1120	41	124
2	934	13	33	2520	850	6330	1830	60	296
3	887	31	88	2640	670	4780	1810	54	264
4	2850	625	5070	1970	97	516	1670	51	230
5	1800	118	573	1560	133	560	2140	289	1920
6	1360	37	136	1460	115	453	2300	127	828
7	1080	45	131	1560	189	796	1970	102	543
8	961	38	99	1500	45	182	1760	58	276
9	913	83	205	1350	60	219	1580	72	307
10	802	39	84	1140	44	135	2020	204	1110
11	700	37	70	994	50	134	2270	208	1400
12	626	39	66	851	51	117	1990	98	527
13	566	23	35	776	13	27	1490	20	80
14	527	25	36	785	50	106	2470	678	8490
15	532	57	82	1400	150	567	6500	1090	20100
16	532	33	47	1090	63	185	3910	240	2530
17	536	70	101	857	36	83	3730	630	6340
18	648	52	91	756	17	35	3160	320	2730
19	761	66	136	790	61	130	3200	117	1010
20	783	33	70	777	53	111	3010	106	861
21	644	10	17	754	31	63	2770	95	711
22	859	78	208	752	24	49	2320	66	413
23	1080	266	776	737	16	32	2250	82	498
24	1000	64	173	736	14	28	2590	44	308
25	870	21	49	698	17	32	2500	30	203
26	796	25	54	684	22	41	2750	23	171
27	812	19	42	679	26	48	2120	16	92
28	998	45	128	702	26	49	1790	24	116
29	1260	181	616	--	--	--	1940	61	320
30	981	42	111	--	--	--	2530	175	1200
31	863	29	68	--	--	--	2140	35	202
TOTAL	29011	--	9443	31446	--	15876	75630	--	54200

04208000 CUYAHOGA RIVER AT INDEPENDENCE, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1860	22	110	1090	96	283	1470	140	556
2	2010	29	157	1150	73	227	1190	95	305
3	1870	36	182	1280	61	211	1300	182	872
4	2260	34	207	1150	55	171	2810	885	8490
5	3420	27	249	1020	53	146	1940	414	2900
6	2590	23	161	868	52	122	2190	445	3120
7	2010	22	119	775	51	107	2020	278	1520
8	1990	124	666	813	84	210	1880	303	1540
9	1920	181	1030	1480	473	1990	1640	223	987
10	3010	681	5950	1870	358	1810	1400	195	737
11	2280	118	726	2020	330	1800	1200	160	518
12	1880	92	467	1510	160	652	1010	121	330
13	1580	70	299	1270	155	531	1090	153	450
14	1380	49	183	1130	90	275	775	162	339
15	1230	43	143	1320	206	734	640	118	204
16	1100	41	122	1110	110	330	2350	1480	11900
17	1030	40	111	1090	118	347	2080	640	4370
18	1040	40	112	920	70	174	1150	153	475
19	1010	40	109	821	145	321	865	94	220
20	918	40	99	1270	140	480	750	85	172
21	868	40	94	1190	103	331	680	89	163
22	781	40	84	1020	74	204	640	95	164
23	764	40	83	2420	559	4450	575	64	99
24	770	40	83	2190	393	2510	840	294	723
25	732	40	79	1690	140	639	605	60	98
26	688	40	74	1600	145	626	489	48	63
27	1490	379	2840	1380	120	447	440	48	57
28	4370	792	10200	1750	822	4350	422	43	49
29	1870	178	899	1460	160	631	471	54	69
30	1310	130	460	1290	159	585	404	40	44
31	--	--	--	2190	314	1860	--	--	--
TOTAL	50031	--	26098	42137	--	27554	35316	--	41534

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	413	37	41	257	19	13	303	28	23
2	408	32	35	278	24	18	251	19	13
3	388	30	31	259	27	19	198	10	5.3
4	394	24	26	274	32	24	189	14	7.1
5	538	102	160	269	34	25	182	13	6.4
6	378	44	45	248	30	20	279	14	11
7	323	30	26	257	32	22	251	12	8.1
8	281	18	14	245	21	14	195	7	3.7
9	259	14	9.8	241	15	9.8	172	6	2.8
10	458	83	164	254	20	14	157	5	2.1
11	388	76	80	243	17	11	192	9	4.7
12	272	19	14	381	37	38	209	6	3.4
13	257	12	8.3	293	20	16	192	4	2.1
14	262	24	17	724	244	1140	195	6	3.2
15	510	100	151	830	346	1010	192	5	2.6
16	312	32	27	338	52	47	169	3	1.4
17	255	15	10	268	50	36	151	6	2.4
18	226	17	10	310	37	31	223	14	8.4
19	176	8	3.8	279	38	29	202	15	8.2
20	363	156	539	810	347	2120	179	10	4.8
21	1670	1090	5670	915	396	1330	166	18	8.1
22	602	170	276	378	42	43	202	31	17
23	411	64	71	272	25	18	534	278	447
24	397	80	94	258	21	15	244	41	27
25	552	205	325	261	26	18	209	32	18
26	407	31	34	233	21	13	182	22	11
27	606	120	196	216	19	11	172	15	7.0
28	411	44	49	230	17	11	240	110	119
29	313	38	32	240	14	9.1	1120	790	3140
30	268	21	15	223	22	13	690	390	727
31	266	21	15	350	39	37	--	--	--
TOTAL	12764	--	8188.9	10634	--	6174.9	7840	--	4644.8

TOTAL DISCHARGE FOR YEAR (CFS-DAYS)
TOTAL SUSPENDED-SEDIMENT DISCHARGE FOR YEAR (TONS)

41424
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CINCINNATI TRIBUTARY TO LAKE ERIE

04208505 CUYAHOGA RIVER AT DUPONT INTAKE IN CLEVELAND, OHIO

LOCATION.--Lat 40°28'39", long 81°40'13", in T.7 N., R.12 W., Cuyahoga County, at Dupont Products Division water intake on east side of turning basin at Station 722, and 5.1 mi (8.2 km) upstream from mouth, in Cleveland.

DRAINAGE AREA.--794 mi² (2,056 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,550 micromhos Feb. 24; minimum, 300 micromhos Oct. 1.

EXTREMES.--Period of record:

Specific conductance: Maximum, 3,020 micromhos Feb. 5, 1971; minimum, 290 micromhos July 20, 21, 1969.

REMARKS.--Water-quality recorder operated since October 1964 and is located in brick building at edge of turning basin. Interruptions in the record were due to malfunctions of the instrument.

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	410	300	890	820	780	690	800	690	1260	1080	1080	980
2	460	360	920	520	920	730	770	680	1330	810	1030	810
3	540	460	850	520	990	790	810	710	810	710	810	690
4	680	520	920	660	920	760	760	540	720	670	770	690
5	760	590	860	700	1030	820	600	540	680	650	780	720
6	760	640	890	700	840	460	630	590	690	640	720	640
7	740	660	800	590	640	470	870	620	690	630	710	590
8	770	720	800	450	740	600	840	760	730	620	730	560
9	760	640	550	460	880	740	860	800	870	730	700	530
10	790	740	700	500	810	640	830	740	930	860	730	520
11	790	680	730	520	690	610	780	730	920	820	750	550
12	860	750	800	550	950	620	820	740	820	750	660	540
13	960	720	700	520	1020	660	870	790	800	740	700	610
14	830	700	660	380	710	630	900	790	840	750	750	520
15	820	730	530	380	670	630	950	900	1020	840	540	350
16	800	700	500	390	800	650	950	890	1060	990	570	430
17	800	730	660	420	890	790	970	890	1070	960	550	470
18	920	720	670	490	940	840	890	830	980	910	690	480
19	980	800	640	440	990	840	870	810	1070	940	880	620
20	900	800	---	---	1460	990	900	830	1180	990	830	630
21	930	850	540	460	1110	890	890	830	1130	1010	720	620
22	940	840	720	490	900	780	940	830	1140	1020	670	590
23	920	830	750	590	780	700	940	810	1370	1130	660	590
24	880	820	710	600	700	630	840	780	1550	1370	640	540
25	680	860	680	570	680	620	870	800	1460	1280	610	410
26	760	850	760	620	770	660	920	840	1280	1120	610	520
27	760	860	760	620	830	760	910	800	1170	1090	590	530
28	750	890	750	650	860	690	890	800	1120	990	600	540
29	780	800	780	670	740	680	920	880	---	---	640	570
30	720	760	720	650	760	680	1020	910	---	---	670	530
31	900	800	---	---	800	680	1160	1020	---	---	590	510
MONTH	980	300	920	380	1460	460	1160	540	1550	620	1080	350

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SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OHIO

LOCATION.--Lat 41°29'17", long 81°41'07", in T.7 N., R.12 W., Cuyahoga County, at bridge on West Third Street in Cleveland, 3.0 mi (4.8 km) upstream from mouth, and 1.2 mi (1.9 km) downstream from turning basin. Water-quality recorder located on left bank just upstream from bridge.

DRAINAGE AREA.--798 mi² (2,067 km²).

PERIOD OF RECORD.--Chemical analyses: November 1966 to September 1973.
Water temperatures: November 1966 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 1,710 micromhos Feb. 24; minimum, 394 micromhos Oct. 1.

pH: Maximum, 8.9 Feb. 13; minimum, 6.3 July 20, 21, 24.

Dissolved oxygen: Maximum, 11.0 mg/l Feb. 6; minimum, 0.0 mg/l July 18.

Water temperatures: Maximum, 34.0°C Aug. 29, 31; minimum, 4.5°C Dec. 17, 18.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

		TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (NI) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
OCT.											
02...	1345	--	--	102	0	71	44	.5	--	--	3.1
19...	1145	--	--		--	--	--	--	--	--	--
23...	0935	--	--	114	0	140	120	1.4	--	--	11
NOV.											
01...	1020	--	--	116	0	120	110	1.0	--	--	9.6
15...	0815	--	--	92	0	72	42	.6	--	--	2.4
DEC.											
06...	1310	--	--	104	0	74	71	.6	--	--	2.9
20...	1415	--	--	102	0	96	280	.7	--	--	4.2
JAN.											
04...	1405	--	--	96	0	79	65	.5	--	--	2.8
31...	0817	--	--	102	0	100	180	.7	--	--	5.0
FEB.											
07...	1455	--	--	104	0	89	80	.5	--	--	3.8
26...	1050	--	--	112	0	120	290	.7	--	--	5.5
MAR.											
01...	0910	--	--	120	0	120	180	1.1	--	--	5.9
16...	1635	--	--	88	0	65	53	.4	--	--	2.3
APR.											
06...	1440	--	--	92	0	74	55	.4	--	--	3.2
25...	1300	--	--	126	0	110	140	1.0	--	--	12
MAY											
08...	1040	--	--	114	0	100	82	.7	--	--	8.1
29...	0955	--	--	114	0	64	55	.4	--	--	3.2
JUNE											
04...	1250	--	--	102	0	62	39	.4	--	--	3.1
07...	1645	--	--	--	--	--	--	--	--	--	--
27...	1500	--	--	122	0	100	96	1.0	--	--	7.2
JULY											
16...	1310	--	--	124	0	130	160	1.1	--	--	8.9
23...	1845	--	--	100	0	99	82	.7	--	--	7.0
AUG.											
22...	1000	66	11	107	0	81	70	--	1.2	.01	--
27...	1700	100	19	128	3	140	140	--	--	.01	--
SEP.											
10...	1105	91	17	92	0	120	130	--	2.4	.00	--
21...	1500	88	17	110	0	130	180	--	1.9	.00	--

[illegible]

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE, IN CLEVELAND, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1967-73): Maximum, 2,840 micromhos Feb. 5, 1971; minimum, 366 micromhos June 29, 1972.

pH (1969-73): Maximum, 9.3 Sept. 14, 1969; minimum, 4.3 May 16, 1969.

Dissolved oxygen (1967-68, 1970-73): Maximum, 13.3 mg/l Jan. 22, 23, 1972; minimum, 0.0 mg/l on many days during 1967, 1968, 1971 to 1973.

Water temperatures: Maximum, 35.0°C July 24, 1967; minimum, 1.0°C Jan. 1, 1969.

REMARKS.--Water-quality recorder operated since November 1966. Maximum recorded dissolved oxygen concentrations of 15.0 mg/l or higher occurred on several days during 1968 and 1970. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

REVISIONS.--Revised figure for maximum dissolved oxygen extremes period of record, for water year 1972 superseding those previously published is published herewith: 13.3 mg/l Jan. 22, 23, 1972.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.										
02...	--	.43	180	96	459	280	--	17.0	--	--
19...	--	--	--	--	--	--	--	--	4.0	<.5
23...	--	.68	270	180	928	556	--	19.5	--	--
NOV.										
01...	--	.32	260	160	862	568	--	17.5	--	--
15...	--	.59	160	84	445	248	--	8.5	--	--
DEC.										
06...	--	.52	170	85	551	304	--	10.0	--	--
20...	--	.52	230	150	1280	820	--	6.5	--	--
JAN.										
04...	--	.40	180	100	535	306	--	5.0	--	--
31...	--	.33	230	150	1000	572	--	7.5	--	--
FEB.										
07...	--	.29	200	120	628	378	--	9.0	--	--
26...	--	.27	260	170	1420	810	--	9.0	--	--
MAR.										
01...	--	.36	270	170	1100	652	--	10.0	--	--
16...	--	.26	150	78	462	260	--	13.0	--	--
APR.										
06...	--	.20	170	94	488	286	--	10.5	--	--
25...	--	.18	240	140	814	486	--	20.0	--	--
MAY										
08...	--	.32	230	140	706	418	--	19.0	--	--
29...	--	.39	190	96	532	302	--	20.0	--	--
JUNE										
04...	--	.49	150	66	431	246	--	19.5	--	--
07...	--	--	--	--	--	--	--	--	5.0	<.5
27...	--	.28	240	140	784	454	--	28.0	--	--
JULY										
16...	--	.56	260	160	1050	620	--	29.0	--	--
23...	--	.29	220	140	681	410	--	29.0	--	--
AUG.										
22...	5.6	.27	210	120	640	--	502	24.0	--	--
27...	9.4	.26	--	--	1030	--	1400	31.0	--	--
SEP.										
10...	12	.16	--	--	940	--	645	30.0	--	--
21...	12	.32	--	--	1130	--	787	27.0	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	484	394	883	853	675	645	701	677	1220	1070	1150	1080
2	499	466	863	581	939	657	696	678	1300	830	1080	868
3	553	499	615	576	876	804	721	676	830	700	868	700
4	592	553	688	628	834	741	677	503	700	659	772	718
5	631	592	719	683	945	756	558	522	659	631	796	688
6	685	631	743	716	794	485	577	558	657	637	699	633
7	682	661	771	612	597	480	719	574	661	628	634	608
8	715	682	543	459	649	577	792	719	718	625	623	605
9	730	679	552	477	833	649	862	787	871	733	608	596
10	721	697	576	452	771	639	847	778	977	884	662	602
11	758	710	597	576	662	626	778	751	942	864	632	602
12	781	751	603	585	703	645	786	741	865	718	608	590
13	786	747	609	591	1000	703	817	781	824	764	632	602
14	761	737	612	420	703	638	863	815	824	770	638	512
15	784	754	486	441	638	591	969	863	1040	834	521	412
16	792	756	513	486	749	623	977	932	1080	1030	468	450
17	778	757	573	513	821	746	970	946	1140	1050	501	459
18	815	778	579	549	826	778	963	894	1060	988	---	---
19	851	815	573	552	876	801	898	877	1070	996	765	570
20	863	848	561	540	1420	876	907	859	1210	1060	768	699
21	907	863	558	540	1100	842	907	877	1190	1150	731	614
22	926	907	633	549	863	749	907	865	1240	1140	614	587
23	931	904	708	633	749	699	931	862	1510	1250	620	584
24	895	847	666	621	699	674	865	790	1710	1510	632	542
25	889	856	627	615	675	654	836	797	1700	1560	560	515
26	904	871	696	624	793	667	921	833	1560	1300	578	527
27	918	904	693	612	839	782	866	821	1300	1210	584	530
28	927	912	666	621	826	709	821	794	1210	1150	581	563
29	920	836	681	657	709	683	895	808	---	---	596	578
30	836	782	675	648	699	687	909	885	---	---	593	542
31	853	811	---	---	706	673	1140	898	---	---	578	527
MONTH	931	394	883	420	1420	480	1140	503	1710	625	1150	412
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	578	551	615	573	712	556	851	830	884	838	991	901
2	602	569	595	508	667	640	904	851	928	880	952	907
3	590	569	660	594	649	574	889	847	947	923	958	928
4	586	565	654	618	---	---	827	761	943	922	935	911
5	516	492	626	500	---	---	796	725	927	897	926	863
6	500	485	596	416	---	---	893	791	908	887	920	875
7	529	499	619	583	580	532	907	889	888	864	932	908
8	567	529	730	598	535	523	934	892	866	842	941	926
9	551	509	721	613	540	525	978	934	865	847	942	927
10	534	489	616	529	546	537	1020	978	879	861	939	921
11	574	505	634	529	552	543	1020	990	898	879	930	918
12	620	560	598	571	593	549	1030	999	933	897	948	918
13	593	557	616	589	644	587	1000	963	899	863	963	945
14	597	579	613	529	680	596	1020	960	864	651	972	963
15	597	576	625	520	743	671	1070	1020	651	506	991	967
16	616	583	628	514	745	469	1070	1040	784	589	997	982
17	655	616	652	523	547	490	1040	911	787	706	1010	988
18	690	655	673	637	607	547	911	864	853	787	1020	970
19	697	682	679	649	696	607	890	860	893	853	977	941
20	715	691	---	---	723	696	901	790	896	752	1040	954
21	712	700	---	---	722	707	790	483	827	506	1090	1040
22	728	698	---	---	746	716	640	580	735	561	1090	953
23	722	707	664	568	757	730	705	624	756	711	1030	759
24	803	716	---	---	777	675	771	699	829	748	972	762
25	821	803	---	---	725	635	786	765	895	829	991	937
26	812	758	---	---	773	725	776	761	958	886	950	932
27	791	596	613	577	799	773	812	776	1000	947	986	947
28	596	487	655	562	800	752	815	794	1010	974	1020	906
29	566	500	---	---	762	702	830	800	977	953	906	482
30	577	550	616	586	830	731	823	808	960	945	679	523
31	---	---	610	529	---	---	838	823	972	918	---	---
MONTH	821	485	---	---	830	469	1070	483	1010	506	1090	482
YEAR	1710	394										

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PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE. IN CLEVELAND. OHIO--Continued

04208506 CUYAHOGA RIVER AT WEST THIRD STREET BRIDGE. IN CLEVELAND. OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY			FEBRUARY			MARCH		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	
1	6.4	5.9	2.8	1.7	7.6	7.2	8.7	9.9	8.2	10.4	9.8	9.4	8.6	9.4	8.5	9.4	8.6	
2	6.8	5.1	4.5	2.2	7.4	6.7	8.9	9.5	8.7	10.2	9.5	10.3	9.2	10.3	9.2	10.3	9.2	
3	6.4	5.0	4.9	3.7	7.2	6.7	9.5	10.3	8.4	10.5	9.8	10.2	10.0	10.2	10.0	10.0	10.0	
4	5.1	3.0	5.1	4.5	7.6	6.1	10.4	10.4	9.3	10.9	10.5	10.0	9.5	10.0	9.5	10.0	9.5	
5	5.1	4.3	5.1	3.5	8.5	6.7	10.3	10.3	9.6	10.8	10.5	9.9	8.6	9.9	8.6	9.9	8.6	
6	4.7	3.0	4.8	3.6	8.8	7.7	9.8	9.8	9.5	11.0	10.3	10.0	8.6	10.0	8.6	10.0	8.6	
7	4.4	2.6	4.8	3.6	9.2	8.0	9.9	9.9	9.7	10.9	10.3	9.8	8.5	9.8	8.5	9.8	8.5	
8	3.7	2.5	7.5	3.7	9.3	8.1	9.9	9.9	9.6	10.1	9.7	9.5	8.9	9.7	8.9	9.5	8.9	
9	4.4	2.8	7.2	6.7	9.1	8.6	9.9	9.9	9.6	10.4	9.8	9.5	8.5	9.8	8.5	9.5	8.5	
10	4.3	2.8	7.1	6.9	8.8	8.4	9.7	9.7	9.3	10.4	9.8	9.5	8.5	9.8	8.5	9.5	8.5	
11	3.6	2.3	7.0	6.5	8.6	8.3	9.5	9.5	9.3	10.3	9.8	9.2	8.2	9.8	8.2	9.2	8.2	
12	3.5	2.3	6.7	6.0	9.0	8.0	9.5	9.5	9.3	10.5	10.0	8.2	7.5	10.5	7.5	8.2	7.5	
13	2.9	1.8	6.8	6.0	9.4	8.4	9.5	9.5	8.9	10.6	9.9	9.1	7.6	9.9	7.6	9.1	7.6	
14	2.9	2.1	7.7	6.6	9.4	9.2	9.1	9.1	8.4	10.0	8.9	8.8	7.6	10.0	7.6	8.8	7.6	
15	2.6	2.1	8.0	7.8	9.6	8.9	8.9	8.9	8.4	9.4	8.9	8.7	6.3	9.4	6.3	8.7	6.3	
16	3.4	2.1	8.0	7.6	9.9	9.4	8.6	8.6	8.2	10.2	8.8	9.0	8.4	10.2	8.4	9.0	8.4	
17	3.3	2.7	7.9	7.5	10.1	9.8	8.7	8.7	8.2	10.3	8.8	9.2	8.5	10.1	8.2	9.2	8.5	
18	3.0	2.0	7.8	7.5	10.2	9.3	8.5	8.5	7.8	10.3	9.8	---	---	10.3	---	---	---	
19	2.6	1.4	7.7	7.4	9.9	9.5	8.3	8.3	7.9	10.3	9.9	10.9	10.0	10.3	9.9	10.9	10.0	
20	1.9	1.4	7.9	7.2	9.7	9.0	8.5	8.5	7.9	10.1	9.2	10.8	10.5	10.1	9.2	10.8	10.5	
21	1.7	1.0	7.8	7.5	9.7	9.4	8.3	8.3	7.7	9.6	9.0	10.8	10.6	9.6	9.0	10.8	10.6	
22	3.1	1.7	7.4	7.4	9.9	9.4	9.1	9.1	7.7	9.4	8.8	9.9	10.6	9.4	8.8	10.6	9.4	
23	2.8	1.7	7.7	7.1	9.8	9.4	9.1	9.1	7.7	9.5	7.4	10.7	10.1	9.5	7.4	10.7	10.1	
24	2.3	1.2	7.7	7.4	9.8	9.4	8.7	8.7	8.0	7.8	6.9	10.5	10.0	7.8	6.9	10.5	10.0	
25	3.1	2.1	7.6	7.2	9.8	9.6	9.4	9.4	8.8	9.0	6.9	10.2	9.7	9.0	6.9	10.2	9.7	
26	2.4	1.1	7.5	6.8	9.8	9.7	9.4	9.4	8.8	9.4	8.9	9.9	9.4	9.4	8.9	9.9	9.4	
27	2.2	1.0	8.0	7.2	9.9	9.6	9.3	9.3	8.5	9.5	8.9	9.6	9.3	9.3	8.9	9.6	9.3	
28	1.7	1.4	7.8	7.4	9.9	9.5	8.6	8.6	7.7	9.3	8.4	9.6	8.7	9.6	8.4	9.6	8.7	
29	1.8	1.3	7.7	7.3	9.9	9.1	9.7	9.7	7.4	9.3	---	---	8.3	9.4	---	9.4	8.3	
30	2.5	1.8	7.7	7.4	9.9	9.4	10.1	9.4	10.1	9.4	---	---	10.0	8.9	---	10.0	8.9	
31	2.8	1.8	---	---	9.4	8.6	10.2	9.4	9.9	---	---	9.9	8.6	---	---	9.9	8.6	
MONTH	6.8	1.0	8.0	1.7	10.2	6.1	10.4	10.4	7.4	11.0	6.9	10.9	7.5	11.0	6.9	10.9	7.5	

[illegible]

TEMPERATURE (°C) OF WATER. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

OCTOBER			NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	16.0	15.5	17.5	16.5	10.0	9.5	11.5	10.5	9.5	8.0	11.0	9.5
2	17.0	16.0	18.0	14.5	10.0	9.5	10.5	8.5	9.0	7.0	9.5	7.0
3	18.5	17.0	16.0	15.0	10.5	9.5	9.5	8.5	8.0	7.0	8.5	7.5
4	20.0	18.5	16.5	15.5	10.5	9.5	8.5	5.0	7.0	6.5	9.5	8.5
5	21.0	19.5	16.0	15.5	9.5	8.5	6.0	6.0	8.5	7.0	10.5	9.5
6	21.5	20.5	15.5	15.0	11.0	7.5	6.5	5.5	9.0	8.0	11.0	9.5
7	20.5	20.0	16.0	13.0	8.0	6.5	6.0	5.5	9.5	8.5	12.5	11.0
8	20.0	19.0	13.0	10.5	7.5	7.0	6.5	6.0	9.5	7.5	13.0	12.0
9	19.0	18.5	11.0	10.5	8.0	7.0	6.5	5.5	7.5	6.5	13.0	11.5
10	19.5	19.0	12.0	11.0	8.5	7.5	6.5	5.5	7.0	6.0	12.5	11.5
11	19.5	18.5	13.5	12.0	8.0	7.0	7.0	6.0	7.0	6.0	14.0	12.5
12	20.0	19.0	13.5	13.0	7.0	7.0	8.0	6.5	8.0	6.5	14.0	13.5
13	20.0	19.0	13.5	13.0	7.0	6.5	9.0	7.5	8.5	6.5	13.5	12.5
14	20.0	19.5	13.0	8.0	7.0	6.5	9.5	8.5	9.5	8.0	13.5	12.5
15	20.0	19.5	8.5	8.0	7.0	6.5	11.0	9.5	9.0	6.5	14.5	12.0
16	20.0	18.5	9.0	8.0	6.5	5.0	11.5	10.5	7.0	5.5	14.5	13.0
17	18.5	18.0	9.0	8.5	5.0	4.5	12.5	11.0	6.0	5.5	13.0	11.0
18	19.0	17.5	9.5	9.0	6.0	4.5	13.0	12.0	6.5	5.5	---	---
19	19.0	17.5	10.0	9.0	7.0	6.0	12.5	12.0	8.0	6.5	10.5	6.0
20	18.0	17.0	9.0	8.5	7.5	6.0	12.0	11.0	9.0	8.0	7.0	6.0
21	18.5	18.0	9.0	8.0	7.0	6.0	11.0	10.5	9.0	8.0	7.0	6.5
22	19.0	18.5	9.5	8.5	7.0	6.5	10.5	9.5	9.0	8.5	7.5	7.0
23	19.0	18.5	9.0	9.0	7.5	7.0	10.0	9.0	9.5	8.5	8.5	7.5
24	18.5	18.0	9.0	9.0	8.0	7.5	9.5	8.5	10.0	9.0	9.0	8.0
25	18.5	18.5	9.5	9.0	8.5	7.5	9.5	8.5	10.5	9.5	9.5	8.5
26	19.0	18.5	9.0	8.0	8.0	7.0	11.0	9.0	10.0	9.5	10.5	9.0
27	19.0	18.0	8.5	7.5	7.0	6.5	12.0	11.0	10.5	9.0	11.0	10.5
28	19.0	18.5	8.5	8.0	7.5	7.0	12.5	11.0	11.5	9.5	12.0	11.0
29	19.0	18.0	9.5	8.5	8.0	7.5	11.0	7.5	---	---	13.5	12.0
30	18.0	16.5	10.0	9.0	9.5	7.5	7.5	7.0	---	---	14.0	13.0
31	17.5	17.5	---	---	11.5	9.5	8.5	7.0	---	---	14.0	13.5
MONTH	21.5	15.5	18.0	7.5	11.5	4.5	13.0	5.0	11.5	5.5	14.5	6.0
APRIL			MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	14.0	18.0	15.0	21.5	19.5	28.0	27.0	31.5	30.5	31.5	30.5
2	16.0	15.0	19.0	17.5	23.5	21.0	30.0	27.5	31.5	30.5	32.5	31.0
3	15.0	13.5	19.0	17.5	25.0	21.5	30.5	29.0	31.5	31.0	34.0	32.5
4	14.0	13.5	17.5	14.0	22.0	19.5	31.5	29.5	31.5	31.0	34.0	33.0
5	10.5	9.0	15.0	14.0	24.5	22.0	30.5	28.0	31.5	30.5	34.0	32.0
6	13.5	10.5	18.0	15.0	23.0	21.5	29.5	28.0	32.0	31.0	33.5	32.5
7	13.5	11.5	19.0	17.5	24.0	23.0	30.5	29.5	32.0	31.0	32.5	31.5
8	13.5	12.5	20.0	19.0	24.5	24.0	31.5	30.5	32.0	31.0	31.5	31.5
9	13.0	11.0	19.5	18.5	25.5	24.5	32.0	31.5	33.0	32.0	31.5	31.0
10	11.0	9.0	20.0	18.5	27.0	25.5	32.5	31.0	33.0	32.5	31.0	30.0
11	10.0	9.0	19.0	17.5	28.0	26.5	31.0	28.5	33.5	32.5	30.5	29.5
12	11.0	9.5	19.0	18.5	28.5	27.5	29.0	28.5	33.5	31.5	29.5	29.5
13	11.5	10.5	18.5	17.5	28.5	27.5	30.0	29.0	32.0	31.0	29.5	29.0
14	12.5	11.0	18.0	17.0	28.5	27.5	30.5	29.0	31.5	25.5	30.5	29.5
15	14.5	12.0	18.5	17.0	28.5	27.5	30.5	29.5	25.5	23.5	29.5	29.0
16	19.5	13.5	18.5	17.5	28.5	22.0	30.0	29.0	27.5	25.0	29.5	29.5
17	20.0	19.5	18.5	17.5	24.5	23.0	31.0	30.0	30.0	27.5	30.0	29.5
18	21.0	19.5	19.0	18.0	25.5	24.0	31.5	30.5	31.5	30.0	30.0	27.5
19	23.0	20.0	19.5	18.5	26.5	25.0	31.5	31.0	32.0	31.0	27.5	27.0
20	24.0	21.5	19.0	16.0	28.0	26.5	32.5	29.0	32.5	28.0	27.5	27.0
21	24.5	23.0	17.5	16.0	29.0	28.0	27.0	23.0	28.0	22.5	27.5	27.0
22	24.0	23.0	20.0	17.5	29.0	28.5	27.5	25.5	25.0	23.0	28.0	27.0
23	23.5	22.0	19.5	16.0	29.0	28.5	29.5	27.0	27.0	25.0	27.5	24.5
24	22.0	20.0	18.5	17.0	28.5	24.5	30.0	28.0	28.5	26.5	26.5	24.5
25	20.5	19.5	19.5	18.5	26.0	24.0	29.5	28.5	29.5	28.0	28.0	26.0
26	20.5	18.5	19.0	17.5	28.5	26.0	30.0	29.0	31.0	29.5	29.0	27.5
27	20.5	12.0	20.5	19.0	29.5	28.5	30.0	29.5	31.5	30.5	30.5	29.0
28	12.0	12.0	20.0	19.0	29.0	26.5	30.0	29.5	33.0	31.5	30.5	28.5
29	12.5	11.5	20.5	19.5	26.5	25.0	31.0	30.0	34.0	33.0	28.5	21.0
30	15.0	12.5	21.5	20.0	27.0	25.5	31.0	30.0	34.0	33.5	23.0	21.0
31	---	---	20.0	18.5	---	---	31.0	30.0	34.0	31.0	---	---
MONTH	24.5	9.0	21.5	14.0	29.5	19.5	32.5	23.0	34.0	22.5	34.0	21.0
YEAR	34.0	4.5										

STREAMS TRIBUTARY TO LAKE ERIE

04209000 CHAGRIN RIVER AT WILLOUGHBY, OHIO

LOCATION.--Lat 41°37'51", long 81°24'13", in T.9 N., R.10 W., Lake County, at gaging station on left bank 150 ft (46 m) downstream from city waterworks dam, 800 ft (244 m) downstream from East Branch, 1 mi (2 km) southeast of Willoughby, and 5.0 mi (8.0 km) upstream from mouth. Sediment samples taken 450 ft (137 m) upstream from waterworks dam.

DRAINAGE AREA.--246 mi² (637 km²).

PERIOD OF RECORD.--Chemical analyses: Water years 1964-73 (partial-record station).

Sediment records: July 1969 to September 1973 (partial-record station).

REMARKS.--Flow affected by ice Dec. 17-19, Jan. 8-17, 22, 27, 30, 31, Feb. 9-14, 16-20, Feb. 22-Mar. 1.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
NOV., 1972											
13...	1535	291	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1430	190	--	--	--	--	60	64	--	--	--
MAR.											
05...	1615	1330	--	--	--	--	50	37	--	--	--
27...	0925	678	--	--	--	--	--	--	--	--	--
APR.											
28...	0925	3730	--	--	--	--	--	--	--	--	--
MAY											
08...	0840	172	--	--	--	--	--	--	--	--	--
JUNE											
04...	1125	4080	--	--	--	--	42	9.0	--	--	--
JULY											
09...	1510	72	--	--	--	--	--	--	--	--	--
SEP.											
06...	1245	67	--	--	167	0	68	36	--	.4	.00

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
NOV., 1972										
13...	--	--	--	--	--	824	--	--	--	7.0
JAN., 1973										
08...	.90	--	--	170	--	508	7.7	--	--	.0
MAR.										
05...	1.1	--	--	140	--	370	8.2	--	--	7.5
27...	--	--	--	--	--	333	--	--	--	7.0
APR.										
28...	--	--	--	--	--	233	--	--	--	8.0
MAY										
08...	--	--	--	--	--	434	--	--	--	14.5
JUNE										
04...	.50	--	--	120	--	227	7.7	--	--	18.0
JULY										
09...	--	--	--	--	--	474	--	--	--	29.0
SEP.										
06...	--	.41	.11	--	--	514	7.7	--	363	24.5

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04209000 CHAGRIN RIVER AT WILLOUGHBY, OHIO--CONTINUED

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973--CONTINUED

DAY	APRIL			MAY			JUNE		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	450	--	--	380	22	23	642	142	246
2	585	--	--	273	8	5.9	345	68	63
3	510	18	25	345	9	8.4	756	338	3000
4	744	--	--	395	9	9.6	4180	1550	21100
5	1870	--	--	370	10	10	1190	358	1180
6	792	--	--	239	10	6.5	1950	798	4770
7	465	--	--	183	10	4.9	888	--	--
8	415	--	--	223	35	38	500	--	--
9	415	--	--	648	178	311	282	--	--
10	1180	--	--	1090	326	959	203	--	--
11	642	--	--	1220	277	912	179	--	--
12	490	--	--	550	33	49	158	13	5.5
13	335	--	--	380	22	23	199	--	--
14	239	--	--	255	17	12	151	--	--
15	207	6	3.4	370	12	12	122	--	--
16	187	4	2.0	251	7	4.7	768	--	--
17	207	5	2.8	269	5	3.6	590	--	--
18	666	340	881	215	3	1.7	291	58	46
19	375	--	--	179	4	1.9	227	53	32
20	260	--	--	1240	305	1250	168	47	21
21	227	--	--	870	153	423	144	38	15
22	207	--	--	415	42	47	122	31	10
23	195	--	--	1850	494	3140	116	29	9.1
24	183	--	--	1360	255	1090	203	30	16
25	165	--	--	590	60	96	168	32	15
26	154	12	5.0	935	668	1900	122	36	12
27	654	127	558	500	210	284	110	41	12
28	3170	651	5570	475	274	387	174	47	22
29	1260	154	524	395	56	61	183	55	27
30	630	55	94	320	30	26	137	60	22
31	--	--	--	1490	544	2350	--	--	--
TOTAL	--	--	--	18275	--	13450.2	--	--	--

DAY	JULY			AUGUST			SEPTEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	122	58	19	77	31	6.4	110	24	7.1
2	116	55	17	79	29	6.2	102	18	5.0
3	100	50	14	77	26	5.4	62	13	2.2
4	97	42	11	72	23	4.5	52	11	1.5
5	105	33	9.4	67	22	4.0	52	10	1.4
6	94	27	6.9	62	19	3.2	54	11	1.6
7	84	21	4.8	60	18	2.9	62	13	2.2
8	79	17	3.6	58	17	2.7	65	14	2.5
9	74	15	3.0	62	15	2.5	62	17	2.8
10	105	13	3.7	58	15	2.3	65	19	3.3
11	110	17	5.0	62	15	2.5	60	19	3.1
12	87	25	5.9	60	15	2.4	56	18	2.7
13	77	30	6.2	77	15	3.1	56	17	2.6
14	72	32	6.2	65	15	2.6	58	15	2.3
15	87	32	7.5	672	207	629	82	14	3.1
16	87	32	7.5	207	110	61	50	14	1.9
17	72	32	6.2	100	59	16	46	14	1.7
18	67	29	5.2	79	34	7.3	54	15	2.2
19	65	26	4.6	105	24	6.8	70	16	3.0
20	67	24	4.3	72	20	3.9	60	16	2.6
21	239	110	79	144	148	76	52	15	2.1
22	147	56	22	119	82	26	48	14	1.8
23	94	31	7.9	82	53	12	105	13	3.7
24	79	24	5.1	67	48	8.7	92	11	2.7
25	287	131	148	60	46	7.5	58	9	1.4
26	570	606	2280	58	44	6.9	50	8	1.1
27	330	200	178	56	42	6.4	46	8	1.99
28	168	66	30	54	40	5.8	50	8	1.1
29	113	49	15	52	39	5.5	287	133	119
30	94	38	9.6	50	38	5.1	550	175	313
31	82	32	7.1	50	32	4.3	--	--	--
TOTAL	3970	--	2932.7	2963	--	938.9	2616	--	501.69

04209000 CHAGRIN RIVER AT WILLOUGHBY, OHIO--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	WATER TEMP- ERA- TURE (°C)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SUSPENDED SEDIMENT DISCHARGE (TONS/DAY)	PARTICLE SIZE										
						PERCENT FINER THAN THE SIZE (IN MILLIMETERS) INDICATED										
						.002	.004	.008	.016	.031	.062	.125	.250	.500	1.00	2.00
NOV. 14...	0800	--	5440	1590	23400	29	37	47	61	76	88	94	97	99	100	--
JAN. 04...	1130	3.0	2010	617	3350	33	43	56	71	88	94	98	100	--	--	--
MAR. 05...	1545	7.5	1330	501	1800	33	42	55	68	85	95	99	100	--	--	--
15...	1530	--	2390	1460	9420	29	37	49	62	79	87	92	96	99	100	--
APR. 28...	0800	8.0	3890	764	8020	23	33	46	63	78	87	93	97	99	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN	BED MAT. SIEVE DIAM. % FINER THAN
		.062 MM	.125 MM	.250 MM	.500 MM	1.00 MM	2.00 MM	4.00 MM	8.00 MM	16.0 MM	32.0 MM	64.0 MM
SEP. 20...	2	16	20	27	47	66	84	94	100	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE

04212200 GRAND RIVER AT PAINESVILLE, OHIO

LOCATION.--Lat 41°44'09", long 81°15'59", in T.11 N., R.8 W., Lake County, at bridge on State Highway 535 in Painesville, 2.2 mi (3.5 km) upstream from mouth, and 8.0 mi (12.9 km) downstream from Kellogg Creek.

DRAINAGE AREA.--701 mi² (1,816 km²).

PERIOD OF RECORD.--Chemical analyses: March 1950 to February 1952, October 1962 to September 1973.
Water temperatures: March 1950 to February 1952, October 1962 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 16,800 micromhos Feb. 21, 22; minimum, 340 micromhos Mar. 16.

pH: Maximum, 10.9 Apr. 22; minimum, 6.3 Apr. 16.

Dissolved oxygen: Maximum, 14.7 mg/l Jan. 7; minimum, 0.1 mg/l Aug. 8.

Water temperatures: Maximum, 32.0°C Aug. 29, 30, Sept. 2, 3; minimum, 0.5°C Mar. 3.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.											
04...	1200	728	--	--	78	0	49	350	.1	--	--
20...	2000	59	--	--	84	0	110	3500	.2	--	--
26...	1100	--	--	--	--	--	--	--	--	--	--
NOV.											
14...	1900	4690	--	--	48	0	44	160	.1	--	--
21...	2150	1060	--	--	64	0	76	1700	.2	--	--
DEC.											
01...	2045	506	--	--	79	0	80	1200	.2	--	--
22...	1630	2850	--	--	53	0	46	110	.1	--	--
JAN.											
05...	1920	2130	--	--	46	0	49	250	.1	--	--
16...	1930	160	--	--	46	0	120	2600	.2	--	--
FEB.											
06...	1500	1300	--	--	46	0	53	300	.2	--	--
16...	1925	322	--	--	62	0	49	3400	.2	--	--
MAR.											
02...	1800	400	--	--	74	0	69	1400	.2	--	--
16...	1800	4110	--	--	42	0	34	58	.1	--	--
APR.											
06...	1800	3420	--	--	45	0	38	530	.1	--	--
17...	1815	317	--	--	84	0	64	1900	.2	--	--
30...	1950	1760	--	--	40	0	79	2400	.5	--	.01
MAY											
18...	2000	350	--	--	76	0	59	1300	.2	--	--
31...	1200	3120	--	--	47	0	35	360	.2	--	--
31...	1300	--	--	--	--	--	--	--	--	--	--
JUNE											
06...	1200	4570	--	--	50	0	27	260	.2	--	--
28...	0925	102	--	--	10	0	90	2600	.2	--	--
JULY											
13...	1915	22	--	--	116	0	54	2400	.3	--	--
26...	1025	32	--	--	90	0	42	3900	.4	--	--
AUG.											
08...	1610	13	270	10	119	0	57	1100	--	.2	.00
28...	1810	29	1000	8.9	87	0	69	3100	--	.2	.00
SEP.											
09...	1415	15	130	8.2	60	0	58	580	--	.2	.00
28...	1610	20	1000	9.6	101	0	83	3200	--	.2	.00

04212200 GRAND RIVER AT PAINESVILLE, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1950-52, 1962-68, 1970-73): Maximum, 30,300 micromhos July 14, 1964; minimum, 300 micromhos Feb. 23-28, Mar. 1, 1971.

pH (1969-70, 1971-73): Maximum, 12.0 Nov. 9, 1971; minimum, 4.5 Sept. 28, 1972.

Dissolved oxygen (1967-68, 1969-70, 1971-73): Maximum, 15.0 mg/l or higher Dec. 2, 3, 23, 1971, Mar. 11, 1972; minimum, 0.0 mg/l on several days during July and August 1968.

Water temperatures: Maximum, 33.5°C June 28, 1971; minimum, freezing point on many days during winter periods.

REMARKS.--Water-quality recorder operated since December 1966. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice a year to further define the quality of water. Diamond Alkali Company and Painesville Sewage Disposal Plant are located just upstream from station. Records of discharge are given for Grand River near Madison, Ohio, station 04212000, drainage area 581 mi² (1,505 km²).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (REST- DUE AT 180 C) (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ARSENIC (AS) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL MERCURY (HG) (UG/L)
OCT.											
04...	1.5	--	350	280	1390	796	--	17.0	--	--	--
20...	2.2	--	3300	3200	10200	6130	--	17.0	--	--	--
26...	--	--	--	--	--	--	--	11.0	--	2.5	<.5
NOV.											
14...	.90	--	210	170	713	446	--	6.5	--	--	--
21...	1.0	--	1760	1710	5270	3120	--	4.5	--	--	--
DEC.											
01...	1.4	--	1280	1210	3960	2390	--	4.5	--	--	--
22...	1.0	--	120	76	563	338	--	1.0	--	--	--
JAN.											
05...	1.1	--	230	190	910	552	--	1.0	--	--	--
16...	1.8	--	2300	2200	8360	5280	--	4.5	--	--	--
FEB.											
06...	1.6	--	290	250	1180	792	--	3.0	--	--	--
16...	.90	--	3200	3100	9740	6550	--	--	--	--	--
MAR.											
02...	1.4	--	1400	1300	4360	2890	--	3.0	--	--	--
16...	.80	--	110	76	342	216	--	9.5	--	--	--
APR.											
06...	.70	--	380	340	1120	766	--	9.5	--	--	--
17...	1.5	--	1700	1630	5360	3460	--	14.5	--	--	--
30...	--	3.5	1700	1700	7370	--	5560	21.0	--	--	--
MAY											
18...	1.1	--	1300	1200	4100	2830	--	17.0	--	--	--
31...	1.2	--	380	340	1260	866	--	15.5	--	--	--
31...	--	--	--	--	--	--	--	15.5	8	7.0	<.5
JUNE											
06...	.80	--	290	250	948	630	--	20.5	--	--	--
28...	9.8	--	2420	2410	7290	4920	--	26.5	--	--	--
JULY											
13...	.50	--	2200	2100	7380	4460	--	29.0	--	--	--
26...	4.3	--	3700	3600	11000	6800	--	26.5	--	--	--
AUG.											
08...	--	3.7	--	--	3760	--	2530	30.0	--	--	--
28...	--	2.4	--	--	9110	--	6030	29.5	--	--	--
SEP.											
09...	--	3.6	--	--	2130	--	1400	28.5	--	--	--
28...	--	3.1	--	--	9980	--	6500	28.0	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	7.3	8.5	7.1	9.0	8.8	7.9	7.7	9.8	7.0	8.3	7.8
2	7.3	7.1	8.3	7.5	9.0	8.8	7.8	7.2	7.7	7.3	8.7	8.5
3	7.6	7.4	7.3	7.3	8.9	8.5	8.5	7.5	7.5	7.3	8.5	7.8
4	8.0	7.4	9.5	7.3	9.9	8.8	9.2	7.3	7.5	7.3	9.8	7.9
5	8.6	6.9	7.5	7.3	8.9	8.6	7.5	7.4	7.5	7.2	8.4	7.7
6	7.7	7.2	8.1	7.4	8.9	7.5	7.7	7.1	7.6	7.3	8.9	8.2
7	7.6	7.3	7.6	7.4	8.3	7.3	7.7	7.1	7.6	7.2	8.9	8.2
8	7.3	6.7	7.7	7.4	8.7	7.5	9.3	8.2	9.3	7.0	8.8	8.4
9	7.2	6.7	8.2	7.0	9.6	8.6	9.7	8.1	10.3	6.9	8.2	8.2
10	7.5	6.9	8.6	7.0	9.1	8.6	8.8	7.8	10.5	8.5	9.9	8.3
11	---	---	8.6	8.3	8.8	8.5	8.4	7.9	8.5	7.6	8.7	8.3
12	---	---	8.7	8.3	9.2	8.3	8.0	7.6	8.7	8.0	8.7	7.8
13	---	---	8.3	8.0	9.3	8.8	8.6	7.6	9.0	8.3	8.6	7.7
14	---	---	8.2	7.6	8.4	8.0	8.0	6.7	8.4	8.0	8.7	7.3
15	---	---	7.7	7.1	9.7	7.8	7.9	7.6	8.4	8.1	8.0	7.3
16	---	---	7.7	7.3	9.3	8.2	7.7	7.5	9.3	7.9	7.6	6.9
17	---	---	8.3	7.6	8.8	8.0	7.8	7.4	8.7	8.2	7.4	7.1
18	---	---	8.2	7.6	8.5	7.6	8.1	7.6	8.7	8.5	7.5	7.1
19	---	---	9.5	7.6	9.5	7.7	7.7	7.5	8.8	8.5	7.5	7.1
20	---	---	8.6	7.9	9.4	8.5	7.9	7.7	8.8	8.6	8.2	7.0
21	---	---	9.3	7.9	9.3	8.8	7.8	7.5	9.8	8.4	7.8	7.2
22	7.6	6.7	9.3	8.8	9.6	8.9	7.8	7.1	9.2	7.5	7.7	7.1
23	8.1	7.0	9.0	8.7	9.4	8.9	9.5	6.5	8.3	6.6	7.4	7.0
24	7.7	7.3	9.0	8.8	9.7	8.9	9.8	7.5	8.4	6.7	7.4	7.2
25	7.7	7.2	9.1	8.8	9.2	8.7	9.0	8.5	8.5	8.1	7.4	7.3
26	7.8	7.4	9.1	8.9	8.8	8.1	9.0	7.4	8.3	8.0	7.4	6.9
27	7.7	7.7	9.1	8.7	8.1	7.5	9.0	8.1	8.3	8.0	7.3	7.1
28	8.1	7.7	9.0	8.6	7.7	7.2	8.2	7.7	8.2	7.9	8.6	7.2
29	7.8	7.6	9.0	8.5	8.2	7.6	8.5	7.2	---	---	7.5	7.2
30	7.9	7.8	8.9	8.5	7.7	7.7	7.8	6.8	---	---	7.5	7.2
31	7.9	6.9	---	---	8.2	7.9	7.6	6.6	---	---	7.5	7.3
MONTH	---	---	9.5	7.0	9.7	7.2	9.8	6.5	10.5	6.6	8.9	6.9

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN		MAX	MIN	
1	7.6	7.2		7.5	7.2		7.4	7.3		7.9	7.2		7.4	7.2		7.0		
2	7.4	7.5		7.5	7.2		7.4	7.3		7.8	7.1		7.5	7.2		7.3		
3	7.4	7.3		7.5	7.3		7.5	7.3		7.6	7.1		7.6	7.5		7.2		
4	7.6	7.3		7.6	7.3		7.6	7.3		7.8	7.6		8.1	7.5		7.2		
5	7.5	7.2		7.8	7.4		---	---		7.9	7.6		8.1	7.5		7.2		
6	9.6	7.2		7.9	7.3		---	---		7.9	7.4		7.6	7.0		7.9		
7	8.6	7.4		7.7	7.4		7.2	7.2		7.8	7.2		7.7	6.8		7.9		
8	7.9	7.3		7.9	7.4		7.4	7.4		7.6	7.3		7.6	7.0		7.9		
9	7.8	7.3		7.9	7.4		7.8	7.2		7.9	7.3		7.8	7.2		---		
10	7.7	7.0		7.9	7.4		7.4	7.3		7.3	7.0		7.9	7.2		---		
11	8.9	7.4		7.6	7.4		7.5	7.3		7.3	7.1		8.0	7.7		---		
12	7.6	7.3		7.4	7.3		8.0	7.3		7.3	7.1		8.0	7.8		---		
13	7.9	7.3		7.4	7.3		7.5	7.3		7.1	6.9		8.0	7.8		---		
14	7.7	7.0		7.4	7.3		7.6	7.3		7.2	6.9		7.8	7.2		---		
15	7.6	7.2		7.7	7.3		7.8	7.4		7.1	7.0		7.6	7.2		---		
16	7.8	6.3		10.2	7.4		7.7	7.3		7.2	7.1		7.9	7.5		---		
17	7.8	6.5		9.6	7.4		7.7	7.4		7.3	7.1		8.4	7.8		---		
18	7.9	6.8		9.3	8.0		8.2	7.5		7.5	7.3		8.6	8.4		---		
19	7.5	7.3		8.2	7.6		7.5	7.5		7.7	7.4		8.7	8.4		---		
20	7.7	7.2		7.8	7.5		7.6	7.1		7.8	7.5		8.5	8.2		---		
21	7.7	7.3		7.5	7.3		7.5	7.3		7.6	7.4		8.5	8.2		---		
22	10.9	7.2		7.4	7.2		7.6	7.3		7.7	7.5		8.7	8.4		---		
23	8.5	7.3		7.7	7.3		7.6	7.3		7.6	7.4		8.6	8.5		---		
24	7.6	7.0		7.5	7.4		7.6	7.3		7.7	7.3		8.6	8.4		---		
25	7.5	7.2		7.4	7.3		7.6	7.3		7.4	7.1		8.7	8.5		---		
26	7.8	6.7		7.5	7.4		7.5	7.1		7.4	7.2		8.6	8.5		---		
27	7.7	6.7		7.7	7.4		7.6	7.2		7.6	7.3		8.5	8.4		---		
28	7.6	6.9		7.7	7.3		7.6	7.0		7.7	7.6		8.5	8.3		---		
29	7.5	6.9		7.6	7.1		8.2	7.6		7.8	7.6		8.3	8.2		---		
30	7.8	7.0		7.6	7.3		8.0	7.2		7.2	7.7		10.6	6.9		---		
31	---	---		7.6	7.2		---	---		7.6	7.2		7.4	6.9		---		
MONTH	10.9	6.3		10.2	7.1		8.2	7.0		7.9	6.7		10.6	6.6		---		
YEAR	10.9	6.3																

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

04212700 ASHTABULA RIVER AT ASHTABULA, OHIO

LOCATION.--Lat 41°54'00", long 80°47'44", in T.13 N., R.3 W., Ashtabula County, on right bank at Jack's Automarine, 600 ft (183 m) upstream from bridge on State Highway 531, 4,000 ft (1,219 m) upstream from mouth, and 4,000 ft (1,219 m) downstream from Fields Brook, in Ashtabula.

DRAINAGE AREA.--136 mi² (352 km²).

PERIOD OF RECORD.--Chemical analyses: June 1968 to September 1973.
Water temperatures: June 1968 to September 1973.

EXTREMES.--1972-73:

Specific conductance: Maximum, 2,260 micromhos Aug. 11; minimum, 141 micromhos Apr. 28.

Dissolved oxygen: Maximum, 15.0 mg/l Feb. 13-15; minimum, 1.4 mg/l June 30.

Water temperatures: Maximum, 28.0°C Sept. 5; minimum, 0.5°C on many days during December, January, February, and March.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
OCT.										
02...	1640	--	--	34	0	41	43	.2	--	--
17...	1100	--	--	88	0	72	250	.2	--	--
26...	1330	--	--	--	--	--	--	--	--	--
NOV.										
17...	1200	--	--	50	0	58	110	.2	--	--
27...	1000	--	--	35	0	47	44	.1	--	--
DEC.										
22...	2200	--	--	40	0	41	38	.1	--	--
31...	1500	--	--	44	0	60	130	.1	--	--
JAN.										
04...	1700	--	--	42	0	47	48	.1	--	--
19...	1400	--	--	87	0	64	110	.2	--	--
FEB.										
02...	1200	--	--	53	0	69	130	.1	--	--
20...	--	--	--	110	0	29	29	.1	--	--
MAR.										
02...	2200	--	--	85	0	67	99	.3	--	--
16...	1200	--	--	29	0	34	30	.1	--	--
APR.										
04...	1550	--	--	60	0	60	138	.1	--	--
16...	1600	--	--	73	0	57	116	.2	--	--
MAY										
09...	1200	--	--	74	0	66	172	.2	--	--
31...	0915	--	--	68	0	50	57	.2	--	--
31...	1030	--	--	--	--	--	--	--	--	--
JUNE										
01...	1200	--	--	39	0	26	38	.2	--	--
28...	1100	--	--	102	0	53	180	.2	--	--
JULY										
20...	0945	--	--	113	0	70	300	.3	--	--
27...	1200	--	--	115	0	44	170	.2	--	--
AUG.										
01...	1535	110	11	113	0	55	300	--	.2	.01
15...	1735	80	9.4	110	0	53	190	--	.2	.01
SEP.										
24...	1200	64	9.5	111	0	47	120	--	.2	.00
27...	1200	110	10	105	0	74	310	--	.2	.00

[illegible]

04212700 ASHTABULA RIVER AT ASHTABULA, OHIO--CONTINUED

EXTREMES.--Period of record:

Specific conductance (1968-69, 1970-73): Maximum, 2,980 micromhos Aug. 18, 1971; minimum, 39 micromhos June 18, 1972.

pH (1968-69): Maximum, 9.4 Feb. 27, 1969; minimum, 4.8 Oct. 30, 1968.

Dissolved oxygen (1970-73): Maximum, 15.0 mg/l or higher Feb. 22-28, 1971, Feb. 13-15, 1973; minimum, 0.0 mg/l Mar. 16, 17, 1971.

Water temperatures (1968-69, 1971-73): Maximum, 29.0°C Aug. 23, 24, 1968; minimum, freezing point on many days during 1968 and 1969.

REMARKS.--Water-quality recorder operated since June 1968. Maximum recorded specific conductance value of 3,000 micromhos or higher occurred Aug. 20, 1970. Maximum recorded pH 11.7 occurred Aug. 22, 1970. Minimum recorded pH value of 4.4 occurred Sept. 28, 1970. Dissolved oxygen concentrations listed as 15.0 mg/l represents concentrations of 15.0 mg/l or higher, due to instrument limitations. Interruptions in the record were due to malfunctions of the instrument. In addition to the water-quality recorder, samples were collected by a local observer on an approximate twice-weekly basis. Partial analyses were made on samples with the maximum specific conductance and the minimum specific conductance for each month. Special samples were also collected twice during the year to further define the quality of water. No discharge records available.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT.									
02...	1.1	--	90	62	300	178	--	15.5	--
17...	.80	--	240	170	1090	624	--	13.0	--
26...	--	--	--	--	--	--	--	10.0	1.0
NOV.									
17...	.60	--	170	130	554	324	--	3.0	--
27...	.80	--	90	62	309	168	--	4.0	--
DEC.									
22...	.70	--	80	47	282	150	--	1.5	--
31...	.50	--	160	120	590	330	--	6.0	--
JAN.									
04...	.60	--	93	58	303	172	--	2.0	--
19...	.60	--	180	110	623	358	--	3.0	--
FEB.									
02...	.60	--	180	140	664	394	--	3.0	--
20...	.40	--	130	40	318	170	--	1.0	--
MAR.									
02...	.70	--	150	80	572	340	--	1.5	--
16...	.60	--	68	44	225	118	--	13.0	--
APR.									
04...	.60	--	140	91	649	384	--	9.5	--
16...	.70	--	160	100	598	352	--	10.0	--
MAY									
09...	1.1	--	180	120	811	486	--	15.0	--
31...	.70	--	120	64	399	238	--	16.0	--
31...	--	--	--	--	--	--	--	16.0	5.0
JUNE									
01...	.60	--	74	42	227	164	--	18.0	--
28...	1.2	--	220	140	849	560	--	23.0	--
JULY									
20...	1.3	--	310	220	1300	796	--	26.0	--
27...	1.0	--	230	140	810	516	--	21.0	--
AUG.									
01...	--	.91	--	--	1260	--	933	25.0	--
15...	--	.68	--	--	909	--	597	25.5	--
SEP.									
24...	--	.41	--	--	688	--	472	19.0	--
27...	--	.65	--	--	1340	--	899	21.0	--

STREAMS TRIBUTARY TO LAKE ERIE

04212700 ASHTABULA RIVER AT ASHTABULA, OHIO--Continued

SPECIFIC CONDUCTANCE (MICRONHOS/CM AT 25°C), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	266	209	601	559	---	---	473	362	570	375	378	285
2	327	255	750	543	---	---	420	363	681	366	580	289
3	491	314	543	299	---	---	507	390	369	258	481	187
4	580	460	388	310	---	---	648	255	318	258	241	169
5	707	539	472	388	504	396	279	237	432	282	328	187
6	685	634	495	453	450	234	309	234	426	342	331	265
7	711	666	537	483	276	207	282	240	465	360	340	286
8	755	698	729	405	336	231	303	246	535	433	418	322
9	864	741	378	282	399	333	336	288	523	385	484	388
10	1010	854	324	282	502	355	411	333	438	360	517	418
11	987	960	438	309	472	349	438	366	453	393	589	517
12	997	835	492	429	505	364	492	408	410	332	625	385
13	972	696	660	474	829	322	534	417	427	315	424	364
14	899	661	651	183	367	277	492	375	453	342	571	373
15	1020	899	225	177	457	301	456	372	463	325	373	172
16	1020	924	312	219	514	349	525	363	359	305	307	187
17	1140	964	615	297	634	514	534	411	327	309	385	250
18	1120	731	432	306	643	586	471	411	349	313	262	214
19	1020	501	---	---	586	424	696	450	335	311	367	262
20	770	560	---	---	658	397	720	315	330	309	412	304
21	791	608	---	---	616	370	468	315	442	304	358	277
22	873	579	---	---	401	272	474	399	416	314	331	292
23	891	633	---	---	281	233	525	339	351	306	430	274
24	1360	652	---	---	266	245	366	333	334	304	430	334
25	1020	590	---	---	296	257	552	348	515	299	349	274
26	723	681	---	---	407	272	474	438	675	441	322	226
27	770	695	---	---	413	332	549	450	547	313	313	241
28	718	457	---	---	419	359	537	435	365	284	388	250
29	799	688	---	---	464	326	543	423	---	---	508	388
30	924	690	---	---	533	464	501	363	---	---	463	424
31	731	578	---	---	611	482	420	357	---	---	487	385
MONTH	1360	209	---	---	829	207	720	234	681	258	625	165

[illegible]

STREAMS TRIBUTARY TO LAKE ERIE

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04212700 ASHTABULA RIVER AT ASHTABULA, OHIO--Continued

PH (UNITS), WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.8	6.5	6.9	6.7	---	---	---	---	---	---	8.2	7.9
2	7.1	6.7	6.9	6.1	---	---	---	---	---	---	9.0	7.5
3	7.0	6.9	7.0	6.2	---	---	---	---	---	---	7.5	5.8
4	7.0	6.9	6.6	6.2	---	---	---	---	---	---	6.7	5.8
5	7.1	6.9	6.7	6.1	---	---	---	---	---	---	7.4	6.4
6	7.0	6.9	---	---	---	---	---	---	---	---	7.4	7.1
7	7.0	7.0	---	---	---	---	---	---	7.2	7.0	7.2	6.8
8	7.1	7.0	---	---	---	---	---	---	7.2	7.1	7.1	6.3
9	7.0	7.0	---	---	---	---	---	---	7.5	7.2	9.0	6.9
10	7.0	6.7	---	---	---	---	---	---	7.7	7.4	7.2	7.1
11	6.7	6.7	---	---	---	---	---	---	7.5	7.4	7.3	7.0
12	6.8	6.6	---	---	---	---	---	---	7.6	7.5	7.2	7.1
13	7.0	6.8	---	---	---	---	---	---	7.7	7.5	7.2	6.9
14	7.3	6.9	---	---	---	---	---	---	7.7	7.5	7.1	6.5
15	7.2	7.1	---	---	---	---	---	---	7.7	7.5	7.4	6.7
16	7.2	7.1	---	---	---	---	---	---	7.8	7.7	6.8	6.8
17	7.2	7.1	---	---	---	---	---	---	8.0	7.7	7.0	6.8
18	7.3	7.1	---	---	---	---	---	---	7.9	7.7	7.0	6.8
19	7.6	7.1	---	---	7.4	6.7	---	---	7.8	7.6	6.8	6.7
20	7.6	7.3	---	---	7.6	7.0	---	---	7.8	7.5	7.0	6.7
21	7.5	7.2	---	---	7.4	6.7	---	---	7.8	7.5	6.9	6.8
22	7.3	7.1	---	---	7.3	6.9	---	---	8.1	7.2	7.1	6.9
23	7.2	6.9	---	---	8.6	6.9	---	---	8.4	7.3	7.0	6.7
24	7.2	6.9	---	---	8.2	7.6	---	---	8.4	7.6	7.1	6.8
25	7.2	6.8	---	---	7.8	7.4	---	---	8.2	8.1	7.1	6.8
26	7.0	6.9	---	---	7.5	7.1	---	---	8.4	7.5	7.1	6.9
27	7.0	6.9	---	---	7.2	7.1	---	---	8.6	7.8	7.1	7.0
28	7.5	7.1	---	---	---	---	---	---	8.6	8.0	7.1	6.5
29	7.3	7.1	---	---	---	---	---	---	---	---	7.2	6.9
30	7.3	6.9	---	---	---	---	---	---	---	---	7.4	7.0
31	7.0	6.5	---	---	---	---	---	---	---	---	7.6	7.0
MONTH	7.6	6.5	---	---	---	---	---	---	8.6	7.0	8.2	5.8

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	7.4	7.1	7.3	7.2	7.2	7.0	7.7	6.9	7.7	7.3	7.2	6.9
2	7.1	6.9	7.3	7.2	7.2	7.0	7.8	7.1	7.5	7.2	7.1	6.9
3	7.0	6.9	7.3	7.2	7.7	7.1	7.5	7.2	7.8	7.2	7.1	6.9
4	7.3	6.9	7.3	7.3	7.9	7.1	7.3	7.2	7.7	7.3	7.1	6.9
5	7.3	6.8	7.3	7.3	7.3	7.1	7.5	7.2	7.6	7.2	7.1	6.9
6	7.1	6.9	7.3	7.3	7.4	7.1	7.4	7.2	7.5	7.1	7.1	6.9
7	7.1	7.0	7.3	7.2	7.2	7.1	7.4	7.2	7.2	7.0	7.2	7.1
8	7.1	7.0	7.3	7.2	7.4	7.1	7.3	7.2	7.1	6.9	7.4	7.2
9	7.0	6.9	7.3	7.3	7.4	7.3	7.5	7.2	7.1	6.9	7.6	7.3
10	7.2	7.0	7.4	7.2	7.4	7.2	7.4	7.2	7.6	6.9	8.0	7.4
11	7.3	7.1	7.4	7.2	7.5	7.3	7.4	7.2	7.8	6.9	7.9	7.6
12	7.2	7.1	7.5	7.3	7.5	7.3	7.3	7.2	7.5	6.9	8.2	7.5
13	7.2	7.2	7.4	7.2	7.4	7.0	7.3	7.2	8.0	7.1	8.1	7.6
14	7.2	7.2	7.5	7.1	7.1	6.9	7.5	7.2	7.8	7.3	7.9	7.6
15	7.2	7.1	7.5	7.2	7.3	7.0	7.4	7.2	7.6	7.2	8.3	7.7
16	7.4	7.2	7.4	7.2	7.5	7.1	7.5	7.2	7.6	7.3	8.1	7.7
17	7.4	7.2	7.3	7.2	7.3	7.1	7.7	7.2	7.5	7.2	7.7	7.7
18	7.2	7.1	7.3	7.2	7.2	7.1	7.8	7.3	7.3	7.1	7.5	7.4
19	7.3	7.0	7.5	7.2	7.4	7.1	7.5	7.3	7.3	6.9	7.8	7.5
20	7.1	6.9	7.4	7.2	7.5	7.3	7.5	7.4	7.2	6.8	7.8	7.6
21	7.2	6.6	7.5	7.2	7.5	7.2	7.4	7.3	6.8	6.6	8.5	7.6
22	7.4	7.3	7.5	7.2	7.3	7.2	7.4	7.2	7.7	6.7	8.5	8.0
23	7.3	7.3	7.3	7.2	7.2	7.2	7.4	7.2	7.7	7.3	8.3	7.9
24	7.3	7.3	7.4	7.1	7.2	7.2	7.3	7.2	7.6	7.3	8.5	8.0
25	7.3	7.3	7.5	7.3	7.3	7.1	---	---	7.8	7.2	8.4	8.1
26	7.3	7.2	7.5	7.3	7.3	7.1	8.2	7.6	7.8	7.4	8.1	7.8
27	7.3	7.3	7.5	7.2	7.3	7.2	7.7	7.4	8.0	7.1	7.9	7.8
28	7.3	7.2	8.1	7.3	7.4	7.1	7.7	7.3	7.2	7.1	7.9	7.7
29	7.3	7.2	7.5	7.4	7.1	6.9	7.9	7.3	7.3	7.1	7.8	7.4
30	7.3	7.2	7.4	7.3	6.9	6.9	7.9	7.5	7.9	7.4	7.4	7.4
31	---	---	7.3	6.9	---	---	8.0	7.5	7.4	7.0	---	---
MONTH	7.4	6.6	8.1	6.9	7.9	6.9	8.2	6.9	8.0	6.6	8.5	6.9

STREAMS TRIBUTARY TO LAKE ERIE

04212700 ASHTABULA RIVER AT ASHTABULA, OHIO--Continued

DISSOLVED OXYGEN (DO), IN MILLIGRAMS PER LITER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	8.6	11.0	10.7	---	---	11.9	11.4	13.7	13.3	14.1	13.7
2	11.4	9.1	11.1	10.5	---	---	12.1	11.9	13.4	12.6	14.0	13.5
3	11.5	10.3	10.9	10.4	---	---	12.5	12.1	12.9	12.5	13.8	13.6
4	10.4	10.2	10.8	10.5	---	---	13.4	12.7	13.1	12.8	13.8	13.7
5	10.4	10.0	10.8	10.2	12.7	12.4	13.3	13.1	13.1	12.5	13.7	13.0
6	10.0	9.5	10.7	10.4	12.4	11.4	13.6	13.3	13.0	12.8	13.0	12.3
7	9.7	9.6	10.9	10.5	12.7	12.0	13.6	13.5	12.9	12.7	12.3	11.7
8	9.7	9.5	10.9	10.4	12.4	12.6	13.6	13.5	13.2	12.8	11.7	10.9
9	9.8	9.7	11.5	10.9	12.6	12.4	13.8	13.6	13.8	13.1	11.9	11.1
10	9.8	9.3	11.5	11.3	12.5	12.3	13.7	13.4	14.1	13.8	11.6	11.3
11	9.7	9.4	11.6	10.9	12.7	12.4	13.8	13.5	14.4	14.0	11.8	11.3
12	10.2	9.5	10.9	10.7	12.9	12.6	13.7	13.5	14.8	14.4	11.3	10.6
13	11.1	10.2	11.2	10.6	12.7	12.0	13.9	13.6	15.0	14.7	11.5	11.1
14	11.6	10.8	12.1	10.5	12.8	12.6	14.0	13.6	15.0	15.0	11.8	11.3
15	11.3	11.0	12.6	12.1	12.8	12.6	13.8	13.6	15.0	14.2	11.6	10.9
16	11.2	10.8	12.6	12.2	12.9	12.8	13.9	13.4	14.4	14.2	11.0	10.7
17	11.9	11.0	12.3	11.8	12.9	12.8	13.7	13.4	14.4	14.2	11.7	11.0
18	12.7	11.5	12.3	12.2	12.9	12.6	13.6	13.3	14.5	14.3	13.2	11.7
19	14.2	12.0	---	---	12.9	12.8	13.4	12.9	14.5	14.2	13.4	13.2
20	14.2	8.0	---	---	12.9	12.6	13.6	12.8	14.4	14.2	13.3	13.1
21	9.9	9.6	---	---	12.9	12.6	13.7	13.5	14.2	14.1	13.2	12.9
22	10.8	9.8	---	---	13.1	12.8	13.5	13.3	14.2	13.9	13.1	12.9
23	10.6	9.6	---	---	13.2	13.1	13.3	12.7	14.2	13.9	13.2	12.8
24	10.3	8.9	---	---	13.1	12.8	13.2	13.0	14.0	13.7	13.1	12.4
25	10.4	9.6	---	---	12.8	12.7	13.3	13.1	13.9	13.7	12.8	12.2
26	10.8	9.7	---	---	12.7	12.4	13.3	13.0	13.8	13.3	12.3	11.8
27	11.0	10.6	---	---	12.7	12.5	13.4	12.9	13.8	13.4	12.0	11.7
28	11.6	10.9	---	---	12.7	12.6	13.1	12.7	14.1	13.8	12.1	11.2
29	10.9	10.6	---	---	12.9	12.6	13.4	12.7	---	---	11.8	10.9
30	10.7	10.1	---	---	12.7	12.5	13.8	13.4	---	---	11.5	10.6
31	10.9	10.1	---	---	12.5	11.4	13.6	13.4	---	---	11.2	10.6
MONTH	14.2	8.0	---	---	13.2	11.4	14.0	11.4	15.0	12.5	14.1	10.6

[illegible]

TEMPERATURE (°C) OF WATER, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

[illegible]

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
BEAVER RIVER BASIN											
03086500 - MAHONING R AT ALLIANCE OH (LAT 40 55 58 LONG 081 05 41)											
OCT., 1972											
16...	1420	20	--	--	--	--	--	--	--	--	--
DEC.											
19...	1415	104	--	--	--	--	130	32	--	--	--
FEB., 1973											
12...	1035	34	--	--	--	--	140	28	--	--	--
APR.											
09...	1430	201	--	--	--	--	--	--	--	--	--
JUNE											
12...	0945	31	--	--	--	--	130	20	--	--	--
AUG.											
14...	1355	12	58	29	194	6	160	27	--	.2	.01
03089500 - MILL C NR BERLIN CENTER OH (LAT 41 00 01 LONG 080 58 07)											
SEP., 1973											
05...	1205	.57	83	52	194	0	360	18	--	.4	.00
03090500 - MAHONING R BL BERLIN DAM NR BERLIN CENTER OH (LAT 41 02 54 LONG 081 00 05)											
OCT., 1972											
16...	1125	67	--	--	103	0	110	22	.3	--	--
DEC.											
19...	1110	319	--	--	--	--	110	22	--	--	--
FEB., 1973											
12...	1340	51	--	--	--	--	110	24	--	--	--
APR.											
09...	1200	1020	--	--	--	--	--	--	--	--	--
JUNE											
12...	1310	100	--	--	--	--	97	18	--	--	--
AUG.											
14...	1050	251	--	--	--	--	--	--	--	--	--
SEP.											
20...	1125	260	34	16	104	0	99	29	--	.8	.00
03091500 - MAHONING R AT PRICETOWN OH (LAT 41 07 53 LONG 080 58 17)											
OCT., 1972											
12...	0910	304	--	--	96	0	110	23	.3	--	--
DEC.											
18...	1315	482	--	--	--	--	110	23	--	--	--
FEB., 1973											
05...	1110	77	--	--	--	--	100	23	--	--	--
12...	1510	70	--	--	--	--	--	--	--	--	--
APR.											
13...	0930	944	--	--	--	--	--	--	--	--	--
JUNE											
15...	0920	107	--	--	--	--	98	20	--	--	--
AUG.											
08...	1005	188	--	--	--	--	--	--	--	--	--
SEP.											
19...	0955	252	--	--	--	--	--	--	--	--	--
03092000 - KALE C NR PRICETOWN OH (LAT 41 08 23 LONG 080 59 43)											
OCT., 1972											
12...	1920	.75	--	--	--	--	--	--	--	--	--
NOV.											
14...	1405	346	--	--	--	--	--	--	--	--	--
DEC.											
14...	1620	53	--	--	--	--	66	18	--	--	--
FEB., 1973											
08...	1510	38	--	--	--	--	89	22	--	--	--
APR.											
13...	1230	38	--	--	--	--	--	--	--	--	--
JUNE											
15...	1305	.96	--	--	--	--	150	21	--	--	--
AUG.											
08...	1135	.96	--	--	--	--	--	--	--	--	--
03092099 - HINKLEY C AT CHARLESTOWN OH (LAT 41 09 16 LONG 081 08 51)											
SEP., 1973											
05...	1015	.48	--	--	188	0	43	49	.3	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

393

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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BEAVER RIVER BASIN--CONTINUED

03092460 - W B MAHONING R AT WAYLAND OH (LAT 41 09 25 LONG 081 04 19)

OCT., 1972										
13...	.40	--	.14	130	40	341	7.9	198	--	15.5
DEC.										
15...	.50	--	--	150	--	347	7.6	--	--	3.0
FEB., 1973										
13...	.59	--	--	140	--	353	7.5	--	--	2.5
APR.										
10...	--	--	--	--	--	331	--	--	--	7.0
JUNE										
11...	--	.55	--	--	--	319	8.3	--	--	16.5
AUG.										
13...	--	--	--	--	--	325	--	--	--	19.5
SEP.										
14...	--	.40	.02	--	--	346	8.0	--	222	20.5

03092500 - W B MAHONING R NR NEWTON FALLS OH (LAT 41 10 18 LONG 081 01 16)

OCT., 1972										
13...	.40	--	.02	140	52	360	8.1	222	--	13.5
DEC.										
18...	.50	--	--	140	--	434	8.1	--	--	1.0
FEB., 1973										
13...	.63	--	--	150	--	371	7.5	--	--	.0
APR.										
12...	--	--	--	--	--	328	--	--	--	--
JUNE										
14...	--	.52	--	--	--	319	8.3	--	--	15.5
AUG.										
13...	--	.39	.04	--	--	345	7.4	--	244	20.0

03093000 - EAGLE C AT PHALANX STATION OH (LAT 41 15 40 LONG 080 57 16)

OCT., 1972										
11...	--	--	--	--	--	363	--	--	--	10.5
DEC.										
14...	.80	--	--	90	--	233	8.0	--	--	1.5
FEB., 1973										
08...	--	--	--	--	--	268	--	--	--	2.5
MAR.										
16...	.80	--	--	58	--	164	7.6	--	--	11.0
APR.										
12...	--	--	--	--	--	222	--	--	--	6.0
JUNE										
14...	.76	--	--	110	--	260	7.4	--	--	22.0
AUG.										
06...	--	--	--	--	--	409	--	--	--	22.5
SEP.										
05...	--	.02	.00	--	--	445	7.6	--	286	22.5

03095500 - MOSQUITO C BL MOSQUITO C DAM NR CORTLAND OH (LAT 41 17 59 LONG 080 45 31)

OCT., 1972										
11...	--	--	--	--	--	246	--	--	--	14.5
NOV.										
17...	--	--	--	--	--	238	--	--	--	5.5
JAN., 1973										
11...	.70	--	--	100	--	256	7.4	--	--	1.0
MAR.										
09...	.80	--	--	95	--	263	7.4	--	--	5.5
MAY										
11...	--	--	--	--	--	230	--	--	--	13.0
JULY										
12...	.40	--	--	84	--	226	7.5	--	--	24.5
AUG.										
13...	--	--	--	--	--	226	--	--	--	25.5

03098000 - MAHONING R AT YOUNGSTOWN OH (LAT 41 06 40 LONG 080 40 23)

OCT., 1972										
10...	3.0	--	.00	200	140	564	8.0	374	--	23.0
DEC.										
13...	1.9	--	--	170	--	440	6.9	--	--	6.0
FEB., 1973										
07...	2.5	--	--	150	--	432	6.8	--	--	9.0
APR.										
11...	--	--	--	--	--	366	--	--	--	9.5
JUNE										
13...	.50	--	--	130	--	346	7.3	--	--	25.5
AUG.										
07...	--	--	--	--	--	462	--	--	--	30.5
SEP.										
13...	--	--	--	--	--	489	--	--	--	33.0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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BEAVER RIVER BASIN--CONTINUED

03099500 - MAHONING R AT LOWELLVILLE OH (LAT 41 02 12 LONG 080 32 11)

FEB., 1973											
02...	0900	2860	--	--	--	--	120	77	--	--	--
07...	1150	1030	--	--	--	--	120	52	--	--	--
JUNE											
13...	1150	1520	--	--	--	--	80	31	--	--	--
AUG.											
07...	1345	552	--	--	--	--	--	--	--	--	--
17...	1205	864	42	11	64	0	110	43	--	.8	.00
SEP.											
06...	1445	760	47	12	78	0	110	45	--	.8	.00
28...	1230	450	63	16	62	0	140	61	--	1.1	.00

03102950 - PYMATUNING C AT KINSMAN OH (LAT 41 26 34 LONG 080 35 18)

NOV., 1972											
16...	1515	418	--	--	--	--	--	--	--	--	--
JAN., 1973											
11...	1340	53	--	--	--	--	47	16	--	--	--
MAR.											
08...	1440	416	--	--	--	--	33	13	--	--	--
MAY											
10...	1405	344	--	--	--	--	--	--	--	--	--
JULY											
18...	1140	5.9	--	--	--	--	14	14	--	--	--
SEP.											
12...	1125	1.9	51	11	157	0	34	20	--	.2	.01

LITTLE BEAVER CREEK BASIN

03109100 - M F L BEAVER C NR ROGERS OH (LAT 40 43 22 LONG 080 38 03)

AUG., 1973											
28...	1145	11	75	27	78	0	220	41	--	.5	.00

03109200 - M F L BEAVER C AT WEST POINT OH (LAT 40 42 38 LONG 080 41 49)

AUG., 1973											
28...	1005	10	91	30	62	0	230	49	--	.7	.00

03109400 - N F L BEAVER C NR NEGLEY OH (LAT 40 46 30 LONG 080 32 36)

AUG., 1973											
28...	1300	52	91	36	180	0	300	45	--	.2	.00

03109500 - L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33 LONG 080 32 27)

OCT., 1972											
26...	1135	146	--	--	--	--	--	--	--	--	--
NOV.											
27...	1140	914	--	--	--	--	--	--	--	--	--
DEC.											
26...	1205	782	--	--	--	--	140	23	--	--	--
JAN., 1973											
26...	1105	522	--	--	--	--	--	--	--	--	--
FEB.											
23...	1235	544	--	--	--	--	--	--	--	--	--
MAR.											
26...	1215	1670	--	--	--	--	140	22	--	--	--
APR.											
05...	1330	1900	--	--	--	--	--	--	--	--	--
26...	1220	685	--	--	--	--	--	--	--	--	--
JUNE											
26...	1215	218	--	--	--	--	210	29	--	--	--
JULY											
26...	1120	140	--	--	--	--	--	--	--	--	--
AUG.											
27...	1145	138	--	--	--	--	--	--	--	--	--
SEP.											
26...	1125	84	110	33	130	2	280	50	--	.5	.01

YELLOW CREEK BASIN

03110000 - YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16 LONG 080 43 31)

NOV., 1972											
27...	1410	213	--	--	--	--	--	--	--	--	--
JAN., 1973											
26...	1135	169	--	--	--	--	110	12	--	--	--
MAR.											
26...	1510	342	--	--	--	--	100	11	--	--	--
APR.											
05...	1015	420	--	--	--	--	--	--	--	--	--
MAY											
30...	1150	328	--	--	--	--	--	--	--	--	--
JULY											
26...	1335	58	42	19	--	--	210	27	--	--	.00
SEP.											
26...	1400	15	51	15	36	0	220	25	--	.2	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
BEAVER RIVER BASIN--CONTINUED										
03099500 - MAHONING R AT LOWELLVILLE OH (LAT 41 02 12 LONG 080 32 11)										
FEB., 1973										
02...	.10	--	--	240	--	650	7.3	--	--	10.5
07...	2.9	--	--	180	--	540	7.0	--	--	12.5
JUNE										
13...	2.0	--	--	140	--	397	7.1	--	--	28.0
AUG.										
07...	--	--	--	--	--	592	--	--	--	34.0
17...	--	3.3	--	--	--	504	8.1	--	410	30.0
SEP.										
06...	--	4.6	--	--	--	549	6.6	--	410	33.5
28...	--	6.0	--	--	--	649	8.0	--	485	33.0
03102950 - PYMATUNING C AT KINSMAN OH (LAT 41 26 34 LONG 080 35 18)										
NOV., 1972										
16...	--	--	--	--	--	226	--	--	--	4.0
JAN., 1973										
11...	1.1	--	--	130	--	273	7.4	--	--	.0
MAR.										
08...	1.0	--	--	74	--	194	7.7	--	--	9.0
MAY										
10...	--	--	--	--	--	187	--	--	--	16.0
JULY										
18...	.80	--	--	160	--	339	8.1	--	--	22.0
SEP.										
12...	--	.68	.12	--	--	394	7.1	--	276	16.5
LITTLE BEAVER CREEK BASIN										
03109100 - M F L BEAVER C NR ROGERS OH (LAT 40 43 22 LONG 080 38 03)										
AUG., 1973										
28...	--	3.4	.05	--	--	730	7.3	--	530	24.5
03109200 - W F L BEAVER C AT WEST POINT OH (LAT 40 42 38 LONG 080 41 49)										
AUG., 1973										
28...	--	4.8	.01	--	--	762	7.1	--	543	24.5
03109400 - N F L BEAVER C NR NEGLEY OH (LAT 40 46 30 LONG 080 32 36)										
AUG., 1973										
28...	--	.68	.03	--	--	971	8.3	--	758	24.5
03109500 - L BEAVER C NR EAST LIVERPOOL OH (LAT 40 40 33 LONG 080 32 27)										
OCT., 1972										
26...	--	--	--	--	--	760	--	--	--	8.0
NOV.										
27...	--	--	--	--	--	504	--	--	--	5.0
DEC.										
26...	1.9	--	--	220	--	487	7.5	--	--	5.0
JAN., 1973										
26...	--	--	--	--	--	524	--	--	--	1.0
FEB.										
23...	--	--	--	--	--	546	--	--	--	15.0
MAR.										
26...	1.8	--	--	210	--	470	7.5	--	--	7.5
APR.										
05...	--	--	--	--	--	455	--	--	--	6.5
26...	--	--	--	--	--	519	--	--	--	12.0
JUNE										
26...	.50	--	--	330	--	677	8.1	--	--	23.5
JULY										
26...	--	--	--	--	--	707	--	--	--	23.0
AUG.										
27...	--	--	--	--	--	727	--	--	--	24.5
SEP.										
26...	--	2.1	.08	--	--	900	8.4	--	650	16.5
YELLOW CREEK BASIN										
03110000 - YELLOW C NR HAMMONDSVILLE OH (LAT 40 32 16 LONG 080 43 31)										
NOV., 1972										
27...	--	--	--	--	--	349	--	--	--	4.0
JAN., 1973										
26...	1.0	--	--	150	--	348	7.3	--	--	1.5
MAR.										
26...	1.1	--	--	140	--	320	7.6	--	--	8.0
APR.										
05...	--	--	--	--	--	303	--	--	--	6.5
MAY										
30...	--	--	--	--	--	322	--	--	--	14.5
JULY										
26...	--	.22	--	--	--	610	7.8	--	--	21.5
SEP.										
26...	--	.48	.05	--	--	621	7.7	--	436	16.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
YELLOW CREEK BASIN--CONTINUED											
03110600 - N F YELLOW C AT HAMMONDSVILLE OH (LAT 40 33 27 LONG 080 42 20)											
AUG., 1973											
29...	1055	16	--	--	49	0	290	34	--	.2	.00
CROSS CREEK BASIN											
03111000 - CROSS C AT MINGO JUNCTION OH (LAT 40 19 03 LONG 080 37 45)											
AUG., 1973											
29...	1450	14	--	--	134	0	490	22	.4	--	--
SHORT CREEK BASIN											
03111500 - SHORT C NR DILLONVALE OH (LAT 40 11 36 LONG 080 44 04)											
OCT., 1972											
18...	1135	25	--	--	182	0	1500	140	.5	--	--
DEC.											
11...	1125	178	--	--	--	--	760	44	--	--	--
FEB., 1973											
05...	1225	227	--	--	--	--	710	35	--	--	--
APR.											
06...	1135	214	--	--	--	--	--	--	--	--	--
09...	1150	300	--	--	--	--	--	--	--	--	--
MAY											
11...	1140	655	--	--	--	--	--	--	--	--	--
JUNE											
11...	1135	129	--	--	--	--	1100	40	--	--	--
AUG.											
07...	1135	37	--	--	--	--	--	--	--	--	--
30...	1110	28	--	--	167	0	1400	99	--	.2	.00
WHEELING CREEK BASIN											
03111550 - WHEELING C AT BROOKSIDE OH (LAT 40 04 05 LONG 080 46 49)											
AUG., 1973											
30...	1315	23	230	110	162	0	1500	18	--	.9	.00
CAPTINA CREEK BASIN											
03114000 - CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31 LONG 080 55 27)											
OCT., 1972											
16...	1125	13	--	--	182	0	75	22	.2	--	--
DEC.											
09...	1425	1290	--	--	--	--	40	6.3	--	--	--
12...	1425	348	--	--	--	--	--	--	--	--	--
FEB., 1973											
07...	1205	312	--	--	--	--	48	9.2	--	--	--
APR.											
04...	1330	640	--	--	--	--	--	--	--	--	--
12...	1320	500	--	--	--	--	--	--	--	--	--
24...	1550	620	--	--	--	--	--	--	--	--	--
JUNE											
12...	1105	54	--	--	--	--	--	--	--	--	--
18...	1150	575	--	--	--	--	43	6.0	--	--	--
AUG.											
08...	1120	3.5	--	--	185	0	90	21	--	.5	.00
SUNFISH CREEK BASIN											
03114250 - SUNFISH C AT CAMERON OH (LAT 39 46 00 LONG 080 56 09)											
AUG., 1973											
30...	1730	.67	--	--	182	0	49	30	--	.2	.00
LITTLE MUSKINGUM RIVER BASIN											
03115300 - L MUSKINGUM R NR RINARD MILLS OH (LAT 39 36 25 LONG 081 07 21)											
AUG., 1973											
30...	1305	1.2	--	--	135	0	24	37	--	1.0	.00
03115400 - L MUSKINGUM R AT BLOOMFIELD OH (LAT 39 33 47 LONG 081 12 14)											
OCT., 1972											
17...	0905	12	--	--	162	0	32	40	.1	--	--
DEC.											
13...	1130	802	--	--	--	--	33	13	--	--	--
FEB., 1973											
07...	1610	548	--	--	--	--	35	12	--	--	--
APR.											
04...	1300	1130	--	--	--	--	--	--	--	--	--
13...	1000	956	--	--	--	--	--	--	--	--	--
JUNE											
12...	1425	70	--	--	--	--	35	15	--	--	--
AUG.											
08...	1440	4.6	--	--	--	--	--	--	--	--	--
30...	1125	2.5	--	--	146	0	26	47	--	.1	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
------	--	-----------------------------------	---	------------------------------------	---	--	---------------	--	---------------------------------	-----------------------------

YELLOW CREEK BASIN--CONTINUED

03110600 - N F YELLOW C AT HAMMONDSVILLE OH (LAT 40 33 27 LONG 080 42 20)

AUG., 1973										
29...	--	.08	.01	--	--	753	8.1	--	535	24.5

CROSS CREEK BASIN

03111000 - CROSS C AT MINGO JUNCTION OH (LAT 40 19 03 LONG 080 37 45)

AUG., 1973										
29...	.03	--	.02	640	530	1750	8.0	1620	--	28.5

SHORT CREEK BASIN

03111500 - SHORT C NR DILLONVALE OH (LAT 40 11 36 LONG 080 44 04)

OCT., 1972										
18...	.20	--	.00	1300	1200	2850	7.8	2620	--	7.0
DEC.										
11...	1.1	--	--	820	--	1570	8.0	--	--	5.0
FEB., 1973										
05...	1.0	--	--	830	--	1540	7.9	--	--	5.0
APR.										
06...	--	--	--	--	--	1640	--	--	--	8.0
09...	--	--	--	--	--	1540	--	--	--	7.5
MAY										
11...	--	--	--	--	--	1100	--	--	--	14.5
JUNE										
11...	.60	--	--	1200	--	2130	7.7	--	--	24.0
AUG.										
07...	--	--	--	--	--	2570	--	--	--	23.0
30...	--	.12	.01	--	--	2860	8.2	--	2700	24.0

WHEELING CREEK BASIN

03111550 - WHEELING C AT BROOKSIDE OH (LAT 40 04 05 LONG 080 46 49)

AUG., 1973										
30...	--	.17	.00	--	--	2940	8.1	--	2590	27.5

CAPTINA CREEK BASIN

03114000 - CAPTINA C AT ARMSTRONGS MILLS OH (LAT 39 54 31 LONG 080 55 27)

OCT., 1972										
16...	.50	--	.08	240	91	524	8.1	328	--	11.0
DEC.										
09...	1.3	--	--	110	--	249	8.0	--	--	7.0
12...	--	--	--	--	--	306	--	--	--	4.5
FEB., 1973										
07...	1.0	--	--	140	--	311	8.0	--	--	5.0
APR.										
04...	--	--	--	--	--	333	--	--	--	8.0
12...	--	--	--	--	--	282	--	--	--	6.0
24...	--	--	--	--	--	268	--	--	--	14.5
JUNE										
12...	--	--	--	--	--	384	--	--	--	26.0
18...	1.0	--	--	130	--	279	8.0	--	--	22.5
AUG.										
08...	--	.21	.03	--	--	528	7.8	--	373	24.5

SUNFISH CREEK BASIN

03114250 - SUNFISH C AT CAMERON OH (LAT 39 46 00 LONG 080 56 09)

AUG., 1973										
30...	--	.23	.01	--	--	476	7.7	--	293	26.0

LITTLE MUSKINGUM RIVER BASIN

03115300 - L MUSKINGUM R NR RINARD MILLS OH (LAT 39 36 25 LONG 081 07 21)

AUG., 1973										
30...	--	.14	.01	--	--	399	7.5	--	247	25.5

03115400 - L MUSKINGUM R AT BLOOMFIELD OH (LAT 39 33 47 LONG 081 12 14)

OCT., 1972										
17...	.10	--	.05	180	47	427	7.8	248	--	12.0
DEC.										
13...	.60	--	--	110	--	247	8.2	--	--	6.0
FEB., 1973										
07...	.60	--	--	110	--	252	8.0	--	--	5.5
APR.										
04...	--	--	--	--	--	245	--	--	--	9.0
13...	--	--	--	--	--	220	--	--	--	5.5
JUNE										
12...	.20	--	--	150	--	329	8.0	--	--	26.0
AUG.										
08...	--	--	--	--	--	412	--	--	--	23.0
30...	--	.27	.02	--	--	443	7.5	--	274	25.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
DUCK CREEK BASIN											
03115650 - E F DUCK C AT LOWER SALEM OH (LAT 39 34 26 LONG 081 23 25)											
AUG., 1973											
30...	1200	3.4	--	--	0	0	940	4.7	--	1.8	.00
03115700 - W F DUCK C AT DEXTER CITY OH (LAT 39 39 45 LONG 081 28 25)											
AUG., 1973											
30...	1040	1.5	--	--	164	0	280	32	--	.5	.00
03115800 - DUCK C AT STANLEYVILLE OH (LAT 39 28 14 LONG 081 24 41)											
AUG., 1973											
30...	1345	6.7	--	--	8	0	570	20	.4	--	--
MUSKINGUM RIVER BASIN											
03115900 - TUSCARAWAS R NR EAST LIBERTY OH (LAT 41 00 25 LONG 081 29 31)											
AUG., 1973											
29...	1300	17	--	--	202	6	80	28	--	.3	.00
03116000 - TUSCARAWAS R AT CLINTON OH (LAT 40 55 40 LONG 081 37 58)											
NOV., 1972											
22...	1140	250	--	--	--	--	--	--	--	--	--
JAN., 1973											
16...	1345	102	--	--	--	--	160	4600	--	--	--
MAR.											
13...	1440	260	--	--	--	--	--	--	--	--	--
15...	1325	1290	--	--	--	--	61	1900	--	--	--
MAY											
15...	1430	150	--	--	--	--	--	--	--	--	--
JULY											
17...	1315	76	110	18	--	--	100	3300	--	--	.00
AUG.											
29...	1000	50	--	--	--	--	--	--	--	--	--
SEP.											
19...	1100	49	1500	18	156	0	100	4600	--	.5	2.2
03116200 - CHIPPEWA C AT EASTON OH (LAT 40 56 47 LONG 081 44 35)											
NOV., 1972											
08...	1250	920	--	--	--	--	--	--	--	--	--
22...	0940	266	--	--	--	--	--	--	--	--	--
JAN., 1973											
16...	1040	64	--	--	--	--	120	68	--	--	--
MAR.											
13...	1110	237	--	--	--	--	--	--	--	--	--
15...	1000	1190	--	--	--	--	37	19	--	--	--
MAY											
15...	1115	98	--	--	--	--	--	--	--	--	--
JUNE											
18...	1155	189	--	--	--	--	83	40	--	--	--
JULY											
17...	1040	16	--	--	--	--	--	--	--	--	--
SEP.											
11...	1350	9.0	--	--	245	3	190	150	--	.4	.01
03117000 - TUSCARAWAS R AT MASSILLON OH (LAT 40 46 13 LONG 081 31 27)											
OCT., 1972											
13...	1050	536	--	--	--	--	--	--	--	--	--
NOV.											
20...	1350	1220	--	--	--	--	--	--	--	--	--
JAN., 1973											
04...	1300	1430	--	--	--	--	76	330	--	--	--
MAR.											
07...	1105	1270	--	--	--	--	82	300	--	--	--
MAY											
09...	1040	599	--	--	--	--	--	--	--	--	--
JULY											
16...	1440	161	150	21	--	--	110	1400	--	--	.00
SEP.											
19...	1435	107	420	20	156	0	100	1900	--	.2	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
DUCK CREEK BASIN										
03115650 - E F DUCK C AT LOWER SALEM OH (LAT 39 34 26 LONG 081 23 25)										
AUG., 1973 30...	--	.00	.00	--	--	1550	4.4	--	1460	24.5
03115700 - W F DUCK C AT DEXTER CITY OH (LAT 39 39 45 LONG 081 28 25)										
AUG., 1973 30...	--	.32	.03	--	--	887	7.1	--	665	26.5
03115800 - DUCK C AT STANLEYVILLE OH (LAT 39 28 14 LONG 081 24 41)										
AUG., 1973 30...	.10	--	.01	630	620	1120	6.0	924	--	26.5
MUSKINGUM RIVER BASIN										
03115900 - TUSCARAWAS R NR EAST LIBERTY OH (LAT 41 00 25 LONG 081 29 31)										
AUG., 1973 29...	--	.90	.04	--	--	564	8.6	--	362	25.5
03116000 - TUSCARAWAS R AT CLINTON OH (LAT 40 55 40 LONG 081 37 58)										
NOV., 1972 22...	--	--	--	--	--	5570	--	--	--	10.0
JAN., 1973 16...	3.6	--	--	3600	--	12500	6.9	--	--	9.5
MAR. 13...	--	--	--	--	--	5770	--	--	--	10.5
15...	1.4	--	--	1700	--	5640	7.4	--	--	15.0
MAY 15...	--	--	--	--	--	6250	--	--	--	18.5
JULY 17...	--	2.4	--	--	--	9100	8.3	--	--	27.5
AUG. 29...	--	--	--	--	--	12000	--	--	--	26.0
SEP. 19...	--	.10	.51	--	--	14100	6.8	--	8710	15.0
03116200 - CHIPPEWA C AT EASTON OH (LAT 40 56 47 LONG 081 44 35)										
NOV., 1972 08...	--	--	--	--	--	365	--	--	--	10.0
22...	--	--	--	--	--	499	--	--	--	6.0
JAN., 1973 16...	2.9	--	--	250	--	697	7.1	--	--	1.5
MAR. 13...	--	--	--	--	--	541	--	--	--	8.5
15...	2.3	--	--	80	--	232	7.5	--	--	14.0
MAY 15...	--	--	--	--	--	691	--	--	--	16.0
JUNE 18...	4.0	--	--	210	--	538	7.5	--	--	20.5
JULY 17...	--	--	--	--	--	1120	--	--	--	21.5
SEP. 11...	--	.10	2.2	--	--	1350	8.4	--	885	17.0
03117000 - TUSCARAWAS R AT MASSILLON OH (LAT 40 46 13 LONG 081 31 27)										
OCT., 1972 13...	--	--	--	--	--	289	--	--	--	14.0
NOV. 20...	--	--	--	--	--	1080	--	--	--	5.0
JAN., 1973 04...	1.2	--	--	370	--	1420	7.5	--	--	4.5
MAR. 07...	2.6	--	--	360	--	1330	8.0	--	--	11.0
MAY 09...	--	--	--	--	--	2750	--	--	--	17.5
JULY 16...	--	2.8	--	--	--	449	8.4	--	--	22.5
SEP. 19...	--	5.1	.08	--	--	6740	6.9	--	4030	15.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MUSKINGUM RIVER BASIN--CONTINUED											
03117500 - SANDY C AT WAYNESBURG OH (LAT 40 40 21 LONG 081 15 36)											
OCT., 1972											
12...	1130	69	--	--	--	--	--	--	--	--	--
NOV.											
13...	1450	298	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1350	292	--	--	--	--	71	15	--	--	--
FEB.											
02...	1510	916	--	--	--	--	--	--	--	--	--
MAR.											
05...	1135	394	--	--	--	--	--	--	--	--	--
15...	1000	2060	--	--	--	--	52	12	--	--	--
APR.											
18...	1225	772	--	--	--	--	--	--	--	--	--
MAY											
07...	1440	298	--	--	--	--	--	--	--	--	--
JULY											
09...	1440	76	--	--	--	--	94	23	--	--	--
SEP.											
24...	1050	227	--	--	69	0	56	18	--	.1	.01
03118000 - M B NIMISHILLEN C AT CANTON OH (LAT 40 50 29 LONG 081 21 14)											
OCT., 1972											
13...	1435	26	--	--	--	--	--	--	--	--	--
NOV.											
20...	1035	138	--	--	--	--	130	36	--	--	--
JAN., 1973											
10...	1440	30	--	--	--	--	--	--	--	--	--
MAR.											
07...	1445	78	--	--	--	--	110	45	--	--	--
MAY											
07...	1050	33	--	--	--	--	--	--	--	--	--
08...	1015	68	--	--	--	--	--	--	--	--	--
JULY											
16...	1045	14	--	--	--	--	130	46	--	--	--
SEP.											
21...	1050	8.4	--	--	253	0	130	42	--	.3	.00
03118500 - NIMISHILLEN C AT NORTH INDUSTRY OH (LAT 40 44 03 LONG 081 21 08)											
NOV., 1972											
13...	1135	193	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1150	178	--	--	--	--	200	93	--	--	--
MAR.											
05...	1450	506	--	--	--	--	130	110	--	--	--
MAY											
08...	1245	196	--	--	--	--	--	--	--	--	--
09...	1505	298	--	--	--	--	--	--	--	--	--
JULY											
09...	1110	128	--	--	--	--	200	100	--	--	--
SEP.											
24...	1445	104	83	29	262	0	200	120	--	.9	.00
03119700 - CONOTTON C AT JEWETT OH (LAT 40 21 59 LONG 081 00 13)											
AUG., 1973											
30...	0900	.88	--	--	246	0	410	280	.5	--	--
03119900 - CONOTTON C AT LEESVILLE OH (LAT 40 26 44 LONG 081 11 49)											
AUG., 1973											
29...	0910	6.5	--	--	144	0	130	45	.3	--	--
03120500 - MCGUIRE C NR LEESVILLE OH (LAT 40 28 13 LONG 081 11 48)											
NOV., 1972											
21...	1150	196	--	--	--	--	--	--	--	--	--
JAN., 1973											
15...	1145	23	--	--	--	--	29	7.2	--	--	--
MAR.											
12...	1125	1.2	--	--	--	--	31	6.7	--	--	--
MAY											
10...	1130	68	--	--	--	--	--	--	--	--	--
JULY											
10...	1045	1.2	--	--	--	--	31	8.0	--	--	--
SEP.											
25...	1035	6.0	19	4.7	68	0	19	4.9	--	.1	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA.MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
MUSKINGUM RIVER BASIN--CONTINUED										
03117500 - SANDY C AT WAYNESBURG OH (LAT 40 40 21 LONG 081 15 36)										
OCT., 1972										
12...	--	--	--	--	--	455	--	--	--	14.0
NOV.										
13...	--	--	--	--	--	292	--	--	--	10.0
JAN., 1973										
08...	2.0	--	--	160	--	324	7.6	--	--	2.0
FEB.										
02...	--	--	--	--	--	260	--	--	--	5.0
MAR.										
05...	--	--	--	--	--	310	--	--	--	8.0
15...	1.8	--	--	82	--	213	7.0	--	--	13.5
APR.										
18...	--	--	--	--	--	327	--	--	--	12.5
MAY										
07...	--	--	--	--	--	348	--	--	--	15.5
JULY										
09...	.20	--	--	210	--	477	8.2	--	--	23.5
SEP.										
24...	--	.74	.02	--	--	295	7.0	--	271	15.0
03118000 - M B NIMISHILLEN C AT CANTON OH (LAT 40 50 29 LONG 081 21 14)										
OCT., 1972										
13...	--	--	--	--	--	747	--	--	--	13.0
NOV.										
20...	3.1	--	--	310	--	642	7.5	--	--	5.0
JAN., 1973										
10...	--	--	--	--	--	706	--	--	--	2.0
MAR.										
07...	3.4	--	--	250	--	585	7.3	--	--	12.5
MAY										
07...	--	--	--	--	--	697	--	--	--	14.0
08...	--	--	--	--	--	698	--	--	--	14.5
JULY										
16...	1.3	--	--	380	--	746	8.2	--	--	23.0
SEP.										
21...	--	1.6	.02	--	--	774	8.0	--	517	16.0
03118500 - NIMISHILLEN C AT NORTH INDUSTRY OH (LAT 40 44 03 LONG 081 21 08)										
NOV., 1972										
13...	--	--	--	--	--	920	--	--	--	10.0
JAN., 1973										
08...	4.7	--	--	390	--	948	8.1	--	--	2.0
MAR.										
05...	2.4	--	--	280	--	837	7.2	--	--	7.5
MAY										
08...	--	--	--	--	--	842	--	--	--	16.0
09...	--	--	--	--	--	888	--	--	--	19.0
JULY										
09...	4.6	--	--	440	--	1060	8.2	--	--	23.0
SEP.										
24...	--	9.3	1.6	--	--	1240	7.0	--	825	15.5
03119700 - CONOTTON C AT JEWETT OH (LAT 40 21 59 LONG 081 00 13)										
AUG., 1973										
30...	1.6	--	.65	710	510	2350	7.6	1730	--	22.0
03119900 - CONOTTON C AT LEESVILLE OH (LAT 40 26 44 LONG 081 11 49)										
AUG., 1973										
29...	.60	--	.08	250	130	632	7.9	398	--	23.0
03120500 - MCGUIRE C NR LEESVILLE OH (LAT 40 28 13 LONG 081 11 48)										
NOV., 1972										
21...	--	--	--	--	--	176	--	--	--	5.0
JAN., 1973										
15...	.90	--	--	82	--	171	7.6	--	--	2.5
MAR.										
12...	1.2	--	--	71	--	176	7.6	--	--	10.0
MAY										
10...	--	--	--	--	--	166	--	--	--	17.5
JULY										
10...	.70	--	--	190	--	177	7.7	--	--	19.5
SEP.										
25...	--	1.5	.01	--	--	186	8.0	--	140	17.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MUSKINGUM RIVER BASIN--CONTINUED											
03121500 - INDIAN F BL ATWOOD DAM NR NEW CUMBERLAND OH (LAT 40 31 31 LONG 081 17 18)											
NOV., 1972											
21...	1420	95	--	--	--	--	40	31	--	--	--
FEB., 1973											
09...	1450	81	--	--	--	--	41	29	--	--	--
MAR.											
12...	1425	79	--	--	--	--	--	--	--	--	--
MAY											
10...	1420	76	--	--	--	--	--	--	--	--	--
JULY											
12...	1350	9.9	--	--	--	--	36	24	--	--	--
SEP.											
25...	1235	8.1	24	7.1	65	0	38	30	--	.1	.00
03122500 - TUSCARAWAS R BL DOVER DAM NR DOVER OH (LAT 40 31 47 LONG 081 25 48)											
NOV., 1972											
14...	1150	3540	--	--	--	--	120	280	--	--	--
JAN., 1973											
09...	1345	1390	--	--	--	--	--	--	--	--	--
MAR.											
06...	1140	3310	--	--	--	--	110	200	--	--	--
MAY											
08...	1325	1420	--	--	--	--	--	--	--	--	--
JULY											
12...	1015	614	450	24	--	--	180	550	--	--	.00
SEP.											
21...	1450	408	180	24	175	0	180	670	--	1.3	.00
03123000 - SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24 LONG 081 34 37)											
NOV., 1972											
17...	1215	528	--	--	--	--	--	--	--	--	--
JAN., 1973											
12...	1030	107	--	--	--	--	86	27	--	--	--
MAR.											
09...	1110	264	--	--	--	--	--	--	--	--	--
15...	1320	2000	--	--	--	--	39	13	--	--	--
APR.											
18...	0950	488	--	--	--	--	--	--	--	--	--
MAY											
11...	1415	450	--	--	--	--	--	--	--	--	--
JULY											
11...	1025	134	--	--	--	--	65	18	--	--	--
SEP.											
10...	1115	23	61	18	195	0	72	56	--	.2	.00
03124000 - SUGAR C BL BEACH CITY DAM NR BEACH CITY OH (LAT 40 38 08 LONG 081 33 11)											
NOV., 1972											
17...	1510	1280	--	--	--	--	--	--	--	--	--
JAN., 1973											
12...	1350	189	--	--	--	--	200	25	--	--	--
FEB.											
02...	1430	918	--	--	--	--	--	--	--	--	--
MAR.											
09...	1430	533	--	--	--	--	140	22	--	--	--
MAY											
11...	1210	625	--	--	--	--	--	--	--	--	--
JULY											
11...	1515	316	--	--	--	--	220	28	--	--	--
SEP.											
10...	1445	32	61	40	144	0	250	45	--	.3	.01
03124500 - SUGAR C AT STRASBURG OH (LAT 40 35 15 LONG 081 31 24)											
OCT., 1972											
11...	1120	92	--	--	--	--	--	--	--	--	--
DEC.											
14...	1545	1080	--	--	--	--	100	22	--	--	--
FEB., 1973											
06...	1050	700	--	--	--	--	130	18	--	--	--
APR.											
10...	1520	865	--	--	--	--	--	--	--	--	--
JUNE											
14...	1505	184	--	--	--	--	--	--	--	--	.01
AUG.											
10...	1450	43	--	--	168	5	170	30	--	.3	.01

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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MUSKINGUM RIVER BASIN--CONTINUED

03121500 - INDIAN F BL ATWOOD DAM NR NEW CUMBERLAND OH (LAT 40 31 31 LONG 081 17 18)

NOV.. 1972										
21...	.40	--	--	100	--	280	8.0	--	--	5.0
FEB.. 1973										
09...	1.2	--	--	90	--	275	7.4	--	--	5.0
MAR..										
12...	--	--	--	--	--	266	--	--	--	10.5
MAY..										
10...	--	--	--	--	--	250	--	--	--	18.0
JULY										
12...	.80	--	--	91	--	258	7.0	--	--	22.0
SEP..										
25...	--	.53	.02	--	--	295	7.6	--	229	16.0

03122500 - TUSCARAWAS R BL DOVER DAM NR DOVER OH (LAT 40 31 47 LONG 081 25 48)

NOV.. 1972										
14...	2.3	--	--	340	--	1270	7.1	--	--	9.0
JAN.. 1973										
09...	--	--	--	--	--	1310	--	--	--	1.5
MAR..										
06...	2.4	--	--	330	--	1060	7.9	--	--	10.5
MAY..										
08...	--	--	--	--	--	1030	--	--	--	14.5
JULY										
12...	--	2.6	--	--	--	2150	8.5	--	--	21.5
SEP..										
21...	--	4.7	.36	--	--	2760	7.1	--	1810	15.5

03123000 - SUGAR C AB BEACH CITY DAM AT BEACH CITY OH (LAT 40 39 24 LONG 081 34 37)

NOV.. 1972										
17...	--	--	--	--	--	373	--	--	--	6.0
JAN.. 1973										
12...	4.0	--	--	230	--	497	8.4	--	--	1.5
MAR..										
09...	--	--	--	--	--	412	--	--	--	11.0
15...	2.5	--	--	86	--	223	7.5	--	--	13.5
APR..										
18...	--	--	--	--	--	343	--	--	--	12.5
MAY..										
11...	--	--	--	--	--	360	--	--	--	15.5
JULY										
11...	2.8	--	--	150	--	367	7.9	--	--	22.0
SEP..										
10...	--	1.5	.15	--	--	641	7.4	--	504	17.0

03124000 - SUGAR C BL BEACH CITY DAM NR BEACH CITY OH (LAT 40 38 08 LONG 081 33 11)

NOV.. 1972										
17...	--	--	--	--	--	384	--	--	--	6.0
JAN.. 1973										
12...	3.8	--	--	310	--	629	7.2	--	--	2.0
FEB..										
02...	--	--	--	--	--	355	--	--	--	4.5
MAR..										
09...	3.6	--	--	230	--	498	7.2	--	--	11.5
MAY..										
11...	--	--	--	--	--	510	--	--	--	17.0
JULY										
11...	2.1	--	--	310	--	666	7.9	--	--	22.5
SEP..										
10...	--	1.5	.08	--	--	860	7.1	--	646	16.5

03124500 - SUGAR C AT STRASBURG OH (LAT 40 35 15 LONG 081 31 24)

OCT.. 1972										
11...	--	--	--	--	--	756	--	--	--	14.0
DEC..										
14...	3.6	--	--	190	--	410	7.8	--	--	5.0
FEB.. 1973										
06...	4.1	--	--	210	--	455	7.5	--	--	5.5
APR..										
10...	--	--	--	--	--	495	--	--	--	8.0
JUNE										
14...	--	.20	--	--	--	674	7.3	--	--	27.0
AUG..										
10...	--	.83	.08	--	--	695	8.5	--	484	25.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MUSKINGUM RIVER BASIN--CONTINUED											
03125000 - HOME C NR NEW PHILADELPHIA OH (LAT 40 28 06 LONG 081 24 10)											
NOV., 1972											
22...	1440	1.4	--	--	--	--	--	--	--	--	--
JAN., 1973											
15...	1520	.45	--	--	--	--	320	14	--	--	--
MAR.											
06...	1410	3.0	--	--	--	--	180	23	--	--	--
MAY											
08...	1525	.80	--	--	--	--	--	--	--	--	--
JULY											
18...	1535	.04	--	--	--	--	380	25	--	--	--
SEP.											
27...	1015	.02	110	45	85	0	380	120	--	.2	.00
03126000 - STILLWATER C AT PIEDMONT OH (LAT 40 11 41 LONG 081 12 56)											
NOV., 1972											
16...	1005	153	--	--	--	--	440	12	--	--	--
JAN., 1973											
11...	1150	260	--	--	--	--	430	11	--	--	--
MAR.											
14...	1015	42	--	--	--	--	--	--	--	--	--
MAY											
14...	1150	375	--	--	--	--	--	--	--	--	--
JULY											
18...	1120	50	--	--	--	--	480	11	--	--	--
SEP.											
20...	1110	3.9	210	86	177	0	780	16	--	.3	.00
03127000 - STILLWATER C AT TIPPECANOE OH (LAT 40 16 13 LONG 081 17 26)											
NOV., 1972											
09...	1215	678	--	--	--	--	220	9.8	--	--	--
16...	1425	442	--	--	--	--	--	--	--	--	--
JAN., 1973											
11...	1450	644	--	--	--	--	350	8.8	--	--	--
MAR.											
14...	1430	108	--	--	--	--	--	--	--	--	--
MAY											
14...	1520	800	--	--	--	--	--	--	--	--	--
JULY											
18...	1420	55	--	--	--	--	--	--	--	--	--
SEP.											
20...	1525	9.6	180	67	169	0	590	17	--	.2	.00
03127500 - STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10 LONG 081 20 50)											
OCT., 1972											
11...	1415	61	--	--	--	--	--	--	--	--	--
DEC.											
14...	1110	950	--	--	--	--	250	19	--	--	--
FEB., 1973											
06...	1545	1110	--	--	--	--	240	16	--	--	--
APR.											
10...	1040	1200	--	--	--	--	--	--	--	--	--
JUNE											
14...	1050	235	--	--	--	--	340	39	--	--	--
AUG.											
10...	1120	37	150	54	140	2	490	89	--	.2	.00
03128500 - L STILLWATER C BL TAPPAN DAM AT TAPPAN OH (LAT 40 21 25 LONG 081 13 49)											
OCT., 1972											
18...	1510	6.8	--	--	83	0	280	9.1	.2	--	--
DEC.											
11...	1535	349	--	--	--	--	260	9.0	--	--	--
FEB., 1973											
09...	1215	384	--	--	--	--	240	8.9	--	--	--
APR.											
09...	1525	84	--	--	--	--	--	--	--	--	--
JUNE											
11...	1510	48	--	--	--	--	230	6.0	--	--	--
AUG.											
07...	1515	3.0	57	30	141	2	210	7.9	--	.2	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

405

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
MUSKINGUM RIVER BASIN--CONTINUED										
03125000 - HOME C NR NEW PHILADELPHIA OH (LAT 40 28 06 LONG 081 24 10)										
NOV., 1972	--	--	--	--	--	579	--	--	--	5.0
22...	--	--	--	--	--	579	--	--	--	5.0
JAN., 1973	1.2	--	--	360	--	721	6.9	--	--	1.5
15...	1.2	--	--	360	--	721	6.9	--	--	1.5
MAR.	1.6	--	--	230	--	512	7.6	--	--	15.0
06...	1.6	--	--	230	--	512	7.6	--	--	15.0
MAY	--	--	--	--	--	694	--	--	--	15.0
08...	--	--	--	--	--	694	--	--	--	15.0
JULY	1.5	--	--	510	--	994	7.2	--	--	24.0
18...	1.5	--	--	510	--	994	7.2	--	--	24.0
SEP.	--	2.1	.09	--	--	1250	6.9	--	959	16.5
27...	--	2.1	.09	--	--	1250	6.9	--	959	16.5
03126000 - STILLWATER C AT PIEDMONT OH (LAT 40 11 41 LONG 081 12 56)										
NOV., 1972	.60	--	--	550	--	957	8.1	--	--	7.0
16...	.60	--	--	550	--	957	8.1	--	--	7.0
JAN., 1973	.66	--	--	560	--	994	7.2	--	--	2.0
11...	.66	--	--	560	--	994	7.2	--	--	2.0
MAR.	--	--	--	--	--	1250	--	--	--	13.0
14...	--	--	--	--	--	1250	--	--	--	13.0
MAY	--	--	--	--	--	911	--	--	--	15.5
14...	--	--	--	--	--	911	--	--	--	15.5
JULY	.60	--	--	640	--	1100	8.2	--	--	20.0
18...	.60	--	--	640	--	1100	8.2	--	--	20.0
SEP.	--	.66	.04	--	--	1560	8.1	--	1390	16.5
20...	--	.66	.04	--	--	1560	8.1	--	1390	16.5
03127000 - STILLWATER C AT TIPPECANOE OH (LAT 40 16 13 LONG 081 17 26)										
NOV., 1972	.80	--	--	290	--	578	8.0	--	--	9.0
09...	.80	--	--	290	--	578	8.0	--	--	9.0
16...	--	--	--	--	--	686	--	--	--	7.0
JAN., 1973	.72	--	--	460	--	833	7.3	--	--	2.5
11...	.72	--	--	460	--	833	7.3	--	--	2.5
MAR.	--	--	--	--	--	729	--	--	--	12.0
14...	--	--	--	--	--	729	--	--	--	12.0
MAY	--	--	--	--	--	752	--	--	--	16.0
14...	--	--	--	--	--	752	--	--	--	16.0
JULY	--	--	--	--	--	1090	--	--	--	22.0
18...	--	--	--	--	--	1090	--	--	--	22.0
SEP.	--	.80	.05	--	--	1280	7.9	--	1130	16.0
20...	--	.80	.05	--	--	1280	7.9	--	1130	16.0
03127500 - STILLWATER C AT UHRICHSVILLE OH (LAT 40 23 10 LONG 081 20 50)										
OCT., 1972	--	--	--	--	--	1140	--	--	--	14.0
11...	--	--	--	--	--	1140	--	--	--	14.0
DEC.	.80	--	--	330	--	650	7.3	--	--	5.0
14...	.80	--	--	330	--	650	7.3	--	--	5.0
FEB., 1973	.86	--	--	330	--	662	7.3	--	--	5.5
06...	.86	--	--	330	--	662	7.3	--	--	5.5
APR.	--	--	--	--	--	589	--	--	--	7.0
10...	--	--	--	--	--	589	--	--	--	7.0
JUNE	1.2	--	--	450	--	920	7.8	--	--	25.0
14...	1.2	--	--	450	--	920	7.8	--	--	25.0
AUG.	--	.68	.05	--	--	1350	8.4	--	1070	24.5
10...	--	.68	.05	--	--	1350	8.4	--	1070	24.5
03128500 - L STILLWATER C BL TAPPAN DAM AT TAPPAN OH (LAT 40 21 25 LONG 081 13 49)										
OCT., 1972	.70	--	.03	360	290	675	8.0	494	--	9.0
18...	.70	--	.03	360	290	675	8.0	494	--	9.0
DEC.	.70	--	--	350	--	661	7.3	--	--	5.0
11...	.70	--	--	350	--	661	7.3	--	--	5.0
FEB., 1973	.75	--	--	320	--	627	7.7	--	--	5.0
09...	.75	--	--	320	--	627	7.7	--	--	5.0
APR.	--	--	--	--	--	580	--	--	--	8.0
09...	--	--	--	--	--	580	--	--	--	8.0
JUNE	.40	--	--	330	--	622	7.2	--	--	23.0
11...	.40	--	--	330	--	622	7.2	--	--	23.0
AUG.	--	2.0	.24	--	--	651	8.6	--	508	18.5
07...	--	2.0	.24	--	--	651	8.6	--	508	18.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MUSKINGUM RIVER BASIN--CONTINUED											
03129100 - WHITE EYES C NR FRESNO OH (LAT 40 18 17 LONG 081 45 01)											
AUG., 1973											
28...	1340	5.7	--	--	103	0	83	14	--	.2	.00
03130000 - BLACK F BL CHARLES MILL DAM NR MIFFLIN OH (LAT 40 44 16 LONG 082 21 48)											
JAN., 1973											
17...	1510	194	--	--	--	--	75	20	--	--	--
MAR.											
09...	1400	400	--	--	--	--	67	23	--	--	--
MAY											
14...	1355	228	--	--	--	--	--	--	--	--	--
JUNE											
17...	0930	225	--	--	185	0	59	37	.3	--	--
25...	1600	822	--	--	135	0	39	16	.3	--	--
JULY											
23...	1430	275	--	--	--	--	52	15	--	--	--
SEP.											
21...	1250	17	--	--	161	0	57	17	--	.3	.00
03130500 - TOUBY RN AT MANSFIELD OH (LAT 40 45 53 LONG 082 32 43)											
NOV., 1972											
21...	1100	7.8	--	--	--	--	--	--	--	--	--
JAN., 1973											
15...	1255	1.4	--	--	--	--	95	920	--	--	--
MAR.											
12...	1100	8.4	--	--	--	--	68	59	--	--	--
MAY											
15...	1135	2.8	--	--	--	--	--	--	--	--	--
JULY											
23...	1215	1.0	98	22	--	--	110	80	--	--	.00
SEP.											
27...	1235	.62	--	--	317	0	130	220	--	.4	.00
03132000 - CLEAR F AT BUTLER OH (LAT 40 35 37 LONG 082 25 20)											
NOV., 1972											
22...	1500	224	--	--	--	--	--	--	--	--	--
JAN., 1973											
17...	1325	87	--	--	--	--	--	35	15	--	--
MAR.											
08...	1500	175	--	--	--	--	--	37	15	--	--
MAY											
10...	1440	129	--	--	--	--	--	--	--	--	--
JULY											
24...	1415	71	--	--	--	--	--	32	16	--	--
SEP.											
14...	1400	32	--	--	--	241	0	35	17	.1	.00
03133500 - CLEAR F BL PLEASANT HILL DAM NR PERRYVILLE OH (LAT 40 37 13 LONG 082 19 28)											
NOV., 1972											
24...	1130	762	--	--	--	--	--	--	--	--	--
JAN., 1973											
17...	1110	138	--	--	--	--	--	32	14	--	--
MAR.											
09...	1030	34	--	--	--	--	--	32	14	--	--
MAY											
11...	1200	482	--	--	--	--	--	--	--	--	--
JULY											
20...	1320	72	--	--	--	--	--	29	12	--	--
SEP.											
20...	1340	34	--	--	--	178	0	50	20	.1	.00
03134300 - MUDDY F NR ROWSBURG OH (LAT 40 50 10 LONG 082 08 16)											
AUG., 1973											
29...	1415	4.1	44	20	173	2	88	57	.2	.00	

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

407

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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MUSKINGUM RIVER BASIN--CONTINUED

03129100 - WHITE EYES C NR FRESNO OH (LAT 40 18 17 LONG 081 45 01)

AUG., 1973										
28...	--	.10	.00	--	--	392	8.3	--	282	23.5

03130000 - BLACK F BL CHARLES MILL DAM NR MIFFLIN OH (LAT 40 44 16 LONG 082 21 48)

JAN., 1973										
17...	1.8	--	--	250	--	511	7.6	--	--	3.0
MAR.										
09...	2.3	--	--	210	--	447	7.8	--	--	9.0
MAY										
14...	--	--	--	--	--	464	--	--	--	15.5
JUNE										
17...	1.9	--	--	220	68	515	--	310	--	22.0
25...	2.1	--	--	160	50	342	--	202	--	23.0
JULY										
23...	.37	--	--	190	--	396	7.8	--	--	24.0
SEP.										
21...	--	.80	.08	--	--	422	7.6	--	292	18.0

03130500 - TOUBY RN AT MANSFIELD OH (LAT 40 45 53 LONG 082 32 43)

NOV., 1972										
21...	--	--	--	--	--	523	--	--	--	5.5
JAN., 1973										
15...	2.2	--	--	410	--	3240	7.4	--	--	.5
MAR.										
12...	1.2	--	--	200	--	547	7.5	--	--	8.0
MAY										
15...	--	--	--	--	--	667	--	--	--	11.0
JULY										
23...	--	.97	--	--	--	796	8.4	--	--	20.5
SEP.										
27...	--	.76	.35	--	--	1390	8.2	--	904	18.5

03132000 - CLEAR F AT BUTLER OH (LAT 40 35 37 LONG 082 25 20)

NOV., 1972										
22...	--	--	--	--	--	365	--	--	--	6.0
JAN., 1973										
17...	1.1	--	--	220	--	431	8.1	--	--	4.5
MAR.										
08...	1.2	--	--	170	--	360	8.3	--	--	10.0
MAY										
10...	--	--	--	--	--	376	--	--	--	15.0
JULY										
24...	.85	--	--	220	--	424	8.4	--	--	--
SEP.										
14...	--	1.0	.13	--	--	495	7.9	--	302	15.5

03133500 - CLEAR F BL PLEASANT HILL DAM NR PERRYVILLE OH (LAT 40 37 13 LONG 082 19 28)

NOV., 1972										
24...	--	--	--	--	--	308	--	--	--	4.5
JAN., 1973										
17...	1.4	--	--	180	--	354	8.4	--	--	2.5
MAR.										
09...	1.3	--	--	180	--	350	8.1	--	--	6.0
MAY										
11...	--	--	--	--	--	283	--	--	--	14.5
JULY										
20...	.51	--	--	160	--	322	8.3	--	--	24.0
SEP.										
20...	--	.61	.02	--	--	371	8.2	--	223	18.0

03134300 - MUDDY F NR ROWSBURG OH (LAT 40 50 10 LONG 082 08 16)

AUG., 1973										
29...	--	.99	.05	--	--	636	8.5	--	484	24.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
MUSKINGUM RIVER BASIN--CONTINUED											
03135000 - LAKE F BL MOHICANVILLE DAM NR MOHICANVILLE OH (LAT 40 43 24 LONG 082 09 18)											
NOV., 1972											
22...	1230	890	--	--	--	--	--	--	--	--	--
JAN., 1973											
16...	1110	142	--	--	--	--	74	29	--	--	--
MAR.											
13...	1120	518	--	--	--	--	66	26	--	--	--
MAY											
14...	1215	176	--	--	--	--	--	--	--	--	--
JULY											
19...	1430	44	--	--	--	--	72	34	--	--	--
SEP.											
24...	1240	41	55	16	173	0	66	34	--	.3	.01
03136000 - MOHICAN R AT GREER OH (LAT 40 30 53 LONG 082 11 44)											
NOV., 1972											
20...	1150	3570	--	--	--	--	46	15	--	--	--
JAN., 1973											
12...	1315	1100	--	--	--	--	--	--	--	--	--
MAR.											
07...	1550	1600	--	--	--	--	64	27	--	--	--
MAY											
09...	1515	1140	--	--	--	--	--	--	--	--	--
JULY											
19...	1215	336	--	--	--	--	53	22	--	--	--
SEP.											
19...	1100	201	--	--	214	0	52	31	--	.2	.01
03136500 - KOKOSING R AT MOUNT VERNON OH (LAT 40 24 20 LONG 082 30 00)											
OCT., 1972											
17...	1445	131	--	--	241	0	43	17	.2	--	--
DEC.											
17...	1600	303	--	--	--	--	43	16	--	--	--
FEB., 1973											
05...	1300	400	--	--	--	--	--	--	--	--	--
APR.											
10...	1415	814	--	--	--	--	35	13	--	--	--
JUNE											
05...	1100	294	--	--	--	--	35	22	--	--	--
JULY											
31...	1000	170	--	--	--	--	--	--	--	--	--
SEP.											
18...	1100	43	--	--	271	0	55	18	--	.3	.00
03137000 - KOKOSING R AT MILLWOOD OH (LAT 40 23 51 LONG 082 17 09)											
OCT., 1972											
25...	1345	337	--	--	213	0	38	19	.2	--	--
DEC.											
19...	1115	627	--	--	--	--	36	16	--	--	--
FEB., 1973											
08...	1300	740	--	--	--	--	--	--	--	--	--
APR.											
06...	1230	1270	--	--	--	--	33	12	--	--	--
JUNE											
07...	1230	1260	--	--	--	--	27	16	--	--	--
JULY											
30...	1530	366	--	--	--	--	--	--	--	--	--
SEP.											
19...	1030	95	--	--	245	0	40	24	--	.3	.00
20...	1030	91	28	20	245	0	40	24	--	.3	.00
03138500 - WALHONDING R BL MOHAWK DAM AT NELLIE OH (LAT 40 20 29 LONG 082 03 56)											
NOV., 1972											
17...	1530	5930	--	--	--	--	--	--	--	--	--
JAN., 1973											
12...	1150	1400	--	--	--	--	53	21	--	--	--
MAR.											
07...	1220	2550	--	--	--	--	56	27	--	--	--
MAY											
08...	1415	1480	--	--	--	--	--	--	--	--	--
JULY											
16...	1420	796	51	17	--	--	43	20	--	--	.00
SEP.											
19...	1340	294	--	--	219	0	61	28	--	.3	.00
03138800 - KILLBUCK C AT WOOSTER OH (LAT 40 48 03 LONG 081 58 30)											
AUG., 1973											
29...	1310	7.5	--	--	208	14	110	28	.5	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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MUSKINGUM RIVER BASIN--CONTINUED

03135000 - LAKE F BL MOHICANVILLE DAM NR MOHICANVILLE OH (LAT 40 43 24 LONG 082 09 18)

NOV., 1972										
22...	--	--	--	--	--	386	--	--	--	4.5
JAN., 1973										
16...	2.8	--	--	250	--	521	7.6	--	--	.5
MAR.										
13...	2.3	--	--	190	--	430	8.2	--	--	8.0
MAY										
14...	--	--	--	--	--	460	--	--	--	13.0
JULY										
19...	2.0	--	--	270	--	604	7.8	--	--	--
SEP.										
24...	--	2.0	.45	--	--	509	7.2	--	359	15.5

03136000 - MOHICAN R AT GREER OH (LAT 40 30 53 LONG 082 11 44)

NOV., 1972										
20...	1.9	--	--	160	--	344	8.0	--	--	5.5
JAN., 1973										
12...	--	--	--	--	--	448	--	--	--	.5
MAR.										
07...	2.2	--	--	190	--	442	7.9	--	--	9.5
MAY										
09...	--	--	--	--	--	411	--	--	--	16.0
JULY										
19...	1.1	--	--	220	--	444	8.4	--	--	20.5
SEP.										
19...	--	1.9	.19	--	--	530	7.7	--	335	13.0

03136500 - KOKOSING R AT MOUNT VERNON OH (LAT 40 24 20 LONG 082 30 00)

OCT., 1972										
17...	.60	--	.00	270	72	484	8.1	280	--	17.5
DEC.										
17...	1.6	--	--	240	--	425	7.9	--	--	1.0
FEB., 1973										
05...	--	--	--	--	--	377	--	--	--	4.5
APR.										
10...	1.6	--	--	160	--	333	7.8	--	--	6.0
JUNE										
05...	1.0	--	--	210	--	408	8.5	--	--	20.5
JULY										
31...	--	--	--	--	--	439	--	--	--	20.0
SEP.										
18...	--	.77	.01	--	--	548	8.3	--	319	18.0

03137000 - KOKOSING R AT MILLWOOD OH (LAT 40 23 51 LONG 082 17 09)

OCT., 1972										
25...	.90	--	.16	220	46	448	7.8	264	--	10.0
DEC.										
19...	2.2	--	--	190	--	380	7.8	--	--	3.0
FEB., 1973										
08...	--	--	--	--	--	359	--	--	--	3.5
APR.										
06...	2.0	--	--	150	--	316	7.8	--	--	9.5
JUNE										
07...	1.6	--	--	160	--	314	7.3	--	--	19.5
JULY										
30...	--	--	--	--	--	387	--	--	--	23.0
SEP.										
19...	--	1.1	.13	--	--	530	8.2	--	338	13.0
20...	--	1.1	.13	--	--	530	8.2	--	338	13.0

03138500 - WALHONDING R BL MOHAWK DAM AT NELLIE OH (LAT 40 20 29 LONG 082 03 56)

NOV., 1972										
17...	--	--	--	--	--	325	--	--	--	--
JAN., 1973										
12...	2.3	--	--	210	--	434	7.9	--	--	1.0
MAR.										
07...	2.1	--	--	180	--	414	8.1	--	--	9.5
MAY										
08...	--	--	--	--	--	403	--	--	--	14.5
JULY										
16...	--	1.3	--	--	--	431	8.7	--	--	24.0
SEP.										
19...	--	1.5	.13	--	--	540	8.0	--	321	17.0

03138800 - KILLBUCK C AT WOOSTER OH (LAT 40 48 03 LONG 081 58 30)

AUG., 1973										
29...	.60	--	.08	300	100	624	8.6	400	--	25.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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MUSKINGUM RIVER BASIN--CONTINUED

03139000 - KILLBUCK C AT KILLBUCK OH (LAT 40 29 41 LONG 081 59 12)

NOV., 1972											
14...	1330	2050	--	--	--	--	--	--	--	--	--
JAN., 1973											
11...	1220	359	--	--	--	--	61	26	--	--	--
MAR.											
06...	1145	974	--	--	--	--	42	18	--	--	--
MAY											
09...	1215	515	--	--	--	--	--	--	--	--	--
JULY											
17...	1355	178	--	--	--	--	46	19	--	--	--
AUG.											
29...	1125	82	--	--	--	--	--	--	--	--	--
SEP.											
11...	1130	947	--	--	186	0	50	21	--	.6	.00

03140000 - MILL C NR COSHOCTON OH (LAT 40 21 46 LONG 081 51 45)

NOV., 1972											
13...	1400	28	--	--	--	--	--	--	--	--	--
JAN., 1973											
04...	1145	125	--	--	--	--	42	6.5	--	--	--
11...	1520	18	--	--	--	--	--	--	--	--	--
MAR.											
05...	1440	127	--	--	--	--	57	12	--	--	--
MAY											
07...	1430	26	--	--	--	--	--	--	--	--	--
JULY											
18...	1130	3.2	--	--	--	--	60	14	--	--	--
AUG.											
31...	1400	3.4	--	--	--	--	--	--	--	--	--
SEP.											
11...	1415	1.7	39	10	122	0	53	13	--	.3	.00

03140500 - MUSKINGUM R NR COSHOCTON OH (LAT 40 14 54 LONG 081 52 23)

NOV., 1972											
01...	1230	2870	--	--	--	--	--	--	--	--	--
JAN., 1973											
02...	1230	6820	--	--	--	--	110	88	--	--	--
MAR.											
01...	1045	4230	--	--	--	--	120	140	--	--	--
MAY											
01...	1250	11800	--	--	--	--	--	--	--	--	--
JULY											
02...	1430	3120	--	--	--	--	110	74	--	--	--
AUG.											
31...	1400	1340	69	24	147	0	130	190	--	.4	.20

03140700 - BUFFALO F AT PLEASANT CITY OH (LAT 39 54 15 LONG 081 33 14)

AUG., 1973											
29...	1330	7.3	--	--	130	0	1200	20	.6	--	--

03140800 - BUFFALO C AT PLEASANT CITY OH (LAT 39 54 10 LONG 081 33 03)

AUG., 1973											
29...	1245	.28	--	--	164	0	160	34	.4	--	--

03141500 - SENECA F BL SENECAVILLE DAM NR SENECAVILLE OH (LAT 39 55 28 LONG 081 26 17)

OCT., 1972											
19...	1000	3.2	--	--	--	--	--	--	--	--	--
DEC.											
15...	1050	621	--	--	--	--	120	12	--	--	--
FEB., 1973											
08...	1340	546	--	--	--	--	70	6.5	--	--	--
APR.											
17...	1320	290	--	--	--	--	--	--	--	--	--
JUNE											
13...	1425	136	--	--	--	--	68	6.0	--	--	--
AUG.											
09...	1205	4.0	43	12	144	0	59	3.7	--	.2	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
MUSKINGUM RIVER BASIN--CONTINUED										
03139000 - KILLBUCK C AT KILLBUCK OH (LAT 40 29 41 LONG 081 59 12)										
NOV., 1972										
14...	--	--	--	--	--	260	--	--	--	7.0
JAN., 1973										
11...	3.1	--	--	210	--	461	7.5	--	--	.5
MAR.										
06...	1.9	--	--	120	--	275	7.2	--	--	9.0
MAY										
09...	--	--	--	--	--	371	--	--	--	14.5
JULY										
17...	.80	--	--	190	--	407	8.1	--	--	21.0
AUG.										
29...	--	--	--	--	--	459	--	--	--	23.5
SEP.										
11...	--	1.3	.11	--	--	458	7.6	--	390	16.5
03140000 - MILL C NR COSHOCTON OH (LAT 40 21 46 LONG 081 51 45)										
NOV., 1972										
13...	--	--	--	--	--	269	--	--	--	8.0
JAN., 1973										
04...	2.2	--	--	80	--	201	7.2	--	--	5.0
11...	--	--	--	--	--	276	--	--	--	.0
MAR.										
05...	2.2	--	--	100	--	255	7.2	--	--	9.0
MAY										
07...	--	--	--	--	--	264	--	--	--	15.5
JULY										
18...	.40	--	--	160	--	338	7.7	--	--	19.5
AUG.										
31...	--	--	--	--	--	339	--	--	--	22.5
SEP.										
11...	--	.51	.02	--	--	350	7.4	--	227	17.0
03140500 - MUSKINGUM R NR COSHOCTON OH (LAT 40 14 54 LONG 081 52 23)										
NOV., 1972										
01...	--	--	--	--	--	1030	--	--	--	10.0
JAN., 1973										
02...	2.1	--	--	270	--	683	7.5	--	--	4.5
MAR.										
01...	1.9	--	--	300	--	880	7.4	--	--	4.5
MAY										
01...	--	--	--	--	--	404	--	--	--	13.0
JULY										
02...	1.5	--	--	280	--	682	8.1	--	--	23.0
AUG.										
31...	--	.12	.08	--	--	1110	7.2	--	705	--
03140700 - BUFFALO F AT PLEASANT CITY OH (LAT 39 54 15 LONG 081 33 14)										
AUG., 1973										
29...	.80	--	.04	1400	1290	2000	7.0	1920	--	25.0
03140800 - BUFFALO C AT PLEASANT CITY OH (LAT 39 54 10 LONG 081 33 03)										
AUG., 1973										
29...	.20	--	.06	310	170	645	7.4	432	--	26.0
03141500 - SENECA F BL SENECAVILLE DAM NR SENECAVILLE OH (LAT 39 55 28 LONG 081 26 17)										
OCT., 1972										
19...	--	--	--	--	--	366	--	--	--	10.0
DEC.										
15...	.50	--	--	220	--	465	7.7	--	--	5.5
FEB., 1973										
08...	.59	--	--	200	--	379	8.5	--	--	5.0
APR.										
17...	--	--	--	--	--	388	--	--	--	6.5
JUNE										
13...	.80	--	--	190	--	386	7.9	--	--	26.0
AUG.										
09...	--	.71	.08	--	--	373	7.5	--	262	24.5
03141900 - LEATHERWOOD C NR CAMBRIDGE OH (LAT 40 01 18 LONG 081 32 51)										
AUG., 1973										
29...	.40	--	.06	420	270	965	7.2	760	--	25.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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MUSKINGUM RIVER BASIN--CONTINUED

03142000 - WILLS C AT CAMBRIDGE OH (LAT 40 00 52 LONG 081 35 14)

OCT., 1972											
19...	1335	41	--	--	--	--	--	--	--	--	--
DEC.											
15...	1420	1160	--	--	--	--	120	12	--	--	--
FEB., 1973											
12...	1140	470	--	--	--	--	180	12	--	--	--
APR.											
11...	1445	1450	--	--	--	--	--	--	--	--	--
JUNE											
07...	1135	736	58	20	--	--	150	7.5	--	--	.00
AUG.											
13...	1440	22	--	--	--	--	--	--	--	--	--

03142295 - SALT F BL SALT F DAM NR CAMBRIDGE OH (LAT 40 06 15 LONG 081 33 15)

OCT., 1972											
03...	1140	37	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1115	252	--	--	--	--	64	9.3	--	--	--
MAR.											
20...	1250	434	--	--	--	--	110	9.8	--	--	--
JUNE											
28...	1215	74	--	--	--	--	67	6.0	--	--	--
JULY											
03...	1225	58	--	--	--	--	--	--	--	--	--
AUG.											
09...	1435	13	--	--	--	--	--	--	--	--	--
13...	1050	8.8	--	--	--	--	--	--	--	--	--

03143500 - WILLS C BL WILLS C DAM AT WILLS CREEK OH (LAT 40 09 34 LONG 081 50 51)

NOV., 1972											
17...	1140	2260	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1610	1230	--	--	--	--	120	13	--	--	--
MAR.											
06...	1520	917	--	--	--	--	160	17	--	--	--
MAY											
07...	1235	2130	--	--	--	--	--	--	--	--	--
JULY											
13...	1540	273	48	28	--	--	220	25	--	--	.00
SEP.											
10...	1445	41	72	33	107	0	280	30	--	.4	.00

03144000 - WAKATOMIKA C NR FRAZEYSBURG OH (LAT 40 07 57 LONG 082 08 53)

OCT., 1972											
20...	1300	37	--	--	--	--	--	--	--	--	--
DEC.											
19...	1300	206	--	--	--	--	26	34	--	--	--
FEB., 1973											
07...	1430	260	--	--	--	--	--	--	--	--	--
APR.											
05...	1330	592	--	--	--	--	27	29	--	--	--
JUNE											
07...	0900	105	--	--	--	--	20	34	--	--	--
JULY											
30...	1300	26	--	--	--	--	--	--	--	--	--
SEP.											
19...	1300	10	29	11	131	1	18	43	--	.1	.00

03145000 - S F LICKING R NR HEBRON OH (LAT 39 59 19 LONG 082 28 30)

OCT., 1972											
25...	1545	42	--	--	252	0	69	36	.2	--	--
FEB., 1973											
08...	1600	126	--	--	--	--	--	--	--	--	--
APR.											
02...	1505	217	--	--	--	--	54	20	--	--	--
JULY											
24...	1225	188	--	--	--	--	44	18	--	--	--
SEP.											
21...	1345	13	40	18	188	0	54	34	--	.4	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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MUSKINGUM RIVER BASIN--CONTINUED

03142000 - WILLS C AT CAMBRIDGE OH (LAT 40 00 52 LONG 081 35 14)

OCT., 1972	--	--	--	--	--	968	--	--	--	9.0
DEC. 19...	--	--	--	--	--	--	--	--	--	--
FEB., 1973	.60	--	--	220	--	462	8.1	--	--	6.0
12...	.52	--	--	290	--	580	7.8	--	--	2.0
APR. 11...	--	--	--	--	--	452	--	--	--	7.5
JUNE 07...	--	.51	--	--	--	520	8.6	--	--	22.0
AUG. 13...	--	--	--	--	--	1150	--	--	--	24.0

03142295 - SALT F BL SALT F DAM NR CAMBRIDGE OH (LAT 40 06 15 LONG 081 33 15)

OCT., 1972	--	--	--	--	--	276	--	--	--	15.0
JAN., 1973	--	--	--	--	--	--	--	--	--	--
09...	.80	--	--	130	--	281	7.9	--	--	1.0
MAR. 20...	.81	--	--	110	--	261	7.6	--	--	8.0
JUNE 28...	.30	--	--	120	--	269	7.9	--	--	--
JULY 03...	--	--	--	--	--	269	--	--	--	24.5
AUG. 09...	--	--	--	--	--	276	--	--	--	24.5
13...	--	--	--	--	--	274	--	--	--	24.0

03143500 - WILLS C BL WILLS C DAM AT WILLS CREEK OH (LAT 40 09 34 LONG 081 50 51)

NOV., 1972	--	--	--	--	--	381	--	--	--	8.0
JAN., 1973	--	--	--	--	--	--	--	--	--	--
09...	.90	--	--	180	--	400	8.1	--	--	1.0
MAR. 06...	.72	--	--	240	--	514	7.2	--	--	9.0
MAY 07...	--	--	--	--	--	389	--	--	--	14.0
JULY 13...	--	.76	--	--	--	661	7.7	--	--	26.0
SEP. 10...	--	.50	.17	--	--	818	7.3	--	660	24.0

03144000 - WAKATOMIKA C NR FRAZEYSBURG OH (LAT 40 07 57 LONG 082 08 53)

OCT., 1972	--	--	--	--	--	398	--	--	--	6.0
DEC. 19...	1.5	--	--	110	--	252	7.6	--	--	3.0
FEB., 1973	--	--	--	--	--	241	--	--	--	4.0
APR. 05...	1.6	--	--	74	--	224	7.0	--	--	8.5
JUNE 07...	.80	--	--	110	--	286	7.2	--	--	18.0
JULY 30...	--	--	--	--	--	365	--	--	--	23.0
SEP. 19...	--	.36	.01	--	--	376	8.5	--	258	15.0

03145000 - S F LICKING R NR HEBRON OH (LAT 39 59 19 LONG 082 28 30)

OCT., 1972	--	--	--	--	--	--	--	--	--	--
DEC. 25...	.80	--	21	280	73	585	7.9	360	--	10.0
FEB., 1973	--	--	--	--	--	469	--	--	--	3.0
APR. 02...	2.3	--	--	190	--	409	8.1	--	--	11.0
JULY 24...	2.1	--	--	190	--	381	7.4	--	--	24.5
SEP. 21...	--	2.6	.47	--	--	530	8.2	--	448	16.0

[illegible]

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
MUSKINGUM RIVER BASIN--CONTINUED										
03146250 - N F LICKING R AB NEWARK OH (LAT 40 06 19 LONG 082 25 02)										
SEP., 1973 12...	--	.27	.00	--	--	531	8.2	--	367	21.0
03148450 - JONATHAN C AT E FULTONHAM OH (LAT 39 51 20 LONG 082 07 35)										
SEP., 1973 13...	.40	--	.01	360	200	693	8.2	456	--	16.0
03148600 - MOXAMALA C NR ZANESVILLE OH (LAT 39 53 48 LONG 082 00 20)										
SEP., 1973 13...	--	.26	.01	--	--	2120	3.1	--	1870	19.0
03149500 - SALT C NR CHANDLERSVILLE OH (LAT 39 54 31 LONG 081 51 38)										
SEP., 1973 13...	--	.21	.01	--	--	459	7.5	--	313	20.0
03150250 - MEIGS C NR BEVERLY OH (LAT 39 36 00 LONG 081 42 42)										
OCT., 1972 19...	--	--	--	--	--	1230	--	--	--	19.5
DEC. 20...	.50	--	--	330	--	537	7.9	--	--	3.5
JAN., 1973 03...	--	--	--	--	--	1410	--	--	--	19.0
FEB. 06...	.38	--	--	400	--	759	7.9	--	--	5.0
JULY 26...	.30	--	--	460	--	820	7.7	--	--	25.0
SEP. 20...	--	.41	.00	--	--	1510	7.7	--	1410	--
03150480 - W B WOLF C NR WATERFORD OH (LAT 39 31 43 LONG 081 39 22)										
AUG., 1973 30...	--	.23	.03	--	--	387	7.0	--	265	29.0
03150490 - S B WOLF C NR WATERFORD OH (LAT 39 31 28 LONG 081 39 31)										
AUG., 1973 30...	--	.22	.04	--	--	387	8.4	--	246	26.0
LITTLE HOCKING RIVER BASIN										
03155800 - L HOCKING R NR L HOCKING OH (LAT 39 17 38 LONG 081 41 17)										
AUG., 1973 30...	.30	--	.04	130	22	312	7.2	164	--	25.5
HOCKING RIVER BASIN										
03156000 - HUNTERS RN AT LANCASTER OH (LAT 39 41 57 LONG 082 37 18)										
DEC., 1972 06...	2.8	--	--	200	--	396	8.0	--	--	8.0
28...	--	--	--	--	--	487	--	--	--	5.0
FEB., 1973 21...	--	--	--	--	--	549	--	--	--	1.0
APR. 19...	1.6	--	--	280	--	527	7.8	--	--	13.0
JUNE 14...	--	--	--	--	--	579	--	--	--	17.0
18...	3.0	--	--	220	--	410	7.3	--	--	19.0
AUG. 07...	--	--	--	--	--	382	--	--	--	23.0
29...	--	--	--	--	--	519	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES. WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL	TOTAL	TOTAL	BICAR-	CAR-	DIS-	DIS-	SOLVED	FLUO-	TOTAL
			MAG- CIUM (CA) (MG/L)	MAG- SIUM (MG) (MG/L)	MAG- BONATE (HCO3) (MG/L)	MAG- BONATE (CO3) (MG/L)	MAG- SULFATE (SO4) (MG/L)	MAG- CHLO- RIDE (CL) (MG/L)	MAG- SOLVED FLUO- RIDE (F) (MG/L)	MAG- FLUO- RIDE (F) (MG/L)	MAG- NITRITE (N) (MG/L)	
HOCKING RIVER BASIN--CONTINUED												
03156400 - HOCKING R AT LANCASTER OH (LAT 39 42 24 LONG 082 36 03)												
NOV., 1972												
02...	1040	225	--	--	--	--	--	--	--	--	--	--
DEC.												
28...	1235	56	--	--	--	--	63	17	--	--	--	--
FEB., 1973												
28...	1430	28	--	--	--	--	--	--	--	--	--	--
MAR.												
16...	1545	63	--	--	--	--	50	25	--	--	--	--
APR.												
20...	1055	47	--	--	--	--	--	--	--	--	--	--
JUNE												
14...	1140	24	--	--	--	--	59	29	--	--	--	--
AUG.												
07...	1415	21	--	--	--	--	--	--	--	--	--	--
03156700 - RUSH C NR SUGAR GROVE OH (LAT 39 38 18 LONG 082 30 42)												
SEP., 1973												
13...	0910	20	--	--	27	0	410	49	--	--	.4	.01
03157000 - CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18 LONG 082 34 43)												
MAR., 1973												
01...	--	60	--	--	--	--	--	--	--	--	--	--
APR.												
20...	1245	112	--	--	--	--	40	8.6	--	--	--	--
JUNE												
11...	1050	55	--	--	--	--	33	8.0	--	--	--	--
AUG.												
07...	1300	27	--	--	--	--	--	--	--	--	--	--
29...	1430	21	--	--	--	--	--	--	--	--	--	--
SEP.												
05...	1620	19	19	18	187	3	29	9.4	--	--	.2	.00
03157500 - HOCKING R AT ENTERPRISE OH (LAT 39 33 54 LONG 082 28 29)												
DEC., 1972												
27...	1100	840	--	--	--	--	85	44	--	--	--	--
MAR., 1973												
01...	1035	334	--	--	--	--	--	--	--	--	--	--
APR.												
19...	1430	743	--	--	--	--	86	29	--	--	--	--
JUNE												
14...	1500	245	--	--	--	--	--	--	--	--	--	--
18...	1430	3460	--	--	--	--	45	14	--	--	--	--
AUG.												
07...	1100	166	--	--	--	--	--	--	--	--	--	--
03158200 - MONDAY C AT DOANVILLE OH (LAT 39 26 07 LONG 082 11 30)												
SEP., 1973												
12...	1515	8.9	120	76	0	0	850	82	--	--	.9	.00
03159000 - SUNDAY C AT GLOUSTER OH (LAT 39 30 03 LONG 082 05 07)												
JAN., 1973												
03...	1430	56	--	--	--	--	410	32	--	--	--	--
FEB.												
22...	1240	75	--	--	--	--	--	--	--	--	--	--
APR.												
18...	1050	159	--	--	--	--	140	21	--	--	--	--
JUNE												
27...	1405	24	--	--	--	--	750	32	--	--	--	--
AUG.												
10...	1355	8.6	--	--	--	--	--	--	--	--	--	--
03159500 - HOCKING R AT ATHENS OH (LAT 39 19 44 LONG 082 05 16)												
FEB., 1973												
28...	1125	739	--	--	--	--	200	55	--	--	--	--
APR.												
24...	1305	6500	--	--	--	--	--	--	--	--	--	--
JUNE												
19...	1215	3030	--	--	--	--	86	16	--	--	--	--
AUG.												
15...	1045	1020	--	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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HOCKING RIVER BASIN--CONTINUED

03156400 - HOCKING R AT LANCASTER OH (LAT 39 42 24 LONG 082 36 03)

NOV., 1972										
02...	--	--	--	--	--	620	--	--	--	13.0
DEC.										
28...	2.8	--	--	290	--	564	7.7	--	--	9.0
FEB., 1973										
28...	--	--	--	--	--	2750	--	--	--	10.0
MAR.										
16...	1.6	--	--	230	--	493	7.8	--	--	12.5
APR.										
20...	--	--	--	--	--	537	--	--	--	--
JUNE										
14...	1.5	--	--	310	--	598	7.9	--	--	21.0
AUG.										
07...	--	--	--	--	--	614	--	--	--	25.0

03156700 - RUSH C NR SUGAR GROVE OH (LAT 39 38 18 LONG 082 30 42)

SEP., 1973										
13...	--	1.4	.01	--	--	997	6.9	--	850	15.0

03157000 - CLEAR C NR ROCKBRIDGE OH (LAT 39 35 18 LONG 082 34 43)

MAR., 1973										
01...	--	--	--	--	--	391	--	--	--	5.5
APR.										
20...	1.8	--	--	200	--	367	8.3	--	--	--
JUNE										
11...	.90	--	--	210	--	388	7.7	--	--	21.0
AUG.										
07...	--	--	--	--	--	403	--	--	--	--
29...	--	--	--	--	--	408	--	--	--	24.5
SEP.										
05...	--	.49	.00	--	--	372	8.5	--	230	24.0

03157500 - HOCKING R AT ENTERPRISE OH (LAT 39 33 54 LONG 082 28 29)

DEC., 1972										
27...	2.0	--	--	220	--	499	7.6	--	--	9.0
MAR., 1973										
01...	--	--	--	--	--	542	--	--	--	4.5
APR.										
19...	1.5	--	--	200	--	457	7.6	--	--	--
JUNE										
14...	--	--	--	--	--	639	--	--	--	21.0
18...	3.0	--	--	140	--	289	7.0	--	--	22.0
AUG.										
07...	--	--	--	--	--	636	--	--	--	21.5

03158200 - MONDAY C AT DOANVILLE OH (LAT 39 26 07 LONG 082 11 30)

SEP., 1973										
12...	--	.05	.01	--	--	1990	3.0	--	1390	19.0

03159000 - SUNDAY C AT GLOUSTER OH (LAT 39 30 03 LONG 082 05 07)

JAN., 1973										
03...	.20	--	--	310	--	1060	3.2	--	--	2.5
FEB.										
22...	--	--	--	--	--	481	--	--	--	2.0
APR.										
18...	.54	--	--	150	--	412	7.3	--	--	11.0
JUNE										
27...	.20	--	--	540	--	1730	2.8	--	--	21.5
AUG.										
10...	--	--	--	--	--	2990	--	--	--	23.5

03159500 - HOCKING R AT ATHENS OH (LAT 39 19 44 LONG 082 05 16)

FEB., 1973										
28...	1.2	--	--	280	--	677	7.4	--	--	5.0
APR.										
24...	--	--	--	--	--	266	--	--	--	14.0
JUNE										
19...	2.6	--	--	160	--	368	7.7	--	--	23.0
AUG.										
15...	--	--	--	--	--	794	--	--	--	22.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
HOCKING RIVER BASIN--CONTINUED											
03159520 - FEDERAL C NR STEWART OH (LAT 39 20 30 LONG 081 53 03)											
SEP., 1973	12...	1310	1.5	--	--	136	0	360	39	.3	--
SHADE RIVER BASIN											
03159540 - SHADE R NR CHESTER OH (LAT 39 03 49 LONG 081 52 55)											
NOV., 1972	06...	1605	39	--	--	--	--	--	--	--	--
JAN., 1973	04...	1200	1170	--	--	--	59	5.3	--	--	--
APR.	23...	--	562	--	--	--	--	--	--	--	--
JUNE	19...	1625	58	--	--	--	100	8.0	--	--	--
AUG.	14...	1440	156	--	--	--	--	--	--	--	--
SEP.	12...	0935	5.4	--	--	104	0	91	11	.2	.00
LEADING CREEK BASIN											
03160050 - LEADING C NR MIDDLEPORT OH (LAT 39 00 31 LONG 082 05 07)											
SEP., 1973	12...	0825	2.1	--	--	58	0	190	50	.3	--
RACCOON CREEK BASIN											
03201990 - L RACCOON C NR VINTON OH (LAT 38 57 12 LONG 082 21 57)											
SEP., 1973	11...	1500	14	57	23	0	0	370	8.4	--	.4
INDIAN GUYAN CREEK BASIN											
03205210 - INDIAN GUYAN C NR BRADRIK OH (LAT 38 28 41 LONG 082 23 54)											
SEP., 1973	11...	1115	1.1	--	--	84	0	52	9.0	.2	--
PINE CREEK BASIN											
03216640 - PINE C NR WHEELERSBURG OH (LAT 38 39 12 LONG 082 48 09)											
SEP., 1973	11...	0925	4.3	72	24	49	0	230	13	--	.01
LITTLE SCIOTO RIVER BASIN											
03216700 - L SCIOTO R AT SCIOTOVILLE OH (LAT 38 46 19 LONG 082 52 38)											
SEP., 1973	05...	1545	2.3	15	9.4	77	0	37	15	--	.00
SCIOTO RIVER BASIN											
03217400 - SCIOTO R NR KENTON OH (LAT 40 38 50 LONG 083 38 20)											
SEP., 1973	06...	1535	16	64	40	327	0	200	15	--	.00
03217500 - SCIOTO R AT LARUE OH (LAT 40 34 28 LONG 083 23 15)											
SEP., 1973	20...	1530	14	--	--	295	0	170	22	--	.00
03217600 - RUSH C NR LARUE OH (LAT 40 33 33 LONG 083 19 57)											
SEP., 1973	06...	1245	4.5	49	34	370	0	90	14	--	.01
03218000 - L SCIOTO R AB MARION OH (LAT 40 37 43 LONG 083 10 11)											
SEP., 1973	06...	1010	3.1	36	28	224	8	130	23	--	.00
03219500 - SCIOTO R NR PROSPECT OH (LAT 40 25 10 LONG 083 11 50)											
OCT., 1972	12...	1235	240	--	--	--	--	--	--	--	--
DEC.	13...	1100	1400	--	--	--	--	--	--	--	--
JAN., 1973	22...	1100	252	--	--	--	120	24	--	--	--
MAR.	19...	1225	4410	--	--	--	51	9.9	--	--	--
MAY	14...	1155	816	--	--	--	--	--	--	--	--
SEP.	05...	1355	60	85	31	293	24	140	28	--	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

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DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
HOCKING RIVER BASIN--CONTINUED										
03159520 - FEDERAL C NR STEWART OH (LAT 39 20 30 LONG 081 53 03)										
SEP., 1973 12...	.10	--	.03	500	390	988	7.4	740	--	19.0
SHADE RIVER BASIN										
03159540 - SHADE R NR CHESTER OH (LAT 39 03 49 LONG 081 52 55)										
NOV., 1972 06...	--	--	--	--	--	408	--	--	--	9.0
JAN., 1973 04...	.70	--	--	100	--	226	7.8	--	--	4.5
APR. 23...	--	--	--	--	--	259	--	--	--	15.0
JUNE 19...	.41	--	--	200	--	408	7.5	--	--	24.0
AUG. 14...	--	--	--	--	--	390	--	--	--	21.0
SEP. 12...	--	.36	.01	--	--	409	7.2	--	299	17.0
LEADING CREEK BASIN										
03160050 - LEADING C NR MIDDLEPORT OH (LAT 39 00 31 LONG 082 05 07)										
SEP., 1973 12...	.40	--	.02	250	200	657	6.8	408	--	15.5
RACCOON CREEK BASIN										
03201990 - L RACCOON C NR VINTON OH (LAT 38 57 12 LONG 082 21 57)										
SEP., 1973 11...	--	.49	.01	--	--	770	3.8	--	571	18.0
INDIAN GUYAN CREEK BASIN										
03205210 - INDIAN GUYAN C NR BRADRIK OH (LAT 38 28 41 LONG 082 23 54)										
SEP., 1973 11...	.30	--	.02	120	51	276	7.1	146	--	16.5
PINE CREEK BASIN										
03216640 - PINE C NR WHEELERSBURG OH (LAT 38 39 12 LONG 082 48 09)										
SEP., 1973 11...	--	.46	.01	--	--	616	6.7	--	503	18.5
LITTLE SCIOTO RIVER BASIN										
03216700 - L SCIOTO R AT SCIOTOVILLE OH (LAT 38 46 19 LONG 082 52 38)										
SEP., 1973 05...	--	.32	.01	--	--	270	8.3	--	170	26.5
SCIOTO RIVER BASIN										
03217400 - SCIOTO R NR KENTON OH (LAT 40 38 50 LONG 083 38 20)										
SEP., 1973 06...	--	.31	.05	--	--	888	7.9	--	673	26.0
03217500 - SCIOTO R AT LARUE OH (LAT 40 34 28 LONG 083 23 15)										
SEP., 1973 20...	--	1.5	.29	--	--	875	7.7	--	605	15.0
03217600 - RUSH C NR LARUE OH (LAT 40 33 33 LONG 083 19 57)										
SEP., 1973 06...	--	.00	.01	--	--	759	8.0	--	576	23.0
03218000 - L SCIOTO R AB MARION OH (LAT 40 37 43 LONG 083 10 11)										
SEP., 1973 06...	--	.49	.02	--	--	565	8.5	--	469	23.0
03219500 - SCIOTO R NR PROSPECT OH (LAT 40 25 10 LONG 083 11 50)										
OCT., 1972 12...	--	--	--	--	--	750	--	--	--	15.0
DEC. 13...	--	--	--	--	--	610	--	--	--	3.5
JAN., 1973 22...	2.5	--	--	370	--	690	8.6	--	--	2.0
MAR. 19...	3.6	--	--	160	--	314	8.2	--	--	2.0
MAY 14...	--	--	--	--	--	479	--	--	--	12.0
SEP. 05...	--	2.0	.79	--	--	799	8.8	--	587	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
------	------	--	---	--	---	--	---	---	--	---	-----------------------------------

SCIOTO RIVER BASIN--CONTINUED

03221000 - SCIOTO R BL O'SHAUGHNESSY DAM NR DUBLIN OH (LAT 40 08 36 LONG 083 07 14)

OCT., 1972											
11...	1235	261	--	--	--	--	--	--	--	--	--
JAN., 1973											
30...	1540	2300	--	--	--	--	100	22	--	--	--
MAR.											
28...	1610	2160	--	--	--	--	87	20	--	--	--
MAY											
24...	1110	554	--	--	--	--	--	--	--	--	--
JULY											
23...	1305	1040	--	--	--	--	89	22	--	--	--
SEP.											
12...	1340	91	--	--	219	3	77	17	--	.2	.00

03223000 - OLENTANGY R AT CLARIDON OH (LAT 40 34 58 LONG 082 59 20)

OCT., 1972											
26...	1155	91	--	--	--	--	--	--	--	--	--
DEC.											
17...	1115	205	--	--	--	--	78	18	--	--	--
FEB., 1973											
12...	1155	72	--	--	--	--	--	--	--	--	--
MAR.											
16...	1205	1660	--	--	--	--	35	8.8	--	--	--
APR.											
09...	1310	164	--	--	--	--	--	--	--	--	--
JULY											
23...	1430	163	--	--	--	--	59	16	--	--	--
SEP.											
17...	1230	8.7	78	27	299	0	110	39	--	.5	.00

03224500 - WHETSTONE C NR ASHLEY OH (LAT 40 27 18 LONG 082 57 28)

OCT., 1972											
26...	1110	70	--	--	252	0	68	43	.2	--	--
DEC.											
12...	1350	131	--	--	--	--	59	36	--	--	--
FEB., 1973											
12...	1030	42	--	--	--	--	72	49	--	--	--
APR.											
09...	1015	130	--	--	--	--	--	--	--	--	--
JUNE											
06...	1550	227	--	--	--	--	49	44	--	--	--
JULY											
23...	1145	45	--	--	--	--	--	--	--	--	--
SEP.											
17...	1100	6.5	68	36	269	8	91	190	--	.4	.00

03225500 - OLENTANGY R NR DELAWARE OH (LAT 40 21 18 LONG 083 04 02)

OCT., 1972											
16...	1145	275	--	--	--	--	--	--	--	--	--
NOV.											
28...	1130	714	--	--	--	--	--	--	--	--	--
JAN., 1973											
29...	1430	1700	--	--	--	--	65	27	--	--	--
MAR.											
22...	1345	812	--	--	--	--	51	18	--	--	--
MAY											
21...	1330	1050	--	--	--	--	--	--	--	--	--
JULY											
17...	1310	53	--	--	--	--	48	20	--	--	--
SEP.											
10...	1035	26	54	16	190	0	54	23	--	.3	.00

03226800 - OLENTANGY R NR WORTHINGTON OH (LAT 40 06 37 LONG 083 01 55)

OCT., 1972											
16...	1715	341	--	--	--	--	--	--	--	--	--
DEC.											
08...	1220	3000	--	--	--	--	79	54	--	--	--
FEB., 1973											
02...	1210	1260	--	--	--	--	--	--	--	--	--
MAR.											
26...	1520	1170	--	--	--	--	71	29	--	--	--
MAY											
24...	1520	303	--	--	--	--	--	--	--	--	--
JUNE											
20...	1430	2330	--	--	--	--	34	10	--	--	--
JULY											
23...	1330	133	--	--	--	--	--	--	--	--	--
SEP.											
12...	1105	34	74	25	243	0	110	46	--	.5	.00

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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SCIOTO RIVER BASIN--CONTINUED

03221000 - SCIOTO R BL O'SHAUGHNESSY DAM NR DUBLIN OH (LAT 40 08 36 LONG 083 07 14)

OCT., 1972										
11...	--	--	--	--	--	536	--	--	--	14.0
JAN., 1973										
30...	3.8	--	--	330	--	620	7.8	--	--	2.0
MAR.										
28...	4.4	--	--	290	--	551	8.3	--	--	8.5
MAY										
24...	--	--	--	--	--	522	--	--	--	17.0
JULY										
23...	5.7	--	--	300	--	586	7.1	--	--	22.0
SEP.										
12...	--	.40	.01	--	--	554	8.4	--	399	20.5

03223000 - OLENTANGY R AT CLARIDON OH (LAT 40 34 58 LONG 082 59 20)

OCT., 1972										
26...	--	--	--	--	--	650	--	--	--	8.5
DEC.										
17...	2.4	--	--	290	--	491	8.4	--	--	E.5
FEB., 1973										
12...	--	--	--	--	--	656	--	--	--	1.0
MAR.										
16...	3.5	--	--	110	--	244	7.8	--	--	12.0
APR.										
09...	--	--	--	--	--	508	--	--	--	7.5
JULY										
23...	4.6	--	--	210	--	423	7.5	--	--	25.0
SEP.										
17...	--	1.2	.22	--	--	789	7.6	--	549	19.5

03224500 - WHETSTONE C NR ASHLEY OH (LAT 40 27 18 LONG 082 57 28)

OCT., 1972										
26...	.90	--	.06	290	83	642	8.2	382	--	7.5
DEC.										
12...	1.7	--	--	250	--	524	7.8	--	--	1.0
FEB., 1973										
12...	1.6	--	--	300	--	642	7.7	--	--	1.0
APR.										
09...	--	--	--	--	--	544	--	--	--	8.0
JUNE										
06...	1.6	--	--	230	--	540	6.9	--	--	20.5
JULY										
23...	--	--	--	--	--	713	--	--	--	24.0
SEP.										
17...	--	.48	.03	--	--	1180	8.5	--	772	19.0

03225500 - OLENTANGY R NR DELAWARE OH (LAT 40 21 18 LONG 083 04 02)

OCT., 1972										
16...	--	--	--	--	--	434	--	--	--	14.0
NOV.										
28...	--	--	--	--	--	488	--	--	--	2.0
JAN., 1973										
29...	2.3	--	--	230	--	487	7.6	--	--	2.0
MAR.										
22...	2.9	--	--	180	--	387	8.1	--	--	4.0
MAY										
21...	--	--	--	--	--	412	--	--	--	16.0
JULY										
17...	3.2	--	--	210	--	446	7.4	--	--	24.5
SEP.										
10...	--	1.4	.07	--	--	486	7.3	--	437	20.0

03226800 - OLENTANGY R NR WORTHINGTON OH (LAT 40 06 37 LONG 083 01 55)

OCT., 1972										
16...	--	--	--	--	--	485	--	--	--	14.0
DEC.										
08...	2.1	--	--	260	--	593	8.4	--	--	3.0
FEB., 1973										
02...	--	--	--	--	--	466	--	--	--	2.0
MAR.										
26...	2.1	--	--	210	--	469	7.7	--	--	--
MAY										
24...	--	--	--	--	--	484	--	--	--	17.0
JUNE										
20...	4.7	--	--	130	--	284	7.1	--	--	21.0
JULY										
23...	--	--	--	--	--	511	--	--	--	24.0
EP.										
12...	--	1.4	.44	--	--	734	7.7	--	522	18.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
SCIOTO RIVER BASIN--CONTINUED											
03227500 - SCIOTO R AT COLUMBUS OH (LAT 39 54 34 LONG 083 00 33)											
OCT., 1972											
18...	1455	772	--	--	--	--	--	--	--	--	--
DEC.											
07...	1625	5170	--	--	--	--	92	23	--	--	--
FEB., 1973											
01...	1250	1800	--	--	--	--	--	--	--	--	--
MAR.											
01...	1200	518	--	--	--	--	--	--	--	--	--
APR.											
02...	1210	3230	--	--	--	--	73	20	--	--	--
MAY											
07...	1625	2640	--	--	--	--	--	--	--	--	--
JUNE											
01...	1230	1050	--	--	--	--	75	21	--	--	--
AUG.											
02...	1210	620	--	--	--	--	--	--	--	--	--
SEP.											
04...	1210	288	--	--	153	4	84	38	--	.5	.00
03228200 - BIG WALNUT C AB SUNBURY OH (LAT 40 15 04 LONG 082 50 46)											
SEP., 1973											
12...	1400	1.1	--	--	272	0	76	30	.4	--	--
03228500 - BIG WALNUT C AT CENTRAL COLLEGE OH (LAT 40 06 13 LONG 082 53 03)											
OCT., 1972											
03...	1023	16	--	--	--	--	--	--	--	--	--
04...	1040	9.5	--	--	126	0	69	18	.2	--	--
NOV.											
29...	1425	443	--	--	--	--	--	--	--	--	--
JAN., 1973											
24...	1220	211	--	--	--	--	54	23	--	--	--
MAR.											
23...	1230	242	--	--	--	--	54	18	--	--	--
MAY											
16...	1430	121	--	--	--	--	--	--	--	--	--
JULY											
20...	1130	100	--	--	--	--	45	16	--	--	--
SEP.											
07...	1525	120	--	--	113	0	41	12	--	.2	.00
03228700 - BLACKLICK C NR GROVEPORT OH (LAT 39 53 26 LONG 082 51 50)											
SEP., 1973											
13...	1500	7.5	--	--	316	0	88	130	.4	--	--
03229000 - ALUM C AT COLUMBUS OH (LAT 39 56 42 LONG 082 56 28)											
OCT., 1972											
17...	1630	109	--	--	--	--	--	--	--	--	--
FEB., 1973											
02...	1525	860	--	--	--	--	90	43	--	--	--
MAY											
25...	1410	69	--	--	--	--	--	--	--	--	--
JULY											
25...	1130	640	--	--	--	--	56	22	--	--	--
SEP.											
11...	1315	13	--	--	236	0	100	47	--	.2	.00
03229500 - BIG WALNUT C AT REES OH (LAT 39 51 24 LONG 082 57 26)											
OCT., 1972											
17...	1220	185	--	--	--	--	--	--	--	--	--
DEC.											
12...	1330	1210	--	--	--	--	63	30	--	--	--
FEB., 1973											
05...	1145	1000	--	--	--	--	--	--	--	--	--
MAR.											
28...	1030	1260	--	--	--	--	61	24	--	--	--
MAY											
25...	1200	178	--	--	--	--	--	--	--	--	--
JUNE											
21...	1230	11100	--	--	--	--	37	12	--	--	--
JULY											
25...	1535	3080	--	--	--	--	--	--	--	--	--
SEP.											
11...	1045	83	--	--	247	14	82	47	--	.3	.00
03229800 - WALNUT C NR ASHVILLE OH (LAT 39 40 56 LONG 082 58 30)											
SEP., 1973											
05...	0945	62	--	--	232	9	80	25	--	.2	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
SCIOTO RIVER BASIN--CONTINUED										
03227500 - SCIOTO R AT COLUMBUS OH (LAT 39 54 34 LONG 083 00 33)										
OCT., 1972										
18...	--	--	--	--	--	601	--	--	--	9.0
DEC.										
07...	4.3	--	--	280	--	564	8.4	--	--	1.0
FEB., 1973										
01...	--	--	--	--	--	640	--	--	--	3.5
MAR.										
01...	--	--	--	--	--	647	--	--	--	4.0
APR.										
02...	3.2	--	--	260	--	499	8.2	--	--	10.0
MAY										
07...	--	--	--	--	--	505	--	--	--	14.0
JUNE										
01...	2.4	--	--	260	--	521	8.3	--	--	20.0
AUG.										
02...	--	--	--	--	--	561	--	--	--	24.0
SEP.										
04...	--	6.0	1.3	--	--	580	8.6	--	439	26.5
03228200 - BIG WALNUT C AB SUNBURY OH (LAT 40 15 04 LONG 082 50 46)										
SEP., 1973										
12...	.20	--	.05	320	96	608	8.1	384	--	20.0
03228500 - BIG WALNUT C AT CENTRAL COLLEGE OH (LAT 40 06 13 LONG 082 53 03)										
OCT., 1972										
03...	--	--	--	--	--	372	--	--	--	18.0
04...	1.3	--	.03	180	77	388	8.2	240	--	18.0
NOV.										
29...	--	--	--	--	--	348	--	--	--	2.0
JAN., 1973										
24...	2.1	--	--	170	--	395	7.6	--	--	2.0
MAR.										
23...	2.2	--	--	170	--	366	8.1	--	--	8.0
MAY										
16...	--	--	--	--	--	332	--	--	--	12.0
JULY										
20...	1.5	--	--	170	--	327	8.2	--	--	24.0
SEP.										
07...	--	.18	.00	--	--	310	8.0	--	234	24.5
03228700 - BLACKLICK C NR GROVEPORT OH (LAT 39 53 26 LONG 082 51 50)										
SEP., 1973										
13...	1.8	--	1.2	400	140	1020	8.0	644	--	20.5
03229000 - ALUM C AT COLUMBUS OH (LAT 39 56 42 LONG 082 56 28)										
OCT., 1972										
17...	--	--	--	--	--	658	--	--	--	11.0
FEB., 1973										
02...	2.2	--	--	220	--	514	7.5	--	--	2.0
MAY										
25...	--	--	--	--	--	719	--	--	--	18.0
JULY										
25...	1.5	--	--	180	--	382	7.2	--	--	22.5
SEP.										
11...	--	1.0	.12	--	--	712	7.5	--	499	20.0
03229500 - BIG WALNUT C AT REES OH (LAT 39 51 24 LONG 082 57 26)										
OCT., 1972										
17...	--	--	--	--	--	674	--	--	--	9.0
DEC.										
12...	1.9	--	--	200	--	461	7.6	--	--	5.0
FEB., 1973										
05...	--	--	--	--	--	447	--	--	--	3.0
MAR.										
28...	2.0	--	--	180	--	415	7.6	--	--	8.5
MAY										
25...	--	--	--	--	--	710	--	--	--	18.0
JUNE										
21...	1.7	--	--	130	--	293	7.5	--	--	24.0
JULY										
25...	--	--	--	--	--	276	--	--	--	22.0
SEP.										
11...	--	.04	.0	--	--	676	8.7	--	491	19.5
03229800 - WALNUT C NR ASHVILLE OH (LAT 39 40 56 LONG 082 58 30)										
SEP., 1973										
05...	--	1.0	.10	--	--	580	8.6	--	446	23.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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SCIOTO RIVER BASIN--CONTINUED

03230500 - BIG DARBY C AT DARBYVILLE OH (LAT 39 42 03 LONG 083 06 35)

OCT., 1972											
10...	1031	142	--	--	--	--	--	--	--	--	--
DEC.											
04...	1600	631	--	--	--	--	73	25	--	--	--
FEB., 1973											
01...	1403	512	--	--	--	--	--	--	--	--	--
MAR.											
28...	1235	1540	--	--	--	--	49	16	--	--	--
MAY											
18...	1430	241	--	--	--	--	--	--	--	--	--
JULY											
18...	1420	165	--	--	--	--	62	20	--	--	--
SEP.											
06...	1125	114	--	--	303	6	65	28	--	.6	.00

03230600 - HOMINY C AT CIRCLEVILLE OH (LAT 39 35 26 LONG 082 55 25)

SEP., 1973											
05...	1050	.67	--	--	216	0	73	17	.2	--	--

03230800 - DEER C AT MOUNT STERLING OH (LAT 39 42 54 LONG 083 15 26)

OCT., 1972											
02...	1045	203	--	--	--	--	--	--	--	--	--
NOV.											
27...	1400	284	--	--	--	--	--	--	--	--	--
JAN., 1973											
31...	1110	263	--	--	--	--	59	22	--	--	--
MAR.											
26...	1200	982	--	--	--	--	48	18	--	--	--
MAY											
25...	0835	134	--	--	--	--	--	--	--	--	--
SEP.											
04...	1100	48	--	--	227	6	57	21	--	.4	.00

03230900 - DEER C NR PANCOASTBURG OH (LAT 39 37 14 LONG 083 12 47)

OCT., 1972											
02...	1450	384	--	--	--	--	--	--	--	--	--
NOV.											
28...	0915	1460	--	--	--	--	--	--	--	--	--
JAN., 1973											
31...	1500	376	--	--	--	--	55	18	--	--	--
MAR.											
26...	--	1010	--	--	--	--	54	18	--	--	--
MAY											
21...	1450	185	--	--	--	--	--	--	--	--	--
JULY											
05...	1430	1550	--	--	--	--	37	12	--	--	--
SEP.											
04...	1430	62	--	--	209	7	50	13	--	.3	.00

03231000 - DEER C AT WILLIAMSPORT OH (LAT 39 35 09 LONG 083 07 22)

OCT., 1972											
16...	1125	301	--	--	--	--	--	--	--	--	--
NOV.											
28...	1830	1400	--	--	--	--	46	15	--	--	--
FEB., 1973											
01...	1600	355	--	--	--	--	--	--	--	--	--
MAR.											
27...	1120	1200	--	--	--	--	53	18	--	--	--
MAY											
24...	1325	162	--	--	--	--	--	--	--	--	--
SEP.											
04...	1630	82	--	--	268	0	48	13	--	.4	.00

03231300 - KINNIKINNICK C NR KINNIKINNICK OH (LAT 39 26 23 LONG 082 58 35)

SEP., 1973											
05...	1200	12	--	--	238	0	56	7.0	.4	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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SCIOTO RIVER BASIN--CONTINUED

03230500 - BIG DARBY C AT DARBYVILLE OH (LAT 39 42 03 LONG 083 06 35)

OCT., 1972										
10...	--	--	--	--	--	713	--	--	--	11.0
DEC.										
04...	4.6	--	--	300	--	576	8.2	--	--	5.0
FEB., 1973										
01...	--	--	--	--	--	636	--	--	--	2.5
MAR.										
28...	4.6	--	--	270	--	507	8.3	--	--	9.0
MAY										
18...	--	--	--	--	--	634	--	--	--	15.0
JULY										
18...	2.6	--	--	390	--	708	8.0	--	--	23.5
SEP.										
06...	--	1.3	.01	--	--	656	8.5	--	485	23.5

03230600 - HOMINY C AT CIRCLEVILLE OH (LAT 39 35 26 LONG 082 55 25)

SEP., 1973										
05...	4.0	--	.00	270	92	528	8.0	308	--	20.5

03230800 - DEER C AT MOUNT STERLING OH (LAT 39 42 54 LONG 083 15 26)

OCT., 1972										
02...	--	--	--	--	--	552	--	--	--	15.0
NOV.										
27...	--	--	--	--	--	609	--	--	--	5.0
JAN., 1973										
31...	4.7	--	--	340	--	624	8.5	--	--	5.0
MAR.										
26...	4.4	--	--	280	--	536	7.7	--	--	10.0
MAY										
25...	--	--	--	--	--	586	--	--	--	17.0
SEP.										
04...	--	.03	.00	--	--	518	8.6	--	311	25.5

03230900 - DEER C NR PANCOASTBURG OH (LAT 39 37 14 LONG 083 12 47)

OCT., 1972										
02...	--	--	--	--	--	482	--	--	--	20.0
NOV.										
28...	--	--	--	--	--	491	--	--	--	5.0
JAN., 1973										
31...	3.5	--	--	320	--	588	8.1	--	--	.5
MAR.										
26...	4.1	--	--	290	--	533	8.6	--	--	8.0
MAY										
21...	--	--	--	--	--	517	--	--	--	15.5
JULY										
05...	3.3	--	--	240	--	461	7.9	--	--	23.0
SEP.										
04...	--	.87	.00	--	--	450	8.6	--	315	25.5

03231000 - DEER C AT WILLIAMSPORT OH (LAT 39 35 09 LONG 083 07 22)

OCT., 1972										
16...	--	--	--	--	--	520	--	--	--	14.5
NOV.										
28...	4.0	--	--	--	270	484	8.4	--	--	5.5
FEB., 1973										
01...	--	--	--	--	--	594	--	--	--	5.0
MAR.										
27...	4.4	--	--	290	--	551	8.0	--	--	9.5
MAY										
24...	--	--	--	--	--	534	--	--	--	15.5
SEP.										
04...	--	.01	.00	--	--	536	7.9	--	364	26.0

03231300 - KINNIKINNICK C NR KINNIKINNICK OH (LAT 39 26 23 LONG 082 58 35)

SEP., 1973										
05...	.60	--	.00	250	55	463	8.0	266	--	23.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
SCIOTO RIVER BASIN--CONTINUED											
03232000 - PAINT C NR GREENFIELD OH (LAT 39 22 45 LONG 083 22 32)											
OCT., 1972											
16...	1430	75	--	--	--	--	--	--	--	--	--
NOV.											
29...	1100	320	--	--	--	--	--	--	--	--	--
JAN., 1973											
29...	1350	450	--	--	--	--	62	24	--	--	--
MAY											
22...	1330	119	--	--	--	--	--	--	--	--	--
JULY											
17...	1040	196	--	--	--	--	48	20	--	--	--
SEP.											
05...	1000	51	--	--	--	--	--	--	--	--	--
03232300 - RATTLESNAKE C AT CENTERFIELD OH (LAT 39 19 44 LONG 083 28 32)											
OCT., 1972											
16...	1600	34	--	--	--	--	--	--	--	--	--
NOV.											
14...	1440	2060	--	--	--	--	--	--	--	--	--
29...	1500	250	--	--	--	--	--	--	--	--	--
FEB., 1973											
01...	0915	204	--	--	--	--	58	20	--	--	--
22...	1600	111	--	--	--	--	--	--	--	--	--
MAR.											
28...	1430	437	--	--	--	--	51	18	--	--	--
MAY											
22...	1125	81	--	--	--	--	--	--	--	--	--
JULY											
19...	0900	38	--	--	--	--	48	20	--	--	--
SEP.											
05...	1300	17	--	--	279	7	41	17	--	.3	.01
03232470 - PAINT C NR BAINBRIDGE OH (LAT 39 15 08 LONG 083 20 58)											
OCT., 1972											
17...	1540	121	--	--	--	--	--	--	--	--	--
NOV.											
15...	1310	4870	--	--	--	--	--	--	--	--	--
DEC.											
01...	1205	776	--	--	--	--	--	--	--	--	--
JAN., 1973											
31...	1500	658	--	--	--	--	59	24	--	--	--
MAR.											
29...	1350	880	--	--	--	--	53	19	--	--	--
APR.											
25...	1210	3010	--	--	--	--	--	--	--	--	--
MAY											
23...	1635	266	--	--	--	--	--	--	--	--	--
JULY											
18...	1200	284	--	--	--	--	47	22	--	--	--
SEP.											
06...	1530	90	--	--	--	--	--	--	--	--	--
24...	1315	30	--	--	330	0	58	29	--	.4	.00
03232500 - ROCKY F NR BARRETT MILLS OH (LAT 39 13 06 LONG 083 23 08)											
OCT., 1972											
18...	1145	20	--	--	--	--	--	--	--	--	--
NOV.											
30...	--	210	--	--	--	--	--	--	--	--	--
FEB., 1973											
01...	1130	210	--	--	--	--	29	8.8	--	--	--
22...	1230	212	--	--	--	--	--	--	--	--	--
MAR.											
29...	1050	231	--	--	--	--	31	8.8	--	--	--
APR.											
25...	1445	753	--	--	--	--	--	--	--	--	--
MAY											
23...	1150	167	--	--	--	--	--	--	--	--	--
JULY											
16...	1430	62	--	--	--	--	25	8.0	--	--	--
SEP.											
06...	1100	25	--	--	--	--	--	--	--	--	--
03234000 - PAINT C NR BOURNEVILLE OH (LAT 39 15 49 LONG 083 10 01)											
JAN., 1973											
31...	1130	1120	--	--	--	--	53	19	--	--	--
MAR.											
27...	1630	1950	--	--	--	--	49	16	--	--	--
SEP.											
07...	1145	129	--	--	--	--	--	--	--	--	--
24...	1140	70	--	--	289	0	46	17	--	.3	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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SCIOTO RIVER BASIN--CONTINUED

03232000 - PAINT C NR GREENFIELD OH (LAT 39 22 45 LONG 083 22 32)

OCT., 1972										
16...	--	--	--	--	--	706	--	--	--	12.0
NOV.										
29...	--	--	--	--	--	662	--	--	--	4.0
JAN., 1973										
29...	4.6	--	--	340	--	508	8.0	--	--	2.0
MAY										
22...	--	--	--	--	--	607	--	--	--	17.5
JULY										
17...	3.8	--	--	310	--	564	7.5	--	--	22.0
SEP.										
05...	--	--	--	--	--	650	--	--	--	25.0

03232300 - RATTLESNAKE C AT CENTERFIELD OH (LAT 39 19 44 LONG 083 28 32)

OCT., 1972										
16...	--	--	--	--	--	652	--	--	--	12.0
NOV.										
14...	--	--	--	--	--	322	--	--	--	10.5
29...	--	--	--	--	--	519	--	--	--	4.0
FEB., 1973										
01...	5.0	--	--	330	--	601	8.3	--	--	4.0
22...	--	--	--	--	--	598	--	--	--	2.0
MAR.										
28...	6.5	--	--	290	--	547	8.0	--	--	12.0
MAY										
22...	--	--	--	--	--	566	--	--	--	16.5
JULY										
19...	3.2	--	--	320	--	574	8.1	--	--	23.0
SEP.										
05...	--	.86	.00	--	--	561	8.5	--	388	25.5

03232470 - PAINT C NR BAINBRIDGE OH (LAT 39 15 08 LONG 083 20 58)

OCT., 1972										
17...	--	--	--	--	--	560	--	--	--	13.5
NOV.										
15...	--	--	--	--	--	357	--	--	--	8.5
DEC.										
01...	--	--	--	--	--	656	--	--	--	4.5
JAN., 1973										
31...	4.6	--	--	340	--	626	8.0	--	--	3.0
MAR.										
29...	6.3	--	--	310	--	590	8.1	--	--	10.0
APR.										
25...	--	--	--	--	--	433	--	--	--	--
MAY										
23...	--	--	--	--	--	585	--	--	--	18.5
JULY										
18...	2.9	--	--	330	--	567	8.6	--	--	22.5
SEP.										
06...	--	--	--	--	--	600	--	--	--	25.0
24...	--	1.3	.45	--	--	704	7.5	--	480	20.5

03232500 - ROCKY F NR BARRETT MILLS OH (LAT 39 13 06 LONG 083 23 08)

OCT., 1972										
18...	--	--	--	--	--	373	--	--	--	11.5
NOV.										
30...	--	--	--	--	--	347	--	--	--	5.0
FEB., 1973										
01...	1.3	--	--	210	--	390	8.0	--	--	5.0
22...	--	--	--	--	--	447	--	--	--	2.0
MAR.										
29...	1.1	--	--	210	--	400	8.2	--	--	10.0
APR.										
25...	--	--	--	--	--	357	--	--	--	--
MAY										
23...	--	--	--	--	--	381	--	--	--	17.0
JULY										
16...	1.2	--	--	250	--	446	8.0	--	--	24.5
SEP.										
06...	--	--	--	--	--	349	--	--	--	25.0

03234000 - PAINT C NR BOURNEVILLE OH (LAT 39 15 49 LONG 083 10 01)

JAN., 1973										
31...	3.9	--	--	310	--	562	8.1	--	--	3.0
MAR.										
27...	4.4	--	--	280	--	528	7.9	--	--	12.0
SEP.										
07...	--	--	--	--	--	461	--	--	--	23.0
24...	--	1.0	.12	--	--	568	8.1	--	376	20.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
SCIOTO RIVER BASIN--CONTINUED											
03234080 - N F PAINT C NR FRANKFORT OH (LAT 39 26 11 LONG 083 13 22)											
SEP., 1973											
05...	0800	28	--	--	349	0	57	19	--	.5	.00
03235000 - SALT C AT TARLTON OH (LAT 39 33 20 LONG 082 46 51)											
SEP., 1973											
05...	1350	.63	38	28	268	0	49	15	--	1.5	.01
03235100 - SALT C AT LAURELVILLE OH (LAT 39 27 46 LONG 082 44 08)											
SEP., 1973											
05...	1235	8.4	42	22	229	0	34	9.3	--	.8	.01
03235500 - TAR HOLLOW C AT TAR HOLLOW STATE PARK OH (LAT 39 23 22 LONG 082 45 03)											
FEB., 1973											
21...	1320	1.4	--	--	--	--	--	--	--	--	--
APR.											
16...	1400	2.2	--	--	--	--	27	2.4	--	--	--
JUNE											
15...	1435	.20	--	--	--	--	28	3.0	--	--	--
03237130 - SCIOTO BRUSH C AT OTWAY OH (LAT 38 51 43 LONG 083 11 24)											
SEP., 1973											
06...	0800	1.8	30	21	115	0	72	7.7	--	1.4	.01
03237150 - S F SCIOTO BRUSH C AT WAMSLEY OH (LAT 38 49 54 LONG 083 16 42)											
SEP., 1973											
06...	0840	.51	--	--	123	0	36	2.7	--	.2	.00
OHIO BRUSH CREEK BASIN											
03237295 - OHIO BRUSH C NR PEEBLES OH (LAT 38 58 06 LONG 083 25 34)											
SEP., 1973											
06...	0940	6.7	--	--	180	0	28	7.7	--	--	--
03237400 - W F OHIO BRUSH C AT LAWSHE OH (LAT 38 56 22 LONG 083 28 28)											
SEP., 1973											
06...	1025	1.8	--	--	202	0	31	8.5	--	.3	.00
03237500 - OHIO BRUSH C NR WEST UNION OH (LAT 38 48 13 LONG 083 25 16)											
OCT., 1972											
18...	1555	18	--	--	--	--	--	--	--	--	--
NOV.											
27...	1705	550	--	--	--	--	51	8.8	--	--	--
MAR., 1973											
22...	--	457	--	--	--	--	39	7.2	--	--	--
JULY											
12...	1515	134	--	--	--	--	31	10	--	--	--
SEP.											
06...	1140	13	--	--	--	--	--	--	--	--	--
EAGLE CREEK BASIN											
03238200 - EAGLE C NR RIPLEY OH (LAT 38 43 35 LONG 083 47 15)											
SEP., 1973											
06...	1400	1.9	--	--	190	0	31	8.0	.2	--	--
WHITEOAK CREEK BASIN											
03238500 - WHITEOAK C NR GEORGETOWN OH (LAT 38 51 29 LONG 083 55 43)											
OCT., 1972											
05...	1045	515	--	--	--	--	--	--	--	--	--
JAN., 1973											
25...	1515	116	--	--	--	--	49	13	--	--	--
MAR.											
22...	--	294	--	--	--	--	40	9.4	--	--	--
MAY											
17...	1125	44	--	--	--	--	--	--	--	--	--
SEP.											
13...	1725	17	--	--	147	0	29	21	--	.2	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
SCIOTO RIVER BASIN--CONTINUED										
03234080 - N F PAINT C NR FRANKFORT OH (LAT 39 26 11 LONG 083 13 22)										
SEP., 1973 05...	--	1.4	.00	--	--	673	8.2	--	304	23.5
03235000 - SALT C AT TARLTON OH (LAT 39 33 20 LONG 082 46 51)										
SEP., 1973 05...	--	.05	.01	--	--	539	8.2	--	344	29.0
03235100 - SALT C AT LAURELVILLE OH (LAT 39 27 46 LONG 082 44 08)										
SEP., 1973 05...	--	.17	.00	--	--	444	8.1	--	291	26.0
03235500 - TAR HOLLOW C AT TAR HOLLOW STATE PARK OH (LAT 39 23 22 LONG 082 45 03)										
FEB., 1973 21...	--	--	--	--	--	95	--	--	--	2.0
APR. 16...	.59	--	--	32	--	96	7.1	--	--	9.0
JUNE 15...	.50	--	--	45	--	125	6.0	--	--	18.0
03237130 - SCIOTO BRUSH C AT OTWAY OH (LAT 38 51 43 LONG 083 11 24)										
SEP., 1973 06...	--	.35	.00	--	--	357	7.2	--	250	23.5
03237150 - S F SCIOTO BRUSH C AT WAMSLEY OH (LAT 38 49 54 LONG 083 16 42)										
SEP., 1973 06...	--	.36	.01	--	--	287	7.2	--	189	24.0
OHIO BRUSH CREEK BASIN										
03237295 - OHIO BRUSH C NR PEEBLES OH (LAT 38 58 06 LONG 083 25 34)										
SEP., 1973 06...	--	--	--	170	18	379	8.6	--	--	25.0
03237400 - W F OHIO BRUSH C AT LAWSHE OH (LAT 38 56 22 LONG 083 28 28)										
SEP., 1973 06...	--	.23	.01	--	--	403	7.8	--	252	25.5
03237500 - OHIO BRUSH C NR WEST UNION OH (LAT 38 48 13 LONG 083 25 16)										
OCT., 1972 18...	--	--	--	--	--	431	--	--	--	12.0
NOV. 27...	1.4	--	--	260	--	447	8.0	--	--	4.5
MAR., 1973 22...	.97	--	--	220	--	413	8.3	--	--	6.0
JULY 12...	.80	--	--	280	--	481	7.9	--	--	30.0
SEP. 06...	--	--	--	--	--	461	--	--	--	26.0
EAGLE CREEK BASIN										
03238200 - EAGLE C NR RIPLEY OH (LAT 38 43 35 LONG 083 47 15)										
SEP., 1973 06...	.20	--	.04	190	34	367	8.0	232	--	27.0
WHITEOAK CREEK BASIN										
03238500 - WHITEOAK C NR GEORGETOWN OH (LAT 38 51 29 LONG 083 55 43)										
OCT., 1972 05...	--	--	--	--	--	302	--	--	--	15.0
JAN., 1973 25...	2.0	--	--	160	--	332	7.4	--	--	5.0
MAR. 22...	1.0	--	--	160	--	336	8.0	--	--	6.0
MAY 17...	--	--	--	--	--	396	--	--	--	15.5
SEP. 13...	--	.37	.03	--	--	324	8.1	--	221	22.0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
LITTLE MIAMI RIVER BASIN											
03240000 - L MIAMI R NR OLDTOWN OH (LAT 39 44 54 LONG 083 55 53)											
JAN., 1973											
10...	1515	143	--	--	--	--	70	23	--	--	--
MAR.											
12...	1145	200	--	--	--	--	61	23	--	--	--
MAY											
10...	1110	147	--	--	--	--	--	--	--	--	--
JULY											
09...	1050	154	--	--	--	--	56	23	--	--	--
03241500 - MASSIES C AT WILBERFORCE OH (LAT 39 43 22 LONG 083 52 58)											
NOV., 1972											
09...	1120	268	--	--	--	--	--	--	--	--	--
JAN., 1973											
10...	1645	91	--	--	--	--	65	22	--	--	--
MAR.											
12...	1300	80	--	--	--	--	61	23	--	--	--
MAY											
09...	1355	67	--	--	--	--	--	--	--	--	--
JULY											
05...	1130	118	--	--	--	--	48	18	--	--	--
AUG.											
21...	1605	35	--	--	--	--	--	--	--	--	--
03242150 - CAESAR C NR XENIA OH (LAT 39 37 25 LONG 083 54 09)											
NOV., 1972											
09...	1520	220	--	--	--	--	--	--	--	--	--
JAN., 1973											
10...	1315	98	--	--	--	--	50	20	--	--	--
MAR.											
06...	1545	58	--	--	--	--	52	22	--	--	--
MAY											
09...	1225	54	--	--	--	--	--	--	--	--	--
JULY											
02...	1345	51	--	--	--	--	41	16	--	--	--
AUG.											
21...	1420	36	--	--	--	--	--	--	--	--	--
03242200 - ANDERSON F NR NEW BURLINGTON OH (LAT 39 33 59 LONG 083 54 10)											
NOV., 1972											
10...	1120	203	--	--	--	--	--	--	--	--	--
14...	1275	1150	--	--	--	--	--	--	--	--	--
JAN., 1973											
10...	1125	32	--	--	--	--	59	23	--	--	--
MAR.											
08...	1505	54	--	--	--	--	60	25	--	--	--
MAY											
09...	1045	56	--	--	--	--	--	--	--	--	--
JULY											
02...	1120	55	--	--	--	--	46	18	--	--	--
21...	1230	1240	--	--	--	--	--	--	--	--	--
03242350 - CAESAR C NR WELLMAN OH (LAT 39 28 57 LONG 084 03 52)											
DEC., 1972											
11...	1555	746	--	--	--	--	45	18	--	--	--
JAN., 1973											
07...	1415	353	--	--	--	--	--	--	--	--	--
MAR.											
06...	1138	220	--	--	--	--	67	23	--	--	--
MAY											
30...	1345	263	--	--	--	--	--	--	--	--	--
JULY											
10...	1050	65	--	--	--	--	46	18	--	--	--
AUG.											
22...	1415	80	--	--	--	--	--	--	--	--	--
03244000 - TODD F NR ROACHESTER OH (LAT 39 20 07 LONG 084 05 12)											
OCT., 1972											
03...	1130	73	--	--	--	--	--	--	--	--	--
JAN., 1973											
22...	1230	134	--	--	--	--	54	24	--	--	--
MAR.											
19...	--	763	--	--	--	--	42	22	--	--	--
MAY											
14...	1345	77	--	--	--	--	--	--	--	--	--
JULY											
09...	1130	51	--	--	--	--	41	20	--	--	--
SEP.											
10...	1230	15	--	--	240	0	39	26	--	.3	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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LITTLE MIAMI RIVER BASIN

03240000 - L MIAMI R NR OLDTOWN OH (LAT 39 44 54 LONG 083 55 53)

JAN., 1973										
10...	4.1	--	--	390	--	688	8.0	--	--	.0
MAR.										
12...	4.1	--	--	340	--	631	8.4	--	--	11.5
MAY										
10...	--	--	--	--	--	644	--	--	--	16.0
JULY										
09...	4.3	--	--	270	--	508	8.4	--	--	22.0

03241500 - MASSIES C AT WILBERFORCE OH (LAT 39 43 22 LONG 083 52 58)

NOV., 1972										
09...	--	--	--	--	--	575	--	--	--	9.5
JAN., 1973										
10...	4.3	--	--	370	--	663	8.1	--	--	.0
MAR.										
12...	4.9	--	--	270	--	522	8.2	--	--	10.5
MAY										
09...	--	--	--	--	--	580	--	--	--	18.0
JULY										
05...	5.0	--	--	300	--	527	8.5	--	--	20.5
AUG.										
21...	--	--	--	--	--	656	--	--	--	20.5

03242150 - CAESAR C NR XENIA OH (LAT 39 37 25 LONG 083 54 09)

NOV., 1972										
09...	--	--	--	--	--	528	--	--	--	9.5
JAN., 1973										
10...	3.8	--	--	340	--	613	8.1	--	--	.0
MAR.										
06...	3.3	--	--	310	--	582	8.3	--	--	11.5
MAY										
09...	--	--	--	--	--	554	--	--	--	16.5
JULY										
02...	3.3	--	--	340	--	610	8.0	--	--	23.5
AUG.										
21...	--	--	--	--	--	503	--	--	--	20.5

03242200 - ANDERSON F NR NEW BURLINGTON OH (LAT 39 33 59 LONG 083 54 10)

NOV., 1972										
10...	--	--	--	--	--	583	--	--	--	9.0
14...	--	--	--	--	--	326	--	--	--	8.5
JAN., 1973										
10...	7.8	--	--	380	--	693	8.0	--	--	.0
MAR.										
08...	5.5	--	--	300	--	580	7.9	--	--	--
MAY										
09...	--	--	--	--	--	580	--	--	--	15.0
JULY										
02...	4.9	--	--	340	--	627	8.0	--	--	23.0
21...	--	--	--	--	--	544	--	--	--	19.5

03242350 - CAESAR C NR WELLMAN OH (LAT 39 28 57 LONG 084 03 52)

DEC., 1972										
11...	6.5	--	--	280	--	529	7.9	--	--	2.0
JAN., 1973										
07...	--	--	--	--	--	588	--	--	--	6.5
MAR.										
06...	3.8	--	--	310	--	583	7.8	--	--	13.0
MAY										
30...	--	--	--	--	--	573	--	--	--	17.0
JULY										
10...	2.9	--	--	320	--	591	7.6	--	--	--
AUG.										
22...	--	--	--	--	--	518	--	--	--	20.5

03244000 - TODD F NR ROACHESTER OH (LAT 39 20 07 LONG 084 05 12)

OCT., 1972										
03...	--	--	--	--	--	459	--	--	--	15.0
JAN., 1973										
22...	2.8	--	--	300	--	562	8.2	--	--	5.0
MAR.										
19...	4.1	--	--	230	--	468	7.5	--	--	9.5
MAY										
14...	--	--	--	--	--	529	--	--	--	17.0
JULY										
09...	2.4	--	--	300	--	551	8.4	--	--	29.0
SEP.										
10...	--	1.9	.62	--	--	534	7.9	--	363	24.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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LITTLE MIAMI RIVER BASIN--CONTINUED

03245500 - L MIAMI R AT MILFORD OH (LAT 39 10 17 LONG 084 17 53)

OCT., 1972											
03...	1545	561	--	--	236	0	48	33	.2	--	--
NOV.											
23...	1310	1890	--	--	--	--	--	--	--	--	--
JAN., 1973											
30...	1235	2000	--	--	--	--	53	29	--	--	--
MAR.											
21...	1245	2360	--	--	--	--	49	25	--	--	--
MAY											
16...	1320	699	--	--	--	--	--	--	--	--	--
SEP.											
12...	1135	266	--	--	--	--	--	--	--	--	--

03246200 - E F L MIAMI R NR MARATHON OH (LAT 39 06 52 LONG 084 01 29)

OCT., 1972											
04...	1450	46	--	--	--	--	--	--	--	--	--
NOV.											
30...	1030	218	--	--	--	--	45	21	--	--	--
MAR., 1973											
20...	1145	302	--	--	--	--	34	14	--	--	--
MAY											
14...	1635	52	--	--	--	--	--	--	--	--	--
SEP.											
10...	1445	12	62	20	238	0	35	18	--	.3	.00

03247050 - E F L MIAMI R NR BATAVIA OH (LAT 39 03 36 LONG 084 10 32)

DEC., 1972											
12...	1105	408	--	--	--	--	35	11	--	--	--
MAR., 1973											
06...	1600	521	--	--	--	--	57	17	--	--	--
JUNE											
01...	1320	468	--	--	--	--	36	12	--	--	--

03247400 - SHAYLER RN NR PERINTOWN OH (LAT 39 06 46 LONG 084 13 24)

OCT., 1972											
04...	1055	4.4	--	--	--	--	--	--	--	--	--
NOV.											
28...	1455	14	--	--	--	--	--	--	--	--	--
JAN., 1973											
24...	1500	14	--	--	--	--	68	22	--	--	--
MAR.											
20...	1425	21	--	--	--	--	59	20	--	--	--
MAY											
15...	1250	3.3	--	--	--	--	--	--	--	--	--
JULY											
10...	1300	3.3	--	--	--	--	81	30	--	--	--
SEP.											
11...	1300	1.5	62	16	219	10	78	38	--	.2	.00

03247500 - E F L MIAMI R AT PERINTOWN OH (LAT 39 08 13 LONG 084 14 17)

OCT., 1972											
04...	0925	115	--	--	--	--	--	--	--	--	--
NOV.											
30...	1315	730	--	--	--	--	--	--	--	--	--
JAN., 1973											
24...	1100	686	--	--	--	--	53	15	--	--	--
MAY											
15...	1600	126	--	--	--	--	--	--	--	--	--
JULY											
11...	1130	136	--	--	--	--	38	14	--	--	--
SEP.											
11...	1510	62	--	--	178	0	36	13	--	.2	.00

MILL CREEK BASIN

03255500 - MILL C AT READING OH (LAT 39 13 14 LONG 084 26 49)

NOV., 1972											
16...	1415	93	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1725	51	--	--	--	--	87	63	--	--	--
MAR.											
07...	1055	207	--	--	--	--	85	53	--	--	--
MAY											
02...	1205	78	--	--	--	--	--	--	--	--	--
AUG.											
20...	1525	87	--	--	--	--	28	36	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
------	--	-----------------------------------	---	------------------------------------	---	--	---------------	--	---------------------------------	-----------------------------

LITTLE MIAMI RIVER BASIN--CONTINUED

03245500 - L MIAMI R AT MILFORD OH (LAT 39 10 17 LONG 084 17 53)

OCT., 1972										
03...	2.2	--	.35	270	76	553	7.9	334	--	18.0
NOV.										
23...	--	--	--	--	--	611	--	--	--	5.5
JAN., 1973										
30...	4.0	--	--	280	--	551	7.6	--	--	3.0
MAR.										
21...	4.1	--	--	290	--	569	8.3	--	--	7.5
MAY										
16...	--	--	--	--	--	649	--	--	--	16.0
SEP.										
12...	--	--	--	--	--	733	--	--	--	23.0

03246200 - E F L MIAMI R NR MARATHON OH (LAT 39 06 52 LONG 084 01 29)

OCT., 1972										
04...	--	--	--	--	--	330	--	--	--	15.0
NOV.										
30...	1.8	--	--	200	--	412	8.4	--	--	3.0
MAR., 1973										
20...	2.3	--	--	170	--	340	7.8	--	--	6.0
MAY										
14...	--	--	--	--	--	384	--	--	--	18.0
SEP.										
10...	--	.73	.07	--	--	483	7.6	--	330	23.0

03247050 - E F L MIAMI R NR BATAVIA OH (LAT 39 03 36 LONG 084 10 32)

DEC., 1972										
12...	1.6	--	--	170	--	343	8.3	--	--	2.5
MAR., 1973										
06...	1.1	--	--	190	--	400	7.7	--	--	13.0
JUNE										
01...	1.6	--	--	180	--	348	7.9	--	--	--

03247400 - SHAYLER RN NR PERINTOWN OH (LAT 39 06 46 LONG 084 13 24)

OCT., 1972										
04...	--	--	--	--	--	635	--	--	--	23.5
NOV.										
28...	--	--	--	--	--	502	--	--	--	5.5
JAN., 1973										
24...	2.0	--	--	200	--	448	7.6	--	--	4.5
MAR.										
20...	2.1	--	--	210	--	456	8.0	--	--	6.5
MAY										
15...	--	--	--	--	--	655	--	--	--	13.0
JULY										
10...	3.0	--	--	290	--	650	7.8	--	--	25.0
SEP.										
11...	--	5.4	2.1	--	--	680	8.7	--	457	20.0

03247500 - E F L MIAMI R AT PERINTOWN OH (LAT 39 08 13 LONG 084 14 17)

OCT., 1972										
04...	--	--	--	--	--	358	--	--	--	15.0
NOV.										
30...	--	--	--	--	--	382	--	--	--	3.0
JAN., 1973										
24...	1.6	--	--	190	--	391	7.8	--	--	2.0
MAY										
15...	--	--	--	--	--	463	--	--	--	16.0
JULY										
11...	2.3	--	--	240	--	418	8.5	--	--	26.0
SEP.										
11...	--	1.2	.26	--	--	402	7.7	--	314	22.0

MILL CREEK BASIN

03255500 - MILL C AT READING OH (LAT 39 13 14 LONG 084 26 49)

NOV., 1972										
16...	--	--	--	--	--	651	--	--	--	7.5
JAN., 1973										
08...	2.8	--	--	370	--	798	7.6	--	--	3.5
MAR.										
07...	1.7	--	--	280	--	660	8.3	--	--	15.5
MAY										
02...	--	--	--	--	--	724	--	--	--	16.0
AUG.										
20...	.04	--	--	200	--	458	7.3	--	--	24.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- RONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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MILL CREEK BASIN--CONTINUED

03257500 - W F MILL C AT WOODLAWN OH (LAT 39 15 14 LONG 084 28 13)

NOV., 1972											
17...	0905	17	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1200	18	--	--	--	--	50	45	--	--	--
MAR.											
08...	1210	27	--	--	--	--	61	100	--	--	--
MAY											
02...	1305	24	--	--	--	--	--	--	--	--	--
JUNE											
25...	1630	13	--	--	--	--	32	16	--	--	--
AUG.											
20...	1310	44	--	--	--	--	--	--	--	--	--

03259000 - MILL C AT CARTHAGE OH (LAT 39 12 07 LONG 084 28 16)

NOV., 1972											
16...	1535	124	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1545	73	--	--	--	--	78	55	--	--	--
MAR.											
05...	1330	730	--	--	--	--	66	89	--	--	--
MAY											
02...	1020	96	--	--	--	--	--	--	--	--	--
JUNE											
25...	1200	50	--	--	--	--	68	48	--	--	--
AUG.											
21...	0935	69	--	--	--	--	--	--	--	--	--

GREAT MIAMI RIVER BASIN

03260620 - MUCHINIPPI C NR RUSSELLS POINT OH (LAT 40 26 21 LONG 083 56 28)

SEP., 1973											
18...	1420	4.4	--	--	328	0	120	31	--	.5	.01

03260700 - BOKENGEHALAS C NR DE GRAFF OH (LAT 40 20 50 LONG 083 53 28)

AUG., 1973											
23...	1330	35	--	--	392	22	80	60	1.4	--	--

03260800 - STONY C NR DE GRAFF OH (LAT 40 17 27 LONG 083 54 36)

AUG., 1973											
23...	1105	66	--	--	262	3	56	7.2	--	.3	.00

03262000 - LORAMIE C AT LOCKINGTON OH (LAT 40 12 35 LONG 084 14 32)

AUG., 1973											
27...	1045	51	47	26	253	11	64	20	--	.3	.00
SEP.											
27...	1045	15	--	--	253	11	64	20	--	.3	.00

03262650 - SPRING C NR TROY OH (LAT 40 05 18 LONG 084 10 27)

SEP., 1973											
06...	1345	4.2	--	--	312	0	50	14	--	.3	.01

03262700 - G MIAMI R AT TROY OH (LAT 40 02 25 LONG 084 11 52)

SEP., 1973											
17...	1330	182	--	--	318	0	71	26	.6	--	--

03264000 - GREENVILLE C NR BRADFORD OH (LAT 40 06 08 LONG 084 25 48)

SEP., 1973											
17...	1045	36	--	--	358	0	68	20	.4	--	--

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN
 CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

435

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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MILL CREEK BASIN--CONTINUED

03257500 - W F MILL C AT WOODLAWN OH (LAT 39 15 14 LONG 084 28 13)

NOV., 1972										
17...	--	--	--	--	--	348	--	--	--	6.5
JAN., 1973										
09...	1.4	--	--	190	--	467	7.2	--	--	.0
MAR.										
08...	.75	--	--	210	--	676	7.8	--	--	10.5
MAY										
02...	--	--	--	--	--	409	--	--	--	15.0
JUNE										
25...	1.2	--	--	170	--	351	7.9	--	--	26.0
AUG.										
20...	--	--	--	--	--	452	--	--	--	24.0

03259000 - MILL C AT CARTHAGE OH (LAT 39 12 07 LONG 084 28 16)

NOV., 1972										
16...	--	--	--	--	--	601	--	--	--	7.5
JAN., 1973										
08...	2.2	--	--	310	--	698	7.7	--	--	3.0
MAR.										
05...	1.5	--	--	240	--	728	7.6	--	--	9.0
MAY										
02...	--	--	--	--	--	619	--	--	--	16.0
JUNE										
25...	2.1	--	--	300	--	665	7.9	--	--	23.5
AUG.										
21...	--	--	--	--	--	553	--	--	--	21.0

GREAT MIAMI RIVER BASIN

03260620 - MUCHINIPPI C NR RUSSELLS POINT OH (LAT 40 26 21 LONG 083 56 28)

SEP., 1973										
18...	--	.18	.08	--	--	782	8.2	--	507	16.5

03260700 - BOKENGEHALAS C NR DE GRAFF OH (LAT 40 20 50 LONG 083 53 28)

AUG., 1973										
23...	1.6	--	.34	420	62	855	8.5	556	--	16.0

03260800 - STONY C NR DE GRAFF OH (LAT 40 17 27 LONG 083 54 36)

AUG., 1973										
23...	--	1.7	.03	--	--	519	8.5	--	398	16.0

03262000 - LORAMIE C AT LOCKINGTON OH (LAT 40 12 35 LONG 084 14 32)

AUG., 1973										
27...	--	1.3	.07	--	--	557	8.7	--	437	21.5
SEP.										
27...	--	1.3	.07	--	--	557	8.7	--	437	21.5

03262650 - SPRING C NR TROY OH (LAT 40 05 18 LONG 084 10 27)

SEP., 1973										
06...	--	2.8	.01	--	--	610	8.1	--	367	24.0

03262700 - G MIAMI R AT TROY OH (LAT 40 02 25 LONG 084 11 52)

SEP., 1973										
17...	.70	--	.52	340	79	669	7.9	406	--	21.0

03264000 - GREENVILLE C NR BRADFORD OH (LAT 40 06 08 LONG 084 25 48)

SEP., 1973										
17...	1.7	--	.42	350	56	669	8.0	400	--	17.0

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (SO ₄) (MG/L)	DIS- SOLVED SULFATE (MG/L)	DIS- SOLVED CHLOR- IDE (CL) (MG/L)	DIS- SOLVED FLUOR- IDE (F) (MG/L)	TOTAL FLUOR- IDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
GREAT MIAMI RIVER BASIN--CONTINUED											
03266500 - MAD R AT ZANESFIELD OH (LAT 40 21 01 LONG 083 40 28)											
OCT.. 1972											
06...	1440	7.3	--	--	--	--	--	--	--	--	--
NOV.											
27...	1155	12	--	--	--	--	--	--	--	--	--
JAN.. 1973											
26...	1205	8.0	--	--	--	--	42	9.5	--	--	--
MAR.											
20...	1340	22	--	--	--	--	36	8.1	--	--	--
MAY											
15...	1110	8.0	--	--	--	--	--	--	--	--	--
JULY											
11...	1040	2.6	--	--	--	--	38	14	--	--	--
03267400 - CEDAR RN NR TREMONT CITY OH (LAT 40 01 49 LONG 083 48 59)											
SEP.. 1973											
27...	1155	7.0	--	--	376	0	76	18	.3	--	--
03267500 - MAD R AT TREMONT CITY OH (LAT 40 00 25 LONG 083 49 24)											
MAR.. 1973											
13...	1410	323	--	--	--	--	75	14	--	--	--
MAY											
08...	1220	405	--	--	--	--	--	--	--	--	--
JULY											
09...	1445	354	--	--	--	--	73	20	--	--	--
03267600 - CHAPMAN C AT TREMONT CITY OH (LAT 40 00 38 LONG 083 50 08)											
SEP.. 1973											
27...	1040	3.5	--	--	282	0	50	11	.4	--	--
03267900 - MAD R AT ST PARIS PIKE AT EAGLE CITY OH (LAT 39 57 51 LONG 083 49 54)											
JAN.. 1973											
11...	1600	361	--	--	--	--	82	17	--	--	--
MAR.											
13...	1155	388	--	--	--	--	71	14	--	--	--
MAY											
08...	1035	396	--	--	--	--	--	--	--	--	--
JULY											
09...	1305	412	--	--	--	--	74	24	--	--	--
AUG.											
20...	1515	805	--	--	--	--	--	--	--	--	--
03267950 - BUCK C NR NEW MOOREFIELD OH (LAT 40 00 38 LONG 083 41 56)											
NOV.. 1972											
01...	1045	20	--	--	--	--	--	--	--	--	--
DEC.											
13...	1120	89	--	--	--	--	49	14	--	--	--
MAR.. 1973											
05...	1245	30	--	--	--	--	67	15	--	--	--
MAY											
31...	1100	34	--	--	--	--	--	--	--	--	--
AUG.											
20...	1025	38	--	--	--	--	44	14	--	--	--
03267960 - E F BUCK C NR NEW MOOREFIELD OH (LAT 40 00 22 LONG 083 41 37)											
NOV.. 1972											
01...	0940	46	--	--	--	--	--	--	--	--	--
DEC.											
13...	1240	104	--	--	--	--	88	13	--	--	--
MAR.. 1973											
05...	1115	41	--	--	--	--	88	14	--	--	--
MAY											
31...	1250	50	--	--	--	--	--	--	--	--	--
AUG.											
20...	1130	31	--	--	--	--	89	14	--	--	--
03268500 - BEAVER C NR SPRINGFIELD OH (LAT 39 56 26 LONG 083 44 56)											
JAN.. 1973											
08...	1130	35	--	--	--	--	--	--	--	--	--
22...	1145	67	--	--	--	--	52	36	--	--	--
MAR.											
09...	1155	31	--	--	--	--	55	23	--	--	--
MAY											
08...	1415	43	--	--	--	--	--	--	--	--	--
JULY											
06...	1115	74	--	--	--	--	37	16	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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GREAT MIAMI RIVER BASIN--CONTINUED

03266500 - MAD R AT ZANESFIELD OH (LAT 40 21 01 LONG 083 40 28)

OCT., 1972										
06...	--	--	--	--	--	561	--	--	--	14.0
NOV.										
27...	--	--	--	--	--	418	--	--	--	5.0
JAN., 1973										
26...	1.3	--	--	280	--	510	8.0	--	--	4.0
MAR.										
20...	.95	--	--	280	--	510	8.3	--	--	5.5
MAY										
15...	--	--	--	--	--	533	--	--	--	12.0
JULY										
11...	.60	--	--	300	--	533	8.0	--	--	15.0

03267400 - CEDAR RN NR TREMONT CITY OH (LAT 40 01 49 LONG 083 48 59)

SEP., 1973										
27...	4.5	--	.02	420	110	730	7.9	470	--	14.0

03267500 - MAD R AT TREMONT CITY OH (LAT 40 00 25 LONG 083 49 24)

MAR., 1973										
13...	2.6	--	--	360	--	635	8.1	--	--	10.5
MAY										
08...	--	--	--	--	--	655	--	--	--	12.0
JULY										
09...	3.1	--	--	370	--	649	8.2	--	--	19.5

03267600 - CHAPMAN C AT TREMONT CITY OH (LAT 40 00 38 LONG 083 50 08)

SEP., 1973										
27...	1.1	--	.02	300	68	520	7.9	318	--	17.0

03267900 - MAD R AT ST PARIS PIKE AT EAGLE CITY OH (LAT 39 57 51 LONG 083 49 54)

JAN., 1973										
11...	3.0	--	--	410	--	724	8.0	--	--	2.0
MAR.										
13...	3.0	--	--	360	--	654	7.8	--	--	9.0
MAY										
08...	--	--	--	--	--	566	--	--	--	11.0
JULY										
09...	3.2	--	--	400	--	693	7.9	--	--	19.0
AUG.										
20...	--	--	--	--	--	608	--	--	--	20.0

03267950 - BUCK C NR NEW MOOREFIELD OH (LAT 40 00 38 LONG 083 41 56)

NOV., 1972										
01...	--	--	--	--	--	684	--	--	--	10.5
DEC.										
13...	3.8	--	--	260	--	495	7.4	--	--	3.0
MAR., 1973										
05...	3.7	--	--	340	--	619	8.0	--	--	12.0
MAY										
31...	--	--	--	--	--	700	--	--	--	14.0
AUG.										
20...	3.7	--	--	410	--	702	7.9	--	--	16.0

03267960 - E F BUCK C NR NEW MOOREFIELD OH (LAT 40 00 22 LONG 083 41 37)

NOV., 1972										
01...	--	--	--	--	--	732	--	--	--	10.0
DEC.										
13...	3.4	--	--	370	--	643	8.2	--	--	3.5
MAR., 1973										
05...	2.1	--	--	390	--	696	8.0	--	--	11.0
MAY										
31...	--	--	--	--	--	721	--	--	--	16.0
AUG.										
20...	1.5	--	--	430	--	729	7.9	--	--	17.0

03268500 - BEAVER C NR SPHINGFIELD OH (LAT 39 56 26 LONG 083 44 56)

JAN., 1973										
08...	--	--	--	--	--	665	--	--	--	.0
22...	2.8	--	--	310	--	597	8.2	--	--	3.5
MAR.										
09...	2.7	--	--	340	--	644	8.0	--	--	8.5
MAY										
08...	--	--	--	--	--	610	--	--	--	14.0
JULY										
06...	2.5	--	--	300	--	555	7.8	--	--	20.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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GREAT MIAMI RIVER BASIN--CONTINUED

03270500 - G MIAMI R AT DAYTON OH (LAT 39 45 55 LONG 084 11 51)

SEP., 1973	12...	1410	814	--	--	332	0	67	33	.4	--	--
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03270800 - WOLF C AT TROTWOOD OH (LAT 39 47 39 LONG 084 18 36)

SEP., 1973	05...	1000	1.9	--	--	345	0	61	43	--	.4	.00
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03271500 - G MIAMI R AT MIAMISBURG OH (LAT 39 38 40 LONG 084 17 23)

SEP., 1973	26...	1215	947	--	--	352	4	91	58	.7	--	--
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03271800 - TWIN C NR INGOMAR OH (LAT 39 42 28 LONG 084 31 30)

SEP., 1973	05...	1215	18	--	--	298	0	55	24	--	.4	.00
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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

STREAMS TRIBUTARY TO LAKE ERIE

04177100 - E B ST JOSEPH R NR PIONEER OH (LAT 41 39 56 LONG 084 32 31)

SEP., 1973	19...	0920	12	--	--	314	0	48	13	.4	--	--
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04177230 - W B ST JOSEPH R NR PIONEER OH (LAT 41 39 14 LONG 084 34 20)

SEP., 1973	19...	1005	12	--	--	275	0	49	10	--	.5	.00
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04177820 - FISH C NR EDGERTON OH (LAT 41 27 59 LONG 084 46 37)

SEP., 1973	19...	1115	8.6	--	--	290	6	50	14	.5	--	--
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04180950 - ST MARYS R AT MENDON OH (LAT 40 40 35 LONG 084 31 07)

SEP., 1973	20...	0820	20	39	28	205	0	110	39	--	.5	.01
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04185000 - TIFFIN R AT STRYKER OH (LAT 41 30 17 LONG 084 25 49)

OCT., 1972	17...	1450	62	--	--	--	--	--	--	--	--	--
JAN., 1973	04...	0930	1650	--	--	--	--	60	23	--	--	--
FEB.	06...	1000	774	--	--	--	--	--	--	--	--	--
APR.	04...	1615	758	--	--	--	--	68	23	--	--	--
MAY	31...	1425	989	--	--	--	--	--	--	--	--	--
JULY	23...	1635	63	--	--	--	--	65	26	--	--	--
SEP.	18...	1500	20	55	29	311	10	72	37	--	.4	.01

04185900 - AUGLAIZE R NR BUCKLAND OH (LAT 40 39 11 LONG 084 15 35)

SEP., 1973	20...	0940	9.8	--	--	350	0	120	82	.9	--	--
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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

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CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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GREAT MIAMI RIVER BASIN--CONTINUED

03270500 - G MIAMI R AT DAYTON OH (LAT 39 45 55 LONG 084 11 51)

SEP., 1973 12...	2.7	--	.56	360	88	702	7.9	428	--	21.5
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03270800 - WOLF C AT TROTWOOD OH (LAT 39 47 39 LONG 084 18 36)

SEP., 1973 05...	--	.56	.29	--	--	774	7.9	--	476	23.0
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03271500 - G MIAMI R AT MIAMISBURG OH (LAT 39 38 40 LONG 084 17 23)

SEP., 1973 26...	.60	--	1.2	370	74	831	8.3	556	--	24.5
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03271800 - TWIN C NR INGOMAR OH (LAT 39 42 28 LONG 084 31 30)

SEP., 1973 05...	--	2.6	.12	--	--	620	7.9	--	409	24.0
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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

STREAMS TRIBUTARY TO LAKE ERIE

04177100 - E B ST JOSEPH R NR PIONEER OH (LAT 41 39 56 LONG 084 32 31)

SEP., 1973 19...	.30	--	.07	310	52	562	8.1	352	--	12.0
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04177230 - W B ST JOSEPH R NR PIONEER OH (LAT 41 39 14 LONG 084 34 20)

SEP., 1973 19...	--	.27	.01	--	--	532	7.7	--	369	14.0
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04177820 - FISH C NR EDGERTON OH (LAT 41 27 59 LONG 084 46 37)

SEP., 1973 19...	.30	--	.04	300	52	551	8.4	358	--	14.0
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04180950 - ST MARYS R AT MENDON OH (LAT 40 40 35 LONG 084 31 07)

SEP., 1973 20...	--	.99	.25	--	--	680	7.3	--	523	15.0
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04185000 - TIFFIN R AT STRYKER OH (LAT 41 30 17 LONG 084 25 49)

OCT., 1972 17...	--	--	--	--	--	705	--	--	--	9.5
JAN., 1973 04...	6.3	--	--	250	--	492	7.0	--	--	1.0
FEB. 06...	--	--	--	--	--	602	--	--	--	4.0
APR. 04...	4.2	--	--	300	--	565	8.1	--	--	8.0
MAY 31...	--	--	--	--	--	462	--	--	--	16.0
JULY 23...	1.1	--	--	330	--	629	8.4	--	--	22.5
SEP. 18...	--	.56	.15	--	--	715	8.5	--	537	16.0

04185900 - AUGLAIZE R NR BUCKLAND OH (LAT 40 39 11 LONG 084 15 35)

SEP., 1973 20...	1.5	--	.40	460	170	980	7.9	640	--	16.0
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ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED											
04185950 - AUGLAIZE R NR SPENCERVILLE OH (LAT 40 44 36 LONG 084 18 57)											
OCT., 1972											
20...	1125	65	--	--	--	--	--	--	--	--	--
MAY., 1973											
30...	1030	132	--	--	--	--	--	--	--	--	--
AUG.											
16...	1235	1330	--	--	--	--	37	12	--	--	--
04188300 - BLANCHARD R AT MT BLANCHARD OH (LAT 40 53 28 LONG 083 33 50)											
SEP., 1973											
20...	1405	1.6	--	--	284	0	200	36	.6	--	--
04188400 - BLANCHARD R AB FINDLAY OH (LAT 41 02 02 LONG 083 34 46)											
OCT., 1972											
16...	1150	102	--	--	--	--	--	--	--	--	--
DEC.											
27...	1630	485	--	--	--	--	87	19	--	--	--
FEB., 1973											
12...	1125	68	--	--	--	--	--	--	--	--	--
APR.											
03...	1245	271	--	--	--	--	89	17	--	--	--
JUNE											
08...	1110	1360	--	--	--	--	39	10	--	--	--
SEP.											
27...	1240	5.2	--	--	291	0	160	26	--	.4	.00
04189180 - RILEY C NR OTTAWA OH (LAT 41 00 00 LONG 084 00 00)											
SEP., 1973											
20...	1145	1.4	--	--	219	0	170	61	--	.5	.01
04190400 - L AUGLAIZE R NR MELROSE OH (LAT 41 03 33 LONG 084 24 01)											
SEP., 1973											
18...	1510	.13	--	--	166	0	240	47	.5	--	--
04192800 - BEAVER C NR GRAND RAPIDS OH (LAT 41 23 37 LONG 083 50 42)											
SEP., 1973											
18...	1300	.44	--	--	200	0	370	110	.7	--	--
04194200 - TOUSSAINT C NR LIMESTONE OH (LAT 41 32 54 LONG 083 14 29)											
SEP., 1973											
18...	0900	2.0	--	--	269	0	350	160	--	.8	.01
04194400 - S B PORTAGE R NR SIX POINTS OH (LAT 41 18 41 LONG 083 30 36)											
SEP., 1973											
18...	1110	4.4	--	--	143	0	150	130	--	.4	.00
04194500 - PORTAGE R NR PEMBERVILLE OH (LAT 41 22 44 LONG 083 28 34)											
SEP., 1973											
18...	1025	5.1	--	--	166	0	140	84	--	.3	.01
04196000 - SANDUSKY R NR BUCYRUS OH (LAT 40 48 13 LONG 083 00 21)											
OCT., 1972											
24...	1145	60	--	--	--	--	--	--	--	--	--
NOV.											
16...	1030	242	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	--	46	--	--	--	--	99	33	--	--	--
FEB.											
14...	1320	39	--	--	--	--	--	--	--	--	--
MAR.											
15...	1510	2160	--	--	--	--	29	12	--	--	--
APR.											
13...	1200	115	--	--	--	--	--	--	--	--	--
JUNE											
05...	1045	96	--	--	--	--	78	26	--	--	--
SEP.											
28...	1100	6.1	59	24	232	0	100	96	--	.8	.01

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
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STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04185950 - AUGLAIZE R NR SPENCERVILLE OH (LAT 40 44 36 LONG 084 18 57)

OCT., 1972										
20...	--	--	--	--	--	758	--	--	--	6.0
MAY, 1973										
30...	--	--	--	--	--	594	--	--	--	18.0
AUG.										
16...	2.6	--	--	180	--	333	7.3	--	--	21.5

04188300 - BLANCHARD R AT MT BLANCHARD OH (LAT 40 53 28 LONG 083 33 50)

SEP., 1973										
20...	.10	--	.06	460	230	870	8.2	610	--	19.5

04188400 - BLANCHARD R AB FINDLAY OH (LAT 41 02 02 LONG 083 34 46)

OCT., 1972										
16...	--	--	--	--	--	686	--	--	--	10.5
DEC.										
27...	5.0	--	--	270	--	512	7.6	--	--	4.0
FEB., 1973										
12...	--	--	--	--	--	723	--	--	--	.0
APR.										
03...	4.1	--	--	280	--	542	8.0	--	--	8.0
JUNE										
08...	2.8	--	--	150	--	315	7.2	--	--	21.0
SEP.										
27...	--	.01	.00	--	--	805	7.7	--	594	20.0

04189180 - RILEY C NR OTTAWA OH (LAT 41 00 00 LONG 084 00 00)

SEP., 1973										
20...	--	.00	.01	--	--	864	7.4	--	625	16.0

04190400 - L AUGLAIZE R NR MELROSE OH (LAT 41 03 33 LONG 084 24 01)

SEP., 1973										
18...	.07	--	.01	390	250	843	8.2	556	--	24.0

04192800 - BEAVER C NR GRAND RAPIDS OH (LAT 41 23 37 LONG 083 50 42)

SEP., 1973										
18...	.20	--	.06	1000	840	1760	7.9	1460	--	17.0

04194200 - TOUSSAINT C NR LIMESTONE OH (LAT 41 32 54 LONG 083 14 29)

SEP., 1973										
18...	--	.79	.13	--	--	1490	7.6	--	1110	13.5

04194400 - S B PORTAGE R NR SIX POINTS OH (LAT 41 18 41 LONG 083 30 36)

SEP., 1973										
18...	--	5.1	.16	--	--	1020	7.4	--	686	14.5

04194500 - PORTAGE R NR PEMBERVILLE OH (LAT 41 22 44 LONG 083 28 34)

SEP., 1973										
18...	--	3.2	.19	--	--	870	7.6	--	569	14.5

04196000 - SANDUSKY R NR BUCYRUS OH (LAT 40 48 13 LONG 083 00 21)

OCT., 1972										
24...	--	--	--	--	--	706	--	--	--	11.0
NOV.										
16...	--	--	--	--	--	425	--	--	--	5.5
JAN., 1973										
08...	4.1	--	--	310	--	645	8.2	--	--	1.0
FEB.										
14...	--	--	--	--	--	713	--	--	--	2.5
MAR.										
15...	2.0	--	--	100	--	244	7.3	--	--	14.5
APR.										
13...	--	--	--	--	--	509	--	--	--	8.0
JUNE										
05...	2.5	--	--	300	--	598	7.2	--	--	21.0
SEP.										
28...	--	1.3	1.7	--	--	930	6.9	--	617	22.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO ₃) (MG/L)	CAR- BONATE (CO ₃) (MG/L)	DIS- SOLVED SULFATE (SO ₄) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
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STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04196600 - TYMOCHTEE C NR MARSEILLES OH (LAT 40 42 58 LONG 083 23 32)

FEB., 1973											
16...	1040	49	--	--	--	--	--	--	--	--	--
APR.											
11...	1230	284	--	--	--	--	62	11	--	--	--
JUNE											
15...	1350	19	--	--	--	--	100	20	--	--	--

04197000 - SANDUSKY R NR MEXICO OH (LAT 41 02 39 LONG 083 11 42)

DEC., 1972											
19...	1600	821	--	--	--	--	120	20	--	--	--
FEB., 1973											
15...	0935	280	--	--	--	--	--	--	--	--	--
APR.											
10...	--	1440	--	--	--	--	89	16	--	--	--
JUNE											
05...	1520	1290	--	--	--	--	86	16	--	--	--
AUG.											
30...	1205	70	45	28	216	0	140	20	--	.2	.01

04198010 - GREEN C NR FREMONT OH (LAT 41 23 36 LONG 083 01 35)

SEP., 1973											
06...	1305	14	--	--	128	0	1300	17	.3	--	--

04198015 - COLD C NR CASTALIA OH (LAT 41 25 12 LONG 082 48 02)

SEP., 1973											
06...	1200	55	--	--	285	0	840	20	1.0	--	--

04198020 - W B HURON R NR MONROEVILLE OH (LAT 41 16 46 LONG 082 40 32)

SEP., 1973											
06...	1025	14	95	32	274	0	220	26	--	.1	.00

04200050 - W B BLACK R NR OBERLIN OH (LAT 41 15 54 LONG 082 10 47)

SEP., 1973											
05...	1500	.79	--	--	211	11	110	33	--	.4	.00

04201400 - W B ROCKY R AT WEST VIEW OH (LAT 41 21 03 LONG 081 54 12)

SEP., 1973											
05...	1345	8.3	--	--	204	6	120	200	--	.5	.00

04202000 - CUYAHOGA R AT HIRAM RAPIDS OH (LAT 41 20 26 LONG 081 10 01)

NOV., 1972											
17...	1400	760	--	--	--	--	--	--	--	--	--
JAN., 1973											
12...	0945	150	--	--	--	--	37	24	--	--	--
MAR.											
09...	1400	581	--	--	--	--	32	19	--	--	--
MAY											
11...	1330	326	--	--	--	--	--	--	--	--	--
JULY											
12...	1400	38	--	--	--	--	25	17	--	--	--
SEP.											
14...	1010	18	--	--	140	0	27	18	--	.1	.00

04204000 - L CUYAHOGA R AT MOGADORE OH (LAT 41 03 47 LONG 081 23 38)

OCT., 1972											
24...	1330	13	--	--	110	0	34	18	.2	--	--
DEC.											
15...	1330	33	--	--	--	--	57	21	--	--	--
FEB., 1973											
13...	1440	23	--	--	--	--	50	20	--	--	--
APR.											
18...	1215	30	--	--	--	--	--	--	--	--	--
JUNE											
19...	1420	18	--	--	--	--	46	21	--	--	--
AUG.											
17...	1300	12	--	--	100	0	33	18	--	.2	.01

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED										
04196600 - TYMOCHTEE C NR MARSEILLES OH (LAT 40 42 58 LONG 083 23 32)										
FEB., 1973	--	--	--	--	--	585	--	--	--	.5
APR. 11...	3.9	--	--	200	--	387	8.0	--	--	--
JUNE 15...	4.0	--	--	350	--	649	7.0	--	--	21.0
04197000 - SANDUSKY R NR MEXICO OH (LAT 41 02 39 LONG 083 11 42)										
DEC., 1972	4.1	--	--	320	--	611	8.3	--	--	.5
FEB., 1973	--	--	--	--	--	705	--	--	--	.0
APR. 10...	3.7	--	--	260	--	504	8.3	--	--	7.0
JUNE 05...	3.8	--	--	280	--	525	8.1	--	--	23.0
AUG. 30...	--	.51	.01	--	--	677	7.5	--	535	--
04198010 - GREEN C NR FREMONT OH (LAT 41 23 36 LONG 083 01 35)										
SEP., 1973	.30	--	.09	1500	1400	2090	7.7	2100	--	24.0
04198015 - COLD C NR CASTALIA OH (LAT 41 25 12 LONG 082 48 02)										
SEP., 1973	.30	--	.03	1200	970	1730	7.6	1600	--	13.0
04198020 - W B HURON R NR MONROEVILLE OH (LAT 41 16 46 LONG 082 40 32)										
SEP., 1973	--	.38	.13	--	--	880	8.1	--	665	23.0
04200050 - W B BLACK R NR OBERLIN OH (LAT 41 15 54 LONG 082 10 47)										
SEP., 1973	--	.70	.18	--	--	647	8.6	--	484	24.5
04201400 - W B ROCKY R AT WEST VIEW OH (LAT 41 21 03 LONG 081 54 12)										
SEP., 1973	--	2.0	1.3	--	--	1200	8.4	--	709	26.0
04202000 - CUYAHOGA R AT HIRAM RAPIDS OH (LAT 41 20 26 LONG 081 10 01)										
NOV., 1972	--	--	--	--	--	211	--	--	--	4.0
JAN., 1973	.60	--	--	120	--	279	7.2	--	--	.0
MAR. 09...	.52	--	--	81	--	222	7.3	--	--	9.0
MAY 11...	--	--	--	--	--	224	--	--	--	15.0
JULY 12...	.37	--	--	120	--	282	8.1	--	--	22.0
SEP. 14...	--	.01	.03	--	--	341	7.2	--	218	18.0
04204000 - L CUYAHOGA R AT MOGADORE OH (LAT 41 03 47 LONG 081 23 38)										
OCT., 1972	.50	--	.02	140	50	302	7.3	192	--	10.0
DEC. 15...	.80	--	--	170	--	357	7.4	--	--	2.0
FEB., 1973	.68	--	--	160	--	356	7.7	--	--	3.5
APR. 18...	--	--	--	--	--	331	--	--	--	13.0
JUNE 19...	.60	--	--	150	--	349	7.4	--	--	25.0
AUG. 17...	--	.54	.11	--	--	292	8.2	--	193	24.0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED											
04204500 - L CUYAHOGA R AT MASSILLON RD AKRON OH (LAT 41 03 37 LONG 081 27 48)											
OCT., 1972											
24...	1020	23	--	--	--	--	--	--	--	--	--
DEC.											
18...	1130	50	--	--	--	--	59	36	--	--	--
FEB., 1973											
13...	1230	35	--	--	--	--	61	28	--	--	--
APR.											
17...	1340	43	--	--	--	--	--	--	--	--	--
JUNE											
19...	1200	28	--	--	--	--	57	26	--	--	--
AUG.											
17...	1050	18	--	--	144	3	46	26	--	.3	.01
04205000 - SPRINGFIELD LK OUTLET AT AKRON OH (LAT 41 03 21 LONG 081 27 52)											
OCT., 1972											
24...	1215	3.8	--	--	146	0	59	48	.1	--	--
DEC.											
18...	1310	9.0	--	--	--	--	66	59	--	--	--
FEB., 1973											
13...	1335	8.1	--	--	--	--	66	83	--	--	--
APR.											
18...	1045	11	--	--	--	--	--	--	--	--	--
JUNE											
19...	1315	6.2	--	--	--	--	52	39	--	--	--
AUG.											
17...	1150	20	--	--	143	2	63	56	--	.3	.00
04207200 - TINKERS C AT BEDFORD OH (LAT 41 23 04 LONG 081 31 39)											
NOV., 1972											
13...	1025	102	--	--	--	--	--	--	--	--	--
JAN., 1973											
08...	1140	55	--	--	--	--	70	100	--	--	--
MAR.											
05...	1225	476	--	--	--	--	67	87	--	--	--
MAY											
08...	1345	55	--	--	--	--	--	--	--	--	--
JULY											
09...	1145	19	87	19	--	--	82	91	--	--	.00
SEP.											
10...	1125	17	67	21	182	5	73	150	--	1.5	.00
04207500 - OHIO CA AT INDEPENDENCE OH (LAT 41 23 25 LONG 081 37 30)											
OCT., 1972											
20...	0900	65	--	--	160	2	130	95	.2	--	--
DEC.											
14...	1530	71	--	--	--	--	73	78	--	--	--
FEB., 1973											
12...	1445	61	--	--	--	--	82	76	--	--	--
APR.											
13...	1330	88	--	--	--	--	--	--	--	--	--
JUNE											
15...	1230	68	--	--	--	--	80	84	--	--	--
AUG.											
15...	1445	59	--	--	--	--	--	--	--	--	--
SEP.											
13...	0820	57	58	15	187	8	160	120	--	.6	.00
04208502 - BIG C AT CLEVELAND OH (LAT 41 27 01 LONG 081 43 18)											
OCT., 1972											
04...	1345	16	--	--	150	0	150	100	.7	--	--
09...	1115	52	--	--	--	--	--	--	--	--	--
DEC.											
07...	1315	48	--	--	--	--	140	87	--	--	--
APR., 1973											
12...	1520	23	--	--	--	--	160	100	--	--	--
JUNE											
14...	1310	11	--	--	--	--	140	93	--	--	--
AUG.											
20...	1125	27	--	--	212	0	82	63	--	.4	4.4
04208900 - AURORA B NR CHAGRIN FALLS OH (LAT 41 24 40 LONG 081 24 44)											
SEP., 1973											
06...	1045	18	--	--	192	0	55	20	.2	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
------	--	-----------------------------------	---	------------------------------------	---	--	---------------	--	---------------------------------	-----------------------------

STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04204500 - L CUYAHOGA R AT MASSILLON RD AKRON OH (LAT 41 03 37 LONG 081 27 48)

OCT., 1972										
24...	--	--	--	--	--	425	--	--	--	10.5
DEC.										
18...	.90	--	--	180	--	410	7.3	--	--	1.0
FEB., 1973										
13...	.86	--	--	190	--	425	8.2	--	--	3.0
APR.										
17...	--	--	--	--	--	428	--	--	--	13.0
JUNE										
19...	.80	--	--	190	--	419	8.2	--	--	23.0
AUG.										
17...	--	.82	.09	--	--	406	8.4	--	277	21.5

04205000 - SPRINGFIELD LK OUTLET AT AKRON OH (LAT 41 03 21 LONG 081 27 52)

OCT., 1972										
24...	.40	--	.05	190	70	482	7.7	292	--	10.0
DEC.										
18...	.80	--	--	200	--	519	7.6	--	--	1.0
FEB., 1973										
13...	.77	--	--	200	--	530	8.3	--	--	.0
APR.										
18...	--	--	--	--	--	494	--	--	--	12.0
JUNE										
19...	1.1	--	--	170	--	436	7.9	--	--	25.0
AUG.										
17...	--	.68	.06	--	--	524	8.5	--	365	23.0

04207200 - TINKERS C AT BEDFORD OH (LAT 41 23 04 LONG 081 31 39)

NOV., 1972										
13...	--	--	--	--	--	459	--	--	--	7.0
JAN., 1973										
08...	2.4	--	--	220	--	671	7.9	--	--	.0
MAR.										
05...	.30	--	--	200	--	615	7.1	--	--	5.5
MAY										
08...	--	--	--	--	--	661	--	--	--	17.0
JULY										
09...	--	3.4	--	--	--	735	8.7	--	--	26.0
SEP.										
10...	--	3.8	1.7	--	--	953	8.5	--	631	17.5

04207500 - OHIO CA AT INDEPENDENCE OH (LAT 41 23 25 LONG 081 37 30)

OCT., 1972										
20...	3.5	--	.96	260	120	816	8.3	524	--	9.5
DEC.										
14...	1.7	--	--	170	--	558	7.9	--	--	4.0
FEB., 1973										
12...	2.1	--	--	200	--	612	7.5	--	--	2.0
APR.										
13...	--	--	--	--	--	484	--	--	--	9.5
JUNE										
15...	2.9	--	--	170	--	646	8.2	--	--	22.0
AUG.										
15...	--	--	--	--	--	721	--	--	--	23.5
SEP.										
13...	--	6.0	.53	--	--	1040	8.5	--	671	17.5

04208502 - BIG C AT CLEVELAND OH (LAT 41 27 01 LONG 081 43 18)

OCT., 1972										
04...	4.5	--	.31	300	180	860	7.5	526	--	18.0
09...	--	--	--	--	--	742	--	--	--	7.5
DEC.										
07...	2.6	--	--	260	--	759	7.2	--	--	.0
APR., 1973										
12...	1.8	--	--	300	--	869	7.4	--	--	12.0
JUNE										
14...	1.1	--	--	260	--	788	7.6	--	--	24.5
AUG.										
20...	--	.50	1.3	--	--	625	7.3	--	359	21.5

04208900 - AURORA B NR CHAGRIN FALLS OH (LAT 41 24 40 LONG 081 24 44)

SEP., 1973										
06...	.60	--	.30	220	62	447	8.2	288	--	22.5

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DIS- CHARGE (CFS)	TOTAL CAL- CIUM (CA) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)
STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED											
04210000 - PHELPS C NR WINDSOR OH (LAT 41 30 56 LONG 080 56 07)											
SEP., 1973											
06...	1430	.89	40	12	154	6	41	15	--	.1	.01
04211500 - MILL C NR JEFFERSON OH (LAT 41 45 11 LONG 080 48 03)											
OCT., 1972											
17...	1115	2.4	--	--	55	0	48	33	.2	--	--
NOV.											
15...	1610	756	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1520	28	--	--	--	--	41	30	--	--	--
MAR.											
08...	1055	157	--	--	--	--	36	31	--	--	--
MAY											
07...	1505	28	--	--	--	--	--	--	--	--	--
JULY											
11...	1020	.68	--	--	--	--	53	54	--	--	--
SEP.											
12...	1605	.18	--	--	114	0	63	83	--	.8	.00
04212000 - GRAND R NR MADISON OH (LAT 41 44 26 LONG 081 02 48)											
NOV., 1972											
04...	1000	1420	--	--	--	--	--	--	--	--	--
DEC.											
07...	1220	3620	--	--	--	--	--	--	--	--	--
JAN., 1973											
09...	1100	479	--	--	--	--	47	16	--	--	--
MAR.											
06...	1305	3750	--	--	--	--	35	19	--	--	--
27...	1120	2650	--	--	--	--	--	--	--	--	--
MAY											
07...	1145	341	--	--	--	--	--	--	--	--	--
JULY											
10...	1550	27	--	--	--	--	42	20	--	--	--
SEP.											
11...	0805	11	37	11	108	0	55	23	--	.3	.01
04212500 - ASHTABULA R NR ASHTABULA OH (LAT 41 51 20 LONG 080 45 44)											
NOV., 1972											
15...	0935	1280	--	--	--	--	--	--	--	--	--
JAN., 1973											
10...	1030	30	--	--	--	--	45	17	--	--	--
MAR.											
07...	1040	368	--	--	--	--	32	17	--	--	--
MAY											
09...	1115	168	--	--	--	--	--	--	--	--	--
JULY											
17...	1640	.65	--	--	--	--	69	34	--	--	--
SEP.											
11...	1400	1.2	35	10	74	0	78	31	--	.1	.00
04213000 - CONNEAUT C AT CONNEAUT OH (LAT 41 55 37 LONG 080 36 15)											
NOV., 1972											
24...	1520	223	--	--	--	--	33	9.5	--	--	--
JAN., 1973											
31...	1510	241	--	--	--	--	--	--	--	--	--
MAR.											
07...	1405	610	--	--	--	--	28	10	--	--	--
MAY											
09...	1525	187	--	--	--	--	--	--	--	--	--
JULY											
17...	1435	14	--	--	--	--	52	24	--	--	--
SEP.											
11...	1115	13	--	--	126	2	54	25	--	.1	.00

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)
------	--	-----------------------------------	---	------------------------------------	---	--	---------------	--	---------------------------------	-----------------------------

STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04210000 - PHELPS C NR WINDSOR OH (LAT 41 30 56 LONG 080 56 07)

SEP., 1973										
06...	--	.00	.00	--	--	385	8.6	--	258	21.5

04211500 - MILL C NR JEFFERSON OH (LAT 41 45 11 LONG 080 48 03)

OCT., 1972										
17...	1.8	--	.47	110	65	314	7.0	194	--	9.5
NOV. 15...	--	--	--	--	--	165	--	--	--	4.0
JAN., 1973										
09...	1.3	--	--	92	--	269	7.7	--	--	.0
MAR. 08...	.75	--	--	75	--	253	7.2	--	--	8.5
MAY 07...	--	--	--	--	--	328	--	--	--	16.0
JULY 11...	5.2	--	--	130	--	448	8.0	--	--	22.0
SEP. 12...	--	8.5	3.3	--	--	664	6.7	--	397	20.0

04212000 - GRAND R NR MADISON OH (LAT 41 44 26 LONG 081 02 48)

NOV., 1972										
04...	--	--	--	--	--	221	--	--	--	6.0
DEC. 07...	--	--	--	--	--	214	--	--	--	3.0
JAN., 1973										
09...	.60	--	--	90	--	228	7.3	--	--	.0
MAR. 06...	.90	--	--	69	--	207	7.4	--	--	4.5
27...	--	--	--	--	--	182	--	--	--	7.5
MAY 07...	--	--	--	--	--	237	--	--	--	13.5
JULY 10...	.11	--	--	140	--	332	7.8	--	--	27.0
SEP. 11...	--	.22	.01	--	--	364	8.4	--	237	18.0

04212500 - ASHTABULA R NR ASHTABULA OH (LAT 41 51 20 LONG 080 45 44)

NOV., 1972										
15...	--	--	--	--	--	146	--	--	--	4.0
JAN., 1973										
10...	.50	--	--	84	--	229	7.9	--	--	.0
MAR. 07...	.66	--	--	63	--	184	7.1	--	--	8.5
MAY 09...	--	--	--	--	--	196	--	--	--	15.5
JULY 17...	.10	--	--	150	--	391	7.3	--	--	29.5
SEP. 11...	--	.17	.01	--	--	389	7.8	--	272	19.0

04213000 - CONNEAUT C AT CONNEAUT OH (LAT 41 55 37 LONG 080 36 15)

NOV., 1972										
24...	.60	--	--	64	--	169	7.6	--	--	5.5
JAN., 1973										
31...	--	--	--	--	--	202	--	--	--	.0
MAR. 07...	.68	--	--	58	--	154	7.4	--	--	9.0
MAY 09...	--	--	--	--	--	210	--	--	--	18.0
JULY 17...	.86	--	--	160	--	368	8.2	--	--	27.5
SEP. 11...	--	.11	.00	--	--	410	8.4	--	252	18.0

CHEMICAL ANALYSES OF GROUND WATER

ATHENS COUNTY

391934082065000 - AT-10 MUNICIPAL WELL 2A ATHENS OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	HARDNESS (CA+MG) (MG/L)
JUNE 19...	5000	770	31	404	0	89	66	.00	460

DATE	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)
JUNE 19...	130	917	7.7	598	0	0	0	2

AUGLAIZE COUNTY

403403084125700 - AU-11 MUNICIPAL WELL 6 WAPAKONETA OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 01...	2300	50	32	366	0	190	22	1.2	.90	.20	480
JUNE 28...	1800	27	31	388	0	170	18	--	.01	--	480

DATE	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TEMPERATURE (DEG C)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)
NOV. 01...	180	922	2.9	650	12.0	4	--	0	11	--
JUNE 28...	160	899	7.3	612	12.0	5	0	--	0	8

BUTLER COUNTY

392445084333000 - BU-36 CHAMPION PAPER CO WELL 4 HAMILTON OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)
DEC. 20...	50	--	24	--	--	--	346	0	94	39	.2
FEB. 02...	100	--	19	--	120	26	350	0	93	44	.2
MAY 25...	40	--	5	--	--	--	350	0	93	42	.3
AUG. 17...	--	100	--	13	--	--	351	0	93	43	--

DATE	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRATE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL RESIDUE (MG/L)
DEC. 20...	--	--	1.3	--	390	110	787	7.5	495	--
FEB. 02...	--	--	1.8	--	410	120	801	7.5	514	--
MAY 25...	--	--	1.3	--	410	120	801	7.4	542	--
AUG. 17...	.1	.01	--	1.1	--	--	828	7.8	--	533

CHEMICAL ANALYSES OF GROUND WATER--CONTINUED

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BUTLER COUNTY--CONTINUED

392445084333000 - BU-36 CHAMPION PAPER CO WELL 4 HAMILTON OH--CONTINUED

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TEMPER- ATURE (DEG C)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
DEC. 20...	15.5	0	--	40	6	--	1	--	40	--
FEB. 02...	5.0	--	--	--	--	--	--	--	--	--
MAY 25...	17.0	--	--	--	--	--	--	--	--	--
AUG. 17...	16.5	--	9	--	--	5	--	0	--	20

CLARK COUNTY

395835083491700 - CL-20 MUNICIPAL WELL 4 SPRINGFIELD OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAH- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV. 01...	880	200	9.2	344	0	97	20	.3	.90	.12	400
JUNE 27...	320	110	10	320	0	100	24	--	.50	--	390

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	CHEM- ICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
NOV. 01...	120	727	8.2	452	15.0	--	3	--	0	1	--
JUNE 27...	130	711	7.5	434	10.5	2	--	0	--	0	14

HAMILTON COUNTY

391634084152600 - H-22 MUNICIPAL WELL 2 LOVELAND OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 29...	60	--	12	2.2	318	0	56	26	.1	.60	1.5
JUNE 25...	230	37	13	--	364	0	55	24	--	.40	--

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
NOV. 29...	330	69	644	7.8	386	13.0	0	--	0	4	--
JUNE 25...	380	82	749	7.5	452	12.0	2	0	--	0	2

CHEMICAL ANALYSES OF GROUND WATER--CONTINUED

HAMILTON COUNTY--CONTINUED

390645084480500 - H-21 DUPONT CORPORATION WELL 36 NORTH HEND OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 29...	90	19	26	464	0	170	33	.2	.90	.75
JUNE 14...	50	19	--	460	0	150	48	--	1.5	.01

DATE	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (Pb) (UG/L)
NOV. 29...	560	180	1070	7.8	726	14.0	0	--	6	3
JUNE 14...	550	170	1020	7.5	680	15.0	0	0	--	3

391748084393800 - H-19 SOUTHWEST OHIO WATER CO COLLECTOR 1 ROSS OH DISTRICT CODE 39

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	TOTAL CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	TOTAL MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)
NOV. 02...	100	--	460	--	--	--	--	--	270	0	82
FEB. 26...	80	--	380	--	110	--	19	--	332	0	79
MAY 24...	80	--	160	--	--	--	--	--	332	0	76
AUG. 17...	--	0	--	340	--	69	--	23	283	0	69

DATE	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	TOTAL FLUO- RIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)
NOV. 02...	33	.2	--	--	1.1	--	320	94	657	8.0	408
FEB. 26...	36	.3	--	--	1.7	--	350	82	728	7.6	459
MAY 24...	34	.3	--	--	1.7	--	370	98	720	7.6	488
AUG. 17...	34	--	.2	.01	--	1.4	--	--	674	7.7	--

DATE	TOTAL RESI- DUE (MG/L)	TEMPER- ATURE (DEG C)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV. 02...	--	13.5	0	--	0	2	--	0	--	60	--
FEB. 26...	--	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	14.5	--	--	--	--	--	--	--	--	--
AUG. 17...	443	14.0	--	12	--	--	5	--	28	--	5

CHEMICAL ANALYSES OF GROUND WATER--CONTINUED

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JEFFERSON COUNTY

401853080361100 - JE-10 MUNICIPAL WELL MINGO JUNCTION OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)
NOV. 22...	390	2200	34	6.1	100	0	200	39	.4	1.6

DATE	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA+MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
NOV. 22...	.18	270	190	684	7.1	472	18.0	3	0	4

MEDINA COUNTY

410040081424900 - MU-10 MUNICIPAL WELL 7 WADSWORTH OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)
AUG. 16...	17000	560	2.2	100	0	36	1.0	.1	.00	120

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
AUG. 16...	38	231	7.0	142	11.0	0	1	6	21

MIAMI COUNTY

400258084122800 - MI-15 MUNICIPAL WELL 6 TROY OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	HARD- NESS (CA+MG) (MG/L)
DEC. 19...	1600	55	--	--	360	0	54	17	.9	.20	340
FEB. 26...	1500	45	99	26	360	0	55	18	.9	.02	350
MAY 24...	1300	38	--	--	371	0	56	19	.9	.11	350

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)
DEC. 19...	44	665	7.6	414	12.5	0	0	13	5	70
FEB. 26...	58	667	7.5	410	6.0	--	--	--	--	--
MAY 24...	46	668	7.7	426	13.5	--	--	--	--	--

CHEMICAL ANALYSES OF GROUND WATER--CONTINUED

MONTGOMERY COUNTY

393853084170700 - MT-63 BOX BOARD CO WELL 1 MIAMISBURG OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED CALCIUM (CA) (MG/L)	TOTAL CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	TOTAL MAGNESIUM (MG) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
NOV. 01...	2700	--	160	--	--	--	--	--	420	0	95
FEB. 27...	2700	--	150	--	130	--	31	--	422	0	97
MAY 24...	1400	--	170	--	--	--	--	--	414	0	110
AUG. 16...	--	2600	--	140	--	79	--	32	291	0	120

DATE	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	TOTAL FLUORIDE (F) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRATE (N) (MG/L)	HARDNESS (CA+MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
NOV. 01...	72	.4	--	--	.00	--	430	86	923	7.8	576
FEB. 27...	56	.5	--	--	.07	--	450	110	932	7.4	582
MAY 24...	58	.5	--	--	.00	--	450	110	980	7.4	634
AUG. 16...	59	--	.4	.00	--	.01	--	--	834	7.8	--

DATE	TOTAL RESIDUE (MG/L)	TEMPERATURE (DEG C)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (A*) (UG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)
NOV. 01...	--	15.5	1	--	0	42	--	6	--	70	--
FEB. 27...	--	5.0	--	--	--	--	--	--	--	--	--
MAY 24...	--	15.5	--	--	--	--	--	--	--	--	--
AUG. 16...	536	13.0	--	8	--	--	1	--	20	--	30

MUSKINGUM COUNTY

395753081593500 - MU-10 MUNICIPAL WELL 6 ZANESVILLE OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	HARDNESS (CA+MG) (MG/L)
NOV. 14...	600	960	74	226	0	130	160	.5	.50	.17	380
JUNE 28...	590	740	56	220	0	120	110	--	.07	--	350

DATE	NON-CARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICRO-MHOS)	PH (UNITS)	DIS-SOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TEMPERATURE (DEG C)	CHEMICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS-SOLVED CHROMIUM (CR) (UG/L)	HEXAVALENT CHROMIUM (CR6) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)
NOV. 14...	190	1070	7.6	636	14.5	2	--	0	4	--
JUNE 28...	170	903	7.5	576	14.5	2	0	--	0	2

CHEMICAL ANALYSES OF GROUND WATER--CONTINUED

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PICKAWAY COUNTY

393325082571100 - PK-21 PITTSBURG PLATE GLASS CO CIRCLEVILLE OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 29...	2900	--	7.2	1.5	402	0	41	7.0	.5	.10	.27
AUG. 21...	1700	44	7.3	--	402	0	44	8.0	.5	.00	.01

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
NOV. 29...	370	40	662	7.8	410	13.0	3	--	--	0	0
AUG. 21...	380	50	660	7.6	386	13.0	7	.0	0	--	18

TUSCARAWAS COUNTY

403210081293100 - TU-10 MUNICIPAL WELL 7 DOVER OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	HARD- NESS (CA, MG) (MG/L)
NOV. 14...	440	310	4.0	196	0	100	4.7	.2	.10	.29	270
JUNE 20...	820	280	3.5	220	0	80	11	--	.02	--	270

DATE	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)
NOV. 14...	110	502	8.1	348	11.5	0	--	0	3	--
JUNE 20...	90	482	7.7	318	13.5	0	0	--	0	4

WILLIAMS COUNTY

412853084322000 - WM-10 MUNICIPAL WELL 4 BRYAN OH

WATER QUALITY DATA, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	DIS- SOLVED IRON (FE) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
NOV. 01...	600	21	28	380	0	30	9.7	1.1	.70	.29
JUNE 12...	660	--	28	376	0	30	14	--	.01	--

DATE	HARD- NESS (CA, MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH	DIS- SOLVED SOLIDS (RESI- DUE AT 180 C) (MG/L)	TEMPER- ATURE (DEG C)	CHEM- ICAL OXYGEN DEMAND (LOW LEVEL) (MG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	HEXA- VALENT CHRO- MIUM (CR6) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)
NOV. 01...	300	0	521	7.8	366	11.5	1	--	0	4
JUNE 12...	310	2	619	8.1	374	11.5	4	0	--	0

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

LITTLE BEAVER CREEK BASIN

03109500 LITTLE BEAVER CREEK NEAR EAST LIVERPOOL, OHIO (LAT 40°40'33", LONG 80°32'27")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT.					
26...	1135	146	8.0	4	1.6
NOV.					
27...	1140	914	5.0	9	22
DEC.					
26...	1205	782	5.0	8	17
JAN.					
26...	1105	522	1.0	4	5.6
FEB.					
23...	1235	544	15.0	6	8.8
MAR.					
26...	1215	1670	7.5	57	257
APR.					
05...	1320	1900	6.5	72	369
26...	1220	685	12.0	10	18
MAY					
25...	1215	1980	14.0	65	347
JUNE					
26...	1215	218	23.5	6	3.5
JULY					
26...	1120	140	23.0	22	8.3
AUG.					
27...	1145	138	24.5	8	3.0
SEP.					
18...	1650	61	17.5	6	.99
26...	1125	84	16.5	1	.23

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
APR.											
05...	1320	39	51	63	74	85	90	95	98	99	100

YELLOW CREEK BASIN

03110000 YELLOW CREEK NEAR HAMMONDSVILLE, OHIO (LAT 40°32'16", LONG 80°43'31")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
NOV.					
27...	1410	213	4.0	22	13
JAN.					
26...	1135	169	1.5	24	11
MAR.					
26...	1510	342	8.0	66	61
APR.					
05...	1020	412	6.5	78	87
MAY					
30...	1150	328	14.5	47	42
JULY					
26...	1335	58	21.5	4	.63
SEP.					
18...	1530	9.7	17.0	2	.05
26...	1400	15	16.0	1	.04

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
18...	3	0	1	4	29	40	45	51	61	76	100	--

SHORT CREEK BASIN

03111500 SHORT CREEK NEAR DILLONVALE, OHIO (LAT 40°11'36", LONG 80°44'04")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SED- IMENT DIS- CHARGE (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)
OCT.					
18...	1135	25	7.0	86	5.8
NOV.					
15...	1125	113	6.0	74	23
DEC.					
11...	1125	178	5.0	77	37
FEB.					
05...	1225	227	5.0	78	48
APR.					
05...	1205	250	8.0	83	56
09...	1150	300	7.5	82	66
MAY					
09...	1720	288	19.5	114	89
11...	1035	712	14.5	713	1370
JUNE					
11...	1135	129	24.0	78	27
AUG.					
07...	1135	37	23.0	26	2.6
SEP.					
18...	1350	18	17.0	9	.44

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAY											
11...	1035	39	52	65	78	86	89	92	96	98	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
18...	1	1	1	3	8	13	19	30	42	66	100	--
18...	1	36	51	64	76	88	97	100	--	--	--	--

CAPTINA CREEK BASIN

03114000 CAPTINA CREEK AT ARMSTRONGS HILLS, OHIO (LAT 39°54'31", LONG 80°55'27")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SED- IMENT DIS- CHARGE (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)
OCT.					
16...	1125	13	11.0	11	.39
NOV.					
15...	1000	273	6.5	30	22
DEC.					
05...	1410	1260	7.0	92	313
12...	1325	344	4.5	12	11
FEB.					
03...	1205	312	5.0	20	17
APR.					
04...	1320	505	8.0	119	162
12...	1345	500	6.0	9	12
24...	1520	630	14.5	47	80
MAY					
09...	1515	495	17.5	104	139
JUNE					
12...	1105	54	26.0	11	1.6
18...	1150	575	22.5	252	391
AUG.					
08...	1120	3.5	24.5	14	.13
SEP.					
18...	1140	.80	18.0	43	.09

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

CAPTINA CREEK BASIN--Continued

03114000 CAPTINA CREEK AT ARMSTRONGS MILLS, OHIO (LAT 39°54'31", LONG 80°55'27")--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
DEC. 09...	1410	45	58	68	81	92	95	98	99	100	--
APR. 04...	1320	42	54	65	76	85	90	95	98	100	--
24...	1520	40	55	68	83	91	94	97	98	100	--
MAY 09...	1515	46	60	74	87	93	96	98	99	100	--
JUNE 18...	1150	51	63	75	88	96	97	98	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 18...	1	0	1	1	2	4	6	14	28	59	100	--

LITTLE MUSKINGUM RIVER BASIN

03115400 LITTLE MUSKINGUM RIVER AT BLOOMFIELD, OHIO (LAT 39°33'47", LONG 81°12'14")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 17...	0905	12	12.0	10	.32
NOV. 14...	1630	305	9.5	29	24
DEC. 09...	1645	6720	12.0	205	3720
13...	1045	845	6.0	36	82
FEB. 07...	1550	551	5.5	22	33
APR. 04...	1325	1170	9.0	217	686
13...	1000	956	5.5	30	77
JUNE 12...	1425	70	26.0	13	2.5
AUG. 08...	1440	4.6	23.0	9	.11
SEP. 18...	0845	17	18.0	28	1.3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 14...	1630	46	62	71	83	89	94	97	99	100	--
DEC. 09...	1645	46	61	73	82	86	87	88	89	96	100
APR. 04...	1325	26	37	48	64	78	88	96	99	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 18...	3	12	15	22	39	50	57	65	75	85	100	--

MUSKINGUM RIVER BASIN

03116200 CHIPPEWA CREEK AT EASTON, OHIO (LAT 40°56'47", LONG 81°44'35")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV. 08...	1150	952	10.0	71	182
JAN. 16...	1040	64	1.5	24	4.1
MAR. 13...	1125	236	8.5	45	29
MAR. 15...	1000	1190	14.0	495	1590
MAY 15...	1115	98	16.0	58	15
JUNE 18...	1145	190	20.5	144	74
JULY 17...	1040	16	21.5	44	1.9
SEP. 11...	1350	9.0	17.0	45	1.1
SEP. 19...	1300	7.9	16.0	51	1.1

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 15...	1000	72	84	87	91	94	98	100	--	--	--
JUNE 18...	1145	44	59	71	85	97	99	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 19...	3	14	19	29	68	87	97	99	100	--	--	--

03117500 SANDY CREEK AT WAYNESBURG, OHIO (LAT 40°40'21", LONG 81°15'36")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT. 12...	1130	69	14.0	17	3.2
NOV. 13...	1450	298	10.0	7	5.6
JAN. 08...	1350	292	2.0	8	6.3
FEB. 02...	1410	898	5.0	172	417
MAR. 05...	1135	394	8.0	22	23
MAR. 15...	0950	2060	13.5	464	2580
APR. 18...	1210	1500	12.5	174	705
MAY 07...	1440	298	15.5	2	1.6
JULY 09...	1440	76	23.5	7	1.4
SEP. 19...	0845	57	12.0	9	1.4
SEP. 24...	1050	227	15.0	50	31

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

MUSKINGUM RIVER BASIN--Continued

03117500 SANDY CREEK AT WAYNESBURG, OHIO (LAT 40°40'21", LONG 81°15'36")--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
FEB. 02...	1410	38	50	59	69	76	84	88	91	97	100
MAR. 15...	0950	49	61	71	78	82	85	90	92	98	100
APR. 18...	1210	51	64	73	80	86	90	93	97	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 19...	3	0	1	4	26	34	40	49	64	86	100	--

03123000 SUGAR CREEK ABOVE BEACH CITY DAM, AT BEACH CITY, OHIO (LAT 40°39'24", LONG 81°34'37")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SED- IMENT DIS- CHARGE (MG/L)	SUS- PEN- DED SED- IMENT DIS- CHARGE (T/DAY)
NOV. 07...	1345	186	9.0	16	8.0
17...	1145	593	6.0	29	46
DEC. 05...	1200	228	6.5	16	9.8
JAN. 12...	1030	107	1.5	4	1.2
FEB. 02...	1415	596	4.5	1080	1740
MAR. 09...	1110	264	11.0	72	51
15...	1330	2060	13.5	763	4240
APR. 03...	1240	188	10.0	21	11
18...	0930	486	12.5	512	672
MAY 11...	1415	448	15.5	338	409
JULY 11...	1025	134	22.0	337	122
SEP. 10...	1115	23	17.0	58	3.7
19...	1125	21	--	56	3.2

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
FEB. 02...	1415	35	48	61	78	94	99	100	--	--	--
MAR. 15...	1330	62	72	79	83	88	92	98	100	--	--
APR. 18...	0930	38	50	63	77	93	98	100	--	--	--
MAY 11...	1415	48	62	74	84	95	98	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 19...	3	1	2	3	9	16	24	36	52	70	86	100

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

MUSKINGUM RIVER BASIN--Continued

03137000 KOKOSING RIVER AT HILLWOOD, OHIO (Lat 40°23'51", LONG 82°17'09")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE- SED- IMENT DIS- CHARGE (MG/L)	SUS- PENDE- SED- IMENT DIS- CHARGE (T/DAY)
NOV.					
03...	1345	3380	12.0	111	1010
14...	1415	5860	8.0	233	3690
APR.					
06...	1200	1290	9.5	33	115
18...	1400	2550	11.5	204	1410
JUNE					
07...	1300	1260	19.5	101	344
18...	1500	2450	21.0	260	1720
SEP.					
18...	1400	98	16.5	12	3.2

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
14...	1415	36	47	54	64	72	80	85	89	96	100
APR.											
18...	1400	43	53	60	70	82	90	95	97	99	100
JUNE											
18...	1500	40	53	63	75	85	92	94	96	99	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0
SEP.												
18...	1	0	0	0	1	4	6	9	13	23	32	

03144000 WAKATOMIKA CREEK NEAR FRAZEYSBURG, OHIO (LAT 40°07'57", LONG 82°08'53")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE- SED- IMENT DIS- CHARGE (MG/L)	SUS- PENDE- SED- IMENT DIS- CHARGE (T/DAY)
NOV.					
03...	1200	851	12.0	157	361
15...	1200	556	7.0	41	62
21...	1425	208	5.0	6	3.4
APR.					
05...	1400	592	8.5	71	113
18...	1045	1170	12.0	974	3080
SEP.					
18...	1130	10	16.5	6	.16

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
APR.											
05...	1400	42	58	64	75	87	94	99	100	--	--
18...	1045	33	46	57	69	82	90	97	99	100	--

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

SHADE RIVER BASIN

03159540 SHADE RIVER NEAR CHESTER, OHIO (LAT 39°03'49", LONG 81°52'55")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV. 14...	1400	214	10.0	101	58
15...	1225	288	8.0	116	90
JAN. 04...	1140	1160	4.5	716	2240
MAR. 16...	1100	96	10.0	24	6.2
APR. 23...	1600	645	15.0	1300	2260
AUG. 14...	1435	147	21.0	142	56
SEP. 17...	1630	12	19.0	40	1.3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
NOV. 14...	1400	50	68	79	90	96	99	100	--	--	--
15...	1225	53	66	81	94	98	100	--	--	--	--
JAN. 04...	1140	40	54	68	85	95	98	99	100	--	--
APR. 23...	1600	34	48	62	76	92	96	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAMPLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 17...	3	1	2	4	9	12	16	23	33	52	77	100

SCIOTO RIVER BASIN

03223000 OLENTANGY RIVER AT CLARIDON, OHIO (LAT 40°34'58", LONG 82°59'20")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
NOV. 15...	1430	1200	6.5	78	253
MAR. 15...	1130	2110	13.0	574	3270
16...	1205	1660	12.0	233	1040
JUNE 20...	1400	828	21.0	717	1600

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .125 MM	SUS. SED. SIEVE DIAM. % FINER THAN .250 MM	SUS. SED. SIEVE DIAM. % FINER THAN .500 MM	SUS. SED. SIEVE DIAM. % FINER THAN 1.00 MM
MAR. 15...	1130	78	92	95	96	98	99	99	100	--	--
JUNE 20...	1400	71	85	92	97	99	100	--	--	--	--

SCIOTO RIVER BASIN--CONTINUED

03223000 OLENTANGY RIVER AT CLARIDON, OHIO (LAT 40°34'58", LONG 82°59'20")

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 17...	1	15	26	54	78	84	90	95	97	100	--	--

03230500 BIG DARBY CREEK AT DARBYVILLE, OHIO (LAT 39°42'03", LONG 83°06'35")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV. 08...	1450	2210	9.0	106	632
DEC. 04...	1520	617	5.0	29	48
MAR. 28...	1010	1660	8.5	93	417
JUNE 20...	1510	7710	23.0	1460	30400
SEP. 17...	1515	80	21.5	35	7.6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 08...	1450	72	80	87	92	97	99	99	100	--	--
MAR. 28...	1010	72	82	88	93	97	99	100	--	--	--
JUNE 20...	1510	61	76	83	88	91	93	96	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 17...	1	0	0	3	9	15	20	27	38	64	100	--

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

SCIOTO RIVER BASIN--Continued

03230800 DEER CREEK AT MOUNT STERLING, OHIO (LAT 39°42'54", LONG 83°15'26")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 08...	1325	1900	9.0	153	785
DEC. 01...	1440	294	4.5	15	12
JAN. 31...	1110	263	5.0	8	5.7
MAR. 26...	1130	1020	--	204	562
SEP. 17...	1415	34	20.0	44	4.0

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 08...	1325	72	83	90	94	98	99	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 17...	1	0	0	0	1	2	4	6	11	19	52	100

03232000 PAINT CREEK NEAR GREENFIELD, OHIO (LAT 39°22'45", LONG 83°22'32")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 15...	1600	2290	5.5	134	829
NOV. 29...	1150	330	4.0	10	8.9
JAN. 29...	1340	488	2.0	31	41
MAR. 28...	1110	668	10.0	63	114
JULY 17...	1040	196	22.0	160	85

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 15...	1600	65	75	82	88	95	96	98	99	100	--
MAR. 28...	1110	58	69	78	89	94	97	98	99	100	--

SCIOTO RIVER BASIN--Continued

03232000 PAINT CREEK NEAR GREENFIELD, OHIO (LAT 39°22'45", LONG 83°22'32")--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG. 28...	1	0	0	1	3	7	11	17	27	41	67	100

OHIO BRUSH CREEK BASIN

03237500 OHIO BRUSH CREEK NEAR WEST UNION, OHIO (LAT 38°48'13", LONG 83°25'16")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 08...	1630	1900	9.0	150	769
27...	1700	531	4.5	17	24
DEC. 08...	1100	1840	10.5	114	566
MAR. 22...	1620	447	--	18	22
28...	1335	530	11.0	55	79
MAY 17...	1450	151	16.5	18	7.3
JULY 12...	1500	134	--	110	40
SEP. 10...	1600	17	21.5	42	1.9

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 10...	1	0	0	0	1	6	10	15	21	27	49	100

WHITEOAK CREEK BASIN

03238500 WHITEOAK CREEK NEAR GEORGETOWN, OHIO (LAT 38°50'42", LONG 83°55'16")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 05...	1045	532	15.0	113	162
NOV. 02...	1725	3380	14.5	192	1750
08...	1510	4900	9.5	224	2960
29...	1300	629	3.5	35	59
JAN. 26...	0930	108	2.0	32	9.3
MAR. 22...	1210	265	6.0	37	26
MAY 17...	1125	48	15.5	4	.52
JULY 12...	1205	64	28.0	81	14
SEP. 10...	1730	28	21.5	36	2.7

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 10...	1	0	0	0	1	2	5	14	26	36	74	100

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

LITTLE MIAMI RIVER BASIN

03246200 EAST FORK LITTLE MIAMI RIVER NEAR MARATHON, OHIO (LAT 39°06'52", LONG 84°01'29")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 06...	1205	312	15.0	196	165
NOV. 08...	1230	3990	9.0	255	2750
14...	1800	5490	7.5	274	4060
15...	1500	680	7.0	77	141
30...	1035	218	3.0	18	11
JAN. 23...	1330	439	4.0	46	55
MAR. 20...	1145	302	6.0	62	51
MAY 14...	1435	54	18.0	29	4.2
JULY 10...	1120	24	25.0	70	4.5
SEP. 10...	1330	13	19.5	38	1.3

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 08...	1230	68	76	83	89	95	97	98	100	--	--
14...	1800	65	74	84	90	93	96	97	100	--	--
MAR. 20...	1145	73	83	88	94	96	97	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 10...	1	0	0	0	1	3	6	11	18	33	55	100

GREAT MIAMI RIVER BASIN

03262700 GREAT MIAMI RIVER AT TROY, OHIO (LAT 40°02'25", LONG 84°11'52")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDI- MENT (MG/L)	SUS- PEN- DED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 03...	1145	1220	15.5	71	234
NOV. 02...	0955	7060	13.0	546	10400
03...	1010	7640	13.0	212	4370
08...	1620	7730	10.0	153	3190
16...	1210	6320	4.5	130	2220
DEC. 20...	1145	1810	1.0	27	132
FEB. 07...	1100	1120	5.0	22	67
MAR. 01...	1505	326	4.5	13	11
22...	1120	2760	5.0	50	373
MAY 09...	1100	1330	17.0	42	151
JUNE 26...	0945	426	24.0	46	53
AUG. 16...	1655	5500	22.5	132	1960
SEP. 11...	1415	193	19.5	19	9.9

SEDIMENT PARTIAL-RECORD STATIONS IN THE OHIO RIVER BASIN

GREAT MIAMI RIVER BASIN--CONTINUED

03267000 MAD RIVER NEAR URBANA, OHIO (LAT 40°06'27", LONG 83°47'57")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV.					
03...	1750	324	12.0	57	50
08...	1240	530	--	93	133
DEC.					
11...	1020	226	3.0	42	26
MAR.					
05...	1040	178	10.0	38	18
APR.					
16...	1040	301	10.5	45	37
JULY					
05...	1430	774	20.5	202	422
AUG.					
17...	1320	268	17.0	136	98
SEP.					
11...	1645	140	15.0	12	4.5

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
08...	1240	64	73	79	86	93	96	98	99	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
11...	1	0	1	1	3	4	6	9	16	25	80	100

03271800 TWIN CREEK NEAR INGOMAR, OHIO (LAT 39°42'28", LONG 84°31'30")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
NOV.					
02...	1620	2470	15.5	465	3100
14...	1215	4220	6.5	322	3670
20...	1345	962	7.0	73	190
JAN.					
22...	1005	160	3.0	16	6.9
MAR.					
11...	1325	3880	--	981	10300
15...	1045	1820	14.0	445	2190
29...	1000	410	10.0	34	38
APR.					
18...	1215	1050	11.0	191	541
MAY					
29...	1430	148	21.0	48	19
JUNE					
20...	1525	422	23.5	489	557
JULY					
21...	1830	762	26.0	245	504
SEP.					
11...	1245	17	18.0	26	1.2

GREAT MIAMI RIVER BASIN--CONTINUED

03271800 TWIN CREEK NEAR INGOMAR, OHIO (LAT 39°42'28", LONG 84°31'30")--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
02...	1620	60	73	82	90	95	97	98	98	99	100
14...	1215	61	70	75	81	88	92	94	96	98	100
MAR.											
11...	1325	46	56	65	75	84	90	94	96	98	100
15...	1045	73	82	85	91	95	96	98	99	100	--
JUNE											
20...	1525	70	86	94	97	98	99	99	100	--	--
JULY											
21...	1830	64	78	86	94	98	98	99	99	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
11...	1	0	0	1	6	13	22	32	43	62	74	100

03272800 SEVENMILE CREEK AT COLLINSVILLE, OHIO (LAT 39°31'23", LONG 84°36'39")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV.					
02...	1430	642	16.0	394	683
14...	1345	994	7.5	297	797
MAR.					
11...	1415	1850	--	859	4290
15...	1110	860	--	389	903
15...	1330	769	14.0	284	590
17...	1130	1540	--	448	1860
26...	0900	909	--	308	756
27...	1700	1120	--	283	856
28...	1245	660	10.5	445	793
APR.					
18...	1000	776	13.5	421	882
MAY					
08...	0800	970	15.5	2970	7780
JUNE					
20...	1400	694	23.0	491	920
JULY					
21...	1545	1620	25.0	600	2620

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV.											
02...	1430	58	72	83	92	97	99	99	100	--	--
14...	1345	47	57	67	78	85	93	95	98	100	--
MAR.											
11...	1415	44	54	62	74	85	91	94	95	96	100
28...	1245	64	73	83	91	98	100	--	--	--	--
APR.											
18...	1000	55	63	72	83	90	95	99	100	--	--
JUNE											
20...	1400	61	77	86	93	98	99	100	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP.												
11...	1	0	0	1	6	9	13	19	24	29	73	100

SEDIMENT PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

STREAMS TRIBUTARY TO LAKE ERIE

04185000 TIFFIN RIVER AT STRYKER, OHIO (LAT 41°30'17", LONG 84°25'49")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT. 17...	1450	62	9.5	54	9.0
NOV. 02...	1630	397	10.5	146	156
17...	1215	1690	5.0	75	342
JAN. 04...	0930	1650	1.0	99	441
FEB. 06...	0945	810	4.0	36	79
APR. 04...	1605	761	8.0	34	70
MAY 31...	1430	939	16.0	135	342
JULY 23...	1635	63	22.5	156	27
SEP. 12...	1400	20	20.0	73	3.9
18...	1445	20	16.0	128	6.9

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 02...	1630	66	77	83	89	93	95	97	99	100	--
17...	1215	85	91	92	95	97	98	99	100	--	--
JAN. 04...	0930	86	93	96	98	99	99	100	--	--	--
MAY 31...	1430	73	81	85	89	93	95	98	100	--	--

04196000 SANDUSKY RIVER NEAR BUCYRUS, OHIO (LAT 40°48'13", LONG 83°00'21")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PENDE SEDIM- ENT DIS- CHARGE (T/DAY)
OCT. 24...	1100	56	10.5	40	6.0
NOV. 16...	1015	238	5.5	42	27
MAR. 15...	1255	2160	14.0	720	4200
16...	1535	318	11.5	202	173
APR. 13...	1200	115	8.0	15	4.7
JUNE 05...	1040	96	21.0	50	13
AUG. 01...	1305	22	21.0	36	2.1
SEP. 13...	1345	7.2	17.0	12	.23

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 15...	1255	68	82	88	92	96	97	99	100	--	--
16...	1535	76	85	89	96	99	100	--	--	--	--

STREAMS TRIBUTARY TO LAKE ERIE--Continued

04196000 SANDUSKY RIVER NEAR BUCYRUS, OHIO (LAT 40°38'13", LONG 83°00'21")--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 13...	1	0	0	0	1	3	8	12	16	22	68	100

04197000 SANDUSKY RIVER NEAR MEXICO, OHIO (LAT 41°02'39", LONG 83°11'42")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDE SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDE SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 26...	1900	297	9.5	31	25
NOV. 16...	1220	6020	5.0	206	3350
DEC. 19...	1600	821	.5	18	40
FEB. 14...	1320	280	--	7	5.3
15...	0935	280	.0	15	11
MAR. 16...	1415	5070	12.0	548	7500
APR. 10...	1120	1620	7.0	174	761
JUNE 05...	1510	1290	23.0	249	867
JULY 31...	1520	307	23.0	129	107
SEP. 13...	1100	46	17.0	27	3.4

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV. 16...	1220	80	84	90	93	96	98	99	100	--	--
MAR. 16...	1415	73	82	90	94	97	99	100	--	--	--
APR. 10...	1120	70	82	88	94	98	99	99	100	--	--
JUNE 05...	1510	71	82	90	95	97	98	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 13...	1	0	0	1	8	11	13	16	21	29	57	100

SEDIMENT PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04199000 HURON RIVER AT MILAN, OHIO (LAT 41°18' 06", LONG 82°36'25")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT. 16...	1330	164	10.5	10	4.4
DEC. 11...	1415	393	1.0	24	25
FEB. 07...	1315	302	2.5	12	9.8
APR. 09...	1500	320	7.0	6	5.2
SEP. 21...	1115	24	13.5	7	.45

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 21...	2	0	1	4	10	16	22	34	49	78	94	100

04200500 BLACK RIVER AT ELYRIA, OHIO (LAT 41°22'49", LONG 82°06'17")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 01...	1100	249	10.0	20	13
DEC. 12...	1435	403	1.5	23	25
FEB. 08...	1030	302	2.5	26	21
MAR. 15...	1430	4850	--	1230	16100
APR. 26...	1330	1490	6.0	70	282
APR. 11...	1130	1170	5.0	142	449
JUNE 13...	1140	768	24.0	111	230
SEP. 21...	0845	10	14.5	5	.13

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 15...	1430	42	49	59	72	90	98	100	--	--	--
APR. 26...	1330	67	81	87	95	99	100	--	--	--	--
APR. 11...	1130	72	84	91	96	98	99	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 21...	1	0	0	1	4	6	11	19	28	44	47	100

STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04212000 GRAND RIVER NEAR MADISON, OHIO (LAT 41°44'26", LONG 81°02'48")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY)
NOV. 14...	0945	2890	5.5	154	1200
DEC. 07...	1210	3620	3.0	95	929
JAN. 09...	1100	474	.0	18	23
MAR. 06...	1255	3750	4.5	89	901
15...	1800	6140	11.5	321	5320
27...	1105	2660	7.5	44	316
MAY 07...	1145	341	13.5	2	1.8
JUNE 04...	1105	3360	20.0	324	2940
SEP. 20...	1000	14	15.0	6	.23

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
DEC. 07...	1210	61	71	80	88	95	98	99	99	100	--
MAR. 06...	1255	42	53	64	79	91	96	98	99	99	100
15...	1800	39	52	61	76	89	96	99	100	--	--
JUNE 04...	1105	37	49	62	76	92	98	99	100	--	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 20...	2	0	0	0	1	2	4	10	22	40	84	100

04212500 ASHTABULA RIVER NEAR ASHTABULA, OHIO (LAT 41°51'20", LONG 80°45'44")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (MG/L)	SUS- PEN- DED SEDIM- ENT DIS- CHARGE (T/DAY)
NOV. 15...	0920	1300	4.0	46	161
JAN. 10...	1030	38	.0	4	.41
MAR. 07...	1045	368	8.5	18	18
15...	1645	1880	12.0	222	1130
MAY 09...	1115	176	15.5	16	7.6
SEP. 20...	1105	.81	14.0	2	.00

SEDIMENT PARTIAL-RECORD STATIONS IN THE ST. LAWRENCE RIVER BASIN

STREAMS TRIBUTARY TO LAKE ERIE--CONTINUED

04212500 ASHTABULA RIVER NEAR ASHTABULA, OHIO (LAT 41°51'20", LONG 80°45'44")--CONTINUED

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 15...	1645	32	43	53	67	77	95	97	98	100	--

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	NUMBER OF SAM- PLING POINTS	BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP. 20...	1	0	0	1	1	1	2	4	8	18	26	100

04213000 CONNEAUT CREEK AT CONNEAUT, OHIO (LAT 41°55'37", LONG 80°36'15")

SUSPENDED-SEDIMENT DISCHARGE MEASUREMENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT DIS- CHARGE (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
NOV. 14...	1510	908	5.5	83	203
JAN. 31...	1510	237	.0	20	13
MAR. 07...	1415	610	9.0	62	102
MAY 15...	1545	2380	13.0	539	3460
MAY 09...	1525	183	18.0	10	4.9
SEP. 20...	1200	11	15.0	4	.12

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DATE	TIME	SUS. SED. FALL DIAM. % FINER THAN .002 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .008 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .031 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
MAR. 07...	1415	40	53	65	79	94	99	100	--	--	--
MAR. 15...	1545	30	41	54	72	87	95	98	100	--	--

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